

Home Builders Are Not 'Getting It' When It Comes to Building Sustainable Homes

Last week I worked with a buyer looking at new homes. One community we visited was in central Arvada; the other was just north of Golden at the corner of Hwy. 93 and 58th Ave.

Neither builder was even offering upgrades such as solar panels, heat pump HVAC systems, or induction cooktops.

Yes, they were enhancing the insulation of their homes, but little else.

And, speaking of solar panels, neither builder was building into the design of their homes an orientation that would favor solar panels on the roof. One had unnecessary peaks or dormers on their roofs that would seriously inhibit the usefulness of the roof for installing a solar photovoltaic system.

The heating systems in both communities were gas forced air furnaces, which I consider obsolete. Such furnaces require the separate installation of an A/C compressor to provide cooling. I asked if an upgrade to a heat pump system was available, and it wasn't.

These are silly and unnecessary design flaws in any new construction. A heat pump HVAC system provides *both* heating and cooling within one unit. It is the preferred choice in Europe and Asia, but our builders seem to know only gas forced air furnaces with a conventional A/C add-on.

New-build homes are typically being equipped with conventional gas water heaters, while it would be just as easy and cost little more to install a highly efficient heat pump water heater, as I have done.

Geothermal heat pump systems are the "gold standard" when it

comes to energy efficiency and sustainability in new home construction. Retrofitting an existing home

with geothermal can be prohibitively expensive, but on a dirt-start build, it would be easy to drill geothermal wells in the middle of the basement or crawl space before installing the foundation and building the house. There's even more efficiency in a dirt-start *subdivision*, because the drilling rig could go from one unit to the next, drilling 10, 20 or 100 geothermal wells in one area.

I have written in the past about the Geos Community west of Indiana Street and 68th Avenue in Arvada, where all the detached single family homes have geothermal heat pump systems, and all the townhomes have air source heat pump systems. They also have heat pump water heaters and induction electric ranges, and all have south-facing roofs with solar panels providing all the electricity to run each of those systems. There is no need for natural gas service to the homes.

Geos was intended to showcase the cost effectiveness of all-electric homes using geothermal and air source heat pump systems and orienting the homes for maximum passive solar as well as active solar efficiency. But it seems that builders are slow learners. The developer which purchased the lots next to the previously built Geos Community felt it necessary to install natural gas service to all its new homes currently under construction "because buyers want gas," much to the understandable dismay and anger of the Geos Community residents.

There is similar inertia in the HVAC industry itself. It's hard to

find an HVAC company that even understands the advantages of heat pumps for heating and cooling homes. It is so much easier for them to do what they have learned to do, even though it represents an obsolete technology. I have heard countless stories of homeowners whose forced air furnace needed replacing and who were unable to get their HVAC vendor to sell them a heat pump system. Most HVAC vendors just want to keep doing what they already know how to do.

(I can recommend a couple vendors who specialize in heat pump systems and even geothermal drilling. Ask me.)

This is not unlike the problem with car dealerships and electric vehicles. If you go to a Chevy dealer and ask about the Chevy Bolt EV, the salesman will likely bad-mouth the Bolt and try to sell you a non-electric model that he loves to sell and requires no learning on his part of new technology.

This guest speaker at the April meeting of the Denver Electric Vehicle Council was a man who, having bought a Chevy Volt in 2012, convinced a Texas Chevy dealership to let him be a salesman of EVs exclusively. Other salesmen started sending him buyers who expressed

an interest in EVs, and he quickly became the number one seller of EVs in the state of Texas. It helped that hardly any other Texas car dealership had a salesman who was comfortable selling EVs. Their loss.

Getting back to home construction, we need and *the planet needs* home builders to be more educated about the wisdom and relative ease of building energy efficient, solar-powered, all-electric homes with a passive solar orientation and design. It's not that hard to learn, but we need to overcome the inertia built into that industry just as with the automotive and other industries.

REAL ESTATE TODAY



By JIM SMITH, Realtor®

Is It Too Easy to Become a Licensed Real Estate Agent?

I hear this question asked by fellow brokers and clients who complain about incompetence or ethical lapses among our colleagues.

Yes, it is easy to get licensed — take 168 class hours, pass the 3-hour state exam, pass a background check (including fingerprinting), and you're licensed to handle the most significant financial transactions in the average person's life.

Loan officers and appraisers have a dauntingly higher barrier to entry than do real estate brokers. It's fair to ask if that should change.

Lakewood Ranch Listed by Chuck Brown

This ranch-style 3-BR home at **14133 W. Warren Circle** was purchased new by the seller from Village Homes in 1993. Although it has not been updated, it has been well maintained and is in move-in condition. New furnace and A/C in 2019, new roof in 2017. If you like emerald green carpeting with matching kitchen countertops, don't let this home slip through your fingers! You'll certainly appreciate this home's quiet location in a mini-cul-de-sac on a circle drive, within biking or driving distance of Red Rocks Amphitheater, Green Mountain trailheads, Bear Creek Park, Union Blvd. shopping and restaurants, and C-470 and I-70 to the mountains. The backyard is all xeriscaped, but you'll enjoy the 16'x20' wood deck with three benches and six flower planters accessed from the family room through a sliding glass door. The pool table and light in the unfinished basement is included. You can take a narrated video tour at www.LakewoodHome.info, then call your agent or Chuck at **303-885-7855** to see it. **Open this Saturday, 11 to 1.**



The Sudden Rise in Mortgage Interest Rates May Trigger a Market Slowdown

Earlier this year, the conventional wisdom was that mortgage interest rates would rise to the 4% range by the end of the year, so when the rates rose to 5% abruptly in early April, it took us all by surprise.

The agents at Golden Real Estate are noticing a reduction in bidding wars, which might be due to the increased cost of financing a home purchase. It may be too early to draw any conclusions, but the interest rate increase is not looking temporary at this point, so we'll have to see how the

statistics for April and May come out.

Principal and interest (P&I) on a 30-year \$500,000 loan at 4% has a monthly payment of **\$2,387**. At 5%, that rises to **\$2,684**. Earlier this year, you could get that loan for 3%, which would cost **\$2,108** per month for P&I.

How does this affect affordability?

With a 3% interest rate, a person could get a \$637,000 loan for the same P&I as a \$500,000 loan at 5%. That is enough of a shock to disrupt many buyers' purchasing plans.

I'll be watching and let you know.

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