Resume

Iman Alsharkawi, M.S.
Design Safety and Security Engineer

Background
Iman has a rich educational and career background as a multi-disciplinary engineer. She has several years experience in blast analysis and design, and coding. With her unique combination of knowledge, experience, and abilities, she helps the firm continuously evaluate ways to be forward leaning and to bring in successful approaches from other industries. In addition to this, she performs detailed blast analysis on projects serving several clients in different market sectors including Department of Defense, GSA, and private.

Representative Work Experience
Iman has participated in vulnerability, threat, and risk assessments around the world and security engineering design for buildings and structures ranging from historical building preservation and retrofits to new hospital facilities and cosmopolitan highrises. Representative efforts include:

- **Industrial Plant, Saudi Arabia:** Safety and Security Design Engineer for a Consequence Based risk assessment for 17 buildings at an existing industrial plant near Damman, Saudi Arabia. The assessment looked at the potential effects of the Maximum Credible Explosive events due to accidental releases in the manufacturing and storage areas of the plant. Building types included reinforced concrete masonry units and steel buildings with lightweight façade elements.
- **Intelligence Campus, Bethesda Maryland:** Safety and Security Design Engineer for this ATFP, Blast, and Progressive Collapse project consisting of two existing buildings required to meet ATFP criteria. Calculated air-blast parameters for multiple threats scenarios and performed blast analysis for existing concrete framed buildings, and blast design for new facades (precast, windows, curtainwall, metal studs). Also supported construction administration with RFI responses and submittal reviews.
- **Iconic Multi-Use Real Estate Development, Manhattan New York.** Blast Engineer supporting the design of the unitized curtainwall for the anchor tower in what has been termed "*the largest private real estate development in the history of the United States and the largest development in New York City since Rockefeller Center*."
- **New US Coast Guard Headquarters in St. Elizabeth's West Campus:** Blast Engineer for a 1.2 million square foot, 11-story building for blast and vulnerability mitigation. Calculated air-blast parameters for multiple threat scenarios and analysis for curtainwall and façade designs that would meet blast requirements and achieve LEED Gold certification.
- **Retrofit Design for New DHS Headquarters in St. Elizabeth's East Campus:** Blast Engineer for the largest construction project undertaken by the GSA that includes the assessment of 51 historic buildings for ATFP compliance. Calculated air-blast parameters for multiple threat scenarios and performed blast analysis for existing façades and windows, and designed new

retrofits that would meet ATFP requirements while preserving the historical finish of the buildings.

- **Project Legacy in New Orleans, Louisiana:** Blast engineer for the rebuilding of the VA Medical Center lost to Hurricane Katrina. Air-blast parameters for multiple threat scenarios were assessed on the 7 hospital buildings. Blast analysis was also conducted on the structure and façade elements to ensure that Mission Critical and Life Safety assets met the security and safety criteria of the VA. Also supported construction administration with RFI responses and submittal reviews.
- **COPT National Business Park:** ATFP design application for several new office buildings, including M Square, in Maryland. Blast analysis performed on structural and façade elements, including windows and precast panels. Reviewed shop drawings of precast panels and connections to structure for approval.
- **Cannon House, Washington, DC:** Blast engineer for window and façade retrofit designs for blast mitigation. Provided damage results to windows and facades for multiple threat scenarios. Provided retrofit options for ensuring the safety of the occupants.

Professional Affiliations

American Society of Mechanical Engineers
Member
Women in Aerospace
Member
American Institute of Aeronautics and Astronautics
Member

Education

George Washington University, School of Engineering and Applied Sciences, Washington, DC
Master of Science, Mechanical and Aerospace Engineering (2008)
Bachelor of Science, Mechanical Engineering (2006)

Brief Employment History

Design Safety and Security Engineer, Stone Security Engineering, PC – 2013 - present

Lead Technical Engineer, Hinman Consulting Engineers, Inc., Virginia (2008 - 2012)

Project Developer, Bewley Capital, LLC/ WBTD, Virginia (2007 – 2008)

Project Lead Developer, NC2 Aerospace, Inc (A Division of Bewley Capital, LLC) (2006 – 2007)

Teacher/Mentor, Walter Reed Army Institute of Research, Washington, DC (2006)

Public Speaking

ASCE Fifth Congress on Forensic Engineering "Structural Robustness Evaluation", Washington, DC, November 12, 2009.

Publications

Shalva Marjanishvili, Lara Leininger, Iman Alsharkawi, Michael Miraglia, **Structural Robustness Evaluation**, Forensic Engineering, 2009: Proceedings of the ASCE Fifth Congress on Forensic Engineering. American Society of Civil Engineers.