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November 2005

SIGN Business

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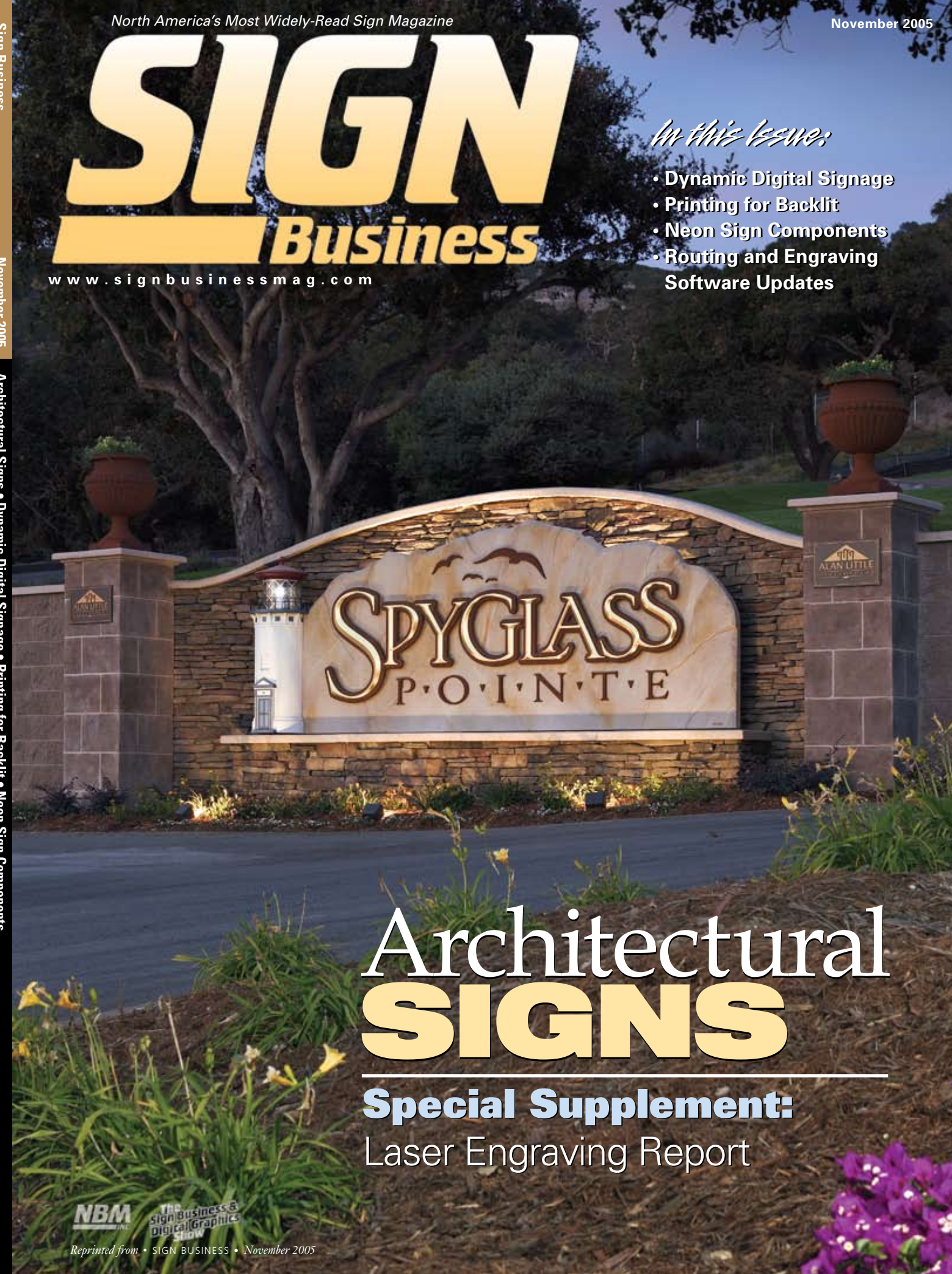

