



## **RETROFIT/REDESIGN**

*Caldwell Presbyterian Church*

*Charlotte, NC*

### **Background**

Caldwell Presbyterian Church lost heat in their church facility and called United Mechanical Corporation for a quote on a replacement steam boiler. Timing was of the essence as it was wintertime and the lack of heat could only be tolerated for so long. In addition, the building was built in 1914/1922 and there were real concerns about the future maintenance cost of the 90+ year old steam piping.



### **UMC Approach**

Even though United Mechanical knew the original request was for a drop-in boiler replacement, the first thing they did before quoting the replacement was to conduct an assessment of the HVAC system throughout the entire facility. Unlike most other contractors who would have just quoted the equipment replacement, United Mechanical stepped back and looked at the situation from an engineering perspective—a perspective that would allow them to analyze how they could get the heat back on as fast as possible and add value at the same time. Maybe a new boiler was not the right thing to do.

### **Results**

What United Mechanical ultimately recommended was to forgo a steam boiler replacement and use gas to heat the sanctuary and offices. The advantage of installing smaller gas furnaces was greater temperature control in individual areas and an energy cost savings in the long run.

In addition, United Mechanical was able to complete the job in less time than many HVAC contractors could have. Because the United Mechanical staff consists of professional engineers, all design, floor plans, engineering calculations, and engineering drawings were able to be completed and sealed (signed off) in-house. Their priority status with their vendors also allowed United Mechanical to get the necessary equipment delivered in a faster than normal time frame.

At the completion of the project, Caldwell Presbyterian Church ended up with a more flexible, efficient system that will save them energy costs in the long run. Giving them the replacement boiler they thought they wanted did not turn out to be the right thing to do after all.