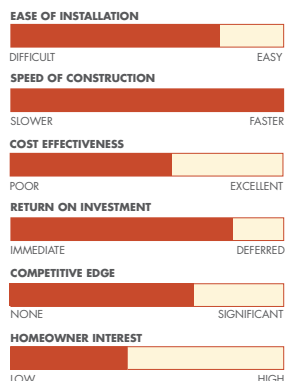


ICFs: CDBG Project Launches Builder into ICF Market

Builder's Experience



Challenges: Locating knowledgeable crews

Would he do it again? Yes

PATH Attributes:

- Affordability
- Energy Efficiency

Builder Tips: "ICFs are a great technology. Builders interested in using ICFs can find plenty of opportunities to do so through Federal grant programs such as CDBG."

Builder:

Rick McGuire
American Dreamscape
Lubbock, Texas

Builder Type:

Small, Family-Owned Custom Builder

The Technology:

Insulating Concrete Forms

The Project:

A 1,600-square-foot home located in Lubbock, Texas. The house features an 8 x 10 foot tornado shelter located off the master bedroom.

"ICFs are certainly the wave of the future. It's to your advantage to be on the cutting edge of technology because it will expand your market reach and bring you new clients."

— Rick McGuire

MCGUIRE'S STORY

Rick McGuire, President of American Dreamscape, began using insulating concrete forms (ICFs) when he won a bid to build low-income homes through the City of Lubbock's Community Development Block Grant (CDBG) Program, which allocates funds to builders to construct or rehabilitate homes for low-income families. ICFs are a required technology for the Lubbock program. Brad Reed, a Lubbock CDBG administrator, explains why:

"In 1997, I went to Austin to explore better ways of building," says Reed. "Builders there were using structural insulated panels (SIPS) and ICFs and getting good energy efficiency out of the homes they built. Because Lubbock gets a lot of tornadoes, it was imperative that the homes we were building through CDBG be able to withstand strong winds. At first, we were letting



McGuire funded the ICFs in this home through a Community Development Block Grant.

homeowners choose stick frame over concrete construction, but the energy savings and the storm-resistance qualities of homes made with ICFs were so much better that we ended up making it a requirement for all the CDBG homes built in Lubbock."

SOLD ON THE BENEFITS

"Homes built with ICFs are more energy efficient than traditional stick-frame homes. The sound barrier they provide is amazing. Sometimes you can see a lawn mower outside but you'll barely be able to hear it inside an ICF home. They are also stronger and better able to withstand tornado damage. That safety factor is a key reason for building with ICFs in this region."

"I don't need traditional wall insulation because I am already using ICFs. They also make it easier to build tornado



Rick McGuire founded American Dreamscapes in 1992. He has built ten homes with insulating concrete forms over the last three years through the Lubbock, Texas Community Development Block Grant Program. The program uses federal, state, and local funds to provide temporary housing to low-income residents while new homes are constructed for them. The CDBG grants reduce the final cost of the home and make the mortgage affordable for low-income homeowners.

Why he used ICFs:

"Our customers have been very happy with the comfort of their home because it is quieter and very energy efficient. You don't have as many hot and cold spots in the house as you would with conventional construction."



Because of their energy savings and storm-resistance qualities, ICFs are required in construction of all CDBG homes built in Lubbock, Texas.

HOW ICFs WORK

ICFs are rigid plastic foam forms that hold concrete in place during curing and remain in place to serve as thermal insulation for concrete walls. The lightweight foam blocks, or planks, are energy efficient and highly durable.

Read three PATH Field Evaluations:

- Bruce Davis Construction: La Plata, MD
- Hopke Buildings & Grounds: Sturgeon, MO
- Hughes Construction: Lexington, NC

shelters. Because your crew is already laying the ICFs, you don't need to wait for another crew to come in and lay down cinder block or concrete for a shelter as you would with a stick-framed home."

"I am a believer in the technology. If I were building my own home I would certainly use them. I certainly expect ICFs to be a part of our business practices in the future, even outside our participation in the CDBG program."

LEARNING THE ROPES

McGuire learned how to use ICFs through a three-day training session with Polysteel sponsored by the City of Lubbock. Because one of McGuire's homes was selected as a field demonstration site for the training, he obtained hands-on experience.

"The training was very beneficial in showing us how to deal with practical problems such as how to make wall penetrations accommodate wiring and plumbing. We also observed real-life examples of steel and concrete placement and bracing. I'm a loyal Polysteel customer not only because the company has been helpful in training me to use ICFs, but also because they are easy to use."

"Once you're familiar with the technology, there's nothing revolutionary about the techniques. It still uses straight, square walls. You do have to plan for plumbing and electrical penetrations because once the concrete is poured, you won't be able to drill holes through it."

Although crews who work through Lubbock's CDBG program are well versed in using ICFs, many in the region are unfamiliar with the product, which proved to be a challenge for McGuire.

"Locating contractors that are knowledgeable about ICFs was our biggest challenge. I understand that in areas where ICFs are more mainstream, it can take two or three days to construct a home's outer walls. For us, it's two or three weeks because we have to work around the schedules of the few people here who are qualified to use them. Because of that, we have learned to plan our ICF projects well in advance."

COMMUNITY DEVELOPMENT BLOCK GRANTS

"We are typically a stick-frame builder," says McGuire. "CDBG funding made all the difference in our ability to use ICFs in low-income homes."

TECHNOLOGY HIGHLIGHTS

This project included the following PATH-profiled technologies:

- Insulating Concrete Forms
- Sprayed Foam Insulation
- Windows with High Performance Glass

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.



The opinions expressed in this document represent those of the builder and do not necessarily reflect the views of PATH.

"In many cases, you not only have to educate customers about the benefits, you also have to convince them that they're worth the additional upfront investment. Customers who are more familiar with the product would probably be more open to using them."

McGuire recommends that builders looking to expand their market become involved in Community Development Block Grant programs.

"Participating in the program has brought us more projects and increased our profit margin."

McGuire says that the bidding process in Lubbock has been relatively easy to navigate. "We bid against five other builders, and the lowest one wins the contract. There were some requirements to become eligible to bid. For instance, we had to apply in writing to become an approved vendor and we had to undergo a background check and make some minor adjustments to our insurance policies. But that process took no more than a week."

"Because the CDBG program requires homes to meet certain standards of wheelchair accessibility and storm and fire protection, it took us several rounds of bidding to determine how to account for those features in our bids."

"Overall, we have found the bidding process to be very fair. It is surprisingly free of bureaucratic red tape. The inspection process has also been very thorough. We found that the expectations of quality workmanship were at least as high as expectations for the traditional houses that we build."

Because the CDBG program is administered locally, the application process differs by region. To find a CDBG program in your area, visit HUD's CDBG Contacts page at www.hud.gov/offices/cpd/communitydevelopment.