

# Net zero home up for raffle

By **ANNA PAIGE** - for The Outpost



In tough economic times, it is rare to find a house built entirely from donations for a good cause. But in the Josephine Crossing subdivision, located in west Billings off Mullowney Lane, a charming craftsman-style house will be raffled off on Sept. 27 to benefit the St. Jude Children's Research Hospital, a pediatric cancer research center based in Memphis, Tenn.

The home began with a phone call late last year to Greg McCall, co-owner of McCall Homes and Development. The children's hospital hoped McCall would be interested in building a home for its Dream Home Giveaway, a program that upholds the motto of hospital founder and entertainer Danny Thomas that no child is denied medical care because of an inability to pay. The giveaway also provides funding for research to cure catastrophic diseases in children. But McCall wasn't certain he'd be able to give away a

home "in these times."

That same day, NorthWestern Energy called McCall to inform him that because of his company's adherence to energy efficient building, McCall Homes and Development had been selected as the 2008 Northwest Energy Star Development of the Year. The energy company also wanted to discuss better ways to market Energy Star, a government-backed program that encourages businesses and individuals to protect the environment through energy efficient practices. NorthWestern Energy asked if McCall would be interested in building and giving away a "net zero" energy use home — meaning the home generates electricity on its own.

So McCall pitched the Dream Home idea, and almost a year later, the three-bedroom, two-and-a-half bath home, valued at \$400,000, is open for public tours before it's given away in September.

"This whole house has been donated, everything from the windows to the boards to the landscaping to the labor," McCall said. His development company provided land, labor and administration, and both national and local companies donated supplies and labor. "It's truly an effort by everyone who has worked on this," McCall said. The home began in a "Bricks and Sticks" meeting to ascertain if area subcontractors, suppliers and vendors could participate in this program.

"It was a hard thing to ask people," McCall said. "(At that point) we were going through an election and had no idea what was going to happen in the recession. We were asking them to take a leap of faith."

## Charitable donations

The St. Jude Dream Home Giveaway program started in 1991 and has grown to be the largest fund-raising tool for the organization. The hospital is run entirely from donations and charitable contributions, and the Dream Home Giveaway has raised more than \$155 million for the organization.

The McCall home is the first St. Jude charity home built in Montana. The fund-raising goal for the home is \$600,000, obtained through ticket sales.

Each \$100 ticket gives the holder a one in 6,000 chance to win the home and a one in 500 chance to win a donated prize valued at \$1,000 or more. Prizes include a hot tub, ATV, riding lawnmower, and thousands of dollars worth of groceries and furniture, among others. Tickets are capped at 6,000, so if tickets don't sell out, the chances to win a prize become greater.

## **Netting zero**

Though St. Jude Children's Hospital has facilitated the building of more than 200 homes for its charity, the Billings home is the first net-zero Dream Home. McCall said the house is not only an experiment for the hospital, but is an experiment for McCall Homes and Development.

"This is the first (net zero home) done that we know of in Montana, and this is certainly the first charity house ever built to this level of efficiency," McCall said. "There has never been something done like this before."

To reach net zero, the home has solar panels on the roof that supply power to the home as needed. When not needed, the power is supplied into the NorthWestern Energy grid.

Six kilowatts of solar were donated to the home, a donation of \$80,000. McCall said the goal was 7.5 kW of solar, which would make the home truly net zero for its size.

"The home is designed to be net zero, but that doesn't necessarily mean it will be. It depends on a ton of factors," McCall said. Factors include the occupants' energy usage, how many devices they have plugged in, and the size of the family that moves into the home.

If a four-person family were to move into the home, the energy usage might push the home out of net zero, McCall said, though the home could reach net zero if a couple won the home.

## **Green giveaway**

To reach net zero, "everything had to be pushed up a notch," McCall said. This included installing high efficiency windows and LED lighting, as well as employing a tight thermal envelope with foam insulation and utilizing a state-of-the art electrical system.

