

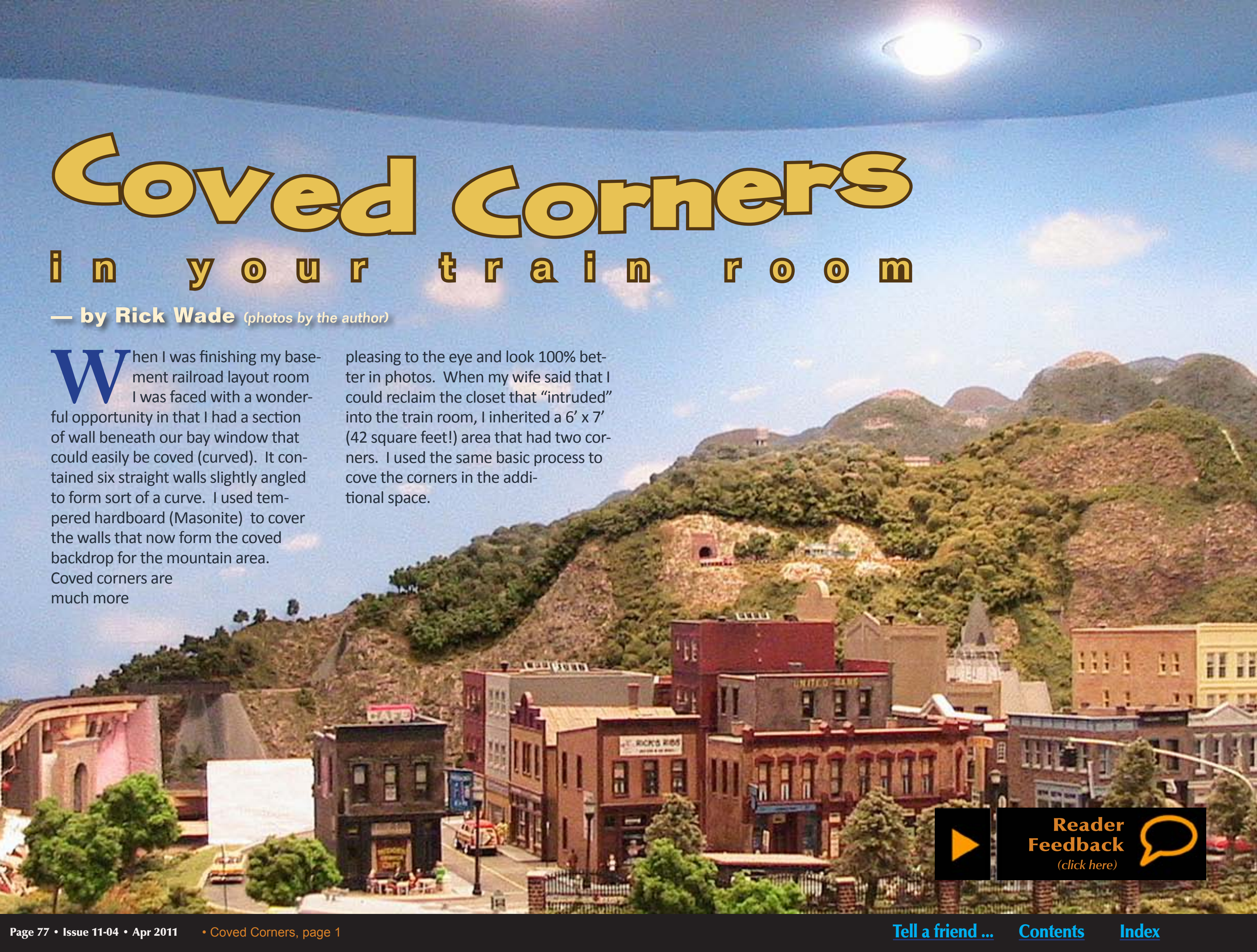
# Coved Corners

in your train room

— by Rick Wade (photos by the author)

