

Panelized Homes:
Custom Designs, Your Building Solution



**Panelized
Building
Systems
Council**



Table of Contents

3 *Introduction to
Panelized Homes*

4 *The Benefits
of Panelization*

6 *Types of Panelized
Building Systems*

Introduction to Panelized Homes



The Panelized Building Systems Council, part of the National Association of Home Builders, is America's resource for panel construction. From connecting panel manufacturers with future home owners to helping builders convert to a panelized building method, the council has a wealth of information and experience with all types of panelized building systems. The council is one of NAHB's Building Systems Councils, representing the systems-built housing industry across the country. For more information about panelized building systems or to find a manufacturer serving your area, visit www.nahb.org/panel or call 800-368-5242 x8576.

There was a time when building a new home stick by stick on a building lot was the standard and accepted course of construction. As the home construction period elapsed, both the builder and buyer hoped the home could be made weather-tight before the next storm flooded the interior. The completion date of every home was dependant not only on the weather but also on a legion of various and diverse subcontractors, exhibiting differing degrees of expertise. One delay in this less than certain process could cause a ripple effect through the remainder of the construction schedule, resulting in delivery and installation disruptions and a moving target for a completion date. It doesn't have to be this way - *a panelized building system can help.*

Times have changed in the residential home building market. More builders and buyers are recognizing that the old stick-by-stick approach might not be the most effective homebuilding method. Increasingly, homes are being erected using a panelized building system; a construction technique that utilizes advanced technology, quality materials, and a controlled work environment to build wall panels and to construct an energy-efficient and durable home in less time.

Today's panelized home building systems retain the best aspects of stick frame construction. They combine time-tested building methods with modern technology to deliver a well-designed, energy-efficient, and beautiful new home. While there are several types of panelized building systems to choose from, each begins by constructing the home's essential structural components in a climate-controlled facility. Skilled craftsmen guide the wall sections from raw materials to completed panels before carefully loading them onto a truck for delivery to a home site.

Begin the search for a panelized building system to construct your home online at www.nahb.org/panel.

Study Shows Multiple Benefits to Panelized Building

Those using panelized construction methods are rewarded in several ways, a study released by the Partnership for Advancing Technology in Housing (PATH) revealed. In a survey of builders across the Southeast and Southwest parts of the country, PATH concluded that more home builders are adopting panelized construction to realize benefits including long-term cost savings, shorter construction times, reduced labor and material costs, and enhanced energy performance.

The Partnership for Advancing Technology in Housing is a public-private initiative dedicated to accelerating the development and use of technologies that radically improve the quality, durability, energy efficiency, environmental performance, and affordability of America's housing market.

Learn more about why builders are choosing panelized construction methods on PATH's Web site, www.pathnet.org by clicking Resources, then, Publications and scrolling to "Integrated Panels into the Production Home Building Process".



The Benefits of Panelization

Panelized construction saves both the builder and buyer time and money with improved quality, efficiency and control. Since the first builder realized that using a truss system to better build a complicated roof, panelized homebuilding methods have become more and more technologically advanced, leading to a wide array of benefits.

While the term “panelized housing” can refer to any number of construction styles and techniques, the benefits of building with panels are universal. From saving time to controlling costs and quality, reducing construction material waste and more, it's no wonder that more and more home builders and buyers are choosing panelized home construction.

Make Your Designing Dreams a Reality

With the technology currently available and the inherent adaptability of the panelized systems, no two panelized homes need ever be exactly alike. Most custom home designs begin as nothing more than a daydream and a doodle. Whether you are a professional

designer or just have a floor plan in mind, most panelized home companies can turn your idea into a dream home. With computer-assisted design programs, designers and engineers can turn just about any idea into a working blue print. In many cases, the plans for your home are sent directly from a designer's computer to the panelization shop floor, ensuring your home is built accurately and efficiently.

A New Home in Less Time

Your new home's panels can be engineered and fabricated in a manufacturing plant in just a few days before being shipped to your home site. Once on site, the shell of a panelized home can be erected and made weather tight in just a few days! Not only does this reduced construction time save weeks compared to on-site stick building, but weather, material delivery and subcontractor scheduling delays – often unavoidable in stick-built construction – are much less of a concern for panelized home construction.



Built Precisely & Efficiently

Each worker in a panelized facility has been trained to do a particular carpentry job and through experience, has become an expert in that specialized aspect of home construction. That expertise, combined with the precision technology used to produce panelized home components and uniform quality control supervision simply cannot be replicated on a job site.

These state-of-the-art machines produce panels that are engineered to the highest quality, ensuring your home is built precisely square and dimensionally correct without room for human error. Your home's panels are built to meet your local building code before they even leave the facility, no matter if your area requires special considerations for high winds, floods, or more.

With such a low margin of error and high amount of precision, panelized homes are known for increased energy efficiency. These homes are comfortable year round and cost less to heat and cool over time.

Eliminate Costly Overruns

When building a new home, what inflates costs – and infuriates home buyers – are unforeseen delays and circumstances. Utilizing panelized construction methods go a long way toward reducing or outright eliminating some of the costliest delays.

With a majority of a panelized home's initial construction occurring in a climate-controlled facility, your new home's framing materials will not be subject to weather delays and, due to the speed of assembly, the exposure to the elements is greatly reduced.

Reducing the amount of on-site labor also reduces a construction project's reliance on subcontractors. Depending on your location, finding and scheduling subcontractors can be time-consuming and costly, with imperfections resulting from the varying degrees of expertise being applied at different jobs. Panelized construction allows a builder to better schedule and coordinate your new home's completion.