Architectural SIGNS

Special Supplement:
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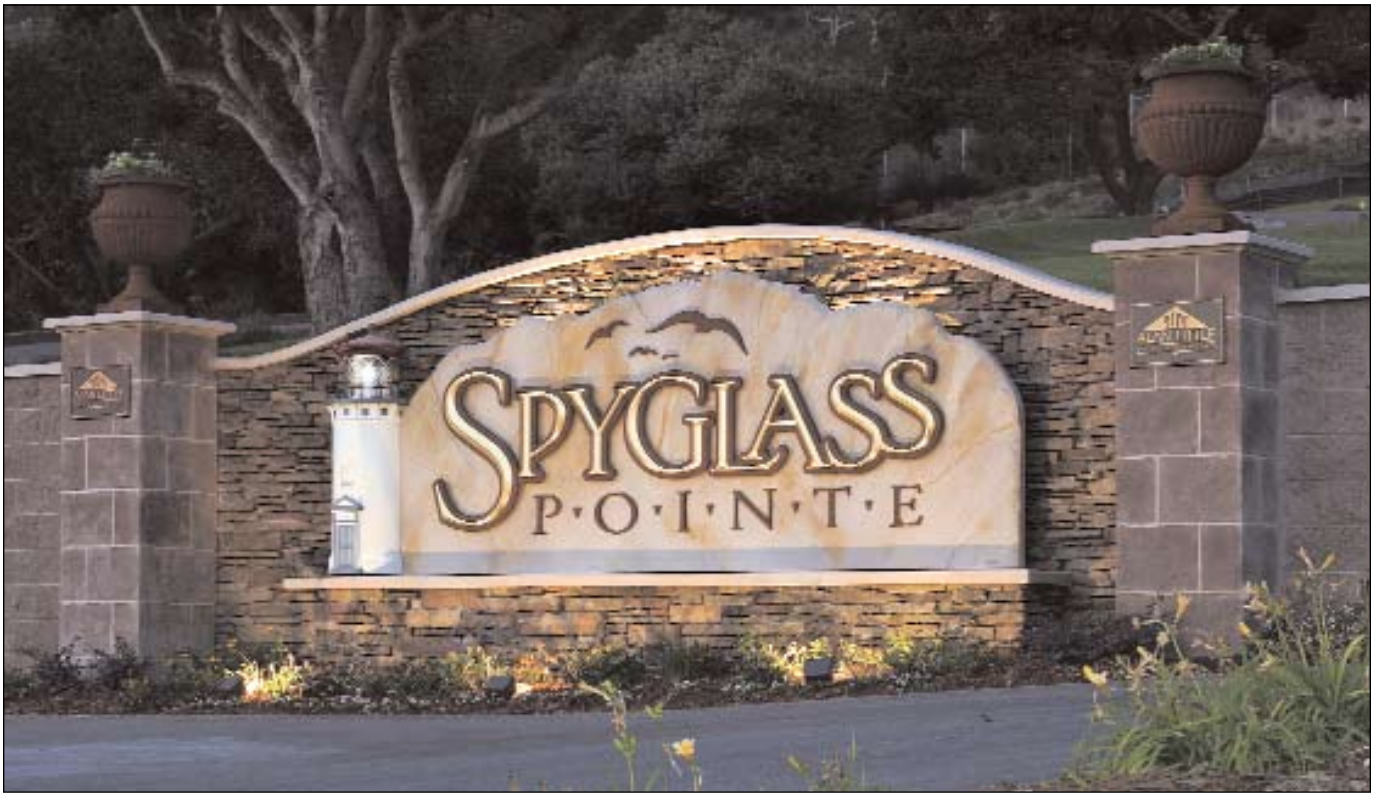


The Rock

BY DAVID MCDONALD

Building a monument sign with specialty lighting for increased drama.

David and Robin McDonald own and operate Avila Sign & Design, a custom sign shop in Grover Beach, Calif. They may be found on the Internet at www.avilasigndesign.com.

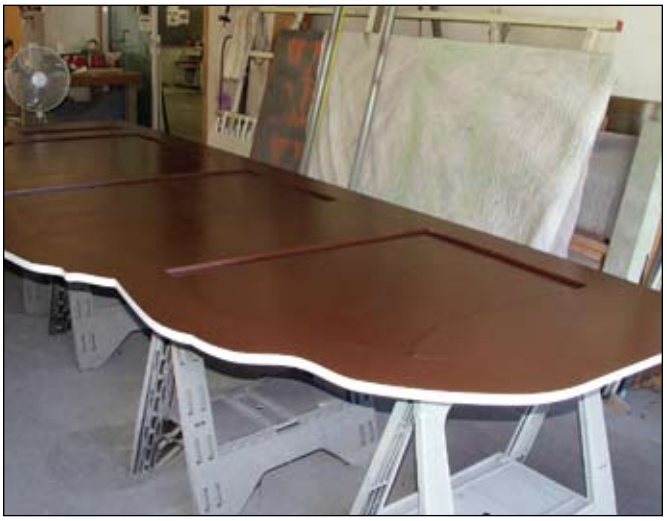
MY FAMILY just left to go to the local harvest festival held annually here in the village of Arroyo Grande. The house is now quiet and I am alone sitting here staring at the computer monitor in my home office. It's time for a new article for *Sign Business* magazine and I have a deadline to meet. Actually my editor has graciously allowed me more time on this one so I have no excuses. I took plenty of photos and documented the steps as I worked like I usually do when I decide to write about a project and here they are right in front of me ready to go yet I am at a loss for words! I have encountered what is known as writer's block. It's safe to say that stress is probably the culprit here. I have seen it happen in the form of other things as well. Like when I need to come up with a nice design or solve a fabrication issue at the shop and feel utterly clueless. But inevitably I find the solution to the problem and work it out and I'm sure I will with this writing as well.

