

Cooling buildings on a historic New England campus

The University of Vermont's hybrid chilled-water system is ready for the future while preserving architectural heritage.

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University campuses are places where people have expectations of feeling comfort in their space and being inspired by the beauty of the buildings and grounds. Nothing disrupts this more than the hum of mechanical equipment – including that coming from a chilled-water plant – which elevates background noise. Providing cooling on historic campuses poses a particular challenge for utility professionals who are constrained by operating and locating equipment in existing spaces while tasked with meeting modern thermal energy demands.

Such has been the case at the University of Vermont in Burlington – the this historic institution has developed a central chilled-water system that today serves more than 1.9 million sq ft of building space on the 460-acre campus. Building on an existing central steam evolved to meet the needs of expanding campus facilities while preserving the

Courtesy University of Vermont Spatial Analysis Lab. Photo: Kelly Truitt

between other historic buildings and a new STEM complex and residential hall.


plumes that would have disrupted the character of individual historic buildings.

Prior to adding air conditioning to the building, the university had the opportunity to “get it right” and accomplish a complete visual transformation of the plant itself. Getting it

right meant designing an industrial building that would be a positive addition to the architectural character of the area and be a quiet neighbor to the existing and planned buildings in the historic core of campus.



THAT UVM

would be arguably the most beautiful building on our campus?" Indeed. 



David Blatchly, PE, CEFP,