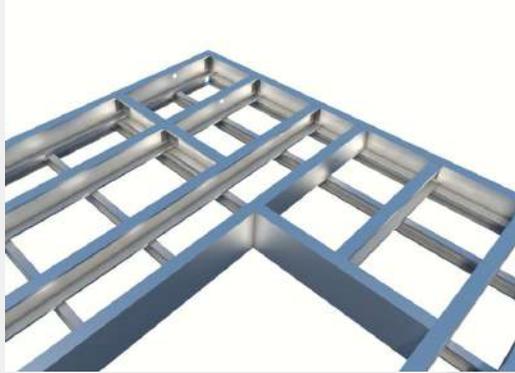




**RANDALL**  
FAMILY COMPANIES

# RANDALL ENGINEERED WALL SYSTEMS



**RANDALL ENGINEERED  
WALL SYSTEMS**



**Thin Is In**  
**NEW HYBRID THIN-SHELL PRECAST**  
**WALL SYSTEMS DO MORE FOR**  
**LESS**

**RANDALL**



# THIN IS IN

Randall Engineered Wall Systems Concrete and Steel Hybrid Panels score high marks for safety and durability.

- Reduces Overall Weight of the Building
- Reduce Foundation Design
- Speed to Market Faster than Masonry
- Less Trades Involved | Incorporates Multiple Trades
- Eliminates Stucco | Block | Metal Stud

There are several tested designs enabling an Owner to qualify for lower fire insurance underwriting. The composite panels can be engineered to survive hurricane-force winds. In addition, concrete and steel are impervious to mold and termites, and galvanized steel is generally used for corrosion resistance.

The larger panels have fewer panel joints to seal against air and moisture infiltration, improving thermal control. A wide variety of architectural finishes, reveals, and surface details are available.

Environmentally, thin-shell systems are suitable for “green” construction and can help a project qualify for credits under the U.S. Green Building Council’s LEED program.



# RANDALL



## THIN SHELL STUD PRE-CAST PANELS



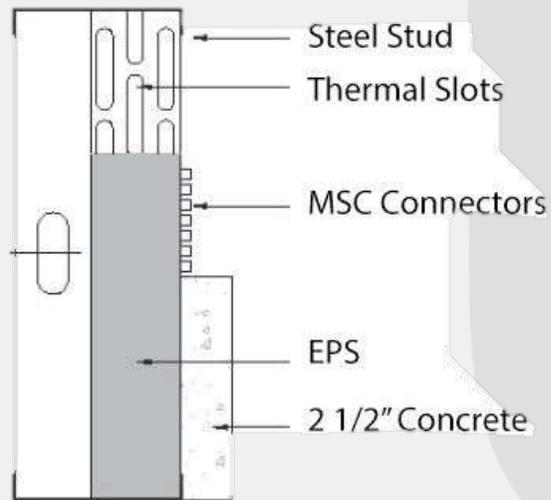
The Randall Engineered Wall Panel Thin-shell pre-cast system is your best choice for commercial projects that require greater energy efficiency, to meet or exceed the IECC building code.

The Framed and Pre-cast Panel System provides a unique union of technologies that together are superior to conventional systems.

Each pre-cast or site-cast panel is a combination of a thermally resistant Steel Thermal Efficient Panel (STEP).

Randall Engineered Wall System utilizing Metal Stud Crete connectors, a leading cold formed steel specialty connector that together can be combined with precast concrete to create a composite panel; a panel that uniquely combines framing and cladding.

Each panel is pre-cast and cured in a quality-controlled environment for consistent dimensional accuracy, finish uniformity and exceptional quality control.



Randall Engineered Wall Systems uses the same type of concrete as conventional precast, though in an unconventional way.

The heart of the system is a proprietary galvanized steel shear-transfer strip (MSC) with Y-shaped flanges. The strip is screwed to light-gauge steel studs. The panelized steel is placed in the forms with the shear-transfer strip's flanges projecting downward so that they become embedded as the concrete is placed. Other than the addition of the steel framing, the casting form is set up in the usual way, including fiber mesh and/or welded-wire mesh reinforcing in accordance with design requirements, but the entire mold is only 2 1/2 inches deep.

A Randall Engineered Wall Systems (MSC) with 2 ½ inches of concrete can be as much as 70 percent lighter than conventional precast, yet the combination has composite strength that can be used as a load-bearing wall, not just exterior cladding or curtain wall.

