Byers School District 32-J

K-12 Education

FINANCIAL OVERVIEW

Project Value:

$1,195,995

Annual Energy Savings:

$3,198

Annual Maintenance Savings:

$6,850

PROJECT HIGHLIGHTS

- Completely got away from failing boiler system and established consistency in infrastructure for comfort and operation across the entire K-12 building for the future
- New packaged rooftop HVAC equipment for High School and Junior High classrooms – most areas previously had no air-conditioning or ventilation
- New packaged rooftop units to serve the main gymnasium and old gymnasium also adding air-conditioning
- Destratification fans added to main gymnasium to eliminate risk of comfort issues due to air stratifying and ductsox installed for air-distribution in old gymnasium
- Redesign of ducting and HVAC layout for main administration area plagued by comfort issues
- Additional HVAC upgrades to weight room, locker rooms, offices and other auxiliary spaces in building
- New drop ceilings and lighting fixtures in all classrooms and offices affected by new HVAC improvements
- Web-based control system for operation and control of the new HVAC systems
- Local Byers, CO contractors involved in construction process for roofing, electrical, and structural work
- District utilized QZAB funding to help pay for the project

WILLDAN

THE CHALLENGES

Byers Schools had begun the process of transforming their K-12 campus with major additions and remodels in the early 2000s. However, much of the central areas of the facility and associated systems were still original from a 1979 addition. These parts of the building were served by an original hot water boiler system that was beginning to fail. Additionally, many of these areas served by the boiler had no air conditioning at all, or at a minimum piecemeal, disparate and inadequate equipment to try to provide A/C. The district was at a significant crossroads: It could continue to piecemeal A/C for these classrooms and other areas along with replacing components of the failing boiler system (which had been recommended by other consultants), but still be stuck with many of the same systemic problems in the future. Or it could take a step back and look at the entire building on a clean slate and plan improvements that make the most sense for the future comfort and operation of the facility.

THE SOLUTIONS

As part of the facility plan developed and refined collaboratively between the district and Willdan team, the goal of the highest priority projects was to get completely away from the boiler system and add air-conditioning to all spaces that previously had gone without. The Willdan team and school district determined the right solution for future systems would be to get the entire building on packaged unitary equipment for consistency in equipment facility-wide. The team worked closely with the district to balance future building use, facility needs and the district's financial budget.

Additional upgrades were made to modernize many classrooms with new drop ceilings and lighting fixtures as well as provide independent temperature control through a web-based HVAC control system. The end result of the project is consistency in types of equipment across the entire campus for easier maintenance and day-to-day control, air conditioning building-wide including both gymnasiums, addressing areas with major comfort concerns due to poor design and zoning in the past, and modernization of the classroom environment for areas receiving HVAC upgrades. This was all accomplished while still reducing the overall operating costs for the school district despite the significant addition of air-conditioning and ventilation to areas that previously had none.

Willdan's team approach with Byers 32-J for developing, refining and moving forward with the first phase of the district-wide facilities master plan to systematically address district priorities has been very effective with the implementation of this most important first phase of work. Byers Schools was also able to secure QZAB monies to help fund this facility improvement project.