

**Scott "Spiderman" Mulholland CGC BEC CMR CMA CIEC**

**PRINCIPAL/CEO**

**AREAS OF EXPERTISE**

- Third party quality control and inspections for new and existing construction
- Building science and research, moisture engineering controls
- Construction failures, latent defects, dispute resolution, forensic analysis
- Restoration and design systems for building envelope construction
- Exterior moisture intrusion investigations and assessments
- Environmental (mold) investigations and remediation systems/protocols
- New construction plans, review and building envelope commissioning
- Expert witness research, reporting, mockups and testimony
- Building envelope remediation design and project management services
- ASTM/AAMA field testing and analysis for new and existing construction
- Laboratory analysis for product/material testing and controls
- Stucco, EIFS, masonry, concrete, wood, glass and metal cladding systems
- Laboratory testing, ITA protocols, ASTM and R&D
- Chinese drywall inspection, remediation and certification
- Law enforcement certified sniper/rappel training P/T & (SWAT)

**PARTIAL LIST OF SCHOOLING, LICENSING, CERTIFICATIONS, AND TRAINING**

- Florida Certified General Contractor License # CGC1519110 (active), State License
- Alabama General Contractor License # 22648 (inactive), issued by State Licensing Board
- State licensed Roofing Contractor Corporate holder License # 162401 (inactive)
- Certified Indoor Environmentalist Consultant (CIEC) September 2006 Certification # 02538
- Board Certified CIEC through ACAC Certified # 0702026
- FL Licensed Mold Assessor #MRSA1793 State License
- Board Certified Building Envelope Investigator (BECI) #FL-0174



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**REGISTRATIONS**

State Certified General  
Contractor #CGC1519110

Florida Licensed Mold Assessor #  
MRSA1793

Florida Licensed Mold  
Remediation # MRSR1916

Council Certified Indoor  
Environmental Consultant  
# ACAC 0702026

Florida Licensed Home  
Inspector # HI4479

Certified Moisture Intrusion Specialist EDI  
# FL-003

Certified EIFS & Cladding Expert EDI #  
FL-003

Board Certified Building Envelope  
Investigator #FL-0174

Certified Building Envelope Investigator  
AWCI/BESI/EDI #199233/FL-003

BESI Certified Defective Drywall  
Consultant #FL0038

Certified HVAC Technician  
(Environmental)

Certified Masonry Inspector #MAS066

Certified NAWC Waterproofer

**PARTIAL LIST OF SCHOOLING, LICENSING, CERTIFICATIONS, AND TRAINING (CONTINUED)**

- FL Licensed Mold Remediation #MRSR1916 State License
- Florida Licensed Home Inspector #HI4479 State License
- Council Certified Indoor Environmental Consultant #ACAC 0702026 National board approved
- Certified Chinese Defective Drywall Consultant (CDDC) Building Envelope Science Institute –Board of Directors, Instructor for certification, Educational committee, Certificate # FL0038, September 2009-2011
- Indoor Air Quality Technician Mainstream Engineering Certification 53252C71B665BEDC1
- Exterior Design Institute Certified Building Envelope Inspector, October 2006
- Exterior Design Institute Certified Building Envelope Inspector level II 2007-Present.
- Exterior Design Institute Dual-Certified Third Party EIFS Inspector, # FL003, July 1996
- Exterior Design Institute Certified Moisture Intrusion and Analysis # FL003MA 1996-present
- Certified HVAC Technician Mainstream Engineering EPA Clean Air Section 608 Required by 40CFR part 82, subpart F, Certification # 848871EA13EFBEDC1
- Certificate in Education for Building Science in Construction Orlando, Fl, November 2006
- Certified Construction Inspector Badge # 5379, Certification date April 1997
- Certified by STO Corporation Technical Training Certificate # 95JW383 July 1995
- Certified STO Concrete Restoration Division Certificate # 1784 March 1995
- Parex Inc. Trained, June 1994
- Certified National Moisture Free Warranty Program 2000
- Certified Construction Project Manager, May 1997 (CCP designation)
- Certified Association of Wall and Ceiling Industry # AWCI99233, December 2005
- Environmental Training P96.1 through American Indoor Air Quality Council 1994
- Certified Indoor Air Quality Council Technician Course "ABIH" approval # 022868 September 02
- Certified Mold Remediation Technician CMR Designation # P0702-9 Score 92% final exam 2001
- Finestone Certification # 9306 December 1997
- Trained HVAC and the Indoor Environment Sept 2002 (AIACC)
- Dryvit Approved and Trained, 1994
- Certified Waterproofing (NAWSRC) since 1996 - 2002
- Certified in Protocol 96.1 Indoor Air Quality Testing Certification Course # 04A0401-1 August 1996
- Certified Structural Masonry Inspector, December 1997, # MAS066
- Master Certificate in Masonry Construction, Practical Principles and Water Resistance, Troubleshooting and Repair, January 1998
- Trained in EIFS Remediation by the NAHB Research Center, April 1999
- Additional training and certification for products and materials for building envelope construction in roofing, waterproofing, below grade, cladding, doors, window, concrete, coatings, epoxy applications, and membranes.

