



CONSULTING  
ENGINEERS, INC.

## **GREGORY S. MCLELLAN, P.E.**

### **GENERAL INFORMATION:**

#### **PEGROUP CONSULTING ENGINEERS, INC.**

**(Formerly known as The Pepper Engineering Group, Inc.)**

Main Office: 6135 NW 167 Street, Suite E-26, Miami, FL 33015

Mailing Address: PO Box 266348, Weston, FL 33326

Phone: (305) 655-1115 Fax: (305) 655-9991

Email: [mclellan@pegroup.com](mailto:mclellan@pegroup.com)

Web Page: [www.pegroup.com](http://www.pegroup.com)

Position: Principal, Vice President, Shareholder

Nature of Business: Structural and Forensic Engineering

### **PROFESSIONAL:**

Licensed Professional Engineer (P.E.):

State of Florida PE #: 48290

Commonwealth of Puerto Rico PE #: 21586

State of Louisiana PE #: 34564

Licensed Threshold Building Inspector (Special Inspector – S.I.):

State of Florida SI #: 7010514

Certified in the Practice of Structural Engineering

By the Structural Engineering Certification Board (SECB)

Certification #: 1340-0705

National Council of Examiners for Engineering and Surveying (NCEES):

Council Record No.: 26209

International Registry Certificate No.: 26,209

Building Inspector, Florida Registration No. BN0003260 (Inactive)

Structural Masonry Inspector, Certificate No. SMI-1627 (Inactive)

Structures Specialist, Florida Task Force #1 (FL-TF1), Urban Search & Rescue Team (USAR), Miami - Dade Fire Rescue

Lieutenant, U.S. Coast Guard, Honorable Discharge from active duty, September 1996

### **EDUCATION:**



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Master of Science, Civil Engineering Department (Structural)  
University of Illinois at Champaign-Urbana, December, 1990

Bachelor of Science in Civil Engineering  
United States Coast Guard Academy, May, 1985

#### **PUBLISHED WORK (PEER REVIEWED):**

*“Performance of Roof Systems during the 2004 and 2005 Hurricanes in South Florida”*, G. McLellan, A. Puig, M. Cordovez, Published by the Institution of Civil Engineers (ICE - United Kingdom) at the Fourth International Conference on Forensic Engineering in London, England, December 2008.

*“Structural Performance of Aluminum Frame Screen Enclosures during the 2004 and 2005 Hurricanes in South Florida”*, G. McLellan, M. Cordovez, A. Puig Published by the Institution of Civil Engineers (ICE - United Kingdom) at the Fourth International Conference on Forensic Engineering in London, England, December 2008.

*“Attenuation of Blasting Vibrations in South Florida, Part II”*, G. McLellan, J. Pepper, M. Johnson, Published by the International Society of Explosive Engineers at their 27<sup>th</sup> Annual Convention, January, 2001.

*“Attenuation of Blasting Vibrations in South Florida”*, J. Pepper, M. Johnson, G. McLellan, Published by the International Society of Explosive Engineers at their 26<sup>th</sup> Annual Convention, February 2000.

#### **URBAN SEARCH & RESCUE (USAR)**

##### **FLORIDA TASK FORCE 1 (FL-TF1) – STRUCTURAL ENGINEER:**

- 2001 September - Deployed to the World Trade Center 9/11 disaster in New York City. Provided onsite engineering consultation to FL-TF1 leaders, FEMA and FDNY in regard to the structural integrity of the collapsed buildings and adjacent structures.
- 2004 July – Responded with MDRF to industrial building gas explosion collapse in Miami. Provided structural engineering to assess the stability of the partially collapsed building.
- 2004 August - Deployed to Punta Gorda Florida in the wake of Hurricane Charlie. Assisted FL-TF1 with search for victims in collapsed and badly damaged houses, mobile homes and other buildings.



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- 2004 September - Activated by FEMA with FL-TF1 to respond to Hurricane Jeanne – no action required.
- 2005 July - Activated by FEMA with FL-TF1 to respond to Hurricane Dennis in the Florida panhandle – no action required.
- 2005 September - Deployed to New Orleans, LA by FEMA with FL-TF1 in response to Hurricane Katrina and the subsequent levy breaches. Assisted FL-TF1 with house to house (room to room) searches for victims and assessed the condition of temporary levy repairs prior to and just after the Hurricane Rita.
- 2005 October – Activated by FEMA with FL-TF1 in response to Hurricane Wilma in South Florida. Assisted local firefighters with structural surveys of high rise condominiums that were damaged by the hurricane.
- 2007 August – Deployed with FL-TF1 to Barbados to respond to a building collapse into a limestone cavern. Provided structural engineering for temporary support of partially collapsed building to mitigate risk for search and rescue / recovery personnel. **Awarded Unit Citation and Thomas Quinn Exceptional Service Award by Miami-Dade Fire Rescue (MDFR).**
- 2007 September – Responded with members of FL-TF1, MDFR Technical Rescue and Broward County officials to apartment building gas explosion collapse in Deerfield Beach. Provided structural engineering to assess the stability of the partially collapsed building.
- 2010 January – Deployed with FL-TF1 to Haiti as part of an international Urban Search and Rescue response to a 7.0 earthquake. Provided structural engineering for shoring of damaged building and building assessment to facilitate rescue of trapped victims. FL-TF1 was successful in rescuing 11 trapped victims. Also provided ATC-20 building assessments for multiple field hospitals and other structures. **Awarded Major Campaign Award and Life Saving Award for extraordinary lifesaving efforts by Miami-Dade Fire Rescue (MDFR).**
- 2012 August – Responded with MDFR to Titan American cement silo roof collapse in Medley, Florida. Provided structural engineering for access to victim trapped deep in the silo.
- 2012 October – Responded with FL-TF1 and MDFR to Miami-Dade College Parking Garage collapse in Doral, Florida. Provided structural engineering for rescue of a victim trapped beneath 5 levels of collapsed concrete. **Awarded Major Campaign Award by Miami-Dade Fire Rescue (MDFR).**



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## **FORENSIC (INVESTIGATIVE) WORK:**

Over 2,600 investigative assignments completed, including:

- Structural Evaluation and Analysis including Finite Element Analysis (FEA)
- Hurricane & Wind Damage
- Flood Damage
- Roof Damage
- Sinkholes
- Structural Failures
- Collapse
- Fire Damage and Reconstruction
- Foundation Failures
- Ground Subsidence and Settlement
- Flooring Failures
- Industrial Storage Rack Failures
- Seawall / Pier Failures
- Underwater Investigations using SCUBA
- Concrete Deterioration (corrosion of reinforcing steel)
- Construction Vibrations
- Construction / Quarry Blasting
- Building Implosion Vibration Analysis
- Vehicle Collisions with Structures
- Slip and Fall Accident Investigations
- Railings / Safeguards Construction
- Termite Damage
- Insurance Appraisals
- Building Envelope – Water Intrusion
- Truss Inspections
- Mold Contamination
- Building Code Compliance
- Construction Defect Analysis
- Post Disaster Structural Assessment of Buildings and Other Structures

## **PROFESSIONAL AFFILIATIONS:**

Florida Commission on Hurricane Loss Projection Methodology:

- Structural Engineering Consulting Services (Professional Team) to the Commission – 2010 to Present

Broward County Board of Rules and Appeals (BORA):

- Certification Review Committee – 2013 to Present



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- Structural and Fire Code Sub-Committees – 2006 to Present

Florida Structural Engineers Association (FSEA):

