

Vacek LLC

Structural & Architectural Engineering

SAM S. VACEK, P.E.
Structural & Architectural Engineer

PROFESSIONAL SUMMARY

Forty-eight years experience as a Structural/Architectural Engineer with experience in structural design, failure analysis, and construction monitoring of industrial, commercial, and residential structures. Building envelope investigations, analyses, and designs.

Master of Science Degree in Civil Engineering

Bachelor of Science Degree in Architectural Engineering

Registered Professional Engineer in Multiple States

Member of Several Professional Organizations

Chair of the Architectural Engineering Institute AEI Build Envelope Technical Community

Texas Department of Insurance Qualified Windstorm Inspector

City of Houston Special Inspector

Patented Self Sustaining, Fresh Air, Energy Reducing, Mold Resistant Structural Ventilation System

Primary Areas of Consultation and Expertise:

- Single family and multi-family residences, schools, office warehouses, strip shopping centers, restaurants, commercial office buildings, industrial buildings, hospitals, bridges, towers, and retaining structures.
- Thorough familiarity with the International Building Code, International Residential Code, Uniform Building Code, Standard Building Code, Life Safety Code, Underwriters Laboratories Building Materials Directory, International Conference of Building Officials Research Reports, and applicable Occupational Safety & Health Administration requirements.
- Thorough experience in computer aided design and analysis.
- Building envelope investigations, analyses, and designs.

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PROFESSIONAL EXPERIENCE

- 1993 to Present **VACEK LLC (formerly VACEK GROUP, LLC)**
Porter, Texas
Structural/Architectural Engineer
Responsible for the design and failure analysis of structures and their individual components. Experience includes single family & multi-family residences, commercial office buildings, historical buildings, industrial complexes, institutional structures, parking garages, tanks, bridges, retaining structures, and towers. Forensic investigations and expert witness services provided for cases such as structural failures, explosions, fires, foundations, plumbing leaks, moisture analyses of buildings, construction defects, and third party opinions. Building envelope investigations, analyses, and designs. Computer aided design and analysis utilized.
- 1988 - 1993 **CH&A CORPORATION**
Kingwood, Texas
Senior Structural Consulting Engineer
Responsible for the design and failure analysis of structures. Projects include single family & multi-family residences, commercial office buildings, industrial complexes, institutional structures, parking garages, petrochemical facilities, tanks, bridges, retaining structures and towers. Computer aided design and analysis utilized. Forensic investigations and expert witness services provided for cases such as structural failures, foundations/plumbing leaks, moisture analyses of buildings, construction defects, third party opinions, and slip and falls. Damage assessments for structures having been affected by explosions and seismic activity. Computer aided design and analysis utilized.
- 1987-1988 **ASL CONSULTING ENGINEERS**
Santa Ana, California
Structural Department Manager/Project Manager
Responsible for operation of structural office for ASL Consulting Engineers in Santa Ana, California utilizing computer drafting and engineering for design, analysis and investigations. Projects include office buildings, bridges, schools, hospitals, single and multi-family residential, pump stations and reservoirs. Damage assessments performed for structures involved in earthquakes.
- 1984-1987 **VACEK STRUCTURAL CONSULTANTS, INC.**
Houston, Texas and Santa Ana, California
President
Responsible for complete operation of six person structural engineering firm with the application of computer drafting and engineering for design, analysis and investigations. Projects include single-family residences, multi-family dwellings, office warehouses, strip shopping centers, commercial office buildings and water treatment structures, bridges, schools, hospitals, pump stations and reservoirs.

- 1980-1984 **INTERFIELD ENGINEERING COMPANY**
Houston, Texas
Structural Department Manager/Project Manager
Responsible for client relations, production and coordination of civil, structural, mechanical, electrical and plumbing disciplines of various projects including single-family residential, multi-family residential, office warehouses, strip shopping centers, commercial office buildings and medical office condominiums.
- 1978-1980 **B.A. KALMANS & ASSOCIATES**
Houston, Texas
Structural Project Engineer
Responsible for design, production, and client relations of various projects including single-family residences, strip shopping centers, office warehouses, and commercial office buildings.
- 1977-1978 **WALTER P. MOORE & ASSOCIATES**
Houston, Texas
Structural Design Engineer
Responsible for design calculations and detail development of various projects including schools, strip shopping centers, and commercial office buildings.

EDUCATION

Bachelor of Science Architectural Engineering
University of Texas, Austin, Texas, 1976

Master of Science Civil Engineering
University of Houston, Houston, Texas, 1979

REGISTRATIONS

Registered Professional Engineer in the States of Arkansas (inactive status), California (inactive status), Florida (inactive status), Louisiana (inactive status), Oklahoma (inactive status), Mississippi (inactive status), New Mexico (inactive status), Nevada (inactive status), South Dakota (inactive status), and Texas (active status).

APPOINTMENTS

Chair of the Architectural Engineering Institute
AEI Build Enclose Technical Community

Texas Department of Insurance Qualified Windstorm Inspector

City of Houston Special Inspector

AFFILIATIONS

American Concrete Institute
American Institute of Steel Construction
American Society of Civil Engineers
American Society of Heating, Refrigeration, and
Air-Conditioning Engineers
Architectural Engineering Institute
Greater Houston Builders Association
Structural Engineers Association of Texas

PRESENTATIONS

Structural Ventilation of the Building Envelope
Architectural Engineering Institute, Spring 2021

Structural Ventilation of the Building Envelope
Architectural Engineering Institute, Spring 2023

Structural Ventilation of the Building Envelope
American Society of Heating, Refrigeration, and
Air-Conditioning Engineers, Summer 2023

PATENTS

System and method for inhibiting moisture and mold in an outer
wall of a structure.

Publication number: US7247090B2

Publication date: July 24, 2007

Systems and methods for controlling air properties in structures and in-
hibiting moisture accumulation and mold propagation in structures

Publication number: US11248814B2

Publication date: February 15, 2022

Systems and methods for controlling air properties in exterior and interior
walls

Publication number: Pending

Publication date: Pending

AWARDS

Most Innovative Architectural Engineering Company - Southwest USA by
BUILD Construction and Engineering Awards 2020

Most Innovative Architectural Engineering Company - Southwest USA by
BUILD Construction and Engineering Awards 2024