

CASESTUDY

# Lake Orion Community Schools

## A Smart Building Solution for Increased Energy Efficiency



Lake Orion Community Schools (LOCS), in Lake Orion, Michigan, encompasses 50 square miles and 380 acres of school property.

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### Project Overview

On this land sits seven elementary schools, three middle schools, a high school, a community and childhood education building, an administrative building, and a transportation building.

Together, these locations combine for approximately 1.6 million square feet of building space.

### The Challenge

The school district prides itself on leveraging state-of-the-art technology throughout their facilities and were looking to upgrade their existing building control system to coincide with their technological philosophy. Executive Director Wes Goodman had previous experience with Building Automated Systems and Services (B.A.S.S.), as well as ABB Cylon®, and once again turned to them for a cutting-edge Building Automation System for their school.

### The Solution

Taking advantage of everyday technology like RRS Feeds, iCalendar integration for scheduling zones, and status notifications through Twitter® among others, ASPECTFT provided a powerful and easy to use building automation & energy control front-end

### Project at a Glance

Firm	Integrated Facilities Services
Location	Fenton, MO
Date of completion	2014
Owner	City of St. Louis, Missouri
Certification	
Delivery method	Design & Build
Project size	65, 000 SQ. FT.
Project type	HVACR, Building Automation
ABB Cylon® Solution	ASPECTFT-Enterprise, ASPECTFT-Nexus, MATRIX PNC, BACnet® Protocol, PUP Protocol
Points	1,000+

solution. The transition from existing equipment to the ASPECTFT system has been a gradual migration. Currently, an ASPECTFT-Enterprise communicates over the Ethernet infrastructure of the district to five schools, each containing an ASPECTFT-MATRIX and a variety of ABB Cylon® BACnet® unitary controllers.

In two of these schools, ABB Cylon® controls were installed to replace pneumatic controls on large multi-zone units, with the systems in these buildings being expanded to solve control and

mechanical problems. In the other three, all remaining pneumatic controls have been eliminated and replaced by a DDC system that is integrated via BACnet I/P to the ASPECTFT-Enterprise system. This entire system is operated through a desktop workstation by Andy Fountain, the Manager of Facilities and Energy, and will soon become portable once the system is upgraded to the latest version of ASPECTFT with HTML5 capabilities; allowing the system to be easily accessed from tablets and smart phones.

#### Project Highlights

- ASPECTFT
- ASPECTFT-Enterprise
- ASPECTFT-MATRIX

#### Future Energy Savings

Lake Orion Community Schools has a mission statement that reads: “Educating our students for the challenges of tomorrow.” This is also true for B.A.S.S. and their efforts towards their customers. Keeping this mission in mind while focusing on the challenges at hand and what the future will bring, the implementation of ASPECTFT has proven to be a beneficial and energy efficient solution for their learning environment. In addition, recent system upgrades have allowed LOCS to take advantage of approximately \$70,000 of incentives offered by the Consumers Energy Business Solutions Program.

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