

Engineering Express®

Company History

Founded in 1995, **Engineering Express®** has evolved into a unique, structural, engineering firm assisting municipalities, contractors, architects, developers, manufacturers and homeowners with a variety of engineering projects, both large and small, in many states throughout the country.

It has been our goal to provide these services with the highest quality standards utilizing the latest technology and talented staff to provide prompt, professional work at competitive prices. **Engineering Express®** is the realization of that goal.

The Company is positioned to provide state-of-the-art technology utilizing the internet for clients to pre-design, research, approve and order engineering services. Some tools are now available to the public with limited functionality. Other fully functional tools are only available to clients of **Engineering Express®**. Clients gain full access to all public calculators plus a wealth of additional calculators, tools and resources customized for their industry; i.e. Powers™ anchor calculator, wind pressure calculator, wall sheathing calculator, sign post & footing calculator, fence post & footing calculator, plus over 30 multi-page calculators for hundreds of other uses.



A FRANK L. BENNARDO, P.E., INC. INNOVATION

160 SW 12th Avenue #106
Deerfield Beach, Florida 33442
(954) 354-0660 - www.engexp.com

Select Recent Project History

2006- Glass Engineering & Installation, Inc./ Moss & Associates a privately held construction company that is ranked among the nation's top 100 building contractors and second largest in South Florida with annual revenues topping \$649 million. We were contracted for City Place at South Lower in West Palm Beach for storefront shop drawings, grout beds, anchor, shim and steel calculations, and numerous field inspections.



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Select Recent Project History

2007 - Retained by Enclos Corp., an expert in the engineering, assembly and erection of custom curtainwall systems for their Darden Restaurants project, who is the largest full-service dining restaurants company in the world with 6.7 billion in annual sales whose headquarters are located in Orlando, Florida. Our firm was hired to do design the glass and glazing shop drawings and calculations, assembly drawings, louver drawings, composite panels and sheet metal. We have spent hundreds of hours consulting, drafting and engineering this project.

We continue to design for Darden throughout the state of Florida.



Select Recent Project History

2007 - Hired by Architectural Glass and Glazing/Skanska Corp. for The Peninsula at St. Johns Center a 36 story residential building located in Jacksonville, Florida. Our scope of work was to engineer exterior glass and glazing shop drawings, calculations, inspections and assessment consulting to repair existing glass installations.



Completed Projects

2005 to 2008 – Retained by Harmon Incorporated of which we have been the engineer of record for the stadium concourse expansion. Engineering Express was also retained for the shop drawings and calculations of the glass & glazing and metal grills for the Dolphin Stadium located in Miami. Dolphin Stadium completed a \$250m renovation and improvements project in 2007 which transformed it into the premier stadium of the Americas.



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Completed Projects

2008 – Ames Design International, hired as the engineer of record for the design, Engineering Express® provided structural elements, shop drawings, calculations and field visits of the new Boynton Beach Medical Center.



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Key Personnel

Frank L. Bennardo, P.E. Principal

After receiving his Bachelor of Science Degree in Civil Engineering in May, 1988 from Tulane University in New Orleans, LA, Frank L. Bennardo, P.E. trained with the Florida Department of Transportation in their highly acclaimed Professional Engineer Training Program where he was promoted in July, 1992 to the Department's head of the Permits and Contracts departments and sole Broward County expert engineering witness.

In February, 1993, He became licensed as a Florida Professional Engineer and in July, 1994 as a Florida General Contractor, designing and constructing residential additions and renovations. In 1996, he took on the structural design of large housing developments in South Florida, and excelled as a proficient structural designer and field inspector.

This work introduced him to the expeditious need for proper, accurate, and professional specialty designs for structures such as commercial storefront & curtainwall, windows, doors, and storm protection, their related product approvals, marine and wood docks and decks, specialty structures for schools and government municipalities, field inspection and expert witness testimony. Work in these areas led to licensure in 26 states in the U.S. spawning nationwide attention to their resources and abilities. Specialty work has now grown to full primary structure engineering for new constructions, custom renovations and additions.

His focus then evolved to developing his engineering company to meet these evolving and growing engineering needs of contractors, manufacturers, homeowners, architects, and developers nationwide utilizing state-of-the-art technology, cutting edge industry resources, and a highly skilled staff. *Engineering Express*® is the realization of that dream, a revolutionary and patent-pending concept aimed at utilizing the latest in technology-based interactive services, and accomplishing in engineering what the Home Depot did for hardware, providing these smaller yet widely needed engineering services to manufacturers, contractors, architects, and homeowners in a systemized fashion with rapid deployment and unparalleled accuracy in a manner never before imagined.

Areas of Expertise:

- Substantial current working field knowledge of, and diverse experience in, residential and commercial new construction, additions, and renovations.
- Extensive design experience in aluminum and light metal structures, storefront and curtainwall glazing applications, and marine engineering.
- Numerous Metro Dade County , SBCCI, ICC, AAMA, ASTM, and Florida Building Code Product Approval engineering package evaluations, validations, & certifications (over 100 to date and counting)
- Experienced in forensic engineering, and expert witness testimony & depositions both as the sole expert witness in Broward County for the Florida DOT for hundreds of roadway claims from 1992-2000, and as a consulting engineer hired for work in many of the departments serviced by Engineering Express.



