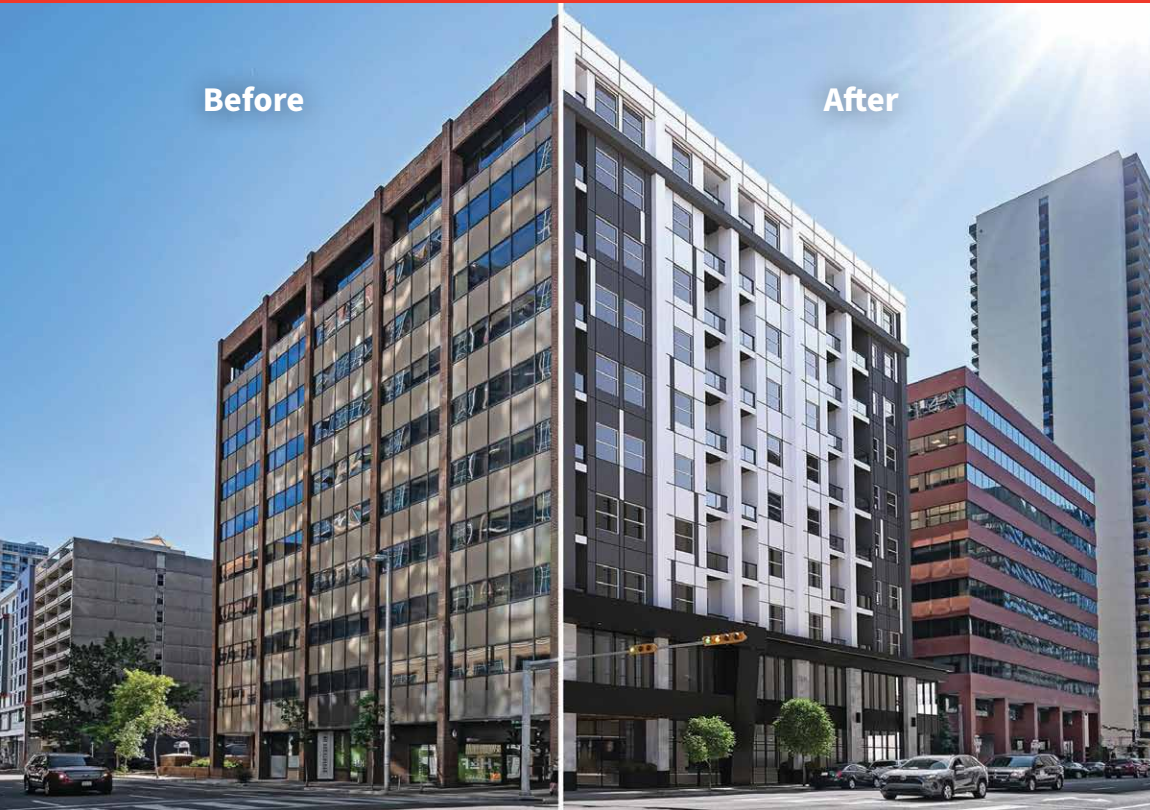


As we emerge from a tragic pandemic, let's catalyze action among professionals in the fields that shape the physical housing and communities where we live. This series of case studies shares innovations that are advancing a set of **guiding principles** for built environment professionals—from creative ways to redress inequities and engage the public in participatory planning, to unique housing and community models that enable every resident to thrive.



Clockwise from top left: Courtesy People First Developments, WJW Architects, J.L. Jordan Photography, and Episcopal Retirement Services

Vibrant Encores: Vacant Buildings Helping to Solve the Housing Crisis

By **Stephanie Firestone and Anita Weaver**

The acceleration of remote work in the post-COVID era has led to increased commercial vacancies in downtown business cores across the globe. The proliferation of unused and underused real estate presents unprecedented opportunities for helping to solve the affordable housing crisis in many cities. Yet, the myriad conversations and initiatives to adapt properties for housing rarely acknowledges the imperative to address the increased housing needs and insecurity of a rapidly aging population. Revitalizing these properties and their surrounding communities through inclusive and equitable housing redevelopment represents a rare opportunity to address evolving demographic and socioeconomic shifts and provide lifelong housing as people age.

