

Resume

Hollice F. Stone, M.S.,P.E.

Managing Principal and President, Stone Security Engineering, PC

Background

Hollice Stone is a leader in the security engineering industry with 24 years experience in engineering, blast, antiterrorism, and emergency response. Hollice has devoted her career to helping protect people, buildings and critical infrastructure from terrorism. Instrumental in criteria development, research, and educational initiatives, she is a creative and innovative force in the security engineering field, using her management, engineering, and emergency responder experience to proactively identify industry challenges and develop practical solutions. Her portfolio of work includes multi-hazard vulnerability assessments and new antiterrorism design for the U.S. Departments of State, Justice, Defense, and Homeland Security, as well as national universities, chemical plants, oil refineries, Fortune 50 companies, and international NGOs.

Representative Work Experience

Ms Stone has participated in vulnerability, threat, and risk assessments around the world and security engineering design for more than 150 buildings and structures and has been instrumental in training and research in both the blast mitigation and the emergency response communities. Representative efforts include:

- **Multi-Hazard Vulnerability Assessment, Mitigation Measure and Construction Administration Services:** Blast Engineer for a comprehensive multi-threat vulnerability assessment and development of mitigating measures for their main compound in Kabul, Afghanistan. Based on the results of the vulnerability assessment, retrofit measures were designed for the existing facilities, bridging documents for a design-build tender were developed and a recommended master plan was developed to re-site and re-build the majority of the buildings on the compound to more effectively address security, functionality and quality of life issues, and construction quality assurance was performed for the first two phases of construction. Recommended mitigating measures included structural retrofits to increase resistance to identified threats, new perimeter walls, vehicle screening areas and security electronics.
- **Protective Design Consulting:** Program manager and lead blast engineer for a \$1.4 billion national developer's government construction program. The team completed preliminary and detailed design on 1.6 million SF and construction on 860,000 SF of security engineered facilities including blast, ballistic and anti-ram designs.
- **Blast Wall and Perimeter Security Enhancement Design:** Blast Project Manager and Blast Engineer for multi-hazard design for security improvements Asian Development Bank compound in Kabul, Afghanistan. The project included design of a blast wall, sally ports, vehicle gates, pedestrian doors, and overall entry control facilities. All elements together are designed to protect against a complex attack including sequential blast, ballistics, and forced entry tactics. Analysis for the project included simplified Single Degree of Freedom non-linear dynamic

analysis combined with multi-degree-of-freedom Applied Element Analysis.

- **High-Rise Commercial Building, Manhattan New York.** Stone developed the blast and progressive collapse related security design criteria for a >65 story skyscraper in the Heart of midtown Manhattan. Working with the security consultant, the design team, and the owners' representatives, Stone developed detailed criteria, that addresses multiple threat types and locations while avoiding adverse impacts on the aesthetic and functional design.
- **GSA Standards Development:** Project Manager and author of the latest US General Services Administration (GSA) National Standards for applying the ISC Physical Security Criteria for Federal Facilities. *US General Services Administration (GSA) National Standards for applying the new ISC Physical Security Criteria for Federal Facilities. Developed the GSA interpretation for Level III and Level IV – August 2011.* The document is now applied to the majority of Capital and Leased projects nationwide.
- **Develop Unified Facilities Guide Specifications:** Project Manager and Lead Blast Engineer for new, and updated existing, Unified Facilities Guide Specifications (UFGS) for the US Army Corps of Engineers Protective Design Center for Anti-Ram Vehicle Barriers (passive and active), Blast resistant windows and doors, and Blast Resistant Anti-shatter film. Once signed by the three military services, these specifications will become part of the regularly used specifications for military projects.
- **Blast Design Guidance Alignment, Omaha District:** Project Manager and Blast Engineer for a study to compare and align the existing US Army Corps of Engineers, Protective Design Center, guidance for design of structures to resist the air-blast effects from detonation of terrorist explosive devices with those used by other government agencies (such as the ISC/GSA, Department of State, etc) and the private sector (ASCE/SEI 59-11, industrial guidelines, and general best practices). The three specific areas of interest that were reviewed were:
 - Blast resistance of doors, both conventional doors and conventional doors with retrofits.
 - Blast resistant design of windows.
 - Blast resistant design of structural components
- **Building Stabilization Research:** Department of Homeland Security, Science and Technology – support for the development of the research agenda geared at Building Stabilization Post-IED attack. Work included identifying and coordinating a team of experts from the emergency response community to provide input and guidance throughout the research process and development of *BIPS 08: Field Guide for Building Stabilization and Shoring* and research into applications of current and future sensing and monitoring technology in emergency response and building stabilization (final report: *State of the Practice: Sensing and Monitoring for First Responders* (2011)).