## UNIVERSITY OF WISCONSIN COLLEGE OF ENGINEERING

### Department of Engineering for Career Professional Development

- Low slope roofing systems, built up, single ply, metal, polyurethane, and foam roofs, 2006
- Preventing and detecting deficiencies in design and construction documents, 2004
- Masonry design/construction diagnosing masonry problems, 2002
- Preventing and detecting deficiencies in design and construction documents, 2004
- Preventing/solving moisture related problems in buildings, 2002
- Waterproofing and moisture control in building assemblies, 2002
- Handling mold related problems in buildings, 2002
- Construction inspection and quality control of building construction, 2001
- Construction management techniques and procedures, 2000

## EDUCATION AND MILITARY SERVICE

### 1979 – 1980

Mr. Mulholland was enlisted into the United States Marine Corps prior to completing the 11<sup>th</sup> grade. While simultaneously serving his country, he finished two years of high school in one year and graduated from the Los Angeles Adult Community College where he received his high school diploma.

### 1979 – 1983

Mr. Mulholland served in the United States Marine Corps. He graduated fourth in his class from Marine Corps Sniper School, served as an instructor, graduated as an officer of the Provost Marshal in the Philippines in 1980. Additional education included counter guerrilla operations; Terrorist Tactics, Marine NCO School; Squad Leader, Small Arm Expert School, Ft. Bragg, Jungle Environmental Survival Training (JEST). Korea-three-month Mountain Warfare School in 1981, Pisgah National Forest in North Carolina for mountain climbing and rope tying in 1982, California and Japan for Spy Rigging, Insurgents Tactical Training ITT, Tactical Operations against guerrilla warfare, Aerial Helicopter Assaults behind enemy lines, received specialized education in the S-2 Intelligence field and Surveillance Target Acquisition Team (STA). Security clearance - secret.

### 1983 – 2012

After leaving the United States Marine Corps, Mr. Mulholland spent over 25 years as a business owner in the waterproofing, restoration and construction industry. His education and training is extensive and focuses on quality control, forensic studies, Moisture engineering, building science and failure analysis. Prior to becoming a full time consultant in 2003, Mr. Mulholland's holds multiple licenses and certifications including State Certified General Contractor and has performed full-scale waterproofing and restoration services for residential, commercial, and high-rise buildings for over two and a half decades.

Mr. Mulholland also has on-going education with the University Of Wisconsin College Of Engineering. Mr. Mulholland has additional education with the NAHB research center for EIFS remediation and is pursuing his education in building science, laboratory analysis, building commissioning, and construction quality control management. Mr. Mulholland also has education and training through many manufacturers and has flown around the country going through educational courses for products, materials, and application in the waterproofing and restoration industries. Mr. Mulholland's most important education comes from his on-the-job experience in which he has spent over 25 years running and managing multiple companies associated with the construction industry.

## **WORK EXPERIENCE IN THE CONSTRUCTION INDUSTRY**

### **2009- PRESENT: BUILDING ENVELOPE SCIENCE INSTITUTE INC.**

#### **Chairman, Board of Directors**

**Responsibility:** Chairman of the Board of Directors, who assists in research and development of products and materials and certifications, education committee member, principal instructor and primary author for Building Envelope Certification courses.

