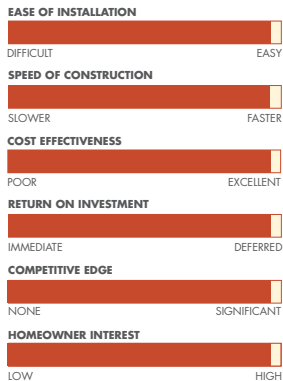


From Stick-Built to Modular: Saving Time, Money—and Knees

Builder's Experience



Challenges: Dealing with loan officers

Would he do it again? Yes

Modular Attributes:

- Affordability
- Quality
- Environmental Performance
- Safety

Builder Tips: "When you're setting the home, let the crane do the work. If it's not coming down right, you should have the crane pick it up and move it over that inch or so. Pushing it by hand is almost futile."

Builder:

Frank Dusick
Mustang Builders
Eau Claire, WI

Builder Type:

Small Custom Modular Builder

The Technology:

Modular Construction

The Project:

A two-story, 4,000-square-foot home built with six modules and a stick-built great room.

"Picture this: If you were to take your house, and you were able to just load it onto a flatbed truck, and then start down the road at 60 mph, how would your home fare after a couple hours? How many shingles would you have left on the roof or siding on your home? Your stick-built home wouldn't fare too well, but your modular home would be intact. That's how strong modular homes are."

– Frank Dusick

DUSICK'S STORY

Frank Dusick started as a stick builder, but bad knees forced him to look for something different as a backup.

"I was getting close to turning 40, and I started realizing that I wasn't going to be able to go running up and down ladders and climbing around on roofs indefinitely," says Dusick.



The casual observer can't tell the difference between a finished modular home and a stick-built house.

When he found out that Stratford Homes, a modular homes producer based in Wisconsin, was looking for a builder/dealer in the Eau Claire area, he called right away. He's been building Stratford modular homes ever since.

"A long time ago when you said 'modular', the first picture many people had was the old doublewides. That was a hard mindset to get around. I essentially had to sell the home twice: first to the customer, and then to the financial institution that they were going through."

"I went to see some loan officers, and gave them pretty much the same presentation I gave the customers. I even offered to take a couple of them to the plant to show them how they were built."

Dusick has been in the building industry for over 40 years. He founded Mustang Builders in 1981 as a stick builder, but switched to modular construction in the late 1980s. He currently builds eight to ten homes a year, selling between \$150,000 and \$200,000.

Why he uses modular construction:

"It's faster, improves my profit margins, is built to higher standards, reduces callbacks, and is much less of a hassle to build with than stick-built construction."

"Fortunately, after a few years, the word got out about the benefits of modular homes. The financial institutions now are actually more receptive to modular homes than to some stick-built homes. With a modular home, they know what they're going to get. They also prefer modular because of the shortened construction schedule. The quicker the loan originators can sell off the loans, the quicker they can get their money."

START TO FINISH IN TWELVE WEEKS OR LESS

It takes 10 to 12 weeks from the day a customer comes into Dusick's office to the day he turns over the keys.

"Once a customer decides on a floor plan, I e-mail the details to Stratford," says Dusick. "In six to seven weeks, the house will be completed and shipped from the plant. During that time, I'll get the permits, build the foundation, and do the site work. Once we get the home on site, it takes about three to six weeks, depending on the size. And that's it. This is much quicker than the three to six months it took me to produce a stick-built a home."

LOWER COSTS, GUARANTEED PRICING

"It costs me on average about 10 to 15 percent less to build a modular home than to stick build it. But I can sell the home for the same price as a stick builder, because a stick-built and a modular home get appraised at the same amount. This has led to bigger profit margins for me."

"In addition, the first time people come in to see me with a floor plan, I can normally price it out right to the penny. That's a big advantage, because when you're stick building and people come in with a floor plan, the best you can say is that it's going to run you about so much a square foot. But customers want to know how much their home is going to cost."

"I can do this because I know definitely how much the house is going to cost me, and I'll know what my onsite costs will be because they are pretty much the same on all the homes. Once you've done a few jobs with a plumber or electrician, they can give you a price as to how much a hook-up is going to cost. Then I can price out the house and guarantee it. That's the other thing: once I order a house from Stratford, no matter what pricing does in that six- to eight-week period when we're waiting for the house to be built at the factory, the price is guaranteed. That's a big deal in this day and age."

SITE PREPARATION AND INSTALLATION

"Proper site prep is very important. You need to compact the soil where the crane will be. You have a 100,000-pound crane lifting a 20,000- or 30,000-pound module. Your site has to be able to hold that weight. You don't want the crane to be slipping or sliding around. If the homeowner is there, that will make them really nervous really fast."

"Also, it's important to make sure that the foundations are square and true. Each module is exactly square and level, so you'd better be sure that your foundation is too. There's little room for error."

"Once the modules are assembled, the home is 95 percent complete. They arrive sheet-rocked, taped, and textured. The plumbing fixtures are already installed, as are the cabinets, trim, and light fixtures. All I have to do is connect the mating walls, where the modules come together. And there may be doorways to sheetrock and tape and texture, but they always send texture material to match what they use in the rest of the house."

