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## In This Issue...Should You Remove The Old Roof?

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### Should You Remove The Old Roof?

If it has been decided that it is time to replace an existing roof one of the very important issues you must address is whether or not to remove the existing roof.

When you install a new roof over an existing one you save money, because you do not have to pay to remove the old roof and the cost to remove it can be substantial. Owners are justifiably eager to save the money if they can.

### Its All About Moisture

Generally, the reason you replace a roof is because it has been leaking. (That may seem obvious, but it isn't always the reason). When a roof leaks not all the water that goes through the top surface of the roof comes out on the inside of the building. Some gets trapped within the roof assembly. The amount that is trapped can vary. We have seen entire roof areas full of water and no water leaking inside a building at all and we have seen roofs leak and leak and leak without leaving a trace of water behind in the roof or insulation. Assuming there is trapped water, is it a problem? It can be and often is.

If water gets trapped in the roof's insulation layer there are several problems that can occur. First, the insulation will normally lose insulating properties and you will waste energy. Secondly, the insulation will tend to hold the water against the roof deck and, assuming it is metal, can cause it to rust. If unchecked the deck can rust away under a roof and create an unsafe condition and/or cause a new roof to fail very prematurely. Also, trapped water can migrate from the original roof up into the new roof system and damage it from below. Finally, even if the deck does not rust, fasteners that hold either the insulation or roof in place are also susceptible to rusting because many of the insulation products used in roofs release mild acids when they get wet. If the fasteners rust off and become loose they can puncture a roof from the bottom side or make it more susceptible to wind damage. Not good!

Virtually all roofing manufacturers require the roofer to remove existing wet material, but it is imperative that you make a determination about the presence and extent of trapped moisture, because it can have a huge impact on the installed cost of a new roof. Plus, roofers can either intentionally or unintentionally not accurately

assess the condition of the existing roof in regard to trapped moisture. If you have a failure on a warranted roof and the manufacturer determines that the roof failed because the original roof was wet, your warranty will likely be voided. (And that is when lawsuits start, that you will rarely win.)

Core sampling the existing roof can often help identify wet areas, but it is not always a sufficiently accurate method for determining moisture content either. Often Infrared scanning is done and this can be a highly accurate method if the existing conditions are favorable for that type of equipment. Other types of non-invasive testing methods also exist.

### Other Factors

You may also decide to remove the existing roof because of structural concerns about adding additional weight or because the existing roof does not provide a suitable substrate for the new type of roof you have selected.

As we already alluded to, if the existing roof insulation is wet you might remove it and replace it with dry material to help your energy bills. Also, sometimes the original materials have gotten wet and managed to dry out. But if they have also lost some of their dimensional stability they may no longer be suitable for receiving a new roof installed even if no moisture is present.

If the building has been previously reroofed, which is common on older buildings, often there are already two roofs in place. If this is the case the standard building code (and common sense) requires that you remove at least the top roof. Usually if you have that situation you should go ahead and remove both roofs, because the cost to remove the extra roof isn't twice as much as to remove just one. Plus, if two roofs are already in place all of the issues previously mentioned concerning weight, energy efficiency and trapped moisture apply double. Also the extent and location of trapped moisture can be harder to ascertain.

In the next article we are going to try to clear up the mystery about roof warranties.