



## Gene Farach, PE

1591 Highway 67

Clinton, Iowa 52732

Email: [gene\\_farach@yahoo.com](mailto:gene_farach@yahoo.com)

Web Site: <http://www.genefarach.com>

Phone: (563) 559-6558

My name is Gene Farach and I am a licensed Professional Structural Engineer. I have been practicing Structural Engineering for nearly 40 years. My activities in this profession include management of both staff and projects; establishment of design concepts and execution of designs; efforts in research and development – particularly new structural systems; administration, marketing and business development; teaching cold formed engineering at Montana State University on their Continuing Education Program.

Areas of building material design expertise include; concrete, steel, aluminum, wood, masonry and cold formed steel. Expertise in crane/material handling systems, some post-tensioned and specialty foundations; buildings which include – commercial, institutional, religious, airports, government; some bridge design, and both light and heavy industrial.

Expert skills in - seismic, wind, structural computer modeling, forensic, marine structures, and construction management. Under production of design documents, I am fluent in AutoCAD and familiar with REVIT Structural.

In the development and production of design processes, I use the programing advantages inherent in the Visual Basic environment of Microsoft Excel; I also use Wolfram Mathematica. For computer modeling, I use RISA and StadPro. Many of my Projects have been published in several national as well as international publications.

I have authored engineering articles. I build teams, mentor younger engineers, and encourage them to improve their technical competency while maintaining practical engineering practice. I strive to be up to date on technical matters and to be a team contributor.

I am interested in finding an organization that can utilize my experience and expertise to prosper, to accomplish a great service to the market and to create works of engineering that will provide for continued business.

I would appreciate your consideration and if my qualifications match your needs – I would love to hear from you.

Please visit my web site at: [www.genefarach.com](http://www.genefarach.com) – it harbors a more comprehensive summary of my background and experience.

Warmest regards,

Gene Farach, PE



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## CAREER SUMMARY

I have been practicing Structural Engineering for nearly 40 years. My activities in this profession include management of both staff and projects; establishment of design concepts and execution of designs; efforts in research and development – particularly new structural systems; administration, marketing and business development; teaching cold formed engineering at Montana State University on their Continuing Education Program. Areas of building material design expertise include; concrete, steel, aluminum, wood, masonry and cold formed steel. Expertise in crane/material handling systems, some post-tensioned and specialty foundations; buildings which include – commercial, institutional, religious, airports, government; some bridge design, and industrial. Expert skills in - seismic, wind, structural computer modeling, forensic, marine structures, and construction management. Under production of design documents, I am fluent in AutoCAD and familiar with REVIT Structural. In the production of design processes, I use the programing advantages inherent in the Visual Basic environment of Microsoft Excel; I also use Wolfram Mathematica. For computer modeling, I use RISA and StadPro. Many of my Projects have been published in several national as well as international publications. I have authored engineering articles. I build teams, mentor younger engineers, and encourage them to improve their technical competency while maintaining practical engineering practice. I strive to be up to date on technical matters and to be a team contributor.

## EDUCATION

- ✓ Bachelor of Science in Civil Engineering with major in Structures – University of Florida – 1976
- ✓ Continuing Education – 1976 → To the Present
  - Advance Steel Design AISC 14<sup>th</sup> Edition – University of Iowa - 2012
  - Advanced Structural Steel Design – Illinois Institute of Technology – 1999
  - Structural Dynamics – Montana State University – 1994
  - Seismic, Concrete, Steel, Post Tensioned, Computer Aided Design (AutoCAD)
  - Programing C++, Visual Basic 6.0, Data Structure using C++
- ✓ Westlawn Institute of Marine Technology – Presently attending online curriculum

## PUBLICATIONS and AWARDS

- ✓ Twelfth International Conference on Cold Form Steel Structures, October 1994, U.S.A.: "Light-Gauge Engineering in Today's Marketplace – The Challenges."
- ✓ Metal Architecture, January 1988, U.S.A.: "Light-Gauge Structural Frame Wekiva Oaks."
- ✓ Walls and Ceilings, August 1987, U.S.A.: "Old Meets New in Orlando."
- ✓ Modern Steel Construction, May-June 1987, U.S.A.: on the cover – The Orlando Florida, U.S.A., Bus Terminal, Award Winning Project.
- ✓ Architecture, March 1987, U.S.A.: "Building Borrows from Oil Rig Technology:"
- ✓ Nikkei Architecture, January 1987, JAPAN, "Orlando, Florida, U.S.A. Downtown Bus Terminal"
- ✓ Florida Association of the American Institute of Architects Award – Downtown Orlando Bus Terminal 1986.

