



**United**  
BUILDING AUTOMATION  
Innovation in Smart Technology



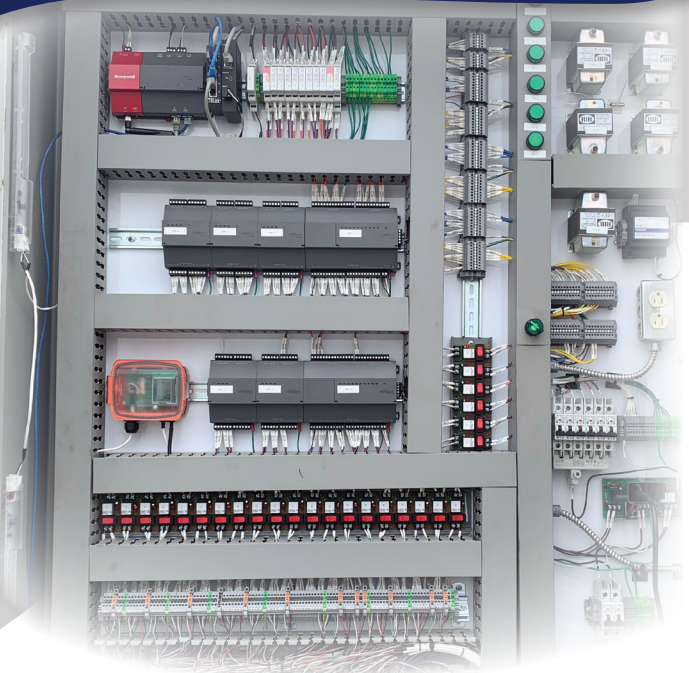
**Product :** Niagara Based Controls System for  
United Maintenance Patented Pool  
Dehumidification Unit

**Industry :** Recreational Natatorium

**Design Support :** United Building Automation

**Application :** Temperature and Humidity Control

**End User :** Municipality Rec Department



## The Challenge

- ✓ Old inefficient packaged unit was removed and replaced with a multi piece system that provided precise control and energy efficiency with a reduced service cost.
- ✓ System needed to be remotely accessible with alarming notification and be able to be expandable to integrate the rest of the buildings units.

## Solution

- ✓ Niagara Based system in custom designed control panel with IO.
- ✓ BACnet integration of 2 ABB VFDs, 1 Carrier Chiller, 1 Lochinvar Boiler, a 1 Daikin DOAS unit.
- ✓ Custom programmed logic sequences to control Temperature, Humidity, Economizer, Building Pressure, Pump Sequencing, and Pool Temperature with Heat Recovery.

## Controlled Equipment

- ✓ Custom Air Handling Unit with 1 chilled water coil, 1 CW Heat recovery coil, 1 HW Reheat coil, a fan wall, and an Economizer.
- ✓ Chiller with Chilled Water and Condensing Water Storage Tanks with integrated pumps
- ✓ Heating Boiler with Primary and Secondary Pumps.
- ✓ Pool Temp Boiler with Heat Exchanger and Energy Recovery Valve.
- ✓ Exhaust Fan.

## System Specifics

- ✓ Honeywell Jace 8000 w Niagara IO Modules
- ✓ 58 Inputs and 20 Outputs
- ✓ 230 Wiring Terminal
- ✓ 5 24vac Control Circuits
- ✓ UPS panel protection
- ✓ Remote touch screen display
- ✓ Complete Surge Suppression.