**W**hen I was finishing my basement railroad layout room I was faced with a wonderful opportunity in that I had a section of wall beneath our bay window that could easily be coved (curved). It contained six straight walls slightly angled to form sort of a curve. I used tempered hardboard (Masonite) to cover the walls that now form the coved backdrop for the mountain area. Coved corners are much more

pleasing to the eye and look 100% better in photos. When my wife said that I could reclaim the closet that “intruded” into the train room, I inherited a 6’ x 7’ (42 square feet!) area that had two corners. I used the same basic process to cove the corners in the additional space.



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## “Getting rid of corners in the sky pays big dividends in scenic realism!”



Figure 2

Figure 2: Here is the reclaimed 6 x 7 space looking from the existing train room. I've studded-in the old closet entrance in the back wall and will close up the entrance that already existed to the right.

I've learned the hard way that BEFORE I cover up a wall, it's a good idea to document the location of everything inside the wall (just in case something, a train, ever needs to go into the wall. I used my graphics software to mark dimensions on a photo I shot of the uncovered wall. I did the same thing for the right side wall as I'll definitely be running a tunnel through it to the next expansion area in the future.

Be especially sure that walls with pipes and wiring get well documented this way. It may save you from driving a 3" deck screw into a piece of live house wiring. Zap!



Figure 3

Figure 3: The first thing that I did was test-fit a piece of 2' high by 4' long by  $\frac{3}{16}$ " thick hardboard in the corner using some drywall screws screwed into the studs (not through the hardboard) to hold it in place. The stud spacing,  $28\frac{1}{2}$ " from the corner in both directions, allowed for an attractive curve with the hardboard fitting flat against the studs. If the stud spacing wasn't acceptable, I would have added intermediate studs.

Figure 4: Since the hardboard butts up to  $\frac{1}{2}$ " drywall, I laminated a  $1\frac{1}{2}$ " wide strip of  $\frac{3}{16}$ " thick hardboard to the unfinished (back) long edge of the 4' x 8' sheet of hardboard using white glue. Drywall that is  $\frac{1}{2}$ " thick tapers to  $\frac{3}{8}$ " on its long edge. By doubling the thickness of the hardboard with the additional strip, it becomes  $\frac{3}{8}$ " thick – the same thickness as the edge of the drywall.



Figure 4





Figure 5



Figure 6

Figure 5: I've read and heard a lot of discussion about using hardboard in model railroad construction. The common concern is expansion and contraction with changes in humidity or temperature. I always coat all sides of the hardboard with sealer and optionally paint. For this backdrop I coated the back of the hardboard with two coats of high quality sealer. Next I painted the back of the hardboard with "junk" paint. My personal experience has been that as long as all sides of the hardboard are sealed with two coats of sealing material and the environment is temperature / humidity controlled then there won't be any problems. I keep my train room between 65 and 75 degrees F and between 40 and 55 percent humidity. So far, I've not had any problems with backdrops shrinking or warping.

Figure 6: My train room has 9' ceilings. I used 1' high sections at the bottom of each 8' piece. You can see the 1' x 4' pieces along with the narrow pieces I used to reinforce the seam between the 8 foot and 1 foot pieces.

