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Small layouts allow you to see results quickly, and they also lend themselves to detail. On this 4 x 12-foot HO layout, a Proto 2000 Alco locomotive pushes an InterMountain boxcar toward a Woodland Scenics structure.

# Introduction

The eventual goal for most model railroaders is to build a permanent layout. As such, modelers are always searching for the ideal layout plan that will fit into the spaces they have available. This book includes 27 plans for small model railroads, designed for either a tabletop, shelf, or small room. Many of these plans are within the reach of a beginner as a first layout. Some of the room-sized plans are slightly more advanced, and would be ideal for modelers who have already built an entry-level layout.

These plans, which have all previously appeared in *Model Railroader* magazine, fall into two categories. Some were the focus of track-planning articles; these are plans that have been designed but not built. These articles are reprinted in their entirety, and include information on the suggested theme, region, era, and prototype that the author had in mind when designing the plan. Some of these include suggestions on building benchwork or scenery, and many include a list of track components needed to build a layout based on the plan.

The remaining track plans are taken from articles on individual modelers' home layouts. These have been edited down to include the track plan itself, a photo or two of the layout, and basic background information on the model railroad. The publication date is listed for these in case you want to see additional photos and information on the layout. Be aware that the amount of additional background information for these plans varies widely from article to article.

The focus of this book is on the track plans themselves. The individual plans are not meant to be complete guides for building a layout. If you're new to the hobby (or even if you've been around for awhile), you'll no doubt have questions on various aspects of layout construction.

This introduction is meant to be a basic guide to getting into the hobby and building a layout. There's no way to delve into each facet of the hobby in such a short space, so I strongly suggest checking out some of the many fine books available on benchwork, wiring, scenery, and other topics. Many of these are listed throughout this introduction. If you're brand new to the hobby and looking for a general overview, see the book *Introduction to Model Railroading* (Kalmbach).



## Keep it simple

If you're building your first layout, it might be tempting to fill a basement or rec room with a huge model railroad, especially if you've seen photos of (or visited in person) some of the large empires often featured in modeling magazines. However, trying to do too much too soon is a recipe for failure.

Instead, start with a small plan. A small table- or shelf-style layout will let you experience all facets of the hobby in short order, from benchwork and wiring through trackwork and scenery. You'll quickly see progress, and any problems or challenges you have will be on a small scale. Once you've completed—or even made significant progress on—a small layout, you'll have improved your modeling skills and have a better idea of what you'd like to have in a large layout. You'll also have a good idea of the time and resources required to build a larger model railroad.

A large layout doesn't have to be your ultimate goal. Many experienced modelers stick to small layouts for a variety of reasons. Small model railroads are more manageable to maintain—keeping track and scenery clean on a large layout consumes a great deal of time. Small layouts are certainly less expensive, both in terms of the layout itself and the number of locomotives and cars required for it. With a small layout, you can invest in nicer equipment, since you might only need a locomotive or two instead of an entire fleet.

Another drawing point is that it's possible to build small layouts to a high level of detail—a major point if your interests include scratchbuilding structures, superdetailing locomotives and rolling stock, or building fine scenery.

Also, small layouts can be conveniently operated by yourself or with one or two other operators. If you build a large layout that requires multiple train crews and a dispatcher, you will need to make sure you have enough operators to run it.

## Basic benchwork

There are many approaches to benchwork, any of which can work well if done properly. For a small (4 x 8-foot or less) table-style layout, a simple grid of

A simple table can be built from dimensional lumber or, in this case, plywood ripped to 3"-wide strips. A plywood or foam tabletop is a good starting point.

You can create undulations in the scenery by cutting the plywood table with a saber saw and using risers to elevate the roadbed, roads, or other elements. This is called "cookie-cutter" benchwork.

Simple homemade or commercial shelf brackets can support wall-mounted benchwork—in this case a simple 1 x 3 frame.

# Carolina Central

**N scale**

By Carl Swanson

The Carolina Central, an N scale project railroad originally built in 1996, used a combination of Atlas sectional track and flextrack to pack a complete model railroad into a space of just 28" x 80". The track plan shows the same basic design using Kato Unitrack on a 32" x 80" interior door. MR staff

Readers had their first glimpse of the N scale Carolina Central 10 years ago, in the December 1996 issue of *Model Railroader*. A project railroad that was designed by then-associate editor Marty McGuirk and built on a 28" x 80" interior door, the little railroad was a big hit.

