

REWARD ON-SITE TRAINERS PROVIDE VALUABLE SUPPORT



Duane Holloway (right) provides advice even before a project gets underway.

Installation of the Reward walls in a large residential project in Missouri had already begun when the local building inspector called a halt to the project. He didn't understand what ICF construction was about, and wouldn't approve it until he learned more. That's when Duane Holloway, one of Reward's two corporate trainers, stepped in, explained the Reward ICF system to the inspector and showed him Reward's code approval reports.

"Once the inspector understood that Reward ICFs are just another type of concrete form, he relayed the message to the head of the building department and the planning commission, and we were able to continue construction with no problem," said Holloway.

Solving problems with building inspectors

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xLerator™ SOLVES TRADITIONAL ICF LEDGE FORM REINFORCEMENT PROBLEMS

Every once in awhile, someone takes a new look at an old way of doing things, finds out it's wrong, and completely changes it in the process.

That's just what we did when we discovered that the commonly recommended way of reinforcing manufactured ICF brick ledges and ledge forms fails to satisfy American Concrete Institute (ACI) guidelines. As a result of this discovery, Reward invented a whole new product for reinforcing its new ledge form, and significantly improved the way ledge forms can be reinforced from now on.

xLerator (pronounced ex - el - erator) is a patent pending galvanized welded wire reinforcement piece that simply drops into the pre-formed reinforcement slot in Reward's ledge form and provides maximum strength in every corbel, or concrete pocket, within the form.

Through their extensive product research and development, Reward's engineering department, along with the professional engineering firm of Tadros Associates, LLC, found that the reinforcement in most of the ledge forms on the market today does not meet ACI 318 guidelines. "The current recommended ledge reinforcement consists of individual pieces of rebar that must be bent into stirrups on the job site or ordered pre-bent from the rebar manufacturer," explained Karen Bexten, a structural engineer with Tadros. "The ungalvanized rebar is subject to corrosion because it is placed close to the outside edge of the form, sits in a foam slot and is not completely encased in concrete. This allows water to reach the rebar and cause it to rust. As the rebar rusts, it expands, causes concrete to crack, and undermines the stability of the ledge."

In most cases, the current method of reinforcing ledge forms also calls for it to be placed at an angle in every other corbel, which significantly reduces the strength of the ledge, and is not in accordance to ACI 318 guidelines. Stirrup reinforcement is both laborious and expensive, because it consists of multiple pieces that have to be installed one at a time. In most cases stirrup reinforcement comes with little or no engineering support or detailed drawings, and the ICF manufacturer does not supply it.

By contrast, Reward's xLerator is galvanized, preventing corrosion. It automatically places the reinforcement properly in every corbel of the form providing maximum strength and meeting ACI 318 requirements. As a "drop and go" reinforcement system, xLerator significantly reduces labor time and cost, and in most cases, costs less than the combined labor and material price for bent-in-field or pre-bent rebar. It is shipped directly to the customer with the Reward ledge forms.

Reward Wall Systems, Inc. is well known throughout the ICF industry as the company that provides products that make the construction of ICF structures quick and easy, and the production of xLerator is another example. Instead of the time-consuming and costly process of cutting rebar into sections, bending it and installing several individual pieces in each form, xLerator allows the installer to pick up one piece, drop it into the form and go on. Reward provides complete engineering load tables, interior details for various floor types, and exterior details for various finishes. In other words, Reward provides a complete ledge reinforcement system that includes both the form and the rebar and takes the guesswork out of the engineering.



xLerator's easy "drop and go" design not only saves time and money, it makes Reward's ledge form the only one in the industry that meets ACI guidelines.

LUXURY HOME REPRESENTS SAFETY



Watkins easily achieved this curved wall effect by integrating iForm and eForm.

At about 4:30 p.m. on May 6, 1975, a tornado with winds of 100 to 150 miles per hour touched down in Omaha, Nebraska. It took out 3,400 square blocks in a twelve-mile area and destroyed 287 homes. It also partially destroyed the home of Howard and Dottie Toelle.

Fast forward to 2003 and we find the Toelles happily living in their recently completed home built with the 11" iForm™. "This house represents safety," said Dottie Toelle. "We had an all-concrete safe room installed, and we have no fear."

Both Howard and Dottie enjoy the peace and quiet they experience in their home and their extraordinary energy savings. In spite of heating the whole house, the 950 square foot garage with in-floor heat, and a 65-gallon domestic hot water heater with a 125,000 BTU hot water boiler, their winter heating bills amount to less than the winter heating bills they paid on their previous wood frame house that was half the size.

