



#### EDUCATION

- University of Notre Dame
  - Bachelor of Science, Civil Engineering, 1973
- University of Illinois at Urbana-Champaign
  - Master of Science, Structural Engineering, 1977

#### PRACTICE AREAS

- Earthquake Damage Investigation
- Failure Investigation
- Glass Breakage Investigation
- Laboratory Testing
- Load Testing
- Repair and Rehabilitation Design
- Windows and Curtain Walls

#### REGISTRATIONS

- Civil Engineer in AZ, CA, LA, MA, and NH
- Professional Engineer in AL, AR, CO, CT, DC, FL, GA, IA, IN, KS, KY, ME, MD, MI, MS, MO, MT, NC, ND, NJ, NM, NY, OH, OK, PA, RI, SC, TN, TX, VT, VA, WA, WI, and WV
- Professional (Civil) Engineer in ID and MN
- Professional (Structural) Engineer in OR, SD, UT, and WY
- Structural Engineer in IL and NE

#### CONTACT

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#### EXPERIENCE

William Nugent joined WJE in 1976 and has since completed over five hundred investigations, testing, and repair design projects. Mr. Nugent's experience includes investigation of structural failures, field and laboratory testing of structures, seismic damage assessment and retrofit design, and numerous assignments involving building facades, curtain walls, and glass. This latter experience has included the design and installation of instrumentation to measure wind pressure and motions of buildings; review of curtain wall designs; and investigation of curtain wall, glass, and cladding system failures. He has also been involved in the recladding of several buildings. Mr. Nugent has authored numerous technical reports dealing with a variety of structural and materials problems. He has presented lectures on structural failures, seismic performance, and cladding problems and repair techniques.

#### REPRESENTATIVE PROJECTS

##### Failure Investigation

- Hatchie River Bridge - Covington, TN: Reinforced concrete bridge collapse
- TWA Flight 800 - Long Island, NY: Reconstruction of Boeing 747 aircraft

##### Glass Breakage Investigation

- CNA Building - Chicago, IL: Fractures of annealed glass facade panels
- Fox Plaza Building - Los Angeles, CA: Fractures of tempered glass facade panels

##### Laboratory Testing

- Anheuser Busch Breweries - Northbrook, IL: Abrasion resistance of various floor systems
- New England Patriots Stadium - Northbrook, IL: Laminated glass baluster railing system

##### Load Testing

- Crown Center Garages - Kansas City, MO: Reinforced concrete parking structures
- Crown Plaza Hotel - Orlando, FL: GFRC cladding panels

#### Repair and Rehabilitation Design

- Poplar Street Bridge Approaches - East St. Louis, IL: Seismic and redundancy retrofits to elevated roadway structures
- Salvation Army Headquarters Building - Des Plaines, IL: Exterior recladding system

#### Windows and Curtain Walls

- John Hancock Building - Chicago, IL: Corrosion of aluminum facade elements
- South Coast Metro Center - Orange County, CA: Window, sealant, and stone cladding failures

#### PROFESSIONAL AFFILIATIONS

- International Association for Bridge and Structural Engineering (IABSE)
- Safety Glazing Certification Council (SGCC)
- Structural Engineers Association of Illinois (SEAOI)

#### TECHNICAL COMMITTEES

- ANSI Z97.1 - Safety Glazing Materials
- IABSE WG 1 - Glass Structures
- SGCC - Board of Directors