

Smith-Boughan, Inc.



Case Study

Shawnee Local Schools

Systems Upgrade

HB-264 Job # 130105 & Job #130106

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Presented by: Lance Buettner

Smith-Boughan Information

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Solution group	Energy Services
Solution offering	Systems Upgrade
Project name or title	Shawnee HB-264 Job# 130105 & 130106

Client profile

Customer name	Shawnee Local Schools
Division	HS/MS and Elmwood Elementary
Address	3255 Zurmehly Road
City, state, ZIP Code	Lima, OH 45806
Phone number	419.998.8031
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Web site address	www.limashawnee.com

Industry	Institutional
Number of Students	804 - HS

Contact name	Todd Numbers
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Shawnee Local Schools

System Upgrade

Company profile

Shawnee High School is a public, four-year comprehensive high school. The total enrollment of 804 includes a senior class of 190 for 2012-13. As a comprehensive high school, Shawnee High School has earned the reputation of meeting the educational needs of its students. Programs are available in special education, accelerated courses, and advanced placement courses. Shawnee is a member of the consortium of local high schools comprising Apollo Career Center. Students may attend the Center all day, or for a portion of the day to take specialized vocational courses not available at Shawnee.

Business situation

The district was faced with critical mechanical systems that were inefficient and have exceeded their useful life. They were also in a financial situation where they did not have the funds for capital replacement expenditure.

Technical situation

The (5) steam boilers that serve the heating systems for the Middle School and High School buildings had exceeded their useful life cycle by 12-15 years. This equipment was operating with an overall efficiency rating of 55% at best.

The (2) air cooled chillers and chilled water pumps serving this building were the original equipment to the building and have exceeded their useful life cycle by 15 – 18 years and were in failing condition. Due to the condition and capacity loss as well as the low Energy Efficiency Ratio the repair and energy cost for this equipment was a significant budgetary factor for the district.

These factors put the district in a high risk situation of equipment failure, high repair and maintenance expense, as well as an excessive annual energy spending.

Solution

Smith-Boughan and Energy Optimizers, USA partnered in the development and implementation of the boiler plant upgrade for the High School and Middle School, as well as the chiller system for Elmwood Elementary. There were also building automation system upgrades, lighting improvements and district wide computer upgrades completed. This was a turn key project entirely self-funded through energy and maintenance savings and sanctioned by the State of Ohio under house bill 264.

Benefits

- Reduced utility expense
- Reduced maintenance and repair expense
- Cost avoidance due to failing antiquated equipment
- Improved infrastructure
- Reduced environmental emissions
- Project is self-funded through energy and maintenance savings
- Reduced financial burden on the district

Services provided by other groups or companies

Energy Optimizers, USA provided project justification and submission to the Ohio Facilities Construction Commission (OFCC) for project compliance and approval

Lighting Optimizers, USA provided lighting system improvement.