aarp.org/equitybydesign

Needs/Challenges

An increasing number of properties such as commercial and office spaces, schools, factories, hospitals, and churches are standing vacant in cities around the world. This phenomenon is linked directly to COVID-19, which exacerbated pre-existing trends such as **population dispersion away from urban toward suburban and exurban areas** and tight maintenance budgets due to factors such as the Great Recession that resulted in reduced funds available for **services and infrastructure maintenance**. The **office vacancy rate in the United States** rose to 19.6 percent in the fourth quarter of 2023, from around 16.8 percent pre-pandemic.

The rise in vacant commercial buildings presents numerous challenges for urban areas. Economic impacts include the direct reduction in property tax revenues and stifling of economic development, which in turn impacts city services and programs. Social impacts typically include an increase in criminal activity and public health and safety hazards. To confront these challenges, cities of all sizes around the world are exploring converting these buildings into other uses, including **much needed affordable housing**.

Yet, few cities are factoring in that their population is aging and has changing housing needs. Globally, the **population aged 65 and above is expected to rise from 10 percent in 2022 to 16 percent in 2050**. In the United States, **the population of 65 and up soared by 34 percent in the last decade**, from 43 million people aged 65 and up in 2012 to 58 million in 2022. With this enormous numeric increase, the number of **older people experiencing housing cost burdens** (or spending more than 30 percent of household income on housing costs) has also rapidly increased—from 9.7 million in 2016 to nearly 11.2 million in 2021. Of these, half were severely cost burdened, spending more than 50 percent of income on housing costs. Additionally, **older adults have an increased share among people experiencing homelessness**, from 5.5 percent in 2019 to 7.4 percent in 2021.

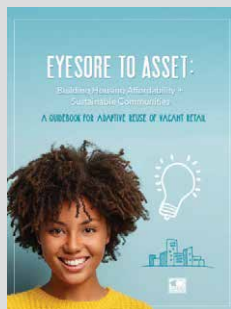
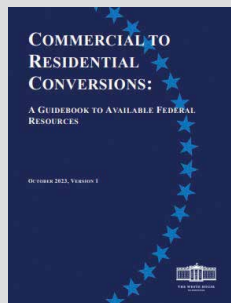
Innovations

Adaptive reuse refers to the process of repurposing and modifying a building to varying degrees for a function other than its original intended use. The origin of the term is often credited to the restoration architect and preservationist **Giorgio Cavaglieri**, perhaps most notably for his 1960s conversion of the **Jefferson Market Courthouse** in Greenwich Village into a branch of the New York Public Library. Yet, there is evidence of repurposing buildings **as far back as Ancient Rome**, such as conversion of the **Saepta Julia** from a voting precinct into an entertainment venue and later a luxury market.

Today adaptive reuse extends far **beyond an architectural practice**, to include the arts, sustainability, heritage and culture, as well as technology. It isn't just the technical reconfiguring of a building but "a complex process that engages with and transforms the social, cultural, and spatial dynamics of cities and their communities around the world" (**Nicholas Lynch, 2021**).

Adaptive reuse projects, particularly those that benefit lower income communities such as conversions to affordable housing, can not only reinvigorate and transform the built environment but also **advance social justice**. Converting buildings located in walkable, transit-friendly areas that are close to amenities and services are particularly appealing and can also help people to remain healthy, active, and engaged as they age. Indeed, housing conversions located in vibrant, pedestrian-friendly areas that facilitate interactions across generations are particularly attractive to the independent living and active adult demographic. Housing advocates also boast compressed conversion timelines, which is of huge benefit given the housing crisis that exists in cities around the globe.

Municipalities are increasingly employing a variety of tools to facilitate conversions. These include changing zoning rules to facilitate creating housing in commercial zones, streamlining development and review processes, and offering financial incentives to developers. Efforts are also supported by a growing number of resources, such as the administration's recently released **guidebook to available federal resources for commercial-to-residential conversions** and the Florida Housing Coalition's **guidebook on the adaptive reuse of vacant retail spaces**.