Structural testing and usage in hundreds of projects throughout the United States have verified that the bond of the concrete to the metal framing assembly through the Metal Stud Crete shear connectors achieves full composite action.

The system is approved under ICC ESR-2511.

## **RANDALL ENGINEERED WALL SYSTEMS**

### **THIN SHELL STEEL STUD PRE-CAST PANELS**



In the past, the heavy weight of concrete and the cost associated with lifting and transporting that weight, have limited the use of precast. Innovative fabrication techniques now make it possible to reduce the weight of precast concrete walls.

This new breed of precast is accomplished through hybridization, combining the best characteristics of two separate building materials. Thin-shell precast panels, also known as “studcast” precast, are made by marrying as little as 2 inches of concrete to light-gauge, cold-formed steel framing.

The concrete provides a durable and attractive skin available in the designer’s choice of color and texture and the steel studs provide the structural bones of the wall. The steel studs are assembled into panels and then integrally connected to concrete during the casting process.

The steel resists axial and transverse loads, and the concrete stiffens the steel and provides a diaphragm to resist in-plane forces. This means thin-shell plant-cast can be used for structurally efficient load-bearing walls as well as for cladding and curtainwalls.



## **FORM LINERS**

Randall wall panels cast with form-liners that gives your structure the look desired with minimum cost and no other trades involved in the process.

One of the great advantages of working with concrete is its versatility. When viewed in an artistic medium rather than simply a construction component, the material offers infinite possibilities for creativity. Form liners are essentially molding for giving texture and design vertical concrete surfaces.

## **THIN BRICK**

Our form liners are engineered for excellence, so they perform in the field to achieve the result you desire.

If the enduring look of brick is what you are looking for, our Thin Brick Systems are an excellent alternative to hand laid masonry.



## TEX-COTE

TEX-COTE XL70 is a primeless, one-coat system specially formulated to provide a weatherproof coating over cured or uncured concrete masonry surfaces. XL-70 saves builders resources, time and money during construction by reducing surface preparation, sack and patch costs.

TEXCOTE XL-70 can be applied to masonry, brick, plaster, stucco even directly onto green concrete or damp surfaces making it one of the most efficient and convenient systems on the market today.

TEXCOTE XL-70 is available in several finishes including smooth, fine, coarse and extra coarse.

TEXCOTE XL-70 water-based formula, XL-70W, is environmentally friendly due to an extremely low VOC content and it is resistant to fading, even in darker colors.





### **FOR THE CONTRACTOR**

Smaller cranes are used to install light-weight Randall panels. Forget about scaffolding; Randall panels can be prefinished. Panels are precast off-site for on-time delivery to your job-site, or we can cast the panels on-site if you prefer tilt-up construction. The end result is your building will be enclosed sooner.

The exposed framing on Randall panels means you can install insulation, utilities, and interior finishes right away without first having to install furring, finishing your project faster.

### **FOR THE OWNER**

The time saved building with Randall Engineered Wall Systems means you get into your building sooner. Randall walls are thin and do not need furring, so you'll gain net usable floor space all around the building's perimeter.

Best of all, Randall Engineered Wall Systems are economical to build, energy efficient and durable to stay that way.





## WHY RANDALL



### **Innovation & Design Process**

Provides design teams and projects the opportunity to be awarded points for exceptional performances above the requirements set by the LEED® Green Building Rating System™ and/or innovative performance in green building categories not specifically addressed by LEED®.

### **Exceptional Performance**

#### CONSERVE RESOURCES IN MANUFACTURING

- 65% less cement, sand, aggregates and reinforcing steel.

#### CONSERVE RESOURCES IN THE STRUCTURE

- Lighter weight panels reduce the dead load on the foundation and structural system which allows for reduction in the size of structural components.

### **Innovative Performance**

- 65% reduction in CO2 emissions prevalent during pouring of concrete.

- 2x the number of panels transported per load, reducing number of loads required by 50% and thus decreases air pollution, fuel consumption, tire and road wear accordingly.