"This was the first project we had built with the iForm," said veteran Reward distributor, Bob Watkins of Watkins, Inc. in Gretna, Nebraska, "and for a first job it went very smoothly. We built the house, the garage and a 30' x 60' storage building all with iForm. We found it similar to eForm™ in that it was easy to stack and align. We had a trouble-free pour and ended up with extremely straight walls."

Watkins went on to explain that they had created a curved wall that the house plan called for out of eForm and that "...it was very easy to integrate the two systems."

Asked how she is enjoying her new home, Dottie summed up her feelings with, "Oh my gosh—this house is just great!"

PROJECT PROFILE

- Gretna, Nebraska
- 5,080 total square feet
- 2,680 finished square feet
- 950 square foot garage
- 30' x 60' car storage building
- All in-floor heat with 125,000 BTU hot water boiler
- Split compressor 2-ton or 4-ton zoned air conditioner (Are able to use just the 2-ton most of the time)
- Asphalt roof
- Brick and vinyl siding exterior finish
- 11" iForm
- 9 ¼" eForm

LAKE MICHIGAN VIEW IS BEAUTIFUL—AND WINDY!

PROJECT PROFILE

- Ludington, Michigan
- 1 ½ stories with walkout basement
- 2,016 finished square feet
- 3,456 total square feet
- Vinyl siding exterior finish
- Fiberglass seal-down shingles
- Single-stage 75,000 BTU furnace
- 2-ton air conditioner
- 2002 Parade of Homes entry
- 9 ¼" eForm

Jim Clymer of Ludington, Michigan, had always lived in the vicinity of Lake Michigan, but not near enough to see it. So when he and his wife, Linda, began planning their retirement home, they were determined to have a view of "the big lake".

Clymer contacted Ed Wagner of Wagner and Sons in Ludington, about building a wood frame house on the lot they had selected, which was located on top of a bluff overlooking Lake Michigan from 300 feet above the water.

"Because of the location I told them they should look at a more solid type of construction," Wagner explained. "In that area they can get winds as high as 90 miles per hour in the winter." Clymer says that after he understood the benefits and energy savings of ICF construction and how the system goes together, he felt that ICF was the way to go—in spite of the slight increase in up-front costs.

"I love this house," he said. "In December it was five below zero with 50 mph winds—when you went outside, you couldn't breathe because the air was so cold. The dog wouldn't even go outside! But inside everything was absolutely warm and comfortable." The Clymers are on a level payment plan for their heating bills and are currently paying just \$88 per month. Clymer is in the process of finishing his basement himself. "I am amazed at how warm this basement is," he said, "and I appreciate the fact that the basement walls came complete and ready to finish so I can do the work myself."

"We keep waiting for someone to pinch us and tell us the house isn't really ours. It really is a dream home!" added Linda.



Even winds approaching 90 miles per hour can't ruin the homeowners' enjoyment of their lofty view over Lake Michigan from inside their Reward home.

QUAKER MEETING HOUSE: BUILT TO LAST



The relationship between the architects and Reward builder Houston led to this Reward project.

A recently completed all-concrete Quaker meeting house in Wichita, Kansas, was built to last with iForm™ 11" and 13" ICFs. When the Heartland chapter of the Society of Friends contacted architect Harry Greger and engineer Howard Rishel about building the new meeting house, they specified that they wanted a building that was economical to heat and cool and would last a long time.

Rishel and Greger knew just the person to call, having worked with pioneer ICF builder Kenneth Houston of Houston Construction in Goddard, Kansas, for the past ten years. In fact, Houston and Rishel are probably the people most responsible for establishing ICF construction in the Wichita area.

The meeting house is the second building on the 20-acre grounds that the congregation eventually hopes to turn into a college campus. Eight to ten years ago, Houston built a 3,000 square foot ICF addition to the original 10,000 square foot school building. Both the architects and the owners were amazed that the heating bills stayed the same or even went down slightly for the 13,000 square foot structure compared to the original 10,000 square foot structure.

Wall construction went quickly on the meeting house, according to Houston, in spite of the fact that when they were ready to start the upper walls, they had to shovel snow first. All the elements of the building were selected for durability and strength, including concrete floors, concrete columns and a concrete porch deck. All of the



Built for durability, the meeting house features concrete floors, columns and deck in addition to the ICF walls.

PROJECT PROFILE

- Wichita, Kansas
- 2 stories
- 6,000 finished square feet
- 9' and 13' walls
- All concrete floors, columns and deck
- Standard wood truss roof
- Brick exterior finish
- Voslite architectural roof slates
- 3-ton HVAC for basement and 4-ton HVAC for main floor
- 13" iForm for the basement
- 11" iForm for the main floor

interior walls are framed with structural and light-gauge metal studs and finished with fire proof sheet rock.