## PROFESSIONAL WORK EXPERIENCE

### The Farach Group 2014 – Present Principal

Responsible for ongoing Structural Projects, Administration and Business Development:

1. Consulting
2. Project development
3. Business Development

### IIW, PC 2013 – 2014 Senior Structural Engineer

Responsible for ongoing Structural Projects, Administration and Business Development:

1. Consulting
2. Project development
3. Business Development

### SSAB North America, Inc. 2011 – 2013 Civil | Structural Facilities Engineer

Responsible for ongoing Civil | Structural Projects at all North American Facilities. Sample Projects:

1. Railroad Embankment Rehabilitation
2. Various structural corrective measures to bring buildings into code compliance
3. Crane systems structural review and fatigue study of runways; inspections

### Whitman, Requardt & Associates, Inc. 2008 – 2011 Senior Project | Structural Engineer

Design/Manage ongoing projects for both in house and outside clients; provided mentoring to young engineers. Sample Projects:

1. I-95 Northbound Interchange Toll Plaza bridge
2. Various building structural projects of a commercial, government and recreational nature
3. Rehabilitation of existing structures at NSA to accommodate new programs

### Alliance Engineering, Inc. 2004 – 2008 Principal Engineer

Responsible Structural Engineering Department in Baltimore; design/manage ongoing projects for both in house and outside clients.

Sample Projects:

1. Rehabilitation of existing buildings to accommodate new structural loading while bringing them to code
2. New building structural design for commercial, industrial and government clients
3. Design of crane systems; structural review and fatigue studies; supervised installations

### Wärtsilä North America, Inc. 2002 – 2004 Senior Structural Consultant

Structural Consultant for previous National and International projects. Sample Projects:

1. Rehabilitation of ongoing structural design for "peeking power plant" lacking wind design by original engineer of record
2. Review of structural projects in Finland, Africa and Poland for code compliance

## OTHER PROFESSIONAL WORK EXPERIENCE 1976–2002

Washington Equipment Company – Engineering Manager

United State Gypsum Company – Research and Development Structural Engineer

The Farach Group – Owner and Principal

Other Consulting Firms – Structural Engineer

## ENGINEERING SKILLS

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Through my many years of practice I have honed essential areas of expertise within the profession. These skills have provided clients with expert service and my colleagues and employers with the engineering savvy to deliver excellent engineering projects.

### Computer Modeling | Finite Element Analysis

Computer modeling is the single most important skill of the structural engineer. I have honed this skill because production and good design solutions depend on the ability of the designer to predict structural behavior and stability. I use RISA3D for all my modeling needs and my familiarity with this software dates back to 1987 when the software first hit the market.

### Building Design

I have designed building for all activities - religious, government, commercial, hotels, mid-rise, FEMA shelters. These in various region of the country and abroad - in areas of high winds, seismic, and specialty buildings to house activities of sheltering and security. The materials varied - steel, concrete, masonry - both reinforced and unreinforced, brick - also reinforced and unreinforced, wood, light-gauge, and prestressed.

### Material Handling Systems

I have designed many crane systems. The majority being overhead type cranes. These either double bridged, single bridged, overhead or underhung. I have also reviewed many runways systems for fatigue and I have upgraded capacities of many crane systems to accommodate new more demanding processes. While at WECO as Engineering Manager, I developed software to carefully analyze the design for bridge and runways beams taking into account the issues to torsion and the development of the Warping Constant for the various beam arrangements - this is where numerical analysis was programmed to provide for the most accurate representation of stresses distribution of the framing.

