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The Little Layout

Some time ago, I was challenged to design a small, potentially portable, On30 layout that would provide interesting operation, and continuous running for display purposes. The result was something I called *The Little Layout*. The track plan turned out to be 3 feet by 8 feet, which is just the right size to fit on the tables provided at many train shows. The plan is my expansion of the now-famous Snowshoe and Gumstump track plan, also known as the original Gila Pacific.

This series of images shows the various iterations of the design, along with the one that I will eventually build myself.

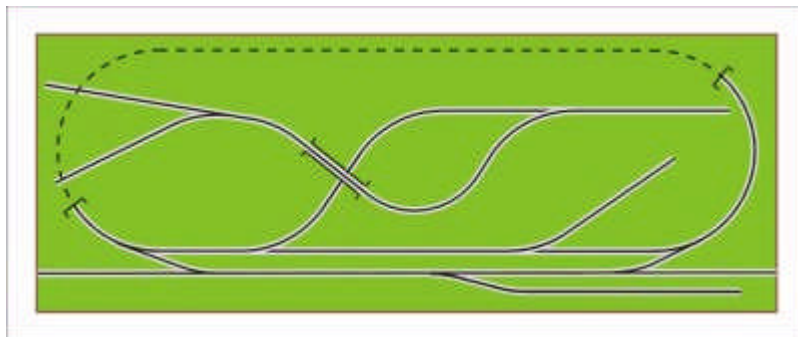
Construction on this layout has been delayed for various reasons, but is currently slated to begin late in 2001. I'll keep you posted with notes and photographs as construction progresses.

The Plan

I had a few goals in mind when I started designing the Little Layout.

- The layout had to be somewhat portable.
- The plan had to allow for continuous operation.
- The plan had to allow for switching operations.
- The plan had to allow for expansion.
- The plan had to allow for connection to other similar portable layouts.
- There had to be grades and bridges - even water, if it will fit.
- The theme would be a logging operation or a mining operation.

The plan was drawn with Corel Draw 9 on a PC. I'm not much of a CAD person, and Corel is about as close as I ever want to get. Corel allows you to draw to exact scale, but it doesn't have some of the niceties of CAD software, like automatic joins and what not. However, for my purposes it works fine.

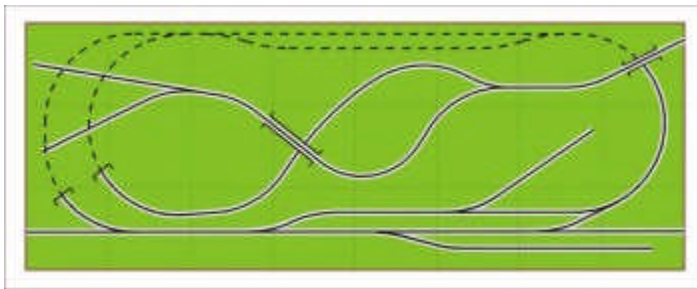
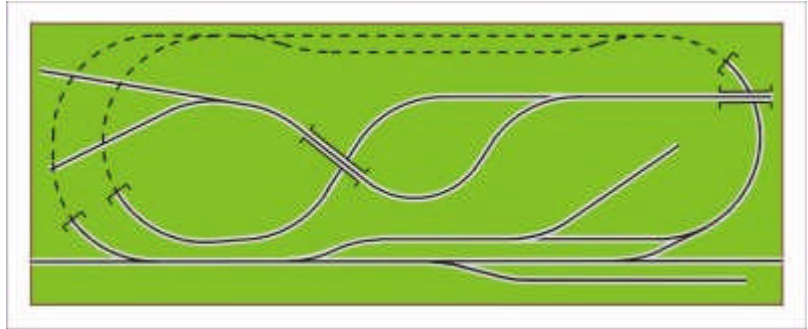


Left: This is the original track plan. While it met all of the design criteria, there were a couple of flaws. First, all of the operation is up front - there's no sense of "going somewhere" between the lower-level town and the upper level mine or logging area. Also, the switch back is to straight, and appears sterile. Finally, the passing/run-around track is too long, making switching in

town too easy.

The curves are very, very sharp, but, for this venture, that is okay. Primary motive power will be Bachmann Porters and home-built diesel critters.

Right: Here's version 2. This version fixes a couple of problems in the first draft. The switch from the mainline is moved to the back of the layout, under the mountain branch, to give a sense of "leaving town." The run-around in town is shortened, and, as a bonus, a short staging track is added at the rear. However, that switch back still needs work.