## WHY RANDALL



- 10 + Years in the Tilt-Up Concrete Wall Panel Industry
- Self Performing Company
- Randall Tilt Structures 150+ Employees
- Bonding Capabilities Single Job \$ 50 + Million
- In-House Logistics
- 100,000 SF Manufacturing Facility
- In-House Structural Engineering
- Engineered Drawings for Panelizing, Manufacture Light Gauge Steel Frame Assemblies.
- Manufacture all Components, Concrete Mix Design and Pick Points provided by Randall Engineered Wall Systems Engineering Team
- 20 Acre Facility Located in Central Florida - Apopka



## WHAT DOES IT MEAN TO BE A SELF-PERFORMING CONTRACTOR



## WHY CHOOSING A SELF-PERFORMING CONTRACTOR IS IMPORTANT

Traditional Contractors are brokers of construction services. A self-performing specialty Contractor is a true builder with control over project outcomes. Randall uses their own labor force to accomplish construction projects with higher precision and quality, executing critical path components. Solving construction challenges, offering flexibility and safety that a typical contractor can not offer. At Randall, our team is ready and skilled to carry out the most complex and difficult projects.

## QUALITY THROUGH SELF-PERFORMANCE

Randall Engineered Wall Systems is one of the few Tilt-Up Contractors that fabricates and assembles its own light gauge steel stud frame, assembles in-house as well as self performs the casting of concrete wall panel system at our casting yard.

### Our Labor, Our Quality, Our Guarantee.

The fabrication and casting facility is conveniently located in Central Florida and provides expedited service to all our project sites with in-house logistics and trucking of fabricated panels.

## HOW CAN SELF-PERFORM WORK PROVIDE THE BEST VALUE?

When involved in the design process, we add valuable expertise to pre-construction drawings while it is still economical. Randall provides counsel on cost of building materials and efficient alternatives. During the project, we help the project stay on budget, analyzing the cost vs. value of relevant work.



## ENGINEERING SERVICES:



Engineering design is a product of the experience and knowledge of the company staff. Throughout our experience with design, bid, build projects, it is our belief that there are many disconnects between the design team, the construction team and the users.

The contractor interprets the construction documents, many times the interpretation is different from the designer's intention. When the building is constructed, and the users move in, they also have interpretations that the neither the designers nor the contractors had in mind.

We at Randall Mechanical believe that combining the construction project into a **WHOLE BUILDING approach** eliminates most of the process disconnects.



## **BIM SERVICES:**



### **BIM Services**

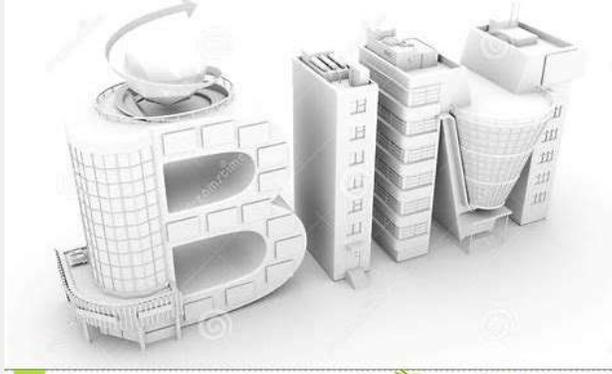
With a commitment to innovation and the BIM process, Randall Engineering Wall Systems is quickly becoming the standard in modeling and engineering of building information.

By empowering our team with this technology, we can avoid costly changes at a time when a project can be changed without significant cost impact.

### **Technology**

Some of the technologies we utilize during this process are:

- **Revit Systems**
- **AutoCad MEP 2008**
- **CAD Duct and CAD Mech**
- **Navisworks**
- **3-D Engineering and Drafting**
- **3-D Duct and Pipe Fabrication Planning**



## **BIM SERVICES:**



We have embraced and integrated Building Information Model (BIM) technology into our designs, thereby allowing our clients to fully envision their projects.

As a full-service engineering firm, the benefits of the cross-discipline collaborative development of three-dimensional designs is clearly evident. As all disciplines work from a common three-dimensional model, the integration of the functional relationships of multiple disciplines, along with the automated interference checking capability of BIM, facilitates our efforts to produce accurate and well-coordinated designs.

Our commitment to the use of BIM technology for our Structural and MEP (Mechanical, Electrical, and Plumbing) designs has proven to enhance our ability to provide superior customer service to our clients. Working within the BIM platform has enabled us to create, manage and share information more effectively with our clients.



## **BIM SERVICES:**



We can not only serve our customers during the design & construction phases but also during the operations phase of a building lifecycle through our BIM for Facility Management (BIM-FM) Service.

By leveraging information and data created during the design and construction phases, Randall BIM Division can create more efficient workflows during the operations phase of a building lifecycle.