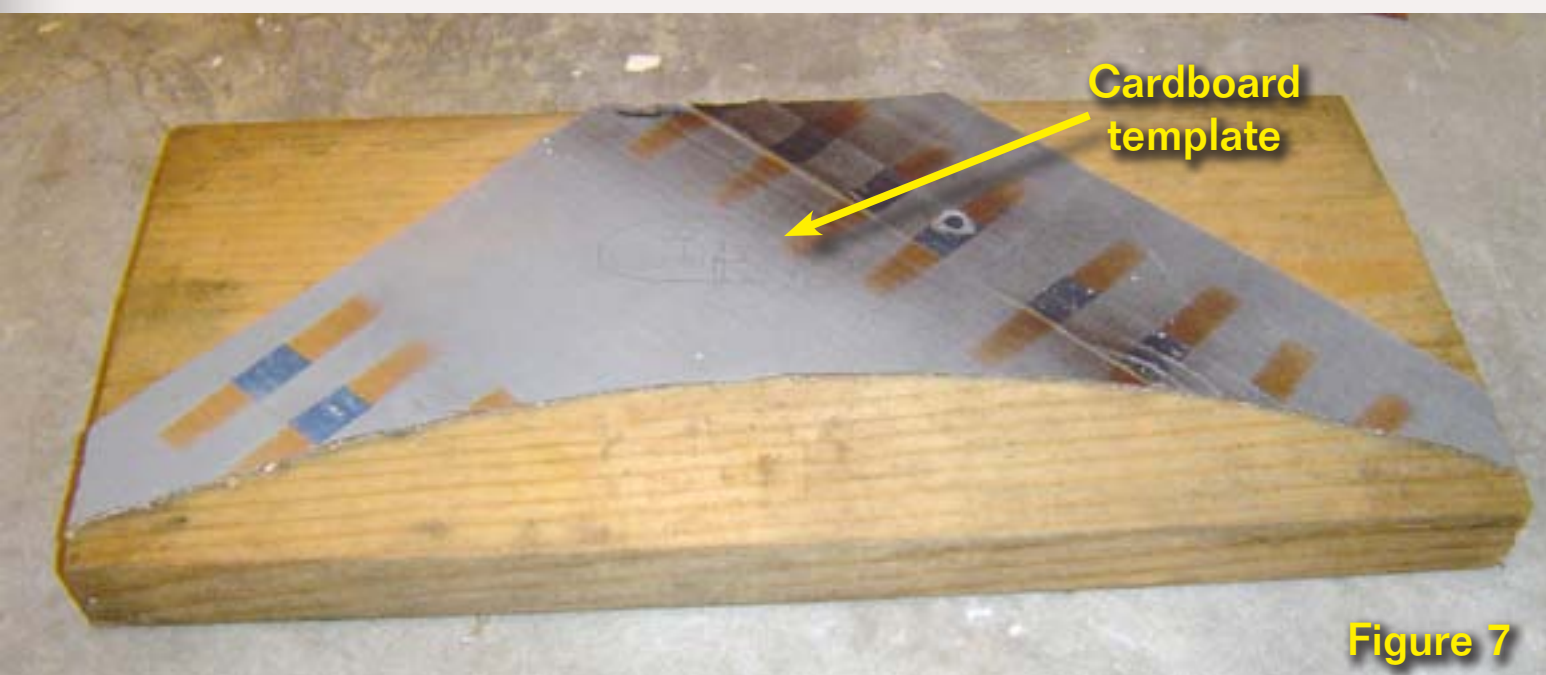


Figure 7



Figure 8

Figure 7: The back of the hardboard should be braced, at least at the top and bottom. The bottom bracing is important as I'll be screwing the baseboard trim to it. I used a piece of cardboard to make a pattern which I transferred onto scrap pieces of 1"x12" lumber – pressure treated, since it is in direct contact with concrete.