Technical Committees and Professional Affiliations

ASTM International

Member, Committee E54 Homeland Security Applications

Lead Author: Standard Guide for the Selection of Antiterrorism Physical Security Measures for Building Exteriors Against Explosive Attack (in development)

American Society of Civil Engineers

Member

Education

Stanford University, School of Engineering, Stanford, California

Master of Science, Civil Engineering (1990)

Bachelor of Science, Civil Engineering (1990)

Registrations

Professional Civil Engineer, California (1998 – C58662)

Professional Engineer, New York (2008 - 7311943)

Professional Engineer, Maryland (2014 – 45430)

Brief Employment History

President, Stone Security Engineering, PC - present

Director of NY Operations/Senior Managing Engineer, Hinman Consulting Engineers, Inc., San Francisco, California and New York, NY (1998 - 2007)

Logistics Manager, California Task Force 3, Menlo Park, California (2000 – 2005)

USAR Specialist, Menlo Park Fire Protection District, Menlo Park, California (1999 – 2001)

Civil Engineer, Eichleay Engineers, Concord, California (1997 – 1999)

Vice President, Stone Enterprises, San Francisco, California (1995 – 1997)

Civil Engineer, National Park Service, U.S. Department of the Interior (1990 – 1995)

Public Speaking

ASIS 5th Middle East Security Conference & Exhibition “Blast Mitigation Measures – An In-Depth Look at Products and Approaches to Protect Against Explosive Attack”, February 18 2014, Dubai United Arab Emirates.

FSDA 25th Seminar “Emergency Preparedness for High-Rise Buildings” October 23, 2012, New York New York.

NYIT Energy Conference, “Power Considerations Before and After Large Scale Disasters/Terrorist Attacks”, June 13, 2012, Old Westbury, New York.

DataCenterDynamics – Converged, “Tools, Technology, & Techniques for Mission Critical Professionals and First Responders”, (with Peter Curtis and Greg Caronia), March 13, 2012, New York, New York.

ASIS Middle East 3rd Annual Seminar, “Security Engineering in High Threat Environments”, February 20, 2012, Dubai United Arab Emirates

US General Services Administration Structural Engineers Training Seminar “Applications of the New GSA Blast and Progressive Collapse Standards” September 28, 2011 Washington DC.

ASIS International 57th Annual Seminar, “Security Engineering in High Threat Environments”, September 20, 2011, Orlando Florida

ASIS International 56th Annual Seminar, “Addressing Elusive Federal Government Security Criteria”, October 13, 2010, Dallas Texas, Co-presenter.

Department of Homeland Security 2010 Near Collapse Buildings Workshop for Emergency Management Personnel “An Approach to Correlating Air-blast Analysis Results and Post-IED Structural Residual Capacity” April 28 – 28, Texas A&M/TEEX, College Station, Texas; with Arturo Montalva, P.E..

Department of Homeland Security 2010 Near Collapse Buildings Workshop for Emergency Management Personnel “How New and Evolving Technologies Can Affect First Responders” April 28 – 28, Texas A&M/TEEX, College Station, Texas.

Department of Homeland Security 2010 Monitoring and Sensing of Near-Collapse Buildings Workshop “Building Stability Information Needs, Hazard Assessment, Mitigation, and Monitoring in Near Collapse Buildings: Current Approach from the US&R Engineer’s Perspective” April 6-7, 2010 University of Mississippi.

United Nations Security Management Team Meeting, Kabul Afghanistan, Design Approach to Security, February August 2009.

Department of Homeland Security Post-IED Building Stabilization Workshop, Building Collapse Disaster Work Environment – Vicksburg, Mississippi August 24 – August 27, 2009.

Jacobs Associates “Blast Effects and Critical Infrastructure” San Francisco, California, May 2008.

Boston Public Health Commission and City of Boston Emergency Medical Services “Lessons Learned from International Conflict and IED Response”, Boston Massachusetts, May 2008: Blast Resistant Design: The Current Approach”.

Boston Public Health Commission and City of Boston Emergency Medical Services “When Structures Fail 2008”, Boston, Massachusetts , February 2008 “The Role on Engineers in Structural Collapse”.