- President-Elect, 2014 (State Board)
- Director, 2012, 2013 (State and South Florida Chapter Boards)
- Director 2008, 2009, 2010 (State Board)
- Past-President 2006, 2007
- President 2005 (South Florida Chapter)
- President-Elect 2004
- Secretary 2002-2003

Urban Search & Rescue (USAR)

- Florida Task Force 1 (FL-TF1) 1999 to Present  
Lead Structures Specialist – 2005 to Present
- FEMA Structures Sub-Group – 2008 to Present

ASTM International (formerly - American Society for Testing and Materials)

- Subcommittee member: E58.06 Incidents Involving Structures

American Society of Civil Engineers (ASCE)

- Technical Council on Forensic Engineering (TCFE)
- Structural Engineering Institute (SEI)

National Society of Professional Engineers (NSPE)

Florida Engineering Society (FES)

National Academy of Forensic Engineers (NAFE) – Senior Member

## **MILITARY BACKGROUND:**

Graduated from the United States Coast Guard Academy in 1985 with a Bachelors of Science degree in Civil Engineering and commissioned as Ensign, U.S. Coast Guard. From 1985 to 1987, served as a Deck Watch Officer aboard the Coast Guard Cutter Chase. Duties included, Deck Watch Officer, Anti-Submarine Warfare Officer, Gunnery Officer, Law Enforcement Boarding Officer and Weapons Officer (Department Head). Promoted to the rank of Lieutenant Junior Grade during this period.

From 1987 to 1989, served as Deck Watch Officer aboard the Coast Guard Cutter Campbell. Duties included Deck Watch Officer, Weapons Officer and Law Enforcement Boarding Officer. Held a Top Secret security clearance. While serving aboard the Campbell, selected for post graduate school in Civil Engineering.



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From 1989 to 1991 attended the University of Illinois, Urbana-Champaign. Earned a Masters of Science degree from the Civil Engineering Department. Primary course of study was Structural Engineering. Promoted to the rank of Lieutenant during this period.

After graduating from the University of Illinois assigned to the U.S. Coast Guard Civil Engineering Unit in Miami, Florida. As a Design Engineer for the U.S. Coast Guard completed the engineering calculations, drawings, specifications and cost estimates for a wide variety of projects requiring knowledge of the many disciplines of Civil Engineering such as structural, geotechnical, coastal, transportation, environmental and construction management. A partial list of these projects include the construction a small office building, foundation designs for tall towers and offshore maritime aids to navigation, repair of seawalls, rebuilding of travel lifts, design of new piers and docks, design of hazard waste storage facility, design of boathouses and boat shelters, construction and re-paving of roadways, installation and renovation of tall steel towers and the replacement of many roofs on varying types of buildings and roof systems. Served as Tall Tower Engineer; responsible for the inspection, maintenance and repair of all Coast Guard communication towers and Loran-C towers in the southeastern U.S. and the Caribbean, including tall towers up to 700 feet in height.

Other Coast Guard engineering duties included leading damage assessment and repair teams to inspect and repair Coast Guard facilities after Hurricanes Andrew, Opal and Erin. This work included the inspection of industrial buildings, office buildings, residential housing and various waterfront structures such as piers, wharfs, seawalls and boathouses.

**MORE:** Other work experiences include structural design / analysis, due diligence evaluations, parking garage and building restoration projects, marine structures design and analysis, and peer review of high rise building design.



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## **COURT TESTIMONY:**

**PEGroup File #: 7515, Golden Gate Home (Zingg) v. Lewis J. Levey, Esquire, et. al.,** July 18, 2013, Circuit Court of the 11<sup>th</sup> Judicial Circuit, Miami-Dade County, Florida  
Case No.: 09-37576 CA 24

Levey, et. al. Attorney: Self represented?

Golden Gate Homes Attorney: Geoffrey D. Ittleman, P.A.

Expert for Golden Gate Homes – Originally a construction defect issue

**PEGroup File #: p200-150, Armando Castillo v. State Farm,** May 17, 2010  
Circuit Court of the 11<sup>th</sup> Judicial Circuit, Miami-Dade County, Florida  
Case No.: 05-9149 CA 15

Castillo Attorney: Christopher Mammel, Childress Duffy Goldblatt, Ltd.

Citizen Attorney: Ryan Cobbs, Carlton Fields

Expert for State Farm – Blasting

**PEGroup File #: 9903, Dotter Johnson v. Southern Coatings,** April 6, 2010  
Circuit Court of the 17<sup>th</sup> Judicial Circuit, Broward County, Florida  
Case No.: CACE 06-17582 03

Dotter Johnson Attorney: Brian McCarthy, Berman, Kean & Riguera

Southern Coatings Attorney: James Sparkman, Cole, Scott & Kissane

Expert for Dotter Johnson – Hurricane Frances

**PEGroup File #: 61158, Rohena & Ortas,** November 4, 2008  
Circuit Court of the 10<sup>th</sup> Judicial Circuit, Highlands County  
Luisa Ortas & Esteban Rohena vs. Citizens Property Insurance  
Case No.: GC07-561

Attorney for Rohena & Ortas: Gary Gossett

Attorney for Citizens: Aram Megerian, Cole, Scott & Kissane, P.A.

Expert for Citizens

Hurricane Wilma – Roof and interior water damage

**PEGroup File #: 4551, Southeast Floating Docks,** May 30, 2006  
United States District Court for the Middle District of Florida, Orlando Division  
Auto-Owners vs. Southeast Floating Docks Inc. & Alan L. Simpson  
Case No.: 605CV334-ORL

Attorney for Auto-Owners: Tom Crafton, Robert Bonner

Attorney for Southeast Floating Docks: Jim McCrae

Expert for Auto-Owners

**PEGroup File #: p98-394, p202-252, Morosky,** January 25, 2006  
United States District Court for the Southern District of Florida, Miami Division



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Morosky (Plaintiff) vs. Nationwide Mutual Fire Insurance Company (Defendant)  
Case No.: 01-10059-CIV-HIGHSMITH  
Attorney for Nationwide: John Pappas, Butler Pappas  
Attorney for Morosky: Jay Levy  
Expert for Nationwide

**PEGroup File #: 4059, Kozich**, August 30, 2004  
County Court of the 17<sup>th</sup> Judicial Circuit, Broward County  
Allan A. Kozich vs. Frank Manis, et. al.  
Case No. 02-21876 (52)  
Expert for Kozich

**PEGroup File #: p201-066 (old p200-350), Miller**, October 14, 2003  
Circuit Court of the 17<sup>th</sup> Judicial Circuit, Broward County  
John & Elizabeth Miller vs. Kemper  
Miller's Attorney: Ian Kravitz, The Law Offices of William D. Tucker  
Case No.: CACE 01-4012 (12)  
Expert for Miller

#### **DEPOSITIONS UNDER OATH:**

**PEGroup File #: 16-644 Mantilla v. State Farm**, February 20, 2014, Circuit Court of the 11<sup>th</sup>  
Judicial Circuit Miami-Dade County  
Case No.: 11-12579 CA 31  
Mantilla Attorney: Aylin Morales, Gonzalez & Associates, P.A.  
State Farm Attorney: Maria Klein, Ubalodo J. Perez, Jr., P.A.  
Expert for State Farm, Hurricane Wilma, tile roof

**PEGroup File #: 13-180 Dickens v. Castle Key**, February 12, 2014, United States District  
Court Southern District  
Case No.: 1:13-cv-20300-JLK  
Dickens Attorney: Danya Pincavage, Ver Ploeg & Lumpkin, P.A.  
Citizens Attorney: Brian Hunter, Chimpoulis, Hunter & Lynn, P.A.  
Expert for Castle Key, shower pan / drain leak