Electricity is three times more expensive than gas, but it can be 100 percent generated through the home's solar panels. Therefore, the heating and cooling system utilizes an electric air-to-air exchange heat pump instead of electric baseboard heating, which is an expensive alternative to a gas fired furnace.

The system converts ambient exterior heat in the air and brings it into the house, and takes cold air out of the house when the weather calls for heat. The exterior unit, a compressor for heating and cooling, is nearly silent as it exchanges air out of house.

The system is designed to work 300 percent more efficiently than electric baseboard heating, McCall said, but at single digit temperatures, the heat pump is not as efficient because there is not any more ambient heat outside. In this instance, electric wall registers with a built-in fan kick on to distribute heated air throughout the room.

In a green and energy efficient standard for building, how the home utilizes resources must be considered. For water consumption, the St. Jude home has dual flush toilets. For energy, the lights are on motion sensors. To better insulate the home's shell, the windows are Anderson 100 Series, composed of fibrex, a material made from recycled sawdust.

These windows have the positive aspects of a vinyl chamber window, which outperforms a wood window, McCall said, but this new "green" window uses recycled products, including reclaimed and reused sawdust and 12 percent recycled content glass.

## **High efficiency with charm**

The craftsman home is filled with stylish modern finishes, including chrome and black accents, and circular translucent lighting. Yet it has a farm-retro feel with wide cherry wood plank flooring and a farmhouse kitchen. The home's farm-retro feel is accentuated by muted gray paint on the walls matched with sage green cabinetry in the kitchen and an island in black finish. Translucent blue

subway glass tile in the bathrooms and textured tile, which looks like linen, on the floors create an elegant space.

To allow more natural light into the home, many of the home's interior doors have frosted windows to translate light into the home, even if they're shut.

The home's upstairs has a family room, three bedrooms, two bathrooms and a laundry room. The master is located on the south side of the home and has a private bath.

Found standard in McCall homes, built-ins on the library landing and the upstairs area create functional storage.

Another staple of the McCall design is smaller spaces. The house is designed to take up less space and uses fewer resources.

"What we're moving toward in our designs — in particular in Josephine — is human-sized spaces," McCall said. He referenced the "Not So Big House" movement, started by architect Sarah Susanka, who stresses quality homebuilding over quantity and balks at the idea that a home must be "biggie-sized" to be livable.

"Typically, what we've seen being built are cheaper and cheaper, bigger and bigger houses," McCall said. "How much room do you really need?"

Employing what McCall calls "smart spaces" (built-ins) and sacrificing large rooms for a home that's smaller and easier to heat and cool, the home uses less resources. With the way his company builds homes, McCall said for what homeowners would spend on a larger home, they could have a much nicer home that is efficient and built with green materials.


"It's not so different than the way our grandparents built homes," McCall said. "They were built to last 200 years and built to meet their needs."

## More info

Raffle tickets are available at McCall Homes Design Studio, 1536 Mullowney Lane, Conlins Furniture, and any Verizon Cellular Plus location. The home is open for public tours on Saturdays from 9 a.m. to 5 p.m. and Sundays from noon to 5 p.m. up until the live giveaway on Sept. 27.

The home is also featured on the Fall Parade of Homes, taking place the second and third weekends in September.

For information or to see a list of prizes available, visit [www.billingsdreamhome.com](http://www.billingsdreamhome.com) or call McCall Homes at 651-5354.

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Dennis Gaub makes [this comment](#)

Tuesday, 01 September 2009

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Way to go, Greg (and the rest of your family). Also, I'm proud to say that your dad and I are high school classmates. Sorry I missed the West High Class of '69 reunion this summer. Hope all had a great time. Go Bears!

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Gold makes [this comment](#)

Wednesday, 02 September 2009

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I really love to read some articles that have great positive impacts on its reader and benefit by reading such article. I admire these writers in sharing their views and or opinions that can enlighten the mind of the readers. Great Job and continue inspiring readers. ----- Gold

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