As with new development and neighborhood revitalization efforts, reuse initiatives can also deepen social and spatial inequities and displace long-time residents. To address these risks, policies such as adaptive reuse ordinances and planning adaptive reuse projects must consider the needs of existing residents and deliver housing and amenities that will serve the current community. According to **research by the U.S. Department of Housing and Urban Development (HUD)**, while local governments are limited in what they can do on their own without federal support, some are employing tools to decrease the likelihood of displacement. For instance, "**early gentrification warning systems**" use indicators to assess patterns of neighborhood change and are consistent with HUD's Affirmatively Furthering Fair Housing Rule, which requires recipients of federal financial assistance to take meaningful actions to overcome patterns of segregation and foster inclusive communities. The HUD report also makes clear that community organizations can advocate for measures to mitigate challenges to existing residents from revitalization efforts, such as increased housing costs. In New York, for example, advocates pursued landmark designations to slow the rate of new development in the face of pro-growth forces in neighborhoods.

Each building presents its own opportunities and challenges based on a variety of building features, location, and community needs. This case study presents innovative transformations of diverse built environments—including office buildings, schools, retail centers, parking lots, hospitals, and churches—to affordable housing and services that benefit older adults and people across the lifespan. The paper aims to begin infusing into the conversations around adaptive reuse of existing built assets, the imperative of housing that is both affordable and able to accommodate older adults' changing needs.

From Desks To Dwellings

The growing proliferation of vacant office space in many downtown business cores is putting increasing pressure on city leaders to find productive uses and stem the impact of lost tax revenues. Generally, these buildings have fewer structural walls surrounding offices, which allows for greater variation by unit size than new residential projects can often attain. Yet not all office buildings are good candidates for conversion to housing. Broadly, features to consider include location, building shape and size, building envelope, platform depth, grid spacing, window depth, ceiling height, and parking. One of the key challenges to these conversion projects is large, deep floor plates, a spatial configuration that prevents vital natural air and light from reaching internal units. A creative, although technically challenging and costly approach to mitigating this obstacle involves removing the core and carving out an atrium or air shaft down the center of the building, which enables unused floor area to be transferred to the top of the building for use as additional units and/or amenities; this approach, however, is technically challenging, costly, and potentially limited by land use or zoning regulations. Some tall buildings in Asia have **converted only the perimeter spaces to residential**, while keeping the other floors as offices.

To assist stakeholders in identifying good conversion candidates, architect Steven Paynter and his team at **Gensler** developed an **algorithm** to assess whether a mid-to-high rise office building is physically suitable for residential retrofits. Automating the selection process greatly shortens the timeframe and costs for identifying potential office-to-residential assets. Of the 1,000 office buildings in the US and Canada that the algorithm has assessed, **25-35 percent had conversion potential**. To accommodate the growing numbers of **partial residential conversion projects**, the algorithmic model can be fine-tuned to identify which parts of an office building are good conversion candidates.

The suitability of an office building for conversion to affordable housing for people as they age entails additional considerations. The Gensler algorithm can be readily refined to change certain criteria that are specifically useful for locating buildings that are suitable for conversion to senior housing. For example, increasing the amount of desired common space to support functions such as congregate dining, group activities, and supportive services, or reducing the space per unit (keeping in mind the spatial needs of residents with mobility issues). Paynter also highlighted the benefits of using non-structural walls that can be repositioned, which creates flexibility and facilitates adapting spaces for the changing needs of older adults as they age. For example, using den space to enlarge a bathroom.

Perkins Eastman issued a comprehensive **2022 white paper** on adaptive reuse for senior living. The paper’s co-author recommends two key considerations¹: 1) how adaptable the building is to the addition of services and amenities such as small medical or physical therapy clinics or older adult day services; and 2) how easily it could accommodate integrating food service, wellness or other spaces that are open and welcoming to the public, which can integrate residents into the community and provide additional revenue, thus driving down costs and making housing units even more affordable.

