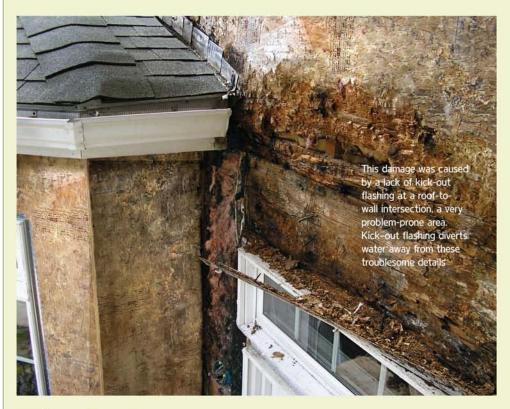
The Real Deal



Flash Points

Building green means: Build it right; build it once.

Text and photos by Steve Easley

The question I get most often from builders wanting to build green is: "What are some of the most cost-effective ways I can make my houses greener?"

My first response is that green building is not just using the latest green products; it's a mind-set of being a good steward with resources nature has given us. Green building is a process that guides us through the selection of products, the design, and the construction practices of building homes. This process encompasses the cradle-to-grave impacts of all of our home-building decisions. In fact, pretty much everything we do impacts our carbon footprint, so it pays to remember that the durability of the homes we build has a long-lasting effect on the environment.

On a practical level, following best practice building techniques means building homes that last. As the saying goes: "One of the greenest buildings you can build is one you don't have to



Notice the moisture loads at roof-to-wall intersections and the need for kick-out flashing.

rebuild." The new National Green Building Standard (NGBS) recognizes this. It mandates that an average of 20% of the minimum threshold point ratings must come from the resource efficiency category.

Durability is an important component to green building. In section 602 of the NGBS, "En-



Pre-molded kick-out flashings from DryFlekt perform better than field-fabricated metal and only cost about \$11 each.

hanced Durability and Reduced Maintenance," the authors recognized that it takes natural resources, energy, and landfill space to manufacture, transport, install, and dispose of building materials.

One of the most cost-effective paths to building green is to prevent water and moisture intrusion. Water intrusion dramatically reduces the life of building materials, affects indoor air quality, and diminishes the effectiveness of many types of insulation.

The NGBS in 602.9 requires water resistive barriers, as a mandatory measure. Specifically, it calls for flashing around exterior fenestrations, skylights,



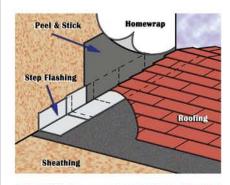
Roof-to-wall intersections are often reversed shingled as shown here. If water gets behind the cladding it will cause a leak. The wrap should go over the step flashing.

and doors; roof valleys; deck/balconyto-building intersections; roof-to-wall intersections; and roof-to-chimney intersections. It recommends that a drip cap be provided above windows and doors that are not flashed or protected by

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Building science notes from an expert in the field



This detail shows a peel-and-stick flashing that spans the gap between the step flashing and the sheathing. If water gets behind the wrap it will be diverted to daylight. I like butyl-based peel-and-stick flashings because they better maintain their adhesive properties after repeatedly getting wet.

a covering. The code gives up to six points for proper flashing .

This makes sense because water and moisture problems cost builders billions of dollars annually in callback costs. In fact, it takes an average of five trades to make all the repairs after a water-related callback. This also annoys home owners.

Let's face it; all cladding systems leak. Flashing is the last defense against water



Moisture damage due to a lack of window flashing.

intrusion. The diagrams and photos in this piece illustrate the most common mistakes made by field crews: missing or improperly installed flashing.

Take these pictures to your supers and subs and review them to make sure the way you are building guarantees that your buyers will live in an energy-efficient, durable home that doesn't require a rash of callbacks to complete. Being a good green



The head flashing of this window (as well as the bay roof area) is reverse shingled. If water gets behind the wrap it will enter the home at the window header.



Note the head flashing correctly spans from the nail fin of the window onto the sheathing under the building wrap at the head of the window.





Building wraps work well keeping water out of building cavities. However, it is important that all penetrations are sealed. The penetrations shown here will surely lead to water leaks and expensive callbacks.

builder means employing best practice building to prevent construction defects. It takes a lot of resources, energy, and labor to manufacture, transport, and install replacement materials. The materials that are removed have to be taken to landfills for disposal. So paying a little extra attention up front reduces the majority of these problems. It will save you money and your hard-earned reputation.

Remember it's not how much money you

bring in that makes you successful in the home building business. It's how much you get to keep. How much you get to keep is determined by the quality and durability of the homes you build. 68

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