

A Country Creation

Small-town company tackles large-scale sign

BY JENNY IVY BYRNE



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DAWN VANDERWARKER, owner and sole proprietor of Creative DeSIGNS & Concepts in Kingsbury, N.Y., always designed and manufactured her signs the old-fashioned way—carving by hand the delicate details of custom dimensional projects.

Working out of her home garage in a small town, VanDerwarker, 43, could take on just about any sign project that came her way via word-of-mouth referrals. That is, until the Word of Life Inn & Family Lodge presented her with a challenge that would require more than a skilled set of hands.

Following contracts for a series of dimensional signs—a 3.5' x 7.75' sign for the inn's lobby and a 5.75' x 14' sign for their auditorium—the religious organization asked for a behemoth assignment to replace their old entrance sign, which had been a landmark in the town for 30 years. They wanted the new sign to be in sync with their interior remodel that reflected the surrounding Adirondack Mountains.

"My heart pounded," VanDerwarker says. "I couldn't believe I might get the job to replace this huge sign. The old sign was 8' x 22'. The excitement was indescribable, a sign this big... and carved!"

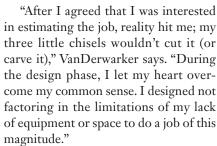
VanDerwarker began to estimate the cost and effort it would take to tackle a sign of this proportion. She soon realized it was going to require more work than anything she had ever done.



The process to cut the word plaques on all three signs included four paths for bit changes: A 3/4-inch end mill to rough out the letters; One-fourth inch end mill, which cleans the letters up; a 60-degree V-bit to add the texture of the wood grain, which was designed in Flexi; and a ¾-inch end mill, which was a finishing path to clean up the frame that housed the wood grain.



Founders plaque.



Her first instinct was to purchase a Grain Fraim and sandblast the three signs in order to get the wood-grain effect and then hand-carve the scenery. Unfortunately, February in upstate New York is not very forgiving for work in a garage, and VanDerwarker didn't have the power supply needed, anyway. She realized she would not be able to meet her first delivery deadline in mid-March. She would need to upgrade her tools in order to get the job done.



A CNC Shark Pro Plus routing system was used to carve out the dimensional design.



Adding side two.



Main plaque.



Dawn VanDerwarker, owner and sole proprietor of Creative DeSIGNS & Concepts in Kingsbury, N.Y., works out of her home garage to create a series of dimensional projects for Word of Life.











"Knowing I needed to do something to get these signs done, I ordered through Amazon a Rockler 28 1/2-inch by 36-inch CNC Shark Pro Plus routing system for \$4,000."

The purchase did two things for VanDerwarker: It allowed her to complete the project much faster than a hand-carved approach—the production process for all three signs was less than five months—and it paved a new route for her business to be able to produce more signs at a much faster pace.

But first she needed to learn how to use the thing.

Made of steel and high-density polyethylene, the CNC Shark Pro Plus is a computer-controlled router that uses VCarve Pro software. It's ideal for carvings, doors and signs.

"Luckily, years prior, I worked as a scenic artist at Dunham Studios in Pottersville, N.Y., where there were people of many talents and skills, and luckily one of my friends from there had dabbled with the CNC router."

Her friend, Fletcher Conlon, stepped in to help complete the sign, overseeing the technical process (although he isn't completely proficient with the software, "If he doesn't know it, he knows how to figure it out," VanDerwarker says).

The end result was a 15' x 8' x 6", two-sided sign constructed out of 15-pound high density urethane (HDU).

"My main supplier is NEPCO based out of Providence, Rhode Island,"

The end result was a 15-feet-long, 8-feet-high and 6-inch-thick, two-sided sign constructed out of 15-pound high density urethane (HDU).

VanDerwarker explains. "All the paints I use are either 1 Shot or Ronan brands sign paint. To design the initial layout, I used a combination of Flexi 8.5 and old-fashioned hand sketching for the scenery. I also designed and vectorized the woodgrain in Flexi. When it came to CNC routing, VCarve Pro was used for the two-dimensional aspect of the sign, and Cut 3D for the three-dimensional. Other programs, such as Sculptris, Netfabb and MeshLab were also integral in designing the dimensional aspect of the scenery."

As for the text section, VanDerwarker says each side of the sign was done in four panels, which had to be laminated together with urethane glue. "Each of those panels was tiled four times in 22-inch tiles. Each of those tiles had to run four passes with different bit changes. The reason for the tiling is the bed of the CNC I purchased

could not handle the whole length. "For the interior of the sign stability," she continues, "I used a combination of seven individual 1/4-inch by 36-inch steel flat bars purchased from Lowes and numerous strips of 2-inch by 4-inch, 15-pound HDU."

The upper and lower half circles were 5" thick with recessed scenery. The half circles each were approximately 2.5' x 7.5' feet long. Steel rod was embedded in each half of these circles to add structural integrity, as well to help with placement when putting the whole sign together. Also, on each edge of the half circles were recessed L brackets that would help secure the half circles to the main word plaque with three-inch-long, 5/16-inch bolts. "On the upper and lower half circles, the background scenery was routed in tiles, then touched up with hand carving, while each piece of the foreground scenery was

carved individually via CNC router and placed together to build the scene."

A one-woman business, VanDerwarker says she can do everything but the installation, and considering the four main upright posts to support the sign are white cedar (the largest one is 18 inches in diameter) and the horizontal supports are red pine trees harvested from the property, it's no wonder Word of Life recruited their own team of volunteers to set up the entrance sign.

"Due to my workspace limitations, and how huge this project was, I could not assemble the sign in its entirety to see how it all looked," VanDerwarker remembers. "I just kept my fingers crossed on installation day." **SDG**

