



The State of Housing Design

2023

Joint Center for Housing Studies of Harvard University

Joint Center for Housing Studies at Harvard University

HOUSING AMERICA'S OLDER ADULTS



IMPROVING AMERICA'S HOUSING

2023



AMERICA'S RENTAL HOUSING

JOINT CENTER FOR HOUSING STUDIES OF HARVARD UNIVERSITY



THE STATE OF THE NATION'S HOUSING

2023

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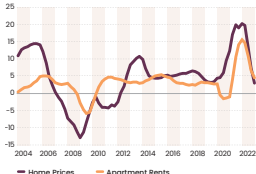
EXECUTIVE SUMMARY

Housing markets continue to cool even as homeowners and renters face higher costs. On the for-sale side, home sales and construction levels are declining, as is the pace of home price appreciation, while rental markets are experiencing sharply reduced rent growth and rising vacancy rates. Nevertheless, home prices and rents remain elevated from pre-pandemic levels. Millions of households are now priced out of homeownership, grappling with housing cost burdens, or lacking shelter altogether, including a disproportionate share of people of color, increasing the need for policies to address the national housing shortfall at the root of the affordability crisis. Likewise, there is growing urgency for public and private investment to address longstanding disinvestment in underserved communities of color, adapt the housing stock to increasing risks of climate change, and expand options for older adults to age safely in their communities.

Figure 1

Home Price and Apartment Rent Growth Continued Sharp Decline in Early 2023

Year-Over-Year Change (Percent)



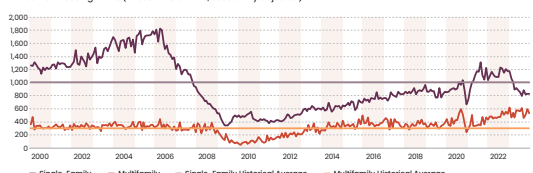
Notes: Asking rents are for professionally managed apartments in buildings with five or more units. Home prices in 2023g reflect data for January and February only. Source: JCHS tabulations of Redfin data; S&P CoreLogic Case-Shiller US National Home Price Index.

Asking rents nationally also rose year over year, though the rate of growth has slowed considerably. Annual rent growth for units in professionally managed apartments slowed from a record-high 15.3 percent in the first quarter of 2022 to just 4.5 percent in the first quarter of 2023 (Figure 1). Annual rent growth also slowed over

Figure 3

Single-Family Construction Dropped Dramatically, While Multifamily Development Remained Strong

Annualized Housing Starts (Thousands of units, seasonally adjusted)



Notes: Single-family and multifamily historical averages are of seasonally adjusted monthly data from January 1990 to March 2023. Source: JCHS tabulations of US Census Bureau New Residential Construction.

Single-Family Construction Slowing

Single-family homebuilding declined significantly last year as buyers reacted to sharply higher borrowing costs. Single-family housing starts dropped 10.8 percent in 2022, with the slowdown growing more pronounced throughout the year. The annualized rate of single-family housing starts averaged just 876,000 new units in the second half of the year, down 23.2 percent from the same period the year before and well below the 1.0 million units averaged since 1990 (Figure 3).

The decline in new homebuilding is particularly acute for lower-priced homes, due to rising construction and land costs, limited lot availability, and regulatory barriers like minimum lot sizes that restrict entry-level housing production. In 2021, just 24 percent of new homes—or 236,000 units—were under 1,800 square feet, compared with 37 percent of new completions in 1999. Likewise, manufactured housing, often an even more affordable option, totaled just 113,000 shipments in 2022. Although up from recent lows, manufactured home shipments regularly topped 200,000 units annually in the 1980s and 1990s.

Multifamily Construction Thriving

Unlike single-family homebuilding, multifamily construction continued to rise in 2022 even as rental demand softened. Indeed, 547,000 new multifamily units were started last year, the highest number since the mid-1980s. Plus, fully 960,000 units in multifamily buildings were under construction as of March 2023, the highest number in half a century.

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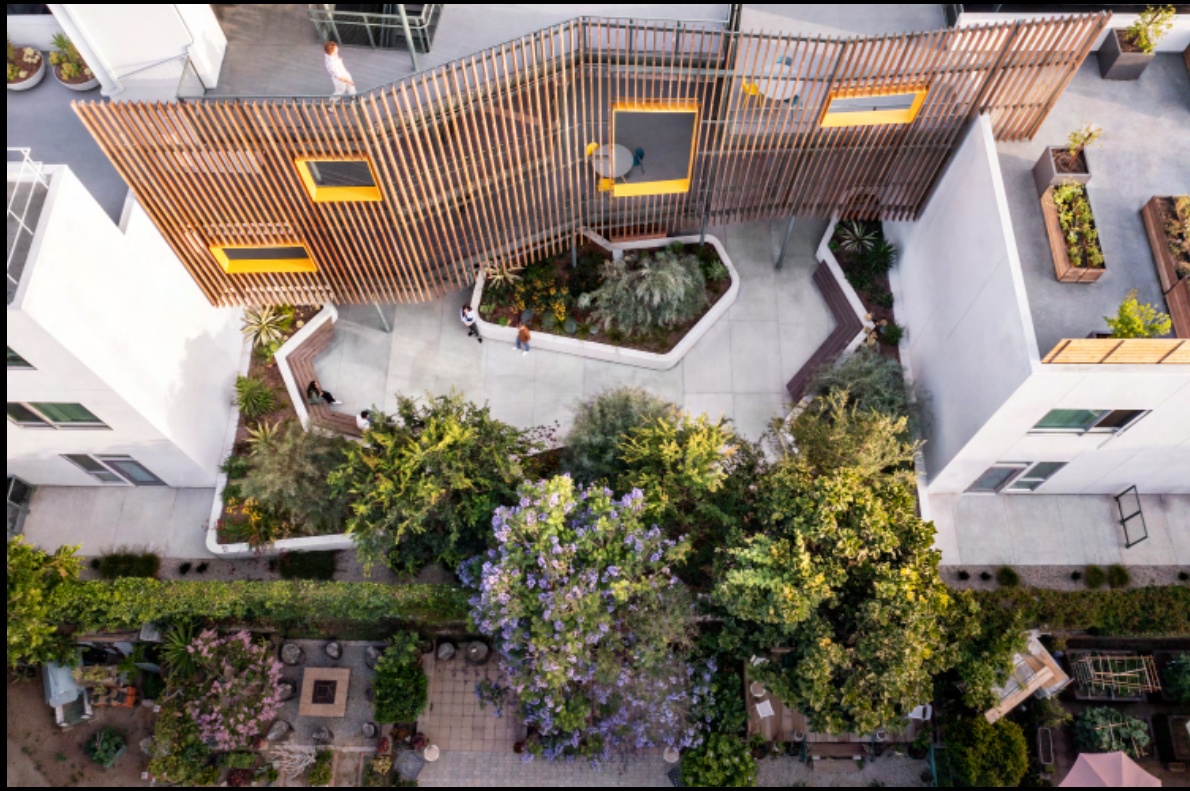
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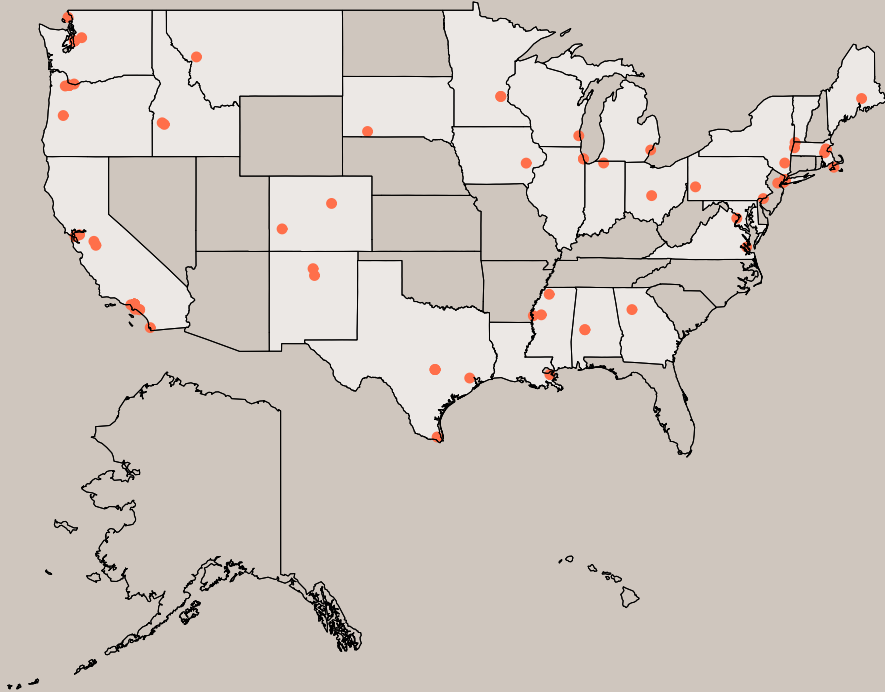








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Major Themes

Disguised Density

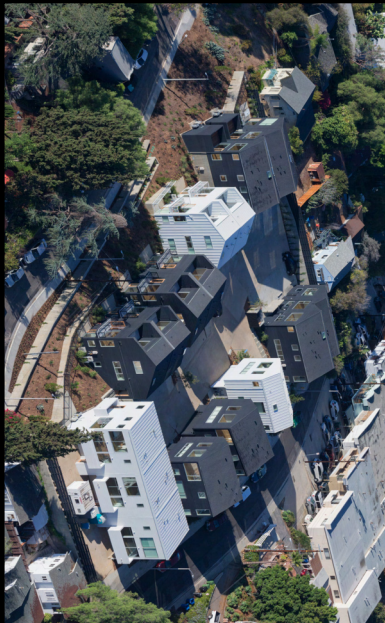
Not enough housing is being built across the country, period. Housing density—the number of individuals per unit in a geographic area—is still far below what could be supported by local infrastructure in most opportunity areas (close to transit, jobs, and services). Housing supply must be increased in lower-density areas to avoid more sprawl or greenfield development, which have well-documented negative environmental, economic and social effects. However, accompanying increases in height, street frontage, and building agglomerations can clash with collective perceptions of neighborhood character. NIMBY (“not in my back yard”) opposition to development often foregrounds these concerns as part of a national debate on how best to accommodate more homes in the same space. “Disguised density” refers to a design strategy that many projects use to obfuscate their unit count with architectural moves that fit more closely with established local residential typologies. For example, this includes duplexes with one front door, townhomes squished to the rear of the lot, and apartments with far fewer visible windows. Entrances are hidden, surroundings are mimicked, and parking is shrouded. Although many of these design methods are well established, concealing density may come at the cost of creating a fantasy world of urban stasis. We highlight projects built on this knife’s edge of a cultural battle—creating compelling character within the tight constraints of neighborhood and market demands.

In the US, where overcoming single-family zoning is still the prevailing regulatory hurdle, these projects exemplify the contemporary compromises involved in adding density where the status quo rejects it. Notable projects in Los Angeles, Seattle, Greenville, and Boston blend local vernaculars with novel urban form-making. Of particular note in the past few years was an open design competition¹ organized by the Los Angeles Mayor’s Office and the city’s Chief Design Officer, which generated new typologies of low-rise density. Entries blended international precedents with local lot dimensions and integrated home-grown American types with new policies.² In the following essay, Mimi Zeiger breaks down these concepts, outlines several projects, and explores what this trend means for density in American cities.

¹ “Low-Rise Housing Ideas for Los Angeles,” <https://lowrise.la/>.
² See also: “Come Home Chicago: Missing Middle Infill Housing Competition,” <https://www.architecture.org/learn/resources/come-home/>.

by Mimi Zeiger

In 2016, architect Barbara Bestor used the term “stealth density” to describe a multifamily residential development that her firm, Bestor Architecture, designed in Los Angeles’s Echo Park. The neighborhood, historically a mix of Latinx families and bohemian artists and writers, was slowly, then very rapidly, gentrifying in LA’s overheated housing market. Any new construction was bound to be suspect—both as a harbinger of displacement and disruption of the old, streetcar-era urban fabric. Although the term “stealth” conveys a contextually sensitive approach, a way to fit into an existing condition, it also reflects the anxieties of a neighborhood in transition. Changing a neighborhood’s physical character threatens both longtime and



Blackbirds complex in Los Angeles, designed by Barbara Bestor Architecture. Photo: Barbara Bestor Architecture.



The multiunit buildings of the Blackbirds complex cluster around a shared courtyard and parking area.



The infected roofs of the townhouses in Loran O’Hearty Architects Canyon Drive project are designed to evoke the b-frame home designs that were popular in the mid-twentieth century.

Institution report, for example, notes that Washington, DC, requires special permission for higher density in areas zoned single-family. Zeroing in on zoning-code terminology, the report identifies how the language of the code privileges low-density to “protect [single-family] areas from invasion by denser types of residential development.” Words like “protect” and “invasion” suggest that code is weaponized against outside threats. Indeed, the report’s authors stress that “protection” entrenches economic and racial segregation.³

Both Blackbirds and Loran O’Hearty Architects’ (LOHA) multifamily housing development, Canyon Drive, follow City of Los Angeles policy guidelines. The Small Lot Subdivision Ordinance, first adopted by the city in 2005 and amended in 2016, was touted as a solution to increase affordability in a tight market via infill housing. The ordinance included reduced setback requirements and lot sizes. Building more units—in the form of detached townhouses—on a lot zoned multifamily or commercial was meant to target

In many ways, disguised density is a study of aesthetics and perception: both a design exercise in vernacular typologies and a strategic game of hide-and-seek. But camouflage can’t always ward off NIMBY critiques. Opponents of the Ashland Apartments in Santa Monica accused Koning Eizenberg Architecture of “shoe-horning too much building into the site” and brought concerns about increased traffic to Santa Monica’s Architectural Review Board.⁴ The opponents were large neighbors—Santa Monica homeowners concerned about the project’s direct impact on their quality of life and property values. Considered a “preferred project” by the City of Santa Monica, the 10-unit development on a terraced hillside reflects higher density than normally allowed under code but was given an exception to incentivize more family



An aerial image shows the change in density between the low-density suburban context of Greenville, Mississippi, and the townhouses of The Reserves at Gray Park.



Although The Outpost appears larger than its single-family neighbors, the building conceals an experimental approach to multifamily living.

into the windows of the dream I have, and other people have, about where we’re at right now” he said, holding up a painted rock from his childhood.⁷

⁷ “Sprawl Session 3: House as Crime,” <https://laboratoryforurbansite.sites/SS3/>.

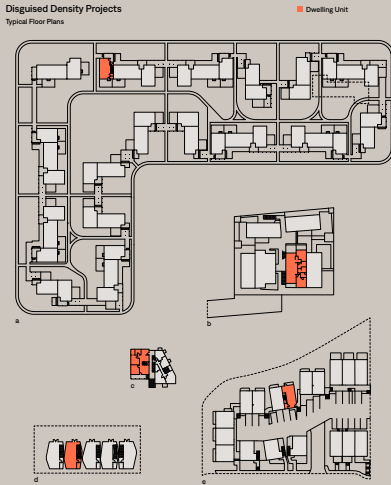
⁸ “Senate Bill 9 Is the Product of a Multi-Year Effort to Develop Solutions to Address California’s Housing Crisis,” <https://frcos.senate.gov/imo/media/doc/record>.

⁹ Attorney General Bonnie Pugh, City of Pasadena on Notice for Violating State Housing Laws,” <https://oag.ca.gov/news/press-releases/attorney-general-bonnie-pugh-city-pasadena-notice-violating-state-housing-laws>.

The Outpost, a four-story, 16-unit project in Portland, Oregon, takes advantage of the state’s higher-density policy and sets a new paradigm for both preservation and how we live together. Beebe Skidmore Architects preserved an existing nineteenth-century home on the property and worked with real estate developer Owen Gabbert and co-living platform Open Door to build a mini-tower: two handsome board-and-batten-clad cubes stacked with a twist.

From the outside, The Outpost’s density doesn’t appear particularly disguised. Its contemporary design displays few tropes of contextual sensitivity, like pitched roofs or vernacular overhangs, even though the other house on the site has both. What is concealed, however, is an experiment in communal living. Shared spaces include the kitchen plus dining and living areas. The project also offers a greater lesson, as disguised density asks us to question the sanctity of the single-family home. As reported by Jay Caspian Kang, suburban neighborhoods are more diverse than our collective imaginary.¹⁰ Existing homes contain multiple generations, older single people, or groups of TikTok influencers. Designing multifamily housing within single-family neighborhoods challenges the notion of the nuclear family as the default resident.

