



Central Florida Health Alliance – Alliance Day Surgery Center

Hill York executed an energy savings project to help the Alliance Center Day Surgery Center drastically lower monthly utility bills, improve space comfort, and extend the life of the building's HVAC systems.

Project Name and Location:

Alliance Day Surgery Center
601 E Dixie Ave #501, Leesburg, FL 34748

Client/Owner Contact:

Central Florida Health Alliance
David Taylor

Completion Date:

February 2013



Project Scope:

In 2012, the Central Florida Health Alliance needed to reduce its utility costs at several of their facilities. One facility identified as a high energy consumer was the Alliance Day Surgery Center. Built in 1987, the 15,686 ft² single story building has operating rooms, sterile areas, patient areas, and administrative offices that all have different climate control requirements.

After performing a detailed energy assessment, Hill York's Energy Solutions Group determined that many energy inefficiencies resulted from the building's mechanical systems and their controls. The baseline energy usage index revealed a unit cost of 10.44 \$/ft², which is significantly higher than national averages for similar facilities. One apparent inefficiency involved failing control valves serving the variable air volume boxes. The boxes were equipped with hot water reheat coils, many of which failed in the open position. These failures caused the boiler to constantly run, which resulted in simultaneous heating and cooling that drove increased energy use and operational costs.

Project Solution:

To align with the goals of the Day Surgery Center, Hill York recommended a mechanical system overhaul with a web-enabled energy management system, giving managers complete control of the facility. The renovation's bundled energy solution included the installation of a pulse fired condensing boiler, a variable speed hot water pump, a heat exchanger for domestic hot water, replacement of all pneumatic hot water valves and actuators, and the energy management system to integrate all components together. Collectively, the Alliance Day Surgery Center and Hill York implemented energy saving control strategies including temperature setbacks, heating hot water reset, discharge air reset, and many more. The design intent was to allow for greater control over the system while making sure only essential equipment would run when it was needed.

The program results are remarkable, with natural gas usage plummeting by over 62%. Believing that the gas meter was malfunctioning, the local utility company replaced it twice, but the savings continued. Electrical consumption was also reduced by 32%. Annual electric and natural gas savings of \$61,000 has been documented through an energy services agreement.



Air Conditioning Services
& Energy Solutions

2125 S. Andrews Avenue
Fort Lauderdale, FL 33316
P: 954.525.2971 | F: 954.525.2973
www.hillyork.com