In fact I'm now thinking about how I came up with the idea for the design on the Spyglass project so without any more rambling I believe I just processed myself through the block—I'll start there!

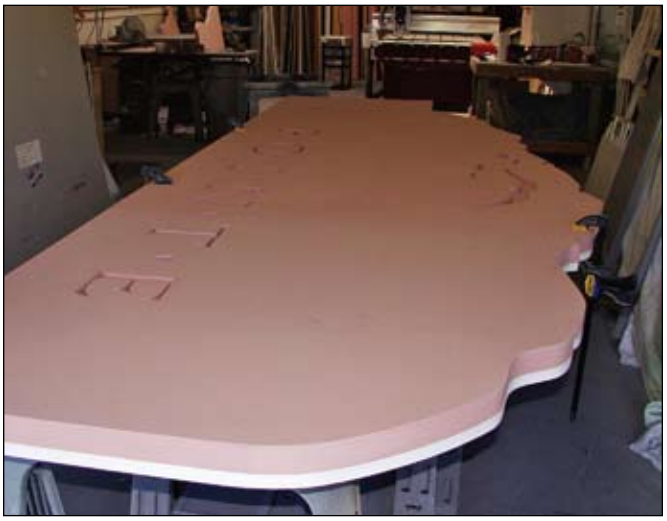
COFFEE, THE POND & THE IDEA!

The Spyglass Pointe project was a pleasure to fabricate and building the lighthouse was a lot of fun as well. I must say that the rust and gold combination is definitely one of my new favorites together. The warmth of the rust is picked up in the shadows of the gild and is striking. The idea came to me while I was enjoying a cup of coffee in my backyard at home sitting next to our pond. While sitting there listening to the water I was checking out the different rocks that surround the pond and thought that the sandstone slabs would make a nice background for the monument sign that I was faced with designing. I had already created the copy for the sign and the client had requested a lighthouse theme.

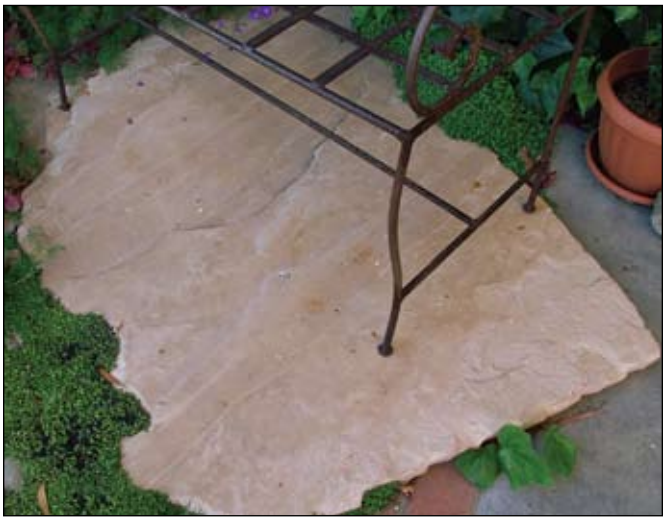
Missing were the elements that would hold it all together. Originally I had



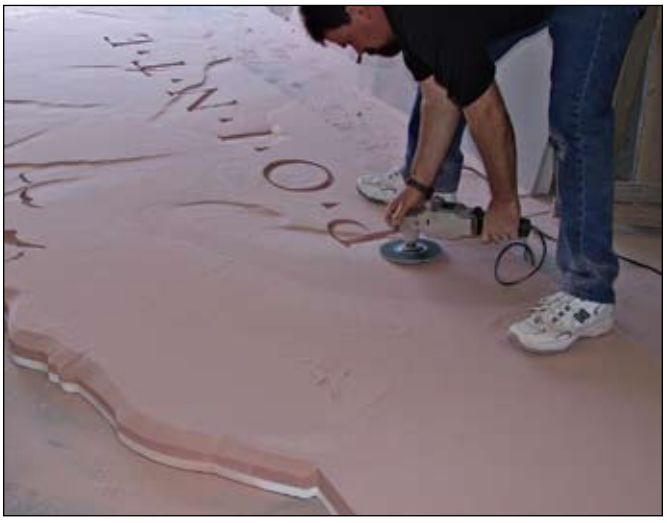
Using the router we cut a backer out of 3/4" marine plywood. The edge was reinforced as well as the areas where the sign will meet the 3" pipes during installation. It is easier to paint the back first and this method has become standard practice in our shop.



