Christchurch Boys' High School

Christchurch, New Zealand

Introduction

Christchurch Boys' High School opened in 1881 with the mandate to balance high academic achievement with the goal of creating well-rounded learners. The school focuses on teaching and learning, future sustainability, resilient relationships, staff development, and providing a positive culture driven by integrity. The 12-hectare campus near central Christchurch includes a main building registered by Heritage New Zealand and boarding facilities for students.

Project Details

Authorized Dealer IES Group completed several building automation system projects at Christchurch Boys' High School between 2018 and 2023.

During an upgrade to the facility's chiller plant in 2018, IES Group installed MACH-ProSys and MACH-ProZone devices to control two variable speed-controlled air-handling units, an air-cooled chiller, and a buffer tank. With extensive network routing ability to multiple open protocols and highly scalable inputs and outputs, the MACH-ProSys BACnet Building Controller is the ideal choice for large rooftop equipment, large mechanical rooms, and complex integrated systems. The MACH-ProZone provides highly scalable inputs and outputs with jumper-selectable relay configuration.

In 2019 IES Group returned to the school to install additional MACH-ProZone controllers as well as MACH-ProWebSys and MACH-ProView LCD devices to control air-handling units, an air-conditioning unit, smoke extraction equipment, gas-fired boilers, and variable speed-controlled pumps. The MACH-ProWebSys combines a BACnet Building Controller, a BACnet Operator Workstation, and a powerful webserver in a compact package and provides an interface for convenient control of mechanical equipment over the internet. Facility operators use the high-resolution graphical interfaces on three MACH-ProView LCD controllers to access, control, and monitor comfort and energy use. With the MACH-ProView LCD, users can choose from a selection of configurable views to display real-time data and edit object values on custom background images using text, graphics, and animations like buttons and sliders.

Market segment:
Education

Project type:
New construction and retrofit

Installation type:
HVAC

Total area:
Unknown

Protocol:
BACnet, SMTP

Equipment Installed:
1 MACH-Pro2™ controller
9 MACH-ProSys™ controllers
4 MACH-ProView™ LCD controllers
110 MACH-ProZone™ controllers
RC-Archive® software
RC-RemoteAccess® software
RC-Studio® software
RC-WebView® software

Integrated equipment:
Carrier chiller, Daikin gateway

Total system objects:
Unknown

Reliable Controls Authorized Dealer:

reliablecontrols.com

The school added two new buildings in 2021: the Caddick and Caldwell blocks. IES Group extended the Reliable Controls building automation system to provide control of mechanical equipment in both blocks, including air-cooled chillers, air-handling units, hot water and chilled water pumps, fan coil units, and exhaust fans. IES Group installed MACH-ProWebSys, MACH-ProSys, MACH-ProView LCD, and MACH-ProZone controllers. Using the power and flexibility of RC-Studio software, IES Group integrated all mechanical equipment, third-party controllers, and Reliable Controls devices into the building automation system and optimized 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 in the system before they become a problem. With RC-Archive software, facility managers have full control and ownership of building data, with continuous downloads of data logs that provide a solid, dependable record of performance.

Also in 2021, IES Group retrofitted the school's Canteen Building with MACH-ProSys and MACH-ProView LCD devices to control outside air fans, exhaust air fans, electric duct heaters, heat recovery ventilators, and air-conditioning units.

IES Group returned in 2023 to retrofit Christchurch Boys' High School's Main Block with MACH-ProSys and MACH-ProCom controllers as well as RC-WebView and RC-RemoteAccess software. Like the MACH-ProSys, the MACH-ProCom is a fully programmable BACnet Building Controller that facilitates extensive networking and scalable inputs and outputs. RC-RemoteAccess, a flexible BACnet Secure Network solution that doesn't require additional routers or controllers, simplifies IT management and improves data communications security. RC-WebView is a time-saving browser-based building management solution that combines the power and accountability of enterprise tools with a simple interface and allows facility operators to access the building automation system anytime, from anywhere.

reliablecontrols.com

Interested in Reliable Controls technology for your next project?
Find an Authorized Dealer near you:
reliablecontrols.com/sales
Explore other Reliable Controls projects:
reliablecontrols.com/projects/profiles