

How Adaptive Reuse Can Help Solve the Housing Crisis

Zoning reform and flexible buildings codes can transform vacant buildings into affordable housing.

INNOVATIONS HOUSING



In Santa Ana, California, a 1960s building was transformed from offices into 58 affordable apartments for artists. Photo courtesy of Studio One Eleven.

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By TATIANA WALK-MORRIS

Long before the coronavirus pandemic, U.S. cities were already plagued with a housing crisis. In many markets, rents were rising,

housing production wasn't keeping up, and affordable housing was short nationally by more than seven million rental units, the National Low Income Housing Coalition estimated in 2018.

Overall, construction was failing to resolve the shortage of rental units at diverse prices, says the Joint Center for Housing Studies of Harvard University, leaving renters cash strapped. In 2000, 14 million people dedicated more than 30 percent of their income to rent; in 2019, that number surpassed 20 million, says [*The State of the Nation's Housing 2020*](#), the most recent annual report from the Joint Center for Housing Studies.

And then came the pandemic. Despite its layoffs and eviction moratoriums, rents have continued to climb. According to the report, the 12-month period ending in September 2020 saw an average price increase of 8.8 percent, down only one percentage point from 2019.

One thing is clear: The country needs more housing at affordable rates — and now might be the time to produce them. While shelter-in-place orders temporarily halted construction last year, work has largely been rebounding, experts say.

"With its current momentum, the housing sector could lead to a broader recovery," *The State of the Nation's Housing 2020* says. And according to some experts, those efforts could help address another existing issue exacerbated by the pandemic.

Much attention has been paid to a portion of the workforce going unexpectedly remote last year, leaving office buildings empty. Empty

office space available for sublease in New York City increased by 50 percent between the start of the pandemic and October, potentially putting the municipal budget at risk — Manhattan's 400 million square feet of office space provides 10 percent of the city's tax revenue.

But it's not just office buildings. Across the U.S., countless other structures were already underused, abandoned, or functionally obsolete before the pandemic. The U.S. government alone owned about 45,000 of them in 2014, according to *The Economist*.

Could adaptive reuse resolve our lack of housing and excess of empty, unproductive buildings? Some experts say yes, but to help make it happen, planners and other policy makers will need to remove regulatory obstacles that stand in the way.

Santa Ana Arts Collective, Santa Ana,
California



OFFICE BUILDING

SEVENTEENTH & MAIN STREETS

SANTA ANA, CALIFORNIA

A DEVELOPMENT OF STUART M. KETCHUM & WILLIAM L. TOOLEY JR.

C. L. PECK
CONTRACTOR

LANGDON & WILSON
ARCHITECTS



The conversion of the First Western Bank building included a gallery and other public amenities. Rendering by Langdon Wilson Architect; photo by Studio One Eleven.

PROJECT: Offices originally built in 1965 converted into 100 percent affordable artist housing and public and private amenities.

HOUSING: 58 studios and one-, two-, and three-bedroom apartments in the existing building, plus 10 new affordable town-homes; 10 units are specifically dedicated to extremely low-income residents.

OF NOTE: Constructed under Santa Ana's adaptive reuse ordinance, this [Studio One Eleven](#) project helps advance two city missions: provide much-needed affordable housing, and promote and program the area as an arts and culture district. Units are designed as live-work lofts, and the building offers cultural amenities for residents and the public, including art, dance, and music studios and an art gallery.

Opportunities abound

Transforming old buildings into housing is nothing new, but in the last few decades, we've seen an uptick in residential adaptive reuse. [According to data from Yardi Matrix](#), 14 buildings were converted into apartments in the 1950s; in the 2010s, 778. The trend is steadily building, with factories, hotels, schools, and warehouses the most popular to repurpose into affordable housing, [research from Yardi Matrix and RentCafe](#) suggests.

Scott Maenpaa, project manager at [The Architectural Team](#), has firsthand experience. For 15 years, he's worked on adaptive reuse projects like [The Central Building](#) in Worcester, Massachusetts, an eight-story, 105,000-square-foot structure originally built in 1925. Now a residential building, it was once offices, with a coffee shop and newspaper and sandwich stands on the second floor. Those areas now

support small group gatherings, Maenpaa says, with a 300-square-foot quiet room, a 400-square-foot game room, and a 300-square-foot media room. New pods also give residents a place to work without disturbances.

Adding more empty office buildings to the list of potential adaptive reuse projects will likely strengthen the force of this trend. Maenpaa expects many companies will normalize a remote or hybrid work model post-pandemic — and re-purposing unused offices into housing just makes sense, he says.