**PEGroup File #: 13-119 Bergman v. State Farm**, February 11, 2014, Circuit Court of the 11<sup>th</sup>  
Judicial Circuit Miami-Dade County  
Case No.: 11-00793 CA (31)  
Bergman Attorney: Justin Cernitz, Cernitz and Shandron, P.A.  
Citizens Attorney: Brian Hunter, Chimpoulis, Hunter & Lynn, P.A.  
Expert for State Farm, cast iron u/g waste pipe



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**PEGroup File #: 11-333 Guttman v. Citizens**, January 6, 2014, Circuit Court of the 15<sup>th</sup> Judicial Circuit Palm Beach County  
Case No.: 50 2012 CA 009760 XXXX MB An  
Guttman Attorney: Daniel Caine, Stabinski & Funt  
Citizens Attorney: John Chanoux, Rudd & Diamond  
Expert for Citizens, Hardwood flooring

**PEGroup File #: 10-191 Bard v. Nationwide**, December 6, 2013, Circuit Court of the 17<sup>th</sup> Judicial Circuit, Broward County, Florida  
Case No.: 10-040974-12  
Bard Attorney: Kaplan Law Group  
Nationwide Attorney: Robin Richison, Lydecker Diaz  
Expert for Nationwide, water intrusion / mold

**PEGroup File #: 13-002 EL-AD Residences of Miramar v. Arthur Erb Masonry, et al**, June 17, 2013, Circuit Court of the 17<sup>th</sup> Judicial Circuit, Broward County, Florida  
Case No.: CACE 09045295 (26)  
EL-AD Attorney: Keith J. Lambdin, Katzman, Garfinkle & Berger  
Erb Masonry Attorney: Donna Waters Romero, Vernis & Bowling of Broward, P.A.,  
Co-Council, Patrick Gent, Law Offices of Hugh Behan  
Expert for Arthur L. Erb Masonry- Construction Defect / Water Intrusion

**PEGroup File #: 12-178 Bonifay v. Courtyards of the Grove and Advanced Roofing**, April 30, 2013  
Circuit Court of the 11<sup>th</sup> Judicial Circuit, Miami-Dade County, Florida  
Case No.: 05-23094 CA 27  
Courtyard Attorney: Richard M. Gomez, Law Offices of Gomez & Gomez  
Bonifay Attorney:  
Advance Roofing Attorney: Peter Diamond, Rudd & Diamond  
Expert for Advance Roofing

**PEGroup File #: 10-490 Escobar v. Tower Hill**, February 1, 2013  
Circuit Court of the 11<sup>th</sup> Judicial Circuit, Miami-Dade County, Florida  
Case No.: 11-12204-CA 02  
Escobar: Marco Leyte-Vidal, Alvarez, Carbonell, Fletman, Jimenez & Gomez P.L.  
Tower Hill Attorney: Christy Sherouse, Gaebe Mullen Antonelli & Dimatteo  
Expert for Tower Hill – Blasting

**PEGroup File #: 12-089 Town Park North Condo Assn. v. Aspen**, November 20, 2012  
United States District Court for the Southern District of Florida, Miami Division  
Case No.: 1:12-CV-21012-PCH  
Town Park Attorney: Zorian Sperkacz, Childress Duffy, Ltd.  
Aspen Attorney: Melissa Sims, Berk, Merchant & Sims



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Expert for Aspen – Hurricane Wilma, shingle roofs, doors & windows, water intrusion

**PEGroup File #: 12-109 Best v. Menin**, July 26, 2012

Circuit Court of the 15<sup>th</sup> Judicial Circuit, Palm Beach County, Florida

Case No.: 50 2011 CA 009555XXXXMB

Best Attorney: Michael O'Donnell, Finder & Finder

Menin (Zurich) Attorney: Peter Delahunty

Expert for Menin – exterior curb ramp

**PEGroup File #: 11-094 Oriole Gardens I v. Aspen**, April 23, 2012

United States District Court for the Southern District of Florida, Broward Division

Case No.: 0:11-62281-CIV-COHEN-SELTZER

Oriole Gardens I Attorney: Sean Shaw, Merlin Law Group, P.A.

Aspen Attorney: Hillary Cohen, Berk, Merchant & Sims

Expert for Aspen – Hurricane Wilma, tile roofs

**PEGroup File #: 11-090 Coral Reef Club v. Aspen**, December 14, 2011

United States District Court for the Southern District of Florida, Ft. Lauderdale Division

Case No.: 11-61340-CIV

Coral Reef Attorney: Michelle Claverol / Javier Delgado, Merlin Law Group, P.A.

Aspen Attorney: Michaela Scheihing / Janice Kelly, Boehm, Frown, Fischer, Harwood, Kelly & Scheihing, P.A.

Expert for Aspen – Hurricane Wilma, tile roofs

**PEGroup File #: 9699-OR Romero Lange & 9700-OR Ronso v. Nationwide**, October 19,

2011; Circuit Court of the 19<sup>th</sup> Judicial Circuit, Martin County, Florida

Case No.: 10-773 CA and 10-882CA – Metzger, respectively

Plaintiff Attorney: Justin Petrie, Kandell & Kandell, P.A.

Nationwide Attorney: Jonathan Tobin - Berk, Merchant & Sims

Expert for Nationwide – Hurricane Wilma, tile roofs

**PEGroup File #: 8615 Heron at the Hammocks v. Lloyds**, July 20, 2011

Circuit Court of the 11<sup>th</sup> Judicial Circuit, Miami-Dade County, Florida

Case No.: 09-38702 CA 04

Heron Attorney: Kelly Kubiak, Merlin Law Group, P.A.

Lloyds Attorney: Berk, Merchant & Sims

Expert for Lloyds – Hurricane Wilma

**PEGroup File #: 9500 Adams vs. Nationwide**, July 19, 2011

Circuit Court of the 15<sup>th</sup> Judicial Circuit, Palm Beach County, Florida

Case No.: 502010-CA-023262XXXXMBAI

Adams Attorney: Philip Valente, Silber Valente & Davis

Nationwide Attorney: Ansley Ellmyer, Esq.



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Expert for Nationwide – Water / Pipe Leak

**PEGroup File #: 9288 Roth vs. Nationwide**, June 3, 2011  
Circuit Court of the 15<sup>th</sup> Judicial Circuit, Palm County, Florida  
Case No.: 502010CA026859XXXXMB  
Roth Attorney: Craig C. Kubiak, Merlin Law Group, P.A.  
State Farm Attorney: Evelyn Merchant, Berk, Merchant & Sims  
Expert for Nationwide – Hurricane Wilma, tile roof

**PEGroup File #: 9776 Lopez vs. State Farm**, May 17, 2011  
Circuit Court of the 11<sup>th</sup> Judicial Circuit, Miami-Dade County, Florida  
Case No.: 07-17100 CC 11  
Lopez Attorney: Darryn L. Silverstein, Silverstein, Silverstein & Silverstein, P.A.  
State Farm Attorney: Michael Rudd, Rudd & Diamond  
Expert for State Farm – Hurricane Wilma

**PEGroup File #: 10-218 Blowstein vs. Clarendon Select**, April 4, 2011  
Circuit Court of the 15<sup>th</sup> Judicial Circuit, Palm Beach County, Florida  
Case No.: 50 2010 CA 02639XXXXMB AF  
Blowstein Attorney: Philip Valente, Silber Valente & Davis  
Clarendon Attorney: Christopher Moore, Gaebe, Mullen, Antonelli & DiMatteo  
Expert for Clarendon / Tower Hill – Hurricane Wilma

