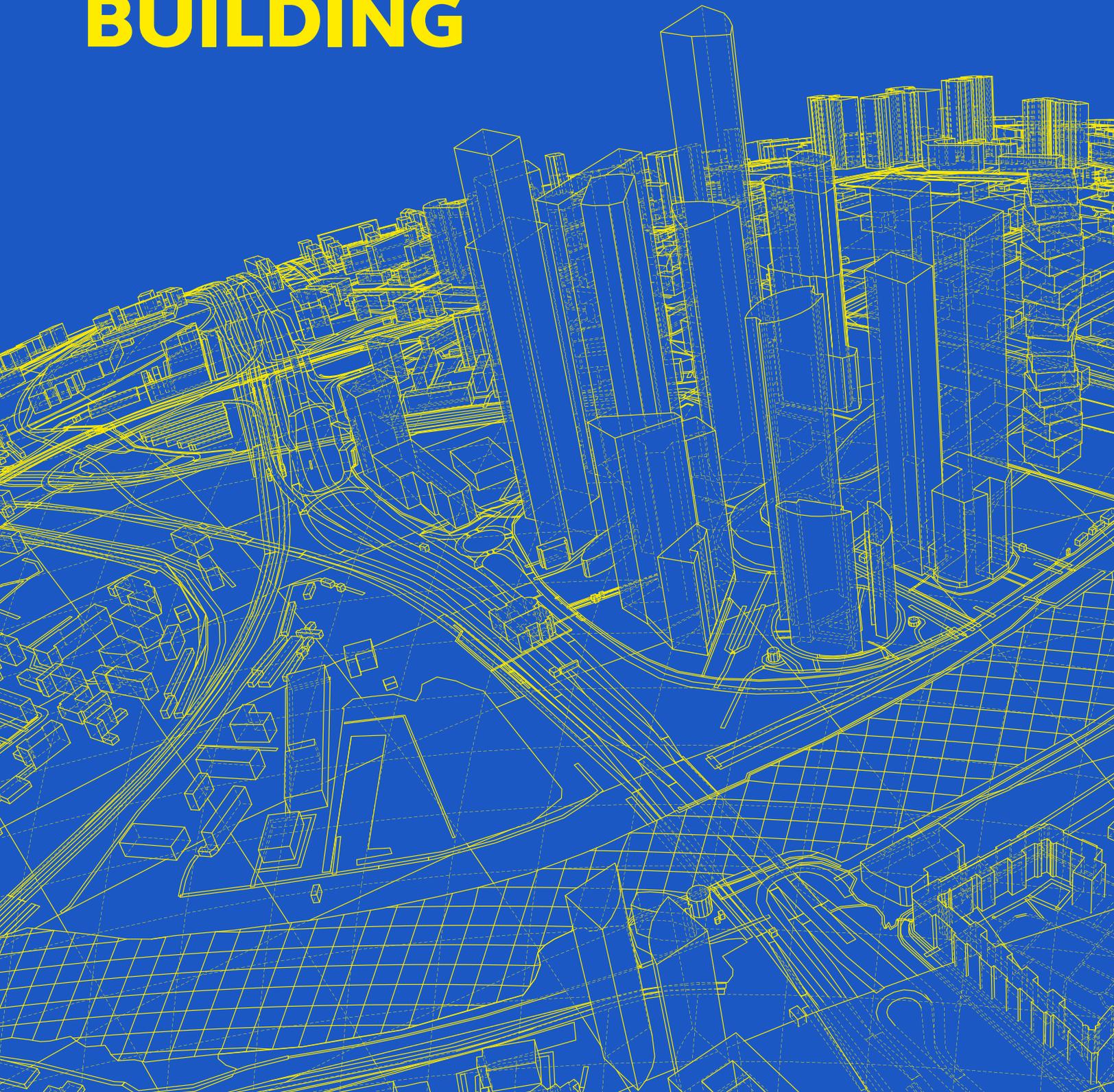


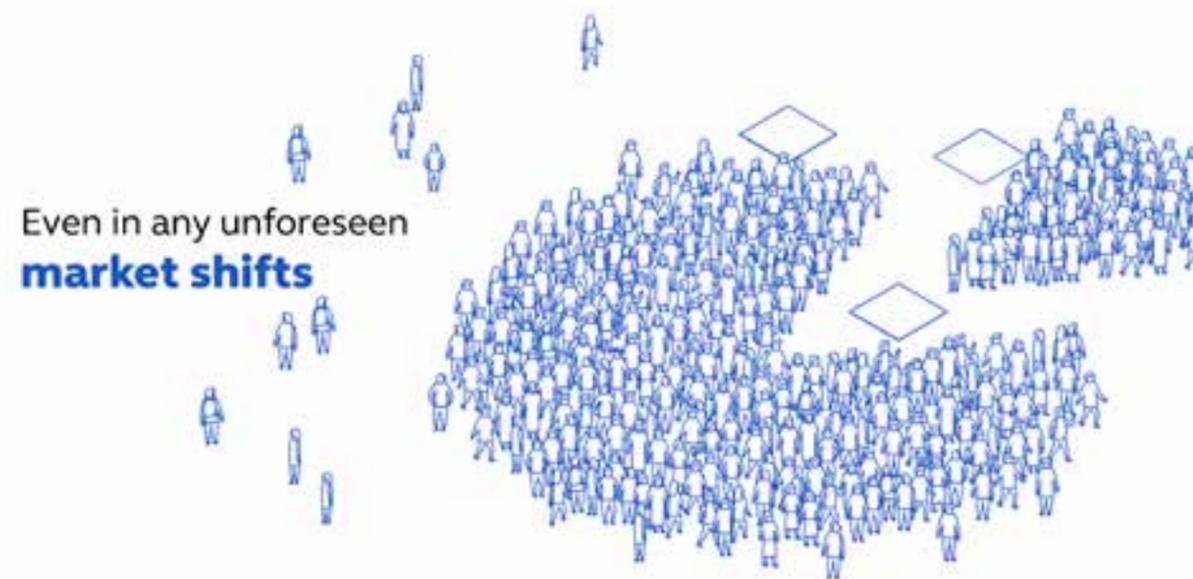
CRTKL

EXPLORING THE  
**UNIVERSAL  
BUILDING**



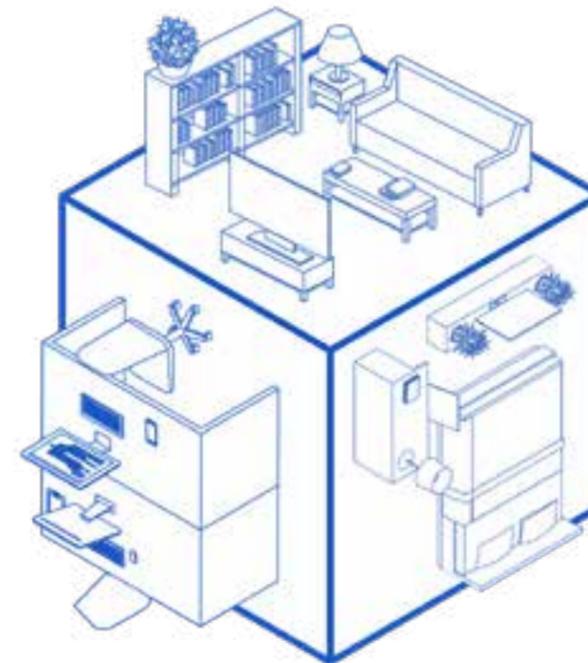
## The Universal Building Concept

What is a Universal Building? It's a building that, when designed properly upfront, can regenerate over time — adapting to the needs of today as well as the foreseen needs of tomorrow. A hybridized, adaptive typology that can transition between residential, workplace, hospitality and senior living – with common building systems and structures positioned to meet changing demands.

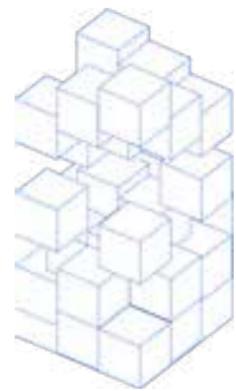


The regenerative building rethinks the concept of the center core office building – from the floor plates, MEP and columns to technology and the podium and parking structure — to deliver the most resilient, cost-effective and sustainable solution.

But why the discussion around regenerative buildings now?