**Services:** Certification courses on products, materials, inspections, and remediation. Building Envelope Certification Levels 1-5, research and development with new construction products and materials, board review of technological advances with building envelope materials and associated issues, case study analysis, LEED certified information, CSI training protocols for investigations, building envelope commissioning studies, building construction online library and resource center, buildings science technology research, training and certification courses for both inspectors, consultants, project managers, and remediation contractors for Chinese drywall (CDDI, CDDC, CDDPM, and CDDR designations).

BESI has launched a national effort to assist developers, building owners and construction companies to help reduce the building envelope challenges with training, seminars and support. The board of directors is committed to helping the construction industry advance in new technological advancements while maintaining sound, proven and tried principles. BESI is implementing the structure to support the construction industry and if you are interested in becoming a part of the institute and its efforts, contact BESI at 1-(877)-688-2374.

### **2009 - PRESENT: U S BUILDING LABORATORIES, INC**

#### **LABORATORY TESTING & ANALYSIS**

#### **President**

**Responsibility:** Includes conducting forensic testing and analysis on construction materials and products in the lab.

**Services Include:** ITA system protocols and ASTM laboratory analysis for building envelope components for pre-construction and post-construction evaluation and performance, testing of failed building envelope waterproofing, roofing, exterior cladding, doors and windows, concrete material failures, environmental testing,

and analysis, toxic Chinese drywall testing and analysis for inspection and remediation protocols including stabilization, Chinese drywall chamber testing and exploratory investigative testing and analysis, research and development, building envelope commissioning research, experimental testing for life cycle and energy efficiencies.

USBLI works under contract and in conjunction with many other laboratories across the U.S. including Analytical Research Systems Inc. of Gainesville and the University of Florida toxicology, analytical, and nuclear departments for testing of construction products and materials.

**2003 - PRESENT: U S BUILDING CONSULTANTS, INC**

**Principal/CEO**

**Forensic Investigator and Consultant**

**Responsibility:** Mr. Mulholland is one of four principals at U S Building consultants and Building Consultants International. The Company provides full forensic engineering, architectural, new and existing construction management (CM), forensic investigations, building science and project management, laboratory analysis, architectural designs 3D/4D renderings new and existing buildings, waterproofing and restoration oversight through their WDR programs, environmental studies and analysis for the construction industry. U S Building consultants has four principals and through its qualifying agents hold the USBCI Architectural License # AA26002098, USBCI Engineering License #29464 and the Certified General Contractor License #1519110.

**Services Include:** Forensic engineering, moisture intrusion and analysis, forensic / diagnostics, inspection for building envelope, laboratory analysis, ASTM field testing, hydrodynamic and hydrostatic water testing, material sample testing and analysis, waterproofing and restoration reviews for building envelope construction, failure analysis, third party consulting, expert witness, architectural services, contract administration, quality control inspection existing and new construction, material specification and selection, roofing and waterproofing inspection, infrared thermography, specifications and blue print waterproofing reviews (prior to construction), architectural designs 3D/4D rendering, environmental protocols, testing, and laboratory microbial analysis (IAQ) for commercial buildings. Reserve studies, annual inspections for preventive maintenance, training and teaching (full power point presentations) in waterproofing building envelope construction.

**SPIDERMAN'S PROFESSIONAL SERVICES, INC**

**1987-2003 Principal / CEO**

**1991-2003 Principal of ITA Systems, Inc.**

**1999-2003 Principal of Leak Watch Systems, Inc.**

Mr. Mulholland was the Principle/CEO of Three Florida-based corporations in the construction industry. He managed and operated the corporate offices in Pensacola, Florida from 1987 through 2003. The company's structures had many divisions including waterproofing, restoration, concrete repairs, roof repairs, remediation of complete building envelope components, inspection, testing, and analysis, diagnostics, consulting, indoor air quality, building maintenance, and a technology and training division. He supervised approximately 50 full-time employees, additional support staff, and sub-contractors. Mr. Mulholland retired from the actual construction in 2003 and became a full time consultant. He continues to teach and train on a national and international level since 1988 for the construction industry.