**PEGroup File #: 9715 Koshi vs. Nationwide**, March 4, 2011  
Circuit Court of the 15<sup>th</sup> Judicial Circuit, Palm Beach County, Florida  
Case No.: 50 2010 CA 003106XXXXMB AB  
Koshi Attorney: Philip Valente, Silber Valente & Davis  
Nationwide Attorney: Gil Barreto, Berk, Merchant & Sims  
Expert for Nationwide – Hurricane Wilma

**PEGI File #: 10-582 Charni & Fico vs. FIGA**, January 21, 2011  
Charni & Fico Attorney: Josh Blackston, Stabinski & Funt, P.A.  
FIGA Attorney: Derek Hendricks, Hightower & Partners  
Expert for FIGA – Hurricane Wilma; document review

**PEGroup File #: 9595, Clayton**, January 19, 2011  
William vs. Tower Hill Select Insurance Company  
Circuit Court of the 17<sup>th</sup> Judicial Circuit, Broward County, Florida  
Case No.: 10-04103 (13)  
Clayton Attorney: David Batista, Greenberg Traurig, P.A.  
Tower Hill Attorney: Patrick Betar, Berk, Merchant & Sims  
Expert for Tower Hill – Tile Roof, Windstorm



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**PEGroup File #: 10-297, Kane**, September 14, 2010

Assane Kane v. East Yard Partners & BK Marine  
Circuit Court of the 17<sup>th</sup> Judicial Circuit, Broward County, Florida  
Case No.: 08-53087 04

BK Marine Attorney: Carlos L Lorente, Law Office of Robert F. Tacher  
East Yard Attorney: Nicholas Seamster???  
Kane Attorney: Marc C. Brotman, Brotman Nusbaum Fox  
Expert for Kane – Construction site personnel injury – seawall demolition

**PEGroup File #: 10-342, Royal Palm Place Condo**, September 1, 2010

Aspen Specialty Insurance v. Royal Palm Place v. Aspen Specialty Insurance  
United States District Court, Southern District Court of Florida, Miami Division  
Case No.: 09-23635-CIV-HUCK/O’SULLIVAN

Aspen Attorney: Max Factor / Bill Wallis, Butler Pappas  
Royal Palm Attorney: Thomas Morgan Jr., Morgan Law Group  
Expert for Aspen – Hurricane Wilma – Tile Roof

**PEGroup File #: 9048, Paul v. State Farm**, July 26, 2010

Circuit Court of the 11<sup>th</sup> Judicial Circuit, Miami-Dade County, Florida  
Case No.: 09-28349 CA 21

Paul Attorney: Carlos Lopez, Lopez & Best  
State Farm Attorney: Brian Hunter  
Expert for State Farm – Wood & Tile Flooring, AC leak

**PEGI File #: 5089, The Moorings at Aberdeen v. State Farm**, March 22, 2010

Circuit Court of the 15<sup>th</sup> Judicial Circuit, Palm Beach County, Florida  
Case No.: 50 2006CA 001972 XXXX MB

Moorings Attorney: Brenton N. Ver Ploeg, Ver Ploeg & Lumpkin, P.A. (Co-Council)  
State Farm Attorney: Patrick Betar, Berk, Merchant & Sims  
Expert for State Farm – Hurricanes Frances & Jeanne

**PEGroup File #: 9903, Dotter Johnson v. Southern Coatings**, March 4, 2010

Circuit Court of the 17<sup>th</sup> Judicial Circuit, Broward County, Florida  
Case No.: CACE 06-17582 03

Dotter Johnson Attorney: Brian McCarthy, Berman, Kean & Riguera  
Southern Coatings Attorney: James Sparkman, Cole, Scott & Kissane  
Expert for Dotter Johnson – Hurricane Frances

**PEGroup File #: 4387, Matheson v. Nationwide**, October 29, 2009

Circuit Court of the 15<sup>th</sup> Judicial Circuit, Palm Beach County, Florida  
Case No.: 50-2008CA032950XXXXMB AA

Matheson Attorney: Mark A. Greenburg, P.A.  
Nationwide Attorney: Marc Gutterman, Conroy, Simberg ...



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Expert for Nationwide – Hurricane Frances & Jeanne

**PEGroup File #: 9381-OR, Slutsky v. Nationwide**, September 24, 2009

Circuit Court of the 19<sup>th</sup> Judicial Circuit, Martin County, Florida

Case No.: 08-1964 CA

Slutsky Attorney: Steven R. Simon, P.A.

Nationwide Attorney: Richard P. Zajac, Lydecker Lee Behar Berga & De Zayas

Expert for Nationwide – Hurricane Wilma

**PEGroup File #: 9507, Lopez v. Citizens**, September 22, 2009

Circuit Court of the 17<sup>th</sup> Judicial Circuit, Broward County, Florida

Case No.: 08-038747 (08)

Lopez Attorney: Mark Press, Stabinski & Funt, P.A.

Citizens Attorney: Gil Barreto, Berk, Merchant & Sims

Expert for Citizens – Hurricane Wilma

**PEGroup File #: 6025, Dorothy Mae Walker v. State Farm**, July 22, 2009

Circuit Court of the 15<sup>th</sup> Judicial Circuit, Palm Beach County, Florida

Case No.: 50 2008 CA 012380 MB

Walker Attorney: Bradford L. Stewart

State Farm Attorney: Theresa A. Strub, Rudd & Diamond, P.A.

Expert for State Farm – Hurricane Wilma

**PEGroup File #: p200-150, Armando Castillo v. State Farm**, July 16, 2009

Circuit Court of the 11<sup>th</sup> Judicial Circuit, Miami-Dade County, Florida

Case No.: 05-9149 CA 15

Castillo Attorney: Christopher Mammel, Childress Duffy Goldblatt, Ltd.

Citizen Attorney: Ryan Cobbs, Carlton Fields

Expert for State Farm – Blasting

**PEGroup File #: 7287, Jordan Leib v. Citizens**, June 24, 2009

Circuit Court of the 17<sup>st</sup> Judicial Circuit, Broward County, Florida

Case No.: 06-006078 CACE (11)

Leib Attorney: Russel Dohan, Goldberg & Dohan, L.L.P. (also John Shilely rep. Mordecai / Tony Pegg – 3<sup>rd</sup> Party)

Citizen Attorney: Carl Bober / Erik Diener, Vernis & Bowling of Broward, P.A.

Expert for Citizens – Hurricane Wilma & Katrina - SGDs, water intrusion, floor tile

**PEGroup File #: 8155, Mariner Village v. Citizens**, May 7, 2009

Circuit Court of the 11<sup>st</sup> Judicial Circuit, Miami-Dade County, Florida

Case No.: 07-31611CA31

Mariner Village Attorney: Keith J. Lambdin, Katzman Garfinkle Rosenbaum

Citizen Attorney: Adam Pastis, Gray Robinson



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Expert for Citizens – Hurricane Wilma, tile / flat roofs

**PEGroup File #: 9266, Kroener v. FIGA**, April 22, 2009  
Circuit Court of the 17<sup>st</sup> Judicial Circuit, Broward County, Florida  
Case No.: 08-13839 CA-02  
Kroener Attorney: Mager & Mager, LLC  
FIGA Attorney: Cristion Valois, Hernandez & Hicks, P.A.  
Expert for FIGA – Hurricane Wilma

**PEGroup File #: 7048, Goldstein v. Nationwide**, January 12, 2009  
Circuit Court of the 11<sup>st</sup> Judicial Circuit, Miami-Dade County, Florida  
Case No.: 08-26378 CA 11  
Goldstein Attorney: Samuel M. Spatzer  
Expert for Nationwide – Hurricane Wilma-tile roof