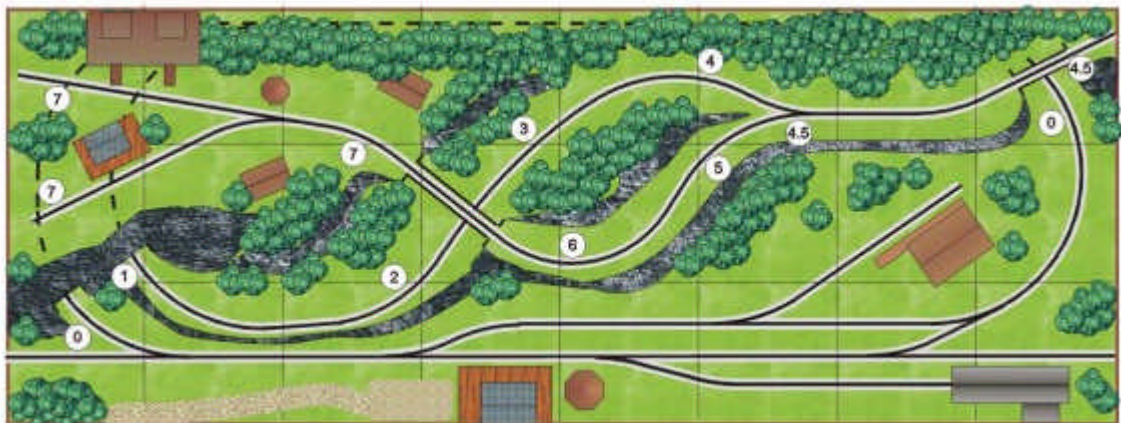


Left: Version 3 takes care of making the mountain branch line more interesting. I also added gridlines to give a sense of scale to the drawing.

Right: The final version of the plan adds an idea for the scenic treatment, and shows the track elevations in inches.

Some of the grades turned out to be very steep - as

much as 8%! I don't yet know what sort of operational challenges this will present, so some testing will have to be performed before construction begins. Since some other modelers have built variations on this theme, I am hoping to have luck similar to there's. Obviously, the branch is the domain of the little 0-4-0 and 0-4-2 Porters, and to Diesel Critters. I do know that the



The final plan for the Little Layout. Click the image to view a large scale image, or, to download the raw file, [click here](#).

Bachmann Porter will pull 16 oz. up a 1.5% grade with little or no problems.

Essentially, the plan is finished. All that remains is to build it.

Construction

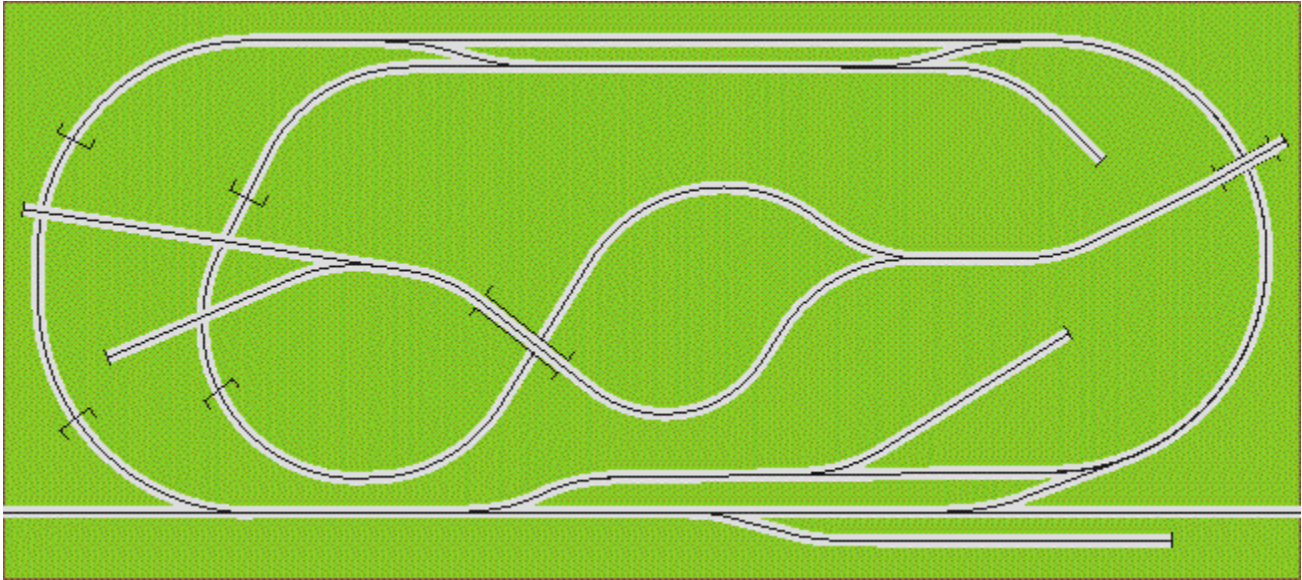
Since part of the goal of the layout is portability, lightweight construction is planned. However, unlike many lightweight schemes, I do plan a wood framework. The thought is to build the supporting structure in a manner similar to old airplane wings. All construction will be of lightweight, 1/4" (actually 5 mm) luan plywood, with a foam skin. The sub-roadbed will consist of the Woodland Scenics Sub-Terrain system pieces, and roadbed will be HO Homabed and custom cut sanded Homasote. Finally, all of the visible track will be hand-laid code 83, and the hidden track will be Atlas HO code 83.