Mr. Mulholland's experience involves all types of construction but primarily focuses on building envelope water intrusion, environmental analysis, forensic investigations, quality control and building science and research. Mr. Mulholland has extensive experience in building envelope moisture and environmental investigation, forensic failure analysis and remediation protocols. He has been recognized as a national consultant and specialist in the areas of stucco and EIFS systems regarding design, application, and investigative work. Mr. Mulholland has been recognized by Fortune 100 companies for his unique specialty in "Forensic Investigation and Analysis" of commercial buildings. He has additional experience in studies dealing with contract administration, quality control, construction management, legal issues in construction, and testifies as an expert witness in his fields of expertise.

Additionally, Mr. Mulholland has been listed as an expert witness in ASTM's Directory of Scientific and Technical Consultants and Expert Witnesses, the Lawyer's Desk Reference, the National Forensic Center, National Consultants Referral, Inc., Technical Network Services, and the American Arbitration Association.

**INVOLVEMENT IN THE INDUSTRY AND PROFESSIONAL AFFILIATIONS (FORMER & CURRENT)**

- 2009- Current Building Envelope Science Institute, Board of Directors, Instructor for certification programs, educational committee.
- 2009- Current Chairman of the Board of Directors for the Defective Drywall in America Work Group (DDIA) for Chinese and defective drywall. Helped design, produce, and instruct the national certification protocols for inspection, project management, consulting, and remediation of Chinese/defective drywall in residential, commercial, and high rise buildings.
- 2009 Worked with the Florida Task Force (Florida Operations Drywall Incident Management Team (IMT) for operation drywall which included eight departmental agencies.

## **INVOLVEMENT IN THE INDUSTRY AND PROFESSIONAL AFFILIATIONS (FORMER & CURRENT) - CONTINUED**

- 1996-2009 Exterior Design Institute, Former President, Former Vice President, Former Chairman of the Board of Governors, Developer and Instructor of their Moisture Intrusion and Analysis Certification Course, Certified Third Party Stucco/EIFS Inspector, Certified Moisture Intrusion and Analysis for Building Envelope Construction. Certified and trained Inspectors across the nation for over 12 years with EDI.
- American Walls & Ceilings International - Certified Third Party Stucco/EIFS Inspector.
- National Association of Waterproofing Contractors, Certified Waterproofing Contractor, Secretary/Treasurer 1997, Board of Directors 1996, Chairman of their committee that developed their national Above Grade Waterproofing Certification Program, technical column writer in their monthly magazine 1994-1996.
- EIFS Industry Manufacturer's Association, Education Committee 1996-1998 and Technical Committee 1998.
- Association of Construction Inspectors, member with Certified Construction Inspector (Badge #5379) and Certified Construction Project Manager designation.
- American Society of Testing and Materials Committee (ASTM) - C11 C24 D08 D22 E06 Serves as the technical director on the C-11.01 work item WK26072 Standard Practice for Evaluation of Buildings to Identify Corrosive Gypsum Board. Helped institute the first task group on Chinese drywall inspections within the Sub-Committee - E06.41 with Rob Thomas, E06.58 Chairman. Mulholland will assist working on upcoming committees for inspection, testing, and remediation standards that will follow over the next several years.
- Serves on the E-6.58 Performance/Standards for EIFS, E-6.51.11 Standards/Practices for Installation of Exterior Windows, Doors and Skylights, C-24 Building Seals, Sealants, and Waterproofing committees, and formerly E-6 Performance of Buildings and C-11 Gypsum and Related Building Materials and Systems (includes EIFS) Committees, expert witness, speaker. Expert panelist at their 1999 workshop entitled "Investigation and Remediation of Water-Related Problems on EIFS-Clad Wood-Framed Buildings." Mulholland also serves on the D22 committee on Air Quality and the Committee D08 on Roofing and Waterproofing systems.
- Construction Specifications Institute, former Editor of bi-monthly newsletter, Former Vice President of Pensacola Chapter, Speaker.
- American Arbitration Association, Member - National Forensic Center, Member - Southern Building Code of Congress International, Member - National Association of Home Builders, Member
- Community Associations Institute, Member & Speaker - Builders Association-North Central Florida, Member & Speaker - National Association of Home Builders, member and several other industry organizations

## **PUBLICATIONS (PARTIAL LIST)**

Mr. Mulholland is the author of three (3) national certification programs for **BESI**, **EDI** and **NAWSRC** (Please see experience heading along with articles and training seminars for the construction industry).

