

# SPRING CREEK ELEMENTARY SCHOOL

STATE COLLEGE, PENNSYLVANIA, UNITED STATES

## INTRODUCTION

*Spring Creek Elementary School* was designed to meet the *State College Area School District's* goal of providing collaborative education through incorporation of technology, flexible learning areas, and sustainability. The new building accommodates 450 students from kindergarten through fifth grade.

## PROJECT DETAILS

Reliable Controls Authorized Dealer [Nexgen Automation](#) installed a building automation system during construction of the new Spring Creek school building.

RC-WebView software operates on a central server in the State College Area School District office and is connected through Ethernet to Reliable Controls devices distributed throughout the Spring Creek facility. The system controls mechanical equipment and regulates temperature, humidity, and CO<sub>2</sub> levels in each classroom. RC-Archive software downloads building operation data, which facility managers examine using RC-Reporter software for insight into system efficiency and optimization. Nexgen used the flexibility of RC-Studio to configure the new building automation system.

Individual heat pumps are installed in each classroom, with dedicated energy recovery units that maximize CO<sub>2</sub> control and minimize energy consumption. A central plant maintains water at an optimal temperature.

The project received a [Pennsylvania Alternative and Clean Energy Program](#) grant, designed to promote the use, development, and construction of alternative and clean energy projects. Rooftop solar arrays supply 20 percent of the school's electricity—just one of several factors that contributed to the building's LEED Platinum certification by the [U.S. Green Building Council](#). The facility conserves water with low-flow toilets, bathroom sinks, and kitchen fixtures that use sensors for automatic shut-off.

Reliable Controls and Nexgen were pleased to provide a building automation system Spring Creek Elementary School can depend on to maintain a healthy learning environment for its young students.

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**MARKET SEGMENT**  
Education

**PROJECT TYPE**  
New construction

**INSTALLATION TYPE**  
HVAC

**TOTAL AREA**  
7,067 m<sup>2</sup> (76,069 ft<sup>2</sup>)

**PROTOCOL**  
BACnet, Modbus

**INSTALLED EQUIPMENT**  
 4 MACH-Pro2™ controllers  
 51 MACH-ProAir™ controllers  
 3 MACH-ProCom™ controllers  
 5 MACH-ProPoint™ expansion modules  
 12 MACH-ProZone™ controllers  
 11 SMART-Space™ Controller devices  
 RC-Archive® software  
 RC-Reporter® software  
 RC-Studio® software  
 RC-WebView® software

**INTEGRATED EQUIPMENT**  
Lochinvar boilers

**TOTAL SYSTEM OBJECTS**  
1,126

**CERTIFICATION**  
LEED Platinum

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