

THINKING OUTSIDE THE BOX TO BUILD A BETTER HOME

MAINTAINING HERITAGE AND MAXIMIZING EFFICIENCY

When the dream of building a new home starts growing in your mind, how do you turn it into something more tangible?

After you've consulted with friends and family, sought advice from those in the know, and researched locations, builders and design options, it's time to nurture that dream and create a more specific vision.

But before you get much further, STOP!

Ask yourself how you're going to do it. This is your opportunity to make a decision that can provide extraordinary benefits, one in which you may have overlooked.

- What will your home be made of?
- What benefits do different materials offer?
- How will the building material impact your long-term living expenses?

It's the time to seek efficiency, energy savings and building materials that help reduce and reuse so you aren't creating more waste. It's the time many are challenging more traditional decisions in home builds. By doing so, they are choosing sustainability to have a more positive impact on their environment and to reap significant long-term benefits and cost savings for their new home. In short order, they want to do more with less.

John Nagy, CEO of Spancrete, explored these questions as he began a new project that is a labor of love. Ultimately, the project is a blueprint of how thinking outside of the box maximizes energy performance while building a beautiful, open home that merges perfectly with its environment.

Mill Street, as it would come to be known, is a study in respecting heritage while building a legacy of sustainability, safety and savings.



RECLAMATION AND RENOVATION

In 1842, a sawmill was built with an adjoining home on Lake Nagawicka about 45 minutes west of Milwaukee. For reference, Wisconsin became a state in 1848.

By the standards of the day, it was probably considered functional. By today's standards, its nineteenth-century style, using natural stone and brick, with rustic wooden beams, would be considered a charming addition to any neighborhood. But, once you were inside, what was functional and served its original family well had become, well, an old home that had never really been touched. Over the years, the homes around it had been renovated or modernized, with some retaining a degree of their original charm and serving the residents of this lake community well. This house, though, hadn't been brought along into our new century. Its ceilings sagged. The joists and beams were weak, rotting with age, feeling the effects that come with the years for a structure built with wood. The home was decaying.

John knew the extent of the project in front of him. He recognized this was an opportunity to take action to build something in this space that provided a beautiful homage to its original.

Most importantly, he recognized the opportunity to build something sustainable for today and something that would last for tomorrow – a way to build better.

John decided to do a complete teardown and rebuild.

Rather than erecting a new structure on the land, he would reclaim what he'd take down. He would use the existing wood beams. He would gather and reuse all of the stone and brick from the original structure. He would build a home using modern, sustainable techniques and building materials to bring Mill Street into this century, while maintaining its heritage.



MODERNIZING AND REVITALIZING

As he had already decided to embrace reusing materials from the original structure, literally deconstructing the house and taking the stone off piece by piece, it made perfect sense to commit to building a sustainable structure.

John chose to build the home using prefabricated precast construction products.

As the CEO of Spancrete, he understood the flexibility precast offers home design and, more importantly, the series of benefits it provides homeowners as they seek to build the home of their dreams. Wood is a traditional choice for building the framing, walls and floors of a home, but comes with characteristics that provide concerns and certainly don't deliver the energy efficiency today's owners seek. Wood is porous. It is organic. It is susceptible to pest, mold and fire. It is loud. Heat and cold move through wood and it does very little to provide the safety a family needs to stand against Mother Nature. Wood presents durability and long-term viability challenges.

A home built with precast is much stronger than wood and will give homeowners greater longevity and protection than a wood structure, along with incredible advances in energy efficiency. Using precast as a flooring system and for wall panels throughout a new home build will add a level of strength, security and space to build a home that counteracts the drawbacks of wood and delivers extraordinary benefits.



ENERGY EFFICIENCY

Primary among those benefits is its energy efficiency. Because Spancrete precast planks retain energy, they are extremely efficient at heating and cooling a home. A total precast structure, using precast for the roof, walls and floors delivers a substantial amount of energy efficiency, more than 75 percent than a traditional home. Mill Street, reusing so many of its traditional materials to maintain that unique heritage, still uses a regular roof and walls, but with its precast products providing flooring, it delivers more than 50 percent greater efficiency than traditional homes.

The precast products act as their own insulators. They keep the good in, your heating and cooling systems, and the bad out, the cold winds of winter and the heat of summer. Precast dramatically lowers energy costs and provides significant energy savings month after month, year after year.

The first and second floors are built with hydronic piping in the precast floors to heat the home. It's simple, practical and a great multiplier for the efficiency of the precast. Hydronic piping is a thin and flexible tubing that runs through precast panels and connects to a home's standard boiler. The concrete is heated, like a heating pad, and retains that heat, slowly releasing it over time, keeping the whole environment warm in the process. That delivers a staggering amount of energy efficiency, reducing a homeowner's consumption and cost. That's a strong measure of sustainability.