**PUBLISHED POWERPOINT PRESENTATIONS FOR EDUCATION, AIA, AND THE CONSTRUCTION INDUSTRY (A PARTIAL LIST):**

- Advances in Building Envelope Systems
- Building envelope failures
- Design & detailing of building components
- Why buildings leak and how to stop it
- Forensic investigations with case histories
- Inspecting and analyzing mold and mildew problems Straight talk to contractors
- Straight talk to architects
- Understanding waterproofing methodology
- Building sealants and their performance
- Properly installing stucco and EIFS
- Properly installing masonry
- Professional restoration of homes and buildings
- How to detect mold in buildings
- Building science methodology
- Forensic investigation of building envelope failures
- MOLD problems & solutions
- Introduction into waterproofing & design
- Understanding water intrusion issues
- Stucco, EIFS investigation and remediation
- Restoration of building envelope components
- Roofing system failures, what to look for
- Building envelope commissioning processes
- Diagnosing problems, failure analysis of construction projects
- Toxic Chinese drywall crisis- inspection/remediation strategies
- Overview of history and facts on Chinese/defective drywall
- Chinese drywall remediation facts and fiction
- Forensic analysis studies and testing on defective Chinese drywall.

**SPEAKING AND LECTURING (PARTIAL LIST)**

- Principal instructor at the Building Envelope Training and Certification Conference for the Building Envelope Science Institute (2014).
- Principal instructor and author of the Building Envelope Trained and Building Envelope Certified Inspector courses for the Building Envelope Science Institute (2013).
- Keynote speaker for the Construction Specifications Institute lunch in and training seminar on building envelope construction, forensic analysis, construction related failures and design deficiencies New Mexico 2012.
- Speaker for HB Construction on “Advances in Building Envelope Science”. Topics included technological advances with building envelope materials, building envelope commissioning studies, case study analysis, and R&D of new construction products and materials (2011).
- Keynote speaker at the Realty Investment Club of Houston (RICH); Discussed Pros & Cons of Chinese Drywall, What is Chinese or Defective Drywall, How it’s affecting 43 states and climbing, a multibillion dollar problem.

## **SPEAKING AND LECTURING (PARTIAL LIST) - CONTINUED**

- Speaker for the Insights 2010 conference and tradeshow, Miami, Florida. Mr. Mulholland discussed the extensive studies and analysis they conducted on defective Chinese drywall and the effects it has over 37 states nationwide.
- Expert panel speaker for the Building Envelope Science Institute on Chinese drywall remediation. First annual conference and tradeshow event (2010) (see [www.besintitute.com](http://www.besintitute.com)).
- Main Speaker for the Florida Wall & Ceiling Contractors Association. Mr. Mulholland presented on the Forensic studies and laboratory analysis to date on Chinese drywall and Domestic drywall in America. Mulholland has spoken three more times including the prestigious southeast conference in Florida. (2010).
- Speaker and expert panelist at the Tainted Chinese Drywall conference hosted by the Indian River State College CCTI and ESARC January 2010. Mr. Mulholland spoke and fielded questions and answers on remediation efforts and methodologies with Chinese drywall claims.
- Speaker at numerous town hall meetings across the state of Florida for Chinese drywall/investigative studies (2009).
- Construction Owners Association of America (COAA), national conference. Invited by the University of Florida Facilities, Planning and Construction. Spoke on Building Envelope Commissioning, environmental concerns, toxic Chinese drywall, and current construction industry direction (2009).
- Technical Symposium on Corrosive Imported Drywall November 2009 Spiderman and ARS presented corrosion studies and analytical results in both domestic and Chinese drywall sampling. White board showed results from a six month study and research on the corrosive properties of diffusion of sulfur compounds from Chinese drywall on copper materials which included metallurgical third party studies.
- Speaker and instructor for Building Envelope Science Institute which holds classes approximately five times a year. Mulholland has been teaching & instructing contractors, consultants, and industry leaders on Chinese drywall inspection, testing, analysis and remediation protocols (2009 - 2011).
- Main speaker and conference coordinator for State of Texas Association of Real Estate Inspectors (TAREI) 2004.
- Main Speaker for AIA Alabama State Seminar (2002).
- Expert speaker for Mealey's National Toxic Mold Conference in Palm Springs, Florida (2002).
- Main Speaker BA-NCF Commercial Building Council Gainesville Florida (2006).
- State of Louisiana AIA Conference Waterproofing Design/Protection of the Building Envelope" (2000).
- Regional EIFS Symposium hosted by the Alabama EDI Governor and Members (2000).
- Regional Terminix Meeting & Educational Seminar (2000).
- CSI/AIA Workshop, Baton Rouge, LA, "Investigating Building Envelope Waterproofing Failures & Design" (1999).
- CSI Mobile Chapter, "Exterior Finishes and Waterproofing" (1999).

