



# Unknown Data Center

## Somewhere, USA

### Building Information

#### PROJECT TEAM

Construction Manager: **Turner Construction INC.**

Architect: **Sigma 7 Design Group**

MEP: **Sigma 7 Design Group**

Structural: **GoldStein Associates**

Civil: **Birdsall Service Group**

#### BUILDING DATA

Occupancy/Type: **Business—Data Center**

Size: **17,445 SF**

# of Stories: **1**

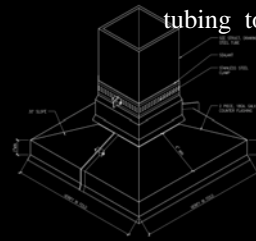
Dates of Construction: **12/2008—08/2010**

Building Cost: **\$27.5 Million**

Project Delivery Method: **Design-Bid-Build**

### Structural

- **Foundation:** 6" slab on grade on top of normal weight concrete footers and concrete spread footers along the perimeter of the building.
- **Frame:** Braced steel frame system comprising with 40'X 25' column bays.
- **Enclosure:** Architectural precast concrete designed to withstand hurricane and tornado forces up to 200 mph.
- **Roof:** Lightweight concrete on metal deck topped with EPMD. Roofing Includes structural tubing to support mechanical systems.



### Architecture



The Data Center is one story expansion/renovation project consisting of roughly 20,000 square feet of a new addition to an existing 114,500 square feet. This building is the second of three expansions.

The project is designed for another a third expansion allowing for an additional 30,000 square feet. The addition will include more computer, electrical and mechanical rooms. As well as more storage and advanced data network distribution.

### Mechanical

- 350 Ton Chilled water systems
- 190 Ton Dry coolers for free cooling
- 1<sup>st</sup> Floor.....2 air handling units
- Roof.....3 chilled water systems, 5 dry coolers, 3 radiators, 2 air handling units.

\*All Mechanical equipment is constructed on vibration isolation pads and are seismically restrained. \*

### Construction Logistics

The construction of the Data Center includes three main phases.

- The first phase requires mass excavation as well as demolition to the existing building.
- The second phase includes crane placement/ setting of the structural components of the Data Center.
- The final phase includes intense MEP fit-out for the unique mechanical/electrical systems of the Data Center.

### Electrical/Lighting

- 2N electrical infrastructure with concurrent maintenance.
- (3) 2MW Generators
- (1) Existing mass distribution panel: 480V, 3 Phase, 3 Wire, 600A
- (3) New mass distribution panels: 480V, 3 Phase, 3 Wire, 1200A

