

ZONING PRACTICE

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Pattern Zones and Pre-Reviewed Homes



In this Issue: [Definitions](#) | [What's Old Is New Again](#) | [Benefits of the Pattern Approach](#) | [Program Implementation](#) | [Complementary Actions](#) | [Conclusions](#)

Pattern Zones and Pre-Reviewed Homes

By Richard Murphy, AICP, and Melissa Milton-Pung

Communities around the country are facing a growing pressure to develop new housing options, both to grow inventories as well as to diversify the housing options available. Demographic trends, including declining family sizes and growing single senior populations, and economic mismatches of housing costs and household incomes demand new ideas for bringing housing to market. Historians and planners alike have noted that residential zoning practices have replaced redlining and residential steering to limit access to housing with standards that prevent construction of the amounts and types of housing that we need. Even in communities that recognize the need for new residential development, though, fears of rapid and radical change to the built landscape can block progress.

In several places, an emerging practice of local pattern-book-based development is sprouting, offering not only new housing options but a streamlined approval pathway for construction using the community's pre-reviewed plans. This practice poses a middle ground between strict preservation of existing neighborhood form and broad zoning changes, leveraging strong design to achieve local acceptance and clear and predictable approvals for builder buy-in. While still in its infancy, this practice includes nearly a dozen distinct programs nationally, offering an opportunity for learning and iteration on success.

This issue of *Zoning Practice* explores how a pattern approach to zoning may help communities expand housing choice and affordability. It begins with a brief examination of historical precedents before outlining the key components of a pattern zoning program and highlighting potentially complementary strategies.

Definitions

Pre-reviewed plans: a set of construction plans that have undergone most reviews necessary for permit approval by municipal code officials prior to the application for a permit and that are made available to potential developers with most of the approval process complete. [The term “pre-approved plans” has been used as well but is typically inaccurate; jurisdictions using these approaches still require at least a basic permitting process verifying the siting of a pre-reviewed plan on an appropriate parcel.]

Pattern book: a collection of pre-reviewed plans that has been established by a municipality for local use. These may be unique to that jurisdiction or may be licensed from existing collections. Starting in the 19th century, books of architectural plans popularized styles and made architect-designed construction broadly accessible to builders. The idea of common, accessible design patterns supporting good craftsmanship is today also found in practices such as sewing and software development.

Pattern zones: a technique that incorporates expedited permitting of plans from a designated pattern book into local zoning, permitting specific patterns by mapping them onto specified parcels. The practice, initially named by architect Matthew Petty, builds on existing form-based code tools such as permitted building typologies and optional overlay zones.

What's Old Is New Again

A pattern approach to zoning is far from revolutionary. In fact, it is a form of revival. This approach looks back a century to Sears kit homes and their peers, learning from and iterating on that system of widespread home construction in the context of today's zoning and building code regimes.

The Great Urbanization

The early 20th century saw a growth in the industrial economy of many parts of the country, and with it an increase in urbanization. In Michigan, for example, the rise of the auto industry, including Ford's "five dollar a day" deal and similar draws by other auto manufacturers, led people to migrate from all over the country for the promise of jobs and opportunity.

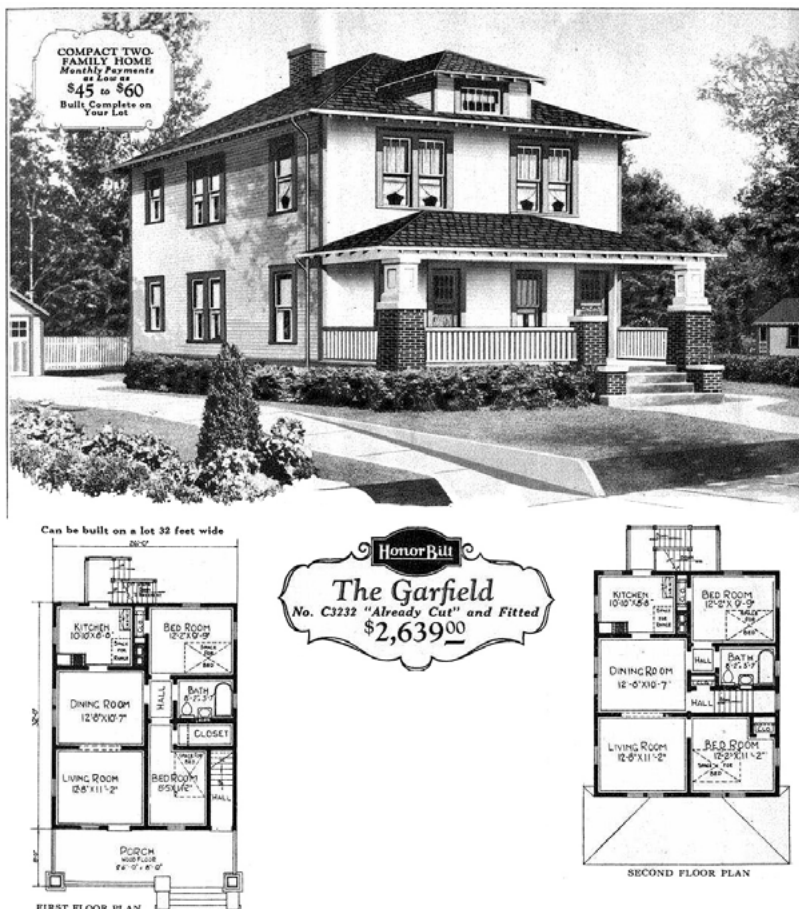
As part of the Great Migration and other pre-World War II demographic shifts, millions of workers and their families moved from the rural South to the industrial North. The housing markets in growing city centers were strained by the need to rapidly expand the supply of affordable housing. Thousands of units were constructed quickly and densely to both provide shelter and form community.