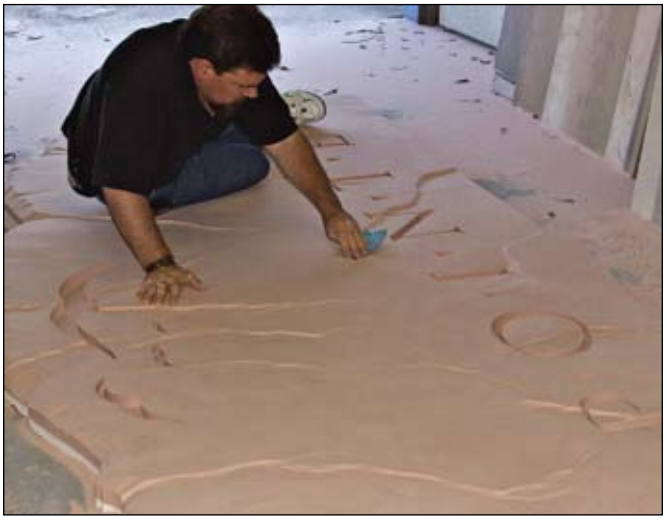
Two-inch SignFoam (10-lb.) has been router cut and epoxy glued to the backer.



The rock slab at our house by the pond. I used this photo as my study to render the urethane faux slab.



Here I am bending over the slab with the L-head grinder. Fortunately for my back this step was complete in about 1 1/2 hours.



It took me just as much time to hand sand the grinder marks free from the slab.

I painted the slab with three values of stone colors. Here I am spattering the pore structure with an old brush using some light and darker values. I finished off the slab with a taste of iron oxide (rust).

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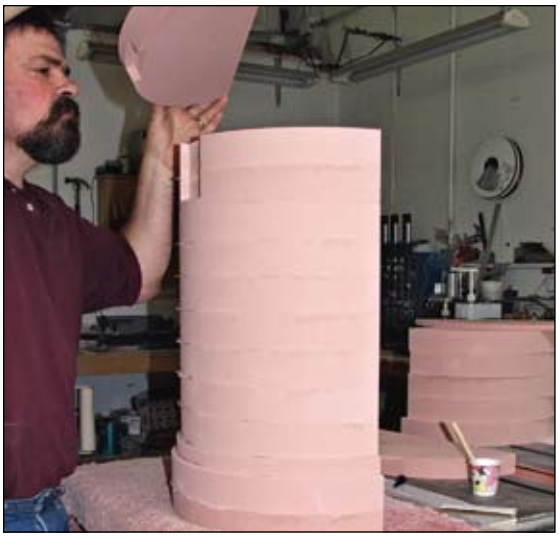
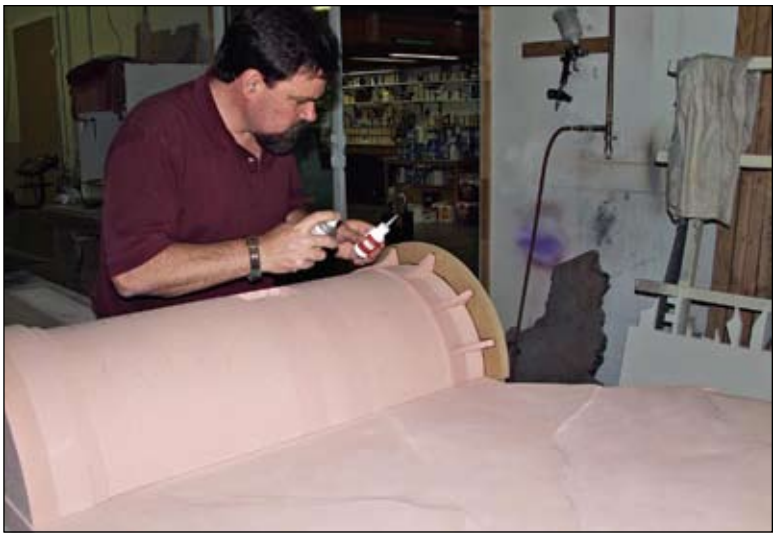
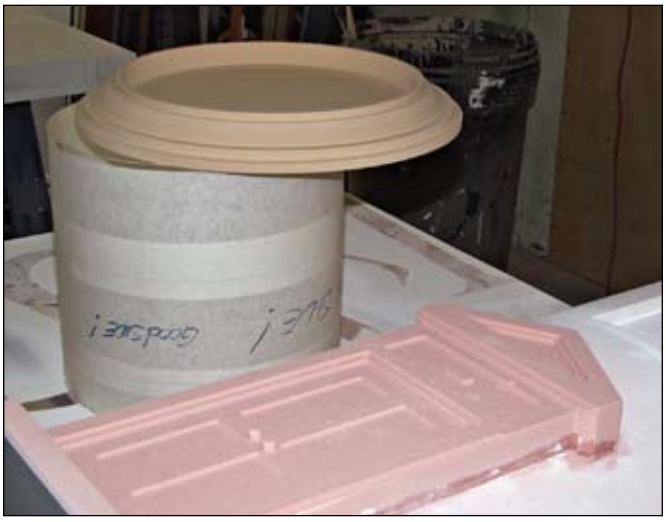