We will work with the clients to help standardize and validate information received at closeout of a design-build process. This information is aggregated into a database and implemented into the facilities team workflow through a BIM-FM strategy.

With the ability to access accurate and readily available information and view the building within a 3D model, our BIM-FM solution removes waste and increases efficiency in operations.

# WHO'S WHO & EXPERIENCE

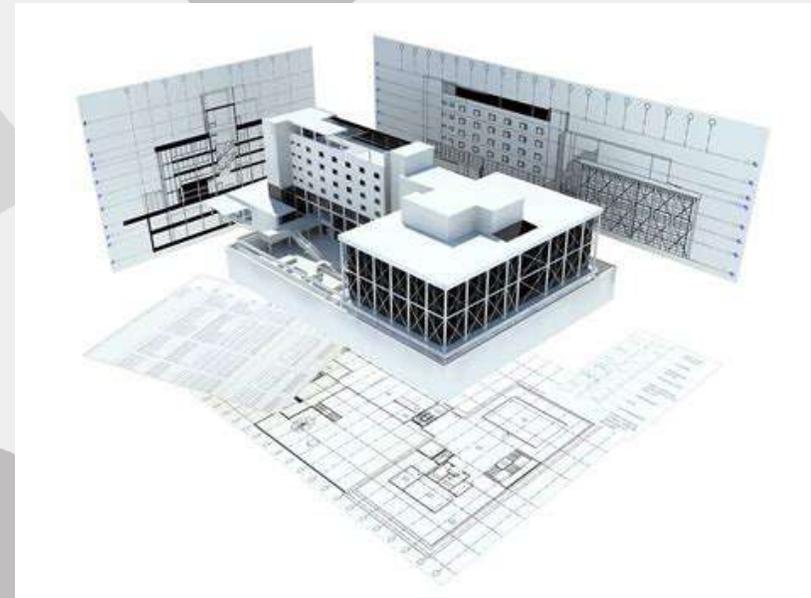
## Juliana Milanov | Dir of BIM / VDC Tech