"This project has approximately 10,000 linear feet of walnut that came from the farm of one of the members," Houston said. "The finish contractor planed, sanded and straight line ripped all the rough-hewn walnut for all the trim around the doors and windows, baseboards, crown molding, and the beams for fireplace and entry halls."

This was the first time Houston had built with iForm. "iForm is the best block I've ever had my hands on, and I've had my hands on a lot of them," he said.

REWARD ON-SITE TRAINERS (cont. from pg 1)

is just one of the functions of Reward's on-site training staff. Holloway puts it this way, "We teach builders how to get from A to Z without wasting time, money and effort. There are certain steps you have to take to make the job go smoother, and we can take first-time builders through those steps."

Sometimes it isn't just first-time builders that request the services of one of Reward's corporate trainers. Roger Chumley of R & R Construction in Royse City, Texas, who has been building with Reward since 1998, recently requested Holloway to come to a job in which he was using cDeck, Reward's insulating floor and roof system.

"Duane is the one who first got me into building with Reward, but this was my first job with cDeck. I requested Duane to come on site, because I wanted to be able to rely on his knowledge and experience," asserted Chumley.

"The little things Duane knows, that I would never have thought of, saved me endless hours of not having to do them over," Chumley said. He went on to explain that Holloway showed them the correct way to place the supports under the cDeck floor. "That was a sea of scaffolding we put up, and to have to go in, take it out and re-install it correctly would have been tremendously costly," he said. Holloway also gave Chumley pointers on how to secure the cDeck floor before it was poured so it wouldn't be blown away by the substantial winds they were experiencing. Chumley figures that Holloway saved him at least three days in construction time and several thousand dollars in payroll and materials costs.

"If builders do what we tell them to do, they will make up enough time to more than cover the cost of having us there," said Doug Billig, Reward's other corporate trainer. "Not only that, we are constantly evolving. As we come up with better installation methods, we pass them along.

"We're also available after the training and continue to answer questions and help solve problems," he added.

John Moylan, Reward's vice-president for sales and training, is very proud of the program. "I feel that the knowledge, experience and dedication of Duane and Doug are responsible for the outstanding success of this program," he said. "Since the program has been in place, we have completed hundreds of successful trainings. We have developed a level of expertise and support that stands alone in the industry. No matter what type of project people have, we know how to build it!"

The Reward corporate trainers are available to come to your job site on request for three to five days. They will work with you by telephone to assist you with preparation before they arrive, provide installation oversight and advice as you build your project, and be available to answer questions after they leave. Cost varies according to size of project and length of stay. For more information, call the Reward Customer Service Department at 800-468-6344.

Letter From the President



Office of the President

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Dear Reward Building Professionals,

In May 2001, Reward Wall Systems, Inc. emerged as the leader in innovation and product development with the introduction of the 11" and 13" iForm™, our universal and reversible flat wall form. iForm gained popularity and a significant market share almost immediately. Since then, we have added a 13" forty-five degree corner, a full 9" line and an 11" and 13" ledge form to the iForm product line.

Our commitment to offering you the finest ICF products on the market continues with the recent introduction of xLerator™, our "place and go" ledge form reinforcement system. The Reward ledge form and xLerator combine to create a ledge form system that makes all other ICF ledge forms and brick ledges seem obsolete. Reward is the **only** ICF company to offer a ledge form system that meets ACI specifications. Call our customer service department to learn more about this revolutionary product.

Another new product we are adding this fall is a 15" straight and 90° iForm to answer demand for thicker walls in basements and multi-story applications, especially in northern climates. We press forward with our research and development efforts on a continuing basis, and are currently considering several new ideas. We not only invite your ideas and comments about our products, we depend on them.

With a winter that was at times brutal now behind us, we are looking forward to the spring building season. Home shows appear to have been very productive for the majority of you who participated, and resulted in excellent leads for you. Many of you are already ordering forms for what look to be some impressive projects that show you are expanding your markets.

2003 should represent another excellent year for our customers. Thank you for your business. We believe our network of customers is the best in the industry, and we are going to do everything we can to continue to earn your business.

Best regards,

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Edward L. Storm
President

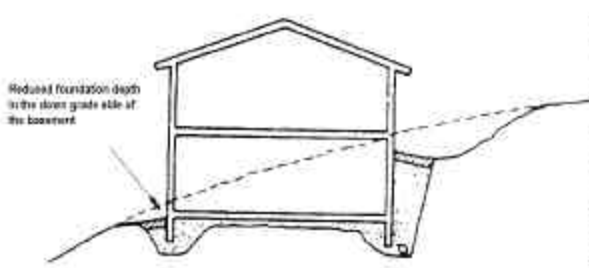
FROST PROTECTED SHALLOW FOUNDATIONS

A growing, but relatively unknown, type of design and construction for foundations is the frost protected shallow foundation (FPSF). This type of construction lends itself very well to insulating concrete forms and could be a market niche that would save your customer money on a project. It could also convince a contractor who previously was not very receptive to ICFs to use Reward.