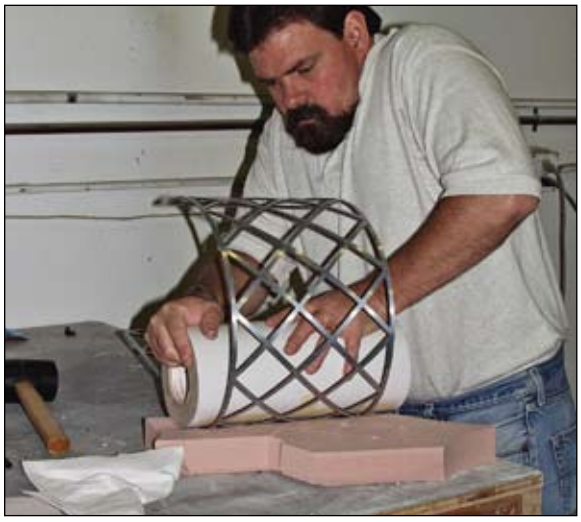
The main body of the lighthouse was created using 20 pre-cut urethane half circles. These were glued together with epoxy and tack welded in place using cyanoacrylate glue.



The catwalk surround was cut from 1" Extira making it nice and durable. The photo shows me gluing the gussets in place.



Here we see some of the parts created for the lighthouse. The doorway was cut on the router and glued to the main body. The 1/8" clear acrylic cylinder was masked to keep from scratching and cut to the right length with a band saw. Also, we see the bottom piece of the top (roof) this was cut with the router as well.



I shaped a large groove in a piece of scrap urethane to help me create the circle needed for the diamond cut-out rectangle. A heavy roll of sandblast resist aided in this hand-forming technique.

designed the monument sign as a lighthouse perched on a mountain of rocks like one would see along a rocky coastline. This design was more vertical but the property required the architect to change my drawing of the wall to encompass a longer horizontal retaining wall. I needed to switch gears and create something shorter and much longer in profile. Spyglass Pointe is located next to the Pacific Ocean and is surrounded by the coastal range of mountains. It was at the pond while sipping coffee that it dawned on me that I could create a mountain shape out of a single rock placing the lighthouse at one end. I could envision the sandstone slab as a background to hold the elements together and the color was perfect for this project.

LET THERE BE LIGHT!

The design consisted of three key elements; the wall with columns, the mountain range-shaped rock slab and the lighthouse. Because the wall was to be made of rocks as well, I wanted to be sure that the mountain and wall would be contrasting each other so that the shape of the mountain would be realized. I chose to design the wall with a curve between the columns. This radius would create more distance between the mountain and retaining wall, offering more contrast. Showering some light from behind the mountain slab would create more interest at night and would heighten the contrast as well.

To keep the integrity of my design, the lighting on this project was very important. The lettering is gold leaf and requires very soft lighting. Too much will tend to blow out the gilded letters rendering them hard to read. The placement of low voltage can lights behind the mountain slab was important so that the silhouette of the mountain would not get lost in the dark. I had some LED lights from Permlight that were left over from a previous job that I wanted to use in the lighthouse but I needed them to come on slowly then go off slowly to create the illusion of a real lighthouse lens turning. I called my friend, Scott Preston, who is an absolute genius and asked him if he could create a circuit board to make the LED lights function as I stated. I dropped the lights off with Scott and within a few hours he had me come over to his shop. As

