

Community College of Denver - Auraria Campus Denver, Colorado



Background

The Auraria Campus in downtown Denver, Colorado is one of the largest urban college campuses in the country. The 150-acre parcel just west of the central business district is home to three institutions of higher education – the Community College of Denver, the Metropolitan State University of Denver, and the University of Colorado Denver.

Challenge

The Auraria Campus faced a facilities challenge in updating their old air handling unit. The original facility structure was built in the 1970s and the mechanical room was small in size.

They wanted a solution to get the old unit out and the new unit in — a unit that met current codes — and could be replaced with minimal downtime. Quick turnaround seemed difficult when presented with the prospect of removing a portion of the roof or demolishing a wall in order to bring in a new unit. The options appeared to be limited, unacceptable and extremely expensive.

Solution

The college was focused on completing the project as quickly as possible over the Christmas shutdown to minimize disruption to the campus.

The Community College of Denver chose the ClimateCraft ACCESS™ site-assembled units due to the confines of the small, existing mechanical room space, and limited access to the equipment room.

ACCESS units were able to meet the accessibility and staging constraints, whereas alternative products provided logistical difficulties of bringing in a unit, even in the smallest available shipping splits.

Given the size and critical performance of the ACCESS units, the original plan was to bring in the largest components through the outside air louver located at roof level, but once the unit arrived onsite, the contractor was able to get those large components up through the stairwell and the outside air louver was able to remain intact.

The Benefit

The old air handling unit was failing and many components were in need of replacement. One of the air handling units produced significant vibration, shaking the floor. This space was next to a team conference room and the resulting vibration resulted in poor acoustics in the conference room.

According to Michael Snead, HVAC Supervisor for the Auraria Higher Education Center, the Community College of Denver sought a cost-effective solution to replace the entire unit and to avoid unexpected costs of recurring maintenance of the old unit.

“We are expecting improved energy efficiency resulting from ClimateCraft’s ACCESS technology since a bank of fans is more efficient than the single large fan we had previously” said Snead. “We are also anticipating decreased maintenance hours now that there is no evaporative cooling in this new unit. The evaporative cooling component was a significant portion of the maintenance to that old unit.”

Snead noted that replacing the old air handling unit also allowed the Community College of Denver an opportunity to increase cooling capacity to meet current demand and keep pace with their future demand plans.

“On warm days, our old air handling unit wasn’t keeping up with the cooling requirements for the facility. The new coils accommodate greater capacity and will be able to easily deliver conditioned air to the facility during warmer months,” he added.



Photo: Community College of Denver



ClimateCraft FanMatrix™ fan array towers ready for installation in the site-assembled ACCESS air handling unit at Auraria Campus of the Denver Community college.

ClimateCraft's fan arrangement products allow for fans to be turned on and off for safety, repair and maintenance purposes. ClimateCraft's fan arrangement products are not designed to turn individual fans on and off for the purpose of improving fan arrangement efficiency, and ClimateCraft does not endorse turning individual fans on and off for the purpose of improving fan efficiency. Any statement to the contrary is not supported by ClimateCraft.

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