

# Model Railroad Hobbyist magazine™

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Edition

November 2012



Make zillions of great  
looking trees fast!

- Movie theater with animated lights
- Shelf layout project in N scale
- Building an SP depot
- Allagash Quarry finale

... plus lots *more, inside!*

HAVING FUN WITH TRAINS



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**Front Cover:** MRH Publisher Joe Fugate shows you his EasyTrees process for making zillions of great looking deciduous trees in a hurry. No layout ever has enough trees, so a few EasyTree-making sessions could help change that!

ISSN 2152-7423

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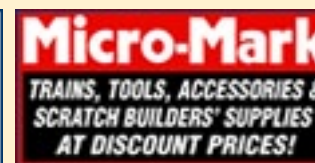
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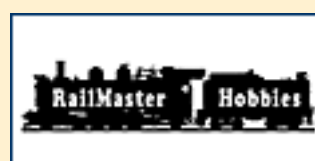
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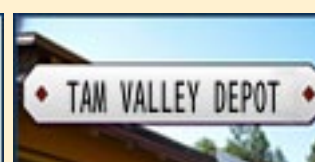
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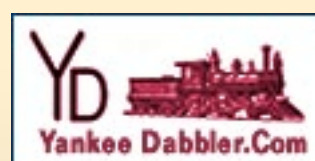
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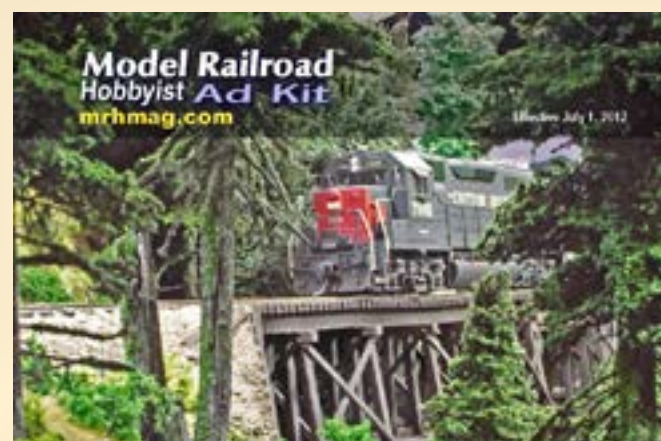
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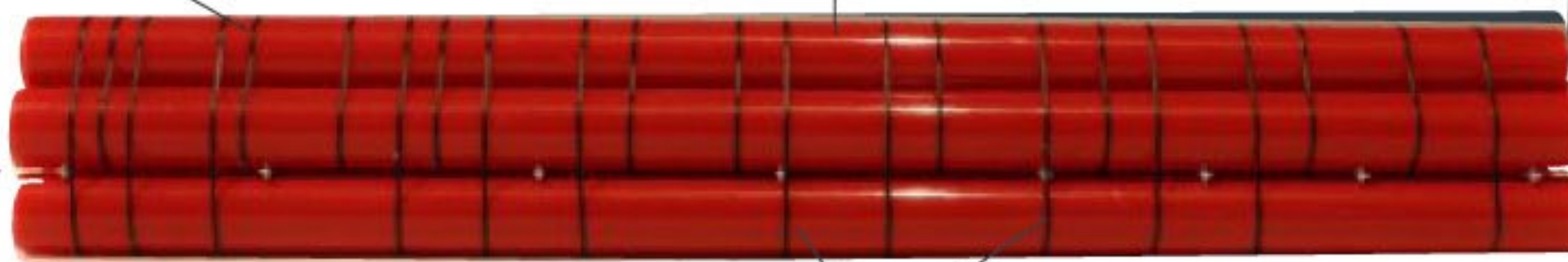
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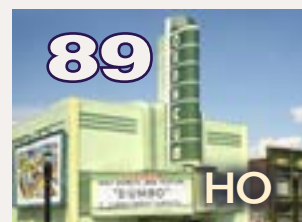


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## About the Publisher



**Joe Fugate** is the featured expert in many [Model-Trains-Video.com](#) videos, and he's also the founder and publisher of **Model Railroad Hobbyist Magazine**.

To learn more about Joe, [click here](#).