Plan Update (8 June, 2001)....

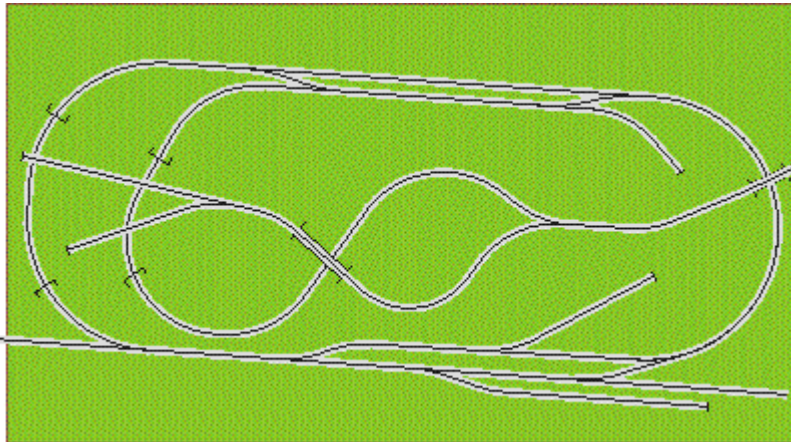
On30 Conspirator Chris Bryant got me to thinking about some possibilities for expanding the Little Layout by asking if the Bachmann On30 2-6-0 will run anywhere on the layout. Of course, portability goes out the window, which was an original criteria. And, I've been told that the little Mogul will make about a 12" radius curve (the little layout curves are 13"). However, I'm going to give Chris's question, and my responses, some thought. Here are some of the concepts I've come up with:

- By making the overall layout size 12" wider, and at least 12" longer, it would be possible to include an 18" radius outer loop for larger equipment to operate on, either in place of or in addition to the existing loop. Replacing the existing loop allows the layout to remain as small as 4'x8' (the size of a standard plywood or large foam sheet). With lightweight construction (and an extra set of hands), I still consider 4'x8' to be somewhat portable, and, it would still fit into my trailer....
- Since the layout was specifically designed with the thought of integrating it into a "modular" railroad some day, it lends itself to easy integration into an "around-the-walls" type of layout, using the modular interfaces at each end, or by adding to the switch back tail or the mining/logging areas.
- Building an island or peninsular layout opens up the possibility of adding another "town" to the "back" of the layout, which would add to the overall operation of the pike.
- The hill at the back of the plan becomes a "scenic divider" for an island or peninsular layout.
- The lengthening allows for more scenic development, and possible additional switching possibilities, both on the branch and "main" lines.
- Appropriately sized and planned expansions could be added as time, money and space permit. I'm really beginning to like this idea!

Little Layout in 4' x 9'



Here's the result of changing the outer "loop" to an 18" radius. The resulting layout grows to 4' x 9', and is no longer portable. However, a new "town" emerges on the far side of the layout, and an additional industry is born. If you include the station track at the new town and the "expansion" spurs, there are now as many as 8 places to spot cars (spotting a car at the station can really make operation a lot of fun, especially when multiple operators are trying to use the same track! Because the layout in this form no longer meets one of my base criteria, I'm not going to develop this plan any further. However, it does illustrate how much operation could be added to the layout by simply growing one foot in each direction. If I were to build this, I would actually do it as a 5' x 9' layout, and would rotate the plan slightly, as shown in this reduced image.



Notice how much real estate is added for additional scenery and structures at the edges of the layout in the 5' x 9' version. And, our new town at the back of the layout has room for at least a couple more spurs. Of course, for both the 4' x 9' and the 5' x 9' versions, aisles need to be provided along both long sides and at least one end.