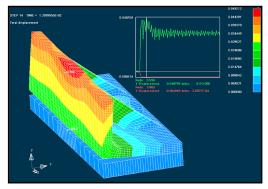
Blast & Protective Engineering

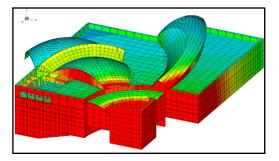


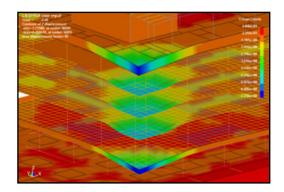
ARA is an internationally recognized leader in the field of protective engineering services. ARA's Blast & Protective Engineering Group specializes in the areas of blast analysis & design, explosive testing, progressive collapse, drawing review, specification development and design certification, drafting for concept level designs, red-line corrections, construction documents, as well as, related training and project support.

Areas of Expertise

- Blast Analysis, Design & Mitigation
- Explosive Testing
- Retrofit/Structural/Force-Protection Systems
- Facility Vulnerability Assessments
- Perimeter Barrier Design
- Extreme Load Designs
- Progressive Collapse Analysis & Design
- Design & Construction Support Services
- Dynamic & Static Analysis
- Linear & Non-Linear Analysis
- Test Range Design/Support
- Product Evaluation & Testing
- Forensic Analysis
- Evacuation Modeling & Simulation
- Code Analysis
- Training









Blast & Protective Engineering



Program Management Services

- Interagency Security Committee Risk Management Process & United Facilities Criteria Expertise
- Security Program Development
- Individual Security Project Support
- Federal Security Risk Management (FSRM) Assessment Support
- Security Design & Construction Criteria
- Quality Assurance/Compliance
- Standards & Policy Development
- Explosives Test Development/Execution

Specialized Application Development

- 3DBLAST & ATBLAST
- AT-Assessor
- SDOF
- WINGARD (Window Glazing Analysis Response & Design) LE, MP & PE Versions

Special Features

- State of the Art Methods
- Balanced Design Approach
- Full-Spectrum Professional Engineering Services
- Historical Designs
- Security Criteria Expertise
- Full-Scale Explosive Testing

Selected Clients

- Architecture and Engineering Firms
- Development and Construction Firms
- Fortune 500 Companies
- Manufacturers
- National Governments
- Non-Profit Organizations
- State & City Governments
- U.S. Federal Agencies

Representative Facilities

- Air Traffic Control Towers
- Airports
- Bridges
- Buried and Hardened Structures
- Courthouses
- Embassies
- Federal Buildings
- Headquarters
- High Rise Office Buildings
- Military Facilities
- Museums
- National Monuments
- Secure Rooms
- Tunnels
- Vaults