## PUBLISHER'S EDITORIAL: Blast from the past

### Musings from MRH's founder



I randomly pulled a bound volume of *Model Railroader* from my collection – 1964 – and flipped to the editorial page for the May issue.

The editorial: *New Ways to Better Layouts*, by Linn H. Westcott.

Linn talks about the recent developments in the hobby that were making layout building easier than ever. Reading this list here almost 50 years later brings both amusement and amazement (parenthetical comments mine):

- Nickel silver rail (better conductivity than brass)
- Track easier to install (flex track rather than handlaid or sectional)
- Pocket NMRA standards gauge (for HO)
- Wheels with better contours (RP25 flanges)
- Magnetic uncoupling (Kadee's were new)
- Couplers that can be mounted easily (Kadee again, mostly)
- Wide variety of locos available (golden era of brass)
- More accurate detail on all commercial products
- Imported products give good performance (debatable by today's standards)
- Brass bodied motive power easy to modify (also debatable looking back)
- Vast array of parts available in brass, plastic, and soft metal
- Paints dependable, easy-to-use, and in many colors (Floquil and Scalecoat)
- Small paint spray outfits available (airbrush)
- Dry transfers for lettering (which never replaced decals)
- Miniature vehicles and people available in variety
- Miniature lamps breakthrough (grain-of-wheat and grain-of-rice bulbs)
- Powered saber saw makes layout construction simpler
- Wide variety of books available on model and prototype
- Wide variety of control schemes: cab control, Astrac (early DCC-like control), feedback transistor throttles (like DCC back EMF)
- Dependable signaling (Twin-T circuit from cheap transistors available)
- Rail available in variety of sizes
- Ballast to scale in many colors
- Styrene materials (brand new modeling material in early 60s)
- Epoxy and other new adhesives
- Rubber mold materials

## CONTEST: Start the hobby for \$500

Sharpen  
your  
PENCILS!



- You have a \$500 total budget.
- Assume basic tools: hammer, saw, drill, screwdriver, scissors, single-edged razor blades, soldering iron.
- Assume advanced tools like a table saw, router, or lathe are NOT available.
- Must design an operating layout or module (continuous running optional).
- Include a shopping list not exceeding \$500 - must cover benchwork, roadbed, track, wiring, control system, rolling stock, locos, structures, and scenery.
- Common items listed for sale on the web like eBay or Yahoo train yard sale okay.
- Thinking outside the box encouraged.

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**Submit entry**  
(select Contest)



That's an interesting list! Many of these things we take for granted now.

One of the biggies is command control – it's now typical to see layouts running DCC rather than cab control. Linn referenced DCC's grandfather: GE's Astrac, which sent an analog signal through the track to a huge (by today's standards) receiver in the locomotive.

Linn also notes improved couplers, which we take for granted today, thanks to Kadee and similar knuckle couplers now being standard on all modern model equipment.

Paints have come a long way as well. Many modelers use acrylics today because of their less toxic nature. Modelflex and Pollyscale have made spray-painting models with acrylics as reliable as Floquil had been in years past. The techniques are a bit different with acrylics, but the results are generally excellent.

While miniature incandescent lamps helped the hobby as Linn foresaw, the new hobby lighting frontier today is LEDs, especially micro-miniature LEDs. Check the MRH articles by Geoff Bunza to get an idea of how far LEDs have come for hobby lighting applications.

Linn goes on to mention the weakest link in a model pike – turnouts. He mentions no commercial turnout is spot on NMRA specs (sound familiar?) and emphasizes the importance of checking your turnouts with an NMRA gauge and fixing any problems found.

Of course, today we have the commercial jig systems from Fast Tracks and Proto:87 Stores, plus the Central Valley turnout ties that yield an on-spec turnout every time (with a little practice).

Finally, Linn mentions the value of having hidden track. At first, this puzzled me because I hate hidden track. But in reading closer, I realized Linn's espousing the value of hidden track as a place to "store whole trains" – well what do you know!

Here in 1964 we have a reference to staging tracks (not the term, but the function). Staging is a well-accepted layout design practice today that would not come to full flower until Allen McClelland's V&O series in the early 1980s.

Talk about a *blast from the past* ... to see that Linn was already suggesting the value of staging trains almost 50 years ago! Linn writes, "Having so much track out of sight helps solve the problem of too much rolling stock ... yet keeps the equipment in use."