### **SPEAKING AND LECTURING (PARTIAL LIST) - CONTINUED**

- Served on panel of experts at ASTM's E06 Workshop on "Investigation and Remediation of Water-Related Problems on EIFS-Clad Wood-Framed Buildings", Seattle, WA (1999).
- CAI State Conference, power point presentation on "Exterior Finishes & Waterproofing", Destin, FL (1999).
- CAI "Waterproofing the Building Envelope", Destin, FL (1998).
- Florida Dept. of Health, Indoor Environmental Quality Seminar "IAQ & Building Leaks" (June, 1998).
- CSI "Waterproofing Design and the Building Envelope", Baton Rouge, LA (1998).
- CSI "EIFS Workshop & Product Show", Jackson, MS, main speaker, (1998).
- Public Service Seminar, Fort Walton Beach, FL "EIFS and Stucco, Care and Maintenance" (1998).
- EDI - Presentation "Dow Corning Sealants and EIFS Restoration Techniques" (1997).
- AIA, Wilmington NC Chapter Seminar "Preventing & Stopping Building Leaks" (1997).
- North Carolina Lathe & Plaster Association "Leaks in Stucco & EIFS Structures (1997). IAQ Association's Sick Building Symposium "How Buildings Leak and Why" (November, 1996).
- Exterior Design Institute 3<sup>rd</sup> -Party EIFS Inspection Certification "Proper Sealing of EIFS Segment" (1996)
- Exterior Design Institutes "Moisture Analyst Training and Certification", taught 3-4 seminars per year - nationwide (1996-2001).
- Main Speaker at BA-NCF Commercial Building Council Gainesville, Florida (2009).
- NW Florida Home Builders Association "Protecting Synthetic Stucco from Water Damage" (1996 & 1997).
- Building Industry Association of Okaloosa/Walton "Protecting Stucco from Water Damage" (1996).
- NAWC seminar "Hi-Tech Diagnostic Equipment in Above Grade Waterproofing" (1996).
- NAWC seminar "New Developments in Above Grade Waterproofing" (1996).
- Contractors seminar sponsored by Anderson Windows "Costly and Expensive Leaks" (1995).
- AIA Seminar "Why Buildings Leak and Design Prevention Standards" (1994).

### **EXPERT WITNESS CASES:**

Mr. Mulholland has been involved in several hundred litigation cases and has been qualified as an expert witness and testified in multiple states throughout the U.S. for almost two decades. He is easily qualified as an expert witness and has represented clients on all sides of the construction industry from building owners, insurance companies, architects, developers, contractors, subcontractors, and material manufacturers regarding his expertise in the field of forensic investigations, failure analysis, environmental testing and analysis, general construction and building science for the construction industries. For a full list of his cases complying to; "Rule 26 of the Federal Rules of Civil Procedure" and other expert witness qualification, recommendations, please contact the USBCI main office in Gainesville, Florida.