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## CHAPTER ONE

# Does my layout really need a backdrop?

This scene on the author's old 5 x 7-foot N scale model railroad features a backdrop that blends with the scenery and helps the layout seem much bigger than it really is.

Early island or around-the-operator-style track plans could fulfill operators' dreams of having lots of trains running around busy spaghetti bowls of track. They may not have been very realistic, but, hey, it was great to see the trains run!



Even a small model railroad can benefit from having a backdrop, as can be seen here on the author's old 5 x 7-foot layout.



Model railroader Rich Farewell has painted a nice backdrop to represent the granite mountains of Donner Pass on his HO Southern Pacific layout.

Such early layouts didn't have the design capabilities for a backdrop. As model railroading progressed, more layouts were designed with realistic operation in mind. This meant that the layouts sometimes were the around-the-wall type, where operators were in aisles outside the model railroad. As a result, the need for backdrops

became more and more apparent. A peninsula of a layout can be effectively divided into two separate scenes with a double-sided backdrop. The around-the-walls portions of a layout can use a backdrop to create a scene that seemingly goes on for miles instead of ending at the back edge at the basement's concrete wall.

### Taking advantage of a backdrop

Many contemporary layout designs benefit from an effective backdrop. I think of a backdrop as a way to expand the size of a model railroad without taking any more real estate. With the prices of homes these days (especially those with basements), this is no small matter.



## CHAPTER TWO

# Building the backdrop

The backdrop at one end of the author's N scale Rio Grande railroad conceals a basement support column. It has both coved and outside curves, but still flows nicely through the scene.

It's easy to get ahead of yourself thinking about benchwork, track, and other building blocks early in construction of the model railroad. However, you'll regret not including backdrops in these early essential steps if you try to work on it after the layout is nearly done.

I install the backdrop at the benchwork stage. It is so much easier at this point since there are no tracks, scenery, or trains to get in the way or, worse, to get damaged.

As anyone who has built a layout can attest, the initial construction can be quite messy and dusty, and backdrop construction is no different. By building the backdrop early on, you can also get a better sense of how double-sided backdrops will affect peninsulas, creating two separate scenes. You'll also see how they can isolate other parts of the layout from each other.

Backdrops can be constructed with several different materials and methods. Perhaps the most common and the easiest to work with (and my favorite) is 1/8" hardboard. It's made by many manufacturers, but a familiar brand is Masonite. Hardboard is readily available and goes on with some of the same construction techniques as for finishing home interiors. The hardboard is available in 4 x 8-foot sheets and can be found in both tempered and non-tempered varieties. As a side benefit, this same material can be used for your layout's fascia and valances to hide the lighting.

### Coved corners

I have used both types of hardboard and find that the tempered version is better when you have tightly coved corners. Coved corners do a great job of disguising the angled corners of your layout room and give the backdrop a nice, continuous look.

It's surprising how much you can bend the tempered material, so how tight you "cove" each corner is up to you. I think the wider the cove radius, the more natural the backdrop will look. However, wider coves take up more layout real estate. Most corners will look just fine at about a 12" to 18" radius.

I don't think it's necessary to cove the backdrop at the ceiling or even to have the backdrop go all the way to the ceiling. It's probably more important to paint the ceiling white to help the room seem more open and brighter. White ceilings also improve the intensity of the lighting.



You'll be glad you installed the backdrop early in layout construction. The backdrop here has been installed and even painted before the first hint of scenery arrives.



This scene representing Rocky and Clay sidings illustrates the double-sided backdrop on the right side of this view. It separates two very different parts of the layout, making the main line seem longer.

Since I used track lighting and fluorescent fixtures to light my layout, I didn't need valances. However, some nice lighting effects can be accomplished with theater-type lighting behind a black valance. In that case, the aisle ceiling areas could be painted black. Be aware that such black surfaces really show dust and cobwebs!

