

PROFESSIONAL SUMMARY

- ▶ Bachelor of Science in Civil Engineering; University of Houston, 2012.
- ▶ Primary areas of consultation: STRUCTURAL – Analysis of: foundations of steel, timber, and reinforced concrete, residential and commercial structures; superstructures of reinforced concrete, structural steel, wood, and timber. Analysis of the design of structures, lifting devices, and rigging for single point lifts of structures and equipment (up to 600 tons). CIVIL – Analysis of roads and bridges, earth retaining structures, storm drainage collection and drainage structures, sanitary drainage collection and treatment structures, water supply distribution and irrigation systems, and site work design including compliance for handicap access.
- ▶ Extensive experience since 2012 in residential construction, home inspections, loss investigation and documentation. Additional experience in management and manipulation of various computer-based applications in finite element analysis, structural design, O&G Pipeline, hydrology, and AutoCAD design in various facets.
- ▶ Over 11 years of Structural Analysis and Design.

EMPLOYMENT RECORD

- ▶ 2023-Present **McDOWELL OWENS ENGINEERING, INC.** *Houston, Texas*
Consulting Engineer Investigations and analyses of structural failures. Structural investigations for damage due to hurricanes, tornadoes, earthquakes, floods. Projects include foundations and structures of residential, commercial, and industrial buildings; stacks, bridges, roof structures, earth retaining structures, and construction shoring. Investigations and analyses of civil projects for storm water management and construction dewatering.
- ▶ 2022 –2023 **PROPERTY CONDITION ASSESSMENTS (PCA LLC)** *Remote*
Structural Assessor Performed structural condition assessments on residential, commercial, and industrial office, industrial properties. Investigated and assessed conditions of the grounds, building envelopes, framing, and foundation for structural defects, root-cause of degradation, and recommended scope of repairs. Provided cost assessments for short-term and long-term maintenance based on compliance codes. Provided narratives and photo reports highlighting structural composition of the property and current conditions.

- ▶ 2019 –2022 **ALFRED BENESCH & CO.** *Boston, MA*
Project Engineer Prepared bridge load ratings, involving superstructure load calculations using AASHTOWare and/or MDX for modeling and analysis, and compiling reports in accordance with MassDOT standards. Performed bridge inspections on various bridges and culverts. Performed peer reviews for load rating calculations and inspection reports to verify accuracy.

- ▶ 2018 –2019 **MASS CRANE & HOIST** *Tyngsboro, MA*
Project Manager/Structural Engineer Supervised and performed structural design and detailing of crane system for fabrication and installation. Procured components of system (steel, hoist, electrification, hardware, equipment, trucking) and coordinated with scheduler, fabrication shop, installers, and customers. Consulted on technical drawings and specs, and supported design execution in the construction field while assuring safety, quality, and compliance with design plans.

- ▶ 2017 –2018 **KUWAIT TECHNICAL CONSULTING BUREAU (KTCB)** *Kuwait City, Kuwait*
Bridge/Structural Engineer Worked on the engineering team to design and develop projects. Liaised with the client (Ministry of Public Works) and contractors to maintain schedules. Provided technical direction and interpretation of engineering drawings and specs, using ASTM codes. Inspected civil and structural site works to ensure compliance, and consulted at concrete and asphalt batching plants for quality and compliance testing.

- ▶ 2015 –2016 **S&V ICF** *Houston, TX*
Project Engineer Provided structural engineering design for commercial and residential buildings in accordance with the IBC, IRC, ACI and other supporting codes. Reviewed analytical data for technical reports, facilitated project meetings between contractors and the firm, supported design execution in the construction field, and monitored and supervised contractors and foreman.

- ▶ 2012 –2014 **DANNENBAUM ENGINEERING CORP.** *Houston, TX*
Bridge Engineer Contributed to structural design of connector bridges for SH99 Grand Parkway and SH290 in Houston, Texas. Coordinated with the structural team to design beams, columns, and foundations in compliance with TxDOT regulations, AASHTO LRFD Bridge Design Specifications, and other supporting codes. Reviewed project plans and shop drawings for accuracy.

▶ 2012 –2012 **SIGMA ENGINEERING SERVICES**

Houston, TX

Intern/ Associate Engineer Supported various design projects for industrial contractors, meeting the company's standards of excellence. Projects included 180 ft. high free standing exhaust steel stack using ASME STS-1-2011 code. Concrete structure to support 5000kips lateral test load for a petrochemical testing facility in Houston. 8ft. diameter, 19ft. deep concrete wet week for a new lift station in Fort Bend County, outside of Houston, Texas. Pipeline supports of various sizes.

EDUCATION

- ▶ Bachelor of Science, Civil Engineering University of Houston, Houston, TX, 2012

REGISTRATIONS, LICENSES & CERTIFICATIONS

- ▶ Licensed Professional Engineer:

✓	Massachusetts	No. 55037	(Active)
✓	Texas	No. 143917	(Active)
✓	Georgia	No. PE050054	(Active)
✓	Pennsylvania	No. PE094242	(Active)
✓	Louisiana	No. 47774	(Active)
✓	Florida	No. 96633	(Active)

- ▶ NHI-130056: Safety Insp. of In-Service Bridges for Professional Engineers- 2021
- ▶ Certified Associate in Project Management (CAPM)- Jan 2018
- ▶ OSHA 10-Hour Course- Sept. 2017
- ▶ Permit & Non-Permit Confined Space Entry (OSHA 29 CFR 1910.146)

PROFESSIONAL MEMBERSHIPS

- ▶ American Society of Civil Engineers (ASCE)
- ▶ American Wood Council (AWC)
- ▶ National Fire Protection Association (NFPA) (Company Affiliation)
- ▶ American Society for Testing and Materials (ASTM) (Company Affiliation)

CONTINUING EDUCATION

- ▶ Cross Laminated Timber Shear Wall Example, November 17, 2022
- ▶ A Brief Introduction to Wood Material Science, September 29, 2022
- ▶ Mass Timber Structures: Codes and Adoptions, August 25, 2022
- ▶ Design of Wood Lateral-Force Resisting Systems, March 23, 2023
- ▶ Earth Retaining Structures, March 23, 2023
- ▶ Geo-Structural Investigation of Existing Structures, March 23, 2023

Revised May 18th, 2023