**PEGroup File #: 8559, Abdelkrim Chafra v. 18100 Collins Avenue Shopping Center, LLC**,  
October 7, 2008  
Circuit Court of the 11<sup>st</sup> Judicial Circuit, Miami-Dade County, Florida  
Case No.: 05-06223 CA 11  
Chafra Attorney: John S. Seligman, Friedman & Friedman, P.A.  
181 Collins Attorney: Thomas McCausland, Conroy, Simberg, etc.  
Expert for 18100 Collins (Insurance Carrier) ----RK Associates Property

**PEGroup File #: 4570, (Rolland) Mitchell v. First Protective Insurance**, July 31, 2008  
Circuit Court of the 1<sup>st</sup> Judicial Circuit, Escambia County, Florida  
Case No.: 2005 CA 001273  
First Protective Attorney: Phillip J. Sheehe, Sheehe & Associates, Inc.  
Mitchell Attorney:  
Originally Expert for Citizens Property Insurance re: insured in condo adjacent Mitchell –  
Subject condo building damaged by storm surge during Hurricane Ivan

**PEGroup File #: 8181, Albert Caponigro v. Toys R Us**, July 10, 2008  
Circuit Court of the 17<sup>th</sup> Judicial Circuit, Broward County, Florida  
Case No.: 07-008331 (03)  
Toys R Us Attorney: William Summers, Lane Reese, Summers, Ennis & Perdomo, P.A.  
Caponigro Attorney: Kevin H. Fabrikant & Associates, P.L.  
Expert for Caponigro

**PEGroup File #: 7862, Real Estate Depot v. United Property and Casualty**, June 26, 2008  
Circuit Court of the 11<sup>th</sup> Judicial Circuit, Miami-Dade County, Florida  
Case No.: 07-37283 CA 08  
United Attorney: Richard Zajac, Lydecker, Lee ...  
Real Estate Depot Attorney: Stabinski & Funt, P.A.



CONSULTING  
ENGINEERS, INC.

Expert for United

**PEGroup File #: 7050, Gloria Morales v. State Farm, April 30, 2008**

Circuit Court of the 20<sup>th</sup> Judicial Circuit, Collier County, Florida

Case No.: 07-2384-CA

State Farm Attorney: Burks Smith, Abbey Adams

Morales Attorney: Ligman Martin, P.L.

Expert for State Farm

**PEGroup File #: 6786, Indian Trace Center v. Philadelphia Insurance, March 12, 2008**

Circuit Court xxxxxxxxxxxxxxxxxxxx County, Florida

Case No.: 07-32869-CA-31

Philadelphia Attorney: Lauren Levy – Butler Pappas

Indian Trace Attorney: David B. Haber, P.A.

Expert for Philadelphia

**PEGroup File #: p203-539, Salvetti v. Nationwide, February 19, 2008**

Circuit Court for the 15<sup>th</sup> Judicial District – Palm Beach County, Florida

Case No.: 502006 CA 012148 XXXX MB - AB

Nationwide Attorney: Marc Gutterman – Conroy, Simberg, Ganon, Krevans, Abel, Lurvey, Morrow & Schefer, P.A.

Salvetti Attorney: Roy W. Jordan, Jr., P.A.

Expert for Nationwide

**PEGroup File #: 7893, Gomez, Blanco & Mario v. Manuel C. Ruiz, February 15, 2008**

Ruiz Attorney: Josh Beck / Stephen Bazinsky – Bazinsky, Korman & Baker, P.A.

Gomez Attorney: Joseph Slama – Krupnick, Campbell, Malone, Buser, Slama, Hancock, Liberman & McKee P.A.

Expert for Ruiz

**PEGroup File #: 6452, El-Ad Villaggio Condominium vs. Lloyds, July 25, 2007**

Circuit Court for the Seventeenth Judicial District – Broward County, Florida

Case No.: 06-10401-13

Lloyds Attorney: Patrick Betar / Bill Berk; Berk, Merchant & Sims

Villaggio Attorney: Keith J. Lambdin, Garfinkel Trial Group

Expert for Lloyds

**PEGroup File #: p202-188, Dresden, June 29, 2007**

United States District Court Southern District of Florida

Case No.: 05-80237CIV-MARRA/JOHNSON

Federal Insurance Company (Chubb), subrogee of Scott and Karen Dresden vs. Diamond Builders, Inc. and Delray Ocean Estates North, Inc.

Federal / Chubb Attorney: Robert Jones / Al Dugan, Cozen O'Connor



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ENGINEERS, INC.

Diamond Attorney: Robert Fitzsimmons, Kubicki Draper  
Expert for Chubb

**PEGroup File #: p202-333 Bierstock, June 12, 2007**

Circuit Court of the 15<sup>th</sup> Judicial Palm Beach County, Florida

Case No.: 50 2003 CA 012122 AH

Dr. Samuel R. Bierstock & Anna A. Bierstock vs. Nationwide Nationwide's Attorney: Celeste Marks, Groelle & Salmon

Bierstock Attorney: Freeman & Miller

Expert for Nationwide

**PEGroup File #: 5754 Real Property LLC, April 12, 2007**

Circuit Court of the 19<sup>th</sup> Judicial Circuit Martin County, Florida

Case No.: 06-259 CA

Real Property LLC vs. Certain Underwriters at Lloyds, London; and L&S Insurance and Financial Services, Inc.

Lloyd's Attorney: Maria Medina of Berk, Mechant & Sims

Real Property Attorney: Ricenrubi, Liggio, Benrubi & Williams, P.A.

Expert for Lloyds of London

**PEGroup File #: 5849 Agler, April 10, 2007**

Circuit Court of the 19<sup>th</sup> Judicial Circuit St. Lucie County, Florida

Case No.: 56 2006 CA001297HC9BC

Ben & Karol Agler vs. Nationwide

Nationwide Attorney: Marc Gutterman of Conroy, Simberg et al.

Agler Attorney: William Ponsoldt of Wright, Ponsoldt & Lozeau

Expert for Nationwide

**PEGroup File #: 4578 & 5926, Steckley, August 9, 2006**

Circuit Court of the 20<sup>th</sup> Judicial Circuit Lee County, Florida

Case No.: 05 CA 001899

James & Virginia Steckley vs. Citizens Property Insurance

Citizens Attorney: Powers, McNalis, Torres & Teebagy

Steckley Attorney: Kelly L. Kubiak, Merlin Law Group, P.A.

Expert for Citizens

**PEGroup File #: p203-148, Kennedy / Liebel, July 18, 2006**

Circuit Court of the 17<sup>th</sup> Judicial Circuit Broward County, Florida

Case No.: 03-015422 CACE 21

Margaret Kennedy / Liebel vs. Nationwide Insurance Company of Florida

Nationwide Attorney: Celeste Marks, Groelle & Salmon

Kennedy / Liebel Attorney: Keith Truppman, Mintz & Truppman, P.A.

