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Norfolk Is Offering Free Plans To Incentivize Missing Middle Development



CINNAMON JANZER OCTOBER 21, 2021



Rendering of what a parcel with missing middle housing could look like on Granby Street, one of Norfolk's main streets (Rendering via Missing Middle Pattern Book)

Tucked into the southern end of the Chesapeake Bay, Norfolk, Virginia, is a city of neighborhoods that range from beachfront enclaves to suburban cul-de-sacs and turn-of-the-century historic districts. What they all have in common, though, is a missing middle—housing that is neither a single-family home nor a massive apartment building, but smaller multi-family units like duplexes and fourplexes.

The term “missing middle housing” was coined by Dan Parolek who wrote [a book of the same name](#). Parolek’s work charts out how these slightly more dense, walkable, and desirable middle housing options can not only help address the country’s housing crisis by providing more affordable options,

but how they can be brought back after the boom of car-centric, single-family development that flourished after World War II.

Drawing on Parolek's work, Norfolk approved a [Missing Middle Pattern Book](#) in June that provides free architectural plans for one, two, and three-bedroom units that can easily be mixed into existing housing. Each of the floorplans consist of modular components that can be shifted around to create side-by-side duplex, triplex, multiplex, or townhouse units with configurations that can fit on different lot sizes. Depending on the size of the project, developers can expect to save around 15-20% on the design fees that constitute roughly 10% of the overall cost of a project's construction, says Mel Price, a principal at the firm behind Norfolk's new pattern book, Work Program Architects.

Price adds that there were two central reasons that the city wanted to create a pattern book focused on middle development: changing demographics and economics.

"We see it and hear it every day that folks just don't make as much proportional [to their income] with student debt and everything else," she says. "If we follow the general rule of thumb that no more than 30% of income should be spent on housing, it becomes very difficult for people."

Second, the hope is that the city can increase housing options designed to not only boost walkability and affordability, but serve residents in all stages of life as well. "A significant portion of our population will soon be over 70. We need these folks to be able to live in walkable communities where they can have some quality of life without living in the suburbs and driving cars everywhere," Price adds. "[Middle housing is] very equalizing home types that people can move through at various stages of their life," from student life to retirement, she adds. Ultimately, "it ensures that people can stay and age in place."

The city also hopes that the pattern book will help landlords who have the ability to scale up from renting a single-family home but aren't able to make the leap to a large apartment complex find middle ground in the smaller plans that the book offers. "It's ownership agnostic. You could make it a rental, a co-op, or outfit it as a condo," Price says.

Now that the pattern book has been adopted, Chris Whitney, Norfolk's chief planner, says that the city has moved into public outreach mode to figure out the rules and regulations that they'll have to reassess in order to encourage developers to actually turn the patterns into reality.

"We've taken an incentive approach," Whitney says. "We'll allow maybe greater densities or waive certain limits on dimension standards within the zoning districts" that otherwise require minimum lot sizes or minimum off-street parking requirements that could get in the way.

While Norfolk is just getting started, Bryan, Texas, offers a cautionary tale. The city of 80,000, located northwest of Houston, adopted an [award-winning](#) pattern book as part of its [Midtown Area Plan](#) in May 2020. But the city hasn't built a single development using the patterns.

"We've kind of been in sales mode since [passing it]," explains Randy Haynes, Bryan's planning administrator. The point of Bryan's pattern book was to not only rein in sprawl and concentrate development around existing infrastructure like roads and sewer lines, but to increase commercial development, too. "Everyone wants a sidewalk café and a bookshop and a skateboard shop, but it's hard to create or retrofit that environment," he says. "Those things don't grow naturally, they have to be planned for."

Bryan's patterns offer, in part, a clear path forward for homeowners and developers. Homeowners may want to sell their property to downsize, developers might previously have demolished an existing home to make room for apartments, but now both groups have the option of adding accessory dwelling units instead. "This was, in my view, some real thinking outside the box. While we haven't had any takers yet, we're very hopeful," Haynes says. "In my head, it's kind of like a junior high dance—someone has got to go first, but once someone starts dancing, everyone has a good time."

Norfolk officials hope that because they have insight into what developers might want, they are more set up for success.