"The plumbing, ductwork, and wires are already run through the floors, so once the modules are set on the foundation, you just have to hook them up."

TECHNOLOGY HIGHLIGHTS

This project included the following PATH-profiled technologies:

- Concrete floor finishes
- Fibrous concrete reinforcement
- Humidity-sensing control device
- Mortarless brick veneer
- Pressurized leach field dosing
- Programmable thermostats
- Structured wiring
- Tilt-up roofs for modular homes
- Tubular skylights

EFFICIENT PRODUCTION = COST SAVINGS

“When you stop and think about it, building in a plant is a much more efficient way to build. The workers come in at 8 am, and wherever their hammer was laid down the night before, they pick it up and go to work. When the whistle blows at 4:30, they lay the hammer down and go home.”

“When I used to go to a job in the morning, I’d have two or three men. We’d spend 10-15 minutes in the morning and in the afternoon just setting up and tearing down, putting the tools away, covering up material piles, and cleaning floors up. So I was dealing with at least half an hour per man per day that I was paying for essentially taking tools out of my truck and putting them back in. Then in the wintertime after a snowfall, you may spend an hour in the morning clearing the snow. When you start looking at it that way, you begin to realize why there are some savings involved. Plus, the factory buys all of their material on a large scale, so they can get wholesale prices.”

CUSTOMER—AND BUILDER—SATISFACTION

“My customers are more satisfied with the process and final product of a modular home. I’ve had a number of customers tell me that they really like the idea of doing modular because there is much less hassle. They have talked to too many people who have gone through a building process that took many months, and they’re really glad they didn’t have to put up with that.”

Dusick also appreciates the speed of modular construction because it reduces opportunities for customers to make small, but expensive, changes.

“I’ve learned that you don’t want to do change orders on a Stratford home after the fact. When these homes are put together at the plant, they use glue and ring-shank nails, and their nailing schedule is much more

thorough than stick-built construction. You can’t just take these homes apart. You need to take it out in chunks.”

“As a stick builder, I saw that people frankly had too much time to look at their home. They would start worrying that this wasn’t right, or that wasn’t right. I’ve found over the years that most of the things that people decide to change really don’t make a difference in the house. It’s something minor like moving a plug to the other side of the stud, or moving a window three inches to the left. They think it’s a small thing, but it takes a lot of time to do it.”

QUALITY

“The quality of modular homes is much better. On a site-built home, when you get a little rain shower in the middle of the day, you get back to work as soon as it stops. You couldn’t afford to stand around and wait for everything to dry off. In a factory, all of the material goes into that plant under the roof in a controlled environment, and the modules don’t leave until they’re weathertight.”

“I’ve seen a reduction in callbacks since switching to modular. There have been very few. But if there is a problem, and it’s something that has to do with Stratford, I just turn it in and they have their own service guys come out and take care of the problem.”

FLEXIBILITY

“There is a lot of design flexibility in modular homes. We can do 9-foot ceilings, 10-foot ceilings, steep roofs, fireplaces. If a customer wants masonry, we’d have to do that onsite. The only significant limitation is certain configurations. Some homes have many corners and jogs in them, which require separate modules. When you get to a point where you have too many modules, then it begins to get expensive. Your transportation costs go up and you catch up with the cost of stick-built homes.”

"So once in a while, we site build a section of the home. It's not very difficult to do. It's all configured into the planning ahead of time, and the engineering department at Stratford works with you to make sure everything ties in. I built a two-story home in Eau Claire composed of six modules, and then added a great room after the modules were set. All the electrical hook ups were there so we could just pull them through to the great room. It was simple."

LABOR

"It's actually easier to find workers to construct the modules than it is to find stick-building crews. These guys know that the turnaround on my modular homes is fast. Consequently, they get their money fast. It's a big factor."

FEWER INSPECTIONS

"I have to deal with fewer inspections now, which makes my life a lot easier. The house

has been inspected at the plant. The only thing that the building inspectors have to do on my end is look at the foundation work. I have to get a footing inspection, and an inspection before we backfill for drain tile, and then usually a final."

LOWER INSURANCE

"I carry a floating builder's risk policy that costs less than keeping a policy 365 days a year. I call my agent when a house comes in, let him know where it is, and what it's worth. Once we're done with the home, I call my agent again and he'll pull it off the file. I also have a lower rate because the insurance company has realized that there is very little material that ever sits outside for people to steal. There's less to go wrong from an insurance standpoint."

The Partnership for Advancing Technology in Housing (PATH) brings together builders, manufacturers, researchers, government agencies, and other members of the housing industry. PATH partners work to improve the quality and affordability of new and existing homes. The program is administered by the U.S. Department of Housing and Urban Development's Office of Policy Development and Research.

To learn more about PATH, visit www.pathnet.org.
To learn more about PATH-profiled technologies, visit www.toolbase.org/techinv.



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A crane carefully lowers a module into place.