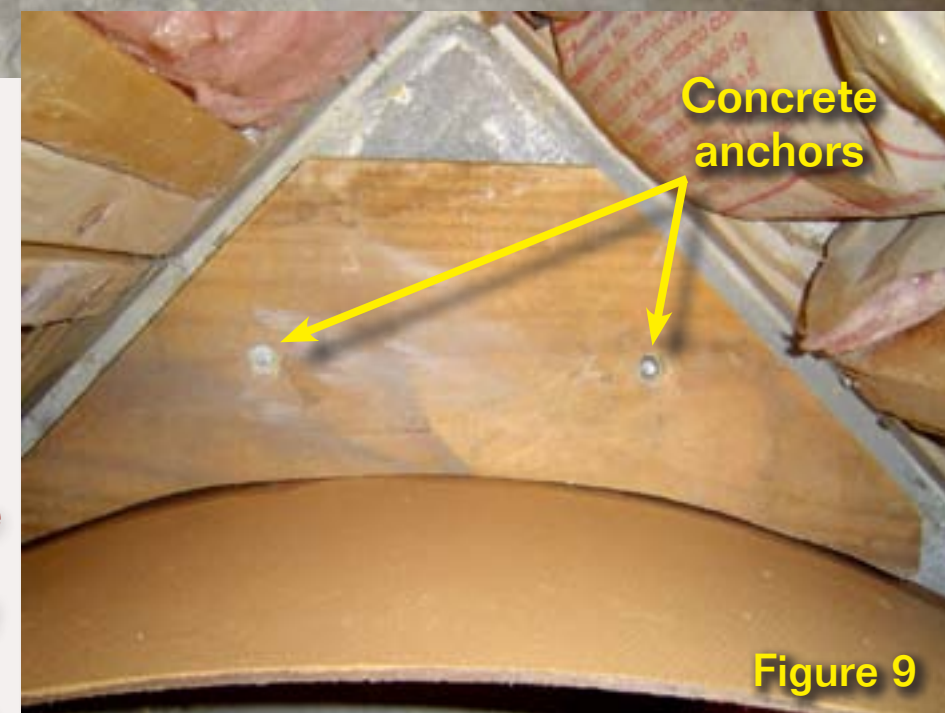


Figure 9

Figure 8: I put a piece of 1'x4' hardboard in place in the corner, then put a brace I'd made behind the Masonite. I marked the brace's position, carefully removed the hardboard and placed the cut out support in position. I attached the support to the floor using drilled holes and countersunk Hammer-Set 1/4" x 2" Nail Drive Anchors. You don't have to use 1" x 12" lumber to make the supports – I just happened to have some on hand.

Figure 9: Seen from above: the brace, attached to the floor with concrete anchors and the 12" tall piece of hardboard in front of the brace. This lets me see if I got everything positioned correctly. If not I'll need to move the brace.





Figure 10

Figure 10: I attached two more braces, top and middle, cutting them following the same pattern.

Figure 11: A few hours later both hardboard corners are in place. I added another piece of hardboard (painted blue) between them to maintain thickness from left to right. It's very difficult to tape and mud the coved hardboard pieces where they meet the ceiling, I used latex caulk to fill those joints, spreading it smooth with a putty knife.

Figure 12: A couple of coats of my flat "Railroad Room Blue" and the alcove is nearly finished. Notice how the coved corners "fool" the eye into believing that the room is deeper than it actually is. You have to look at the ceiling to see the actual depth of the area. After finishing the walls, I painted the floor in this area to match the rest of the floor.

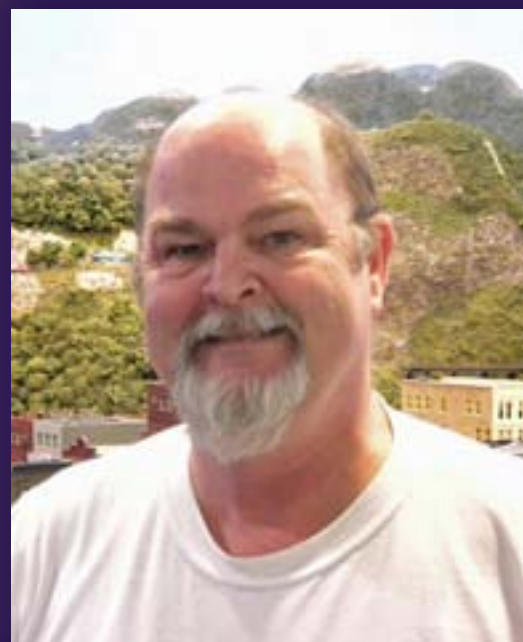


Extra piece of masonite between coved corners has the same thickness as the coved sections.