In Detroit and other automotive manufacturing cities across the state, six-unit buildings of "cold water flats" were built, so named because they had basic plumbing but not the luxury of hot water. These flats were built as large houses, often with wide, shared porches and common hallways. Still others were converted from aging mansions. Such smaller-sized multi-unit buildings provided a sense of community among tenants, and yet also offered privacy and affordability. Out of necessity, most of these multifamily dwellings were located walking distance from employers, or the nearest streetcar, and many were used as flexible ways for families or extended relations to live together. Today, we would call them duplexes, triplexes, "quads" or fourplexes, and small apartment buildings.

Mail-Order Solutions

The kind of manufacturing that drew migrants to cities during this era also scaled up to meet the residential sector. Several mail-order companies, such as Bay City, Michigan, based Aladdin Homes and Sears, Roebuck and Company, appeared in the market, taking advantage of the rapidly growing urban population of the Great Lakes region in combination with the region's lumber industry and rail and lake shipping networks. People could save up the cash to purchase or access financing through the manufacturer for an entire home, which would arrive on a railcar ready for construction by the buyer or locally hired skilled trades.

Casual and without fanfare, these manufacturers also offered a modest array of "two-family houses" or small apartment fourplexes alongside small cottages, mid-sized models, and



A kit duplex from Sears, which offered customers plans, construction materials, and financing, using their mass production and distribution networks to turn homebuilding into a consumer good (Credit: Sears, Roebuck and Co.)

capacious single-family homes. In 1913, the Sears Model “No. 130” was described as, “a four-family apartment house with four rooms for each family that can be built at a very low cost and will make an exceptionally good paying investment.” The floorplan was neatly arranged as if two sets of mirrored shotgun houses were stacked upon one another with common wet walls, connected by a central hall, skinned with a confidence-garnering brick exterior, and accessed by a single entry door on a shared porch. A popular model offered by Aladdin Homes was simply named “The Duplex.” Created in response to significant demand for two-family houses, this floorplan enabled its owners to “live in one part [of the house] and secure a good rental from the other” with a “return which is consequently much greater than if [they] had built two separate houses.”

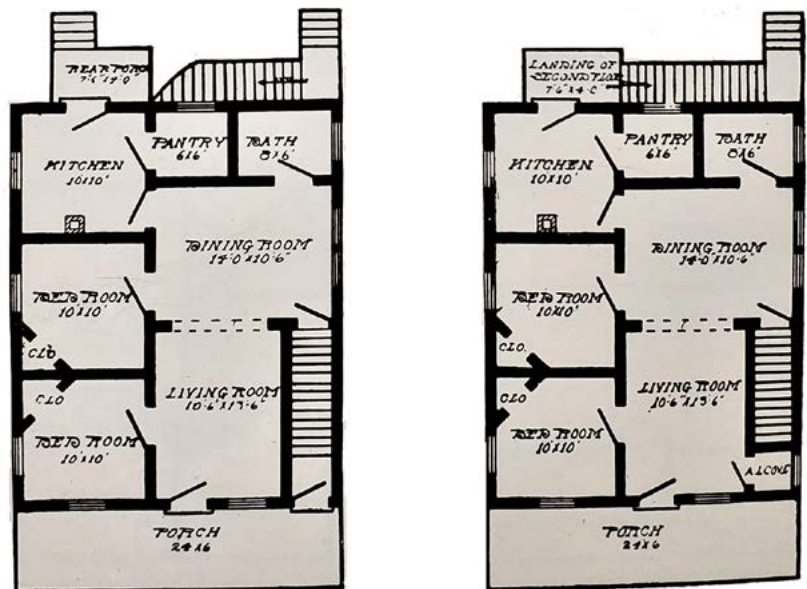
Written Off the Map

This system of applying industrial practices to site-built home development—one parcel at a time, at scale—was eclipsed by a combination of factors. In part, this was simply an evolution of mass home production by the Levittowns and their followers, with industrial development taking place at the scale of subdivisions instead of single homes shipped to individuals. Both land-use regulations and real estate finance evolved and became optimized for this large-scale approach to development.

