Steering the white bio-diesel pickup truck around a curve on Coyote Canyon in the Tea Fire burn area, Bryan Henson (MESM 2003) points to a low-slung modern home standing intact and untouched amid an otherwise black and barren landscape. “That’s one of ours,” says Henson, an associate at Allen Associates, a local building firm and one of the leading sustainable-building experts on the Central Coast. Standing in surreal contrast to the foundations of destroyed homes nearby, the undamaged residence underscores the importance of fire resistance as an aspect of sustainability.

The two-year-old home survived thanks to intelligent design, smart materials, and sensible landscaping. Henson’s boss, Dennis Allen, explains that when the flames swept across the property, they encountered no tall trees and a structure made of non-flammable surfaces. Some railroad ties used in the garden did burn furiously, and firemen estimate that the outside temperature approached 1,000 degrees Fahrenheit, but because the home was sealed and well-insulated, the indoor temperature, recorded by a sensor, never rose above 84 degrees.

For Henson, applying science to making buildings that are more efficient and, like this one, more fire-resistant, is the perfect job because it allows him to combine his two passions—building and science—“by bringing science into the built environment.”

Allen Associates does that particularly well. It has won every one of the 11 green building awards given annually by the Santa Barbara Contractors Association, and it regularly constructs buildings that are 90 percent more efficient than California’s Title 24 guidelines require.

With the green building sector currently one of the only bright spots in the construction industry, companies like Allen Associates, which entered the sustainability arena early and continue to push the envelope as the greening trend builds, stand to gain. “Half our work now comes to us because of our green expertise,” Henson says.

But he would prefer to see that number grow to 100 percent in a world where green structures have gone from being unusual to ubiquitous. “Green building should be the standard,” he says. “Getting from where we are now to where we need to be is a big job, but it’s a field that’s ripe for people to come in and be leaders.”

The son of a Santa Barbara home remodeler, Henson grew up learning the construction skills that would eventually put him through college. After earning a BS degree in environmental studies at Cal State University, Humboldt, he received his MESM degree at Bren, then went to work for AIG Insurance, where he used his science but missed building. After helping a friend start a construction company in Humboldt County, he returned to Santa Barbara, contacted Allen, who is a member of the Bren Dean’s Council, and was hired.

“Bryan brings a lot to the table,” Allen says. “Our associates are field managers for various projects, and he advanced to that position after just a year. We’re using him more in marketing and sales, and in management-level decisions. It’s a path we see him taking increasingly. He’s thoughtful and creative, and he loves the challenge of putting new things together. He’s good with people and goes the extra mile for clients. That’s something our industry often falls short on, but it heads off enormous problems. He has a lot of elements of the visionary.”

As an associate, says Henson, “I specialize in all the green building practices we do.” That includes heating and cooling, insulation, water-saving devices, and even determining the “aspect” of a building, which refers to orienting a structure on a site so that it requires less energy for heating and cooling. Last summer Henson worked with intern and Bren MESM student Jesse Fulton (MESM 2009) to write a green-guidelines manual for internal and external use, and he regularly collaborates with Bren alumnus Daniel Wilson (MESM 1998), who has his own landscaping company in Santa Barbara and designs and installs water
The Tea Fire burned nearly everything in its path but left this “smart” house unscathed.

Henson
continued from page 15

catchment systems for Allen Associates projects.

Just as his involvement in green construction and design allows Henson to combine his interests, so too, he says, did his Bren School education integrate elements important to his current work. Like many alumni operating in the real world of business and clients, he now appreciates classes he didn’t necessarily love while at Bren.

“I went to Bren as a scientist and was then introduced to negotiation, organizational management, and the policy aspects of sustainability,” he recalls. “It opened up a whole new world. I’m excited about business because it allows you to have a big impact on the environment and on people’s lives.”

Working for Allen Associates, he has also discovered a previously unrealized passion for the duties around conducting business, including making sales.

“Bren actually produces really good sales people,” he says. “We’re taught to look at problems from all sides and to see how a challenge can be turned into an opportunity through creative thinking and application. That’s a core tenet at Bren. Because we studied Earth sciences, I’m able to talk about things like vapor permeability in a way that most builders can’t, and to explain to a client that it’s not OK to use a low-vapor-permeability surface as an envelope on a house—and why. I’m able to apply that science to what we’re trying to do, so having that background is big.”

As a bonus, he’s discovered something else: “I get a real high closing a deal.”

Heading from the Tea Fire area back to the Allen Associates offices via an attractive residential street near the Santa Barbara Mission, Henson gestures at the homes we’re passing on both sides. “I see every one of them as an ‘Earth system,’” he says. “All the same elements are working—water, energy, air flow, convection, conduction, humidity—just at a much, much smaller scale.”

In February, 18 victims of the Tea Fire were considering hiring Allen Associates to rebuild. Henson hoped to collaborate with some of them as clients, and with architects, subcontractors, and his own project team to use science to build homes that will be green and stay that way, even if the land around them burns to black.

[Image of house]