



# A Clinic on Using Black Foam Core

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In this second installment documenting the April 2014 scenery clinic, we'll take a look at the use of black foam core as a modeling medium. I first started experimenting with this inexpensive material several years ago, and soon discovered that it is one of the most versatile products available to the model railroader. I have used it extensively for creating structures and a variety of road surfaces. In the **Fig. 1** photo from my layout, the concrete and brick streets, the entire Memorial Plaza Station and the stucco wall section of Hudson's Department Store are all crafted from black foam core. I love this stuff, and you will too!

Black foam core board comes in 20" x 30" sheets, and is available at Arts and Crafts stores like Michaels and Hobby Lobby. It's \$5.99 at Hobby Lobby, but is often on sale at 50% off and always 40% off with the on-line or newspaper coupon. Never pay retail! This material is 3/16" thick and perfect for any scale. I have found the Elmer's brand difficult to work with, so you should avoid it.

## Road Construction

Any hard surface road, such as concrete, asphalt, cobblestone or brick is easy and quick to make with black foam core, and it eliminates the usual messy plaster and forms associated with this scenery element. The results are always very realistic and the time you save can be put to other uses. It is the texture and flexibility of this material that makes it so easy to add beautiful roads to your layout or diorama. Let's see how this is done...

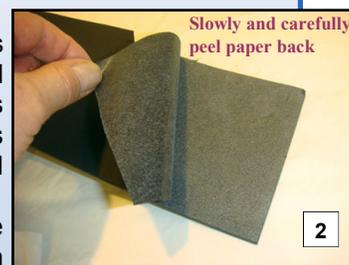
**Step 1.** The first thing you need to do is make a paper template of the road or surface you want to create. I like using butcher paper or brown wrapping paper for its strength and versatility when making long or curvy roads, but any paper will do. Remember to always measure twice and cut once. Transfer this template by carefully tracing it onto the black foam core, and cut it out using a sharp #11 X-acto blade. Don't use a scissors, as this tends to crush the edges.

**Step 2.** Once you have your road, parking lot, etc. cut out, you'll want to peel the paper off both sides **Fig. 2**. The material will warp if only one side is removed. Start at one corner and slowly peel the paper off, being careful not to press down on the interior foam layer as it will crush permanently – actually a wonderful feature, as I will explain later. When the paper is removed, it is time to test fit and make any minor adjustments. You will notice that the foam is quite flexible and conforms nicely to surfaces that are not perfectly flat... like in the real world. You can now glue down the foam, but I prefer to wait until the surface is painted and detailed, as it's often easier to do at the workbench than on the layout.

**Step 3.** It is now time to paint your road, and the type of surface you are modeling dictates the color. **Fig. 3** Always use a *water based acrylic or latex paint*, as enamel or lacquer will melt the foam! Depending how much surface you will be painting, you may find you need quite a bit of paint. For concrete, I decide on the color, usually a variation of aged concrete model paint and take a sample to my local hardware store and have them duplicate a quart of it in their cheapest latex paint. This paint goes a long way, can be diluted and the savings are substantial. For asphalt, I



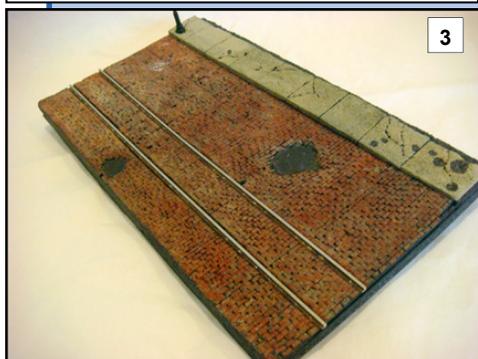
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Slowly and carefully peel paper back

2

Brick street with imbedded railroad track



3

like the very inexpensive 8 oz. Apple Barrel acrylic paint available at Wal-Mart or Hobby Lobby. My favorite color is "Pewter Grey". While this can be used right out of the bottle, you can adjust it with a little white or black to get the perfect asphalt color for your application. It helps to test the color on a scrap piece of foam to check the color after it dries. For cobblestone and brick, the Apple Barrel and similar brands of acrylic paints are perfect. "Brick red" and "barn red" are both convincing brick colors.