The Intelligence Summit Anti-Terrorist Design Considerations for Mission Critical Facilities, February 2007, Washington DC.

AIA: New York New Visions: “The Quest for Perfect Security”, January, 2007.

Second Annual GSA/PBS Fire Protection Engineering & Life Safety Conference

ASIS International, 52nd Annual Seminar & Exhibits, September 25 – 28, 2006. Emergency Response and Blast Resistant Buildings.

“**Blast Resistance and You**”, Cleveland Ohio, March 19, 2004.

Supporting the Nation – 2004 Corps of Engineers Workshop “Latest Changes to the Anti-terrorism& Force Protection Standards”, Honolulu, Hawaii, April 2004.

Fire Safety Directors Association Spring Symposium “Protecting People and Structures From the Effects of Explosive Attack”, New York, New York, June 12, 2003.

Protective Glazing Council’s Spring Symposium “Fire Ingress/Egress of Blast Resistant Windows”, San Francisco, California, June 3, 2003.

ASIS International – Securing the Global Workplace: “Structural Vulnerability to Explosive Effects” Prague, Czech Republic, May 13, 2003.

11th International Symposium on Interaction of the Effects of Munitions with Structures, “Infrastructure Vulnerability for Explosion Effects” Mannheim, Germany, May 8, 2003.

Glass Association of North America – Building Envelope Contractor’s Conference: “Blast Resistant Glazing”, Las Vegas, Nevada, February 10, 2003.

General Services Administration and Federal Protective Services, “Blast Engineering: Mitigating the Effects of Terrorist Attacks on Buildings,” Auburn Washington, January 28, 2003.

Structural Engineers Association of Metropolitan Washington, “Blast Design Fundamentals”, Washington, DC January 14, 2003.

Society of American Military Engineers, Oxnard-Ventura Post: Homeland Security Symposium, “Bombs and Buildings, What Rescuers Need to Know,” Oxnard California, November 21, 2002.

Federal Protective Services, “Blast Engineering: Mitigating the Effects of Terrorist Attacks on Buildings,” Los Angeles, August 19, 2002.

Structural Engineers Association of Northern California, “Structural Implications of Explosives Attacks,” with Lorraine Lin, San Francisco, August 6, 2002.

Seventh U.S. National Conference on Earthquake Engineering, “Building Occupancy Resumption Program”, Boston, Massachusetts, July 2002.

Seventh U.S. National Conference on Earthquake Engineering, “Building Occupancy Resumption Program”, Boston, Massachusetts, July 2002.

Seventh U.S. National Conference on Earthquake Engineering, “How Much Blast Protection do Seismic Provisions Provide?”, Boston, Massachusetts, July 2002.

Seventh U.S. National Conference on Earthquake Engineering, “Integration of Engineers in Collapsed Structure Rescue Response”, Boston, Massachusetts, July 2002.

General Services Administration and Federal Protective Services, “Blast Engineering: Mitigating the Effects of Terrorist Attacks on Buildings,” San Francisco, June 18, 2002.

American Society of Industrial Security (ASIS) International, “Mitigating the Effects of Terrorist Attacks on Building Structures through Blast Engineering,” with Lorraine Lin, San Jose, 2002.

Structural Engineers Association of Northern California and San Francisco Fire Department, “Blast Effects: Damage and Injuries Expected from Explosions,” with Eve Hinman, San Francisco, November 2001.

Teaching

US Army Corps of Engineers and FEMA Structures Specialist II - 6 day Advanced Rescue Engineering Course, May 2013, Mountain View California.

US Army Corps of Engineers and FEMA Structures Specialist II - 6 day Advanced Rescue Engineering Course, May 2012, Mountain View California.

US Army Corps of Engineers and FEMA Structures Specialist Regional Training- 2 day Refresher Rescue Engineering Course, April, 2012, Phoenix 2012.

US Army Corps of Engineers and FEMA Structures Specialist II - 6 day Advanced Rescue Engineering Course, May 2011, Mountain View California.

US Army Corps of Engineers and FEMA Structures Specialist II - 6 day Advanced Rescue Engineering Course, May 2009, Mountain View California.

US Army Corps of Engineers and FEMA Structures Specialist II - 6 day Advanced Rescue Engineering Course, May 2008, Mountain View California.

US Department of Homeland Security Incident Response to Terrorist Bombings, Socorro New Mexico, November 2007.