Linn continues, "... whole trains are either stored end-to-end or side by side ...".

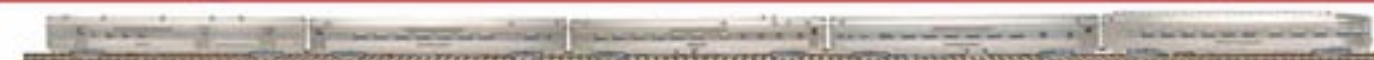
So there you have it – staging tracks in embryonic form – in 1964! Way to go, Linn.

Reading Linn's list reminds me it's a great time to be a model railroader! ☒

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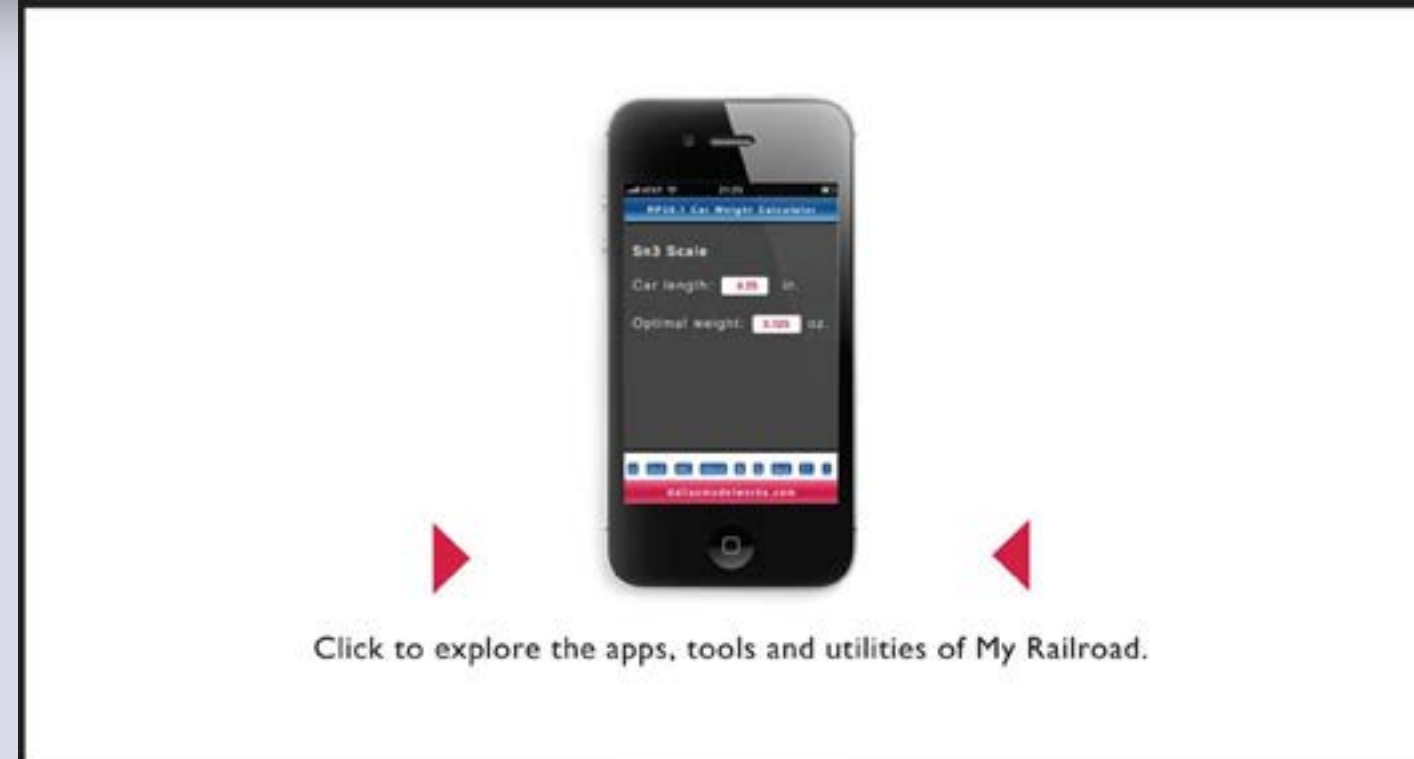
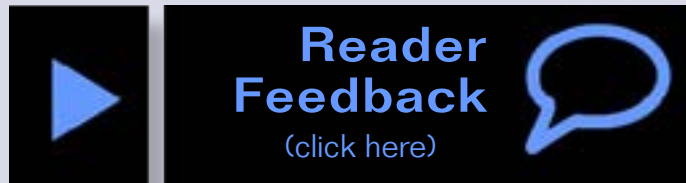




Notes from the

## MRH STAFF

Future of the hobby, MRH Gen 2 coming January 7...



