

# Addressing 2022 Supply Chain Disruptions

## Alternative Building Materials

By Slawomir Platta, Esq.

When it comes to impeding home-building growth, one does not need to look further than global supply chain issues. Closures in factories and transportation hubs have negatively affected an industry that relies on building materials sourced throughout the world. And while there is certainly no shortage of new housing demand here in the United States, there is a scarcity of the essential materials needed to build these dwellings.

As one might expect, supply chain challenges have led to extensive construction delays and higher building costs, which are passed on to the consumer. According to The Wall Street Journal, supply-chain backlogs, combined with inflationary pressures, have sent new home prices skyrocketing to record levels. In November 2021, the cost of a newly built home was just under \$417,000 – a staggering 19% jump from the previous year.

Housing market research firm Zonda indicates that 90% of home builders recently surveyed admitted their business was significantly affected due to supply chain delays – forcing them to reschedule the few skilled workers available until much-needed materials could be acquired. It is not just new home construction that has been adversely affected by supply chain issues; home renovators must also find ways to navigate prolonged wait times for vital materials and home furnishing deliveries.

The National Association of Home Builders states that the total cost of construction in the United States has grown by 21% over the past year. Delivery delays and the steep rise in lumber costs are among the main reasons for this dramatic increase. “Supply chain issues are continuing to impact all levels of construction, not just the construction of new luxury homes or developments,” said Ken Colao, president of CNY Group, a construction and development services firm in New York.

As the construction industry continues to contend with delays and price surges resulting from material shortages, a growing number of designers, contractors, and developers are turning to alternative resources to save money and get the job done in a timelier manner. Swapping cement with other materials that have similar properties and reusing materials that would have otherwise gone to waste, such as those extracted from demolition sites, are



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just some of the less traditional approaches builders are now implementing.

Another example of alternate materials used for the construction of homes and offices includes the application of natural materials such as adobe brick, volcanic rock, and rammed earth. These materials are readily available on-site and offer added cooling and heating benefits from the natural insulation they provide. However, while developing alternative materials like these is often tied to sustainability efforts and has been demonstrated to be advantageous during a supply chain crisis, they can also present potential risks.

### Risks Imposed by Alternate Materials

There are downsides when it comes to using these types of building materials. Greater expenses for experienced, skilled labor are among the biggest hurdles to overcome, along with delays brought on by home inspectors who may lack the insight and understanding of building a home with these alternative materials.

Perhaps the most significant threats these alternative materials pose to construction workers and home residents are long-term health effects, primarily those stemming from mold. Unfortunately, earthen materials like those identified earlier have been shown to have abundant organic substances that can harbor mold – a costly liability concern for property owners and builders.

Wherever there is moisture, a lack of ventilation, and the right temperature range, mold

can often be found. Once it spreads within a home, the damaging health effects can be severe. To prevent mold, it is imperative to identify the association between construction materials and their vulnerability to mold when any type of moisture is present.

“Buildings will never be designed, built, maintained, or utilized perfectly, and weather and natural disasters cannot be predicted. The one thing we have complete control over, the materials within the building, should be selected wisely,” said Aaron Cooper in his Texas A&M master’s thesis on mold susceptibility of rapidly renewable materials used in wall construction.

The existence of toxic mold brought on by alternative building materials, like adobe brick and rammed earth, often implies an underlying construction defect and, thus, frequently leads to litigation. It should be noted that toxic mold lawsuits can be complex and call for expert medical and scientific testimony. However, most of these grievances against landlords and building owners are settled before trial.

Toxic mold is one instance of the potentially harmful effects of using alternative materials. Taking the time to better understand all aspects of various building material options can help dismiss non-compliant materials while also helping to lessen costly disputes and returns. ■



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