

Authorized Dealer



Market segment
Administration

Location
Warren, Ohio, United States

Total area
2,787 m² (30,000 ft²)

Project type
Retrofit

Protocol
BACnet

Installation type
HVAC

Trumbull Metropolitan Housing Authority

Project Profile

[Trumbull Metropolitan Housing Authority \(TMHA\)](#) provides safe, clean, modern housing to low-income persons, bridging the gap to affordable housing for families and individuals who need it in Warren, Ohio. TMHA programs include public housing, family self-sufficiency, housing choice and project-based vouchers, resident service coordinators, special needs housing, veterans housing, and YouthBuild Trumbull County properties.



Authorized Dealer [Control Concepts Ohio](#) installed a Reliable Controls building automation system during a retrofit of the TMHA's three-story corporate office. The integrated mechanical equipment includes a 120-ton condensing unit integrated over BACnet MS/TP, an air-handling unit, a heating plant, boilers, heating pumps, and a mixing valve.

Total system objects
2,381

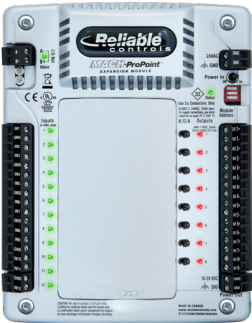
Installed equipment



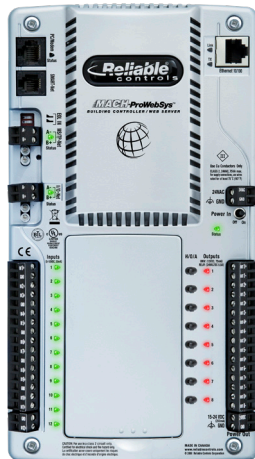
49 MACH-ProAir™ controllers



1 MACH-ProCom™ controller



2 MACH-ProPoint™ Input/Output expansion modules



1 MACH-ProWebSys™ controller



52 SMART-Sensor™ EPD devices

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Control Concepts Ohio used the power and flexibility of RC-Studio software to integrate all mechanical equipment into the building automation system and optimize control strategies for comfort and efficiency. Today facility operators access the system using RC-WebView, a time-saving browser-based building management solution that provides scalable visibility and system control at a glance. With RC-RemoteAccess software, a flexible BACnet Secure Network solution, Control Concepts Ohio simplified IT management and improved data communications security for the TMHA.

To control the air-handling unit, Control Concepts Ohio used a MACH-ProWebSys, a cost-effective solution that combines a BACnet Building Controller, a BACnet Operator Workstation, and a powerful web server in a compact package. With its built-in workstation, the MACH-ProWebSys eliminates the need for client license renewals and cloud services and provides building operators with remote access to the control system, which means faster issue-response times and improved operational efficiency.

A MACH-ProCom controller expanded with MACH-ProPoint Input/Output modules controls the facility's heating plant. The MACH-ProCom is a fully programmable BACnet Building Controller with extensive networking capabilities that achieves an optimum balance between form and function.

Control Concepts Ohio installed 49 MACH-ProAir controllers to provide variable air volume control with airflow sensors and onboard damper motors that eliminate the need for separate sensors and actuators. Fifty-two programmable SMART-Sensor EPD devices distributed throughout the building deliver a modern communicating-sensor solution that allows facility managers to connect with up to 10 configurable parameters related to space.

The original contract did not include a full air balance. Control Concepts Ohio advocated to expand the project to include a variable air volume retrofit and air balancing, citing the value of a native BACnet system and the backward compatibility provided by Reliable Control devices. The new building automation system delivers both significant energy savings and improved indoor air quality for TMHA managers and employees.

Installed software

