

## Project

**Name**  
Eastside Methodist Church

**Location**  
Atlanta, GA

**Completion Date**  
January 9, 2015

## The Team

**HVAC Contractor**  
Ace & A Heating and Air  
Conditioning of Dekalb

**HVAC Distributor**  
Dealers Supply

## Fujitsu Equipment

- (4) ASU24RLF Wall Mounts
- (3) ASU12RLF1 Wall Mounts
- (1) ASU9RLF1 Wall Mounts
- (6) ASU7RLF1 Wall Mounts
- (3) AOU36RLXFZ Condensing Units
- (3) AOU24RLXFW Condensing Units
- (10) UTY-RVNUM Wired Remote Control
- (4) UTY-RNNUM Wired Remote Control



## All Heating & Cooling Requirements Met

Eastside Methodist Church was built in the mid-late 1950's. It is a complex of 3 buildings totaling over 34,000 square feet. The main building is the sanctuary which was built in 1919 and is an Atlanta Historic Site. Building 2 is a two story building consisting of offices and classrooms which was built in 1939. Building 3, the focus of Ace & A Heating and Air, is a three story building containing a kitchen with fellowship hall on the first floor with classrooms on the second and third floors. The church provides several community outreach programs as well as serves for a meeting place for different community organizations.



### Design Challenge

The southeast side of the building sits six inches from the property line. Ceiling height in all rooms is 8'-0" with only 12" above a 1950's era ceiling grid consisting of 12"x12" acoustic ceiling tiles. The building's construction is 8" of concrete block with 4" thick brick façade.

Due to the different groups and their need for various rooms at different days and times, the customer was looking for an air comfort solution that would be flexible enough to condition each room on scheduled demand. Many of these community groups would only use a particular room for an hour or two at a time. Other rooms were repeatedly used each day. Sometimes there was a 2 - 8 hour gap between usage.

### Solution

The building had been previously heated by a natural gas boiler system with unit heaters installed in each room. Cooling for the rooms was provided by standard household window air conditioning units. The boiler and unit heaters were in such disrepair that the cost to repair each unit, exceeded \$50,000.00 (This still would not give the customer updated and efficient cooling) This price was just for working on two meeting rooms on the first floor and the entire second floor. It also did not provide a zone system that would allow them to save utility costs when some rooms were unoccupied.

A conventional heating and cooling system would have driven the cost up even higher with the installation of a duct system. A duct system would

also have to be installed below the ceiling and in the main hallways reducing ceiling height in areas throughout the building. In addition, with the building sitting just 6" from the property line, there was no place to sit the condenser.

Fujitsu was chosen for several reasons:

- **Energy efficiency:** All systems installed were a minimum of 16 SEER.
- **Zoning capability:** Each room has it's own wall mounted unit with a controller capable of 8 setbacks to accommodate room usage. A great energy saving feature.
- **No duct system:** Installing ductless system was less costly to the customer plus did not affect the ceiling heights of the building.
- **Condenser installation:** Due to the building's 6" proximity to property line, the outdoor units were mounted on brackets 8'-0" up the outside wall.
- **Job Cost:** The cost of installing the Fujitsu systems was approximately the same as repairing the boiler system. However, it provided them not just with heat, but cooling capabilities as well with high energy efficiency.

## Results

The systems installed were able to condition the rooms needed when called on. Thus reducing the energy costs. (Energy savings estimated in the 30-40 percent range according to building management) The group that operates a half day daycare center claimed they have never been as comfortable. They also commented on the quiet operation of the systems as opposed to the noise generated by the unit heaters and window A/C's.

*"The customer is extremely satisfied with the project . Not only the operation of the equipment, but also the quality of the installation. It actually made the building look better."*



*"The customer is so satisfied with the job that they have already accepted a proposal to install the same type systems in the remaining areas of building 3."*