Expert for Nationwide



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**PEGroup File #: 4301, Castillo**, August 23, 2005  
Circuit Court of the 11<sup>th</sup> Judicial Circuit Dade County, Florida  
Case No.: 04-01199 (CA) 05  
Toby & William Castillo Vs. USAA Insurance Company & Jose Sievert  
Castillo Attorney: Hannon & Boyers - Hannon  
USAA / Sievert Attorney: Morgan & Morgan – John Clark  
Expert for Castillo

**PEGroup File #: p203-293, Triton Towers Condominium**,  
December 23, 2004, United States District Court for the Southern District of Florida,  
Triton Towers Condominium Association, Inc. (plaintiff) vs.  
Lexington Insurance Company (defendant).  
Lexington Attorney: Dan McNalis, Powers McNalis & Torres, P.A.,  
Triton Attorney: Joseph Ganguzza, Hyman, Kaplan, Ganguzza, Spector & Mars, Inc.,  
Case No.: 04-20826 CIV KING  
Expert for Lexington

**PEGroup File #: p203-308, Gary Miller**, November 2, 2004, Circuit Court of the 11<sup>th</sup> Judicial  
Circuit Miami-Dade County, Gary & Jill Miller vs. Wareham Construction, Inc.  
Wareham's Attorney: Wolpe Leibowitz Alvarez & Fernandez, LLP  
Miller's Attorney: Gary Brown, Kelley, Kronenberg, Gilmartin, Fichtel & Wander, PA  
Expert for the Millers

**PEGroup File #: p203-264, Center For Advanced Reproductive Endocrinology (CARE)**,  
July 9, 2004, United States District Court for the Southern District of Florida, Miami Division,  
CARE vs. Pacific Insurance Company  
CARE Attorney: Duke, Mullen & Galloway  
Pacific Attorney: Janet Brown, Boehm Brown Fischer Kelly & Scheilhing  
Expert for Pacific Insurance Company

**PEGroup File #: p202-582, Hackmeyer**, April 9, 2004  
Circuit Court of the 11<sup>th</sup> Judicial Circuit in and for Dade County, Florida  
Mark and Sharon Hackmeyer v. Nationwide Insurance Company of Florida  
Hackmeyer Attorney: Keith Truppan  
Nationwide Attorney: Groelle & Salmon (Roland Bernal / Bob Groelle)  
Case No.: 03-13815 CA 02  
Expert for Nationwide

**PEGroup File #: p201-474, Colmar Storage**, December 17, 2002  
United States District Court, Southern District of Florida, Miami Division  
Great American Insurance Company, Inc. (Plaintiff)  
vs. Colmar Storage LLC (Defendant)



CONSULTING  
ENGINEERS, INC.

Case No.: 01-2849-CIV-GOLD  
Expert for Great American

**PEGroup File #: p200-191, W.W. Molter & Son, Inc.**, December 6, 2002  
Circuit Court of the 15<sup>th</sup> Judicial Circuit in and for Palm Beach County, Florida  
Universal Adjustment Corporation (Plaintiff) vs. James and Daryl Riley (Defendants)  
Case No.: CA 01-4432-AH  
Originally expert for Riley's next door neighbor's insurance company

**PEGroup File #: p98-394, p202-252, Morosky**, May 23, 2002  
United States District Court for the Southern District of Florida, Miami Division  
Morosky (Plaintiff) vs. Nationwide Mutual Fire Insurance Company (Defendant)  
Case No.: 01-10059-CIV-HIGHSMITH  
Expert for Nationwide

**PEGroup File #: p96-289, Russo**, December 5, 2001  
Circuit Court of the 17<sup>th</sup> Judicial Circuit in and for Broward County, Florida  
Baldassare and Clara Russo (Plaintiffs) vs. Motorola Inc. et. al. (Defendants)  
Case No.: 99-04721 (25)  
Originally Expert for Russo's homeowner insurance company

**PEGroup File #: p98-519, p200-003, Larmoyeux**, January 3, 2000  
Circuit Court of the 15<sup>th</sup> Judicial Circuit in and for Palm Beach County, Florida  
Christopher M. and Leigh T. Larmoyeux (Plaintiffs) vs. Telcon, Inc. (Defendant)  
Case No.: CL 98-10424  
Originally Expert for Larmoyeux's homeowner insurance company

Last Updated: February 20, 2014

**Ajay Shanker Ph. D., P.E., Associate Professor**  
**School of Building Construction, University of Florida**  
**Gainesville, FL 32611, (352) 359-4233**

**EDUCATION**

Ph.D. in Civil Engineering (with specialization in Structural Engineering), Texas Tech University, Lubbock, Texas, 1984 to 1990.

Dissertation *Critical Evaluation of Metal Building Systems Subjected to Extreme Winds*

Master of Science (Structural Engineering and Constructional Techniques), Regional Engineering College, Kurukshetra, India, 1976 to 1980. Thesis *Effect of Pre-stress in Brick Beams*.

Bachelor of Engineering (Civil), Indian Institute of Technology, Roorkee, Roorkee, India 1971 to 1975.

**PROFESSIONAL REGISTRATIONS**

Registered Professional Engineer, Florida, Reg. No. 63575 (current)

**PROFESSIONAL EMPLOYMENT**

Associate Professor, University of Florida, August 1996 to present

Assistant Professor, University of Florida, August 1990 to August 1996

Teaching/Research Assistant, Texas Tech University, August 1984 to August 1990

Assistant Engineer, Public Works Department, Haryana, India, April 1977 to August 1984

**CONSULTATIONS OUTSIDE THE UNIVERSITY**

Structural Consultant, One Bal Harbour Plaza, 27<sup>th</sup> Floor Formwork Collapse, Fort Lauderdale, Attorney Howard Mavity, 2007

Structural Consultant, San Marco Plaza, 20<sup>th</sup> Floor Formwork Collapse, Jacksonville, Robert E. O'Quinn, Jr, Cole, Scott & Kissane, P.A, 1805 Copeland Street, Jacksonville, 2004

Brown Obringer Law Firm, Jacksonville, Florida, Collapse of Fin-Pan Building, 1999-2000.

Structural Consultant, Brown Obringer Law Firm, Jacksonville, Florida, Collapse of Fin-Pan Building, 1999-2000.

Structural Consultant, Brown Obringer Law Firm, Jacksonville, Florida, Collapse of Fin-Pan Building, 1998-1999.

Structural Consultant, Resolution Financial Corporation, Ft. Lauderdale, Florida, Design and Development of Pre-engineered Metal Frame Residential Buildings, 1994.

Structural Consultant, Posey Systems Inc., Spring Field, Florida, Storm of the Century Damage assessment on headquarters and residence and evaluation of reconstruction options, February 1994 to May 1994.

## CONTRACTS AND GRANTS COMPLETED AS PI OR CO-PI

No	Title	Role	Agency	Total Amount	Dates	
1	Design and Cost Estimates of One-to-Eight KM Tall Electromagnetic Assist Launch Towers for NASA	PI	NASA	14,000	5/03	8/03
2	Preliminary Design and Cost Estimate of One –to-Fifteen KM Tall Steel Launch Towers for NASA	PI	NASA	14,000	5/02	8/02
3	Construction Techniques for Masonry Wall in High Wind Areas	PI	Building Construction Industry Advisory Council	17,000	10/30/00	10/30/01
4	Developing On-Line WebCT Course for BCN 3431 Srstructural Steel Design	PI	Rinker Foundation	18,000	10/99	10/00
5	Developing Windstorm Testing Center Protocol	Co-PI	Idaho National Engineering Laboratory	\$40,000	7/16/97	6/30/98
6	Design and Development of Residential Construction Mitigation Program	Co-PI	Florida Department of Community Affairs	\$157,019	1/15/97	8/31/97
7	Development of a Guidance Manual for Selecting Buildings for Hurricane Evacuation Shelters	PI	Florida Division of Emergency Management	\$39,976	9/13/96	5/31/97
8	Design of a Portable Modular Cold Formed Steel Residential Building	Co-PI	Resolution Financial Corporation	\$25,000	6/30/95	12/31/95
9	Evaluation of Radon-Resistant Construction Features for Active Soil Depressurization of Large Buildings.	Co-P.I.	Florida Department of Community Affairs	\$269,000	3/20/95	12/15/95
10	Evaluation of Buildings Design, Construction & Performance for the Control of Radon In Florida	Co-P.I.	Florida Department of Community Affairs	\$320,589	01/04/94	12/31/94
11	A Research Study of Foundation Designs of Commercial Buildings for Radon Resistant Construction.	P.I.	Florida Department of Community Affairs	\$103,000	12/06/93	12/31/94
12	Research and Development of Emergency Shelter Design Criteria for Public Schools.	Co-P.I.	Florida Department of Education	\$50,000	06/28/93	06/01/94
13	Development of Interactive Multimedia Learning Systems for the Building Construction Curriculum	P.I.	UF DSR (ORTGE)	\$2,981	06/01/93	05/30/94
14	New House Evaluation and Radon-Resistant Construction.	Co-P.I.	Florida Department of Community Affairs	\$209,786	02/11/93	11/15/93
15	An Investigation of the Impact Resistance's of Various Types of Buildings for Wind Borne Missiles.	P.I.	UF DSR (ORTGE)	\$4,799	10/06/92	10/05/93
16	New House Evaluation of Potential Building Design and Construction for the Control of Radon	Co-P.I.	Florida Department of Community Affairs	\$200,000	03/10/92	04/30/93
17	Guidelines for the Radon-Resistant Construction for the Residential Buildings	P.I.	Florida DCA	\$17,970	06/09/93	09/30/93

