

SEVEN DAYS IN THE DESERT

SPFA 2013 NATIONAL CONTRACTOR EXCELLENCE AWARD WINNING PROJECT (RESIDENTIAL WALL FOAM)

Congratulations to **Southwest Spray Foam**, winner of the 2013 Annual SPFA National Contractor Excellence Award for Residential Wall Foam. These projects are examples of SPF's unique performance, applicability and appeal, in this case to a TV personality's southwest adobe home renovation. Winners of the SPFA Award must submit their project and have it judged best-in-class by a panel of construction industry leaders

Santa Fe, the capitol city of New Mexico, is a very unique place with elevations around 7,200 feet (for reference, the highest elevation in Virginia is 5,700 feet in the Shenandoah Mountain Range). It is a particularly dry, arid environment that spawned the pueblo-style adobe-constructed house hundreds of years ago. There is actually evidence of adobe-like brick homes made of straw, mud and soil – shaped and dried in the sun – dating back to 3800 B.C. in Egypt. Southwest Native Americans had been using this technology for centuries before the Spanish settlers changed the formulation (probably with a price increase) a bit in the 16th century. Since then, places like Santa Fe have valued the durability and old-world look of adobe homes as part of its heritage. Fast forward centuries to 2013 and homes in Santa Fe get to keep their look and



charm, but benefit from today's high performance materials and building techniques thanks to sprayfoam.

"We do two or three of these kinds of homes a week", said Matt Segura of

Southwest Spray Foam. "The only difference with this one was that it had a famous TV personality as the owner." In this case that owner is Steve Thomas of *This Old House* and Discovery Channel's



Renovation Nation. Steve wasn't just the customer, but an engaged General Contractor on the major renovation of his adobe home in Santa Fe. He, along with the architect of record, Stephen Samuelson of Plan A Architecture, both were familiar with sprayfoam, which made the selection and installation process exceptionally streamlined.

"There was a lot to consider on this home, being that there were many aspects of demolition and construction, scheduling and coordination with other trades," said Segura. "Plus this old adobe house (100+ years) held historic status and all changes had to be approved by a historic review board."

The existing home had approximately 12 inches of dirt piled on top of the roofdeck, with more roofing materials on top of that, and no insulation in the walls. The walls were a combination of adobe blocks, frame walls and penitentiary blocks (ceramic blocks manufactured at a nearby prison in the 1940s). The project called for full demo of the roof allowing the designer to raise the interior ceilings of this one story building to make room for the addition of exposed beams. Once the building was ready for the SPF installers, Southwest Spray Foam sent an experienced crew in for a week's worth of spraying.

Using Graco H-40 proportioners, Graco GX-7 Guns, and rigs built on a small Isuzu chassis to navigate Santa Fe's tight roads, Southwest installed 12 inches of NCFI's 2.8 lb. closed cell Rock Roof system on 1,800 sqft. of roof, and 2 inches of NCFI's 2 lb. closed cell Insulstar in 1,800 sqft. of floor, and

3 inches covering 2,200 sqft. of wall. The wall insulation was installed on the exterior of the building to make more available interior space.

Installing SPF on the exterior of the home, common for this region, also meant several additional considerations. First, spraying exterior to the home meant great natural ventilation for the project and crews wearing their appropriate PPE, but also meant the crews had to work hard to protect all of the surrounding cars and homes from overspray. SPF insulation on the exterior was the route chosen also because the customer had to use a material that would bring efficiency and comfort, but also maintain the look of the classic adobe home.

To maintain that look, and be compliant with all historic preservation requirements, the crew (total project crew of 10) led by Aaron Lewis installed the insulation, covering older mismatched additions of the building to make a solid, unified and efficient structure. "Aaron really is one of the best reasons we are good at this. Our crews are exceptional and he has trained all of them, but Aaron still sprays foam even though he's an owner," offered Segura. "Aaron is an artist who sculpts these exteriors into the beautiful properties they become. That means lots of spraying, trimming, spraying and trimming again to get just the right look and texture." Notably because this is a one story property, the crews were able to use ladders rather than scaffolding. "The ladders really allow us to move in and out from the wall to get the detail right," he said.

