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Case Study – Center for Intelligent Buildings

EDUCATION / HEALTHCARE / LODGING / GOVERNMENT / OFFICE BUILDING / RETAIL / SPECIAL



Carrier Global Headquarters Showcases Innovation, Technology and Installation Efficiency

OBJECTIVES:

Located in Palm Beach Gardens, Florida, the Center for Intelligent Buildings (CIB) was conceived, designed and constructed with the goal of being the quintessential building technology showcase for customers — building owners, consulting/specifying engineers, architects and contractors — from around the world. To accomplish this, the building would need to ‘reveal’ the unseen, putting the most advanced integrations of Carrier’s solutions and services, and the additional building systems of tomorrow, in action... and on full display. Every product displayed would be at use somewhere in the facility, being proved out in real time during customer visits. It would be the only building of its kind in the world to use its wide variety of advanced building technologies.

SOLUTION:

To ensure that the unique HVAC components installation requirements, occupant comfort and indoor air quality (IAQ) would be achieved, the right heating, ventilating and air-conditioning (HVAC) contractor was key. It selected Hill York Service Company, an EMCOR Company based in Ft. Lauderdale, Florida.

To successfully engineer and ultimately execute the installation, Hill York worked closely with Carrier and national general contractor, Whiting-Turner nearly a year before actual construction began. With a very aggressive production schedule, Hill York’s innovative solutions and uncompromising quality not only met the stringent technical and comfort specifications, but also substantially reduced installation costs. Their recommendations helped contribute to a \$1M savings on the project and included a final design that included a unique and time-saving installation of 350 chilled induction beams.

Additionally, it is the first commercial building in Florida to earn the coveted LEED®1 Platinum version 4 certification.

**Center for Intelligent Buildings
Dynamically Displays
Carrier Solutions and Services**



The Customer Experience Center includes interactive storytelling zones where solutions are highlighted across all product segments so that customers see products at work in the building.



Case Study – Center for Intelligent Buildings



SYNOPSIS:

The Center for Intelligent Buildings (CIB) — Carrier’s global headquarters located in Palm Beach Gardens, Florida — is a world-class, first-of-its-kind facility designed as a living showcase of what’s possible through technology integration. It uses its wide variety of advanced building technologies from iconic brands such as Carrier, Automated Logic, Otis, Kidde, Chubb and more — brands that founded entire industries — and integrates them in a way that shows customers something they’ve never seen before. The moment a customer walks through its doors, augmented reality — a technology that superimposes a computer-generated image on a user’s view of the real world— is utilized in the building lobby, which displays the airflow in the four-story entryway.

Tours of the building are customized for visitors so an HVAC consulting/specifying engineer is served the most relevant content, which will differ from an architect or that of a security professional. The building’s second floor houses a Customer Experience Center, which includes interactive storytelling zones. Here, solutions are highlighted across all product segments so that customers see products at work in the building.

Successfully bringing the CIB’s HVAC system to fruition required a high caliber contractor to install and configure the equipment that Carrier itself designs and manufactures. To meet all the specific installation requirements, Hill York Service Company, an EMCOR Company based in Ft. Lauderdale, Florida was selected. Since 1936, they have played a key role in taking premiere Florida facilities to new levels of indoor comfort and energy efficiency. “The Center for Intelligent Buildings is truly iconic,” said Jeff Phillabaum, Hill York’s President. “It was one of those rare projects that, for HVAC professionals, comes along once or twice in a lifetime. It allowed us to showcase our full range of innovative solutions and craftsmanship on a world-class stage,” he continued.

With a very aggressive production schedule, Hill York’s innovative solutions and uncompromising quality not only met the stringent technical and comfort specifications, but also substantially reduced costs. “Our recommendations helped contribute to a \$1M savings on the project and included a final design that used 350 chilled induction beams,” said Phillabaum. But Hill York would take the chilled induction beams installation one step further.

“All the Carrier ActivAir™ units were set in place *prior* to the ceiling contractor’s actual installation. We worked very closely with the ceiling contractor to confirm each unit’s precise measurements and position. This proved to be a critical and successful part of the puzzle,” commented Anthony Scalone, Hill York’s on-site Project Superintendent for the CIB’s installation. He continued, “One of the most significant challenges was the tight schedule of this project, but we knew that getting the chilled beams in position first would be a dramatic time-saver.”

The CIB is also designed to indoor air quality conditions found by Harvard University researchers to double occupants’ cognitive function test scores compared to a conventional building environment. “The building owners were adamant about meeting the stringent IAQ standards and we executed the testing to ensure that they were, indeed, met,” said Scalone.

During the construction phase, Carrier Rentals supplied five portable packaged units ducted directly into the site throughout construction.

Every component of the Center for Intelligent Buildings was developed with sustainability in mind. As a result, it is the first commercial building in Florida to earn the coveted LEED® Platinum version 4 certification — the highest designation — under the stringent version 4 LEED green building program for building design and construction from the U.S. Green Building Council.

“The Center for Intelligent Buildings is truly iconic... it was one of those rare projects that, for HVAC professionals, comes along once or twice in a lifetime.”

Jeff Phillabaum
President,
Hill York Service Company

Project Summary

Location: Palm Beach Gardens, Florida

Project Type: New Construction

Building Size: 224,000ft²

Built: 2018

Facility Usage: Technology, innovation and collaboration center.

Objectives: ‘Reveal’ the unseen, put the most advanced integrations of Carrier’s solutions and

services, and the additional building systems of tomorrow, in action and on full display in real time.

Equipment: Two AquaEdge® 23XRV chillers (600 tons total), 350 ActivAIR™ chilled water beam units, six indoor Aero® AHUs (223 tons total), 71 AirStream™ fan coils, two ductless Aquazone™ WSHPs, three Carrier Custom 39CC air handlers with energy recovery, 22 Toshiba Carrier VRFs, three DOAS (350 tons total), heat pumps and VFDs.

Total Cooling Tons: 600

Controls: ALC controls facility-wide

Major Decision Drivers: Create a world-class, first-of-its-kind facility to showcase what’s possible through technology integration.

Unique Features: Center for Intelligent Buildings takes critical building technologies that are typically hidden and makes them visible and interactive.

Installation Date: 2018

For more information, contact your nearest Carrier Representative, call 1.800.CARRIER or visit our web site at carrier.com/commercial