THE CITY OF CALGARY, CANADA

Even prior to the pandemic-induced remote work trend, the City of Calgary was grappling with an alarming spike in office vacancies spurred in large part by the 2014 oil price crash. As **this 2016 article** observed, “The heart of our city is hollowing out.” By 2020, vacancies in downtown Calgary grew to more than 30 percent. The city responded with a bold office conversion strategy that is a model for cities everywhere. They used the Gensler algorithm to assess the feasibility of primarily **Class B and Class C** assets in Calgary’s downtown urban core. According to Sheryl McMullen, manager of investment and marketing for the **City of Calgary’s Downtown Strategy** team, the city’s response included the development of a variety of innovative **incentive programs**. Prominent among these are grants of \$75 per square foot for office space converted to residential use (conversion costs to developers typically cost around \$250 per square foot); to date the City Council has approved \$153 million toward the program. In addition, the city waived office change-of-use permits in the Center City Enterprise Area for non-historic buildings and for conversions that are not adding square footage.

The city’s first approved redevelopment project under the new program will open early in 2024. **The Cornerstone** by Astra Group & Peoplefirst Developments is located in Calgary’s Downtown West End neighborhood. The building contains more than 100 apartments, 40 percent of which are designated as affordable, includes accessible units, and aims to house a multigenerational mix of residents. The building’s façade was retrofitted to accommodate a **balcony attached to every residence**, and a rooftop greenspace was created to introduce nature into the glass-dominated structure. The first two floors are reserved for retail uses, a move that the city is encouraging in their office conversion projects to attract amenities and services that will appeal to prospective residents and help to revitalize the area. The city council also allocated funds for streetscape improvements such as trees and benches. Additional developers have expressed interest in pursuing senior housing conversion projects once there is a sufficient density of support services and amenities in the area to meet the needs of older adults.



Courtesy Abigail Wadsworth

¹ Interview with Alejandro Giraldo, Principal, Perkins Eastman Senior Living Practice, January 2024.

HOLLYWOOD WESTERN BUILDING, LOS ANGELES

The Hollywood Western Building in Los Angeles is an **iconic, four-story art deco office building** from 1928 that is also known as the Mayer Building, since MGM Studio’s founder Louis B. Mayer was one of its original developers. **ABS Properties, Inc.** is adapting this historic treasure for senior affordable housing, which is slated to open in 2024. The renovation focused on preserving the building’s historic character while mitigating seismic risk and maintaining all the character-rich corridors, stairwells, elevators, and original windows. The floor plates were re-designed to accommodate 79 studio apartment units affordable to households with incomes between 30 to 50 percent of the area median income, all of which are accessible and 100% adaptable. The 5,000-square-foot basement was converted to a multifunctional community room and a community theater/TV room, and the developer partnered with local organizations to manage tenancy and provide supportive services.



Courtesy ABS Properties, Inc.

From Classrooms To Living Rooms

Schools that have sat vacant for decades due to sociodemographic changes offer a variety of compelling reasons for redevelopment into affordable senior housing. Since many older schools are located near the centers of communities or downtowns, these projects can allow older adults to age in a multigenerational community with access to desirable amenities. The attractive historical character and a desire to preserve the memory-rich heritage of a school building generally helps garner community support for these projects.

Functionally, classrooms are often graced with large, operable windows that allow for abundant natural light as well as ventilation. **Natural light is particularly important for older adults** who may have vision issues, suffer disturbances in their sleep cycles, and be limited in venturing outdoors, which may contribute to their experiencing isolation and depression. Ventilation through windows also helps older adults, who are **more vulnerable to heat exposure**, to better cope with extreme heat events. Additionally, the layout of classroom wings can make them suitable for conversion to small apartments, whereas larger spaces such as gyms and auditoriums can be repurposed as common amenity and service areas. **Space for the installation of new elevators** can often be found in the central area of the building.

