A Not-So-Permanent Permanent Sign

BY DAVID MCDONALD

Solving design problems using your head and the right products and materials.

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HERE IS THE SITUATION. A client wants a free-standing low profile sign to be designed, produced and installed for his property. The sign will serve as a wayfinding system for the viewing public. I had quite a few hurdles to jump over and many problems to solve in delivering what this client was asking for. There was a map of the property that would be used on the sign, and a directory for up to 16 tenants that could occupy the property (only half occupying at the time). The name of the property and a *For Lease* with phone number sign also needed to be incorporated into the design.

Having these criteria to work with created many problems for me that I would have to solve in order to make this sign work as the client intended.

MAKING THE DESIGN WORK

It is always easy to view a design after its completion, and as a first time viewer of said design, take for granted the choices necessary to achieve the final result. Believe me, though the sign looks simple it was not easy to design, staying within the parameters of the client's requests.

The sign was proposed to be 4' x 8' long and could not be much taller than the established 4' height. Unfortunately the map had a vertical format which made the design more difficult because of space limitations.

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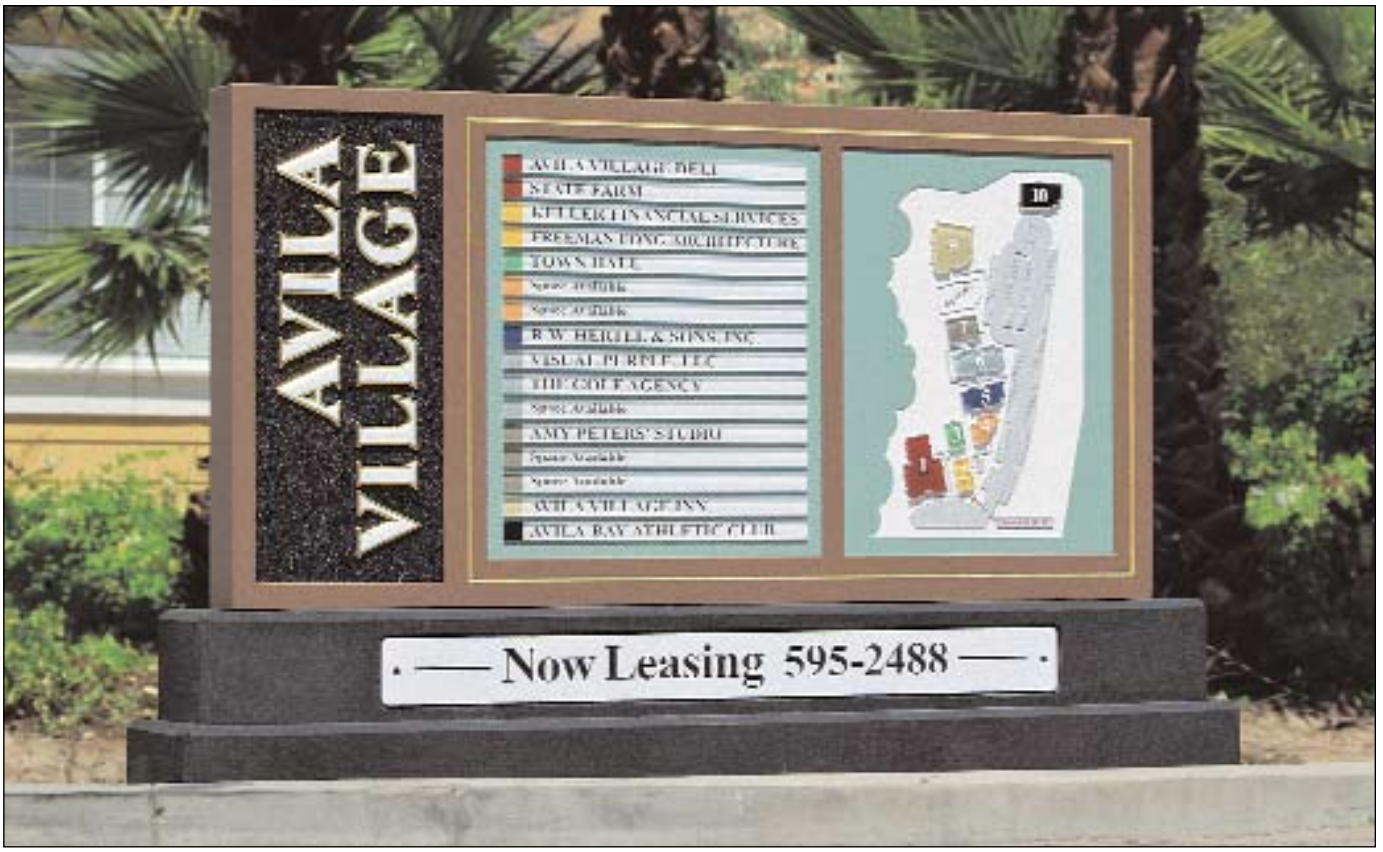
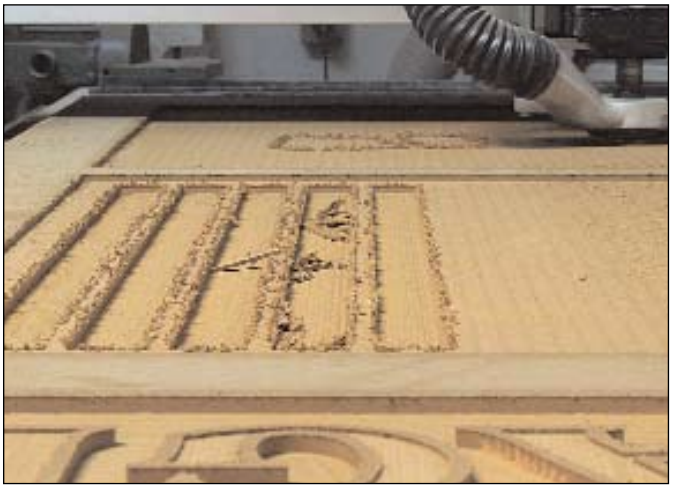
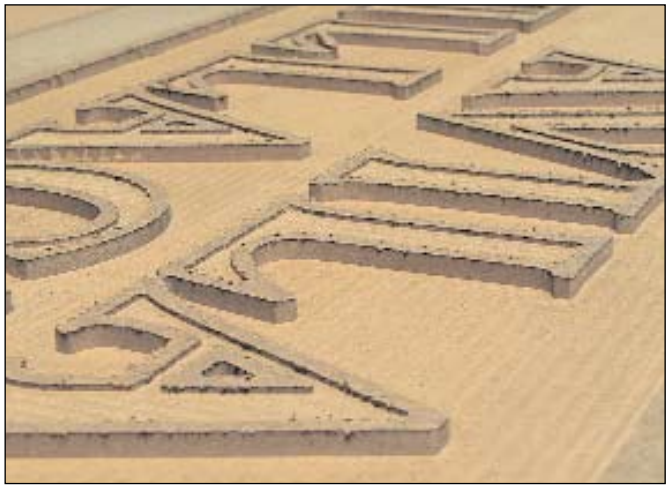