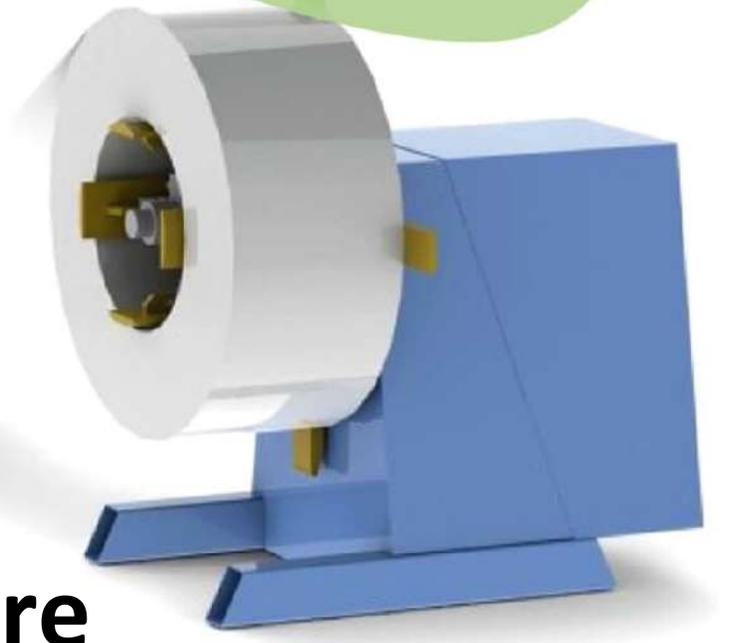
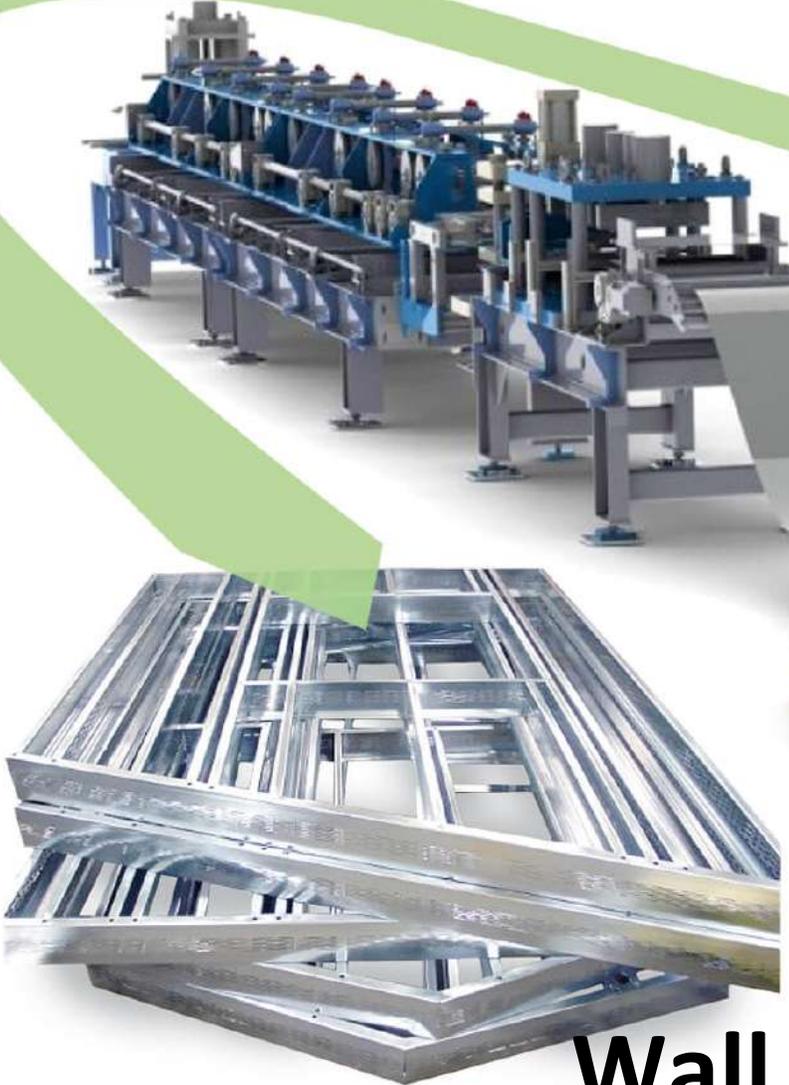
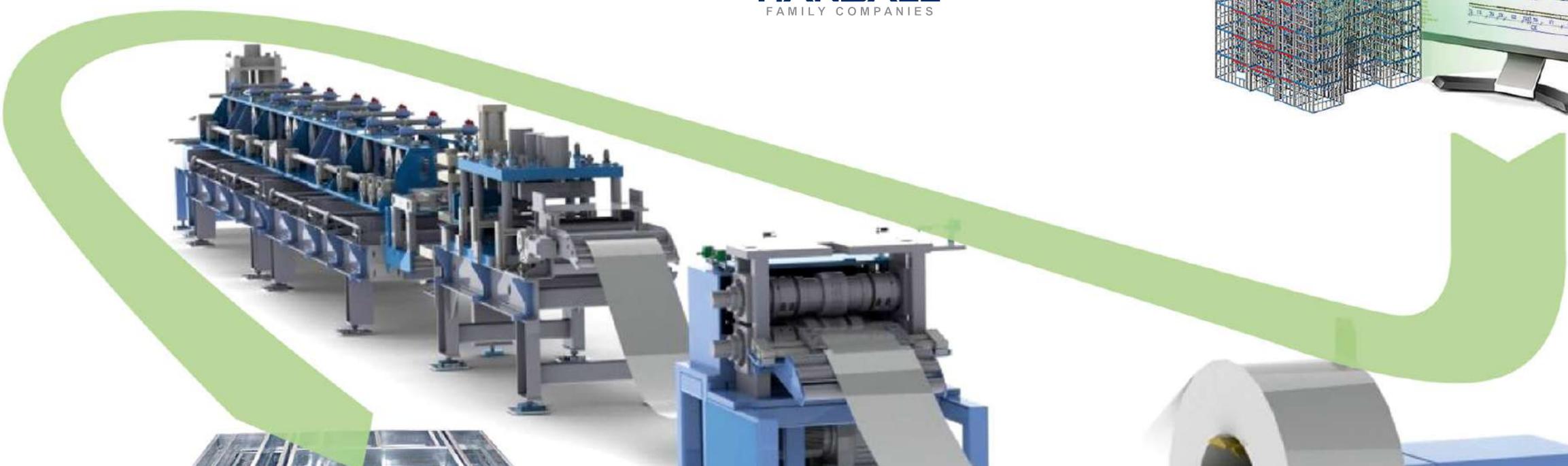
### Personnel Qualifications