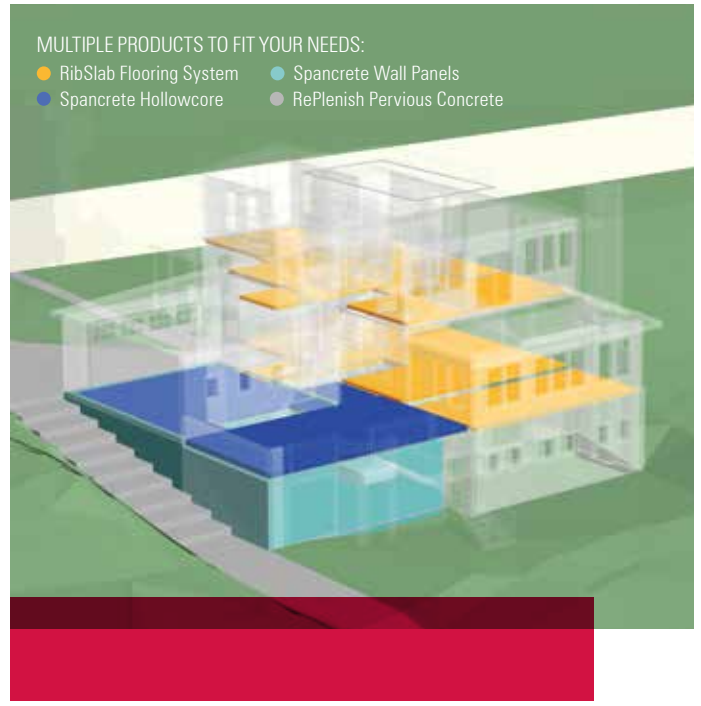
SAFE. SECURE. QUIET.

Precast provides safety against weather, fire, pests and mold. It is an inorganic, non-porous material so it will not burn and is not susceptible to invasive mold and pests or other forms of deterioration. It is strong enough to stand against and resist wind and severe storms that tear apart traditional wood builds. Its solid nature means it'll also keep out the sound of the wind or clunking of shoes across floors, providing a quiet setting to go with the confidence of its strength and durability. Precast products help homeowners build a safe, secure and peaceful environment.



DESIGN

That strength also means it doesn't require beams and traditional supports that block off rooms. It enables designers to capitalize on building expansive open spaces to improve the flow of a home and easily integrate its design into the home's natural surroundings – just what you'd expect from building the home of your dreams. Precast means you don't have to compromise your vision because of practicality.



Mill Street is proof of the benefits and versatility of precast for new home construction. The commitment to heritage, and function, resulted in using a variety of products to provide the most benefits.

There are four unique products, RibSlab flooring, hollowcore planks, wall panels and RePlenish pervious concrete, used in Mill Street.

- RibSlab flooring, complete with the hydronic piping, was used on the first and second floor.
- Hollowcore planks cover the garage.
- Wall panels create the basement foundation walls under the garage and back deck.
- RePlenish pervious concrete was used for the stairs, driveway and walkways.

This level of versatility in precast building means you have the convenience of choosing from multiple products to build a home, mixing and matching what works for your specific needs and vision. Making the right decision and putting the right pieces into place will deliver the energy efficiency you seek and provide additional, safety, sound, security and design benefits.

John executed his vision by using precast products to build a unique and beautiful home. The home is creating a new legacy for its story and home builds like it. Mill Street maintains its heritage, fits perfectly into its surroundings and delivers the sustainability that is important for our world today and to a growing percentage of home builders.

BENEFITS YOU REQUIRE AND EXPECT

The decision to build Mill Street with precast products from Spancrete gave the team unlimited options to design a beautiful, sustainable home that delivers benefits any homeowner should expect from the very start of a project.



Easy and quick installation

Spancrete precast lends itself to short construction schedules. Because components are prefabricated, they can be delivered as-needed – meaning minimal site traffic and neighborhood disturbance.



Energy efficient

Spancrete precast solutions provide high thermal efficiency, reducing heating and cooling costs, and ensuring excellent sound absorption properties, creating a quiet interior environment.



Reduced life cycle cost

Spancrete precast is a low-maintenance building solution that resists weather, fire, corrosion, pests and blast to stand the test of time.



Structural integrity and reliability

Spancrete precast products are the most versatile and durable on the market.

Spancrete precast products can be used throughout the home, in various applications, to bring added value and comfort to the property.



WALL PANELS

Spancrete wall panels create a tight envelope and insulate better than any other wall construction system, offering maximum energy efficiency. They are durable, resisting severe weather, pests and mold – which results in low-maintenance costs over the course of ownership.

Applications: Load bearing and non-load bearing structural walls – garage, home exterior and interior, and lower level foundation walls.



REPLENISH PERVIOUS CONCRETE

RePlenish pervious concrete creates additional drainage to help prevent flooding and direct water flow to restore water supplies. It can withstand up to 500 inches of rain an hour, allowing water to naturally flow into the earth. It also can withstand freeze and thawing – ideal for builds in four-season climates.

Applications: Driveways, stairs and patios.



RIBSLAB FLOORING SYSTEM

Spancrete RibSlab Flooring System is a durable, lightweight solution available in a variety of sizes. It can easily accommodate hydronic piping to increase a home's energy efficiency.

Applications: Interior structural flooring.



HOLLOWCORE

Spancrete hollowcore slabs can create long open spaces, allowing for maximum design flexibility. The continuous voids in the product can be used for electrical or mechanical runs.

Applications: Garage flooring and interior structural flooring.



BUILDING A DREAM HOME

When that idea you have for a new home build starts becoming more real, when pen hits paper and you seek ways to make your idea a tangible reality ... when you hit that moment, STOP.

Stop and consider what you want the legacy of your home to be. Consider what kind of benefits you expect and remember the story of Mill Street.

The path forward becomes much easier when you realize the long-term benefits of precast in home building are extensive enough to make what feels like the simple, functional choice of building materials a vital one.

You need only look to the unique stone house on Lake Nagawicka in Wisconsin. Classic and rustic on the outside, modern, sustainable and energy efficient on the inside.

LEARN MORE AND REQUEST A QUOTE TODAY.

414.290.9000 | TOLL FREE: 855.900.SPAN

SPANCRETE.COM

SPANCRETE®