

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.

I want to build a garage. What are the advantages of having an attached garage versus a detached garage?

One big advantage of the attached garage is convenience. You get to park your car inside your house! That's always nice in the winter, but putting a car into your home also comes with problems. If a car idles, even for a short time, it can introduce a significant amount of carbon monoxide into your home. Even a half an hour after the car is gone, your carbon monoxide sensor may go off, which means enough CO seeped into your home through cracks under doors, or in your walls and ceiling to trigger the sensor. The key here is to effectively seal your walls, ceiling, and any connection your garage has to your home. Garage ventilation is important as well.

Is there any new, fascinating boiler technology in development?

They are making boilers out of different cast iron materials. Some of the boilers have what they call "eutectic cast iron," which is a little more flexible and a little more forgiving with temperature differences between the supply and return water, so they don't suffer the temperature shock that older boilers do. This iron prevents the return water from cracking the castings, which means the return water can come back into your boiler at a much lower temperature.

Another technology is the condensing boiler. This boiler performs better because it extracts more heat from the flue gas than typical oil-fired boilers. Because more heat is pulled out, the gas gets significantly colder and condenses. Propane and natural gas-fired units have offered condensing options for a long time, but now a condensing oil-fired boiler is an option. With these new boilers, you don't have to worry about the condensate causing corrosion because they are mostly made of stainless steel and plastic parts. These condensing boilers can run upwards of 90% efficiency, but do require a drain.

I prefer to use compact florescent light bulbs, but I can't find any that work with a dimmer. Do they exist?

Yes they do, however they can be harder to find. The best way to ensure they work with a dimmer is to read the labeling. On that note, one important thing about compact fluorescents is that, when handling, they need to be screwed in by the base rather than by the bulb. That is particularly important for the bulbs that have the two little stems that wind around into an ice cream cone style shape. Instinctively, that shape fits your hands. However, twisting the bulb that way will create micro fractures in the glass, which can shorten bulb life and leak mercury. If a bulb does break, several of the local box stores have drop off areas where you can take them to be disposed of properly.

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