Versatility is the key to the Carolina Central's appeal. A hill extending across the layout conceals a long double-ended siding that serves as a staging yard. The hill also serves as a view block. Trains circling the Carolina Central disappear from view, eventually reappearing at the other side of the layout. That's much more visually interesting than watching a locomotive chase a caboose around and around. The front of the railroad features a second passing siding and some interesting switching possibilities.

That's a lot of action for a 28"-wide railroad, but getting it all to fit required the use of tight 9¾"-radius curves and No. 4 turnouts. Longer cars and locomotives are not happy in that sort of confined working environment.

This updated look at the Carolina Central uses Kato sectional Unitrack and is a slightly reworked version of a track plan posted at www.katousa.com. Using a 32"-wide interior door broadens the Carolina Central's horizons by just 4", yet it provides enough space for 11" curves and No. 6 turnouts.

As a result, a broader range of equipment can comfortably operate on this layout. If you have a bit more room to play with, you might consider adding additional staging tracks. Tony Koester's "More action on the Carolina Central" (*Model Railroad Planning 2005*) discusses operating this layout and includes a plan for greatly expanded staging.

Kato is one of several companies that make N scale track with a molded plastic roadbed. To my eyes, this combined track and roadbed design looks a little too perfect for realism. Painting the sides of the rails with Polly Scale Grimy Black and adding a dusting of appropriately colored ballast on the shoulders gives it a more realistic appearance. For Unitrack system users, Kato offers a fine-grain ballast mixture (No. 24-039) that complements the black-flecked gray of its plastic roadbed.

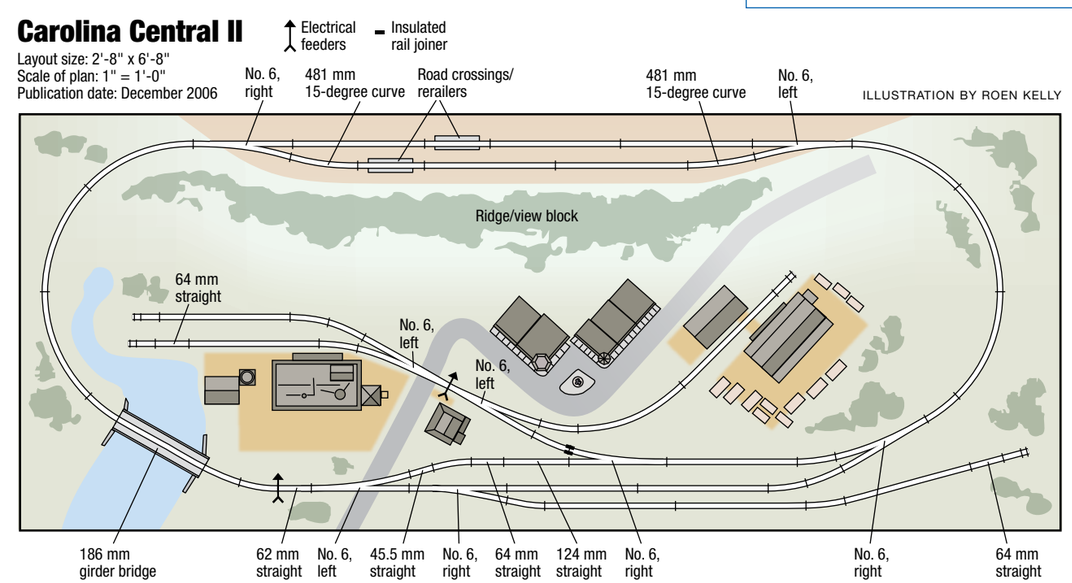
## A river doesn't run through it

A river cutting diagonally across the lower-left corner of the layout was a signature element of the original Carolina Central (as shown above). The main line crossed the river twice, using a pair of No. 2546 Atlas Warren-truss bridges for the first crossing and a No. 67 Blair Line curved wooden trestle for the other. But the broader 11"-radius curves used on the revised Carolina Central limit the amount of space available for a river. We've kept part of the idea intact by having a Unitrack No. 20-454 plate-girder bridge cross an inlet, which now curves around the two spur tracks before narrowing.

Although losing some of the river element is unfortunate, we do gain partial compensation by doubling the length of the two interior sidings on the layout's left side. The end result is still the same: Whether you're switching those interior sidings or just watching trains run, the Carolina Central offers hours of fun in a modest space.