As “custom” home construction by individuals and small builders—even those using catalog plans or pre-cut kits—became a boutique niche instead of the norm, and most homes were mass-produced by larger developers, the market narrowed. The residential development industry became very specialized and efficient at creating large-scale developments of single-unit detached houses with private yards, reinforced by regulatory and finance practices that incentivized these standardized subdivisions. Not only has the focus of expertise and resources on this one home type minimized consumer choice, it has also placed increasing barriers in front of individuals wishing to build their own home and new small businesses wishing to enter the field.



THE DUPLEX



Aladdin's Duplex from a 1914 catalog, promoting the opportunity to live in one part of the “double house” while renting out the other for income (Credit: North American Construction Company)

Back to the Future

A pre-reviewed homes strategy, or pattern zoning policy, is an attempt to solve these gaps in choice and opportunity, re-enabling small-scale development as part of neighborhood placemaking, and supporting better design even while reducing cost and regulatory burden on construction. While inspired by the catalog homes of the past, the state of the practice now is only in its infancy, with nearly all examples emerging since 2020.

Benefits of the Pattern Approach

Make the development you want in your community the development that's easy to do in your community. The philosophy that underpins the pre-reviewed approach is perhaps the opposite of conventional zoning. Rather than attempting to stamp out unwanted construction by iterating on new barriers as new problems arise; these methods identify desired development and then clear as many cost and procedural hurdles out of the way as possible, making good development the easiest option for a builder.

Successfully implementing pre-reviewed plans or pattern zoning in your community requires looking at several different steps in your permitting process—not merely publishing the plans—but can yield several benefits.

Making Development Review Transparent and Predictable

While offering a pattern book of pre-reviewed plans may save builders some money, the real benefit is in speed and certainty. A builder who uses one of the community's patterns can have increased confidence that their permit will be approved, won't face unexpected hurdles or questions from code officials, and will avoid costly delays or changes. The cost of acquiring plans might be a few percent of a home's final price, but the clarity and certainty of approval can determine whether the home gets built at all.

Pattern zoning also provides better predictability for neighbors, code officials, and the community at large. Where the permitted use lists and dimensional standards provide a box for developers to fill, pattern zoning provides specific options for building in that box. Showing specific buildings that the process is enabling can help remove reduce the fear and hesitation that often meets proposed zoning changes.

Permitting More Than Could Otherwise Be Possible

A pattern zoning approach can use the tools of zoning liberalization to achieve better design than what is possible

under existing zoning—and add housing options in places where broader zoning changes might not be possible. By permitting known and supported designs, the approach can mitigate the most common concerns about ceding control in an upzoning. This can be a way to expand housing options in places where architectural character is significant, such as providing pre-reviewed plans for detached accessory dwelling units (ADUs) designed to fit an existing designated historic district. It can also be a way to expand opportunity in a community that's not yet ready to consider broad rezoning of exclusionary single-unit zoning districts, but that is willing to approve small multifamily patterns that mimic the scale and massing of existing homes.

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Emphasizing Positive Design Features

Pre-reviewed plans can be used to emphasize features that are important to the community, using the streamlined approval process to incentivize specific designs. Providing a pattern book of homes that have front porches and entries facing the sidewalk, with garages to the rear of the site, can be part of a strategy to support convivial neighborhood streets and slow the spread of garage-door dominated "snout houses." Patterns that include accessibility or energy efficiency measures beyond the minimal code standards can support broader adoption of those measures, even in states where local governments do not have the ability to modify the building codes. While the baseline codes remain available, setting the bar higher in the pre-reviewed plans provides gentle steering towards those preferred design features.

Expanding Access to Development Opportunities

Because pre-reviewed plans provide common designs for the large number of “typical” lots found in a community, rather than bespoke plans for unique sites, the size of development can be small (e.g., small single-unit homes or ADUs, two- to six-plex apartment homes, townhouses, or main street storefronts). When combined with the predictability of the approach, this scale means that real estate investment becomes much more broadly accessible, offering more community members the ability to participate in shaping and investing in their neighborhoods.

