

Alaska HomeWise: Ask a Builder
By Cold Climate Housing Research Center Staff

The "Ask a Builder" series is dedicated to answering some of the many questions Fairbanks residents have about building, energy and the many other parts of home life.

Why is it beneficial to have south-facing windows on a home?

Due to the orientation with the sun, south-facing windows bring in both light and heat, which are very important for homes in our climate. If you have a lot of north-facing windows, you're going to lose a lot of heat with not a lot of heat gain. The amount of heat your home gains from the sun should not be underestimated and sunlight is also good for your mood.

At the same time, some homes can become overheated in months like March, when there is no vegetation to provide shade, and the sun comes directly through your windows. Also, in the summer, the hot sun can overheat your home if your roof does not have enough overhang to shade your windows. Again, trees and other vegetation will help here as well.

Before you build your home, get a sense of where the sunlight falls in both the winter and the summer. If you are a morning person and you need that morning light to help wake you up, you'll want to place your windows appropriately. If you like to entertain in the evening summer sun, then put windows in the appropriate place for that. It's not just about getting light to see and heat your home, think about how light will affect your life in your home.

I want to put a chimney in for a stove, but there are a bunch of things in the way, including a beam. How can I get around that?

It's always frustrating when you've got the perfect place for a stove, but something is in the way. Ideally a chimney should be a straight shot for easy cleaning and proper drafting, but sometimes it just isn't possible and you've got to put an elbow in the pipe. The best place to put an elbow is at the bottom because it allows you to scrub the chimney top to bottom when you clean it and you can still get inside the stove and vacuum out that elbow piece.

Sometimes you can run a stovepipe directly out the side of the house and up the exterior wall. How well this works is case dependent. If there is too much pipe in an uninsulated space, then the pipe can get cold and as a result, some of the smoke will get cold which can cause creosote build up and create a chimney fire hazard. Also, a fire started with a stovepipe that is cold may not draft properly so it may smoke and smolder and even introduce pollutants into your house if it's not an airtight stove.

What are the advantages of LED lights over those spiral compact fluorescents?

LEDs use less power, have a longer life and are more durable than compact fluorescents. Initially there have been some costs that have kept them from reaching the broad market, but every year brings new innovations in LED technology, bringing the cost down and improving the quality of light they produce. Compact fluorescents contain mercury, so disposing of them is a problem, while LEDs are fairly non-toxic. LEDs also work better than the average bulb in cold temperatures, which is important in our climate.

Alaska HomeWise articles promote home awareness for the Cold Climate Housing Research Center (CCHRC). If you have a question, e-mail us at akhomewise@cchrc.org. You can also call the CCHRC at (907) 457-3454