

# BATES COUNTY MEMORIAL HOSPITAL BUTLER, MO

Project Value:

**\$1,741,340**

Annual Savings:

**\$168,483**

Payback:

**10.3 years**



## IMPROVEMENT DETAILS

- Replaced outdated steam boiler with one-pass steam generators to serve process loads, refeed hot water reheat systems, and provide redundancy
- HVAC upgrades to the OR Suite to address humidity issues
- Designed new HVAC system for Radiology
- New high-efficiency condensing boiler designed to create a hybrid boiler plant
- Installed dedicated heat recovery chiller for low load conditions
- Replaced building automation control system that included new pressure-independent control valves on AHU coils to improve comfort and reduce energy consumption

## GOALS AND CHALLENGES

Bates County Memorial Hospital is a 60-bed Acute Care facility in Butler, Missouri. While a major addition to the hospital was constructed in 2002, much of the hospital's independent infrastructure dated back to the early 1970s with some equipment – including a steam boiler – dating to the 1960s.



Additionally, the building's automated controls system was obsolete and could no longer be maintained. Despite completing a traditional energy performance contract, the hospital had an ENERGY STAR® rating of just 37.

## SOLUTIONS AND OUTCOME

Willdan designed and implemented comprehensive improvements focused on addressing aging infrastructure system and energy efficiency upgrades. Improvements addressed every portion of the hospital and respective MEP systems and new building automated controls to provide a solid MEP foundation for the next 25 years.

The engineering-centric approach of Willdan in implementing comprehensive, turnkey facility improvements was precisely the partnership BCMH was seeking. The cost-effective solutions not only improved operations and comfort, but resulted in excellent energy savings and improved the hospital's ENERGY STAR® rating to above 80.

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