Designing with disguised density strategies allows housing to respond to shifting social and urban planning realities. But is it enough? Well-designed, dense, “missing-middle” housing is necessary to address scarcity and affordability; our language shouldn’t hide the urgency. Disguised density may yield too much agency to NIMBY anxieties and, in doing so, favors modesty over the true need for larger, multiunit buildings.



a The Reserves at Gray Park, David Decker, Greenville, MS
b Ashland Apartments, Koning Eizenberg Architects, Santa Monica, CA
c The Outpost, Beebe Skidmore Architects, Portland, OR
d Canyon Drive, LOHA, Los Angeles, CA
e Blackbirds, Bestor Architecture, Los Angeles, CA

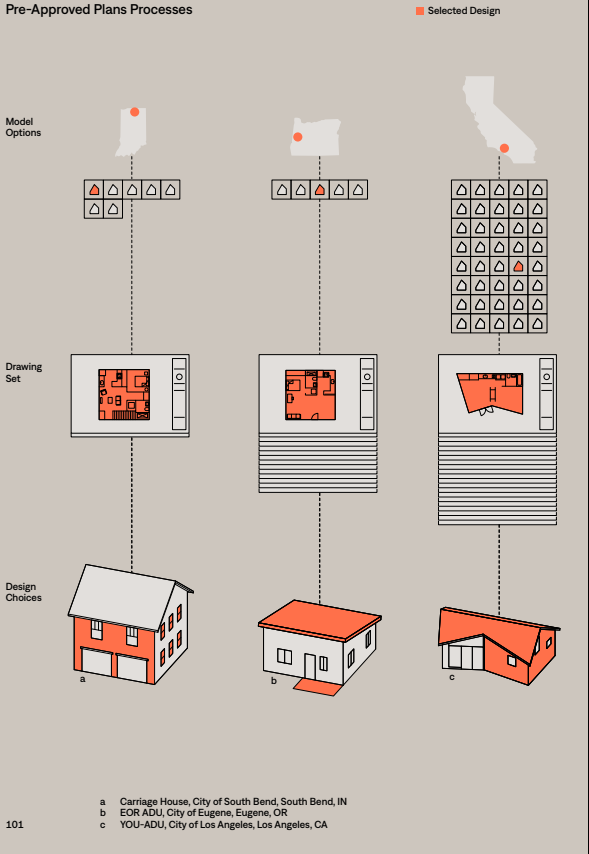
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Minor Themes

Pre-Approved Plans

Many cities are looking for new ways to directly support small-scale neighborhood housing development. One trend has been the production of pre-approved designs, typically provided for free by the city or directly through local architects for a small fee. Although the plans recall the Sears and Roebucks kit homes that could be purchased from a catalog, what's new is the fact that cities themselves are now designing and publishing drawings, an approach that reflects municipalities' efforts to reduce the financial cost of approvals and the lengthy period they often take. For example, Eugene, Oregon, offers four ADU designs by local architects (for purchase at a flat rate) and one by its own planning office that can be modified with a shed or gable roof, and a large or small porch. The set is 14 drawings, complete with structural illustrations to facilitate construction (although each sheet has a disclaimer limiting the city's liability and implying a need to formally engage the requisite professionals before applying for a permit). Los Angeles commissioned 39 architecture firms to produce 72 pre-approved ADU designs, each ultimately owned by those firms. The city's own design, YOU-ADU, comprises 21 pages certified by the city engineering department and local consultants. Developers or homeowners are given a sheet with checkboxes for customization that range from sprinklers to cladding choices. (A disclaimer stipulates that the model may not work for every site and that additional review may be required to evaluate its context.) Finally, South Bend, Indiana, has produced a catalog of seven urban housing types rather than an exhaustive set of construction drawings. The types, each with sub-variations for different densities, illustrate for public and professional audiences the kind of missing middle housing the city is seeking to encourage.

Pre-Approved Plans Processes



Finally Single (Room Occupancy)

Love is hard to find; good roommates harder still. And yet, for too long there have been few alternatives to high-priced studio or one-bedroom apartments. One solution is the single-room occupancy (SRO) dwelling. SROs, which typically lack a kitchen, living space, or private bathroom, were widely outlawed in the 20th century for health, safety, and maintenance reasons. Today, however, SROs are on the rise. No longer boarding houses—and no longer sponsored, as they once were, by the YMCA—SROs today take the form of university housing, co-living, and hostels.ⁱ Treehouse Hollywood, designed by Soler Architecture and Knibb Design in Los Angeles, targets young professionals, providing rooms for 60 residents across three- and five-bedroom and studio units. These co-living units are minimal: they include only ensuite bathrooms and outsource cooking, living, eating, socializing, and working spaces to other locations in the complex. Another co-living venture, The Outpost, designed by Beebe Skidmore in Portland, Oregon, takes shape as a twisted boxy form built upon an existing single-family home. Inside, 16 rooms negotiate the rotating plan geometry, somehow sandwiching in a second floor of dedicated communal space. Although the name signifies being on the cutting edge of a new movement, its structure refers to the surrounding homes, which are traditional in style. The exterior character reinforces this dual concept, with rotations in cladding and frontages but similarity in color choice and materiality—establishing a nuanced vision of collective living in solo structures. In nearby Portland, Jolene's First Cousin—a mixed-use, low-rise SRO scheme—provides 11 rooms for people transitioning away from homelessness. Furnished only with a small storage area, a bed, and a sink, the rooms stack on top of communal bathroom, kitchen, living, and dining spaces. Compared to units in traditional apartment buildings, units in SROs can be smaller and more nimble, often untethered by wet walls or plumbing stacks. By departing from the typical model of thinking only in a fixed-unit framework, SROs move towards one based upon people, and the diverse ways in which we can provide them housing—together, and alone again.

ⁱ Recently, the Minneapolis City Council enacted an ordinance aimed squarely at bringing SROs back. Minneapolis Planning Commission Member Keith Ford noted, "My time on the City Council, 50 years ago now, we were dealing with getting rid of SROs...[where now we are bringing them back] to provide for a well-regulated and well-operated SRO system." See "In a Bid to Offer More Affordable Housing Options, Minneapolis Council Members Propose Bringing Back the Rooming House," <https://www.minnpost.com/metro/2021/07/in-a-bid-to-offer-more-affordable-housing-options-minneapolis-council-members-propose-bringing-back-the-rooming-house/>.

Split Plans



Rejected Themes

~~Wall Street Subdivisions~~

~~Sketchup Contemporary~~

~~Camouflage Garage~~

~~Well Lit / Light Well~~

~~Not a Wall, Not a Window~~

~~Off Grid Pre-fab~~

~~Land Banks & Trusts~~

~~Vacancy~~

~~No Parking~~

~~Intentional Communities~~

~~Multigenerational Home Sharing~~

~~Oh Romeo!~~

~~Commission Refusal~~

~~Land Back Housing~~

~~Private Goes Public~~

~~Resident Owned Communities~~

~~WFH Forever~~

~~Get to Know Your Neighbors~~

~~Home Compost~~

A Survey of Housing Design

Why not simply ask what people thought was happening in housing design?

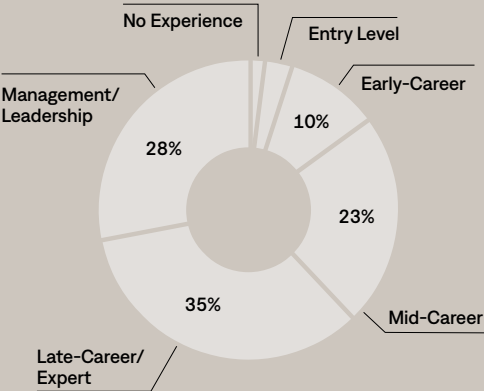
From early August to late November 2022, we circulated a brief survey, with prompts meant to gauge general trends. We sent it to the Center’s mailing list, then to the broader Harvard Graduate School of Design community. Our aim was to capture on-the-ground feedback from those actively designing, building, or shaping housing design in some way nationally.

We received over 1,300 unique responses from across 42 states and territories. Respondents hailed from Boston to Honolulu, from Cañon City, Colorado, to the town of Eagle Butte in South Dakota (population 1,258 in 2020). Gender demographics were split equally, with a majority-white respondent base. Most were mid- to late-career practitioners with the job title of designer, advocate, or developer, although many checked multiple boxes.

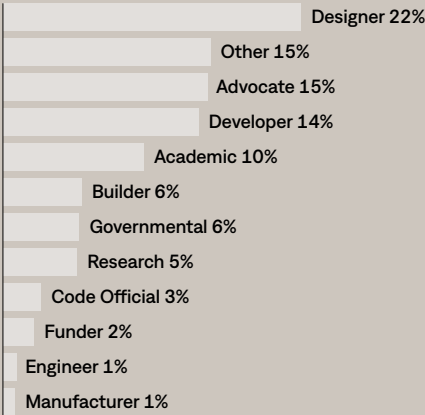
The survey intended both to inform the framing of the publication and to gut-check our early assumptions on emerging design trends. There was a healthy overlap between the themes that emerged in the responses and those that were taking shape in our research: respondents were—like us—keen to talk about sustainability, family-sized units, zoning, density, and affordability. However, there was also a level of disconnect between the kinds of work people told us about and the kinds of work we ended up focusing on in the book. This was evident in the large number of responses related to single-family and low-density developments—typologies that produce a large amount of housing nationally but that are not represented proportionally by the projects we feature in the book.

What’s clear is that almost everyone is very concerned with the state of housing; generally, respondents wrote in animated language that we build too little, for too high a cost, and with not enough care. This section gives an overview of the survey itself, dissecting each question we asked, followed by selected quotes of respondents.

Experience Level
Percentage of total respondents

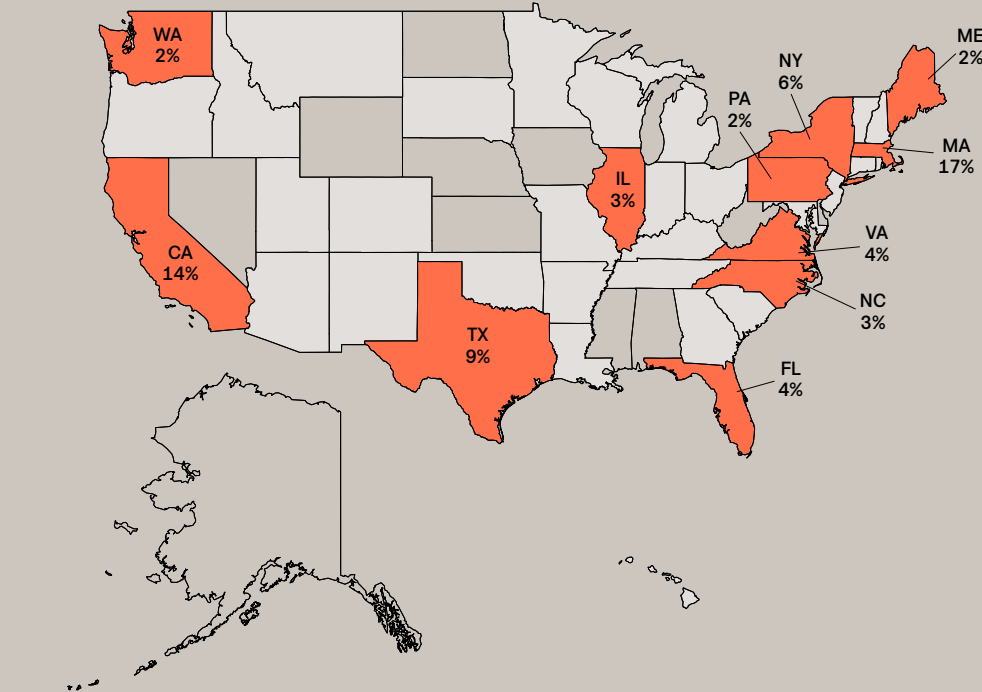


Primary Role/Job in Housing Production
Relative frequency of roles by respondents



States Where Respondents Work

- States with responses
- States with 2% or greater representation



Question 1: Trends

In the last two years, what design ideas have you noticed the most in newly built housing?

Smaller
All Electric
Affordable
Modular
3D-Printed
5-Over-1s
Micro
Open
Home Offices
Large
Multi-Materials
Highly Efficient
Luxury
Adaptive Reuse

Alternate Energy
4/5 Stories
Age in Place
Higher Density
Timber
ADUs
Accessible
Passive
Expensive
Tiny
Wood
Modern
Amenity Spaces
For Families

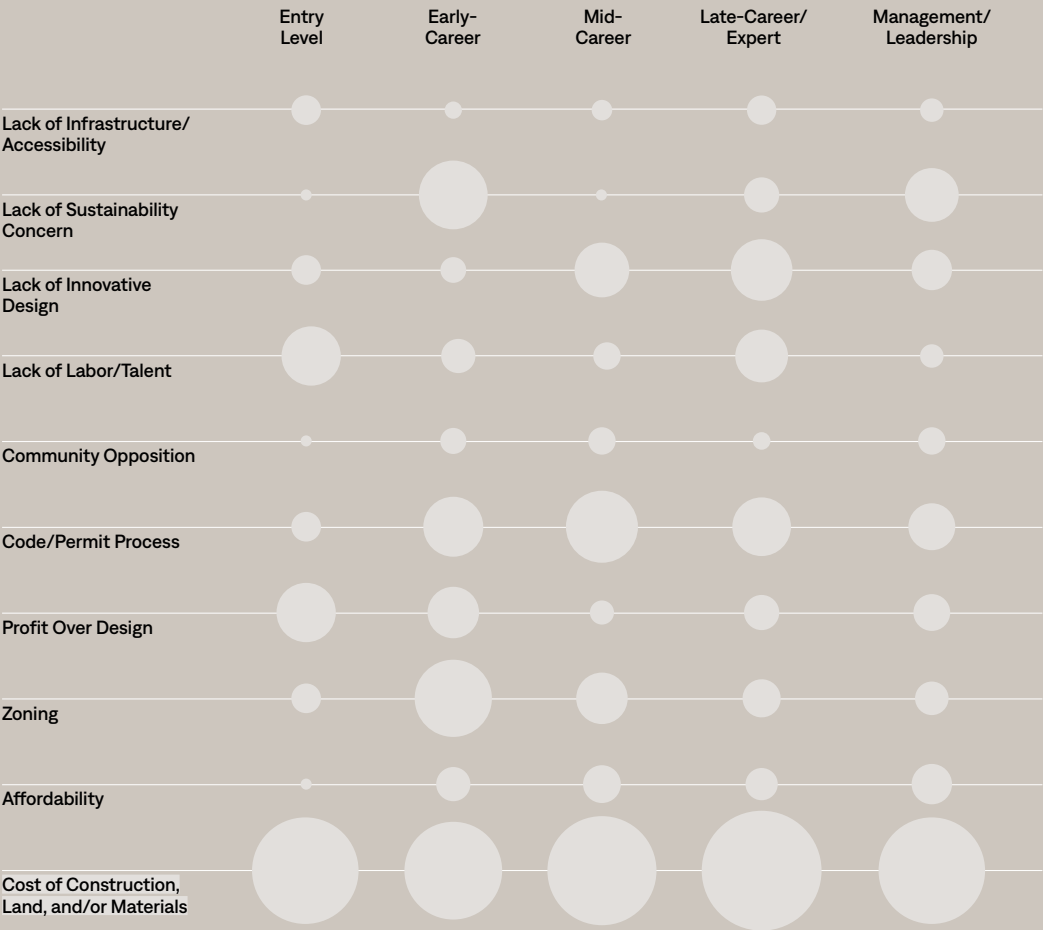
The above list represents the most commonly mentioned topics in order of response frequency. The highlighted topics on size and density are what we heard most about.

