

Media Relations

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UNH Structural Engineering Professor Available to Comment on Roof Collapses

DURHAM, N.H. – A structural engineering professor at the University of New Hampshire is available to discuss the dangers this season’s record snowfalls on roofs. [Ray Cook](#), associate professor of civil and environmental engineering, can discuss the science behind this winter’s many roof collapses and give advice for preventing them.

Ray Cook is available at 603-862-1411 (office), 978-884-5970 (cell) or ray.cook@unh.edu. Cook, a registered professional engineer in the state of New Hampshire, is currently teaching a course in structural design using wood framing. He can discuss ice dams, snow loading, why rain on snow is so bad, and collapse and collapse mechanisms.

When buildings are designed, Cook explains, engineers use a calculated weight of snow on the ground in the particular area and then design the roof so the chance of snow exceeding that limit is one in 50 years. Roof pitch and surface – whether snow is likely to slip off or not – are also taken into account. Most residential structures, however, are not subject to this level of engineering, and industrial structures are usually built exactly to, and not beyond, these specifications.

Cook recommends that homeowners who can safely remove snow from the ground with a roof rake do so regularly, not letting the snow build up. Ice dams, which occur when melted snow runs down the roof to the eaves, where it freezes and causes water to back up under the shingles, can be temporarily addressed by melting the ice with road salt or hot water. When ice damming is a recurring problem, the roof should be inspected and modified to allow for better ventilation.

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Photograph available to download:

http://www.unh.edu/news/releases/2015/02/images/rs32674_13n3840-5014.jpg

Caption: University of New Hampshire structural engineering expert Ray Cook is available to comment on hazards associated with snow on roofs.

Credit: Lisa Nugent, University of New Hampshire

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