Economic incentives such as affordable housing and historic tax credits (HTCs), as well as their solid construction, often make school-to-residential conversions cost-effective.² Finally, schools are often located in areas already zoned residential, thus shortening the permitting process.

THE PRYDE (FORMERLY WILLIAM BARTON ROGERS MIDDLE SCHOOL), HYDE PARK, MA

Built in 1902, the William Barton Rogers Middle School was a vacant and deteriorating city-owned school building on Boston’s excess properties list. The building is loved by generations in the community and is located in a thriving, diverse, highly walkable neighborhood that is well-served by public transit.

All of this made it an ideal site for an LGBTQ+ senior housing community called **The Pryde**, which is due to open in spring 2024 and will contain 74 one- and two-bedroom units designed for 100 percent accessibility. The historic school’s expansive hallways, staircases, landings, and numerous alcoves, were seamlessly integrated into the new design scheme, creating cozy and welcoming communal spaces outfitted with a sunroom, and other spaces for sitting, reading, social interaction, and community-building. The boys’ and girls’ restrooms were converted to a laundry room and apartments.

To ensure that the project’s goals aligned with those of the community, the project team, coordinated by the non-profit **LGBTQ Senior Housing, Inc.**, went door-to-door to neighborhood residents and attended community and neighborhood association meetings. The community responded very positively, and the Pryde team committed to meet additional needs expressed by the community. They provided permanent office and archival space for the dedicated heritage stewards of the **54th Regiment**, a volunteer organization dedicated to preserving the history of the first African-American regiment organized in a northern state. They committed to answering a call for a senior center in the neighborhood and creating an “outdoor-facing housing community,” including transforming the auditorium and gym spaces into a community center housing an arts and crafts studio, a library, and art galleries for rotating exhibits. Since the neighborhood is public transit-friendly and the City of Boston has removed parking minimums for affordable housing projects, the asphalt parking lot was removed and redesigned as a landscaped courtyard.

² This **2013 Pew Report** addresses a variety of challenges with schools that have sat vacant for a period of time, cautioning that the cost of repairing damages due to years of neglect could be a tipping point in determining its viability for conversion.

TIGER SENIOR APARTMENTS, PARIS, ILLINOIS

Tiger Senior Apartments was developed in the small municipality of Paris, Illinois located 165 miles south of Chicago. Completed in 2021, it was repurposed from a high school with a stately, classical edifice built in 1909 that had become obsolete. Paris Mayor Craig Smith **recognized the need for affordable senior housing** and approached a non-profit developer to collaborate on the project, which was ultimately named for the Paris High School’s mascot.

The old high school was listed on the National Register of Historic Places at the same time that work began on the conversion, which necessitated meeting numerous **requirements to preserve the building’s historic integrity**. For example, to meet energy code requirements for insulation while maintaining the historic exterior curved window jambs and heads, the project team worked with the Illinois State Historic Preservation Office and the National Park Service to recreate the window jambs using a specialized drywall component, an innovation now used by other projects.

As with many schools, the historic school had constructed additions resulting in floors of varying heights. To address this, the developer included a front- and rear-opening elevator that makes five stops in the three-story building. Each of the 42 units has bathroom grab bars, access to natural light and ventilation, high lighting levels, and contrasting paints, which are **important design considerations for older adults** with impaired physical or cognitive functioning. The former gym, now community center, is also used for public events such as an indoor farmers market, ensuring the redevelopment is maintaining the building as an integral part in the life of the community. In fact, most staff members hail from Paris, and a substantial portion of the residents are alumni of the high school.