Here is what we heard about:
Size and Density

Code Official in Montana	" <u>Smaller living space</u> but <u>more storage space</u> ."
Academic/Advocate/Builder/Designer in Massachusetts	" <u>Lack of verticality</u> , acquiescence to neighborhood groups, even for projects at the periphery of neighborhoods and commercial districts."
Advocate in North Carolina	"The designs here in Raleigh, North Carolina, are more Miami-esque, meaning, they are <u>tall/narrow</u> in stature, built on <u>small tracts of land</u> , typically have a lot of natural lighting."
Designer in California	" <u>Out of scale</u> , malproportioned, <u>out of context</u> with surrounding neighborhoods."
Academic/Designer in Oregon	" <u>Smaller residences</u> , <u>tiny houses</u> , <u>clustered</u> developments and townhouses."
Academic/Researcher in Georgia	"Prefabricated structures sited in <u>smaller infill lots</u> ."
Academic/Designer/Developer in California	"In San Diego Co-Housing, multiple tenants <u>share a space</u> with one kitchen and living room. In some configurations, each bedroom has its own bathroom and main entrance, and the <u>shared kitchen</u> and living areas are centrally located."

Question 2: Barriers

In your industry or role, what do you see as the biggest external factors to building well-designed (as you define it) housing?



The above graphic of circles represents the relative density of responses grouped by thematic topic and organized by respondents' experience level. Cost is highlighted as the topic we heard most about.

Here is what we heard about:

Cost

Entry-Level	“Simply the cost. I am in a legacy Rust Belt city. It is hard to pencil out projects from the private sector, let alone with public funding. I would add that zoning and the regulatory process of getting a project approved from local municipalities incur unnecessary costs and wait times to the pre-development process.”
Early-Career	“‘Luxury’ focus—often high-rise. Inequitable focus—gentrification and displacement; innovations are reserved for the most privileged; those displaced are the most distanced from well-designed housing.”
Mid-Career	“Forgetting that middle- and low-income people exist; catering construction and design only to the superrich.”
Late-Career	“There is a lack of government funds to build deed-restricted, high-quality affordable housing.”
Management/Leadership	“Cost of housing—builders have to rethink the 1,400-square-foot home (which was 40 percent of new construction in the 1980s; only 7 percent now) for affordability with much increased functionality.”

Question 3: Missing Links

What is missing most from housing design today?

Affordability
Renewable Energy and Efficiency
Knowledgeable Partners
Resilience and Green Infrastructure
Feasible and Cost-Efficient Design
Design Guidelines
Variety
Quality Building Materials
Original Designs
Joy
Bike Parking
Connection to Outdoor Green Space
Effective Renovation Strategies
Demographic Flexibility in Units
Design-Build Partnerships
Contextual and Scalar Designs
A Sense of Community
Skilled Labor
Collective Models of Ownership
Wider Range of Typologies
Density
Open Competitions
People's Life and Histories
Mix of Income Levels
Family or 3/4 Bedroom Apartments
Willingness to Make Less Profit
Up-to-Date Building Codes
Material Sensoriality and Details
Focus on Equity
Accessible Entries and Units
Character

If you could change one thing to enable better design in housing, what would it be?

Restrictive Zoning and By-Right Housing
Onerous Design Guidelines
Spatial Flexibility Over Time
More Open Space
More Renewable-Energy Incentives
Cooperative Buying Power
Access to Multimodal Transportation
Increased Density
Remote Work Areas
Accessible Bathrooms
More Durable and Sustainable Materials
Give Design a Soul
Make Rehab Easier/Cost-Effective
Speed Up Construction
More Natural Light
Engage Youth in Design Thinking
Encourage Passive Energy Systems
Cultural Understanding of the American Dream
Designers Who Engage the Community
Acceptance of Smaller Homes
Developer Commitment
Publicly Fund Housing R&D
Encourage Youth in the Trades
Two Means of Egress Rule
Broader National Building Standards
Non-Vinyl Flooring
More Architects Designing Housing
Public Typical Drawings/Details
Education of Regulators
Efficient Municipal/Community Review

The above lists plot the terms we heard most in each category. Highlighted terms related to zoning were the most commonly mentioned in response to the second question.

Here is what we heard about:

Zoning

Other	“By-right housing—put simple parameters on the design and zoning, let people innovate, and require engagement with residents, neighborhood, etc.”
Academic/ Advocate Builder/ Designer	“[Establish a] <u>clear agenda</u> stated from the City of Boston as to what its goals are, instead of us having to discover them in the process of applying for building permits.”
Developer	“ <u>The regulatory approval process is taking two to three years in the Seattle region.</u> That is really affecting our ability to increase the housing supply. Also, cost pressures remove the ability to try new enhancements or extras.”
Designer	“Probably regulations around zoning <u>allowing for and/or incentivizing densification in suburbs and exurbs.</u> Also, it’s imperative that cities continue to be able to require developers to do public improvements.”
Advocate/Designer/ Researcher	“Legalize point access blocks to 6–10 stories, to <u>unlock small- and medium-sized mid-rise projects in more of the city.</u> This is the backbone of cities the world over, outside the US and Canada.”
Builder	“ <u>Planning codes and planners should want to be able to approve projects that don’t all look the same and should be allowed and/or mandated to deviate from time to time—for sheer boredom of the architecture’s sake and the jumbled city masses they are producing.</u> All repetitive.”

Question 4: Built Work

In the last two years, what small trends or peculiar details have you noticed in new housing?



Across all regions, people told us most about fake materials, prefabrication, modular buildings, outdoor spaces, mass timber construction, home offices, smaller spaces, higher density, sustainable features, and repetitive designs. The graphic above illustrates the various responses we received across country organized by region and alphabetically; and highlights the topic we heard the most about: materiality.

Here is what we heard about:

Materiality

Baton Rouge, Louisiana	"The use of <u>synthetic</u> cladding materials masquerading as something else—tile and plastics faking as wood, cladding misleading people to be wood that never needs painting, etc. The falsehood of materials."
Washington, DC and Arlington, Virginia	" <u>More glass and metal, less stone/brick.</u> "
California	"Many times, clients, contractors, peers want to use <u>materials that are recycled</u> or certified but aren't durable physically or have a versatility of use (can't be refinished, will go out of style quickly...etc.)."
St. Louis, Missouri	"The use of <u>black and gray colors on everything.</u> "
Santa Fe County, New Mexico	"Subway tiles. Barn doors. <u>Fake-rock facades.</u> Roof beams in all directions."
Columbus, Ohio	"Mr. Potato Head housing. Overuse of craftsman elements: <u>board and batten, standing-seam metal roofs, etc.</u> "
Cambridge, Massachusetts	"I see lots of large, single-family homes that are <u>white, neocolonial style with black windows.</u> "

Disguised Density

Not enough housing is being built across the country, period. Housing density—the number of individuals per unit in a geographic area—is still far below what could be supported by local infrastructure in most opportunity areas (close to transit, jobs, and services). Housing supply must be increased in lower-density areas to avoid more sprawl or greenfield development, which have well-documented negative environmental, economic and social effects. However, accompanying increases in height, street frontage, and building agglomerations can clash with collective perceptions of neighborhood character. NIMBY (“not in my back yard”) opposition to development often foregrounds these concerns as part of a national debate on how best to accommodate more homes in the same space. “Disguised density” refers to a design strategy that many projects use to obfuscate their unit count with architectural moves that fit more closely with established local residential typologies. For example, this includes duplexes with one front door, townhomes squished to the rear of the lot, and apartments with far fewer visible windows. Entrances are hidden, surroundings are mimicked, and parking is shrouded. Although many of these design methods are well established, concealing density may come at the cost of creating a fantasy world of urban stasis. We highlight projects built on this knife’s edge of a cultural battle—creating compelling character within the tight constraints of neighborhood and market demands.

In the US, where overcoming single-family zoning is still the prevailing regulatory hurdle, these projects exemplify the contemporary compromises involved in adding density where the status quo rejects it. Notable projects in Los Angeles, Seattle, Greenville, and Boston blend local vernaculars with novel urban form-making. Of particular note in the past few years was an open design competitionⁱ organized by the Los Angeles Mayor’s Office and the city’s Chief Design Officer, which generated new typologies of low-rise density. Entries blended international precedents with local lot dimensions and integrated home-grown American types with new policies.ⁱⁱ In the following essay, Mimi Zeiger breaks down these concepts, outlines several projects, and explores what this trend means for density in American cities.

ⁱ “Low-Rise: Housing Ideas for Los Angeles,” <https://lowrise.la/>.

ⁱⁱ See also: “Come Home Chicago: Missing Middle Infill Housing Competition,” <https://www.architecture.org/learn/resources/come-home/>.

by Mimi Zeiger

In 2016, architect Barbara Bestor used the term “stealth density” to describe a multifamily residential development that her firm, Bestor Architecture, designed in Los Angeles’s Echo Park. The neighborhood, historically a mix of Latinx families and bohemian artists and writers, was slowly, then very rapidly, gentrifying in LA’s overheated housing market. Any new construction was bound to be suspect—both as a harbinger of displacement and disruption of the old, streetcar-era urban fabric. Although the term “stealth” conveys a contextually sensitive approach, a way to fit into an existing condition, it also reflects the anxieties of a neighborhood in transition. Changing a neighborhood’s physical character threatens both longtime and recent residents.

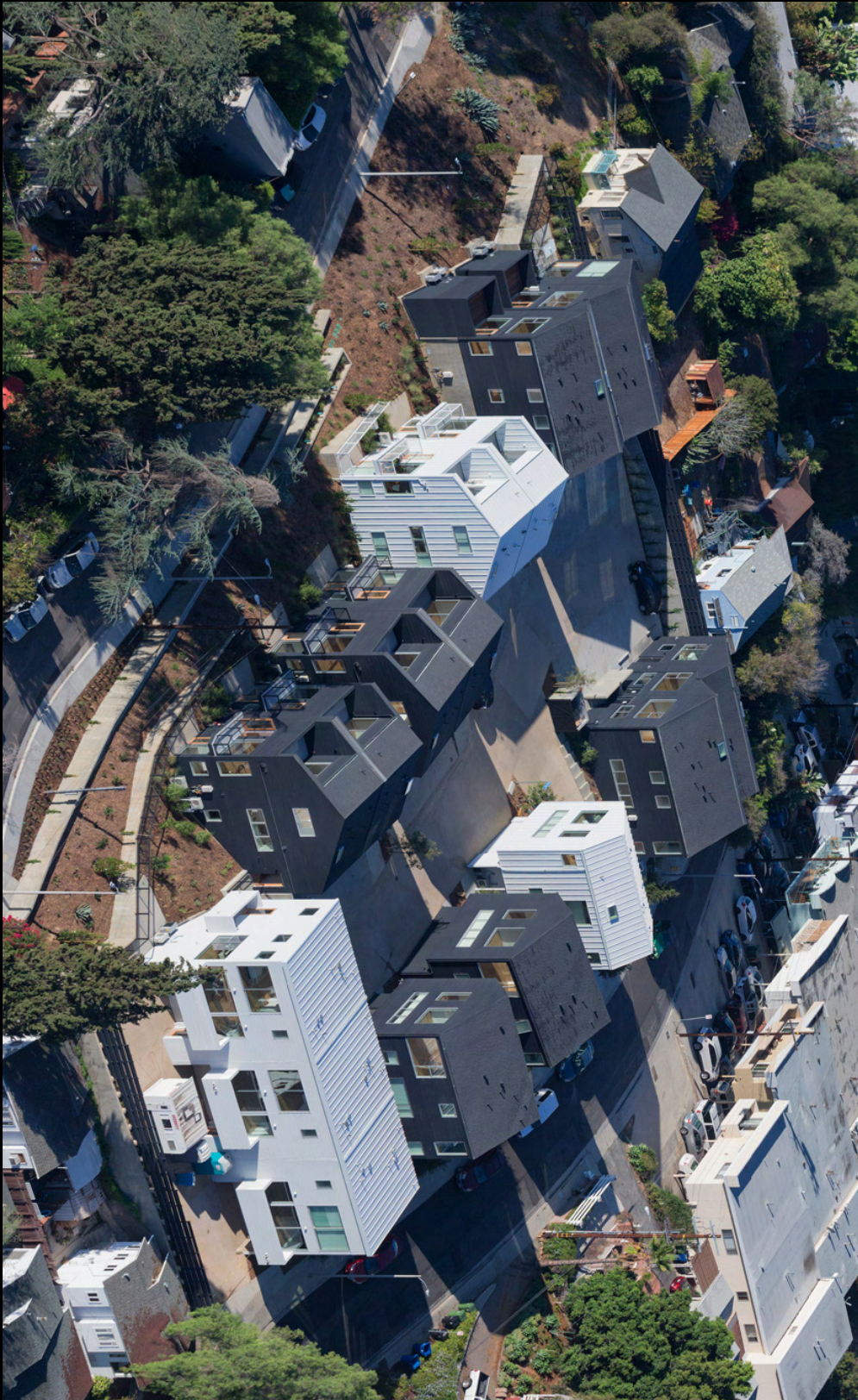
Bestor drew inspiration from the modest single-family homes and occasional low-rise courtyard apartment buildings that line Echo Park’s hilly streets. Named Blackbirds, Bestor’s complex combines these two typologies to organize a series of duplexes and triplexes around a central parking court. Each building *stealthily* resembles a single-family home; the design uses pitched roofs and exterior paint color to break up the bulk of larger volumes, so new construction blends into the surrounding scale. “Two free-standing houses are connected by flashing, and the roofline creates the illusion of one house mass,” Bestor explained to the online publication Dezeen. “Three houses, whose separation is masked, has the illusion of being two houses.”¹

Stealth density is just one possible expression of this strategy. The editors of this book chose “disguised density,” and a 2019 Brookings Institution report used the term “gentle density” to argue that replacing detached single-family houses with more homes on a lot could help reduce housing prices in desirable locations without disrupting the neighborhood. This “missing middle” between the stand-alone home and the dreaded apartment tower takes the form of multifamily townhouses, duplexes, and semi-detached structures packed tightly on a lot. “Building more housing on single-family parcels doesn’t require skyscrapers,” noted the report’s authors, Alex Baca, Patrick McAnaney, and Jenny Schuetz.²

Stealth. Disguised. Gentle. With each, language is used to deflect the fears and misconceptions that have accumulated around multifamily housing—biases that align multiunit buildings with the past specters of bleak public housing projects. That new development must slip quietly into a neighborhood underlines the long-held entitlement of home ownership and bias of single-family zoning. The Brookings

¹ “Bestor Architecture Uses ‘Stealth Density’ at Blackbirds Housing in Los Angeles,” <https://www.dezeen.com/2016/09/28/bestor-architecture-blackbirds-housing-stealth-density-echo-park-los-angeles/>.

² “‘Gentle’ Density Can Save Our Neighborhoods,” <https://www.brookings.edu/research/gentle-density-can-save-our-neighborhoods/>.



Viewed from above, the buildings of Bestor Architecture's 18-unit Blackbirds housing complex resemble single-family homes.

3

Ibid. Both Blackbirds and Lorcan O’Herlihy Architects’ (LOHA) multifamily housing development, Canyon Drive, follow City of Los Angeles policy guidelines. The Small Lot Subdivision Ordinance, first adopted by the city in 2005 and amended in 2016, was touted as a solution to increase affordability in a tight market via infill housing. The ordinance included reduced setback requirements and lot sizes. Building more units—in the form of detached townhouses—on a lot zoned multifamily or commercial was meant to target first-time homebuyers, although it is arguable if this plan was truly successful. In early 2022, two-bedroom, two-bath units at Canyon Drive were sold for around \$1.4 million each. Although the price is conceivably less than a ground-up, single-family home on the same lot, the units sold for considerably more than the \$1 million average home price in Los Angeles.

4

“\$224K Grant from Planters Bank and Trust and FHLB Dallas Creates 42 Homes,” <https://www.businesswire.com/news/home/20180615005840/en/224K-Grant-from-Planters-Bank-and-Trust-and-FHLB-Dallas-Creates-42-Homes>.

Institution report, for example, notes that Washington, DC, requires special permission for higher density in areas zoned single-family. Zeroing in on zoning-code terminology, the report identifies how the language of the code privileges low-density to “protect [single-family] areas from invasion by denser types of residential development.” Words like “protect” and “invasion” suggest that code is weaponized against outside threats. Indeed, the report’s authors stress that “‘protection’ entrenches economic and racial segregation.”³

The authors of the ordinance recognized that increased density and potentially bulky massing indicative of multifamily housing would set off alarms, so a series of design guidelines dictates specific articulations of facades, entryways, and rooflines to prevent blank and boxy edifices ill-suited to the surrounding context. At Canyon Drive, for example, each unit has a unique identity. LOHA inflected the roofs of the townhouses so that each facade resembles a mid-century-modern A-frame perched atop the garage podium.