The project called for completing the exterior with a triple-coat stucco that provides the finishing touches to the SPF, accentuating the natural and intended irregularities in the surface of the foam, just like the original adobe of the Pueblos.

The 12 inches of sprayfoam on the roof, extending up the parapet walls, was installed, coated and covered with gravel by a Southwest roofing crew for exceptional durability and UV protection for the sprayfoam. It was sloped to the scuppers to improve drainage while maxing out the roof insulation.

For this and all of their projects, Southwest has a unique consideration that becomes important only in certain parts of the country – elevation. Not elevation by itself, but extreme elevation's effect on personnel and the product. "Pretty much all our folks start as helpers and work their way up to spraying, and they're locals so they typically are accustomed to the elevation" Segura noted. "But we also use NCFI's product that is formulated and intended for use at these higher elevations, and that makes a difference. We've done projects all the way up to 10,000 feet near Taos (New Mexico)."

The house needed thermal protection, air sealing, as well as waterproofing upgrades to meet Santa Fe green code. With the sprayfoam serving as the vapor, moisture, air and thermal barrier, the occupants are able to be comfortable and energy efficient. "I don't know of another material that could mimic the movement of the exterior, look so natural and produce the aged-adobe effect other





than sprayfoam, along with providing exceptional performance.

OUTREACH, CODES & BUSINESS

Southwest Spray Foam attributes some of its success to the non-spraying efforts of the company. They do a lot of community outreach and networking with business stakeholders, including lunch-n-learns with officials, architects and builders. "We meet regularly with

building and code officials in our area, with and without our competitors," Segura commented. "When we are able to meet together and address issues as a group it just makes our market and the industry stronger."

Southwest also commits to volunteering its crews regularly for Habitat for Humanity homes, participates in Home Builder Association events and other trade shows. And, Southwest has committed to SPFA PCP Certification with several of their staff already completing PCP requirements and the rest planned for later in the year. "I wish people would realize that if they go for the lowest bidder, they're going to get what they pay for," said Segura. "Anyone thinking about working in, or already in the sprayfoam industry, needs to look at the training manuals and realize this is serious business. It's money and time but we're going to do it, because I can't sit here and preach about it if I'm not doing it."

Many more resources, pictures and background information on other parts of the renovation project are available online, including video of the project on Southwest Spray Foam's website, coverage in *Su Casa* magazine, www.stevethomashome.com, and on various high profile southwestern home websites. Just search *Steve Thomas House Santa Fe*. ○

Southwest Spray Foam is a locally owned and operated roofing contractor company in Santa Fe, N.M. They specialize in polyurethane foam roofing

and insulation with an emphasis on re-roofs and roofing repairs. Southwest Spray Foam owners, Aaron Lewis and Matt Segura, are dedicated to providing the best in complete re-roofing, roofing repair, new construction roofing and insulation services to their customers by using the most proven and reliable equipment and materials available. www.southwestsprayfoam.com

NCFI Polyurethanes was organized in 1964 by research chemist Dr. H. W. Bradley and Charlotte-based Barnhardt Manufacturing Company, and quickly became a leader in the manufacturing of flexible polyurethane foam for the bedding and furniture industries. NCfi moved into its present-day 46,000 square-foot plant in Mount Airy, N.C., in 1966. Since then, the facility has been expanded eight times to its current 280,000 square feet. NCfi offers a complete line of flexible foams and polyurethane foam chemical systems for sprayfoam-in-place insulation commonly referred to as SPF, roofing, marine floatation, packaging, specialty molding and many other uses. www.ncfi.com

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Coming Next Issue

West Roofing Systems, Inc., winner of the 2013 Annual SPFA National Contractor Excellence Award for SPF Roofing Over 40,000 SqFt., will be featured in the next issue of *SPRAYFOAM Professional*.