

Can anyone build 750 affordable single-family homes a year, all complying with the tough performance criteria of the Building America program? The Wade family of Artistic Homes did just that this past year.

“Our company prides itself on distinction in the marketplace,” says Max Wade. “When we went looking for a stand-out approach to energy- and resource-efficiency, the **Building America** program was the **most comprehensive and offered the most value.**” Artistic Homes completed two Building America prototypes in 1999 and has never looked back. They now conduct comprehensive **performance testing and deliver an energy guarantee on every Artistic home.**

Wade acknowledges that just about every change they have made under the Building America program was a tough one, involving lots of training for their company and their subcontractor network. Says Wade, “Our HVAC contractor faced perhaps the most dramatic changes; but, he has gone from just about the most skeptical to the most enthusiastic.” Building science proves itself in the building community, with a little dedication of time and effort.



It would be hard to find a builder who has more comprehensively embraced systems engineering and attention to detail. Here are just a few prime examples:

- **Lowered soffit HVAC chase** - Getting this chase air tight was important but difficult. Having the framer box it in with Thermoply and the HVAC contractor later seal it with mastic just wasn't working. “So, we switched to drywalling the chase — one trade, one detail, one solution,” states Wade. Another neat HVAC solution developed by Artistic Homes was the plant shelf in areas of homes with cathedral ceilings



Dropped soffit in hallway



Plant shelf



## El Rancho Grande

Albuquerque, New Mexico

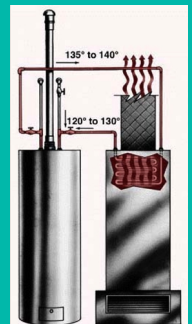
Artistic Homes

1,000 - 1,500 sq. ft., 3 bedroom, 2 bath

From \$79,000 (including land)

### Key Features

- Continuous air barrier — slab to walls to ceiling (including tubs, showers and dropped ceilings)
- Advanced framing with detailed job site plans
- Sealed ducts with mechanical ventilation
- Transfer grilles for air distribution
- Low-e spectrally selective windows
- Combo unit for hot water and forced hot air
- Reduced sizing of air conditioning equipment



### Cost Summary for Building America Metrics

Total premium of Building America features less than 0.5% of total construction costs

### Key Partners/Products

Ken's Plumbing and Heating

AGR Construction

Duke Insulation

Western Building Supply

Amestoy Dri-Wall

Odell Electric

A management Corporation

— this architectural detail provides the space needed for central supply ducts!

- **Sealing ducts run over interior partitions** – How do you apply mastic to the top side of metal ducting where the ducts run over top of interior partitions? Artistic Homes has the framer build these 7-foot partitions and *set them aside*. The HVAC guys mastic the duct seams all around at ground level, then strap-hang the ducts in place. The set-aside partitions go up *after* the HVAC is done. Every partition handled this way is marked in bold black on the framing plans.
- **Getting full depth insulation on knee walls** – Artistic was cutting and fitting Thermoply in the 22½ inch space between trusses to act as backer for the blown-in insulation. This was time-consuming, ended up with a lot of cut-off waste, and still did not guarantee full depth of insulation on the knee wall. So, Artistic Homes' got their truss manufacturer to add a two-by stop at the knee wall plane. One of their lead framers then convinced a local manufacturer to fabricate a 22½ inch cardboard plate with flexible flanges. Now, the insulation detail is cheaper, faster, better.



Blown-in insulation

One of the few deviations of Artistic construction from the BSC recommendations for their climate—*Houses That Work - Mixed Dry Climate*—comes on the sheathing for exterior walls. Wade literally shakes his head over the problem—home buyers strongly prefer the OSB or Celotex board over the “flimsy” rigid insulation: “With our 2 by 6 walls at R-22, we figure it’s a consumer education battle to be fought over the long haul.”

To keep their market distinction, Artistic Homes won’t rest on the laurels of their recent Building America success. The Wades have **four irons in the fire** for the next couple of years:

- constructed wetlands or other water conservation technique to **better manage their storm and grey water**;
- a **maintenance/service contract** to go with each home they build and sell;
- new approaches to **recycle** or reuse **their wood and drywall waste**;
- **two-story and custom homes**, applying the Artistic Homes and Building America approach to a whole new product line.

The only way to end a story like this is with the words of an Artistic Homes homeowner, Michon Sackett: “It’s surprising how often monthly utility bills come up in idle conversation with friends,” says Sackett. “What is more surprising is that our bills are about \$100 less!”