



# ADAIRSVILLE CITY HALL ADAIRSVILLE, GEORGIA

## PROJECT OVERVIEW

The remodeled 5,200 square foot Adairsville City Hall building features a three bay utility collection area, City Council chamber area and 11 offices. YANMAR America installed a 16 RT, 3-pipe unit outside the building; accompanying indoor unit and accessory installations included 4 four-way ceiling cassettes, 10 ceiling duct types with matching duct work, 9 three-pipe selector boxes, 1 central controller, 1 remote monitoring adaptor and 3 communication adaptors.



## REASON FOR CHOOSING YANMAR

When starting the remodeling process for the City Hall building, which was damaged in 2013 during a tornado, the city of Adairsville knew they wanted a heating and cooling solution that was customizable to suit their needs and that would reduce their operating costs.

After meeting with YANMAR America, the City of Adairsville chose to install a demonstration Variable Refrigerant Flow (VRF) natural gas heat pump system at their site because it was able to meet all of their requirements, and it was a way for them to support a local business and economy, since YANMAR America has its regional headquarters in the same city.

Important factors leading to the City's decision were that the system is able to run 100% of the facility's heating and cooling needs, it is able to be controlled remotely and the city now has the option to turn off heating and cooling in unoccupied areas to reduce operating costs. Plus, environmentally, the unit will reduce Adairsville City Hall's carbon footprint by reducing its emissions by up to 30%.

## ABOUT YANMAR VRF

The YANMAR Variable Refrigerant Flow (VRF) natural gas heat pump system provides a flexible way to efficiently heat and cool many different types of buildings, as well as reduce operating costs and emission levels.

[www.yanmar-es.com](http://www.yanmar-es.com)

## QUICK FACTS

**Application:** Office Building

**Location:** Adairsville, Georgia

**Commissioning Date:** June 2015

**Product Installed:** YFZP560J-NB  
(16 ton, 3-pipe)

### Results:

- Reduced electrical consumption
- Improved indoor climate control
- Simultaneous heating and cooling available with the heat recovery (3-pipe) system
- Lowered emission levels



# ADAIRSVILLE CITY HALL 16 TON, HEAT RECOVERY (3-PIPE) VRF

**“We are proud to be the first government building in the United States operating with YANMAR VRF. YANMAR worked alongside our engineering firm to ensure a seamless installation process that was on schedule and on budget.” - Pam Madison, City Manager for Adairsville City Hall**



### RESULTS

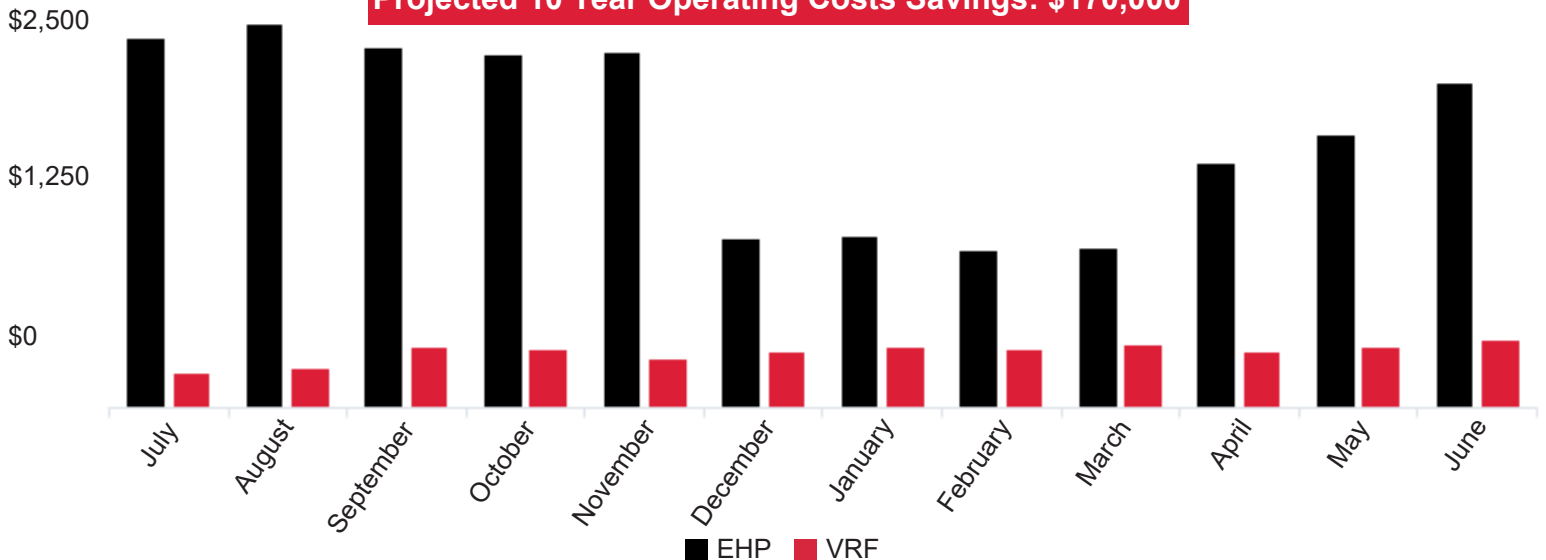
- Reduced electrical consumption for cooling the building by approximately 90% by switching to a natural-gas driven YANMAR engine.
- Individual thermostat control for each room of the building allows occupants to choose their own temperature levels. This also makes it possible to change or turn off conditioned air in unoccupied areas of the building, further reducing operating costs.
- YANMAR’s heat recovery (three-pipe) VRF system provides simultaneous heating and cooling in different zones of the building to satisfy each occupant’s needs.

### CONCLUSION

- In the first year of operation, the YANMAR 16-ton VRF demonstration unit provided an average operating costs savings of \$1,432 or 80% per month. The City of Adairsville’s new government building made the switch from electrically-driven to natural gas-driven cooling and heating, and has been enjoying the unit’s cooling and heating capability while residents of Georgia experience 40-95 degree high ambient outside air temperatures. YANMAR will continue to monitor operating performance, and plans to replace the demonstration unit’s engine with a production engine in 2016. *This unit is comparable to the new NFZP168JN (14 ton, 3-pipe).*

**YANMAR VRF Operating Costs - July 2015 through June 2016**

**Projected 10 Year Operating Costs Savings: \$170,000**



Operating costs data is a calculated estimate only based on Remote Monitoring data and local average utility costs.