"There's interest that's already been advanced. If we want them to do it, they want to make the site plan review process faster. We're going to have to relax the parking requirements and they're going to have to be able to buy land at an affordable price," Whitney explains. "If we can do that, there are lots of folks all over the city who are willing to take the risk and try this. The city just has to give a little."

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The Perfect Match: BIM & Sustainable Landscape Architecture

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(Courtesy Pacific Coast Land Design and Vectorworks)

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Across the state of California, landscape architecture firm **Pacific Coast Land Design (PCLD)** is known for its expertise in public works projects. They deliver LEED-certified sites across a variety of projects — two of which serve as shining examples of how building information modeling (BIM) contributes incomparable value to integrated planning and design processes.

The projects, Westview Village and Old Town Newhall, speak to the evolving demands of landscape architecture, and how PCLD's design tool of choice, **Vectorworks Landmark**, helps them go above and beyond expectations.

Westview Village

Constructed in 1957, **Ventura County's Westview Village** originally consisted of 180 housing units, making it the oldest and largest affordable housing complex in the area.

In an article for the **Ventura County Star**, the CEO of the **Housing Authority of Buenaventura** said that the affordable housing crisis in California incited the complex's revitalization efforts. The Housing Authority called on **RNT Architects, Mainstreet Architects and Planners**, and PCLD for planning and design, aiming for a 21st century build that can sustain long into the future.



(Courtesy Pacific Coast Land Design and Vectorworks)

The new 20-acre master plan, which has already begun being realized with phase one completed, depicts 320 housing units in place of the old 180 with a full 2 acres of open space used for community events, recreation, and a community-wide gardening program for onsite food production.





(Courtesy Pacific Coast Land Design and Vectorworks)

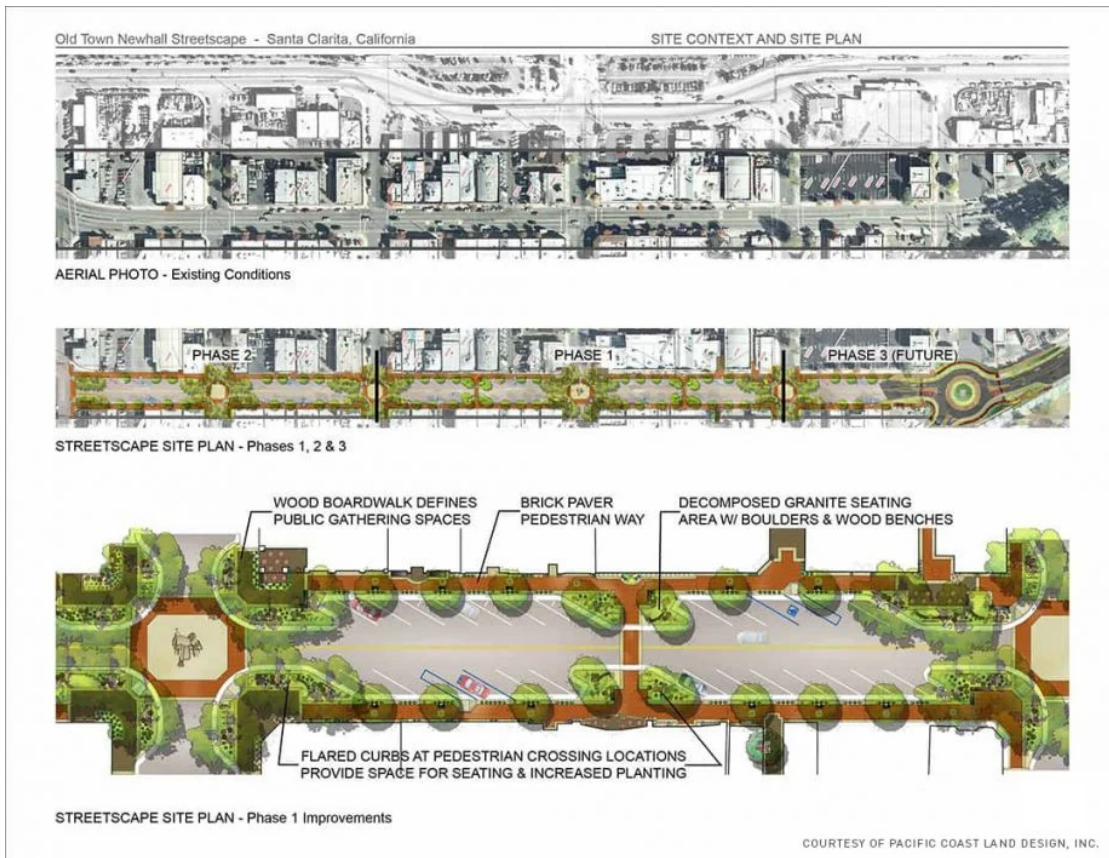
The project aimed to exceed LEED Neighborhood Development benchmarks, so PCLD worked with Jensen Design Engineering to develop a stormwater management system that recycles much of the complex’s runoff. Drought-tolerant and low water-use plants decrease the need for irrigation water, which is largely obtained through recycled laundry water, according to PCLD Principal Eric Berg.