**Step 4.** Now for the fun part: detailing for realism. **Fig. 4** One of best features of black foam core is how easy it is to carve details into the surface. Using a #11 blade, you can quickly scribe expansion joints in concrete, cracks in concrete and asphalt, and create cobblestones and bricks. Scribing joints and cracks are fast and easy, while making cobblestones and bricks are a little more tricky...but not difficult at all. Use a metal straight edge to scribe joints. Cracks and cobblestones are individually carved freehand. For bricks, a straight edge is first used to scribe each brick course at approximately 4 to 6 scale inch intervals. Once you have all these lines scribed, you simply go down each course and use the tip of the blade to cut (form) the bricks at the proper scale length. This is, of course, time consuming, but the results are spectacular.

To make realistic man hole covers, take an appropriately sized tube (brass, plastic, etc.) and press gently into the foam to create a perfect circle. Then slightly depress the foam inside the circle to give it some relief. The ability to permanently compress without springing back is a nice feature of this foam material. Use your #11 blade to scribe a crosshatch pattern in the cover and paint it rust or black for a great look. Make sewer drains and potholes using the same method.

If you haven't previously glued the foam to your layout or diorama, now is the time to do that. Any white glue works great, but I prefer Aleen's Tacky Glue for this step. It gives you a nice working time and bonds well to nearly every surface. Again, never use solvent type glue like Walther's Goo, as this will melt the foam. Once the glue is dry, scenery material (dirt, ground foam, etc.) can be placed up to it and secured with diluted white glue. If you are doing a road with sidewalks, make sure you cut the foam core wide enough to act as a base for the sidewalks (and any adjacent buildings, too).

At this point I will share a terrific method for making sidewalks and curbs. I have had great success using another inexpensive product found at the same craft stores – solid black artist mat board. This usually comes in 20" x 30" and 32" x 40". Again, it is relatively inexpensive, but look for it on sale or use the discount coupon. It is easily cut and its 1/16" thickness is perfect for a 5 1/2" curb height in HO scale (double it for O scale). If the sidewalks are to be adjacent to a concrete road, paint them a slightly different color than the road surface for contrast. The cracks, curb lines and expansion joints are then easily scribed making very realistic sidewalks. Glue these down directly onto the foam.

Don't forget to weather your newly created surfaces for more realism. I like Bragdon's weathering powders, but charcoal powder and chalks work well, too. It's easy to overdo weathering, so do a little at a time until you are satisfied with the results.

### **Buildings, Bridges and Structures**

Black foam core is terrific for creating brick, stone, cinderblock, stucco and smooth or rough concrete structures. **Fig. 5** The strength and versatility of this material allows you to scratch-build these structures in any scale. Unlike building a kit, you are not limited to a scale, so it's an easy way to achieve middle and distant forced perspective. An N-scale building in the background of an HO layout gives the impression of great depth. Something halfway between N and HO in the middle only reinforces this illusion.

A little different prep is needed when you are using foam core for structures. For everything except smooth concrete, you will only remove the paper from one side.



Sample black foam core in all stages from right to left: paper on, paper off, sidewalk over painted and detailed road.



Sample structure showing brick and stone

For smooth concrete surfaces (Memorial Plaza Station in the city photo on the previous page is smooth concrete), leave the paper on both sides. Leaving the paper on one or both sides of the foam core adds strength to the structure's walls. As with any craftsman structure, gluing strips of wood at regular intervals to the inside of the walls prevents warping and adds further strength. As in road surfaces, use a #11 blade to create the brick, stone or cinderblock patterns along with easily cutting out openings for doors and windows. **Fig. 6** Use pre-cast doors and windows or get creative and make your own (pretty much a necessity if you are working between scales). The foam surface nicely represents rough concrete or stucco walls. After you have achieved the desired look on each surface, assembly of these walls is conventional using white glue.

After a little practice you will find that even mitering the corners is an easy task with this material.

Use the inexpensive acrylic paints discussed above to paint the walls. Stucco can be most any color, and a light gray works well for cinderblock. Once the roof (also made from foam core) is added and detailed to your liking, you have a very nice structure. Don't forget to include little details like down spouts, window shades, electrical boxes, gas meters, etc. Of course, a little weathering goes a long way to adding realism. Now try your hand at making terrific stone or concrete bridges and overpasses. Didn't I tell you that you'd love this stuff? 🏠

