



**HOMEOWNER TIP**

Where there is water, there MAY be mold. If you see water stains anywhere in your home, we suggest that you investigate further to check for mold. If you find mold, have a sample tested by a reputable lab to determine the type of mold. Porous materials such as carpet, drywall, wallpaper and ceiling tile can encourage mold growth when they become wet.

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## Why can't we build a perfect house?

The operative word here is WE. WE can't build a perfect house because WE are human beings and human beings are not perfect. This is part of a continuing YOUR HOME series that looks at the various challenges faced during the life of any home.

And, of course, there is the question, "Exactly what is a perfect home?" Many people expect a perfect home, whether buying a brand new or a "used" home. That expectation only brings disappointment. There simply is no such thing as a perfect home.

We suspect that Mother Nature and Mother Earth get a good laugh at our futile efforts to build the perfect home. While there are probably endless reasons why building the perfect house is a futile goal, we believe these four to be the most fundamental.

1. We build our homes on the ground! Mother Earth (the ground) is unpredictable. (See Part One of our series.)
2. We build most of our homes with wood. Wood is organic. Mother Nature did not design wood to be a predictable, reliable building material. It is dimensionally unstable, changing shape as it ages and as temperature and humidity change. (See Part Two of our series.)
3. We use human beings to build our houses! Human beings are not perfect. Further, there seem to be fewer and fewer skilled human beings available to help build homes. In this issue, we explore this topic in more detail.
4. We build our homes outside! That's the worst practice of all!! The same Mother Nature that gives us imperfect wood with which to build our houses then throws unpredictable weather at us while we build.

Unlike most of the products we buy, homes are not built in a controlled manufacturing environment. (The exception, of course, is the manufactured housing industry that still represents only a small portion of the residential construction industry in the United States.) Homes are built in the Real World.

*(Continued on next page)*



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## *Workmanlike Construction*

From day to day, the weather is unpredictable, materials must be stored in less-than-ideal conditions and workers are subject to temperature extremes. Considering the effect weather can have on a three- to six-month project to build an average home, it could be argued that it is rather extraordinary that we do as well as we do with most of our home construction. It may not be perfect, but it's pretty good, all things considered.

You will find such a statement offered as the standard of care for residential construction in many contracts. But what does it mean? Many of us might think such a statement means quality workmanship. However, when subjected to legal scrutiny, workmanlike construction is often defined as "what an average workman will do on an average day." In other words, workmanlike construction is average, not perfect. Workmanlike construction is generally what is expected of the residential construction worker. Thus, there is typically no incentive or motivation to be better than average.

## *Personal Pride or Obscurity*

Most homes are built by many different people representing different trades and skills. Often, no one person or crew stays involved in a single home from start to finish. For many large builders, the only person who stays with the house from beginning to end is the customer service representative, who may offer some continuity for the buyer but typically doesn't have much control over the construction process. In the end, there are so many different hands that work on the house that no one can take personal pride in the project. The worker works in obscurity. Good work or bad, individual effort mostly goes unnoticed.

## *"Just Enough"*

Perfection is related to durability. If a home serves its owner well over a long period of time, it can be argued to be a perfect home. Durability depends on reserve capacity. Some examples of reserve capacity include framing members that are a bit bigger than necessary and a heating unit that has a heat output greater than what is needed for the worst weather conditions. As time passes and components age, extra capacity often makes the difference between good, reliable performance and marginal, high-maintenance performance. Today, often in the interest of maximizing profit, components are chosen that are "just enough" for the need at the time the home is built. "Just enough" construction may produce a house that looks good for the first few years, but it will not produce a durable home. All too quickly, the house will start to lose its "crispness." Extra maintenance is required and the house loses the quality "feel."

"Just enough" decision making during construction also affects the motivation of the workers. "If I don't have the materials to build a quality (perfect) home, why try?"

## *Good Enough Usually Is*

Just as the "just enough" approach often prevails in construction planning and component selection, the "good enough" approach to labor management is common as well. Whether for efficiency, limited availability of skilled workers or fears of backlash from labor laws, setting high standards and accountability for workers is becoming less common. Unfortunately, skilled workers are not as available as they once were. Most of the conscientious builders we have talked to have told us that finding and keeping skilled, motivated workers is their biggest

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challenge. Further, the training necessary to develop a skilled worker is cost-prohibitive for most small and medium-size builders. Thus, to stay in business, it is often necessary to compromise the standards set for workers.