US Army Corps of Engineers and FEMA Structures Specialist II - 6 day Advanced Rescue Engineering Course, May 2007, Mountain View California.

US Army Corps of Engineers and FEMA Structures Specialist II - 6 day Advanced Rescue Engineering Course, May 2006, Mountain View California.

US Department of Homeland Security Incident Response to Terrorist Bombings, Socorro New Mexico, February 2006

Bureau Alcohol Tobacco and Firearms National Response Teams Annual Training "Building Response to Explosions and Fires" 8 Hour Course taught with Dean Tills, PE, December 2005, Gatlinburg Tennessee

General Services Administration Sponsored Firefighter Ingress/Egress Procedures and Training for Security Windows, Taught with San Jose Fire Captain Glenn McGuire, Washington DC Fire and EMS Department, October 2005

General Services Administration Sponsored Firefighter Ingress/Egress Procedures and Training for Security Windows, Taught with San Jose Fire Captain Glenn McGuire, Seattle Washington Fire Department, March 2005

US Army Corps of Engineers and FEMA Structures Specialist II - 6 day Advanced Rescue Engineering Course, November 2005, Mountain View California

US Army Corps of Engineers and FEMA Structures Specialist II - 6 day Advanced Rescue Engineering Course, March 2005, Mountain View California

Fire Department Instructor's Conference: "Bombs and Buildings, What Rescuers Need to Know, Indianapolis, April, 2004

Fire Department Instructor's Conference: "Anatomy of Disaster" with John Flynn, Captain FDNY Indianapolis, April, 2004

Fire Department Instructor's Conference: "Bombs and Buildings, What Rescuers Need to Know, Indianapolis, April, 2003

Fire Department Instructor's Conference – West: “Bombs and Buildings, What Rescuers Need to Know” Sacramento, California, February 12, 2003.

California Task Force 3, FEMA Urban Search and Rescue: “Bombs and Buildings, What Rescuers Need to Know” Menlo Park, California, January 30 through February 5 2003.

Publications

Arturo Montalva, Michael Hahn, Hollice Stone, Ayman El-Fouly, **Breach Evaluation of Structures Using the Applied Element Method**, Proceedings of SEI Structures Congress, 2013.

Michael Barker, Hollice Stone, David Hammond, John O'Connell, **"DHS Field Guide for Building Stabilization and Shoring Techniques"** new Department of Homeland Security Publication for stabilization of buildings post IED attack. September 28, 2011.

Hollice Stone, Elizabeth Ervin, Jon Rigolo, **"State of the Practice: Sensing and Monitoring for First Responders"** for the Department of Homeland Security Science & Technology Directorate, September 26, 2011.

Security Magazine, **Emergencies and Action Plans**, October 4, 2006
http://www.securitymagazine.com/Articles/Feature_Article/03909ca7e141e010VgnVCM100000f932a8c0

Hollice Stone, **Anti-Ram Vehicle Barriers: Rating Systems**, Stone Security Engineering White Paper, November 2, 2009

Hollice Stone, Marc Percher, and Willie Hirano (GSA), **"Blast Resistant Windows and Firefighter Forcible Entry and Emergency Escape,"** International Symposium on Interaction of the Effects of Munitions with Structures (ISIEMS), December 2005

Eve Hinman, Lorraine Lin, Hollice Stone, and Allison Roberts, **"Survey of Window Retrofit Solutions for Blast Mitigation,"** Journal of Performance of Constructed Facilities, American Society of Civil Engineers, Vol. 18, 86, 2004.

"Bombs and Buildings" article for Fire Engineering Magazine, March 2004.

Hollice Stone, **"Protective Design of Exterior Building Components in 20th Century Historic Structures"**, APT Bulletin Volume XXXV-1, 2004 – The Journal of Preservation Technology Special Focus on Security and Historic Buildings.

"Forcible Entry Demonstration Air-blast Resistant Window Systems" Office of the Chief Architect website, July 10, 2003.

"Integration of Engineers in Collapsed Structure Rescue Response" for July 2002 Earthquake Engineering and Research Institute Convention.

"Upgrading Window Systems for Explosion Effects" (with Joyce Engebretsen), Proc. Tenth International Symposium on Interaction of the Effects of Munitions with Structures, Sponsored by Defense Threat Reduction Agency, San Diego, California, September 30, 2001.

"The Basics of Blast Resistant Design" (with Joyce Engebretsen), Proc. 70th Annual Structural Engineers Association of California Convention, San Diego, California, September 2001.