## Kato Unitrack list

20-000 248 mm straight (14)
20-020 124 mm straight (1)
20-021 124 mm crossing (2)
20-030 64 mm straight (3)
20-040 62 mm straight (1)
20-048 bumper (4)
20-091(b) 45.5 mm straight (1) (from short track set 20-091)
20-110 282 mm 45-degree curve (7)
20-111 282 mm 15-degree curve (15)
20-160 481 mm, 15-degree curve (2)
20-202 No. 6 turnout, left (4)
20-203 No. 6 turnout, right (4)
20-454 186 mm girder bridge (1)
24-816 insulated track joiner (1)
24-818 terminal joiners (2)



# Layout on a budget

**HO scale**

By George Sebastian-Coleman
Photos by the author

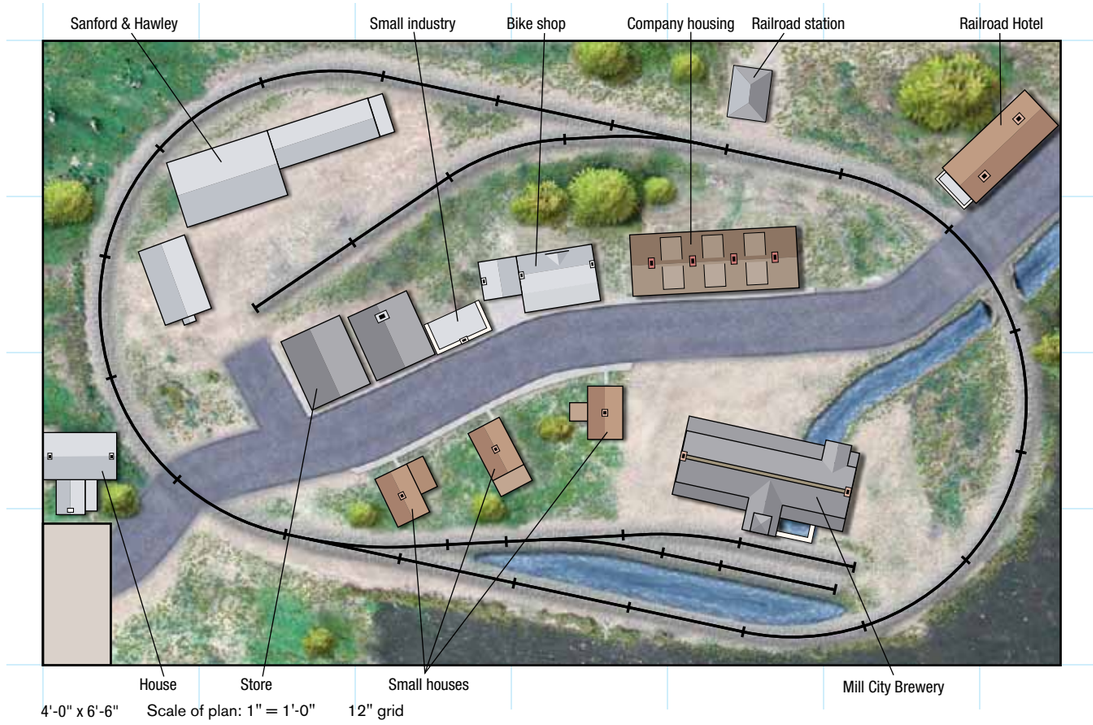
The goal of this layout, which appeared as a project layout series in *Model Railroader*, was to build a complete model railroad for under $500. The result was a simple oval, table-style layout. The railroad could represent just about any era, prototype, and area of the country by changing the buildings, industries, locomotive, and freight cars.

The table is a sheet of 2"-thick extruded foam insulation board atop a pair of sawhorses, with 1" foam serving as subroadbed cut to fit just under the track. Sculptamold blended the table to the subroadbed keeps the table from being perfectly flat. The structures are all paper, cut from books of scale buildings (now out-of-print) published by Dover Publications. These books can sometimes still be found on sites such as www.abebooks.com, ebay, and www.alibris.com. You can substitute any commercial structures (built-up or kit) to suit your preferences.

