

**SNOW PILED HIGH IN ASPEN.
BELOW, ROOF DAMAGE
CAUSED BY ICE DAMS.**



Solving Ice Problems

Aspen Ski Co. Specifies New Technology to Solve Roof Edge Ice Problem

by Rick Felde, public relations, Felcom, LLC



One of the world's leading destination ski resorts has turned to an innovative technology for snow and ice control on roof edges, installing a new system design where conventional approaches have failed to protect a

22,000 square foot facility atop Aspen Mountain, in Colorado. The new, patent-pending HotEdge Roof Ice Melt System incorporates three components that work together to create and maintain a consistent path for snowmelt to exit the roof without re-

freezing, preventing ice dams, and dangerous overhanging icicles that plague most buildings in high snow environments. The manufacturer is so certain that the system will solve the roof ice problem at Aspen that the

(Continued on Page 56)

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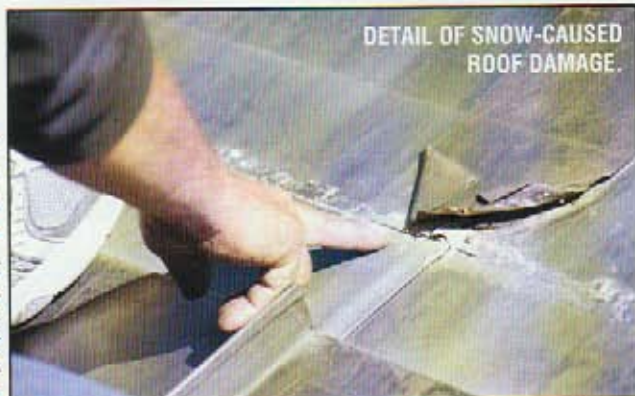
(Continued from Page 54)

company will be installing 24-hour video monitoring, so resort officials, architects, and contractors worldwide can evaluate the system's effectiveness.

Built in 1999, the structure housing the Sundeck Restaurant atop Aspen Mountain is located at an elevation of 11,000', where resort operators have struggled to prevent 300" of average annual snowfall from turning into

destructive "roof glaciers" that pose risks to both the building and its visitors. "We've tried several different ice melt systems over the past ten years, and none of them has been an effective solution," commented engineer Peter Olsen.

"The extruded metal design and



exposed cable systems tended to have a short service life, and we would find ourselves forced to have workers go up on the roof to remove the ice build-up manually," Olsen said. "That increases risk to those workers and to the building's copper roof, which can be damaged by ice-breaking tools. Even worse, it's only a temporary solution."

Instead, the HotEdge system takes a new approach by incorporating standard UL-approved 12w self-regulating ice melt cable into a specially-engineered, low-profile metal raceway. Designed to firmly press the cable against a metal drip edge, the system warms the existing surfaces and uses them to help melt snow and ice. The resort will benefit from this premium performance option that is less expensive to purchase and install, one that conserves energy, year after year.

"One of the key weaknesses of conventional systems is lack of serviceability," explained Bronson Rumsey of HotEdge, Inc. "Ice melt cable has a limited lifespan, particularly in this environment, and most systems make it difficult to replace the cable when it does fail." In contrast, HotEdge products are designed specifically to allow easy cable replacement, without tearing out sections of the system.

"We know the heat cable won't last forever," Olsen added. "The HotEdge design not only protects the cable from ice and UV exposure to extend its service life, but it's important for us to know that we can easily service the system when cable replacement time comes," he said.

Introduced at the International Builders Show, the HotEdge system was designed to eliminate air space

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and use the existing structure to maximize heat transfer from the cable directly to the roof edge. The system's single run of cable achieves excellent thermal transfer with a low-mass drip edge, concentrating heat to melt accumulated snow and prevent refreezing. As gravity takes over, water is directed into heated gutters and downspouts, draining snowmelt away from the structure.

Three Components, One Green System

In addition to reliable performance, one of the specification criteria for the new ice melt system was that it fit into Aspen Mountain's overall strategy of environmental responsibility. Just months after the Sundeck facility's opening, it received the U.S. Green Building Council's prestigious Leadership in Energy and Environmental Design (LEED) certification for the rigorous "greening" of the building.

That same year, Aspen Skiing Company was also awarded the 1999 British Airways Tourism for Tomorrow Environmental Award. The recognition follows on the heels of the company's \$1 million investment in the ski industry's largest solar array, which produces enough energy annually to power 20 average American homes and keep 400,000 pounds of carbon dioxide out of the air each year.

"HotEdge fits the desirable environmental profile that we follow in all of our decision-making," said Olsen. "It pulls heat from shorter cable runs and transfers it directly to the existing roof structure, effectively making it a part of the snowmelt system. That approach conserves energy and helps minimize operating costs."

The installation at Aspen involved three separate products: the HotEdge system beneath the roof drip edge, the HotSeam component to warm the panels between standing seams and the company's HotValley product to protect roof valleys. Together they form a roof protection system that prevents harmful ice dams and overhangs from forming. In all, the resort installed 189 linear feet of HotEdge

coverage, 497 feet of HotSeam, and 164 feet of HotValley protection in the first phase of this roof ice melt project. Two of the three products are patent pending.

Another advantage of the Hot Edge system is avoiding the need to penetrate the roof deck during installation, helping to minimize the potential for leaks. The Hot Edge system is installed with screws in the side fascia, not on the roof surface.

Hot Edge, Inc. is rapidly expanding into high snow load regions

worldwide, building relationships with architects, design-build firms, engineers, roofing contractors, material supply companies, and licensed electricians. The company warrants Hot Edge systems to be free from defects in materials and workmanship for ten years from the date of purchase, provided they are installed in accordance with the Installation Manual, National Electric Code (NEC) standards, and all applicable local building and electrical codes.

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