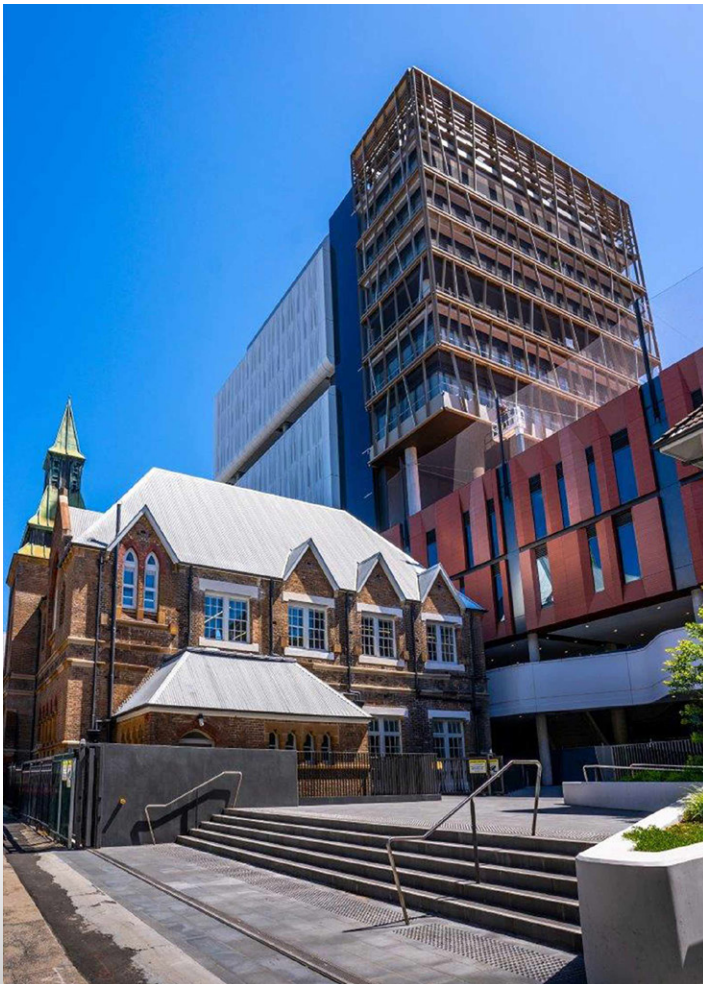


INNER SYDNEY HIGH SCHOOL

SYDNEY, NEW SOUTH WALES, AUSTRALIA

INTRODUCTION

Since 2019 the New South Wales government has opened more than 100 new and upgraded schools through its historic school building program, a AUD\$400 million investment that has benefited tens of thousands of students and supported communities throughout the province. One of these projects was a new high school in the center of Sydney that combines unique heritage buildings with a 14-storey high-rise tower that accommodates 1,200 learners. Built to be energy efficient and ecologically sustainable, Inner Sydney High School is accessible, flexible, and technologically equipped to meet the demands of an evolving curriculum, with spaces that are engaging and supportive for students and teachers. The school meets a diverse range of learner interests, with five STEM-focused floors for science, technology, engineering, and mathematics; multiple sport and recreational facilities, and facilities for music, food technology, and visual arts.



MARKET SEGMENT
Education

PROJECT TYPE
New construction and retrofit

INSTALLATION TYPE
HVAC

TOTAL AREA
5,636 m² (60,665 ft²)

PROTOCOL
BACnet, Modbus

INSTALLED EQUIPMENT
 133 MACH-ProAir™ controllers
 8 MACH-ProCom™ controllers
 8 MACH-ProSys™ controllers
 5 MACH-Zone™ controllers
 98 SMART-Sensor™ devices
 RC-Archive® software
 RC-Reporter® software
 RC-Studio® software
 RC-WebView® software

INTEGRATED EQUIPMENT
 2 Daikin chillers via BACnet MS/TP, 36
 Schneider PM series power meters, 11
 ABB variable speed drives via BACnet
 MS/TP

