FUJITSU

CASE STUDY

AIRSTAGE™

SAE Fraternity House

Bloomington, IN

Fujitsu VRF: Big Man on Campus

Project Name
Sigma Alpha Epsilon Fraternity House – Indiana Gamma

Location
Indiana University, Bloomington, IN

Completion Date
August 2013

The Team

Owner
Sigma Alpha Epsilon National Fraternity; Evanston, IL

Architect
Kuo Deidrich Architecture; Atlanta, GA

HVAC Engineer
HESM & A Inc.

General Contractor
Integra Construction; Atlanta, GA

HVAC Contractor
Harrell-Fish Inc. Bloomington, IN

HVAC Distributor
Plumb Supply Company; Des Moines, IA

The Sigma Alpha Epsilon Fraternity was established in 1856 at the University of Alabama – Tuscaloosa. It has 226 total chapters at colleges and universities across the US. SAE has been responding to the needs of their membership to renovate, update, and in the case of Indiana University, demolish and build again their campus facilities. This fraternity house is three floors plus basement for a total of almost 20,000 square feet of sleeping, dining, studying, and relaxation areas. The building is located on North Jordan Avenue among their other Greek brethren. There are 46 rooms of single and double occupancy.

Design Challenge

It was the desire of SAE to have a home-like atmosphere while keeping the environment academic and engaging. The ceilings are all of gyp board construction so they need to have easily maintainable equipment. Keeping ceiling height tall was a priority to maintain the academic feel. This required narrow profile equipment. The duct work needed to be kept to a minimum so the performance characteristics of the indoor ducted units was a big concern.

Why Fujitsu Was Chosen

SAE has been using Fujitsu's Halcyon Mini-Split product line with great success in some of their renovation and updating projects. The success of these applications prompted them to require that the Airstage V-II Variable Refrigerant Flow System be the basis of design. Our very powerful Slim Duct and Medium Static Duct Indoor units made the sheetmetal design much easier given the tight clearances of the high ceiling requirement.

The Results

The Airstage system has (4) refrigeration circuits with a total of (5) Outdoor heat pump units. There are (19) Indoor Units. The Fujitsu system is used to heat and cool the individual member suites. Once the installing mechanical contractor added the last amounts of the field charge in each circuit, the systems were up and cooling in less than 15 minutes. The building is in the final finish stages of construction.

Andy Hays, Service Technician, Harrell-Fish Inc. states "I have installed all of the major VRF manufacturers systems. The Fujitsu is the easiest to install and start-up, and it is the most quiet!"

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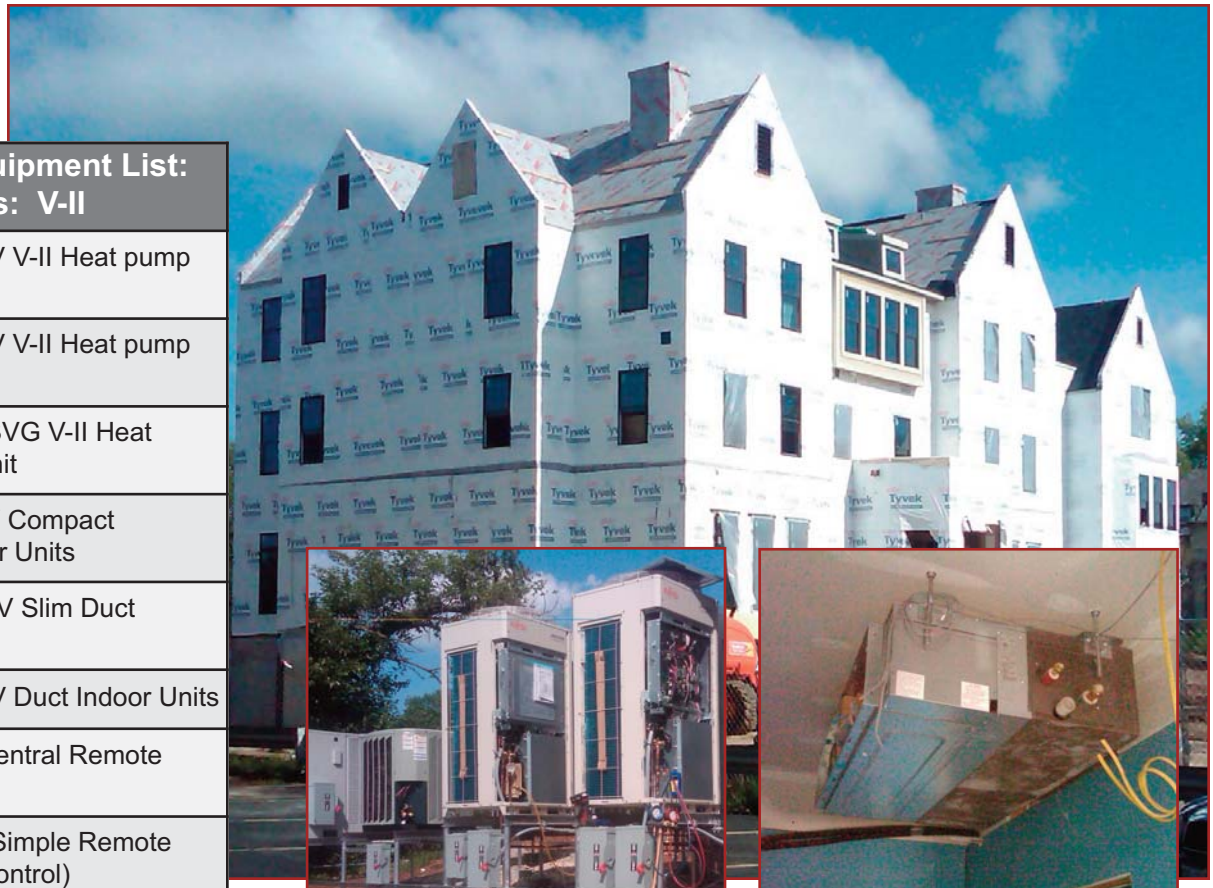
Airstage Equipment List: Series: V-II
(2) AOUA72RLBV V-II Heat pump Outdoor Units
(1) AOUA96RLBV V-II Heat pump Outdoor Unit
(1) AOUA144RLBVG V-II Heat pump Outdoor Unit
(2) ASUA12RLAV Compact Wall Mount Indoor Units
(12) ARUL18RLAV Slim Duct Indoor Units
(5) ARUM24RLAV Duct Indoor Units
(1) UTY-DCGY Central Remote Controller
(19) UTY-RHKU Simple Remote (without master control)
(5) UTZ-PX1NBA Drain Pump Kit for Duct Type
(7) UTR-BP090X Separation Tubes (Indoor Capacity Total 90MBH or Less)
(2) UTR-BP180X Separation Tubes (Indoor Capacity Total 91MBH to 180MBH)
(1) UTR-CP567X Outdoor Separation Tube
(2) UTR-H0906L Header
(1) UTY-ASGX Service Tool



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