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Key Personnel

- Specialty work and substantial working knowledge in custom computer applications and resources to facilitate next-generation engineering utilizing the latest technologies available.
- Expertise in the field of curtainwall and storefront glazing, projects include:
 - Pro Player Stadium Expansion, Miami, FL
 - Hard Rock Hotel & Casino, Hollywood, FL
 - Fort Lauderdale Grand Hotel, Fort Lauderdale, FL
 - Pier 66 Renovation, Fort Lauderdale, FL
 - Expert witness for cases in local & federal courts

Career Summary:

- Graduate of Tulane University, New Orleans, LA, B.S.C.E., 1988
- Licensed Florida General Contractor (1994-1998, now inactive).
- Licensed Florida Professional Engineer, 1993
- Licensed as a Professional Engineer in the following states:

Alabama, Connecticut, Delaware, Florida, Georgia, Indiana, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont and Virginia.

Industry Affiliations:

- American Society of Civil Engineers
- Florida Engineering Society - Current President 2008, Broward Chapter
- International Hurricane Protection Association - Board of Directors member, 2006, 2007, 2008 and Guest Lecturer for continuing education credit for members
- National Society of Professional Engineers
- American Association for Wind Engineering
- Florida Structural Engineers Association - Certified in the practice of Structural Engineering by SECB
- Florida Atlantic University Engineering Advisory Board - Board member, 2004-present
- Tulane University School of Science and Engineering Board Of Advisors - Board Member, 2008-2010
- Guest & Keynote Speaker for Tulane University Forums & ASCE New Orleans on topics of Wind Design & related hurricane preparation topics
- Guest speaker for the Broward County Building Officials and Inspectors Education Association



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Key Personnel

Andrew Piedra Project Manager - Project Technician

Andrew Piedra started his lifetime of experience in the window and door industry as a very, young man. His father worked for Security Windows and Andrew grew up in the business. In 1989 Andrew owned and operated his own glass and glazing business by subcontracting to industry leaders such as Traco Windows & Doors, RC Aluminum and Prime Miller Corporation while attending college. He received his Associates in Engineering Technology from Miami-Dade Community College and an Associates in Science and Technical Drafting. While operating as a sub-contractor, he attended the University of Florida for Structural Engineering.

In 2000, Andrew was employed as a project manager for Gold Coast Windows & Doors out of Tamarac. His experience encompassed the commercial high-rise industry as well as residential. Andrew joined Engineering Express in 2006 and has contributed to a host of notable projects.

Areas of Expertise:

- Curtainwall & Storefront consultation, design, analysis, and inspection
- Commercial & Residential window and door applications
- Wind load calculation assistance
- Field consulting
- Value engineering and project management
- Site assessment design

Career Highlights:

- Assisted in the design, engineering, and inspection of curtainwall systems, steel host structures for notable projects such as:
 - Dolphin Stadium in Miami, FL
 - Darden Restaurant master chain hub in Florida
 - The Peninsula Condominium in Jacksonville, FL
 - Retrix Airport in Sarasota, FL
 - NASA Service Center at the Stennis Space Center in Mississippi
- Storefront systems consultation, design, and inspection including projects such as:
 - Ft. Lauderdale Grande Resort, Ft. Lauderdale, FL
 - City Place at South Tower in Palm Beach, FL
 - The Peninsula Condominium in Jacksonville, FL
- Interior glass and glazing systems for the FAU Student Support Services, School of Nursing, and library expansion buildings
- Residential and Commercial custom Door & Window design and inspection and certification:
 - Donald Trump's Mar-A-Lago in Palm Beach, FL
 - The Peninsula Condominium in Jacksonville, FL
- Consultant and designer for Vistawall in Florida and Georgia on several projects local and national



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Key Personnel

Vaughn Johnson Project Manager – Structural Designer

Vaughn Johnson earned a Bachelor of Science Degree in Civil Engineering from Florida Institute of Technology (Florida Tech) in 1993 with emphasis in structural design, construction project management and urban planning. His record has been one of increased responsibility, variety in job assignments and solid leadership ability. Prior to accepting the position as Primary Structures Department Manager at Engineering Express, Mr. Johnson has contributed significantly to the accelerated construction development in the south Florida market over the past fifteen (15) years. He has worked in a regulatory capacity in conjunction with Broward County Blasting Division in the oversight of public safety and property during the blasting and excavation of major canals, community lakes and building implosions. The protection of surrounding buildings within the critical blast radius was paramount and limiting destructive wave propagation due to ground disturbance was an engineering challenge.

Mr. Johnson launched into another facet of the industry which at the time was considered to be natural progression based on the overwhelming demand for residential housing and commercial buildings. This is where he shined by pooling the knowledge and professional relationships acquired over his years of experience and industry contacts.

Areas of Expertise:

- Structural design, analysis and field inspection of commercial and residential structures; tilt-up wall design and steel inspection; truss layout and inspection of anchorage and bracing; wind load/uplift calculations
- Foundation design and inspection, unit masonry design and reinforced concrete design in compliance with the provisions of ASCE 7 and ACI Building Code Requirements}
- Field Monitoring and analysis of ground vibration and air pressure levels from land development Design procedures for reducing ground vibration due to seismic activity
- Pre-blast inspection and post-blast damage assessment of structures

Career Highlights:

Appropriately and now armed with the experience and knowledge of blast design, Mr. Johnson entered the specialized field of structural preservation and renovation of high-rise buildings along south Florida's Atlantic Coast. Again, he worked effectively with most of the professional disciplines in the construction industry to achieve great success. Vaughn has career experience working with distinguished firms such as Brennan Engineering, Nodalco Engineering, GeoSonics and Structural Preservation Systems. He was instrumental in the field of design and inspection for such projects as:

- The Diplomat Hotel in Hollywood, FL
- Everglades Construction Project in 1998 and on-going
- Silver Lakes Infrastructural Development
- City of Weston, Florida Seepage Barrier



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