Construction on Your Schedule

Of all obstacles home builders face, Mother Nature is often the harshest. Since your new panelized home is pre-constructed in a climate-controlled facility, worries of rain, snow, or wind damage are virtually eliminated. Most panelized homes can be weather-tight in a matter of days, keeping your home safe and dry, and free of the warping, mold, mildew, and squeaking that adverse weather may cause.

Begin the search for your new home online at www.nahb.org/panel.

“Prior to building our panelized home, we'd lived in five other brand new, but traditionally-styled homes. They were nice enough, but they were just “run of the mill” houses like most everyone else's house. That's fine for most people, but we yearned for something unique.

Everyone who sees the house says, “Wow!” Many have said it's the most beautiful house they've ever seen. Every inch of the house just feels good.

Most people have to go away to exotic places to vacation; we only have to come home!”

- John & Terri H.

What's Your Type?



7

*Whole House/
Open Wall Packages*



8

*Structural Insulated
Panels (SIPs)*



9

*Round &
Geometric Structures*



10

*Post & Beam/
Timber Frame*



11

*Trusses & Structural
Building Components*



Panelized Homes: What's Your Type?

The popularity of panelized home construction is due in no small part to the variety of panel systems and types available. Whether you are looking for a modern or traditional design, contemporary or rustic feel, there is a panelization style to fit your needs and budget.

Regardless of the type of panel system used during construction, your new panelized home will be constructed to be energy efficient, with substantially less material waste and weather-tight in a much shorter time than a stick-built home. Learn more about the various panel types on the pages that follow or online at www.nahb.org/panel.



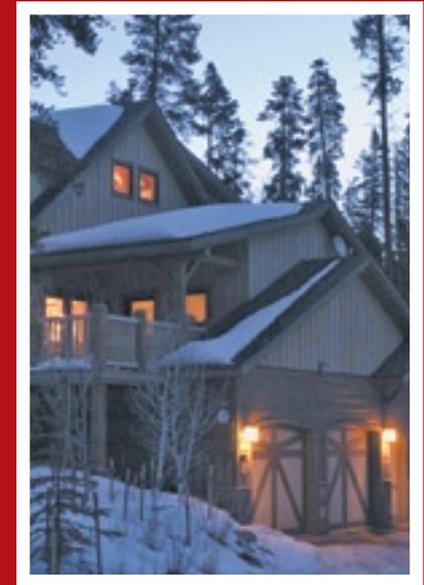
Day 1



Day 3



Day 5



Panelized Homes: *What's Your Type?*

Whole House/Open Wall Packages

These packages are delivered to the home site as a complete set of engineered exterior and interior wall panels, structural floor systems, exterior decks, and roof and floor trusses. Some home panel packages contain just the structural components of the home, while others are full and complete home packages, including everything from windows and doors to siding, paint, and even appliances.

“We started the ground work on July 10, foundation on July 21, framing on July 29 and. electrical, plumbing, and HVAC on August 14. Our walkthrough was September 22. Our home was completed in less than the 120 days that was guaranteed. Fantastic!”

– Janelle N



“I started to build panelized housing when I saw how much time it would save me. I don’t have to worry about weather or subcontractor scheduling any longer. These little assurances add up to big time and cost savings, which I can pass along to my home buyers.”

– Robert G., builder.



Panelized Homes: *What’s Your Type?*

Structural Insulated Panels (SIPs)

Structural Insulated Panels (SIPs) are custom designed, prefabricated wall, roof, and floor panels made of a rigid foam core and sandwiched between structural skins, usually two pieces of oriented strand board (OSB). Homes built with SIPs feature a tight building envelope which are uniformly insulated, generating annual energy savings and a comfortable living environment.



Panelized Homes: *What's Your Type?*

Round & Geometric Structures

If you're thinking outside of the "box," panelized circular and geometric structures might have what you want. Round, octagonal, dome, and other geometric structures are constructed with panels and offer home buyers stunning panoramic vistas and enhanced wind resistance.



"The final hurricane ties were secured on our panelized house on August 10, three days later hurricane Charley came across our island with winds around 140 miles per hour. On the following Sunday, we drove down to check on our home. There was not a drop of water inside, nothing blown apart, just a few shingles came loose."

– Paul & Erma D.
Boca Grande, Florida



“Our home was completed from footing to final inspection and the lights on in 87 days.”

– McBryde & Katherine H.



Panelized Homes: *What's Your Type?*

Post & Beam/Timber Frame

Relying on centuries-old building methods to create rustic yet modern structures, post & beam homes feature upright, solid timbers (posts) supporting horizontal, solid timbers (beams) to form a home's frame. Timber frame homes are a style of traditional post & beam construction where the supporting timbers are connected by wood joinery, rather than metal fasteners. Once the frame is constructed these homes are typically finished with walls, floors, and ceiling systems built from prefabricated panels.



Panelized Homes: *What's Your Type?*

Trusses & Structural Building Components

These commonly accepted building blocks of most new homes, whether stick-built or panelized; trusses and components are pre-assembled frames for the roof, floor, and ceiling systems, were once considered to be new and radical technology. These components help builders shape a home's frame, cut down on on-site construction, greatly reduce job site waste, and are prevalent in nearly all new homes.

“In 1989 when Hurricane Hugo hit the coast of South Carolina and people were evacuating their homes, we did not leave ours. The next morning I went out to inspect our panelized home expecting to find damage. There was none. In 1996, when South Carolina was brushed by another hurricane, we again chose to remain at home while others left for shelters. Again the next morning, I went out to inspect for damage and there was no damage.”

– Howard & Brenda P.



NAHB's Panelized Building Council

1201 15th Street, NW • Washington, DC 20005 • 800-368-5242 x8576

To find a panelized building system in your area, visit www.nabb.org/panel