Zoning reform

But on Main Streets and in central business areas, restrictive zoning is a massive hurdle, says Sara Bronin, lawyer and [professor at the University of Connecticut School of Law](#).

Industrial areas often aren't zoned for residential use, Maenpaa says, so repurposing those structures for housing requires special permits, or for zoning ordinances to be waived altogether. And while property owners can seek a variance, it generally requires proof of hardship so severe that they must permanently deviate from the terms of the zoning ordinance, Bronin says.

"Zoning is one of those things that I think will be reexamined in the post-COVID era to see whether it has unintentional consequences in terms of making it very difficult for us to adapt flexibly as society changes, as demographics change, and as things like pandemics come our way," Bronin says.

Rather than relying on one property owner to go to court for a variance, she suggests that municipalities create more flexible zoning in the first place.

Over the past few decades, Los Angeles, Phoenix, and a growing number of cities have been developing ordinances, programs, and overlays to help clear the way for adaptive reuse projects. [LA's ordinance](#) (ARO) was the first of its kind when it was adopted in the downtown area in 1999, and after expansions into other neighborhoods, it's helped create over 46,000 new residential units.

But it has also received criticism for not doing enough to protect and promote affordable housing. During the pandemic, city leaders have called for ARO updates that would prioritize below-market-rate housing.

The motion, introduced by LA council member Paul Koretz [in December](#), was under review by the council's planning committee as of this writing. If approved, it would expand and update the ARO in a variety of ways, including increasing the types of existing buildings that are eligible, mandating ground-floor retail space in new projects, and limiting housing developments in some instances to only those affordable to moderate-income earners, defined as households of four earning no more than \$92,750 a year. Currently, the median price of rent for a one-bedroom apartment in LA hovers around \$2,400, well out of reach for many.

"Adaptive reuse has been a success story in the city since 1999, when the city enacted the ordinance, thereby allowing much needed housing," Koretz writes in the motion. "Now, with more Angelinos

working from home, the city has the opportunity to adaptively reuse more types of buildings for affordable housing."

Courthouse Lofts. Worcester, Massachusetts





The former courthouse (circa 1908) now offers mixed-income housing. Above, part of a former courtroom was transformed into an affordable unit. Rendering by The Architectural Team; photo by Detroit Publishing Company/Library of Congress.

PROJECT: A county courthouse built in 1845 and its later addition being converted into mixed-income housing and indoor and outdoor amenities. Phased opening starts this spring.

HOUSING: Nearly 95 percent of the 118 units are affordable: 13 for extremely low- income households; 38 for households at or below 60 percent of the area median income (AMI); 16 for households at or below 80 percent of the AMI; and 45 workforce housing units for households at or below 110 percent of the AMI.

OF NOTE: Transforming a 19th century courthouse and its subsequent additions into housing that meets today' s needs is no easy feat. For example, many internal spaces lacked windows, so designers

The Architectural Team created two interior courtyards to flood the core of the building with natural light.

Rethinking building codes

Zoning isn't the only barrier, particularly when it comes to preservation guidelines. Strict applications of building codes, which often require compliance with modern rules that don't fit such structures, could dissuade property owners from pursuing historic adaptive reuse projects, Bronin says. She gives the example of stair width requirements, which many historical buildings don't meet. Updating them to today's standards could be cost prohibitive for developers.

Planners should reexamine local codes to encourage these projects, she says. For example, Santa Ana, California's [adaptive reuse ordinance](#), which is similar to LA's and was adopted in 2014 with the partial goal of preservation, offers alternative building regulations and fire standards.

Repurposing historic properties also comes with the added requirement of adhering to the Secretary of the Interior's Standards for Rehabilitation guidelines. These standards outline rules for tasks like installing energy-efficient windows and raising or relocating structures, the latter of which is frowned upon but may be necessary for today's climate change needs, Bronin says.

"Oftentimes, we see overly restrictive interpretations of historic adaptive reuse guidance, which means that something that we might think from a climate perspective is smart to put in a building is

something that is discouraged by some historic preservation guidance," Bronin says. "My suggestion to planners and policy makers is really to try to be flexible enough to meet the many different demands that we have on our buildings. Not just in terms of the use of the buildings, but also in terms of the way that they're actually built."

Repurposing historic buildings should begin with understanding what gives them their cultural value in the first place, Bronin adds. The Architectural Team's Maenpaa recommends working with historic consultants who can give direction there, as well as provide feedback on what federal historic agencies require.