The transparency and predictability of the process is especially important for realizing this benefit. Real estate development typically involves substantial risk in the pre-development phase: A denied or delayed project can cost the developer a significant amount of money, and the risk of that loss can prevent many potential neighborhood builders from even trying. Providing a clear, fast, and well-documented path to permit approval—and a high likelihood of achieving that approval—means that a pattern zoning approach can unlock opportunities for equitable wealth building.

A pattern zone that allows for known and vetted plans to build housing options beyond the base zoning can prime both the market and the political will for additional action on housing.

The smaller scale of individual projects built with pre-reviewed plans also helps make this a pro-equity approach: Enabling real estate development to be done in smaller increments can open the door both to would-be developers who don't have access to multimillion-dollar financing and to neighborhoods where market demand isn't strong enough to support larger investments.

Building Momentum

Through the benefits outlined above, a local pre-reviewed plan program can be a way to expand housing choice and affordability in communities where broader zoning updates for inclusion might not be feasible. A pattern zone that allows for known and vetted plans to build housing options beyond the base zoning can prime both the market and the political will for additional action on housing. A rezoning effort that leads to jarring change in a neighborhood can catalyze a backlash that inhibits further progress, or even sees the zoning updates rolled back. A pattern zoning approach that provides strong design guidance for the initial stages of new development in a neighborhood can help mitigate this risk.

That is not to say that this should be the only tool used to meet a community's housing needs, of course. Limiting infill only ever to the provided plans in a pattern book risks stifling creativity, inhibiting the adaptation of existing homes over time, and likely missing some residents' needs. A pattern zoning approach can be a great way to set the bar for development quality and make good design the easiest option—but expansion of a successful program may include both adding additional plans to the pattern book as well as making base zoning updates that allows additional flexibility.

Program Implementation

Reliably, the first question that is asked about a pre-reviewed plans program is, “how much does it reduce the cost of the home to have these plans available?” While any cost efficiency is important in the current housing market, and making plans available for low or no cost can shave a few percent off total development costs, that is only a small piece of a successful program. Implementing pattern zoning or a pattern home catalog is an opportunity to look at all parts of the home development process and achieve much bigger benefits.

Some of these factors are specific to an individual community, while others can be easily copied within a state or region, and still others are issues of federal policy that translate nationwide. Throughout



The “Grove” fourplex model, presenting the façade of a traditional American four-square to the street, while a central entry from the side offers access to all four dwellings, including two barrier-free first floor units (Credit: Michigan Municipal League)

this section, the program designed by the Michigan Municipal League as part of the Michigan Economic Development Corporation’s Redevelopment Ready Communities program will be used as an example to highlight some of these considerations.

Identifying and Targeting Local Needs

As noted, a pattern zoning program should make it easy for builders to create the community’s desired housing stock. This requires understanding both what housing the community needs and where the opportunities are to create it.

The existing housing stock should be compared to demographic needs in the community to identify gaps. A pattern zoning program is an excellent opportunity to create homes that aren’t being created in the status quo, or to accelerate development of missing options. These identified needs might be a particular format (such as townhomes), unit size (multi-bedroom homes suitable for families), or other considerations. In the Michigan program, the first plans released were an up-down duplex and a two-over-two fourplex, with an eye to add fully accessible first-floor units to older neighborhoods that lack