Figure 11



Figure 12



Rick grew up in Louisville, Kentucky in the '50s and '60s with L&N trains passing only 200' behind his house. He was 8 years old when he and his dad built his first HO layout.

A spell of boredom in 2006 due to a drought and lack of sufficient water for boating led to his building a DPM 1st National Bank kit. Another kit or two and he was hooked. Again.

Rick's Richlawn Railroad is named after his childhood neighborhood. He belongs to the NMRA Piedmont division in Atlanta, Georgia and looks forward to having op sessions on his layout in the near future.



# Baseboard Installation

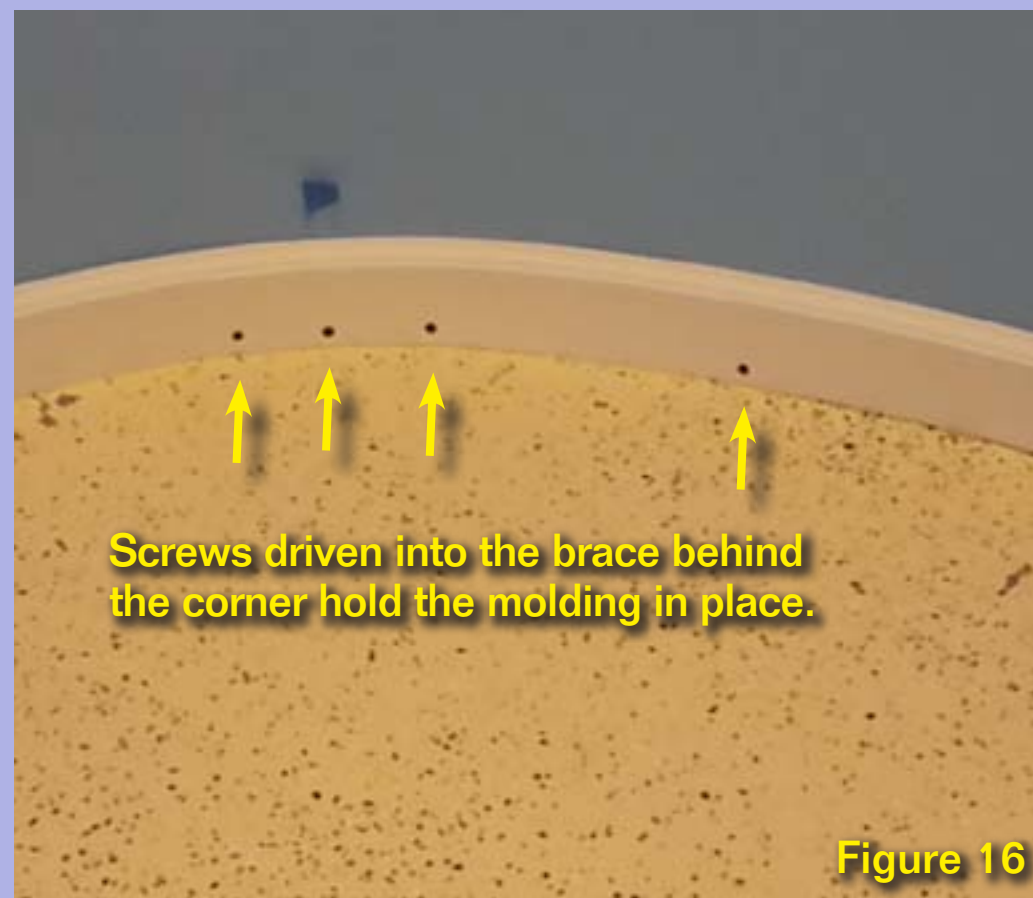
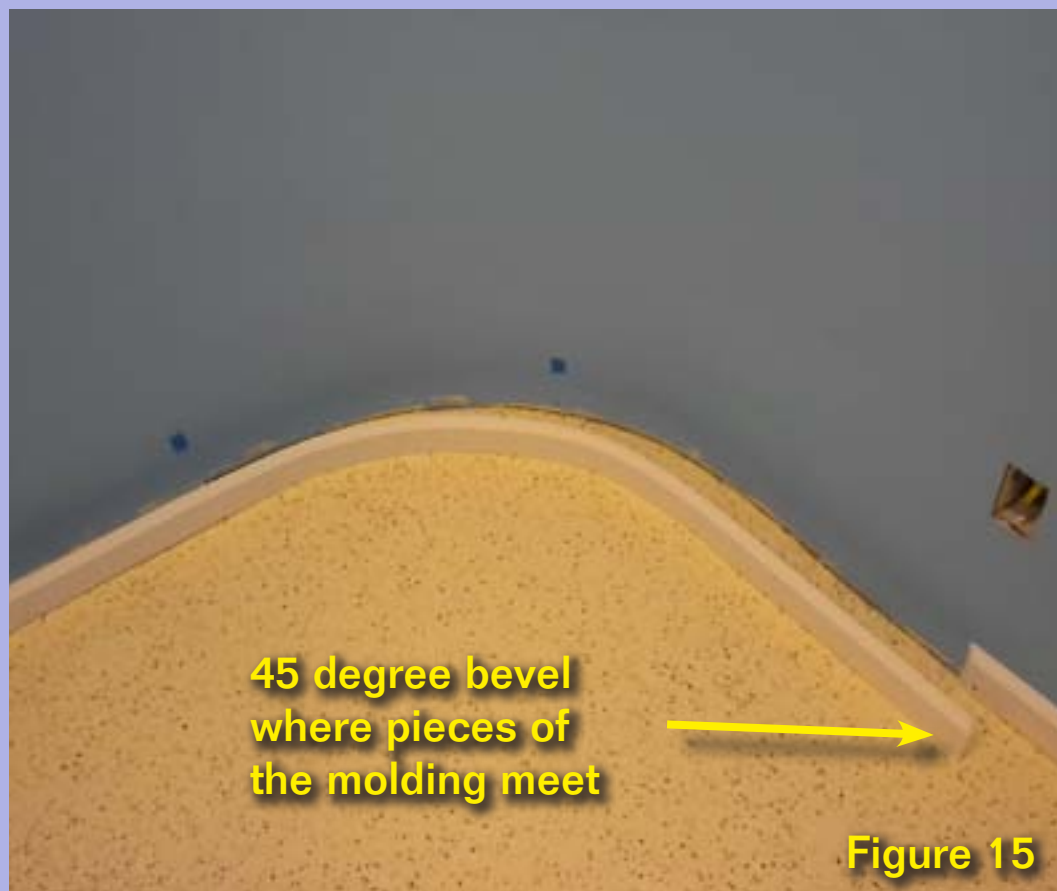



Figure 13: Curving PVC molding to conform to the coved corners was easy using a heat gun! I used 12' lengths of PVC molding, softening them with a heat gun. I attached the molding to the wall in a straight area with counter-sunk drywall screws.

Figure 14: I applied pressure to the unfastened end to bow the molding and continued heating. I kept the heat gun moving to avoid melting the molding. Take your time and you will feel the molding relaxing and forming a curve. Once I got the curve to match the coved corner I held the molding in position until it cooled.

Figure 15: This molding has cooled enough to hold its shape. Note the 45 degree beveled ends where pieces of molding meet.

Figure 16: The finished baseboard molding screwed in place

Coving the corners in my train room dramatically improved the look by softening abrupt angles. The process is not that difficult and can be done at modest cost using common materials and a little elbow grease. As I continue to expand my railroad I'm planning to continue coving corners whenever possible.

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