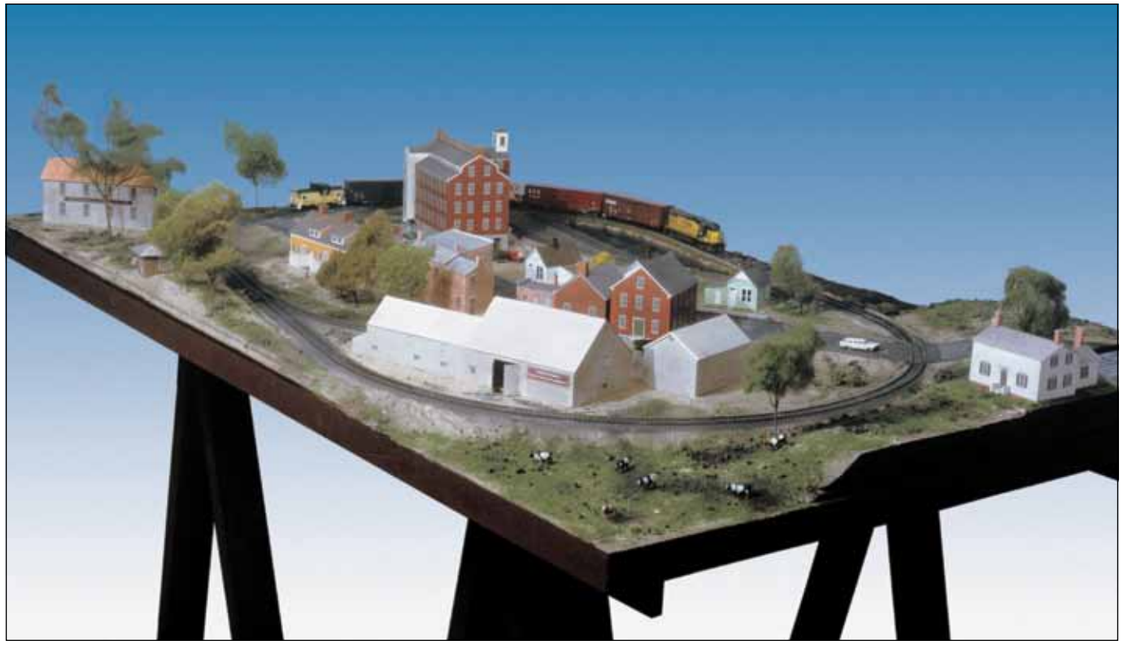
The layout is wired as a single electric block and controlled by a standard DC power pack.

## Layout at a glance

**Prototype:** freelance
**Locale:** generic
**Era:** 1970s
**Style:** table/oval
**Length of mainline run:** 15 feet
**Height:** 48"
**Benchwork:** 2" foam sheet on sawhorses
**Track:** Atlas True-Track
**Subroadbed:** 1" extruded foam
**Turnout minimum:** No. 4
**Minimum radius:** 18"
**Maximum grade:** none
**Scenery:** Ground foam over Sculptamold over foam
**Control:** DC power pack
**Publication dates:** January and February 2004



The author chose to model the 1970s, represented by a Chicago & North Western diesel and a variety of freight cars. It would be easy to change this to any era by swapping rolling stock, structures, and details.



The benchwork is about as simple as it can be, with a 2" foam table atop a pair of sawhorses. The track is level, but placing it on 1" foam and blending it with Sculptamold provides some undulations in the scenery.

# Red Rock Northern

**HO scale**

By Jerry Boudreaux

**Jerry Boudreaux's Red Rock Northern plan could be adapted to many prototype railroads and eras. One possibility would be steam on the Sierra RR in the 1950s.** Peter Hahn

When I designed the 9 x 11-foot HO scale Red Rock Northern RR, I started by making a list of goals, some of which included plausible reasons for the railroad's existence. The railroad had to have some local and bridge traffic that would require both freight and passenger trains. It would also need some on-line industries for switching.

My list included ideas on operation too. Despite the space limitations of the room, I wanted the finished plan to provide operation for one to three people and feature 10-car trains. I felt the operating scheme should be point-to-point and have provisions for some staging as well, but I also wanted to include an option for continuous display running. Finally, my plan needed some interesting scenery features yet moderate grades and curves. In other words, I wanted the Red Rock Northern to have some of everything!