The finished sign installed onto the concrete base. The "For Lease" panel was attached using 3M Dual Lock. A "Welcome to the Village" sign was made to replace the "For Lease" sign when there is full occupancy on the property.

This is the sample piece that was soaked in water for over two weeks. After one week of soaking, it was left to dry out and half was primed and painted to be soaked another week. As you can see it held up very well!

Machining the sides and top for the box. Simple cuts like this do not pose too much extra labor with sanding. Cutting the Extira was smooth and steady using a two-flute up cutting type router bit.





Here we see that there will be plenty of sanding involved to clean up this job. The map area had some tiny details that held an edge pretty well. It only takes a few swipes to clean up the edges, but in this situation there were a lot of edges!

The box all sanded and ready for primer and paint.

This photo shows the sign with the base colors applied and the 3/4" supports epoxy glued in the center. Note: because of the sign's weight, it stayed in this position to work on through the entire process. The back was painted in the end after the face was finished.

Black smaltz background housing a gold leaf outline of the letters. A 1/4" white acrylic letter was glued into the inlay using silicone adhesive.

A detail shot of the map and some of the fine details cut into the Extira product. The outlines of the buildings serve as a foundation and inlay.

The 1/2" clear acrylic buildings and plaques are painted to match and are all done on the second surface (back). Vinyl letters are cut in reverse and applied to the plaques followed with a coat of white paint. The pieces were then backed up with white vinyl to eliminate any adhesive bleed that can sometimes show through on second surface work.

A close-up of the recloseable 3M Dual Lock fastener. It works great for low profile repositioning of elements in outdoor situations. I routed a 3/32" inlay to keep the plaque snug when snapped into place.

The intention was to have the viewing public be able to view and read the sign from their car as they drive by only to stop long enough to get the information they are looking for — and this is a distance of about 15' to 20'. The only way that the map would be readable from that distance was if it could take up the whole 4' height. There were also 16 tenant plaques that needed to be on the directory and after doing the math I realized that for the sake of readability the names would need to occupy the entire 4' height as well.

This would yield a 1" letter!

Some of the names were very long so the line length would take up quite a bit of space horizontally. So where do I put the name of the property let alone the *Now Leasing* part of the sign? The *Now Leasing* sign could not look like it was an after thought and the client wanted it to be incorporated into the sign system. But I was running out of space!

At this point it was obvious that the *Now Leasing* part of this sign could not be on the main 4' x 8' area and this was the means by which we came to the decision to make room for it within the concrete base. So as you can see, the main copy found its home on the first third of the format, running and reading in a vertical direction. This decision for the most part worked itself out on its own as this was the only space left available.