## GRADUATE COMMITTEE ACTIVITIES

I have served as chair or member for thirty-two graduate committees from January 1994 to December 1999. The following table provides list of former and current students.

### Member of Masters Thesis/Report Committees

No.	Thesis		Non -Thesis	
	Chair/Co-Chair	Member	Chair/Co-Chair	Member
1	Ian Nidel current	Lucy Acquaye current	Charles Powers current	Chris Singeltary current
2	Ratabongkot Sunantiwat 8/97	Georgina Lores 5/97	Jayendra Jadeja current	Charles Pardue current
3	Mallika Wamanacharya 5/96	Michael Johns (Nucl. Engineering) 12/96	Li Li 12/99	Justin Reid 12/99
4	Sateesh Reddy 12/94	Roberta Marsteller 8/96	Frederick King 8/99	Domenico Scorpio 8/98
5		Andrew Mcallister 12/94	Jeremy Cox 12/98	Vincent Stone 12/97
6			Supavee Janlekha 12/98	Gabe Genau 12/95
			Zhigang Leng 5/98	Timothy Keen 8/95
7			Somsavan Janlekha 5/97	Brian Fallon 5/94
8			Kalika Wamanacharya 5/96	
9			Swapna Shinde 5/96	
10			Mark Engel 8/95	
11			Robert Hatker 8/95	
12			Kuang Hsu 5/94	
13			Richard Blackwell 5/94	

## Member of Ph.D. Dissertation Committees

Seungsoo Lee, Development of a Dynamic Prediction Model for indoor Radon Concentrations in Florida Houses (Nuclear Engineering), November 1999.

## PUBLICATIONS

Monographs : 'Evaluation of Building Design, Construction, and Performance for the Control of Radon in Florida Houses - Evaluation of Radon Resistant Construction Techniques,' by D.E. Hintenlang, A. Shanker, F. T. Najafi and E. C. Roessler, United States Environmental Protection Agency Research and Development Document, Research Triangle Park, North Carolina, EPA - 600/R - 95 - 114, July 1995, 154 pages.

'Guidelines for Construction of Radon Resistant Houses in Florida,' 20,000 copies of this document were distributed by Florida Department of Community Affairs to all building departments and building officials, Tallahassee, 1993, 2 pages.

## Refereed Publications

The following publications have been published/accepted by the NASA/United States Environmental Protection Agency as important technical documents for publication after thorough peer reviews and technical reviews

Shanker A, Preliminary Design. Evaluation and Cost Estimates of 1-15 KM Tall Steel Launch Towers for NASA, *Proc. Of NASA Summer Faculty Fellowship Research Projects (CD)*, Marshall Space Flight Center, NASA, Huntsville, Alabama, Jan. 2003

Shanker A, Design and Cost Estimates of 1-8 KM Tall Steel Launch Towers for Electromagnetic Launch Assist Systems for NASA., *Proc. of NASA Summer Faculty Fellowship Research Projects (CD)*

*underpreparation), Marshall Space Flight Center, NASA, Huntsville, Alabama*

Shanker, A., Hintenlang, D. E., 'A Research Study of Foundations Designs of Commercial Buildings for Radon Resistant Construction, 135 pages.

Hintenlang D. E., Shanker, A., et. al., 'Evaluation of Building Design, Construction and Performance for the Control of Radon in Florida Houses (1) Long Term Monitoring, (2) Crack Study, (3) Soil Analysis(1993), and (4) Radon Entry Study,' 131 pages.

Shanker, A., 'Developing Radon-Resistant Techniques for Residential Buildings,' Journal of Industrial Technology, National Association of Industrial Technology, Ann Arbor, MI.

#### Refereed Proceedings:

Shanker, A., 'Improving Durability of Buildings and Building Components in Hurricane or Cyclone Prone Regions using Improved Design Techniques and Impact Resistant Materials,' Proceedings 7th International Conference on the Durability of Building Materials and Components, Stockholm, Sweden, May 19-23, 1996,

Shanker, A., 'Improving Radon Resistance of Residential Buildings by Using Concrete Admixtures, Sealants and Improved Construction Techniques,' Proceedings International Symposium Indoor Air Quality in Practice, Oslo, Norway, June 19-22, 1995, pp. 529-539.

Shanker, A., and Reddy S.\* 'Construction of Radon Resistant Houses,' Proceedings CIB W89 International Symposium Construction/Building Education and Research Beyond 2000, Orlando, Florida, April 5-7, 1995, pp. 833-837.

Shanker, A., 'Constructing Sustainable Houses in Hurricane Prone Florida,' Supplemental Proceedings First International Conference of CIB TG 16 on Sustainable Construction, Tampa, Florida, November 6-9, 1994, pp. 49 - 53.

Shanker, A., Wamanacharya M. \*, and Wamanacharya K. \*, 'Cost Implications for Public Schools as Emergency Shelters,' Proceedings Fifth Annual Rinker International Conference on Construction Safety and Loss Control, Gainesville, Florida, October 12-14, 1994, pp. 515-519.

Hintenlang, D. E., Shanker, A., and Al-Ahmady K. K. \*, 'Evaluation of Radon Resistant Residential Construction,' Health Physics The Radiation Protection Journal, Vol. 66, Supplement 1, June 1994, Health Physics Society Annual Meeting, San Francisco, California, June 26-30, 1994.

Shanker, A., Drummond, R. W., Issa, R. R. A., and Wamanacharya, K.\*, 'Hurricane Shelter Design Criteria for Public Schools,' Proceedings Fifth National Conference on Hurricanes of 1992, American Society of Civil Engineers, Miami, Florida, Dec. 1-3, 1993, pp. 233-247.

Issa, R. R. A., Shanker, A., Issa, C., and Gencorelli, P.\*, 'Effectiveness of Hurricane Shutters in Damage Prevention,' Proceedings Fifth National Conference on Hurricanes of 1992, American Society of Civil Engineers, Miami, Florida, December 1-3, 1993, pp. 486-495.