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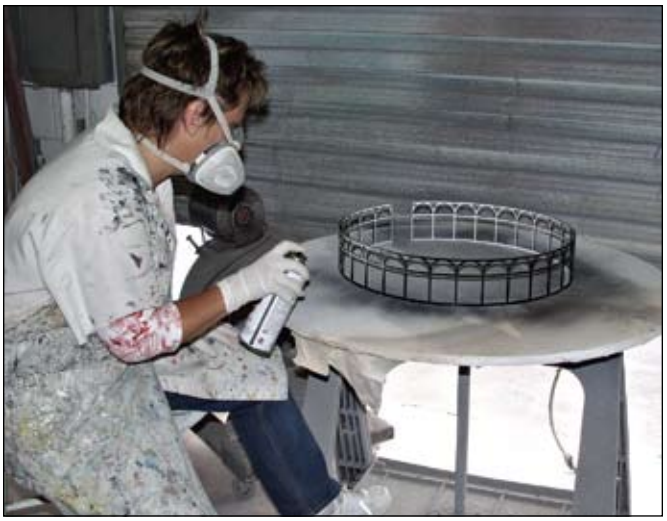
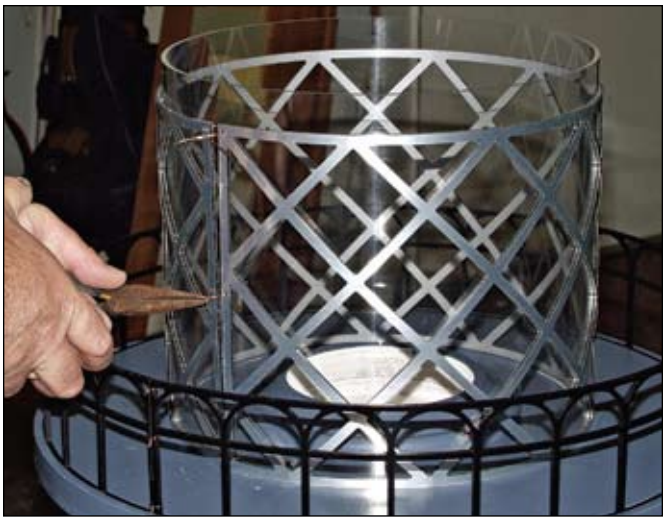
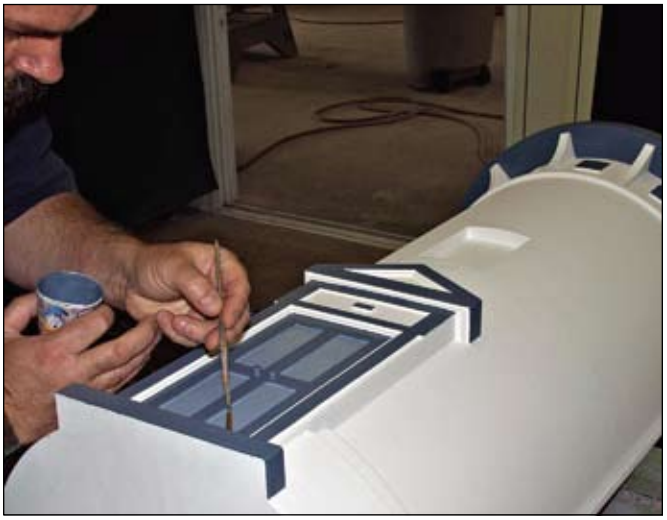


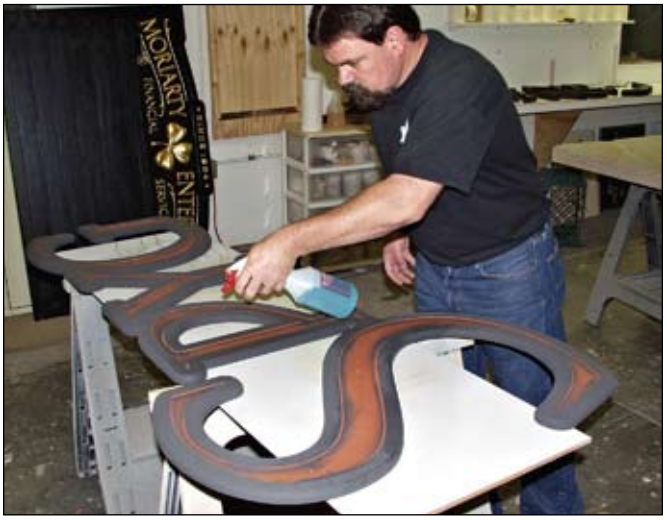
The Dibond handrail gets a black coat of paint. I gently hand rolled the handrail around the acrylic cylinder to get the shape that I needed.



