

Contributor BUILDING A BETTER HOME



BOST

HOLISTIC HOME BUILDING

iddle me this: How do increasingly strict energy codes increase the risk of indoor air pollution and mold? It seems logical that higher efficiency appliances, lighting, and HVAC systems would be constructed with less harmful materials than their predecessors, and that HVAC air filtering/ventilation features would only be improving, so why the increased risk? The answer lies in the "houseas-a-system" concept, which explains the relationship between various features, products, and systems within a home.

See, the best way to increase efficiency is to seal and insulate the building enclosure, which reduces demand for heating and cooling. Herein lies the problem: When buildings are airtight they require thoughtful ventilation techniques, or they'll trap pollutants and humidity in the house. During hot, humid summers in North Carolina, air conditioners dehumidify

the interior air as they run. So, when we increase insulation and air tightness, we need to address extra ventilation and dehumidification, because the air conditioner will not cycle as often, allowing humidity to build up.

As a homebuyer or renovator, how can you keep all this house-as-a-system stuff straight when your builder isn't specifying it? Fortunately, there are several programs available in the Triangle market that, through third party inspections, verify homes to be energy efficient, healthy for inhabitants, and easy on the environment. These house-asa-system programs include Energy Star, the National Green Building Standard, which was developed by local builders, LEED for homes, and EcoSelect. All these programs specifically take indoor air quality into focus among other high-performance, health, and environmental factors.

Perhaps you are of the mindset that a performance certification is unnecessary,



which we find many homeowners share. You've chosen a highperformance builder or remodeler, and Google empowers you to make many specification decisions without adhering to any program. Well here's another reason to consider going for the certification sticker: The market is responding. A 2017 report conducted by the NC Building Performance Association analyzed home sales data from Charlotte, the Triad, and the Triangle to compare certified home sales against non-certified homes. The study compares the prices of 3,908 highperformance homes sold between 2015 and 2016 to all other home sales. "The results indicate a \$29,365 average sale price premium in addition to the improved health, safety, comfort, durability, and lower utility bills that these homes offer." Ryan Miller says, NCBPA's executive director.

Additional findings: There's a 9.5 percent premium for highperformance homes sold in the three metro markets. In the Triangle market, high-performance homes averaged 14.4 percent more square footage and a 22 percent sale price premium, resulting in a 6.7 percent net increase in sale price per square foot. So, if you choose to build a high-performance home without certification, you may be leaving thousands of dollars on the table in resale value!◆

Evan Bost is director of marketing and Green Initiatives at Bost Custom Homes, an award-winning custom building firm serving the Triangle. With thirty years of proven expertise, Bost Custom Homes designs and constructs custom residences with superior craftsmanship, a focus on health and sustainability, architectural authenticity, and structural integrity. To begin the conversation of your forever home, call 919-460-1983 or email info@bosthomes.com. Learn more at www.bosthomes.com or www.facebook.com/bostcustomhomes.