Why build frost protected shallow foundations? They reduce construction costs, decrease excavation depths, disturb less soil at the job site, and they save energy.

Definition

A FPSF is an alternative to deep conventional foundations. It is a foundation protected from frost heave by insulation. Insulation is used to retard frost penetration below the foundation and to retard heat flow from beneath the foundation. This allows shallower footing depths with no added risk of frost damage. In other words, it is a foundation that does not extend to frost depth, but is protected from frost heave. This application is used in cold climates where there is seasonal ground freezing. Frost protected shallow foundations allow structurally sound foundations as shallow as 12 or 16 inches.



Applications

The FPSF is a good choice for several applications:

- Slab on grade—it reduces the excavation and foundation depths
- Walk-out basements, especially where there is a significant change in grade
- Unvented crawlspaces
- Buildings housing elderly or physically challenged residents, because slab-on-grade reduces the number of stairs needed inside and outside and reduces the size of the ramps
- Building additions
- Light commercial construction
- Apartments. Since the Fair Housing Act requires apartment buildings to have wheelchair-accessible ground floors, slab-on-grade construction is becoming more common for apartment buildings.

Design and Construction

FPSF construction has been recognized in the 2000 International Residential Code, the 1995 CABO One and Two Family Dwelling Code, the 1988 International One and Two Family Dwelling Code, and in various state and local building codes.

The design of the FPSF is a function of the type of building. There are different requirements for heated buildings with slab-on-grade, heated buildings and unheated buildings. Generally, the design steps consist of:

- Selecting the site's design Air Freezing Index
- Determining the insulation R-value, dimensions and footing depth based upon the Air Freezing Index
- Determining insulation types, thickness and protection

When using FPSF construction, you must be sure allowable bearing capacity of the undisturbed soil supporting the foundation is greater than the structural loads imposed by the building. Also, be sure that the site is graded to drain surface water away from the building, and be sure that fill materials are compacted properly and providing termite protection where needed.

FPSF should not be used in permafrost foundation design, but if you are in an area where there is frost, and you have a project that makes sense to try a frost protected shallow foundation, Reward Wall Systems will work very well for you.


Additional Sources

Contact the following organizations for more information about frost protected shallow foundations:

NAHB Research Center has available the Design Guide for Frost-Protected Shallow Foundations, 2nd Edition. The phone number is 800-638-8556.

American Society of Civil Engineers, ASCE has available the Design and Construction of Frost-Protected Shallow Foundations, SEI/ASCE 32-01. ■

Stay In**FORM**ed

 It's time for you to join the cyberspace age! From time to time we have information that would be to your advantage to have immediately, and the best way to get it to you quickly is by e-mail. Send us an e-mail message at reward@rewardwalls.com so we can add your e-mail address to our database. That way, you can stay "in the know" and keep ahead of the competition!

REWARD'S CO-OP FUNDS INCREASE YOUR ABILITY TO PROMOTE YOUR BUSINESS

Reward Wall Systems, Inc. is one of the few ICF companies to offer financial assistance to its customers for marketing and advertising. Two separate funds accumulate totals based on your form sales, and these funds are available to you to help cover the costs of your marketing and advertising efforts.

Advertising Co-op. For every form you order, ten cents goes into your advertising co-op fund. This money can be used to help cover the cost of advertising in the yellow pages, newspapers and magazines. It also can be used for direct mail campaigns and home show costs. To access the fund, you must purchase your advertising, pay for it, and send a copy of the advertisement and the paid receipt to the marketing department. Reward will then reimburse you for 50% of your costs until your account is depleted. To be eligible, any paid advertising receipts must be submitted within one year of issue.

Marketing Co-op. For every form you order, 1½ cents goes into your marketing co-op fund. This money can be used for any



Reward's first point of telephone contact, Patrice DeVault, shows off Reward's new red shirt.

Reward marketing materials such as brochures, banners and clothing items. The money accumulates in both funds for 24 months—any money that has not been used by the time it has been in the fund for more than 24 months drops out of the fund.

New Marketing Materials. We now have some new Reward clothing items that you may want to use some of your funds for:

- Red and light chambray shirts
- Tan and blue polo shirts
- Tan and blue hats
- Grey pocket T-shirts
- Navy blue wind shirts

We are in the process of refreshing the look of our brochures and flyers. You've already seen the first in the series, the consumer brochure. Coming soon with the same look are an xLerator overview and a new commercial brochure.

To order marketing materials, call the Reward shipping department. ■

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