



**“The YANMAR system and the YANMAR team have met all of the requests during the project, and the system has worked flawlessly since being commissioned. YANMAR has been engaged in the project from start to finish, providing a high level of customer support”**  
- Laura Penn, Volkert, Inc. (Construction Managers)



### **Project Overview**

Pike Road School is located in a 100-year-old registered historic building. The building itself was originally used as a school for 53 years before closing, re-opening as a church, and then shift gears again to be used as a school for 275 students in 7th through 10th grade. The facility includes 28 classrooms, a science lab, assembly hall, administration area gymnasium. Installed equipment includes 7 outdoor units, 50 indoor fan coil units, Building Management System, controllers and remote monitoring.

### **Reason for Choosing YANMAR**

The main reason the school system selected YANMAR's Gas Engine Powered VRF system was due to the manufacturer's ability to design the system into the building without modifying it. Since the school building is registered as a historic building, no modifications were allowed; YANMAR was able to use ductless units in the areas with low ceiling heights that would not allow for ductwork.

In addition, the city wanted to reduce their electrical usage as installing an electric-driven HVAC system would have required large, costly electrical upgrades to the facility.

Finally, YANMAR was also able to develop a maintenance plan for the school system to ensure that the VRF system will be properly maintained on a regular basis for continued uptime and optimum performance.

### **About YANMAR America Energy Systems**

YANMAR America Energy Systems in the North, Central and South American headquarters for the company's Variable Refrigerant Flow and Combined Heat and Power systems. Our team and products are focused on sustainability, reliability, and efficiency.



# QUICK FACTS

**APPLICATION:** Education **LOCATION:** Pike Road, Alabama **COMMISSIONING DATE:** July 2017  
**PRODUCT INSTALLED:** NNCP120JN x2, NNCP144JN x3, & NNCP168JN x2 **RESULTS:** Lower operation costs, individual zone control, & 10,000 hour maintenance interval



### Results

- Total savings of more than \$11,000 during a seven month period in which the system accumulated 18,300 operation hours.
- Average savings of more than \$1,600 during both cooling and heating mode months with a savings of more than \$2,800 during the coldest month of the year.
- Reduced electrical consumption for heating and cooling the building by switching to a natural-gas driven YANMAR engine instead of an electrical-based system.
- By using natural gas as an energy source, the building produces lower amounts of harmful emissions than traditional heating and cooling equipment.

YANMAR VRF Operating Costs - November 2017 through May 2018