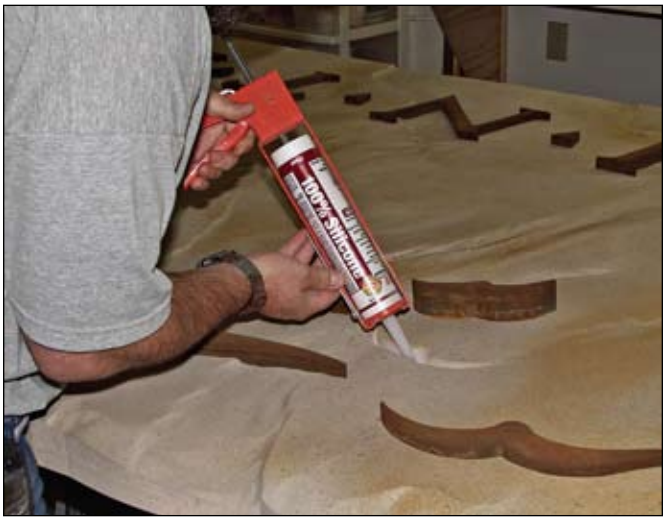
At the back of the lighthouse, the handrail and cylinder shroud were both tied in place with copper wire making for a snug and permanent fit.



The lighthouse gets a fresh coat of colonial blue paint.



The 1/2" Sintra letter pads have been pre-painted with an iron paint and allowed to dry overnight. This photo shows me spraying the acid on the gray iron to turn it into rust.



The pre-cut and rusted elements are secured into the inlayed areas with silicone adhesive. The close-up shows the different edge heights of the letters making for a solid appearance.

I walked in he had me turn off the office lights—and, lo and behold, there before me the LEDs were dancing on and then off again in a smooth action as I had envisioned. He even built the circuit so that we could adjust the speed with a turn of a screw—well done Scott!

CHIPPING AWAY AT THE STONE

The rock slab was pretty straightforward to create as I had the real slabs at home around the pond to use as my study. Using the Gerber router I cut the 16' slab out of 10-lb. SignFoam3. The router was used to cut out the silhouette and to create the inlayed female parts for the word "Pointe" and the seagulls. The 5' x 16' blank was epoxy glued to a pre-made 3/4" marine grade plywood backer.

The rust and gold combination is definitely one of my new favorites together.

Using an L-head polisher grinder outfitted with a 40-grit wheel, I stood over the slab and began creating the faux rock slab. I accomplished a realistic look by softening the edges of the slab and cutting high and low areas like thin flakes as I referred to the photo of my study. The process of cutting the 10-lb. HDU with the grinder went very fast and took about an hour and a half to complete. I was happy it didn't take much longer as my back couldn't handle much more!

I then sat on the slab and sanded out the foreign circular shapes by hand. As a base the slab was primed and painted a puppy's belly color. Using a large worn out house brush I followed with pore structure for the stone effect, spattering various shades of neutral rock color. What really made the faux rock shine was the introduction of iron oxide (rust) and that was accomplished using the Sophisticated Finishes by Triangle Coatings. Using an HVLP spray gun, a mist of iron surfacing paint was lightly sprayed over the rock, followed by a wet coat of acid. By the end of the day the "rock" started to take on a very warm tone and was looking like a rock.

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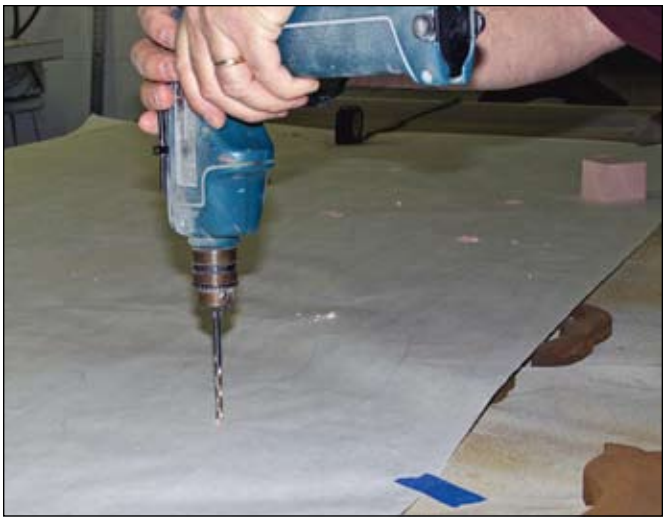
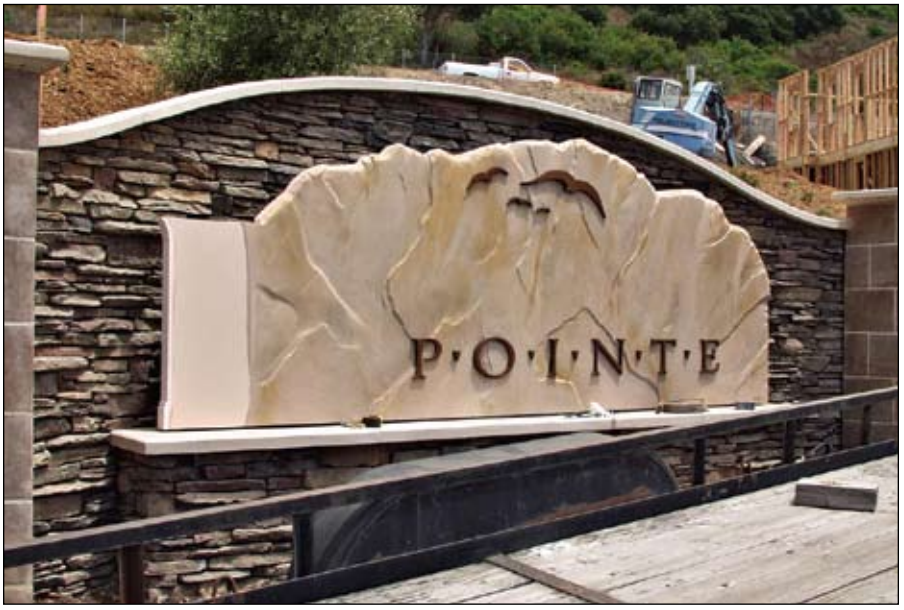


