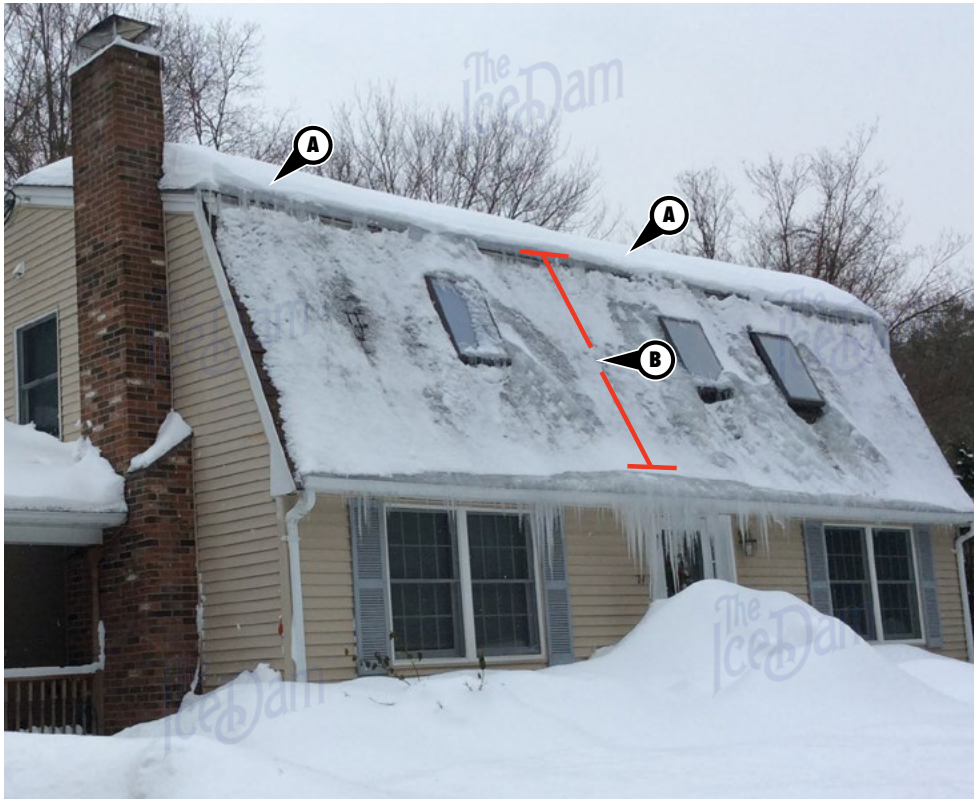


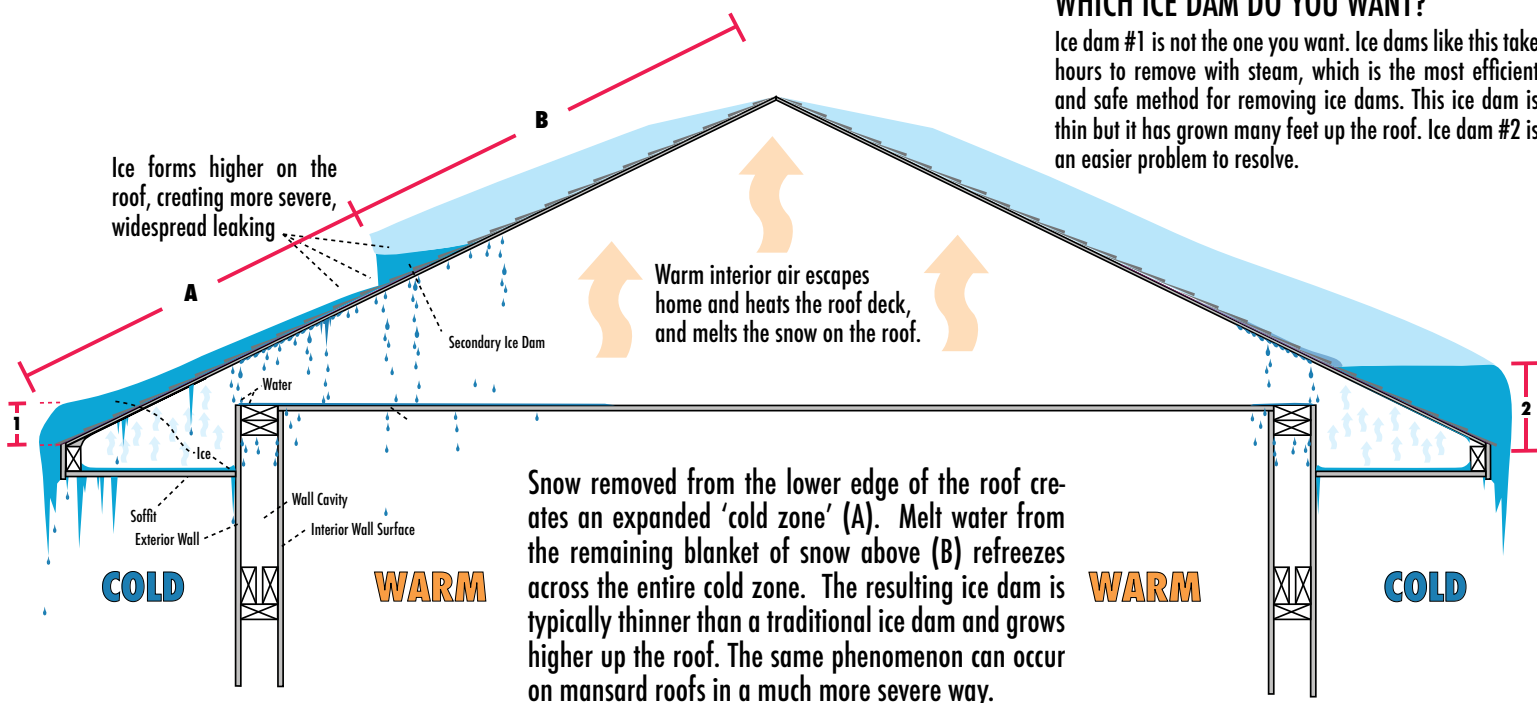
MANSARD ROOF ICE DAMS

Ice Dams on Mansard Roofs Can be a Seriously Big Headach to Remove



ROOF STYLES AFFECT ICE DAM SEVERITY

As discussed in Case Study #16, there can be some serious problems if homeowners decide to remove snow from only a portion of the roof plane affected by ice dams. We call it the 'Double Dam', which refers to the fact that ice dams can grow much further up the roof when only lower sections of snow are removed (commonly done with roof snow rakes because they can't reach high enough on the roof). Mansard roofs, such as this one from Edina, Minnesota, can create massive ice dams when the steep pitch (B) is cleared of snow. This is amplified when the slope has a directional bias towards the north because the sun will not help melt the ice as it accumulates. In the photo, left, we see two ice dam problems on this Edina mansard roof. The traditional location (A) is exacerbated by the low roof pitch (Case Study #09 explores the relationship between roof pitch, or roof slope, and ice dams). Area B has an ice dam that covers the entire span of the roof slope. This took many hours to remove even with our commercial ice dam steaming equipment.



WHICH ICE DAM DO YOU WANT?

Ice dam #1 is not the one you want. Ice dams like this take hours to remove with steam, which is the most efficient and safe method for removing ice dams. This ice dam is thin but it has grown many feet up the roof. Ice dam #2 is an easier problem to resolve.

Snow removed from the lower edge of the roof creates an expanded 'cold zone' (A). Melt water from the remaining blanket of snow above (B) refreezes across the entire cold zone. The resulting ice dam is typically thinner than a traditional ice dam and grows higher up the roof. The same phenomenon can occur on mansard roofs in a much more severe way.