

ALBUQUERQUE ACADEMY

www.energyctrl.com

BUILDING SYSTEMS INTEGRATION

Albuquerque Academy and ECI have a long-term working relationship where ECI has assisted the school with efficient use of energy. The renovations for HVAC mechanical equipment, temperature controls, lighting, and campus security have provided cost savings and reduced vandalism for The Academy. ECI is currently under a 10-year Performance Contract with Albuquerque Academy providing a savings guarantee with third party financing. *The Academy is receiving savings beyond the guarantee and has used these funds for financing special projects.*

This project is a perfect example of ECI's capabilities of full circle integration. ECI has completed Energy Services, Video Surveillance Systems, Burglar Alarm Security Systems, Campus Wide Intercom and PA systems as well as a Fiber Optic Redundant Network Ring that connects data from all special systems over IP and Ethernet to every building on the campus.

Data is streamed back to ECI's Network Operations Center via wireless Data Backhaul which is approximately 10 miles away so ECI can provide around the clock electronic monitoring and adjustments for Energy, Security, Data and Web services for the Albuquerque Academy Integrated Systems Environment. The security system is able to notify intruders they are being watched from monitoring across town.

Space temperatures can be set by the click of a button on a keyboard, classrooms have individual control, and special events can now be controlled without heating or cooling an entire building. This smart-building automation has granted the Academy energy and man power savings and an unlimited ability to control all aspects of the facility infrastructure. With digital control down to the zone level the Academy has been able to add sustainability measures with automated demand response. Albuquerque Academy was the first of its' kind integration project in New Mexico. Academy's efforts in energy efficient operation and system integration have brought the school multiple awards.

As an integral part of this integrated system a separate IT network was installed not only to support the video system, but provide communication for the Access Control and HVAC digital control systems. Wireless technology was deployed in order to have direct access to the system at ECI's remote monitoring facility. This segregated network was then integrated into the existing campus network at one single point utilizing a Watchguard Firewall. This allows for minimal impact and bandwidth usage on the schools IT infrastructure. The video streams can be monitored by an applied Internet-enabled monitoring scheme, which allows both Academy and ECI security staff to monitor this facility via a Web Browser. The Video streams can be viewed anywhere in the district via the school's network with the proper authentication.

In addition, ECI installed a Campus-wide access system and video surveillance of the Academy facilities. Academy was able to initiate this project based on estimated savings from the Performance Contract and the Security project in turn has achieved savings. The focus was on providing electronic access control at the front door of each facility that will be used to allow access for both faculty and students. ECI is working as a direct consultant to the owner on design and specification equipment, as well as all of the ancillary equipment associated with access. The system has full digital control access. ECI currently continues to warranty, monitor and maintain the system to insure the best quality system for the School.



Corporate Offices 505 890 2888
2600 American Rd, SE #360
Rio Rancho, NM 87124

Las Cruces 575 521 3104
1401 Don Roser Dr, #E-1
Las Cruces, NM 88011

Using technology to improve the use of energy and create a better environment