A pattern is laid out and the slab is pre-drilled to accept the all-thread studs for the word "Spyglass".

Quarter-inch all-thread is glued to the Sintra with cyanoacrylate glue.



The installation was tackled by cementing four 3" galvanized pipes in the base. The slab was secured to the pipes with galvanized brackets from behind. The stud-mounted letters were applied after the install with polyurethane glue. For the lighthouse we merely siliconed it in place.

The finished sign, less the lighting fixtures and landscape treatments.

THE LIGHTER LIGHTHOUSE

I won't lie—creating the lighthouse was pretty intense and involved! A big part of the challenge was finding items I could use for parts that would be at the right scale. Once the parts were located I could proceed. I created the main body, doorway and the top finial out of SignFoam. I cut 20 half round pieces of 2" 10-lb. SignFoam and stack-glued them together to create the lighthouse body. I forgot to keyhole into some of the half round pieces to allow for the doorway to be glued in on a flat surface. Instead I had to sand the curve out of the back of the doorway to fit flush with the contour of the body shape—big mistake as this took more time.

The catwalk between the body and top was cut from 1" Extira and a 1/4" groove was cut in the rim to receive the Dibond handrail. The clear cylinder was the hardest thing to find—a 2' x 13" acrylic cylinder from McMaster-Carr was the answer. Using a band saw, I cut the 2' cylinder to the 15" length needed. Silver Dibond was cut on the router in a diamond shape pattern. The rectangular diamond shaped cut-out was hand rolled and wrapped around the clear cylinder to emulate the individual windows found surrounding the lens on a real lighthouse.

For a secure fit I used copper wire to tie the silver Dibond around the cylinder. The same copper wire method was used to secure the Dibond handrail to the catwalk. I used an old vase for the lens and it even had facets that would bend and

reflect the light. The Permlight LEDs were fashioned into a stacked array and held together in a housing made of Dibond.

RUSTY-GRUNGE AND GLITTER

The "Spyglass" lettering was cut as an inlay to be glued into the 1/2" Sintra pads. The lettering was gilded with 23-karat gold leaf. The 1/2" Sintra outline and pads were finished with Sophisticated Finishes iron surfacing paint and then sprayed with the appropriate acid. Within a couple of days the pads turned a nice dark rust color. All-thread was cut to 4" lengths and cyanoacrylate glue was used to glue the all-thread to the pads in pre-drilled holes. A pattern was created and placed onto the slab. Using the pattern, the rock slab was drilled and the stub-mounted pads were glued in place with urethane glue. A uniform height was achieved by drilling to the plywood backer as a stopping point, the all-thread studs were cut to the same length—enough said! Silicone adhesive was applied directly to the rusted letter pad inlays and the gilded letters were pressed firmly in place, making for a permanent bond.

Well! My family has been back from the festival for quite a while now and the house is once again filled with energy and happenings, and through it all I have been able to pull my thoughts together enough here to share a little bit about another project. We can all get blocked in some way or another and sometimes it can be at the worst possible moments. The next time it happens to you whether it's regarding a design, color combinations or anything, start off with the simplest approach first. I'm sure it will ultimately lead you to a fine finish!

Until next time…

Thanks for listening!

SB