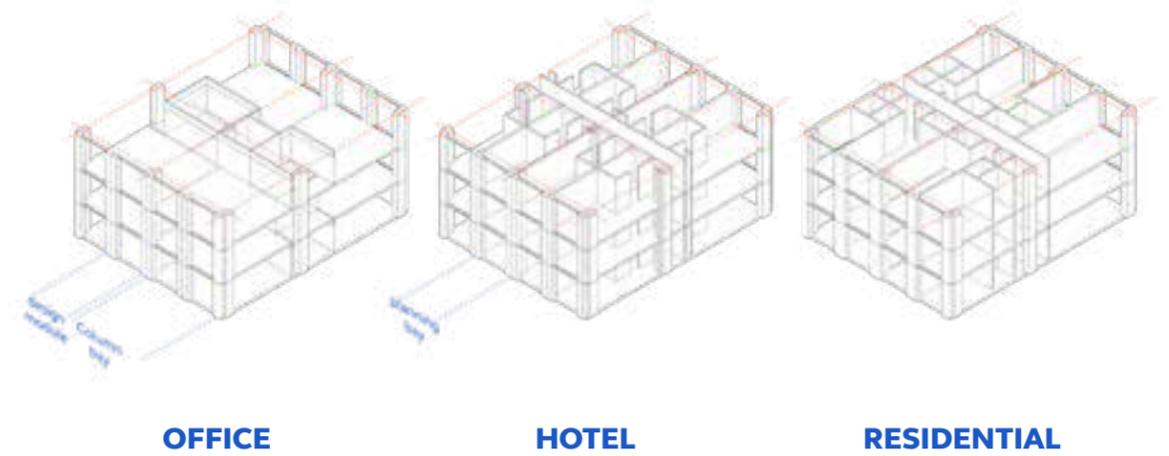
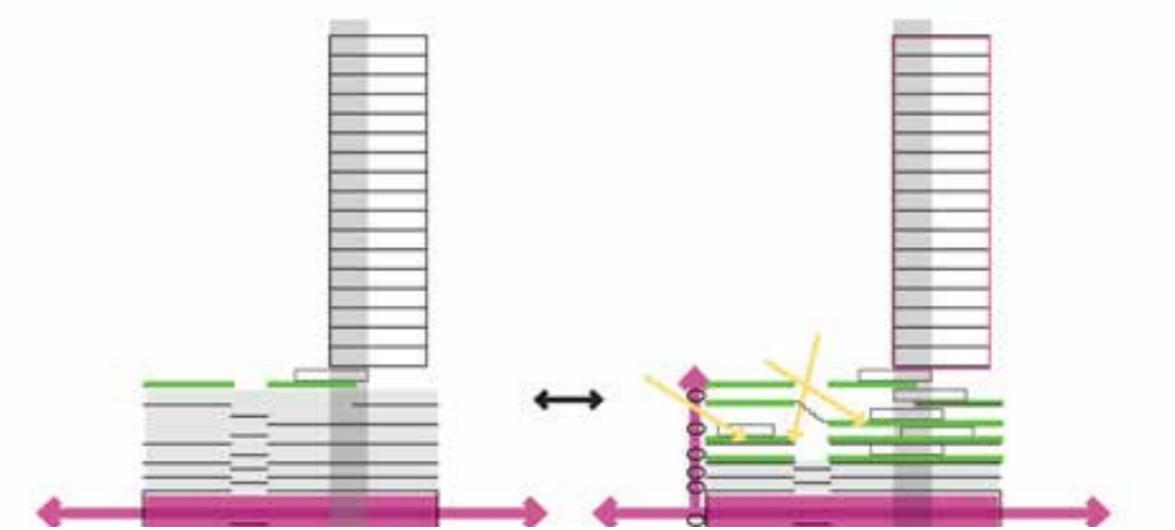


The last year has shown us how vital it is for investors, developers, owners and designers to quickly pivot in a way that brings the most return on investment, a sustainable building solution and a socially safe environment. What was once a fully occupied office building, residential tower, hotel or retail plaza may now look completely different. Rather than demolish (with the accompanying costs and environmental impacts associated), why not consider how to re-adapt?



### Changeable systems, structure and modules.

The Universal Building is a uniquely flexible platform to adapt program uses based on changing market need. From the column grid to carefully considered floor to floor heights, the building can shift between residential, office and social spaces easily.





## The Universal Podium – Amenities Tap Into the Urban Fabric

While maintaining standard floor-to-floor heights, floor plates and MEP are vital to regenerative buildings, another key component is the universal podium and the variety of amenities that any program can – and will – offer.

