

## EMORY UNIVERSITY – Atlanta, Georgia

### NEW SORORITY COMPLEX

**SCOPE** Mechanical systems design and construction phase services for a 90,000 sq. ft. housing complex comprised of 10 different sorority houses. The Complex is expected to achieve Earthcraft Certification.



**Owner**  
Emory University

**Mechanical Contractor**  
McKenney's

**Prime Consultant**  
Jova Daniels Busby

**Construction Cost**  
\$15,000,000 (total)  
\$3,000,000 (mechanical)

### SPECIAL CIRCUMSTANCES

- The complex utilizes a variable refrigerant flow system comprised of 18 outdoor units serving 180 indoor fan coil units. Each indoor fan coil unit has its own thermostat and is capable of either heating or cooling function independent of any other indoor unit.
- Outside air is directly delivered to each occupied space in the complex via one of three tempered energy recovery units (TERV) that contain electric preheat, direct expansion cooling with hot gas reheat, and enthalpy heat wheel components. Each TERV uses variable frequency drives and a medium pressure supply duct distribution system with variable volume terminal units. Constant outside air is provided to the individual sleeping spaces, while outside air to group spaces is modulated using carbon dioxide sensors.
- A new 1250 GPM fire pump provides 100 psi at the top of the most remote standpipe as mandated by code.
- Due to very limited plenum space, mechanical systems above the ceilings were minimized.
- Building automation system monitors both hot and cold water consumption as well as power usage/demand for each Sorority for billing purposes.



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