Similarly, in Greenville, Mississippi, the pitched roofs and shaded front porches that characterize the 42 townhouses of The Reserves at Gray Park suggest that individuation is neither simply an appeasement to NIMBYs nor a market strategy, but also a way of establishing identity and dignity for residents. Composed of one-, two-, and three-bedroom units, the affordable housing project by Duvall Decker with the Greater Greenville Housing and Revitalization Association serves low- and very-low-income renters. It’s the city’s largest single-unit housing development in more than 30 years.⁴ Here, disguised density works to deflect the stigma historically associated with affordable housing, while demonstrating that an alternative to a detached single-family home might offer more than the suburban ideal. What if the American Dream was not about individual ownership and a green front lawn but, as illustrated at The Reserves at Gray Park, found in shared public spaces designed to foster community interaction and sustainable site planning?



The multiunit buildings of the Blackbirds complex cluster around a shared courtyard and parking area.



The inflected roofs of the townhouses in Lorcan O'Herlihy Architects' Canyon Drive project are designed to evoke the A-frame home designs that were popular in the mid-twentieth century.

5 "Construction of Santa Monica Apartment Building Appealed," https://www.surfsantamonica.com/ssm_site/the_lookout/news/News-2015/January-2015/01_23_2015_Construction_of_Santa_Monica_Apartment_%20Building_%20Appealed.html.

In many ways, disguised density is a study of aesthetics and perception: both a design exercise in vernacular typologies and a strategic game of hide-and-seek. But camouflage can't always ward off NIMBY critiques. Opponents of the Ashland Apartments in Santa Monica accused Koning Eizenberg Architecture of "shoe-horning too much building into the site" and brought concerns about increased traffic to Santa Monica's Architectural Review Board.⁵ The opponents were large neighbors—Santa Monica homeowners concerned about the project's direct impact on their quality of life and property values. Considered a "preferred project" by the City of Santa Monica, the 10-unit development on a terraced hillside reflects higher density than normally allowed under code but was given an exception to incentivize more family housing to the area. Studios and two- and three-bedroom apartments are divided among four structures. According to the architects, the project achieves a density of 30 units/acre by bridging scales between a residential neighborhood (the source of the complaints) and a high-density, mixed-use development along Lincoln Boulevard to the west.

In 2019, the same year that Ashland Apartments opened, *Architecture Australia* ran an article about architects Hank Koning and Julie Eizenberg, describing their work as "smart, generous and empathetic,"⁶ which is best embodied at Ashland in the abundance of private and shared outdoor spaces that allow residents room to socialize and take advantage of Southern California indoor-outdoor living.

6 "Smart, Generous and Empathetic: The Housing Projects of Koning Eizenberg Architecture," <https://architectureau.com/articles/hank-koning-and-julie-eizenberg/>.

Ashland Apartments sits on a previously unbuilt lot in the center of the block and is edged on three sides by the backyards of adjacent properties. With no street frontage of its own, the other houses in this highly desirable neighborhood mask its overall density. A long, narrow (and contentious) driveway connects from the curb to the underground parking lot. The multiyear clash was, literally, a skirmish over "not in my backyard."

Although density triggers fears of "too big," "too much," or "invasive," at the heart of these kinds of fights is a battle over the continued viability of single-family zoning in neighborhoods, cities, and states where homelessness is on the rise, affordable housing is out of reach, and sprawl is no longer an option. As a paradigm, single-family zoning was built on pastoral fantasies and systems of social and racial exclusion. Bursting the fever dream of individual homeownership and the loose-fit urbanism it produces is bound to provoke conflict. During an event hosted by Laboratory for Suburbia that questioned what "house" means—both as a spatial product and as home—Gustavo Arellano, an Orange County-based journalist who writes on issues of politics, race, and suburbia, suggested we shatter our collective intoxication, using language that verges on revolution. "[I have to] throw this rock



An aerial image shows the change in density between the low-density suburban context of Greenville, Mississippi, and the townhouses of The Reserves at Gray Park.



Although The Outpost appears larger than its single-family neighbors, the building conceals an experimental approach to multifamily living.

Koning Eizenberg Architecture distributed 10 units across four free-standing buildings at the Ashland Apartments, allowing patios and communal walkways to fill the spaces in between.



7 "Sprawl Session 3: House as Crisis," <https://laboratoryforsuburbia.site/SS3>.

8 "Senate Bill 9 Is the Product of a Multi-Year Effort to Develop Solutions to Address California's Housing Crisis," <https://focus.senate.ca.gov/sb9>.

9 "Attorney General Bonta Puts City of Pasadena on Notice for Violating State Housing Laws," <https://oag.ca.gov/news/press-releases/attorney-general-bonta-puts-city-pasadena-notice-violating-state-housing-laws>.

10 "Everything YouThink You Know About the Suburbs Is Wrong," <https://www.nytimes.com/2021/11/18/opinion/suburbs-poor-diverse.html>.

into the windows of the dream I have, and other people have, about where we're at right now" he said, holding up a painted rock from his childhood.⁷

The sanctity of the American Dream is now undergoing arguably radical, even heretical, change. Across the US, states are rethinking the primacy of single-family zoning, which makes it possible to build multifamily housing in residential neighborhoods—with or without stealth, gentle, or disguised density. Oregon passed legislation eliminating exclusive single-family zoning in 2019. California followed in 2021 with SB 9: The California Home Act, which allows for up to four units on a single-family parcel and promotes infill development.⁸ Its passage was not free from pushback. Under SB 9, landmarked and historic districts are exempt, so the City of Pasadena, a place known for both beautiful craftsman homes and racist histories of redlining, proposed an urgency ordinance declaring the entire city a landmark district, a move that garnered critical media attention and a warning by California Attorney General Rob Bonta.⁹

The Outpost, a four-story, 16-unit project in Portland, Oregon, takes advantage of the state's higher-density policy and sets a new paradigm for both preservation and how we live together. Beebe Skidmore Architects preserved an existing nineteenth-century home on the property and worked with real estate developer Owen Gabbert and co-living platform Open Door to build a mini-tower: two handsome board-and-batten-clad cubes stacked with a twist.

From the outside, The Outpost's density doesn't appear particularly disguised. Its contemporary design displays few tropes of contextual sensitivity, like pitched roofs or vernacular overhangs, even though the other house on the site has both. What is concealed, however, is an experiment in communal living. Shared spaces include the kitchen plus dining and living areas. The project also offers a greater lesson, as disguised density asks us to question the sanctity of the single-family home. As reported by Jay Caspian Kang, suburban neighborhoods are more diverse than our collective imaginary.¹⁰ Existing homes contain multiple generations, older single people, or groups of TikTok influencers. Designing multifamily housing within single-family neighborhoods challenges the notion of the nuclear family as the default resident.

Designing with disguised density strategies allows housing to respond to shifting social and urban planning realities. But is it enough? Well-designed, dense, "missing-middle" housing is necessary to address scarcity and affordability; our language shouldn't hide the urgency. Disguised density may yield too much agency to NIMBY anxieties and, in doing so, favors modesty over the true need for larger, multiunit buildings.

Disguised Density Projects

Typical Floor Plans

■ Dwelling Unit



- a The Reserves at Gray Park, Duvall Decker, Greenville, MS
- b Ashland Apartments, Koning Eizenberg Architects, Santa Monica, CA
- c The Outpost, Beebe Skidmore Architects, Portland, OR
- d Canyon Drive, LOHA, Los Angeles, CA
- e Blackbirds, Bestor Architecture, Los Angeles, CA

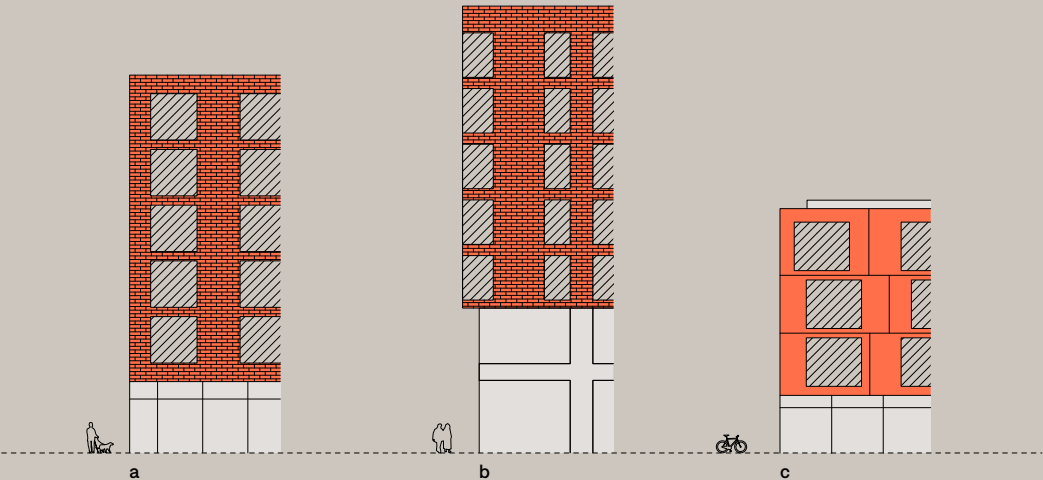
Three, Four, or Five over One, Sometimes Two

One architectural typology that featured heavily in our survey results was mid-rise podium housing. This is commonly known as five-over-one construction, which combines several inexpensive levels of light-wood framing above one level (sometimes two) of noncombustible concrete or steel construction (the moniker numbers also refer to the degree of fire resistanceⁱ). Building codesⁱⁱ and zoning regulations often favor five-over-one buildings, which find the developmental sweet spot of density without pushing into high-rise categories and maximize the window-to-wall ratio in a compact volume. On the other hand, designersⁱⁱⁱ criticize them for being boxy and rigid and allowing for little variety in scale or modulation. Despite the parameters and critiques, many architects have embraced the form. In Minneapolis, Snow Kreilich Architects has wrapped a street corner in a sleek, dark volume of punched balconies and flush windows. The building's facade embraces its length and presence through a concise rhythm of apertures, with the ground floor receding in transparency. In Boise, Idaho, Pivot North Architects has stretched the type vertically, extending the podium over two levels and following a similar narrative of light cladding above a darker, shinier base. In Los Angeles, Kevin Daly Architects' Gramercy Senior Housing project flips the emphasis of depth to its primary-unit windows. The consistent internal logic of these projects highlights small variations in cladding and opening strategies, including window proportions shifting to optimize sunlight, cost, and rhythm. In all, they own the inherent structural logic to arrive at a vernacular that feels true to form and function. Indeed, there is virtue in this banality, and, according to the writer Alain de Botton, "architecture should have the confidence and kindness to be a little boring."

i See Table 601 ("Fire-Resistance Rating Requirements for Building Elements [Hours]") in the International Building Code, <https://codes.iccsafe.org/content/IBC2015/chapter-6-types-of-construction>.
ii Wood construction, being of a material more susceptible to combustion and disaster, is limited in height. Thus, it is placed on a pedestal of noncombustible construction to gain the maximum amount of floor space within local zoning limits and before the building is categorized as a "high-rise."
iii "Why Do All New Apartment Buildings Look the Same?" <https://archive.curbed.com/2018/12/4/18125536/real-estate-modern-apartment-architecture>.

Partial Building Elevations

Combustable Construction



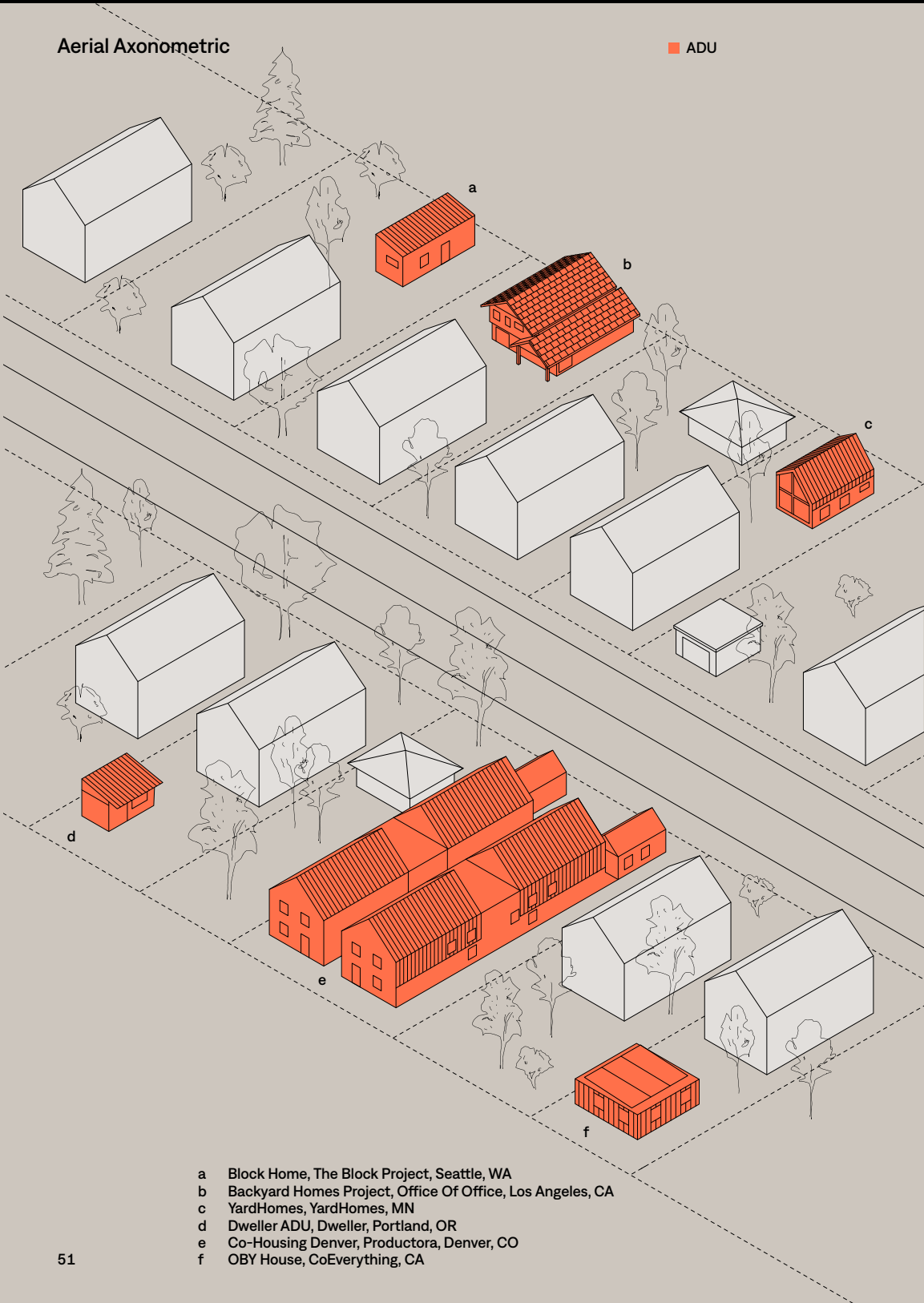
a Second + Second, Snow Kreilich Architects, Minneapolis, MN
b Thomas Logan, Pivot North Architects, Boise, ID
c Gramercy Senior Housing, Kevin Daly Architects, Los Angeles, CA

Accessory and Additional Units

Accessory dwelling units (ADUs)ⁱ—small, second dwellings sited on the same lot as a primary single-family homeⁱⁱ—have recently gained new political, media, and architectural attention. It’s not hard to see why: because ADUs can add density without drastically changing existing neighborhood character, they have proved effective at expanding the imagination around the typical single-home lot. At the low-profile extreme, Co-Housing Denver, by design firm Productora, includes ADUs that simply operate as an extension of the primary structure and are visually similar in hierarchy and materiality. On the opposite end is The Block Project in Seattle, which features ADUs permitted, built, and operated by an outside organization for people experiencing homelessness. Here, the lot owner essentially leases the land (*gratis*, in this case) for the construction of a clearly differentiated structure. Taking a similar approach, the OBY House model, designed by CoEverything and run by OBY Collective, pays homeowners to install carbon-neutral units. Although ADUs don’t represent a perfect solution to the affordability crisis, their pragmatic, incremental nature opens the single-family lot to density and experimentation with alternative possibilities of both form and ownership.