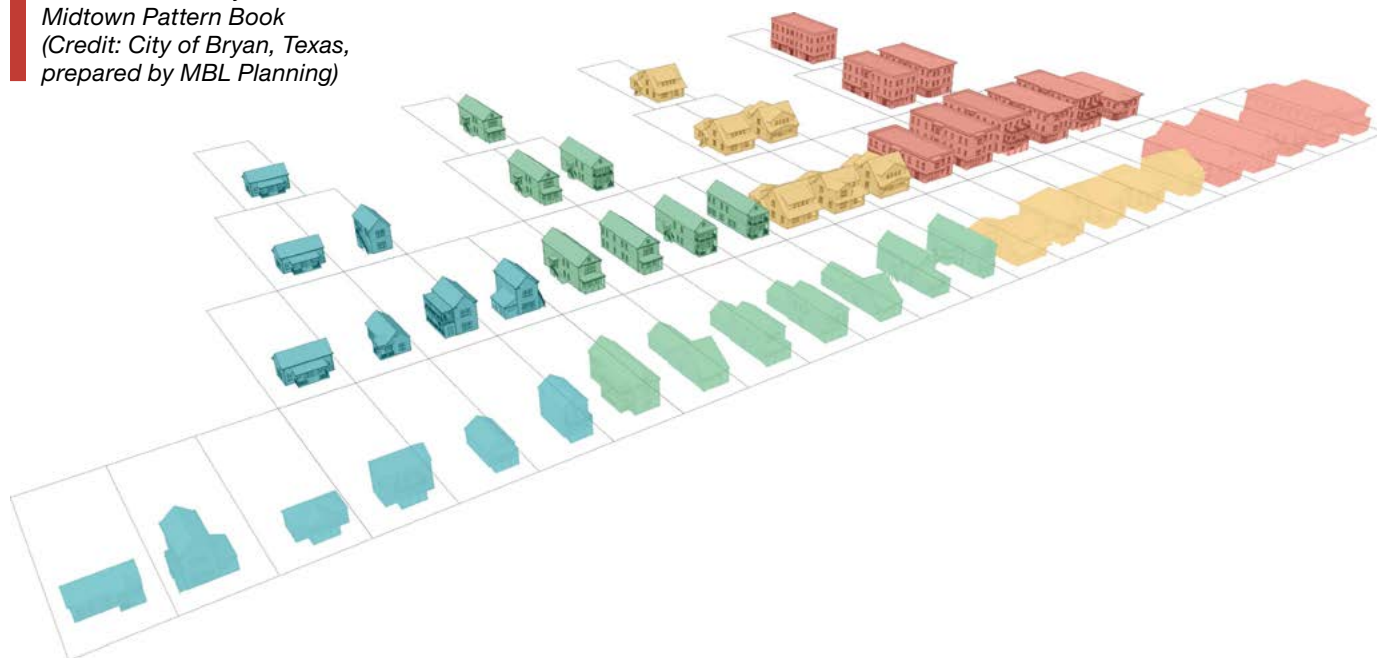
homes suitable for aging seniors. The second batch of plans released included energy efficiency standards higher than the state building code requirements, reflecting several municipalities’ interest in climate-friendly options.

A site inventory will help determine design constraints. Cataloging vacant neighborhood parcels is an important step to understanding the dimensional constraints on the homes that can be created. This step may consider existing setback, lot coverage, and other requirements in zoning, but these might be considered softer constraints—ultimately, they can be updated to enable the desired homes. A neighborhood site inventory can also identify the opportunities and dimensional constraints for detached ADUs on existing built parcels.

Choosing the Plans

The first consideration is making sure the right plans are available. Whether plans are custom drawn for a local program or selected and licensed from an existing catalog, including the right homes determines both whether decision makers will sign on to the concept and whether builders will use it.

Pre-reviewed building variations from Bryan, Texas's Midtown Pattern Book
(Credit: City of Bryan, Texas, prepared by MBL Planning)



Architectural style should ideally reflect regional vernacular architectures, allowing the homes to fit in with existing local neighborhood patterns. Roof pitches and gable overhangs appropriate for Michigan snow loads may not look right in a southern or southwestern context, for example, where design may be driven more by providing sun protection or allowing through breezes. Gable orientation, massing, window arrangement, porch design, and exterior materials will all support or detract from the pattern book's sense of place, and therefore its acceptability in the community.

The number of plans included in the pattern book will affect the cost of developing the program but will also support broader adoption. Offering a greater variety of plans allows for the program to cover a broader range of market needs, parcel sizes, and builder and buyer tastes. Additionally, providing enough choice of plans can help with adoption purely through psychological appeal: Being able to pick from a catalog of half a dozen options within a given housing form will likely appeal more than being given only one or two “take it or leave it” plans.

Financing potential provides another breakpoint on what types of structures to offer. A fourplex may be seen as a reasonable upper limit for a pattern home program intended to support homeownership: FHA residential loans may be used

for properties of up to four dwellings, not just single-unit homes, as long as the owner resides in one of the units. However, this may be an unfamiliar option for lending staff; engaging local banks, credit unions, and mortgage brokers while developing a pattern home program can help ensure they are prepared to engage builders and homebuyers on these products.

Aligning With Construction Codes

Understanding the building codes that affect construction locally—not just the zoning—is critical for targeting a program. Local building officials should be engaged early in program development both to ensure relevant codes are used and to identify any needs or concerns with administering a program. All guidance in this section should be checked against local conditions with the support of your local building official.

The International Residential Code (IRC), as adopted or amended by the state or municipality, will typically apply to any single-dwelling structure, duplex, or townhome (a dwelling that is connected to one or more other dwellings only via side walls, not vertically). Structures designed to the IRC will typically be the easiest to deploy as pre-reviewed plans, both for construction cost and process reasons. They typically will not need to have sprinkler systems, and plans can be submitted by a

licensed builder, often without needing to be stamped by an architect.