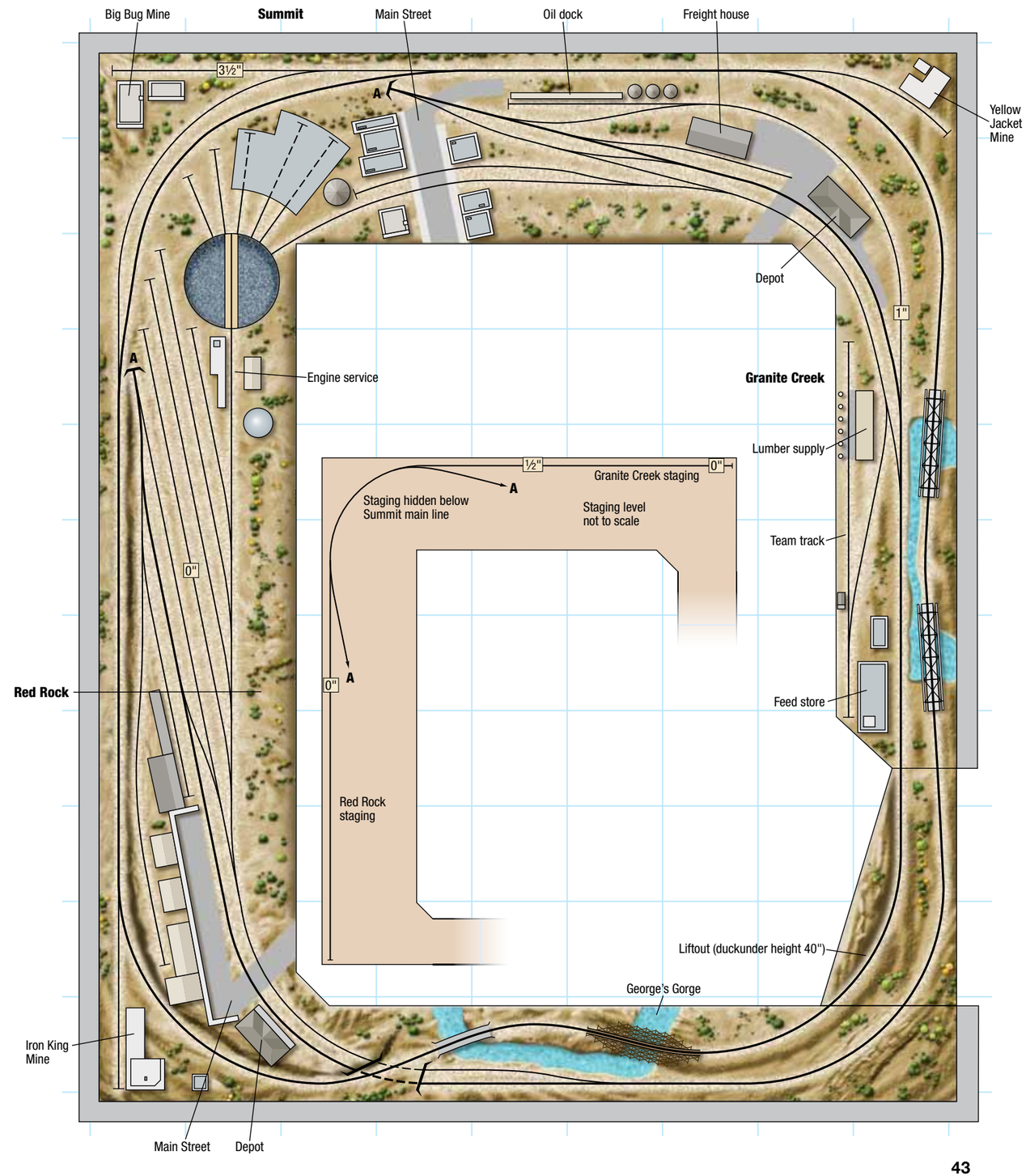
## Adaptable prototype influence

Once I had my list established, I set out to design a railroad that would match it. My Red Rock Northern is a twice-around track plan that could be easily adapted to a number of different prototype railroads and eras. I pur-

### Track plan at a glance

**Size:** 9 x 11 feet
**Prototype:** freelance short line in rural America
**Era:** variable
**Style:** around-the-walls with lift-out section
**Mainline run:** 68 feet
**Minimum radius:** 24"
**Minimum turnout:** No. 5
**Maximum grade:** 2 percent
**Height:** 43" to 46½"
**Publication date:** June 2007



## Red Rock Northern

9 x 11 feet
Scale of plan: ¾" = 1'-0", 12" grid