ⁱ ADUs are also referred to as granny flats, garage apartments, or even further subdivisions of an existing dwelling structure. They can be a basement flat or a new detached volume in the backyard. Recently, especially in less dense, single-family neighborhoods, policy shifts have rezoned for their approval as a way to densify with little disruption of the existing residential fabric.

ⁱⁱ Although ADUs are often implemented through overlay zoning or pilot programs, they relate heavily to the movement to eliminate single-family zoning altogether. In 2019, Minneapolis became the first major city to ban single-family zoning. The same year, Oregon passed a similar law statewide. In 2022, California followed suit, banning single-family zoning across the state.

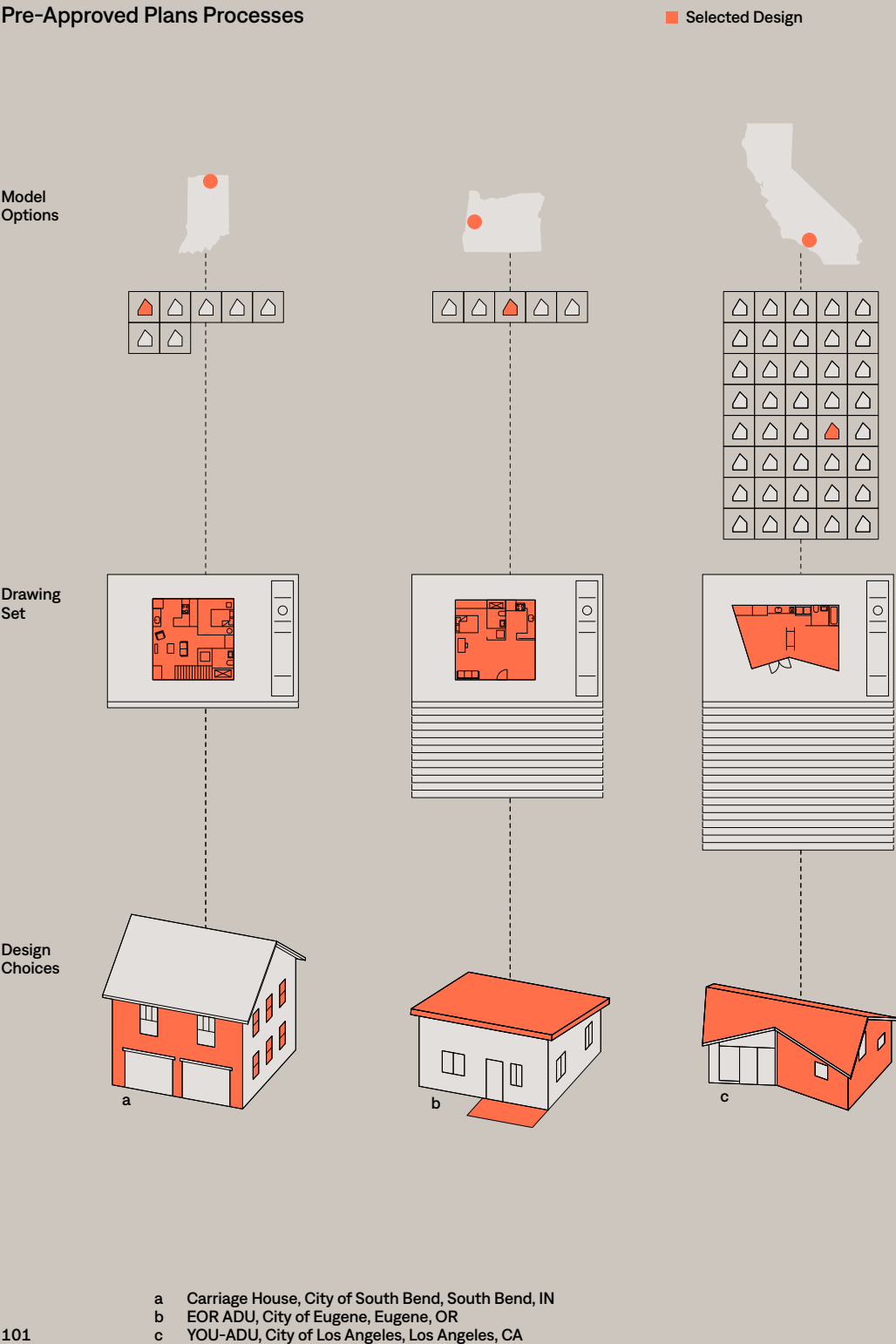


a Block Home, The Block Project, Seattle, WA
b Backyard Homes Project, Office Of Office, Los Angeles, CA
c YardHomes, YardHomes, MN
d Dweller ADU, Dweller, Portland, OR
e Co-Housing Denver, Productora, Denver, CO
f OBY House, CoEverything, CA

Pre-Approved Plans

Many cities are looking for new ways to directly support small-scale neighborhood housing development. One trend has been the production of pre-approved designs, typically provided for free by the city or directly through local architects for a small fee. Although the plans recall the Sears and Roebucks kit homes that could be purchased from a catalog, what's new is the fact that cities themselves are now designing and publishing drawings, an approach that reflects municipalities' efforts to reduce the financial cost of approvals and the lengthy period they often take. For example, Eugene, Oregon, offers four ADU designs by local architects (for purchase at a flat rate) and one by its own planning office that can be modified with a shed or gable roof, and a large or small porch. The set is 14 drawings, complete with structural illustrations to facilitate construction (although each sheet has a disclaimer limiting the city's liability and implying a need to formally engage the requisite professionals before applying for a permit). Los Angeles commissioned 39 architecture firms to produce 72 pre-approved ADU designs, each ultimately owned by those firms. The city's own design, YOU-ADU, comprises 21 pages certified by the city engineering department and local consultants. Developers or homeowners are given a sheet with checkboxes for customization that range from sprinklers to cladding choices. (A disclaimer stipulates that the model may not work for every site and that additional review may be required to evaluate its context.) Finally, South Bend, Indiana, has produced a catalog of seven urban housing types rather than an exhaustive set of construction drawings. The types, each with sub-variations for different densities, illustrate for public and professional audiences the kind of missing middle housing the city is seeking to encourage.

Pre-Approved Plans Processes



Más Timber!

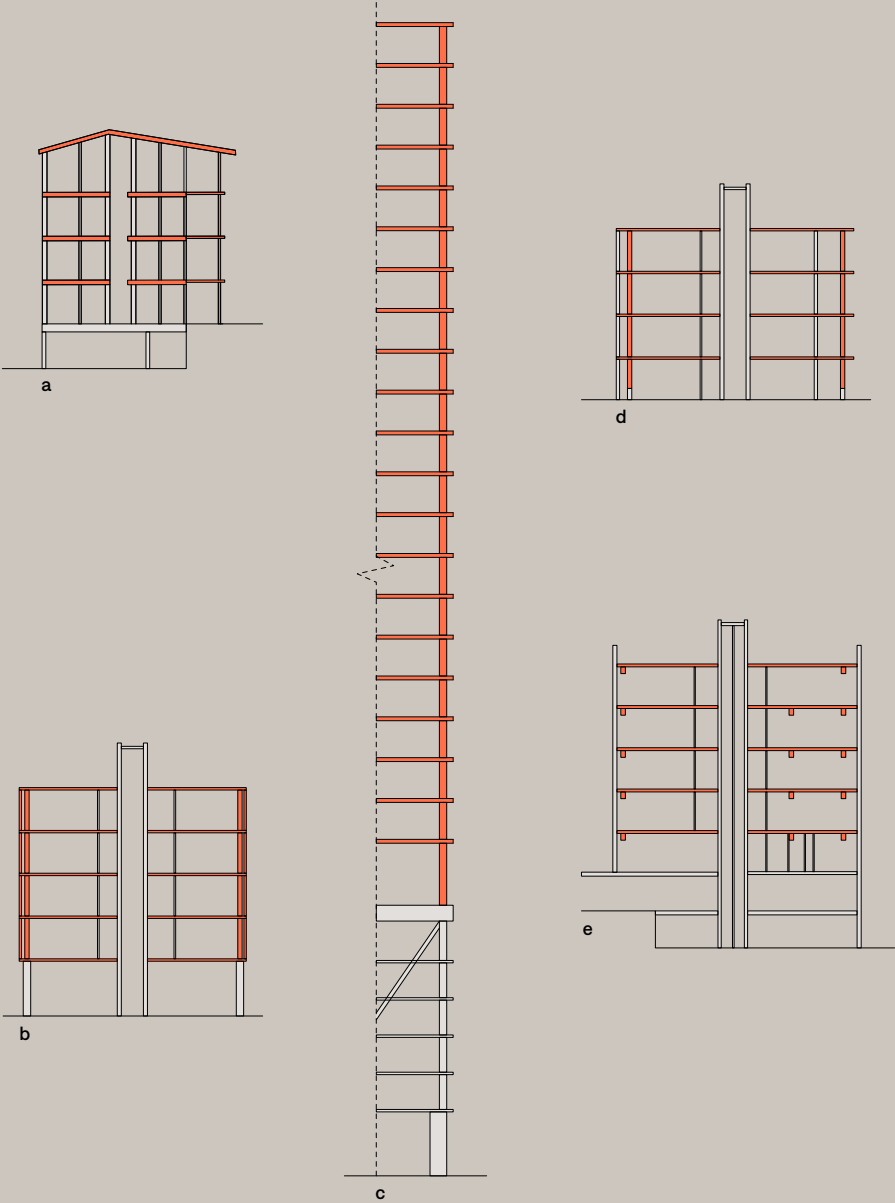
As of September 2022, 1,571 mass timber projects were completed, under construction, or in design in the US.ⁱ Mass timber, a category of engineered wood products made of compressed, laminated, or fastened layers of wood—typically produced in solid wall or floor panels, columns, or beams—can carry loads equivalent to those of steel and concrete, launching wood construction into a capacity beyond what light-frame and heavy timber construction has allowed in the past. The material is known to expedite onsite structural assembly, which balances its cost premium relative to steel or concrete. It also reduces carbon emitted during construction and sequesters carbon in the building itself (through the CO₂ the trees absorb in their lifetimes). Ascent in Milwaukee, Wisconsin, by Korb+Associates Architects, exemplifies the potential of wood, rising to 25 stories and over 280 feet. Like many forms of wood construction, this project hybridizes multiple systems to overcome the structural, height, or area limitations that a 100 percent wood structure would face, with the mix of cross-laminated-timber panels and glue-laminated-timber (Glulam) beams and columns sitting upon a six-story concrete and steel base. Other projects, like the Frame 283 in Brooklyn, New York, by Frame Home, surround twin concrete cores in wood to overcome regulations about shear strength and fireproofing. Pipes and conduits are exposed, since the solidity of mass timber leaves few cavities for critical systems, resulting in an industrial interior that this project embraces. Architectural coordination can often make or break construction of these units. In Timber House, by Mesh Architectures in Brooklyn, New York, the demarcation and coordination of where wood starts and ends, and where it is internally exposed, becomes a puzzle for designers to solve. Typically, we see living spaces and bedrooms with more exposed wood in their ceilings, walls, and structural members—a palette dictated by marketability but also building codes that strictly dictate the proportion of what is covered. The forests that supply the wood for these projects are being reshaped, stoking conversations between rural communities, timber companies, and conservation groups, who see many benefits to the rise of mass timber but also the need to track the carbon life cycle throughout the production chain and continuously improve the sustainability of forest management practices.ⁱⁱ In a country already making heavy use of light-wood framing, mass timber brings these supply chains into a high-tech construction process, with new intensity and implications for design processes.

ⁱ This includes active projects in all 50 states of the US. "Designing and Building with Mass Timber: Design, Planning and Performance," Woodworks Wood Products Council, 2022.

ⁱⁱ In January 2022, The Nature Conservancy released a new project, the global mass timber impact assessment (GMTIA), to assess the benefits and risks of mass timber's popularity. The GMTIA is a five-part research program that looks beyond building life-cycle assessments and includes global trade modeling to understand how timber supply and demand will affect forestry as an industry and ecosystem. "What Is the Impact of Mass Timber Utilization on Climate and Forests?" US Forest Service. See also "Do High-Rises Built From Wood Guarantee Climate Benefits?" <https://www.innv.org/2020/05/04/scrutinizing-claims-that-high-rises-built-from-wood-fight-climate-change/>.

Structural Building Sections

Mass Timber Construction



a Chiles House, All Hands Architecture, Portland, OR
b Juno East Austin, Ennead Architects, Austin, TX
c Ascent, Korb+Associates Architects, Milwaukee, WI
d Frame 283, Frame Home, Brooklyn, NY
e Timber House, Mesh Architectures, Brooklyn, NY

Community-Led Development

In the current economic and political culture of US housing production, mostly a monotonous stock of single-family subdivisions or upper-end multifamily housing is being built. At all scales, these speculative developments are designed to be the least offending product, a criterion that results in less than stellar architectural outcomes. In contrast, some communities have turned to unconventional and more autonomous development approaches to design highly unique housing projects that address their specific needs.

These projects often start when resident groups partner with a developer or a housing authority—or, in some cases, self-organize—to design and build housing that is tailored to their ways of living. This process often drives a distinctive architectural outcome. Ownership and cost-sharing models for such developments range from cooperatives to co-housing arrangements. Architectural details are often subtle but rigorously planned to accommodate the accessibility and functional and programmatic desires of the residents, such as aging in place or general flexibility over time. Amenities are expanded to more supportive services and culturally aligned uses, such as collective kitchens, sewing workshops, or community health care.

From artists to people experiencing homelessness to Native American and displaced communities, residents across the US are using design to craft more personal expressions of home. These projects demonstrate the liberatory potential of community-led efforts to provide child care, spiritual connection to the Earth, and a heightened sense of security and independence through housing. In his essay, Stephen Zacks untangles the development pipeline for projects on sovereign Oglala Land in South Dakota; across Santa Fe, New Mexico; and in Southern California.

by Stephen Zacks

The design of homes and apartments well tailored to the specific needs of diverse community types and user groups has the potential to transform the policy debate surrounding public financing and subsidizing of affordable housing, creating the possibility of a crucial expansion of affordable housing in the US. With its sensitivity to the habits, belief systems, lifeways, needs, and desires of constituencies throughout the country, along with its efficient construction and effective maintenance, community-led housing should rebut arguments that have long precluded an adequate supply of homes to a substantial portion of the population ill served by the market.

Twentieth-century supply-side economists traditionally saw the role of government in offering housing in the narrowest of terms, arguing that rather than directly fund supportive, affordable, social, or public housing, the government should simply lower taxes, decrease regulation, and spur the private market to produce housing based on consumer demand. By 1999, the Faircloth Amendment fully adopted this principle into national policy by making it illegal for the federal government to increase the US public housing supply. Real estate developers argued that public housing would “crowd out” the private marketplace, suppressing demand for their output. The opposite happened: a private market serving less than half the population crowded out access to capital for projects serving the rest of the public.¹

¹ The average price of an existing home fell slightly in 2022 from \$308,000 to \$298,990, but prices remained high enough to require an annual household income of nearly \$80,000 to purchase roughly half of the housing stock available in the country (“S&P CoreLogic Case-Shiller US National Home Price NSA Index,” <https://www.spglobal.com/spdji/en/indices/indicators/sp-corelogic-case-shiller-us-national-home-price-nsa-index/#overview>). With median individual and household incomes in the US at \$70,784 and \$91,162, respectively, more than half of all households would not qualify for a home mortgage at those prices (“Income in the United States: 2021,” <https://www.census.gov/library/publications/2022/demo/p60-276.html>; “Figure 1. Median Household Income and Percent Change by Selected Characteristics,” <https://www.census.gov/content/dam/Census/library/visualizations/2022/demo/p60-276/figure1.pdf>; “Historical Households Visualizations,” <https://www.census.gov/library/visualizations/time-series/demo/households-historical-time-series.html>). Meanwhile, national median rental prices rose above \$2,000, putting the cost of attaining any kind of market-rate shelter beyond the reach of more than half of individual wage earners and nearly half of all households (Chris Arnold, “Rents Across US Rise Above \$2,000 a Month for the First Time Ever,” NPR, June 9, 2022. [This is based on the traditional calculation of annual income needing to be 40 times the monthly rent to qualify for a lease.]) In 2020, 46 percent of US renters were categorized as cost-burdened, spending more than 30 percent of their income on housing, including more than 23 percent spending more than 50 percent, according to the US Census Bureau (“Key Facts About Housing Affordability in the U.S.,” <https://www.pewresearch.org/fact-tank/2022/03/23/key-facts-about-housing-affordability-in-the-u-s/>).

