

The Comfort Corner

Building Science Pt. 5, Conclusion

Over the past few months, we've discussed some of the main factors in creating a comfortable and safe home. The end of most of these articles contained a note about reducing risk and increasing tolerance. Let's talk about how these ideas fit together.

In the last 50 years, home building has changed dramatically - increased insulation, tighter homes, smaller chimneys, more efficient HVAC, reduction of good flashing details, cementitious siding, power attic ventilators, to name a few. All of these things are designed to create more comfortable homes. If you simply throw one idea in without regard to how they fit together, you're increasing your risk.

Risk is inherent in building house. The homeowner may not like the wall color that you had agreed upon. The plumber may forget to run a pipe and no one notices until after the wall has been sheetrocked. The weather may put your schedule 3 costly weeks behind. And then there's the more long term risks, like mold, houses that won't heat or cool properly, polluted indoor air and lawsuits. Why make building riskier than it already is?



The Environments for Living program, from where most of this information has come, lists 7 steps to risk reduction:

1. Airtight
2. Provided with fresh air (mechanical ventilation)
3. Insulated right
4. Equipped with properly sized and installed HVAC
5. Pressure balanced
6. Moisture managed
7. Combustion safe

Every home is an interactive system that needs to have all of the above in place to function properly. One thing out of whack can contribute to failure of the entire system.

When building for durability, energy efficiency and health and comfort of occupants, it is important to remember that the comfort of a house is in the building envelope. If you start with this in mind, you have the the basis for a low risk, high tolerance and, most importantly, happy customer.