The International Building Code (IBC), as adopted, will typically cover larger structures—those with more than two dwellings that aren't townhomes, or those that contain both dwellings and nonresidential uses. Use of the IBC may require that each individual set of plans submitted for construction be stamped by a licensed architect, adding a step to the submittal and review process even when using pre-reviewed plans out of a pattern book. If this is the case locally, a community adopting a pattern zoning approach may wish to engage an architect to be “on call” to validate and stamp plans for applicants.

State versus local code adoption will determine how easily a neighboring community's program can be replicated. Michigan's program takes advantage of the state's “single state building code” statute, which requires all local governments use the building codes adopted at the state level. This provision, meant to streamline builders' experience with local code review, allows the Michigan pattern book to be easily adopted by any community in the state. In municipalities that have the flexibility to adopt and amend their own building codes, however, more flexibility may be available in the selection of unit configurations.

Enabling larger residential structures to use the residential code is the primary way that some jurisdictions are using their code adoption authority to facilitate additional housing options. Memphis, Tennessee, for example, amended its building codes to allow residential structures of up to six attached dwellings be built under their version of the IRC rather than the IBC (see “[Beyond Use Zoning: The Role of Deregulation in Housing Equity](#)” in the May 2022 issue of *Zoning Practice*). These adoptions rely on applying appropriate treatments within the residential construction code to provide the level of safety needed without jumping all the way to a full commercial construction code.

Periodic code revisions will require updates to the construction sets included in the pattern book. States and municipalities will update which version of the IRC, IBC, and other codes that they use about every three to five years. While

these changes are not necessarily large, the construction plans in a pattern book will need to be reviewed by an architect for any changes that need to be made to remain in compliance with newer building code versions.

Developing or Licensing the Pattern Book

A pre-reviewed building plan may source the construction plans for its pattern book in different ways. Ultimately, the plans selected will need local action to publicize them and adopt them into the permitting workflow, but the municipality doesn't have to directly create them.

A custom-designed pattern book for a single municipality offers the greatest degree of control and tailoring to local priorities, but at the greatest up-front cost.

A custom-designed pattern book for a single municipality offers the greatest degree of control and tailoring to local priorities, but at the greatest up-front cost. In this approach, as used in [South Bend](#), Indiana, and Kalamazoo, Michigan, the municipality may contract directly with an architect to produce plans for local use. This approach also offers the opportunity to engage local developers, realtors, and banks in the process of creating the pattern book, potentially accelerating the ability of those actors to move to construction.

Licensing an existing catalog may have significantly lower up-front costs than designing an unlimited-use pattern book locally. This approach can additionally allow a municipality to vary the set of designs available more easily than a custom-developed pattern book by amending the set of patterns made available in the subscription and can also provide some support for ensuring that construction plans are kept updated with relevant code changes. However, it may require some

A duplex and detached ADU built during the pilot phase of Kalamazoo, Michigan's pattern homes program
(Credit: City of Kalamazoo)



additional contractual cost or work to adapt the catalog's plans to local needs or building codes. [PatternZones.com](https://www.patternzones.com) is one example providing both a curated library of plans and support for developing a local program.

Regional catalogs attempt a hybrid of these approaches, as in the Michigan Municipal League's statewide pattern book. By identifying areas with relatively similar local architectural expectations and homogenous construction codes, these regional efforts can leverage some of the economies of scale of licensed catalogs while also maintaining some of the advantages of a tailored pattern book. However, use of these catalogs still requires local work to implement.

Terms of ownership and use should be considered regardless of the approach. The construction sets in a pattern book may be made available at the municipality's cost, and free to the builder, as part of the incentive to use these preferred plans. Alternately, the municipality may attempt to recoup some of the pattern book development cost or pass through the cost of licensing plans from a third-party catalog to the builder on a per-use basis. Be cautious about passing too much cost of the

plans through to the builder, though: minimizing up-front costs and risks is, after all, the purpose of a pre-reviewed building program.

Updating the Zoning Ordinance

Incorporating a pattern book into the zoning ordinance may be one of the easier steps in the work—or at least the most familiar to planners. Keep in mind that the goal is to make the desired development easy; a few options are available to achieve that goal.

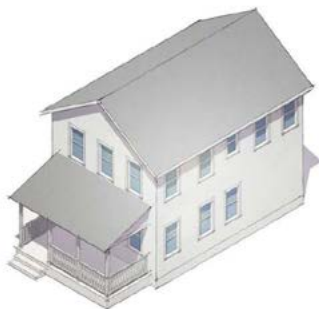
Neighborhood code repair tackles the base zoning code to make the regulations match the desired outcome of a neighborhood with diverse housing options and destinations, regardless of whether those are built from a pattern book. Often, this is a case of pruning back the incompatible standards that have grown over and constricted a historic neighborhood over time, re-enabling what was common before the zoning ordinance existed.