### Building the backdrop

You can put up hardboard with traditional construction techniques. The sheets are installed above your benchwork to the back studs or wall with 3/4" drywall screws. These studs should be placed fairly close together, about 12" to 18" apart, to keep the hardboard from becoming wavy.



When installing a backdrop on a finished wall, make sure you use a stud-finder to locate the inner wall studs before drilling mounting holes.



Installing the drywall mud and tape are a necessary chore if you want a seam-free, flowing backdrop with wallboard.



The author used a moist sponge to "sand" the water-soluble drywall mud. Special sanding tools are also available at home improvement stores for this work.

It is also important to use screws that resist rusting so they never show their ugly heads through the backdrop sky. Also you'll want to countersink them so the screwheads will be hidden below the hardboard surface. I generally drill pilot holes for each, then countersink the hole and finally drive home the drywall screw to get a nice, flush surface. This will greatly speed up hiding the screwheads in the finishing step.

It might seem like a luxury, but having three power drills to accomplish this will be worth it if you have a lot of backdrop to install. I had only two drills on the current layout, and quickly got tired of switching drill bits, countersinks, and driving bits. Next time, I'll borrow an extra drill from a friend! Also, the boards are somewhat unwieldy, so it helps to get an extra hand from a friend or two.

Getting that first backdrop board up starts to change the look of the layout room immediately. Make sure that you leave a space between sheets to allow for expansion and contraction. A popular method is to put a couple of nickels on edge as spacers between each joint. Avoid joints near coved corners; joints will make it difficult to maintain an even radius through the corner. All joints should be on stud locations to make them more solid and easier to hide.

My current layout was built in a completely finished basement room with walls finished in a splattered texture. These types of finishes are too coarse to be effective as a surface for painting your backdrop. Besides, I wanted coved corners.

I elected to mount hardboard directly to the finished walls, using a stud-finder to locate studs, to which

## Construction Tip

If your backdrop is going to be two feet high or less, ask your home supply store to cut the 4 x 8-foot sheets in half horizontally to make 2 x 8 sheets. The store employee may give you a strange look, but it is much easier to get the sheets home in the car or truck!

## The sky is ending, the sky is ending!



This particular double-sided backdrop separates the author's Pinecliffe and Moffat Tunnel scenes. It will end in the trees at the top of this snow-covered ridge.

When using a double-sided backdrop on a layout peninsula, there is the problem of hiding the edge of the backdrop. Some people prefer to bring the end of the backdrop all the way to the outer edge of the layout. This requires the trains to enter a view block such as a hill with trees or a tunnel to make a successful transition from one side of the backdrop to the other. This can be difficult to accomplish if the railroad you are modeling doesn't allow you to do so with such scenic treatments.



The other edge of a double-sided backdrop is also hidden in the trees above Plain Siding. When operating trains, you won't notice these "end of backdrop" edges at all.

On my current Rio Grande Moffat Road layout, I have two areas of double-sided backdrops ending on a peninsula. I chose to end the backdrop in the hillside at the end of the peninsula. This allows the track to round the corner uninterrupted. Does the "end of sky" in the scene bother me? I thought it might at first. But I found that once you start operating trains, you don't even take notice of the end of the backdrop. You just go uninterrupted from one scene to the next as the train keeps rollin' down the track.

I could securely mount the wallboard with drywall screws.

If and when I ever move, the layout can be torn down, backdrop and all, and underneath will be a finished room. I'll just have a ton of holes to patch! The more I think about it, I hope it never happens!

## Double-sided backdrops

Creating a freestanding or double-sided backdrop can be done in a similar fashion. Construct a framework of lightweight 1 x 3 or 1 x 4 lumber (or even 1 x 2 furring strips if the backdrop is small) mounted vertically off the benchwork. To give the hardboard enough support, space the studs about a foot apart.

For a freestanding backdrop, I like to have a top sill mounted across the



A simple shop light shined at an angle helps find surface imperfections in the drywall mud.