A variety of non-market-based alternatives attempt to fill the gap for millions of families, led by nonprofit community-led developers and supported by an uneven pastiche of government funding sources. Many of the programs originate at a hyper-local level, sustained by laws passed by state legislatures, city councils, and referenda of voters that aid in the development and provision of supportive services to homes and apartments at below-market rates. Nonprofit community-led developers typically finance projects by combining city, state, and federal grants, low-interest loans, and low-income housing tax credits with local, state, and federal rental vouchers, along with individual and corporate donations. Revenues from special funding programs for alternative energy and supportive services round out budgets for construction, maintenance, and operations.

In affordable housing development, we should take “community” to mean not only the local citizens of an area and potential users of a building being served by the housing development, but all of the professional nonprofit developers and architects, elected officials and policymakers, public agencies, bankers, interest groups, and voters who facilitate or limit what a development in a community can constitute through their respective roles in design, production, rule-making, and participation in a democratic society.

In seven community-led projects across the US—comprising disparate municipal sizes, jurisdiction types, and income and user groups served—self-organized developments by specialized nonprofits offer potent examples of how housing can be tailored to the unique needs of people and places and sustained over time. The projects include single-family homes on sovereign Oglala Lakota land in South Dakota, studios and tiny houses for formerly homeless people in Iowa City, San Diego, and Seattle, multigenerational live/work lofts for Hispanic makers and creative workers in Santa Fe, and duplexes and townhomes for farm workers in Southern California’s Central Valley. The specificity of their designs for communities and their effectiveness at meeting the needs of ignored user groups should persuade policymakers, elected officials, and voters to expand grants and low-cost financing for projects to serve a huge un-addressed demand among those earning below a median income.

To sensitively shape the design of projects, nonprofit developers often rely on architects with proven records with the planned housing types, enabling them to control costs by adapting existing models to sites and programs, spending on details and materials where they can have the largest impact. The developers frequently possess within their organizations expansive local knowledge from years of programming experience informed by evidence-based analysis of what works within their particular sector of the housing market. At times, they supplement this knowledge by



The units at Siler Yard are designed as attached townhouses with creative spaces on the ground floor.

coordinating community meetings and public events to gather insight from groups of potential users and to demonstrate demand within an area. The developments often require zoning variances, whose approval is aided by community support gained through engagement with neighbors, elected officials, government administrators, and interest groups.

In Santa Fe, New Mexico, Daniel Werwath, of nonprofit developer New Mexico Inter-Faith Housing, engaged in an unusually extensive community development process to construct Siler Yard Arts + Creativity Center, a recently completed 65-unit multigenerational live/work loft project sheltering 144 residents, including 41 children. Initiated by the nonprofit Creative Santa Fe in 2012 with community engagement supported by a \$285,000 NEA Our Town grant, the project kicked off with a market survey, identification of potential development sites, and organization of culturally specific public events, such as custom car shows, to gather input from Hispanic and Native American nontraditional artists and makers.

According to Werwath, zoning limits and affordability regulations systematically suppress the housing supply in Santa Fe. Local zoning codes reserve more than half the land for single-family homes and mandate affordable housing in other areas, while a lack of financing throttles construction of affordable units. A rapid influx of retirees and pandemic migrants has left the city 11,000 units short of its needs. Hispanic families with multigenerational ties to the area are confronted by housing precarity, while



The planted courtyard at Vistas del Puerto offers ample seating and programming for resident seniors.

even people with six-figure incomes struggle to find a place to live. “It’s wild,” Werwath said. “The rate of displacement in Santa Fe is unlike anything that’s ever happened to this community that’s been through some successive waves of gentrification. It’s particularly challenging because the people being displaced are, in some cases, 14th- and 15th-generation Hispanic families who have lived here since the late 1600s.”

For the \$19 million Siler Yard development, New Mexico Inter-Faith Housing acquired a publicly owned brownfield site from the city at no cost in an industrial district southwest of downtown, surrounded by auto shops, storage facilities, and public utilities. Santa Fe-based Atkin Olshin Schade Architects (recently absorbed by MASS



The courtyard in the center of KFA and Leong Leong’s Ariadne Getty Foundation Senior Housing project provides gathering space for resident seniors.

Design Group) designed the project as attached townhomes based on community input about the needs of artists and makers. Creative space located on the ground level has cement floors, large contiguous walls to work on, outdoor storage and work areas, sound insulation, and northern and southern sun exposure. Dwelling units are on the second floor.

Like most affordable housing, the development demanded a complex series of funding sources, including \$9.6 million from federal low-income tax credits, a \$5.4 million Housing and Urban Development (HUD) mortgage at 3.2 percent interest, and \$1.8 million from assorted charitable contributions, solar tax credits, and state affordable housing tax credits. Werwath applied three times for the federal tax credits before they were finally



BNIM's Ivy Senior Apartments fit 52 studio apartments for formerly unhoused seniors on a triangular infill site in San Diego.



One of Thunder Valley's 21 single-family homes, each of which is equipped with east-facing entrances and solar panels.

At Ivy Senior Apartments, circulation is facilitated by terraces that wrap around a central courtyard and provide direct access to private units.





Thunder Valley's 21 single-family homes are arranged in three groups of seven around Lakota tipi circles.



For Neumann Monson Architects' Cross Park Place to be built, Iowa City created a new zoning category to accommodate 26 units and reduced parking requirements.

a year engaging the community in gatherings throughout the Pine Ridge reservation to develop a site plan and design for homes and common spaces rooted in Lakota lifeways. Twenty-one single-family homes with east-facing entrances and solar-paneled roofs are oriented in three groups of seven around tipi circles, shared as common spaces among homeowners. The development includes a three-acre demonstration farm; agricultural support buildings; a bunkhouse for artists, performers, and family members to sleep during tribal ceremonies; a community center for senior proms, bingo, trainings and workshops; playgrounds; and a school.

"It really is rooted in Lakota lifeways," says Pelkofsky. "It's not just some houses near a school; it really looks at what a Lakota community would be like if it was given a chance to flourish."

Instead of using federal funding, the project sought out private donations, grants, and loans. Two homes used a state tax credit program to support affordable housing. Some homeowners received loans through the US Department of Agriculture (USDA)'s Mutual Self-Help Housing program for low-income families to construct homes. Most of them received low-interest bank loans through a USDA rural development program or through a Veterans Administration-backed program. The three- and four-bedroom homes sell for \$180,000 and \$200,000, respectively, subsidized by Thunder Valley CDC.

In some cases, community-led housing developments originate in public agencies' requests for proposals to develop publicly owned sites, seeking to address critical shortages in an area's housing supply. The Rosaleda Village project began because the California High-Speed Rail planned to pass through the site of dedicated farmworker housing in Wasco, a center of almond and rose cultivation in California's heavily agricultural Central Valley region. The original farmworker dwellings had been situated within a barracks-like structure converted from a World War II POW camp. The new development relocates the workers' homes to a 17-acre site two miles away.

Southern California affordable housing specialists M.W. Steele designed Rosaleda Village as a neighborhood of 226 duplex townhouses and stacked apartments resembling the single-family homes of the surrounding area. A more condensed site plan would normally have been called for by the large scale of the multifamily development, but through workshops with the community, the architects responded to a desire for a style of living radically distinguished from the previous army encampment.

"That's kind of unique to this project," said Michael P. Paluso, architect and managing principal at M.W. Steele. "They're duplexes that are two-story units, so they're like townhomes. Typically, we wouldn't do that, but it's something that

The Tiny House Villages in Seattle exemplify how radical new approaches to housing can emerge from observing what's going on in a community. Among the most extensive community-led developments for people without shelter, the encampments of temporary homes are built and operated by nonprofit developer Low-Income Housing Institute (LIHI), which now runs 11 Tiny House Villages in Seattle and 19 in the Pacific Northwest region altogether—900 tiny houses supporting more than 1,000 people annually. The aegis of the temporary shelters has an extraordinary backstory, involving the nonprofit, political leaders, building inspectors, corporate sponsors, and countless community groups.

The initiative grew out of the city's struggle to address homeless encampments in 2015. Unpermitted tent cities sponsored by multiple organizations, among them LIHI, populated many public spaces and private lots in Seattle. Reflecting a failure of housing affordability and the limits of the city's shelter infrastructure, they created unsafe conditions for unhoused people and were seen by many as eyesores, spurring public anxiety. A movement that advocated legalizing the tents was supported by the mayor at the time. The Seattle City Council reacted against them by seeking to have people who were squatting in tents arrested.

In response, LIHI worked with the mayor's office and a nearby church to sponsor a tent encampment on one of its developments to safely accommodate individuals, couples, families with children, and people with pets. It partnered with Nickelsville, a self-organized group within the camp, to coordinate and manage the site. In the cold, wet, windy conditions of Seattle winters, it was not enough, and LIHI sought a quick way to build safe and sturdy tiny houses with locked doors and privacy. Built by volunteers through the sponsorship of Home Depot, LIHI's first Tiny Houses were small sheds specifically dedicated to homeless veterans.

Sharon Lee, executive director of LIHI, negotiated with the city's Department of Construction and Inspection to expand the initiative and build the tiny houses on a larger scale. As long as they were temporary-use structures under 120 square feet, they fell outside of the building code and were permitted. Nonprofit community design center Environmental Works partnered with LIHI to develop site plans, situating the houses in neighborhood-like small groupings to encourage a sense of community among the residents.

"They've been helping us with the site plans," said Lee. "When we lay out a site, depending on how large, we want to create a sense of community. So if it's a larger site, we create a little neighborhood—a small grouping and then another small grouping—so it's not seen as 50 tiny houses all in a row.



A streetscape in one of the Low-Income Housing Institute's (LIHI) tiny house villages.

When we submit it to the building department, we present a site plan for permitting."

The units are 18-x-12-foot insulated structures on concrete skids with plywood walls, painted with colorful trim and supplied with electricity. Many come with accessible ramps. They cost \$4,000 each for materials, built by a battalion of volunteers, block clubs, churches, and community organizations six days a week in a factory in Seattle or as group initiatives. Every village provides a large community kitchen, a laundry facility, private showers and bathrooms, staff offices, and other community spaces, with a cedar fence around its border. Within each village, case managers work out of offices in a few dedicated tiny houses to move people quickly into more permanent subsidized or private-market housing—ideally within six months. Each development has a community advisory committee composed of local businesses, council members, church representatives, neighbors, and service agencies that meet monthly to evaluate needs and offer support.

The engagement of local community leaders and elected officials, along with effective management of the shelters through design, planning, and provision of adequate facilities and social services, has mediated the opposition of neighbors common in temporary housing, according to Lee. "With the first two Tiny House Villages, we got serious opposition, because we like being in prime locations," Lee

said. “We don’t want to be in some dumpy industrial area. We’re in every single city council district in Seattle, multifamily neighborhoods, residential neighborhoods, mixed-use neighborhoods...it’s been great.”

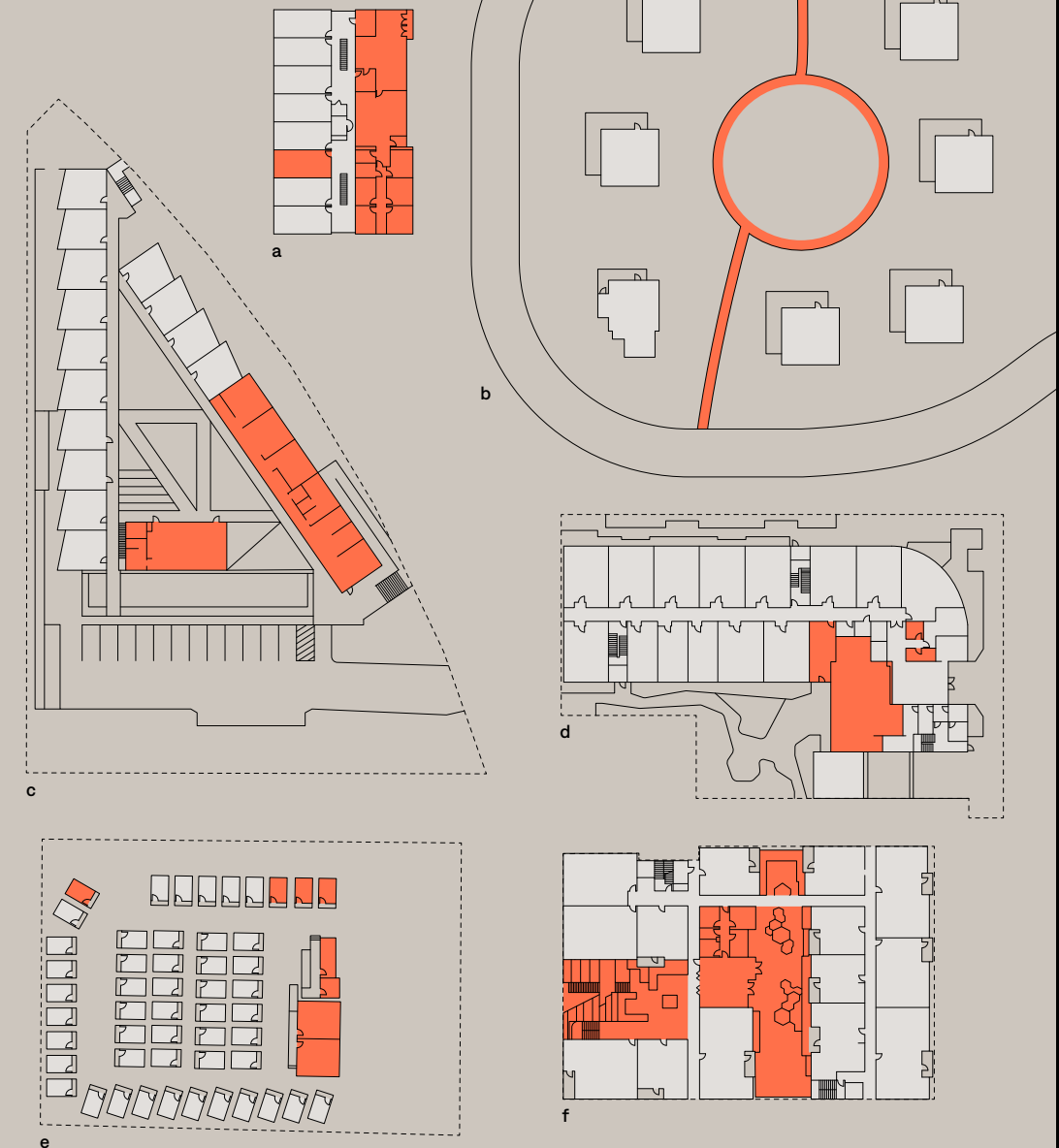
Increasingly, commentators, advocates, and policymakers blame restrictive zoning regulations that limit developments to single-family homes and prohibit multifamily apartment buildings, suggesting that the market will magically produce adequate supply without these restrictions. All other things being equal, many community-led developers and architects specializing in multifamily dwellings agree that restrictive zoning plays a significant role in limiting housing supply in many places. But limited access to capital for construction and funding for supportive services constitutes a huge under-acknowledged factor in reduced production.

Interviews with a dozen architects and developers of exemplary community-led developments for disparate scales and types of small towns, cities, and counties across the US suggest that housing developments that increase neighborhood density can be sensitively designed to improve the quality and scale of affordable and supportive housing for constituencies poorly served by the private real estate market, without causing a negative reaction among neighbors and voters. These examples emphatically indicate that community-led design and development processes can be broadly expanded to meet the needs of individuals and families earning less than the median income without resulting in the undesirable conditions of neglect and failure that led to the abandonment of the public housing model in the 1970s.

At the same time, we should not ignore the extent to which many of these affordable housing types require robust additional sources of capital and publicly funded supportive services to ensure that those earning below the median income—as well as people experiencing mental illnesses, drug dependency, and the need for other health and social services—can gain housing stability. The totality of these cases argue for a definition of what constitutes designing, developing, and policymaking for communities as not only the process of consultation, meeting, gathering input, and designing projects and policies around the desires of a given group, but also ensuring the provision of financing and supportive services to guarantee that a sufficient quantity and quality of housing is produced and that it is adequately managed over time for the particular needs of the constituents being served.