Developing these sustainable water systems required heavy support from Vectorworks Landmark’s building information modeling (BIM) capabilities. During planning and design, PCLD linked data-rich worksheets to the site model for visualized insights. Their model contained vast amounts of live information needed to push towards more sustainable systems — at the start of the project, for example, PCLD worked with an arborist to get a detailed report on every one of the 209 onsite trees. They then linked this report with Vectorworks Landmark’s Existing Tree tool and used the information to develop a tree preservation plan.

Old Town Newhall

Once a popular backdrop for western films in the early 20th century, Newhall, California would eventually experience dramatic decline as the sprawling suburbs of nearby Los Angeles drew people away, leaving behind struggling businesses and high vacancy rates.

The City Council launched a revitalization effort to reverse Newhall’s fate, calling on PCLD to make it all happen. The result is **Old Town Newhall**, an emerging, mixed-used, pedestrian-oriented village with a redeveloped streetscape.



(Courtesy Pacific Coast Land Design and Vectorworks)

PCLD's design team worked with the Council to re-envision the central corridor of Main Street, from which the City had diverted traffic to a nearby roadway and added a roundabout to improve the flow of through-traffic. "We wanted to strengthen the community's heritage and instill a new sense of pride in downtown Newhall," says PCLD Principal Emeritus Chris Roberts.

The result is a dynamic mixed-use site that both catches the eye and transforms what was once a dilapidated streetscape into a thriving community village, one that takes sustainability in stride.

"We have to provide water budget calculations for each site, which can become time-consuming if you don't have the right tools," said PCLD Managing Principal Mike Zielsdorf. "We can input all of our data into our worksheet and use smart calculations in Vectorworks Landmark to do all the budgeting for us. Everything happens with the click of a button."

Vectorworks Aids Success

As project requirements grow more and more demanding in the landscape disciplines, delivering **highly coordinated BIM projects** helps firms stay ahead of competition by demonstrating a deep understanding of the design concepts needed for successful project delivery. This is especially true when designing sustainable systems.

For both projects, these advanced design features include smart objects linked with built-in worksheets that reduce tediousness in the information modeling process. Visually representing vast amounts of complex information saved PCLD valuable time — consider Westview's tree preservation plan as an example, as the process would've taken exponentially more time without smart tools and visualization. It not only would have taken more time, but it also would have been far more error prone.

"All of us have worked really hard to create detailed visualizations, and it's changed how people look at our firm and what we do," said Roberts. "Our business has grown as a result of the visualization and project development tools that Vectorworks has made available to us."

According to Zielsdorf, "It's the quality of our drawings and renderings that's been the basis of our growth. Vectorworks allows us to use one file from the start, beginning at the conceptual phase and moving into construction, all while letting us pull reports and diagrams to communicate our design to anyone who needs to see it. Vectorworks is an incredibly important part of our process."



(Courtesy Pacific Coast Land Design and Vectorworks)

Want to learn more about Vectorworks Landmark? Fill your information out below.

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Alex Altieri is a copywriting specialist for Vectorworks, Inc. He has degrees in digital/print journalism and philosophy from the Pennsylvania State University, and although he's not a designer by trade, Alex remains inspired by the ways Vectorworks software helps incite creativity.

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