TOTAL SYSTEM OBJECTS
1,472

RELIABLE CONTROLS
AUTHORIZED DEALER

RYCON
Electrical Services

reliablecontrols.com

INNER SYDNEY HIGH SCHOOL

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PROJECT DETAILS

Authorized Dealer [Rycon Electrical Services](#) installed a Reliable Controls building automation system at Inner Sydney High School that controls HVAC equipment and provides electrical energy monitoring. A significant achievement of the project was providing low-cost fan-coil unit control, said David Connolly, director of Rycon. One hundred and thirty-three MACH-ProAir controllers throughout the facility each include an airflow sensor and onboard damper motor, eliminating the need for separate pressure transducers and outside air-damper actuators. The MACH-ProAir is a fully programmable BACnet Building Controller with flexible input and output options, engineered to be suitable for a wide variety of variable air volume applications.

Rycon took control of the school's mechanical equipment with eight MACH-ProCom and eight MACH-ProSys controllers and integrated third-party power meters using Modbus RTU. The MACH-ProCom and MACH-ProSys are fully programmable BACnet Building Controllers with extensive networking capabilities that achieve an optimum balance between form and function. Rycon also installed five MACH-ProZone controllers to control small to midsize rooftop and heat-pump units.

Ninety-eight programmable SMART-Sensor devices around the school deliver a modern communicating-sensor solution that allows building managers to connect with up to 10 configurable parameters related to space, including temperature.

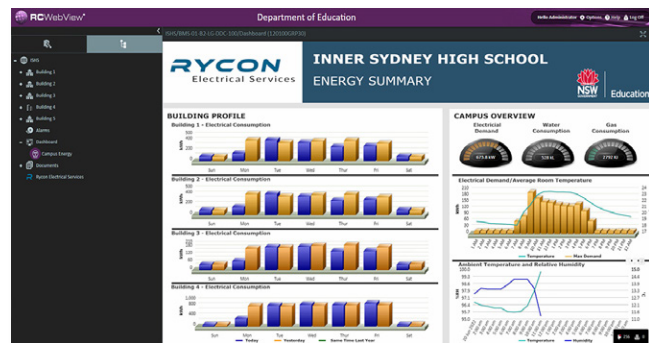
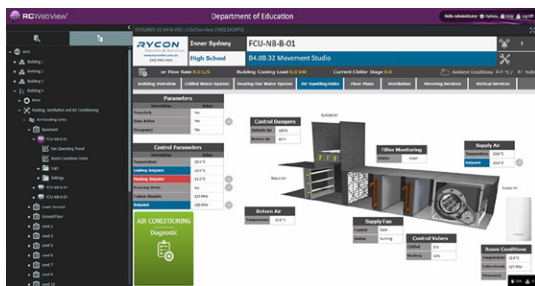
Rycon used RC-Studio software to integrate the school's mechanical equipment and optimize control strategies for comfort and energy efficiency. An easy-to-learn, easy-to-use BACnet Advanced Operator Workstation, RC-Studio provides real-time fault detection and diagnostics, so facility managers can resolve issues before they become a problem. With RC-Archive software, stakeholders fully own and control their data and benefit from a robust, dependable record of performance, and RC-Reporter helps them extract intelligence from that data to discover actionable insights.

Today RC-WebView software, a browser-based building management solution that combines the power of enterprise tools with a simple interface, provides scalable visibility and system control at a glance.

"Rycon are proud to have successfully delivered the Inner Sydney High School's building automation system powered by Reliable Controls," said David. "This was our first multistorey building and a real testament to our project delivery team."

School principal Robyn Matthews sees the school's physical environment as a unique opportunity to drive its narrative on education and learning in a future-focused way that encourages students to embrace lifelong learning. Reliable Controls and Rycon were pleased to provide Inner Sydney High School with a sustainable, efficient building automation system that will contribute to this goal for years to come.

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