Courtesy WJW Architects, J.L. Jordan Photography (exterior photos), and Dandy Architecture Photography (interior photos)

From Shopping To Living

Before the COVID-19 pandemic helped fuel the move to online shopping from in-store purchases, many now-abandoned, enclosed malls thrived as retail hubs that were safe and secure “**third places.**” This was particularly true for older adults who frequented malls to exercise, socialize, and enjoy their bustling activity. A recent focus on reinventing these vacant community spaces seeks to capture this legacy by turning malls into senior housing and health care services with the same idea of integrated walkable spaces and communal areas that foster physical activity and social interaction. In repurposing malls, developers must account for possible remediation costs such as removal of lead paint, asbestos, or other hazardous materials often present in **malls built before 1980.**

In Britain, a **2021 planning theory paper** advocates applying the **World Health Organization’s Age-friendly Cities (AFC) framework** and working with older adults to reconceptualize main streets, or “high streets” as they are referred to there. According to Assael architects, transforming Britain’s high streets has “**the potential to deliver 500,000 homes for our older generations**” and would help to combat social isolation. The firm developed **Rightsizer**, a flexible and sustainable construction system that reimagines the post-COVID high street as an **intergenerational living community and a new retirement and care hub**, housing older adults as well as caregivers and other support workers.

THE SKYVIEW PARK APARTMENTS, ROCHESTER, NY

The Skyview Park Apartments transformed the **former Irondequoit mall** outside Rochester, New York into affordable homes with supportive services for seniors. The former Sears anchor store was converted to 73 apartments, with an additional 84 units in a four-story addition. Onsite supports include medical, home care, nutrition, and counseling services. Other sections of the mall, including the former Macy’s store, were repurposed into **Skyview on the Ridge**, a spacious community center operated by the town’s recreation department. It includes amenities such as a fitness center, a dance studio, walking paths, and lounges, as well as the Rochester Regional Health’s Isabella Graham Hart School of Nursing.

From Hospitality to Housing

An **Urban Land Institute** article notes that traditional hotel properties make good candidates for conversion to housing because they often boast larger rooms than those found in newer hotels and have more amenities that could appeal to prospective residents. According to a 2021 study by the National Association of Realtors, **11 percent of reported hotel/motel conversions were for senior housing or assisted living.**

THE MANSE APARTMENTS, CINCINNATI, OHIO

In Cincinnati, Ohio, the former Manse Hotel is a historic landmark that served African Americans who were not allowed to stay at other downtown hotels during almost 40 years of segregation. The site reopened in 2021 under the name **The Manse Apartments**, boasting 60 affordable, modern, energy-efficient apartments designed for older adults. All the units embrace aging in place and visitability,³ and one-third of the units are ADA-accessible. The gem of the hotel, its ballroom, was converted into a community space. A mural by artist Cedric Michael Cox entitled **“From Enslavement to Emancipation: Sky’s The Limit,”** commissioned to celebrate the current and past vibrancy of the neighborhood, graces one side of the building.



Courtesy Episcopal Retirement Services

From Sanctuaries To Home Sanctuary

Trends that signal the **decline of faith-based institutions** including shrinking congregation size, decreased giving, and deferred building maintenance, have led many congregations to sell their historic worship buildings. The July 2023 issue of *Zoning Practice*, entitled **“Using Faith-Based Land for Affordable Housing,”** explores the roots of the practice, addresses challenges with converting vacant churches, and includes a list of various new legislation, programs, and strategies that municipalities across the United States have adopted to facilitate these projects.

Neighborhood churches often have deep roots in the **community’s collective memory**, as well as distinct identities and architectural appeal, making them attractive as adaptive reuse candidates. Characteristics of successful church adaptive reuse projects include integrating character-defining historic elements, utilizing the former altar or nave area for circulation, such as for stairs or an elevator, and preserving or reusing iconic, original design features such as stained glass windows. A publication entitled *Transitioning Older and Historic Sacred Places* provides guidance to congregations considering selling their property and includes examples of adaptive reuse projects.

In 2023, California enacted into law the innovative **Affordable Housing on Faith Lands Act** (informally known as the **“Yes in God’s Back Yard”** bill, or SB 4). The law allows faith institutions to build affordable housing on their property by-right, even if precluded by current local zoning laws; Virginia and other states are considering similar legislation.

