Building a home together in challenging times

By Jodi Schneider

Correspondent

After a sudden and disorienting national shutdown, many of us are at home a lot more than we are used to. As the days pass, you might find yourself wanting to engage in more productive activities.

Partners Julia de Castra and Michael Grant have taken the word "productive" to another level, diving headfirst into the world of design, building their own unique home stud by stud on the outskirts of Sisters.

"In these challenging times with many stuck at home, Julia and I are so grateful we are forced to work outside and stay focused on building our shelter," Grant told *The Nugget*. "The work is grueling, but we cannot complain."

Grant is a trained Passive House designer from Santa Fe, New Mexico.

Passive House (known as Passivhaus in Europe) is an advanced energy-efficiency standard that produces buildings and houses with superior indoor air quality and thermal comfort, reducing required heating energy use.

The program was first developed in Germany and is quickly becoming a standard in many parts of the world. A passive house is designed to be extremely energy-efficient so that it doesn't take a lot of power to heat or cool.

Grant, a philosophy major, became fascinated with design building and got hooked on green sustainable design.

Grant said, "It's a design protocol that is cutting edge with up to 90 percent home energy reduction. It's a building science focus."

Most of the Passive House work takes place in the design stage, because every system needs to work together to produce the benefits of the methodology.

Grant was about 28 when he apprenticed with a

designer builder in Santa Fe.

"I basically worked on at least 100 houses. I also learned drafting and design and self-studied in architecture along with Computer Aided Design (CAD)," he said. "That led me into design build with over 20 years' experience."

De Castro grew up in Brazil.

She said, "We met at the wedding of my oldest brother and Michael's half-sister in New York in 1990. We fell in love and I moved to Santa Fe with Michael and he built us a beautiful home there."

De Castro loves to cook and enrolled in culinary school as a hobby, but eventually landed in physical therapy.

The couple relocated to Sisters four years ago.

"We visited the Pacific Northwest on and off for years," De Castro said. "We wanted to live there, but we didn't want the rain."

De Castro noted that she knows a lot about homemaking and that this is the first time she became involved in the building process itself.

"This has been really invigorating, and really hard," she explained, "It's been beautiful and awful with great and sad moments, but mostly it's been rewarding and I'm finally finding my beat. The silver lining is we are really expanding our communication skills through all

"My favorite part of building so far has been framing. The whole foundation process was pretty brutal with a lot of digging, dealing with dirt and rocks. I can see why carpenters love working with wood and there is something very magical about the whole framing process. I've been noticing that adaptation and acclimatization play a huge role in my experience of the different building chapters. For example, working on the roof has been quite challenging even though I never



Julia de Castra and Michael Grant are building their Sisters home by themselves in isolation.

felt really scared of heights. And now that we have done a few of the framed roofs in the house it is becoming less scary."

De Castro is excited about the triple pane windows.

Grant noted, "As soon as you go to a super insulated home then you need to match that with your window performance."

But there is something very unusual about these triple pane windows: They have a spider web coating.

De Castro said, "One of the top three killer of birds is glass collisions and we have integrated a unique technology for our windows that originated in Germany."

Orb weaver spiders, common worldwide, build their distinctive webs using strands of silk with UV reflective properties. Because birds can see ultraviolet light, the reflective threads prevent them colliding with the web.

The windows are made of glass sheeting with a

special ultraviolet (UV) reflective coating that is almost invisible to the human eye but looks like a spider's web to birds, so they most likely won't collide with the window.

Grant needs loads of equipment to build, such as scaffolding and a forklift.

"Kris Calvin who runs Earthwood Timber Frame Homes of Oregon has helped us out by lending us equipment," he said. "We horse trade; I help him raise the timber frame houses when he's building, and he lends me the right tools.

"Plus, we've been delighted by our local Sisters-based Deschutes County building inspector, Todd Russell, who shares our interests and is a complete and very knowledgeable energy geek himself."

With a lot of luck the two hope to have their Passive House two-bedroom 2,500-square-foot home completed by December.

Students win \$500 for safety video

Students at Sisters High School won \$500 for their first-place video titled "Canteen Catastrophe" in an annual safety video contest that promotes young worker safety and the importance of speaking up.

The winning video, which is in a one-shot-style format, follows a worker — played by Shelby Larson — as she walks through a workplace kitchen noticing hazards, but not speaking up. The video rewinds to the beginning and the worker informs someone about each of the hazards so they can be fixed.

The members of the winning Sisters High School team are: Jackson Griffin; Shelby Larson; Colton Seymour; Skylar Wilkins; Sydney Wilkins.

"We chose this part of workplace safety because most of us have jobs in the food industry and so these are real problems that we encounter every day," said Sydney Wilkins.

Sisters High School also won a matching amount of prize money.

"We think this message is good for teen workers because if they find themselves in an unsafe work environment and don't speak up, they can possibly get injured," said Jackson Griffin.



