

Opportunities for Creating a Post-Pandemic Normal



Ramana Koti

The ongoing COVID-19 pandemic actively disrupts the way we live, learn, and work and it can be difficult to envision a post-COVID world. However, just as crises carry new risks, they can also present previously unimaginable opportunities. The potential for the building industry to "bounce forward" from the pandemic is on the minds of industry leaders – Kattera included.

It's no secret a pandemic can exacerbate risks. In the U.S., concerns are emerging about the compounding effect of cascading crises. When inevitable but unpredictable accidents and natural disasters occur, the resulting injury and loss of life may be compounded by the loss of homes, power and water. If this happens concurrently with a pandemic or quarantine, it is sure to test our preparedness.

Crises could be unpredictable or unavoidable but how we prepare to respond to them is certainly a choice. If change is inevitable, we can either be proactive and design for it or wait and risk change happening at our expense.

Kattera seeks to disrupt the AEC industry with a technology-driven, vertically integrated alternative to conventional practice. Kattera's approach is well suited to adapt to the design challenges posed by the COVID-19 crisis with responsive building platforms and projects.

"There is no question that COVID-19 will have a lasting emotional effect, including a heightened awareness of the built environment's role in our individual health and wellbeing. Many of us may permanently alter our work habits, spending more time at home. When we do return to the office, the way we interact with our workspace is likely to be quite different, with our awareness of the environment around us much more in focus."

The quality of Katerra's residential and commercial office building platforms is based on a commitment to health and wellbeing, as well as reducing environmental impact. The buildings that will be designed, manufactured and assembled from our platforms are not only based on speed, efficiency and cost, but also on environmental quality, providing living and work environments that evoke a positive physiological and psychological response." – Craig Curtis, Chief Architect

Here are three post-COVID-19 opportunities for the built environment encompassing design, building science and sustainability:

Increased Flexibility

The pandemic has shown the benefit of 'long life, loose fit' buildings whose usage can adapt to changing needs. Residential buildings now also need to support working from home, education, and extended playtime for children. Educational buildings are beginning to adapt to remote learning and could potentially serve other functions while not being occupied for classes. Healthcare buildings need capacity to 'flex' during pandemics that they may not need during normal times. All building types moving forward will likely need to accommodate increased social distancing in some fashion.

Renewed Focus on Health

This could come in several forms, including but not limited to improved access to the outdoors, increased mechanical ventilation, provision of operable windows, access to daylight, circadian lighting design, biophilic design, and the avoidance of volatile organic compounds (VOCs) and red-listed chemicals. Technological solutions such as enhanced filtration, touch-free and easily cleanable surfaces could improve health while adding sophistication.

Enhanced Resiliency

The compounding effects of climate change and pandemics make enhancing resiliency tough but planning for passive survivability is a start. In the event of unplanned loss of power, efficient building envelopes can keep buildings – especially residential ones – comfortable for extended periods. Amenities like onsite renewable energy, direct current (DC)-powered LED lighting, emergency cellphone charging capability, micro grids, and renewable energy-friendly refrigerators could all prove life supporting during sudden disruptions.

The AEC industry has a big role to play in the world's post-pandemic health and economic recovery. Katerra and its partners will need to continue to create and adapt. We're up to the challenge and the work has already begun.