IMMANUEL PLACE, LONG BEACH, CALIFORNIA

The City of Long Beach, California transformed the vacant and slowly deteriorating historic 1922 Immanuel Church. Completed in 2017, the award-winning **Immanuel Place** is a sustainable and affordable housing complex for low-income seniors. The project preserved many of the building’s original architectural elements, such as its striking Spanish Revival façade, large stained-glass windows, and the 1963 **Aeolian-Skinner pipe organ**, earning it the National Affordable Housing Management Association’s (NAHMA) 2017 Vanguard Award for Major Rehabilitation of a Nonhousing Structure. To fund old infrastructure upgrades, the city utilized a variety of financing sources including increasing its **HOME Investment Partnership Program** loan funds.

³ Visitability is a growing trend nationwide. The term refers to single-family or owner-occupied housing designed in such a way that it can be lived in or visited by people who have trouble with steps or who use wheelchairs or walkers.

From Asphalt to Apartments

Built spaces undergoing re-imaginative retrofits include expanses of empty asphalt created by **vacant parking lots and parking garages**. These former eyesores, which were also impacted by the decreased demand for office and retail spaces in many cities' urban business districts, are sometimes referred to as "lazy land." Examples abound of how this unused square footage is being transformed into much-needed housing.

Located on the former site of a city-owned parking lot in West Los Angeles, the **Howard and Irene Levine Senior Community** comprises 48 apartments reserved for low-income and formerly homeless seniors and senior veterans, along with free onsite support services. In the UK, retailer John Lewis is **converting its department store parking lots into rental housing** and plans to build 10,000 new homes across the country to help alleviate the housing shortage. Additionally, in response to the increasing popularity of the sharing economy, the store will rent its furniture to apartment residents. In Sydney, Australia, the **Inner West Council has proposed transforming** council-owned parking lots into essential affordable housing. By removing the high cost of land from the development equation, the council enables affordable housing providers to build housing more quickly and estimates a 200-space car park could be redeveloped into a 10-story, 600-unit building. And in Toronto, Canada, the **city is exploring transforming** parking lots adjacent to public transit stations into affordable transit-oriented developments (TODs). TODs provide greater transportation and housing choices, connections to local and regional amenities and services, and walkable neighborhoods, and they **enable older adults to downsize and age comfortably and safely in the community**.

Replicability

A variety of policy initiatives have been introduced in cities, states/provinces, and countries around the world, aimed at facilitating the conversion of vacant properties into housing, including affordable housing. Tools include support for research and, as in the case of Calgary, financial incentives for developers to lower the risk for such investments. In February 2024, the U.S. Department of Housing and Urban Development announced awards of nearly **\$4 million to support research** into innovative affordable housing supply initiatives, including office to residential conversions. Buenos Aires, Argentina offers **tax benefits for the conversion of offices into residences** and has already approved over 130,000 square meters of office space for conversion to housing and complementary commercial uses.

Additional incentives from governments entail streamlining the bureaucracy in an effort to shorten the timeline and lower cost for developers. In 2022, California passed **Assembly Bill 2011** and **Senate Bill 6**, which expedited the development process for certain commercial to residential conversions. New York City established an **Office Conversion Accelerator program** to provide building owners with a single point of contact to help ensure a smooth and efficient process, including zoning feasibility analysis and permitting.

At the country level, the United Kingdom expanded **Permitted Development Rights** laws to facilitate a streamlined approval process for some office to residential conversions. A regulatory amendment in Ireland **exempts certain vacant commercial properties from the need for planning permission** for residential conversions. And efforts in The Netherlands include a "**soft governance**" approach that, among other strategies, encourages the formation of proactive partnerships between developers and the government.

These policy actions reflect a growing focus on the need to creatively redeploy unused and underused spaces to address the current global housing shortage. Leveraging valuable tools and resources such as these can help cities address their pressing needs for affordable housing and foster revitalization. Adaptive reuse, which one architect describes as the space "**where history meets urban design,**" is a powerful tool many cities and societies can use to redress historic disparities and advance equity. Given rapid global population aging, it is also critical that these conversations and evolving approaches address the changing needs of people as they age as well as the different needs of people who will live in a home over its lifetime. Conversions should incorporate accessibility and other design features that enable people with varying abilities—including temporary disabilities—to live and age in their homes and communities across the lifespan.