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Market segment
Health Care

Location
San Leandro, California, United States

Total area
372 m² (4,000 ft²)

Project type
Retrofit

Protocol
BACnet

Installation type
HVAC

Telecare Willow Rock Center

Project Profile

The [Telecare Willow Rock Psychiatric Health Facility](#) in Alameda County is a psychiatric crisis stabilization and initial psychiatric treatment center for adolescents ages 12–17. The facility focuses on providing a safe, therapeutic, secure inpatient environment for adolescents experiencing mental health emergencies. In a space dedicated to patient care and comfort, consistent air quality and room temperature are essential. That's why the Telecare Willow Rock Center turned to [iQ Controls](#) to update its building automation system with a [Reliable Controls](#) solution.



Total system objects
1,160

Installed equipment



16 MACH-ProAir™ controllers



2 MACH-ProWebCom™ controllers



1 MACH-ProWebSys™ controller



6 MACH-ProZone™ controllers



9 MACH-Zone™ controllers



14 RC-FLEXair® controllers

The challenge

iQ Controls provided the Telecare Willow Rock Center with improved air quality, greater temperature control, increased patient comfort, intuitive and responsive building controls, and measurable energy efficiency, all while reducing energy costs.

To achieve this, they had to work through a set of specific challenges:

- Replace an unreliable and inefficient control system
- Improve indoor air quality and temperature control
- Increase the comfort in patient residences, offices, and community spaces
- Restore functionality to exhaust fan control for air units
- Implement alarm feedback monitoring for focused diagnostics
- Improve operational efficiency
- Install and commission new systems while the facility was occupied

The solution

After identifying 10 variable-volume and variable-temperature air terminals (VVTs) and 4 bypass air terminals and their failed controls, iQ Controls used [RC-FLEXair](#) controllers to bring these air terminals back online and under control, growing the network from 16 fully programmable [MACH-ProAir](#) controllers to 30 between two buildings.

The iQ Controls team counted on the backward compatibility inherent in all Reliable Controls products to integrate new [MACH-ProZone](#) and [MACH-ProWebCom](#) controllers with legacy [MACH-Zone](#) controllers. This allowed them to establish remote and full control over 15 heat pump units across the facility.



Installed software



RC-RemoteAccess® software



RC-Studio® software



Using the [MACH-ProWebSys](#) controller, the team restored functionality to an exhaust fan system that was in an isolated, hard to access area. Regaining control allowed them to optimize and promote better air quality in a network of restrooms.

The flexibility of [RC-Studio software](#) empowered iQ Controls to easily integrate existing equipment with Reliable Controls devices. This gives facility managers at the Telecare Willow Rock Center easy access to integrated fault detection and diagnostics while providing additional programming solutions like alarming and scheduling for each device.

With [RC-RemoteAccess software](#), iQ Controls simplified IT management and strengthened remote support diagnostics capabilities and rapid response services across the Telecare Willow Rock Psychiatric Health Facility's four buildings.

The results

Integrating the heat pump units and VVTs into an intelligently designed building management system increased operational effectiveness while reducing costs. The team at iQ Controls achieved this by optimizing the voting hierarchy between VVTs and their parent heat pump units so operational time is reduced, saving money and improving efficiency while maximizing patient and worker comfort.

The MACH-ProWebSys controller includes a powerful onboard web server that provided a responsive interface for facility managers to monitor their newly integrated units. Some of the benefits include:

- Improved control over each unit
- More accurate diagnostics
- One-stop access for alarms and heat and air flow schedules
- Sequence of operation programming

Today building owners can be confident their custom building automation solution is protected against cyberthreats thanks to RC-RemoteAccess.

By proactively making installation schedules that accommodated the ongoing use of the facility, iQ Controls completed the retrofit overhaul with minimal impact on building operations and patient care.

With an automation solution that puts people first, iQ Controls extended the Reliable Controls vision to everyone who works at and relies on the Telecare Willow Rock Center: we're people and technology you can rely on.

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