#### Non-Refereed Publications:

##### Research Reports

Issa, R., Stroh, R., Shanker, A., Developing Windstorm Testing Center Protocol' Final Report, Idaho National Environmental and Engineering Laboratory, May 1998, 159 pages

Shanker, A. Development of a Guidance Manual for Selecting Buildings for Hurricane Evacuation Shelters, Final' Final Report, Florida Division of Emergency Management, August 1997, 189 pages

Nye, D., Shanker, A., Design and Development of Residential Construction Mitigation Program' Final Report, Florida Department of Community Affairs, December 1997, 235 pages

Shanker, A., Hintenlang, D. E., 'A Research Study of Foundations Designs of Commercial Buildings for Radon Resistant Construction,' Final Report, Florida Department of Community Affairs, December 1994, 135 pages

Hintenlang D. E., Shanker, A., et. al., 'Evaluation of Building Design, Construction and Performance for the Control of Radon in Florida Houses Long Term Monitoring, Crack Study, Soil Analysis, and Radon Entry Study for the Control of Radon in Florida Houses,' Final Report, Florida Department of Community Affairs, February 1994, 131 pages.

Shanker, A., Drummond, R. W., Wamanacharya M. \*, and Wamanacharya K. \*, 'Emergency Shelter Design Criteria for Educational Facilities,' Final Report, Florida Department of Education, November 1993, 173 pages.

Shanker, A., Drummond, R. W., Wamanacharya M. \*, and Wamanacharya K. \*, 'Conceptual Cost Estimates for Emergency Shelters,' Final Report, Florida Department of Education, November 1993, 62 pages.

Hintenlang, D. E., Shanker, A., et. al., 'Evaluation of Building Design, Construction and Performance for the Control of Radon in Florida Houses - Evaluation of Radon Resistant Construction Techniques In Eight New Houses,' Final Report, Florida Department of Community Affairs, August 1993, 165 pages.

Shanker, A., 'Guidelines for Radon Resistant Residential Construction in the State of Florida,' Final Report, Florida Department of Community Affairs, August 1993, 24 pages.

Shanker, A., Najafi, F. T., et. al., 'New House Evaluation of Potential Building Design and Construction for the Control of Radon in Marion and Alachua Counties,' Final Report, Florida Department of Community Affairs, June 1993, 261 pages

LECTURES, SPEECHES OR POSTERS PRESENTED AT PROFESSIONAL  
CONFERENCES/MEETINGS

Lectures, speeches or posters presented at international, national, state, and local professional conferences/meetings

International:

Shanker, A., 'Improving Durability of Buildings and Building Components in Hurricane or Cyclone Prone Regions using Improved Design Techniques and Impact Resistant Materials,' 7th International Conference on the Durability of Building Materials and Components, Stockholm, Sweden, May 19-23, 1996.

Shanker, A., 'Improving Radon Resistance of Residential Buildings by Using Concrete Admixtures, Sealants and Improved Construction Techniques,' International Symposium Indoor Air Quality in Practice, Oslo, Norway, June 19-22, 1995.

Shanker A., 'Design And Construction of Large Metal Buildings for Industrial and Agricultural Uses,' Presentation to a business delegation from Uecker Region of Northeastern Germany, organized by North Central Florida Regional Planning Council and the University of Florida, (invited speech), June 12, 1995.

Shanker, A., and Reddy S., 'Construction of Radon Resistant Houses,' CIB W89 International Symposium Construction/Building Education And Research Beyond 2000, Orlando, Florida, April 5-7, 1995.

Shanker, A., and Wamanacharya M. \*, 'An Overview of Research Needs, New Products and Changes in Construction Standards for Hurricane Resistant Construction,' CIB W82 meeting 'Future Studies in Construction,' Tampa, Florida, November 10, 1994.

Shanker, A., 'Constructing Sustainable Houses in Hurricane Prone Florida,' First International Conference of CIB TG 16 on Sustainable Construction, Tampa, Florida, November 6-9, 1994.

Shanker, A., Wamanacharya M. \*, and Wamanacharya K. \*, 'Cost Implications for Public Schools as Emergency Shelters,' Fifth Annual Rinker International Conference on Construction Safety and Loss Control, October 12-14, 1994, Gainesville, Florida.

National:

Shanker, A., 'Foundation Designs of Large Buildings for Radon Resistant Construction,' Quarterly meeting of the Florida Radon Research Program Florida Department of Community Affairs, Tampa, (invited presentation) November 7-8, 1994.

Shanker, A., 'Foundation Designs and Radon Resistant Construction of Large Buildings,' Quarterly meeting of the Florida Radon Research Program Florida Department of Community Affairs, Tampa, (invited presentation) August 4-5, 1994.

Shanker, A., Drummond, R. W., Issa, R. R. A., and Wamanacharya, K.\*, 'Hurricane Shelter Design Criteria for Public Schools,' Fifth National Conference on Hurricanes of 1992, American Society of Civil Engineers, Miami, Florida, December 1-3, 1993.

Issa, R. R. A., Shanker, A., Issa, C., and Gencorelli, P.\*, 'Effectiveness of Hurricane Shutters in Damage Prevention,' Fifth National Conference on Hurricanes of 1992, American Society of Civil Engineers, Miami, Florida, December 1-3, 1993.

Shanker A., 'Hurricane Andrew and Residential Construction,' Annual National Convention of Roof Consultants Institute (keynote speaker), Orlando, March 1993

State:

Shanker, A., 'Standard for Radon Resistant Construction for Large Buildings,' Florida Department of Community Affairs Public Workshop for Rule Making, Tampa, Florida, July 21, 1994.

Shanker, A., 'Development of Construction Standards for Enhanced Hurricane Protection Areas in Public Schools,' Florida Department of Education Task Force (invited speaker), Tallahassee, February 14, 1995.

Shanker, A., and Issa, R. R. A., 'South Florida in the Aftermath of Hurricane Andrew,' Ormond Beach Roofing and Sheet Metal Association, Ormond Beach, Florida, January, 1993.

Shanker, A., Issa, R. R. A., and Whiteman, D.\*, 'South Florida in the Aftermath of Hurricane Andrew,' City of Jacksonville, Committee on Hurricane Code Changes (invited speaker), Jacksonville, Florida, February, 1993.

Shanker A., 'Effectiveness of Storm Shutters in Hurricane Damage Prevention,' Testimony to Department of Insurance Rule Development Workshop (invited speaker), Tallahassee, Florida, August 10, 1994.

Local:

Shanker A., 'OSHA Requirements for Excavation and Trenching,' OSHA 8 hour Safety Course, organized by Associated Builders and Contractors, Gainesville, February 7, 1995.

Shanker A., 'Radon Control in New Homes,' College of Architecture Faculty Retreat, UF TREEO Center, Gainesville, Florida, February 1993.

Shanker A., and Issa, R. R. A., 'South Florida in the Aftermath of Hurricane Andrew,' North Central Florida Roofing and Sheet Metal Association, Gainesville, Florida, (invited speaker) January 1993.

Shanker A., Issa, R. R. A., and Whiteman, D.\*, 'South Florida in the Aftermath of Hurricane Andrew,' Tampa A.B.C. Chapter, Tampa, Florida, October 1992.

Shanker A., Issa, R.R.A., and Whiteman, D.\*, 'South Florida in the Aftermath of Hurricane Andrew,' College of Architecture Special Assembly, Gainesville, Florida, September, 1992.

Shanker, A., and Reddy S., 'Construction of Radon Resistant Houses,' CIB W89 International Symposium Construction/Building Education And Research Beyond 2000, Orlando, Florida, April 5-7, 1995.

Invited Panelist, Organizer or Moderator

Shanker, A., 'Development of Construction Standards for Enhanced Hurricane Protection Areas in Public Schools,' Florida Department of Education Workshop, (invited panelist), Orlando, November 28, 1994.

Shanker, A., 'Development of Construction Standards for Enhanced Hurricane Protection Areas in Public Schools,' Florida Department of Education Advisory Panel, (session moderator), Boca Raton, July 5, 1994.