In addition to enabling infill construction of a range of home types that fit the history of the space, this approach has the added benefit of bringing existing examples back into conformity, making investments to preserve or rehabilitate

South Bend Neighborhood Infill | Narrow House (2-bed)

The Narrow House (2-bed)

The 2-bedroom Narrow House provides an efficient, yet comfortable detached, fee-simple option that allows development of the city's most skinny infill lots. The massing and elevation options reflect a simple vernacular character present throughout South Bend's neighborhoods.



ZONING DISTRICTS ALLOWED

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Option A



Option B



Ground Floor



Second Floor

those homes. Here, the code updates are not exclusive to the pre-reviewed plans, but the process of auditing and amending the code should use those plans as examples of the development that the community wishes to enable. Both the Kalamazoo, Michigan, and South Bend, Indiana programs mentioned previously have taken this approach, updating base zoning districts and providing pre-reviewed plans that fit that zoning rather than providing separate zoning treatment of the pattern book.

When preparing a draft amendment, start by updating minimum lot width and area to allow all original lots or lots existing before a certain date as conforming for all permitted uses. Next, review existing structures and desired infill against typical parcels to determine appropriate front and side setbacks. Because density and dwelling size are usually redundant with building code, fire code, and form-based zoning standards that already address the habitability and impacts of structures, consider removing these standards entirely except where factors like well/septic access limit

density. Then, inventory the existing mix of home types in neighborhoods as a starting point for what structure types (e.g., standalone home, duplex, detached ADU, etc.) to permit, or what missing types to add. Finally, remove minimum parking ratios, or reduce to no more than 1 space per dwelling, and require parking location behind front building façade and access from side or alley where possible.

Stress testing with desired pattern homes can be a next step in neighborhood zoning code updates, after the code repair to re-enable what already exists. As a pattern book is being assembled, the plans should be test fit on a selection of parcels within the neighborhood, to identify and correct obstacles in the current zoning before a homebuilder encounters them. This can be a useful exercise for local staff to perform with the planning commission and zoning board, or with neighborhood residents, to show exactly why the existing code needs adjustment, rather than simply presenting changed numbers.



An example of a pre-reviewed Narrow Home, as built, in South Bend, Indiana (Credit: City of South Bend)

First, select the home patterns desirable in a particular neighborhood. Then, identify several sample parcels in that neighborhood. Ideally these would include a few different sizes of parcels and include corner and mid-block options as well as parcels with and without alleys (if these exist). Focusing on currently vacant parcels or side lots is reasonable, but the process should also consider whether these represent the neighborhood as a whole. Next, try to site each of the home patterns on each of the sample lots in a sketch plan, documenting any points at which the existing zoning standards would block construction or require a variance or other discretionary approval. Finally, amend the code to remove those barriers.

When updating the code, the goal is to establish the desired home patterns

as by-right construction that can be approved administratively in the same fashion as a single-unit house. Removing only some barriers while still requiring the home to receive variances, special land use approval, or a similar step does not achieve the goal of making desired development easy.

Incorporating patterns directly into the ordinance can be a way to specifically permit a catalog of pre-selected plans, potentially without making broader changes to the ordinance. When implementing a form-based code that uses building types, a pattern book can be seamlessly incorporated into the ordinance by adding those patterns as permitted building types in the desired areas.

A pattern overlay district can be used where the existing zoning is not conducive to incorporating the desired structures, and where the edits that would be required would expand the scope of an update too much. In this approach, an overlay district may reference specific designs or plans from a designated pattern book and include them as permitted uses and structures, with overrides for any conflicting dimensional standards. This method is used by Bryan, Texas, one of the early adopters of pattern zoning, to implement their pattern book by referencing the designs as permitted in specific districts ([§130-29](#)). Frankfort, Michigan, has taken a slightly different approach, using effectively a city-wide overlay district to enable multi-dwelling housing options in all residential districts, contingent on year-round residency and affordability protections ([Ordinance #D-5, 2023](#)). The ordinance does not specifically name patterns but overrides the base zoning to allow the new forms, and local officials have pre-reviewed plans available as an option for builders.

Considering Other Necessary Reviews

The conventional development process includes a range of review steps and approvals. A building official may be able to review the plans included in a pattern book and provide a blanket approval for their use, with compliance to plans field-checked during inspections. Zoning approval may be made nearly automatic

as well, with placement of the structure on the lot and site improvements as the remaining items to be reviewed per-application. However, this likely does not cover all needed steps, and some must be handled on a case-by-case basis. Calling a program “pre-reviewed” is therefore preferable to “pre-approved” to manage applicant expectations.