TO MAKE IT MORE DIFFICULT...

Now that we had solved the basic design of the sign you would think we were home free to start considering the production phase of the sign — such as materials that would be used, colors and the like. But it got more difficult than that. Each building had multiple occupants and the address of each occupant didn't necessarily relate to a specific building in any way that made sense with regard to a directory wayfinding sign.

What's more, the client wanted to be able to move the tenant plaques around at random on the sign; in other words, I couldn't design where the placards would end up on the sign and this would make it difficult to create a sensible wayfinding system. We couldn't employ the basic setup of including a number with each tenant placard that corresponds to a number on the building at the map. Because of the limited space, the map was just too small to allow this. We solved

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Here I am applying the plaques. Dual lock is made up of tiny mushroom heads that when pressed together literally snap together forming a strong hold that can be pulled apart and reused over and over again.

The 1/2" acrylic buildings are glued on using silicone adhesive.

this problem by using a color-coded system where the placard and the building color would match on the sign. This idea worked fine when the viewer of the sign was at the directory but failed as soon as they drove away because most of the buildings were painted very similar in value and color.

We decided to go with the color-coded system but sold the client on allowing us to make and attach large architectural numbers on each building. A corresponding number would be placed on the buildings of the directory as well. In the end the system worked like this: at the directory one could find the tenant on the placard, which was color coded; they could then look to the map and see the corresponding colored building that had a number attached. Once they left the directory and drove through the property they could identify the building they were seeking by the architectural number that was placed high on the building.

HOW DO WE BUILD THIS?!

Okay…so we know that the plaques will be removed and or moved frequently and we also know that the neighborhood landscapers have been very brutal in damaging signs we have made in the past with Sign Foam. So we will have to use a product that is quite hard and solid, yet durable. The plaques can't really have a lot of hardware, as this would make moving them very cumbersome for the client.

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Use FAST #127

I chose to do inlays for the plaques making the plaques themselves out of 1/2" clear acrylic that could then be attached with a reclosable fastener from 3M called Dual Lock. I was privy to this fastener thanks to Jay Allen's article in last May's issue of *Sign Business*. The Dual Lock would allow the client to move the plaques to his heart's content and not do any real long term damage to the sign system.

I was at a loss for what type of material to use on this box-style directory that was to be positioned over poles on the concrete base. Then I remembered a product called Extira that we received a while back — a sample piece in the form of molding. The literature stated that it was a medium density fiberboard (MDO) but unlike most MDO it was water-resistant. Extira is produced differently than most MDO in that water-resistant glue is used to hold together the wood pulp. It is a treated wood composite that, unlike MDF and wood, resists rot, termites and moisture and performs in exterior environments and is guaranteed for five years.

When we received the sample, I wanted to do my own test so I filled a coffee can with water and dropped the sample in the bath to let it soak. About a week later I pulled the sample out of the water to have a look and was really surprised to see that it had not been affected at all. The sharp edges were still sharp and the thickness was stable. I then had Robin prime and paint half of the sample and when the paint was dry I put the now half-painted sample piece back in the water for another week. Remember I'm talking about totally submerged in water. After we removed the sample and let it dry we found very little evidence that it had been soaked in water — just a slight fuzziness on the unpainted surface. After making this test I felt that we could construct the box for the directory with Extira using marine grade epoxy.

TREATED WOOD COMPOSITE

When the truck arrived with the Extira product I was reminded right off the bat just how heavy MDF can be in the thicker sized sheets. For this job I would require one 1" and two 3/4" pieces of Extira. With the router ready to go, we manhandled the 1" sheet onto the table and I started cutting the profiles necessary for this job.

I immediately noticed the routed edges were rough and flaky and started to second-guess my choice in using the MDF on this job. It machined very nicely and held the small details quite well and even though it looked pretty bad I was pleasantly surprised to see that it only took a few swipes with sandpaper to clean up the edges. Building a sign like this requires plenty of holes to be drilled countersunk and filled and this is where I found Extira to really excel. I was able to countersink my screw heads and come behind that with Minwax wood filler after which I was able to sand very aggressively with an orbital sander achieving a glass smooth finish. This was possible due to the hard surface of the Extira product.

Each piece of the box style sign was epoxy glued and screwed together and when the box was assembled I realized that we would definitely need a dolly to maneuver this sign around the shop because it was really heavy. Because the sign was so heavy and because we were afraid of it getting shop worn we decided to do all of the work on the face of the sign and only when finished would we stand the sign up and finish the back.

The Extira proved itself well on this special situation sign, but before putting it to use one should consider the extra weight and extra sanding necessary when dealing with dimensional signage. We organized in advance that the concrete contractors would be installing the sign and I'm very thankful it worked out that way!

Until next time, thanks for listening. SB

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August 2004
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