Community-Led Development Projects

Communal Space Floorplans



- a Cross Park Place, Neumann Monson Architects, Iowa City, IA
- b Thunder Valley CDC, Ferguson Pyatt Architects, Hoxie Collective, with Hubbard Studio, Porcupine, SD
- c Ivy Senior Apartments, BNIM, San Diego, CA
- d Ariadne Getty Foundation Senior Housing, KFA and Leong Leong, Los Angeles, CA
- e Tiny House Villages, Environmental Works Community Design Center, Seattle, WA
- f Vistas del Puerto, KFA, Los Angeles, CA
- g Siler Yard: Arts + Creativity Center, AOS, Santa Fe, NM

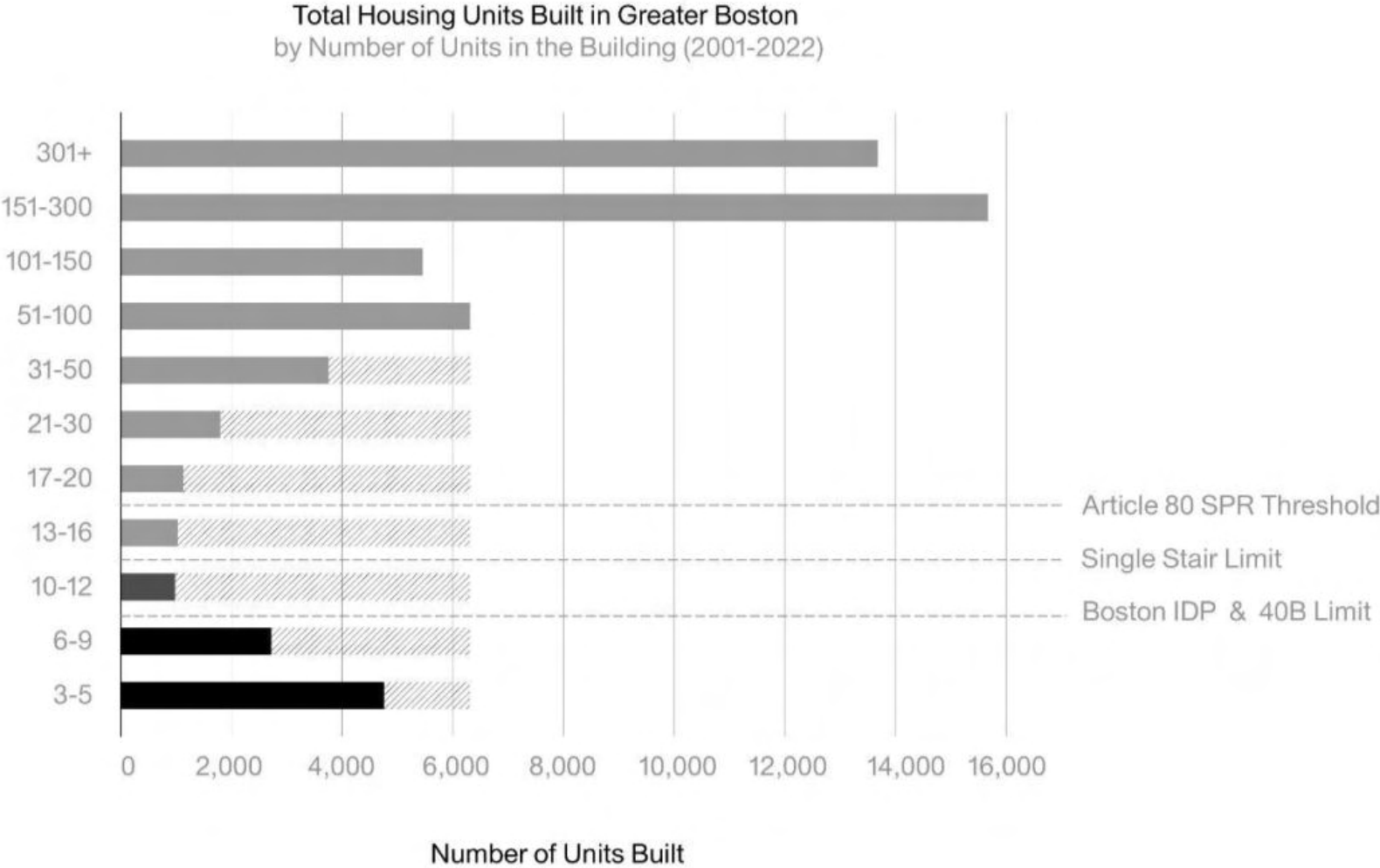
Mid-Rise

The Missing Middle

"Greater Boston"
MBTA Rapid Transit
Communities



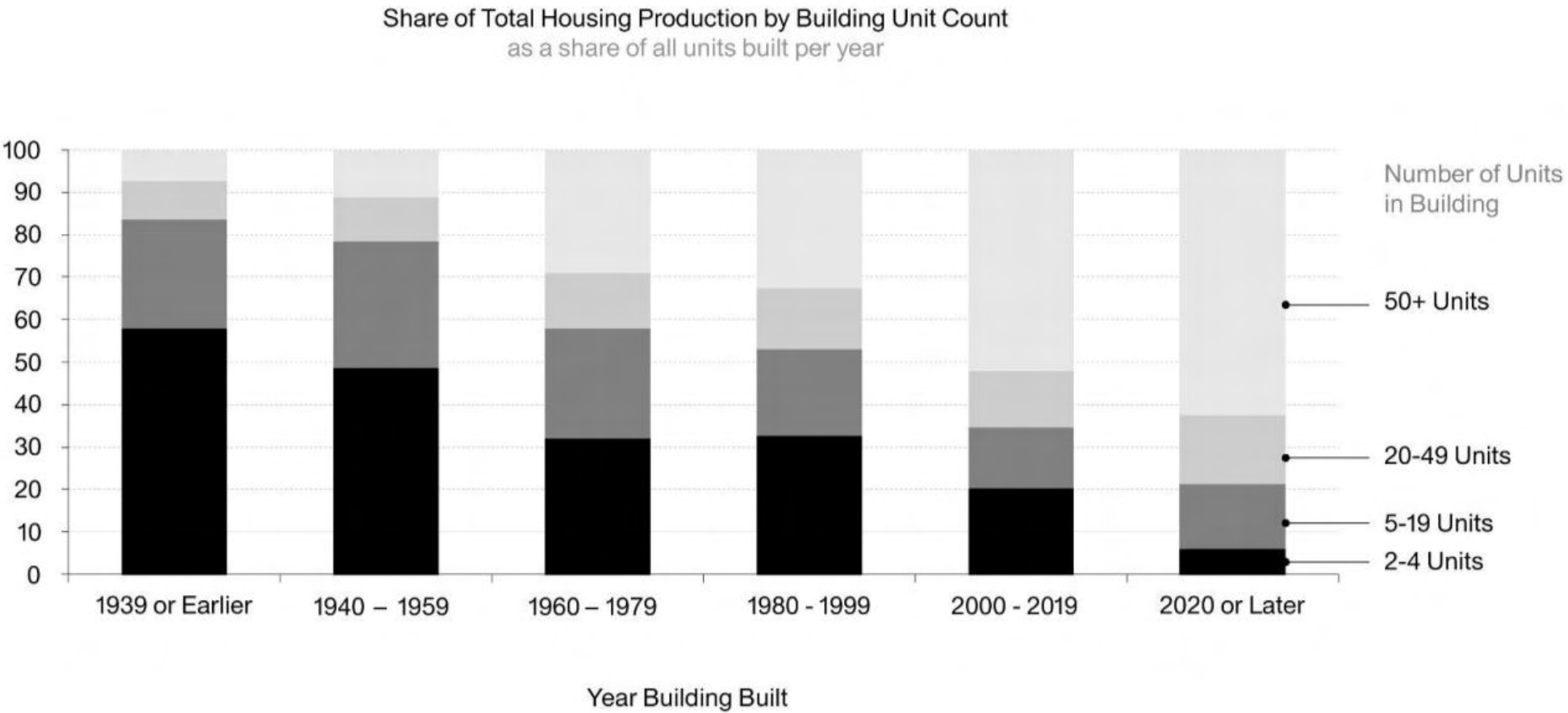
Number of Units
in Building



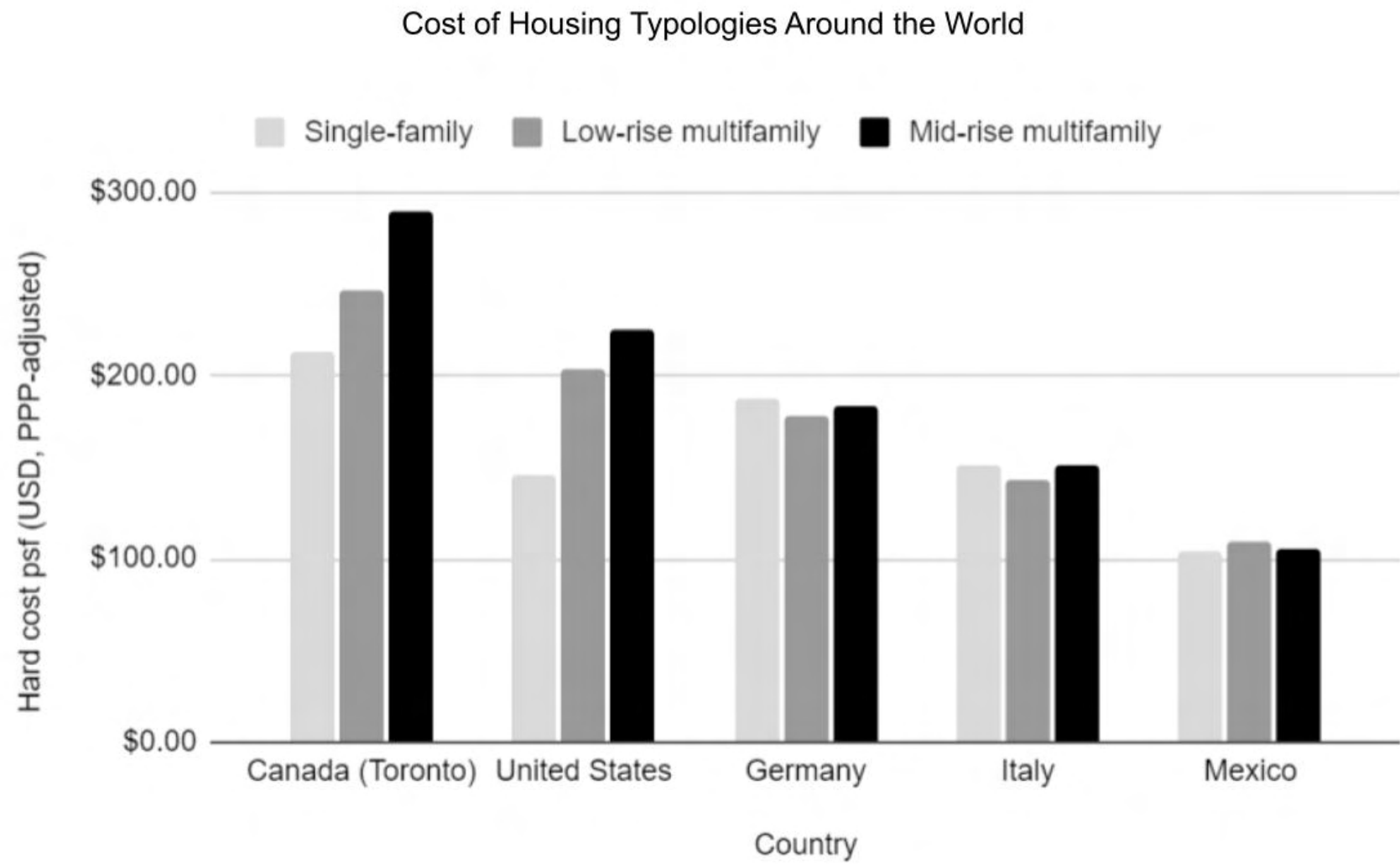
Missing More Over Time

Number of Units
in Building

for City of Boston
US Census Bureau, 2022
American Community Survey
5 Year Estimates



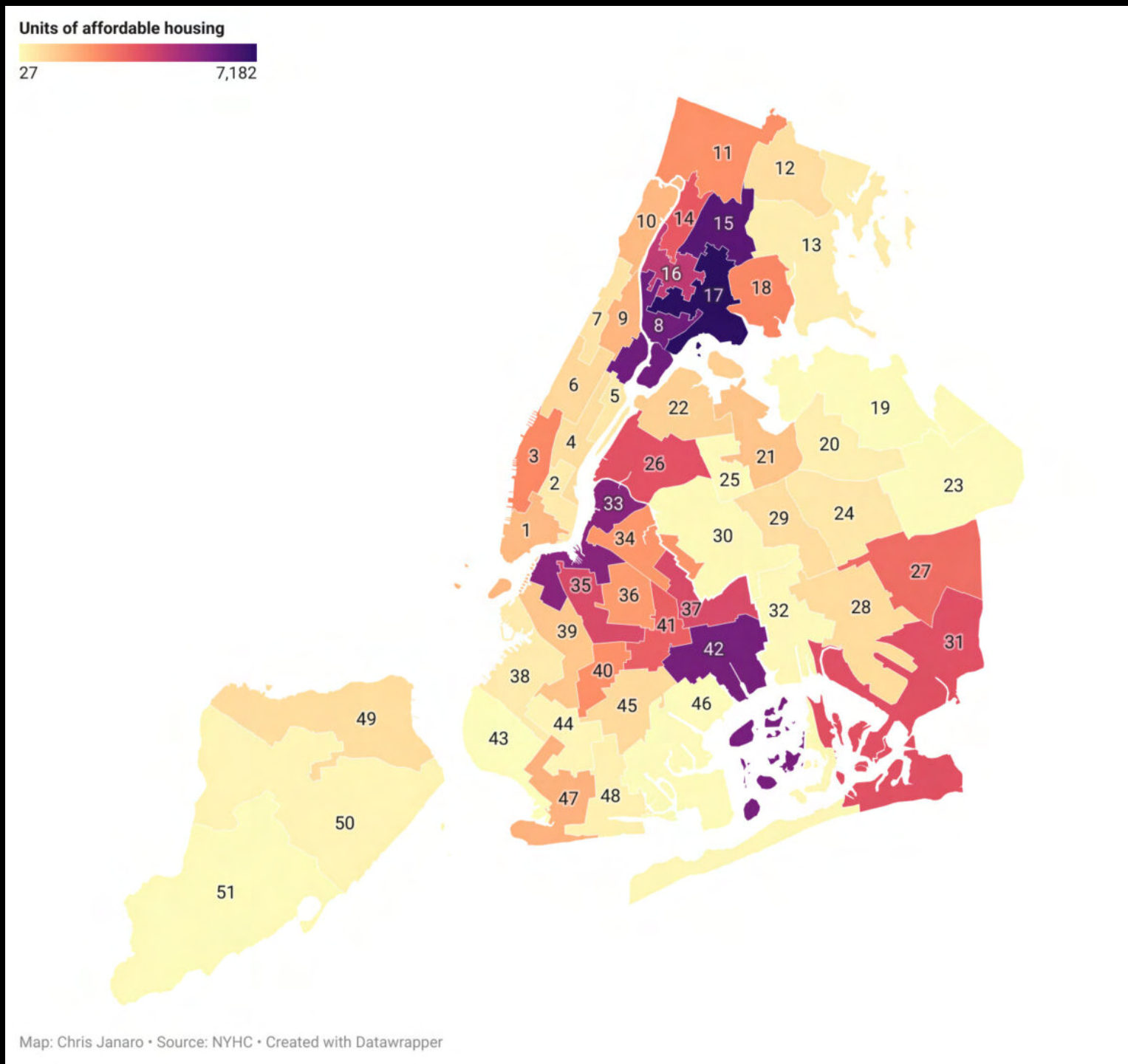
Missing Because it's Expensive



Courtesy of Center for Building in North America

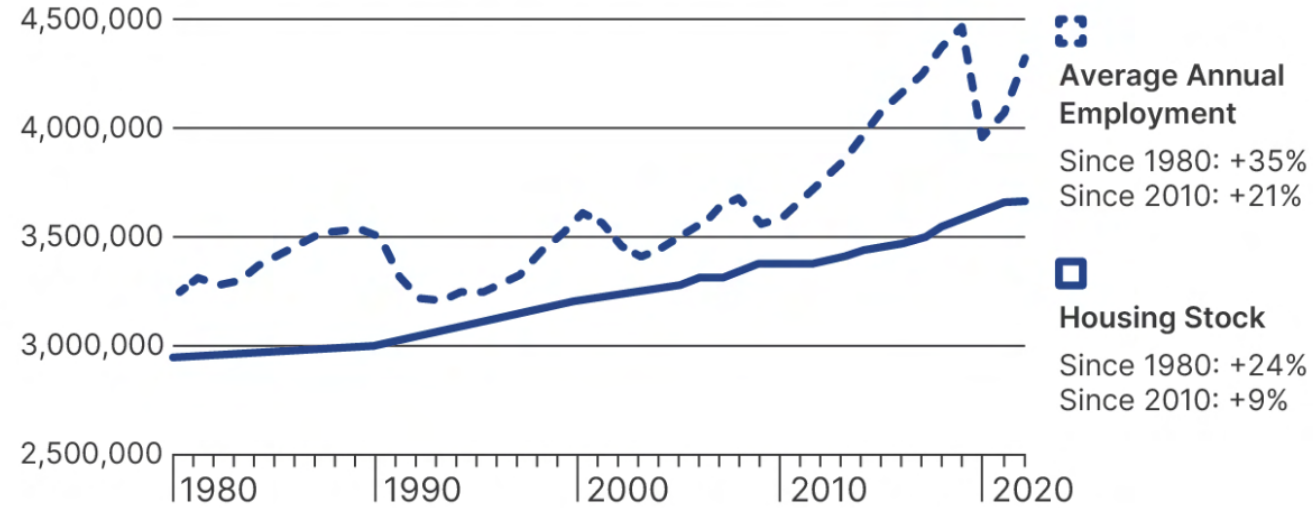
NYC

What's Happening in NYC?