## *Labor-Intensive or Labor-Saving*

Labor costs represent a significant portion of the cost to build a home. Perfection takes time. Typically, the budget to build a home does not permit the time for perfection even if the skill and motivation are available. Instead, the push is to find ways to save time and reduce labor costs. One common way is through the use of various laborsaving tools and equipment. Some of this equipment actually sacrifices quality because the “feel” for what is being built is lost in the speed and automation. A power nailer, for example, is fast, but accuracy suffers (nails sometimes miss the framing entirely!) because the feel of a nail being driven “home” is lost. While perfection is not singularly dependent on time, the pressure to finish quickly inevitably leads to compromises in quality.

## *Craft or Commodity*

What is the purpose of a home? Most fundamentally, it is to provide relatively low-maintenance SHELTER and SECURITY for its owners and occupants. Shelter and security do not require craftsmanship.

A secondary purpose of a home is to reflect the lifestyle of the occupants. At this point, craftsmanship begins to matter. The home becomes a possession, a piece of art, a social statement. When and how you cross the line from SHELTER to STATEMENT OF LIFESTYLE is very subjective, however. If the line (the objective) is not clearly defined at the outset of the project, it is much more likely that a commodity (SHELTER) will be the result. After all, most builders do what they do to make a profit, not to produce a work of art.

## *High Volume or Limited Production*

The small home builder is a dying breed. In most cases, as those builders disappear, the quality home that is most likely to approach perfection is disappearing as well. Notwithstanding the other comments made here, the small builder typically builds a home because he or she takes pride in building good homes, perhaps not perfect but typically above average. High volume builders will seldom achieve the same level of quality.

## *The Master Builder is Disappearing*

In the nineteenth century most homes were built by Master Builders. These were people who apprenticed for many years with other Master Builders to learn their trade. Typically, they chose that path because they took pride in what they produced. Often, the signature of the Master Builder could be found in the completed home, on the back of the mantel or other ornate component, not obvious but present. Building that home was a matter of personal pride. The skills of the Master Builder embodied those of a builder, an architect, an engineer and a planner, among others. Master Builders still exist, but their numbers are declining. As they disappear, the industry commitment to a perfect home fades as well.

In our experience, most builders want to build a good home. Many do a good job. Ultimately, however, no builder can adequately control all of what goes into building a good home to consistently produce a quality product, certainly not a perfect one.

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## Mold - Should I Be Concerned?

Mold and Indoor Air Quality (IAQ) continue to get a lot of attention. As a result, many people are increasingly concerned about the quality and safety of the air they breathe at home and at work. In some cases, the concern is justified. In many others, however, the concern is not justified. Concern often results from media hype, scams and/or unqualified professionals anxious to “help” rather than objective, factual information. How can you know the difference?

Here are a few thoughts.

1. Be well informed. Be sure to use objective, reliable sources. Here are a few Web sites we trust.

[www.epa.gov/iaq](http://www.epa.gov/iaq)  
[www.iaqcouncil.org](http://www.iaqcouncil.org)  
[www.iaqtechnologies.com](http://www.iaqtechnologies.com)  
[www.aerotechlabs.com](http://www.aerotechlabs.com)

2. Keep things in perspective. There are more than 100,000 types of mold and fungi in our world. Most of them actually contribute to our healthy environment. The mere existence of mold does not necessarily signal a hazardous condition.
3. Use background levels as a reference. Any credible air-quality testing should be done by measuring outdoor levels as well as indoor levels and comparing the results.
4. Look for a “credible voice of reason.” Many “experts” do not have the experience and qualifications suggested by their titles or certifications. Check references and qualifications before accepting their advice and recommendations.
5. Safety is relative. No standards have been set for safe levels of biological contaminants (mold, fungi, etc.) in air. Further, it is unlikely that any such standards will be set because “safe air” is dependent on many variables including temperature, humidity, availability of nutrients, synergy among contaminants, respiratory sensitivity, duration of exposure, etc.

Mold and IAQ are legitimate concerns. However, balance and perspective are also important. Try to be as informed as possible. Avoid making assumptions or jumping to conclusions. Be suspicious of any information until you have satisfied yourself that it is credible.

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