

Pioneering Comfort and Sustainability with Carboline Ceiling Panels

The Dartmouth Hitchcock Medical Pavilion stands as a model of innovation in healthcare design, driven by a commitment to patient comfort, environmental stewardship, and operational efficiency. Central to this achievement is the integration of Zehnder-supplied Carboline ceiling panels—state-of-the-art radiant heating systems that deliver silent, draft-free warmth directly through building surfaces. This technology enhances healing environments by maintaining a calm and even temperature distribution, eliminating the discomfort commonly associated with traditional forced-air systems.

Carboline panels are recognized as the leading radiant ceiling panel solution on the market. Their ultra-efficient heat transfer surface ensures rapid response times, uniform thermal coverage, and significant energy savings. Designed with a modular, low-profile build, these panels integrate easily into various ceiling layouts. Their hygienic, durable surface is particularly suited for healthcare settings, reducing maintenance demands and ensuring reliable long-term performance—key for a 24/7 medical environment.

Beyond heating, the Pavilion incorporates a holistic approach to sustainability and efficiency. The facility features an advanced building envelope, high-efficiency glazing, and energy recovery ventilation systems that improve air quality while reducing HVAC loads. Water conservation is achieved through low-flow fixtures, and smart building controls optimize overall energy use. Together, these systems complement the Carboline panels, creating a year-round, high-performance environment that benefits patients, staff, and visitors alike.

Designed with long-term flexibility in mind, the Pavilion includes 64 adaptable inpatient beds, with infrastructure ready to support future critical care expansion. Interior materials were chosen based on health, durability, and cleanability—layering natural finishes with warm, inviting design accents. These design choices, paired with operational strategies like dedicated team hubs and separated circulation flows, support multidisciplinary care while reinforcing a healing environment. Dartmouth Hitchcock's investment in Carboline technology and sustainable infrastructure reflects a forward-thinking commitment to resilience, wellness, and innovation in patient care.

Year Completed

2023

Property

■ 241,000 square feet

Architect

■ HDR

Engineer

■ Thompson Consulting, Inc.