When the firm of [Page & Turnbull](#) adapted [Richardson Hall](#) from a San Francisco State Teacher's College building into affordable housing for LGBTQ seniors, [Elisa Skaggs](#), architect and associate principal there, says the firm had to work closely with city and historic preservation planners to solve problems that arose. Among the surprises the firm found were multiple murals that had been painted over. The team consulted with an art conservator to assist in their restoration and preservation, Skaggs says, and the project was halted so the city could make sure the artwork wasn't mistakenly demolished.

Richardson Hall, San Francisco



Built in the Spanish Colonial Revival style in 1924, this former school is now senior housing. Photos by Van Meter Williams Pollack/Page & Turnbull.

PROJECT: A teacher training school originally built in 1924 converted into LGBTQ-friendly affordable senior housing with amenities, office space, and retail.

HOUSING: 40 units.

OF NOTE: The building was designated a landmark by the city, so maintaining its historic fabric was a priority for the design teams from Van Meter Williams Pollack and Page & Turnbull. The original windows were kept, the exterior stucco was restored, and when historic murals were found on the premises, work was halted until they could be preserved by an art conservator. They are now on display for residents and visitors to enjoy.

Adaptive in all senses

The pandemic is influencing design in real time, Maenpaa says. In ongoing projects over the past year, his firm has been adding new amenities that respond to current needs, like work pods. And in a forthcoming assisted living development, the firm has added a visitation room with a glass wall separating visitors from elderly residents.

Repurposing office buildings into housing just makes sense from a public health perspective, he says. While an industrial mill could be converted into a housing development with 30 units per floor, smaller office buildings may only accommodate eight to 10 units, better allowing for socializing and physical distancing, he explains.

Page & Turnbull's Skaggs is confident historic buildings can be repurposed to meet today's health concerns, too. Her firm is working on a museum project with enhanced ventilation, sanitation stations, and touchless restroom amenities.

"Understanding the building, understanding this history — you work within that context and then you make changes to not just adapt it for this new use, but, in this case, adapt it to better function in the COVID-19 environment," Skaggs says.

8 Advantages of Adaptive Reuse in the 21st Century

Finding new uses for old buildings offers a variety of benefits, from cost savings to sustainability.



Built in 1875 as the Boston Young Men's Christian Union, The Union at 48 Boylston was rehabbed in 2019 to provide 46 units of affordable housing, including 25 for those who have experienced homelessness. Photo by Joel Howe.

Buildings have long been reused and reconfigured, particularly in the 17 and 18th centuries, when scarce materials and limited transportation made it difficult and expensive to construct new buildings. But as the country became industrialized and a national transportation network was developed, low-priced materials were more accessible, and it was easier to demolish older buildings and replace them with new structures.

Today, that situation is changing. Materials and labor have become more expensive, and the disposal of demolition debris in landfills is

less convenient. At the same time, the unique qualities of older buildings are being recognized, and many communities value their contributions to neighborhood character.

Be they empty offices or strip malls, many of our underused, abandoned, or otherwise obsolete buildings can find a second life through new uses. Here are eight ways adaptive reuse can benefit developers, residents, and the community at large:

1. PRESERVE THE PAST

Extending the life of old buildings can provide a link between your community's past and future, all while accommodating its present needs.

2. GROW SMARTER AND MORE SUSTAINABLY

Many properties ripe for reuse are in established growth areas with significant population densities. Giving them new life supports growth where there's infrastructure to support it.

3. ENCOURAGE INVESTMENT

Adaptive reuse can yield potential tax generation, employment opportunities, and housing. One project might even inspire more investment, development, and revitalization in the surrounding areas, including through other adaptive reuse projects.

4. TAKE ADVANTAGE OF INCENTIVES

Building owners may be eligible for federal tax credits for rehabilitation investments in older or historic buildings and other incentives.

5. SAVE TIME

When the building and infrastructure is already in place, municipal approval and permitting can often occur more quickly and less expensively than new construction.

6. AND MONEY, TOO

Reuse saves on demolition costs, promotes recycling, and preserves unique architectural details and features that would otherwise be costly to recreate. The materials and quality of construction of existing buildings are often not economically possible to reproduce today.

7. BOOST MARKET VALUES

Preserving the integrity of the materials and design characteristic of older buildings can increase the new project's property value.

8. IMPROVE PUBLIC HEALTH

Remediation of contaminants associated with some older building materials and uses can provide both environmental and health benefits.

Adapted from Chester County (Pennsylvania) Planning Commission's [Planning Toolbox](#).

Tatiana Walk-Morris is a Detroit-native, Chicago-based independent journalist.

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