DAIKIN

CASE STUDY

COLLABORATIVE APPROACH TO HVAC DESIGN YIELDS OPTIMUM RESULTS

"There's nothing more distracting in a classroom than the climate... trying to take an exam when it's too cold or hot. This project needs to be done."

– School Board Member, Eastern Carver County School District

Overview:

When Eastern Carver County Schools evaluated building automation systems (BAS) across the district, Chaska High School emerged as a top priority for modernization. The school's legacy BAS was still operational but increasingly difficult to maintain — a patchwork of aging components that had outlived vendor support.

Recognizing the need for a long-term solution, the district's engineering consultant designed a complete replacement system and put the project out for bid. However, no contractors submitted proposals, likely deterred by the project's scope and complexity. While these challenges threatened to delay the project, the district avoided setbacks by pivoting to Daikin Applied Service. As a long-term trusted advisor with deep institutional knowledge of the school's existing infrastructure, Daikin provided a clear path forward. Leveraging that relationship, the district engaged Daikin Applied to deliver a full BAS modernization plan, confident that the team understood both the technical requirements and functional realities. Daikin offered a blend of theoretical and service-based knowledge, enabling customers to fully evaluate the nuances of the solution.

LOCATION:

Chaska High School

Chaska, MN, USA

AREA SERVED:

410,000 Square Feet

CHALLENGE:

Design and install a new building automation system (BAS) to improve HVAC reliability, security, comfort and efficiency.

SOLUTION:

Daikin's Niagara-based JACE controllers, equipment controllers, drives, actuators, valves and panels

Direct-to-owner procurement and collaborative design eliminates project delays and budget uncertainty for Eastern Carver County Schools.

CHASKA
HIGH SCHOOL

Solution:

Daikin Applied installed a Niagara-based BAS with JACE supervisory controllers, equipment controllers, drives and an upgraded network. The modernization impacted 25 air handling units and nearly 300 VAV terminal units, including supporting mechanical components, valves and actuators.

Due to system fragmentation, Daikin removed all legacy BAS infrastructure and installed new wiring, control panels and network architecture. The solution unified building subsystems under a single interface and integrated seamlessly into the district's existing BAS.

The key to project execution was Daikin's ability to function as prime contractor, leveraging the OMNIA Partners procurement framework. This direct-to-owner approach enabled collaboration with the district's consulting engineer to custom-design the control system to the owner's specific needs while maintaining budget integrity and avoiding the delays and uncertainty of competitive rebid cycles. The project was delivered without change orders, a rarity in large-scale mechanical renovations.

Daikin self-performed the primary controls integration, a testament to the company's growing internal expertise and ability to manage complex, multi-trade projects.

Acting as the general contractor, Daikin oversaw mechanical, electrical, and other specialty subcontractors directly, ensuring sequencing, safety and quality control across all trades.

All field devices were integrated into Daikin's Niagara Controls Platform, providing open-protocol interoperability (BACnet/IP) and scalability. Facility staff can now remotely monitor and adjust system performance with classroom-level detail, supporting the district's BAS strategy.

OMNIA PARTNERS

Daikin products and services are available on a competitively solicited and publicly awarded cooperative contract, available nationwide through OMNIA Partners. Visit www.omniapartners.com/publicsector for full contract documentation.

Outcome:

The Chaska High School BAS modernization marks a shift toward a more collaborative facilities strategy. By leveraging Daikin's National Cooperative Offering, made available through OMNIA Partners, the district integrated its engineering resources directly with Daikin Applied. This streamlined structure facilitated a custom-designed solution that prioritizes both operational excellence and taxpayer value.

The transformation resulted in significant improvements to the building's operational efficiency, long-term maintainability, system reliability, and uptime. By replacing outdated components with modern, networked controllers, the district eliminated the chronic system failures that previously led to classroom comfort issues. These improvements, paired with optimized sequence logic for fan speeds, supply air temperature, and VAV damper modulation, drove measurably enhanced energy performance.

By implementing a Niagara-based, non-proprietary BAS from Daikin Applied, the school eliminated dependence on unsupported legacy controls and restored long-term system viability. The open architecture allows facility teams to integrate new devices, service providers, and future upgrades without vendor lock-in.

The Chaska High School project showcased Daikin Applied's strength in large-scale controls modernization as a turnkey service provider. Acting as general contractor and leveraging OMNIA Partners' simplified procurement, Daikin streamlined customer communication and avoided cost escalation, ensuring an easier process for the district. Completing the $6.3 million project on time and on budget set a new nationwide benchmark for Daikin's controls business — the largest single controls project in company history.