

Alaska HomeWise: Ask a Builder

By CCHRC 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.

What is the most insulated style of log home I can build?

Log and solid wood generally has a very low insulating value. It's actually an R-value of about 1.25 per inch. If you use R-value to calculate the insulating value of log homes, a lot of three-sided six-inch and eight inch places you see around town are pretty under-insulated by today's standards. As a comparison, in a 2x6 wall, you can install R-21 fiberglass insulation. When you average the whole wall, combining the wood and insulation, you get an R-value of about 17 or 18. To achieve that in a log wall, you'd need about 16-inch logs. That's certainly doable. Full-scribe log places do that size all the time, but it's not something you can get out of a six or eight-inch log home. If you're building a big log house, I wouldn't look at the smaller size logs, I'd look at something bigger that will get you more R-value.

The other important thing is to use a Perma-chink-type elastic sealer between the joints, which helps stop airflow.

If I am retrofitting my home, can I put in a heat recovery ventilator, and is there anything I should keep in mind?

Installing an HRV system into an existing home is a little trickier than in a new construction. You have to put ductwork into a preexisting wall. You want your HRV system to exhaust air from places like kitchens, bathrooms, laundry rooms and utility rooms, while providing fresh air to living rooms, bedrooms, and places like that. So you're going to have to install duct that will connect to every room in the house. When you are doing a retrofit, this can be difficult to do. However, for example, if you have a simply designed house, you can do a drop ceiling in a hallway, which should do a good job of getting fresh air where you need it. While it's ideal to extend this ventilation system to every room, it's better to get some ventilation than not get any, so it's possible to just set up a system that will provide fresh air to your living room while exhausting your bathroom. There are a lot of options, and every house is different, so call an expert and have them take a look at your home so they can make specific recommendations.

Do flat screen monitors use less energy than the big tube monitors? I know they are easier on the eyes, but what about energy use?

CRT (Cathod Ray Tube) monitors are quickly becoming out of date. They are big, awkward, heavy and emit a lot of heat. Flat screens are newer technology, often look nicer, and use less energy. CRT monitors also use a lot of toxic chemicals, so if they are thrown away at the dump instead of recycled, all those chemicals are put into the environment. Flat screens don't use these types of chemicals.

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