### Business Development

My skills in business development were both honed and tested when partner with Irwin G. Cantor – structural engineers, New York City. We opened an office in the Tampa, Florida area during the economic downturn of the early 1980's. I was the VP in charge of the office and I had to meet a level of account receivables in order to make a go of the venture - one of the most challenging experience of my career. Fortunately, my efforts were rewarded and we managed to stay in business and grow! My next venture was when I opened The Farach Group. We were in business for ten years and my market went from the local Central Florida to National.

### AutoCAD by AutoDesk

I have been using AutoCAD for production of design documents for many years. I am quite proficient and use it not only as a drafting tool but also as a design tool. There are many cases where accuracy is important in structural design - particularly when space is limited. AutoCAD through its inherent accuracy is a great tools to determine if conflicts occur. Additionally, I sometimes draw details that subsequently become "blocks" that are brought into drawings. I also use AutoCAD to draw geometric arrangements that become part of my Excel Visual Basic program aid for user input.

### Structural Design | Building Materials

Design is at the very core of the service we provide as Structural Engineers. Knowledge in engineering with ALL of the building materials then becomes a necessity. I have worked with concrete, steel, aluminum, masonry, wood and composites in the development of successful projects. I have made it my priority to stay current with all of the pertinent codes that governs design.

### Seismic Design

While in Montana I designed a 400'-0" bag-house stack located in what was Zone III at the time. In that same tenure, I designed the first seismically constructed bridge in the State. The bridge went over the Flathead River near the Kalispell area not too far from Glacier National Park. My exposure to seismic design has been quite varied – from very actively seismic areas to sporadic in non-sensitive seismic areas. I am quite familiar with the IBC and ASCE 7-10 seismic design requirements and the seismic construction details for connections in ALL materials.

### Forensic

I have been called, in my capacity as a licensed Professional Engineer, to render opinions on structural issues. One in particular that comes to mind is the collapsed of a Sears in Saint Johns, Newfoundland, Canada. Heavy snow brought the building's roof down. I acted as an expert forensic engineer to determined why the roof failed - after many computer modeling and calculations, the engineer of record conceded to error that I discovered and the case was settled - luckily, there were no fatalities or injuries.

### Mentor of Young Engineers

In this profession what we learn in school is only a small beginning into a very demanding career. It is only through the efforts of Senior Mentoring that young engineers can be properly prepare to be economic contributors to an organization. Therefore, any efforts in this area is always an asset. In my experience it takes patience, dedication and persistence to be a good mentor. In this capacity I have had the pleasure of working with some very dedicated young engineers always eager to learn. My approach is very simple - I try to show them what I term "the global view", and then we move in into the details. Mentoring is the responsibility of Senior folks and when an organization has able and willing Senior people - this is a very valuable asset to have and should be encouraged at every turn.

### Computer Programming in Visual Basic - Microsoft Excel

I have been an avid programmer for many years. The Visual Basic environment within Microsoft Excel is my favorite. It helps organize the input in a logical fashion and the formatted results becomes easy for anyone checking my work and the steps taken to reach a solution. My programs are populated heavily with standard drawings, and copy of portions of the code so it can be followed, also graphics paired with pictures that aid in the input for the user. The window's environment in Visual Basic is generously exploited - which acts as an "error" deter. I have many programs that summarizes code design processes that are long and tedious. Such as wind design and seismic design...among many! These have been very successful in reducing design time and avoiding errors

## PERSONAL & PROFESSIONAL INFORMATION

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**JOB TITLE:** Senior Structural Engineer | Project Manager | Business Developer  
**JOB FUNCTION:** Engineering; Management; Business Development & Mentoring  
**EDUCATION:** Bachelor of Science in Civil Engineering – Major in Structures

**EMPLOYMENT:** Any Position Type  
**LICENSES & CERTIFICATIONS:**

**Iowa:** Professional Engineer No. 11194

**Maryland:** Professional Engineer No. 31447

**SALARY:** Negotiable – Appropriate for the Position Type

**SECURITY CLEARANCE:** Inactive Top Secret/SCI

**CITIZENSHIP:** U.S Citizen

**LANGUAGES:** Fluent Spanish (Castellano) – Technical and Conversational

**PERSONAL:** Mayor City of Longwood Florida 1988 - 1990 – In Central Florida near Orlando