- 10+ years with Revit, CAD, CAM, FAB, BIM Model Management (large scale)
- International Experience
- Autodesk Certified Instructor
- LEED Certified (2 specialities)
- Revit Trainer, College Adjunct Professor
- CM-BIM Certified (1 of 10 in Florida)

### Relevant Experience

- OIA STC Phase I | HVAC, Piping, FP scope





# Wall Stud Manufacture

# PROJECT LIST

Crossroads | \$10M | Premier Design Build

Triple F | \$7M | Gilbane Building System

Boggy Creek | \$6.1M | Gilbane Building System

Sun-Rail | \$4M | Dana B Kenyon Company

West Orange HS | \$3.2M | Turner Construction

County Line 5 | \$3M | Rycon Construction

MIT F2 | \$2.75M | Itasca Construction Assoc

Lake Nona MS | \$2.3M | Wharton Smith

Keiser College PSL | \$2.2M | Moss Construction

HCH Skilled Nursing Cntr | \$2M | Gilbane Construction

ProLogis Beacon Lakes | \$1.7M | Miller Construction

AA Metals | \$1.2M | Kelsey Construction

*Self-Performed Cast and Erected by Randall Tilt Structures*

*\*Additional Projects Available Upon Request*





Committed  
to  
**Safety**  
Excellence

## SAFETY CERTIFICATIONS

1. OSHA 500 / 510 CERTIFIED
2. CHST CERTIFIED
3. 3-M FIT TEST TRAINER (FT10,FT20,AND/OR FT30)
4. AMERICAN SAFETY HEALTH INSTTUTE FIRST AID/CPR TRAINING

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## SAFETY CERTIFICATIONS SAFETY TRAINING

1. FORKLIFT TRAINING
2. SCAFFOLD TRAINING
3. CONFINE SPACE TRAINING
4. EXCAVATION TRAINING
5. HEAVY EQUIPMENT TRAINING
6. SCISSOR LIFT TRAINING
7. FIRST AID / CPR TRAINING
8. LOCKOUT / TAG OUT TRAINING
9. OSHA 10 TRAINING
10. SAFETY LEADERSHIP TRAINING
11. SAFETY LEADERSHIP TRAINING
12. FALL PROTECTION TRAINING
13. SILCIA DUST TRAINING
14. ELECTRICAL SAFETY
15. RESIPRATORY TRAINING
16. LADDER SAFETY
17. PRESSURE TESTING
18. LULL TRAINING
19. BOOM TRAINING
20. PPE TRAINING
21. MATERIAL HANDLING
22. HAZMAT TRAINING
23. OSHA 30 TRAINING
24. HEARING PROTECTION

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Excellence

## **SAFETY ACCOMPLISHMENTS**

1. OVER 1600 SAFETY AUDITS COMPLETED
2. OSHA 10 /20 TRAINING FOR OCIP AND CCIP JOBS FOR INSURANCE COMPANIES
3. 98 PERCENT OSHA 30 CERTS FOR PROJECT MANAGERS AND SUPERVISORS
4. 95 PERCENT OSHA 10 CERTS FOR FIELD SITE FIELD TEAMS
5. INCENTIVE PROGRAM REWARDING THOSE THAT MAINTAIN THE SAFETY CULTURE
6. SAFETY TRAINING COMPLETED FREE OF CHARGE FOR ALL PARTNERS ON ACTIVE JOB SITES
7. SITE SAFETYAWARDS PRESENTED FROM GENERAL CONTRACTOR
8. RELATIONSHIPS WITH OSHA AND COMPLIENCE OFFICERS
9. FULL TIME SAFETY COORDINATOR ON ALL MAJOR JOBSITES
10. FULL TIME SAFETY COMMITTEE

RANDALL

## OFFICE LOCATIONS

Director of Business Development:

Taelor Purvis

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[Bids@rfcompanies.com](mailto:Bids@rfcompanies.com)

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Tampa West Coast Office: Pembroke Pines South Florida Office:  
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Tampa, FL 33619 Pembroke Pines, FL 33029

Merritt Island Space Coast Office: Savannah Georgia Office:  
6141 N. Courtenay Pkwy - Suite A 131 Hutchinson Island Rd.-Suite 105  
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