As much as a universal building can solve many arising issues, there are attributes to the systems that may be beyond the typical typology norms relative to floor-

to-floor heights, MEP systems and floor plate sizes. Justifying these anomalies rests in the long-term upside of owning a building that cannot become a “stranded asset”. A stranded asset is one, whether a single asset or one in a portfolio of assets, that no longer meets the needs of growing environmental, social and governed class of investments; the new classification of obsolete properties.





For example, we're redoing an office project with the addition of a residential tower. Instead of having a private fitness center for the residents and then another one for the public that's only used sporadically, we're able to have a much better combined fitness center that can be used at any time by anyone. The universal podium is about integrating amenities into the urban fabric of the community.

## Shifting Gears with the Parking Structure

In high-density urban cities, parking garages often sit on valuable land that could generate a much greater return on investment if redeveloped to meet changing program needs — and, indeed, the need for automobiles is changing — which is why a regenerative building concept makes sense. Ground-level parking spaces could convert into retail store fronts and mid-level parking floors could readily transition into office, residential or hotel spaces. Parking structures can even be reconfigured to include parks and green spaces to encourage wellness.

**“The flexibility to convert parking spaces into other uses is just essential in how we approach the emerging demands in our world. Without flexibility we remain at the mercy of our limited insights presented by our future”**

Clay Markham, CRTKL Principal and Hospitality Practice Leader

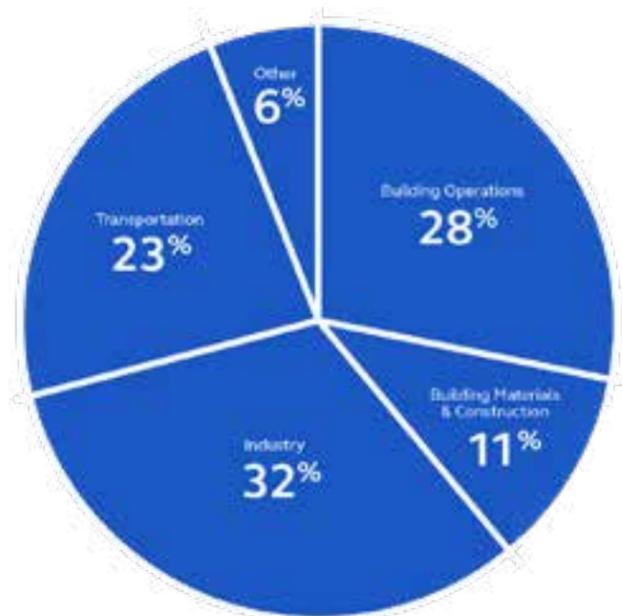


## Sustainability Plays a Vital Role

It's been said that the most sustainable building is the one that you don't have to build. "Of course, this is not completely true, but reusing an existing building is definitely a sustainable solution," notes Pablo La Roche, Principal and Sustainable Design lead in CRTKL's Los Angeles office. "Building reuse almost always yields fewer environmental impacts than new construction when comparing buildings of similar size and functionality."

The range of environmental savings from building reuse varies widely — based on building type, location and assumed level of energy efficiency. Savings from reuse are between 4 and 46 percent over new construction when comparing buildings with the same energy performance level.

Embodied emissions in buildings, which are mostly in the envelope and the structure can account to a large portion of emissions in from buildings. In a building that is reused, these emissions stay in the building, new emissions are not generated to create new buildings.



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There are several building components that affect carbon emissions, with two of the most important being embodied emissions and operation emissions. "Most of the embodied carbon is in the structure followed by the envelope," he says.

A good design firm challenges the status quo, a great one changes the way we live for the better. We know that, through regenerative building, we can play a key role in increasing resiliency, supporting sustainability and strengthening our communities.

**"It is possible then to keep an existing structure and update the envelope so that operational carbon is reduced by an increased envelope performance."**

Pablo La Roche, CRTKL Principal and Sustainable Design Lead

# CRTKL

CRTKL is a global architecture, planning, and design practice that began over seven decades ago and has evolved into a cultural agency to advance positive outcomes in our communities. Focusing on People, Planet and Positive Design allows us to realize a climate-positive and equitable future dedicated to inspiring experiences, human wellbeing and socially responsible outcomes through research-empowered and data-driven design.



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