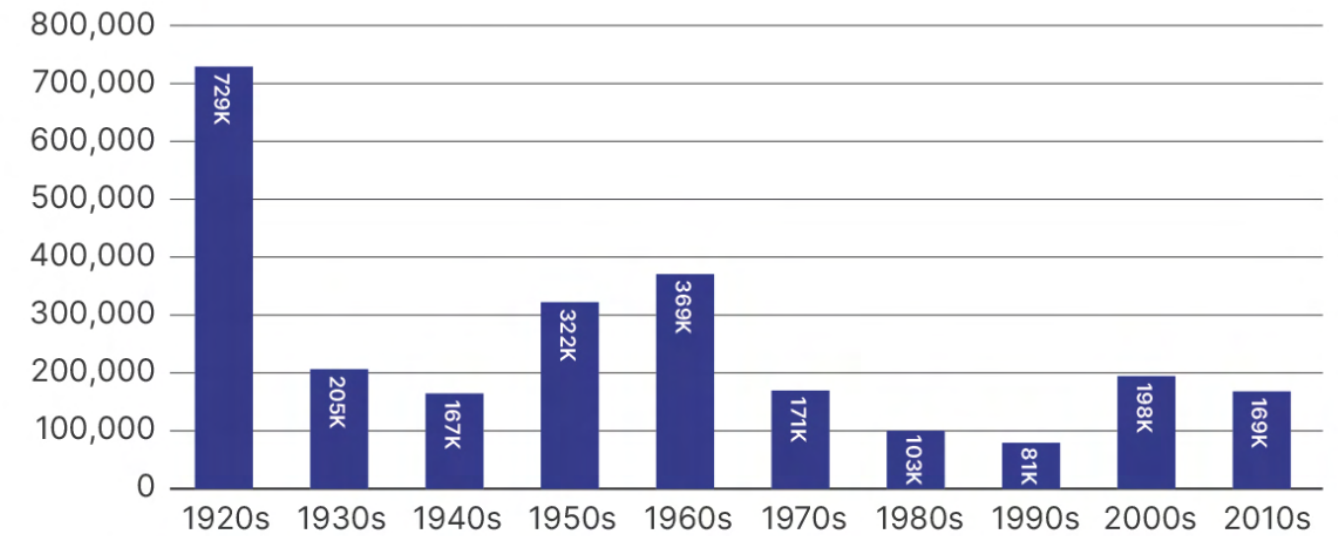


More Jobs, Not Enough Housing

NYC Growth in Employment and Housing Stock: 1980-2021



New Housing Production by Decade



Largest potential change to zoning since 1960

city of yes for Housing Opportunity

An illustrated guide



City of Yes for Housing Opportunity: Key Proposals

Keep reading to learn about the key components of *City of Yes for Housing Opportunity*. They are grouped here into low-density proposals (applicable to R1-R5 zoning districts), medium- and high-density proposals (applicable to R6-R10 zoning districts), and citywide proposals.

Find your neighborhood's zoning district at zola.planning.nyc.gov.

Low-Density



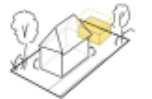
Town Center Zoning

Re-introduce buildings with ground-floor commercial and two to four stories of housing above, in areas where this classic building form is banned under today's restrictive zoning.



Transit-Oriented Development

Allow modest, three-to-five story apartment buildings where they fit best: large lots within half a mile of subway or rail stations that are on wide streets or corners.



Accessory Dwelling Units

Permit accessory dwelling units such as backyard cottages, garage conversions, and basement apartments, allowing homeowners to earn rental income and providing more space for multi-generational families.



District Fixes

Give homeowners additional flexibility to adapt their homes to meet their families' needs.

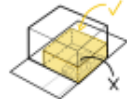


Medium- and High-Density

Universal Affordability Preference

Allow buildings to add at least 20% more housing if the additional homes are permanently affordable. This proposal extends an existing rule for affordable senior housing to all forms of affordable and supportive housing.

Citywide



Lift Costly Parking Mandates

Remove costly parking mandates for new buildings. Parking mandates make housing more expensive and drive up rents. Parking would still be allowed, and projects can add what is appropriate at their location.



Convert Non-Residential Buildings to Housing

Make it easier for underused, non-residential buildings, such as offices, to be converted into housing. Allow conversions for buildings constructed before 1991 and expand eligibility to anywhere housing is allowed.



Small and Shared Housing

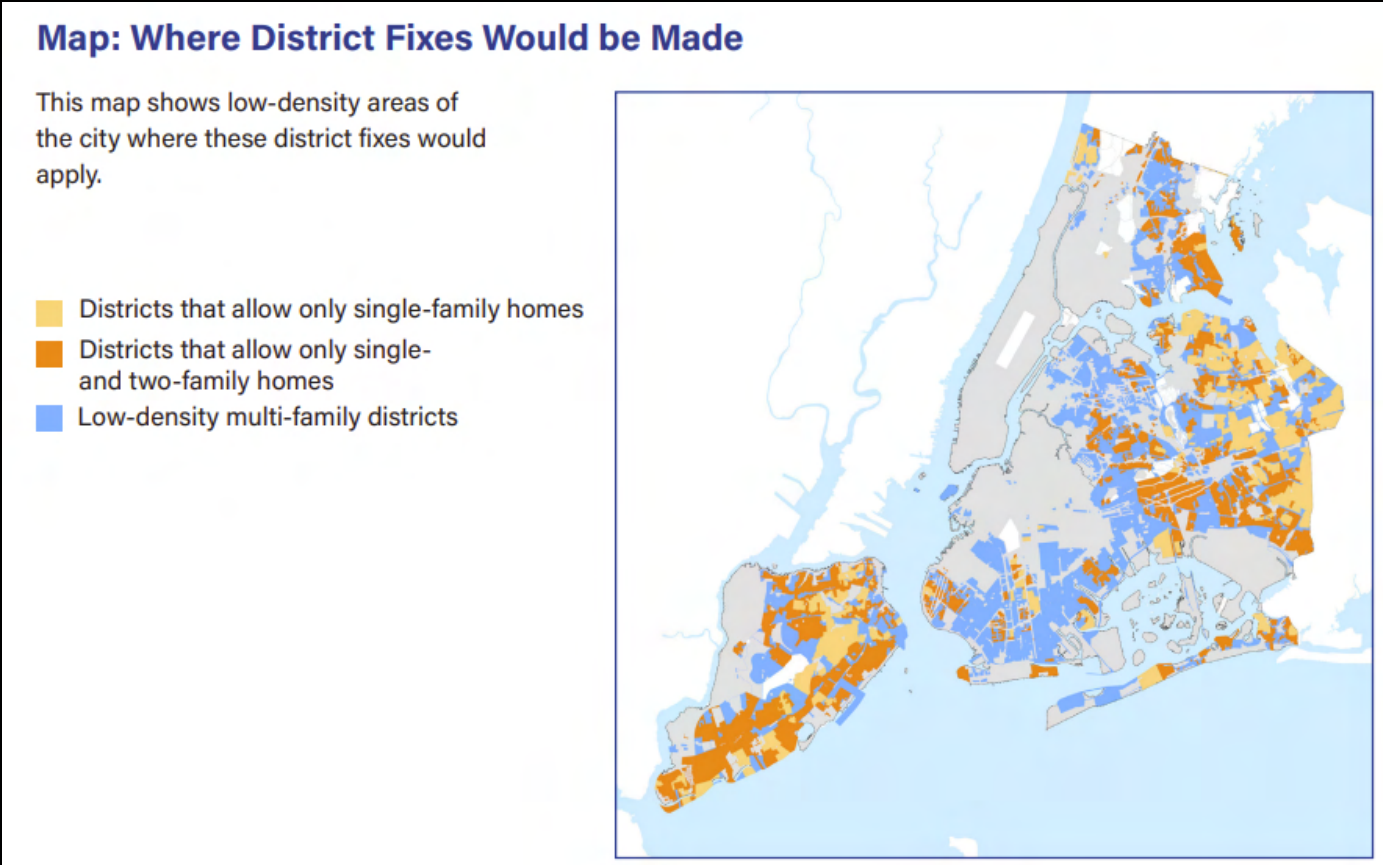
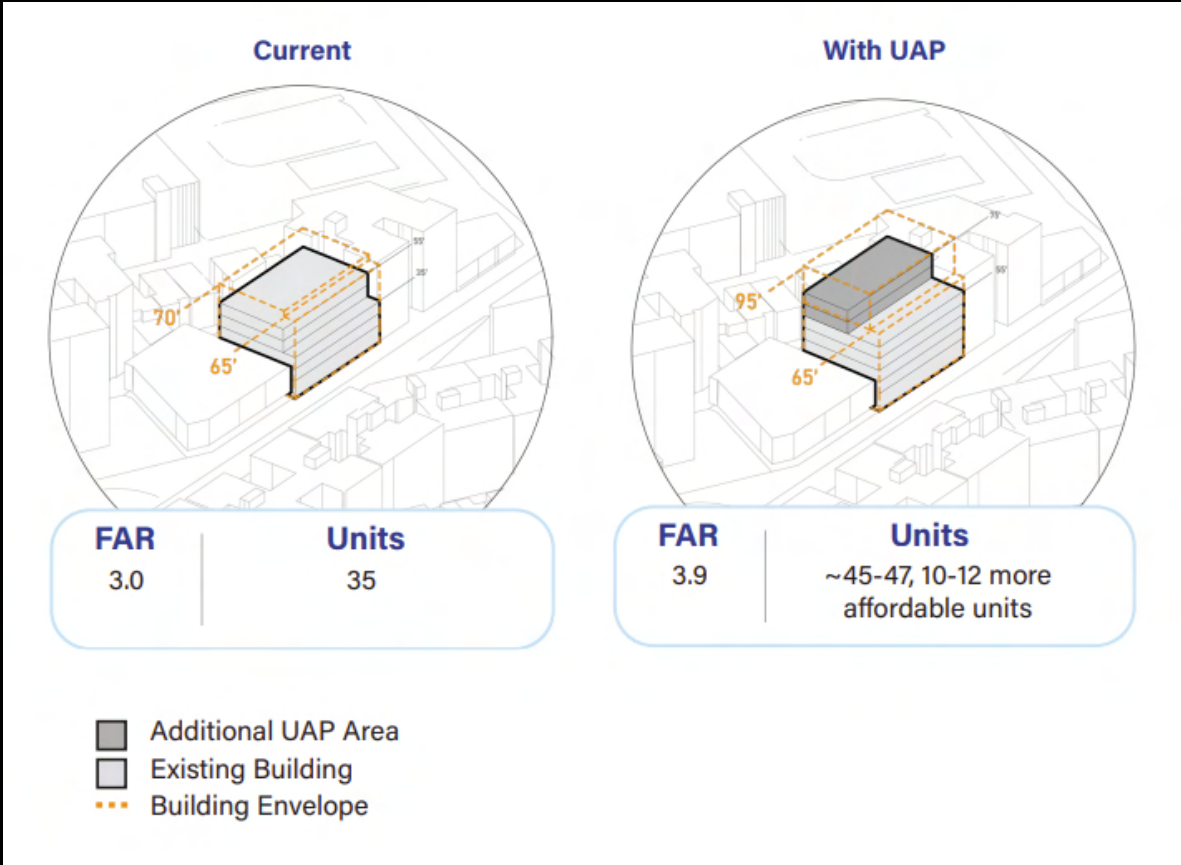
Re-introduce housing with shared kitchens or other common facilities. Allow buildings with more studios and one-bedroom apartments for New Yorkers who want to live alone but don't have that option today.



Campus Infill

Make it easier to add new housing on large sites that have existing buildings on them and ample space to add more, (e.g., a church with an oversized parking lot).

More Housing, More Places, Smaller Sizes







Brian Loughlin



Juan Barahona

by Stephen Zacks

The design of homes and apartments well tailored to the specific needs of diverse community types and user groups has the potential to transform the policy debate surrounding public financing and subsidizing of affordable housing, creating the possibility of a crucial expansion of affordable housing in the US. With its sensitivity to the habits, belief systems, lifeways, needs, and desires of constituencies throughout the country, along with its efficient construction and effective maintenance, community-led housing should rebut arguments that have long precluded an adequate supply of homes to a substantial portion of the population ill served by the market.

Twentieth-century supply-side economists traditionally saw the role of government in offering housing in the narrowest of terms, arguing that rather than directly fund supportive, affordable, social, or public housing, the government should simply lower taxes, decrease regulation, and spur the private market to produce housing based on consumer demand. By 1999, the Faircloth Amendment fully adopted this principle into national policy by making it illegal for the federal government to increase the US public housing supply. Real estate developers argued that public housing would “crowd out” the private marketplace, suppressing demand for their output. The opposite happened: a private market serving less than half the population crowded out access to capital for projects serving the rest of the public.¹

¹ The average price of an existing home fell slightly in 2022 from \$338,000 to \$298,900, but prices remained high enough to require an annual household income of nearly \$80,000 to purchase roughly half of the housing stock available in the country (“S&P CoreLogic Case-Shiller US National Home Price MIA Index,” <https://www.spglobal.com/spdji/en/indices/indicators/sp-corelogic-case-shiller-us-national-home-price-mia-index/#overview>). With median individual and household incomes in the US at \$70,784 and \$91,182, respectively, more than half of all households would not qualify for a home mortgage at those prices (“Income in the United States: 2021,” <https://www.census.gov/library/publications/2022/demo/p60-278.html>; “Figure 1. Median Household Income and Percent Change by Selected Characteristics,” <https://www.census.gov/commerce/census/library/visualizations/2022/demo/p60-276/figure1.pdf>; “Historical Households Visualizations,” <https://www.census.gov/library/visualizations/time-series/demo/households-historical-time-series.html>). Meanwhile, national median rental prices rose above \$2,000, putting the cost of attaining any kind of market-rate shelter beyond the reach of more than half of individual wage earners and nearly half of all households (“Rise Across US: Rise Above \$2,000 a Month for the First Time Ever,” NPR, June 8, 2022. [This is based on the traditional calculation of annual income needing to be 40 times the monthly rent to qualify for a lease.]) In 2020, 46 percent of US renters were categorized as cost-burdened, spending more than 30 percent of their income on housing, including more than 23 percent spending more than 50 percent, according to the US Census Bureau (“Key Facts About Housing Affordability in the U.S.,” <https://www.pewresearch.org/fact-tank/2022/03/23/key-facts-about-housing-affordability-in-the-us/>).

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SITE A

SITE D



SITE B

SITE C



