## Growing a Greener Mississippi

"Growing a Greener Mississippi" was created by the Mississippi Home Corporation (MHC) to promote GREEN building in the affordable housing community. The contest required a single-family builder (a tax credit developer could enter a single unit within a tax credit development) to plan and construct a home that met the Bronze Level of the National Association of Homebuilders (NAHB) "GREEN" Building Guidelines. Since the contestant was required to build a home with a sales price not to exceed \$175,000.00 MHC put no other restrictions on the builder as he had to develop a product that would sell in the affordable housing market place. To peak builder interest in the contest prizes were to be awarded as follows: Third Place \$20,000.00, Second Place \$30,000.00 and First Place \$50,000.00. Seven (7) entries were received from around the State of Mississippi.

The competition was announced at MHC's Annual Housing Conference in January, 2009 and the builder had to receive a Certificate of Occupancy from the local governing authority by November 6, 2009 and final certification from NAHB by December 4, 2009. The second week of December five (5) GREEN oriented judges toured the 7 entries to determine a winner. The homes were judged based on: (1 Judges GREEN scoring, (2 Craftsmanship, (3 Architectural Design, (4 Interior Design, (5 Site Selection and (6 Judge's Discretionary Evaluation.

MHC was attempting to reach several goals through this competition:

- (1 to raise builder awareness of GREEN construction and prove that it could be accomplished in affordable housing markets;
- (2 to make the buyer or renter aware of the benefits of a GREEN home over traditional construction;
- (3 to raise public awareness of GREEN construction and builders that provided that type of construction;
- (4 to provide MHC with cost of GREEN construction that would benefit MHC other programs, i.e. tax credit housing.

Based on comments from contestants, MHC believes that these goals have been accomplished:

"I just closed my house in July and it sold for 125k it was listed at 142k I basically let it go at my cost to get it off the books. I don't think it was just the price it didn't have a garage and that was the only negative comment I had. Everyone loved the house other than that. Had alot of interest in it just don't think the general public is educated enough about the green to realize the energy efficiency side of it. I did sell a presold off of it built the same exact way just with a garage and in a different subdivision. I wanna say it cost me approx. \$9566 more to build green

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but \$2300 was just adding a ref. and w/d. and about \$1500 to certify so it really didn't cost much for the rest of it. The power bill on it has really impressed me it has been around half of the other model built like it. I have taken what I have learned from this competition and incorporated it into my houses to give the buyer the most band for there buck and it ius really paying off. I have been really busy. Let me know if I can help with anything else. Thank yall again for putting on this contest it really help me make it thru the hard times and has really made me a better builder." Jeremy S. Pierpoint, Builder, Gulfport, MS

"The total cost was \$143,922, which includes 15% P/O. Hard cost was \$125,150. Federal tax rebate was \$7,087 to the homeowner, \$2,000 for my company since it gained Energy Star status. Your second question is a little harder to answer because I automatically do a lot of things that are green that other builders would not do. I would estimate that substituting the green features [shipping containers, crane, welding, solar, geothermal, tankless water heater, energy star windows, spray insulation, and NAHB compliance/testing] for traditional features my hard costs would have come in at about \$101,500. The average utility bill for the Barton container home is coming in around \$30/month. The 1.7 kWh photovoltaic system produces about 6.3 kWh per day, which under TVA's utility structure ("Generation Partners" program) offsets the daily household usage by 13.7 kWh. Under the grid-tie scenario, you pay \$.12/kWh for grid-power, and they pay you \$.225/kWh for green power. So any power usage over 13.7 kWh per day, the homeowner pays \$.12/kWh. The low utility bill is not JUST due to the PV system, but also to all the other green features working in unison. The homeowners also have a NON energy star freezer and refrigerator running on the same meter, and I suspect that without these culprits, the utility bill would be closer to \$5-10/month. My estimates had the home consuming an average of 500 kWh per month. I've been trying to reach the electrical engineer to confirm my numbers, but based on an online power usage calculator, a comparably equipped traditional home would be consuming anywhere from 1200-1800kWh per month, or \$120-\$180/month. So the green home is saving the homeowners close to \$100 per month. The PV system should last 15 or more years, and if it does this equates to \$18,000 in savings ASSUMING TVA rates don't rise past \$.10/kWh. Add the federal tax rebates in (\$7087) and you have at least \$25,000 in savings over 15 years. Do people care about this stuff? Not really- at least not in this state. People are more fascinated with shipping containers than they are with the green features. The only marketing benefit has been having a lot of people call me up to pick my brain and waste my time! But I'm still glad

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I built it, just as an experiment to get closer to the holy grail of a net zero home for under \$100/SF." Billy Lilly, Builder, Oxford, MS.

As best MHC can determine this is the first contest in the country that has required the builder to actually construct a home, particularly in an affordable price range. Many contests have been run requiring the planning of a GREEN building and not actual construction and sale. MHC has gained local and national recognition for the competition. MHC hosted an awards ceremony to announce the winners of its competition and maximized the benefits of media exposure for the contestants and their green homes. As a result MHC has received local and national recognition for the unusual competition.