

## **ICE DAMMING**

### ***What is Ice Damming?***

Ice damming occurs when snow on the roof melts and freezes over unheated areas, such as edges of the roof, eaves, attached porches and garages, and party walls in semi-detached houses. Other primary factors which increase the amount of ice damming are: Large amounts of snow on roofs, slightly above or below freezing exterior temperatures, insufficient insulation, inadequate ventilation, poor sealing or no vapor barrier, complicated roof designs and lower sloped roofs. Water leakage occurs when the snow above the ice dam melts or it rains, but the ice below prevents proper drainage, creating a back-up of water. If enough water collects, it will back under the shingles and leak into the eaves, or worse, into the wall cavities or the interior of the house.

### ***What can be done to prevent or control Ice Damming problems and how can the leaking be stopped***

When the signs of ice damming occur, clearing the snow off of the roof and breaking up the ice will prevent water infiltration into the house. This can be done by contacting a properly insured and qualified roofing contractor who can safely remove the snow and ice with minimal damage to the roof. To control or prevent water backing-up when re-roofing, protection to the eaves is required by applying a waterproof membrane along the eaves and in the valleys. The membrane should extend a minimum of 2 ½ feet beyond the inside of the exterior wall. Certain roof designs require proper ice shields over the entire roof. Metal roofing in place of shingles encourages snow and ice to slide off the roof, though its not as appealing aesthetically.

Other effective solutions to reduce or control ice damming problems include the use of proper amounts of insulation and attic ventilation to prevent the attic temperature from rising above the freezing point. In addition, the vapor barrier, if any, can be added or well sealed. Any existing gaps in the barrier should also be properly sealed. The insulation should be a continuous thick layer with minimal or no gaps. Proper ample and effective attic ventilation is required to remove excess heat that gets into the attic before it has a chance to warm the roof deck. The soffits and peaks of all roofs should be vented if possible. However, several older roofs have limited space and cannot be properly vented and insulated.

Heating cables are another alternative and can be effective if properly used. The drawback is that some have to be turned on prior to the accumulation of snow or they can actually aggravate the situation. They can also pose a fire or shock hazard if installed or used incorrectly, or if the cables overlap or become twisted.