Site engineering may require extra review, especially where slopes, soil conditions, or previous demolition activity creates unusual circumstances. Historic district review bodies may be able to indicate acceptability of the designs included in a pattern book, but adherence to the Secretary of the Interior’s standards may still require considering the construction of a specific plan on a specific site once an application is submitted.

Public and private utilities and street departments will have standards that a builder needs to conform with for water and sewer taps; gas, electric, and telecom connections; and driveway curb cuts or other right-of-way work. As many of these departments are already accustomed to same-day permitting, such as for repair projects, their workflows might easily be adapted to enable a fast-turnaround on pre-reviewed plans.

Complementary Actions

Communities considering a pattern book approach to infill development often cite housing costs as a driving motivation. As noted above, the cost of licensing plans for a home is often only a small percentage of the overall home cost—simply providing plans does not substantially improve affordability to the end-user resident. A fast and predictable permitting process provides additional cost and risk savings, but still more may be needed to close the gap between high construction costs and targeted market sectors. Municipalities implementing a pre-reviewed plans approach should look at it as one part of an affordability program and coordinate it with other measures to address overall affordability.

Vacant or surplus land disposition programs or policies may be an easy way to support infill in neighborhoods that have seen disinvestment. Communities

that have an inventory of vacant parcels scattered through neighborhoods may be able to offer those to developers for a nominal fee, with contingencies on pace of construction, use of a given pattern book, or similar requirements. This may be done as a single-parcel transfer to smaller developers or as a larger scattered-site development plan. Dearborn, Michigan, is in the process of creating a pattern book for a neighborhood where the city owns about 70 vacant residential parcels: As Michigan’s fastest-growing city from 2010–2020, Dearborn intends to use the combination of pre-reviewed plans, city-owned land, and HOME funding to secure a developer who can rapidly produce housing. The city is still early in this process but intends to include home plans that reflect the extended family households and space layouts desired by the growing local Muslim community.

Tap, impact, and permit fees can pose a substantial burden for any small-scale development and be especially prohibitive for lower-cost housing options.

Tap, impact, and permit fees can pose a substantial burden for any small-scale development and be especially prohibitive for lower-cost housing options. Municipalities that attempt to recoup a share of past water/sewer system development, for example, may charge per-unit tap fees that add \$50,000–\$100,000 to the up-front cost of a home, incentivizing developers to maximize the size and purchase price of units to absorb that cost. By contrast, municipalities that prioritize adding users—and ongoing utility revenue—to the system may change minimal up-front fees, creating a much more feasible environment for smaller developers and more modestly priced homes.

Tax abatements or incentives should be considered to close remaining gaps between the hard costs of construction

that remain elevated since COVID and the desired affordability levels for a local construction program. For owner-occupied homes, direct cash grants are likely the most effective way to close affordability gaps, either via down-payment assistance to the homebuyer or as a capital incentive to the developer contingent on meeting buyer income limits. For construction targeting the rental market, ongoing property tax abatements (where applicable) paired with affordability requirements can be effective in keeping resident costs under control.

Conclusions

A pattern book of attractive home plans—including small-scale multi-dwelling or mixed-use models—can be a good prompt for discussions of what type of development is desired in a community. Those home plans are only one piece of a successful infill development program, though, and a successful local implementation needs to bring together the zoning, permit streamlining, financing, and other tools to work in concert. By not just showing the desired development but realigning all of these factors to make it legal, easy, fast, and predictable for a builder to deliver it, a community can reduce both the costs and risks of the process. More builders, and more housing, will be the result.

Because the current state of practice is emerging, growing, and learning, the specific implementation discussions above should be treated as an early field report rather than any definitive or final word on the topic. As you experiment with the form and build on these initial findings, we encourage that you offer your own innovations and experience back to the planning community in support of this shared learning process.

Note: A portion of this document is adapted with permission from [This Used to be Normal: Pattern Book Homes for 21st Century Michigan](#) by Melissa Milton-Pung with Richard Murphy, AICP.

About the Authors



Richard Murphy, AICP, is a Policy Research Labs program manager at the Michigan Municipal League, where he works with member

communities and partner organizations on transportation and land use planning, placemaking, economic development, and technology issues. Prior to joining the League, Murph served as city planner in Ypsilanti, Michigan; programs director for Michigan Suburbs Alliance; and on the board of directors of the Regional Transit Authority of Southeast Michigan.



Melissa Milton-Pung is a Policy Research Labs program manager at the Michigan Municipal League. As a Federally-qualified architectural

historian, her expertise is in place-based economic development initiatives, historic rehabilitation, and heritage tourism. Prior to joining the League in 2017, Milton-Pung spent more than a decade as economic development & historic preservation project manager for Washtenaw County, Michigan, and worked in cultural resource consulting.



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