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### The future of the hobby

Google Trends ([google.com/trends](http://google.com/trends)) is a Google feature you can use to see trends for how people search for certain phrases. like "best train set".

Debate rages over whether the model train hobby is growing, shrinking, or holding its own. One good way to tell is to check Google Trends. So what do we find?

All of the following search phrases show upward trends:

- "best model train"
- "best train set" or just "train set"
- "best train ride"
- "best train video"
- "best hobbies"
- "watch polar express"
- "online magazine free"

By contrast, the following search terms are flat to down:

- "Best computer game"
- "Best RC car"
- "Best RC airplane"
- "Best DCC system"
- "Best cell phone"

The following search terms have peaked in recent years and are on their way down:

- "Best laptops"
- "Best desktop computer"

And finally, the following search terms have skyrocketed upward in recent years:

- "best smart phone"
- "best tablet"
- "iphone magazines"

These last three should not come as any surprise, since smartphones and tablets are the latest trend in mobile connected devices. In fact, smart phones and tablets are the fastest

selling Internet devices out there. They're outselling laptops and desktop computers now 5 to 1. Projections are tablets and smartphones will greatly outnumber laptops and desktops by the end of this decade.

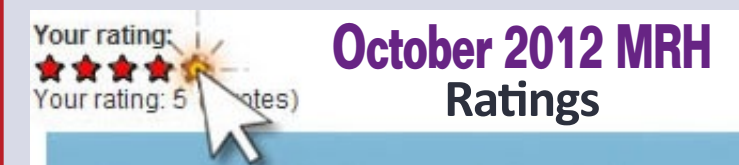
Anyhow, about the future of the hobby. At least right now an increasing number of people are using Google to search for the best model trains, train set, train ride, or train video. There's also an increasing number of people searching for "watch polar express," especially around the holidays.

This tells us the hobby is certainly not dying as far as the general public searching for information about "the best the hobby has to offer" via the Internet, which is good news indeed.

### MRH Gen 2 coming January 7

The December issue of MRH (next issue) is the last of the Generation 1 format. As of January, we move to the new Generation 2 format.

The most immediately noticeable change to the new format is that we're moving to a portrait page format instead of the current landscape format. The most immediately obvious indicator of this change is the



The five top-rated articles in the [October 2012](#) issue of MRH are:

- 4.6 DCC Impulses - System comparison, p2
- 4.6 Allagash gets a quarry, p2
- 4.5 Getting Real - The right time
- 4.4 What's neat - Midwest drought
- 4.4 Up the Creek - Peninsula construction
- Issue overall: 4.5

### Please rate the articles!

Click the reader feedback button on each article and select the star rating you think each article deserves. **Thank you!**



magazine will become available in two main versions – 1 up and 2 up.

## MRH Gen2

New  
1-up format

Best for  
Smartphones



Both formats use the new portrait page orientation, except the 2-up format uses a two-facing-page spread, making it resemble the old landscape format. The 1-up/2-up page trick allows us to make our new format work with smartphones, yet keep a landscape format for tablets and computer screens.

## MRH Gen2

New  
2-up format

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Tablets  
and  
Computers



The other big change with Gen 2: there will be no download buttons on the

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website. Instead, everyone will open the online version, and inside the online version on page 2 will be a *download to my computer* button you can tap or click.

Hitting the download button takes you to a web page where you choose your download options, such as *embed media* in downloaded PDF.

We believe the many ways you can read the magazine now are confusing, and standardizing a single version (the online edition) as the one-and-only entry point for all readers will minimize confusion.

This format change makes it easy for us to add more interactive capabilities, as well as to provide a reflowable version you can read on eReaders.

We hope you find Gen 2 the cleanest, easiest-to-read MRH format yet.

### Cool source for ideas

We continue to be amazed at how few of our readers actually frequent the MRH website.

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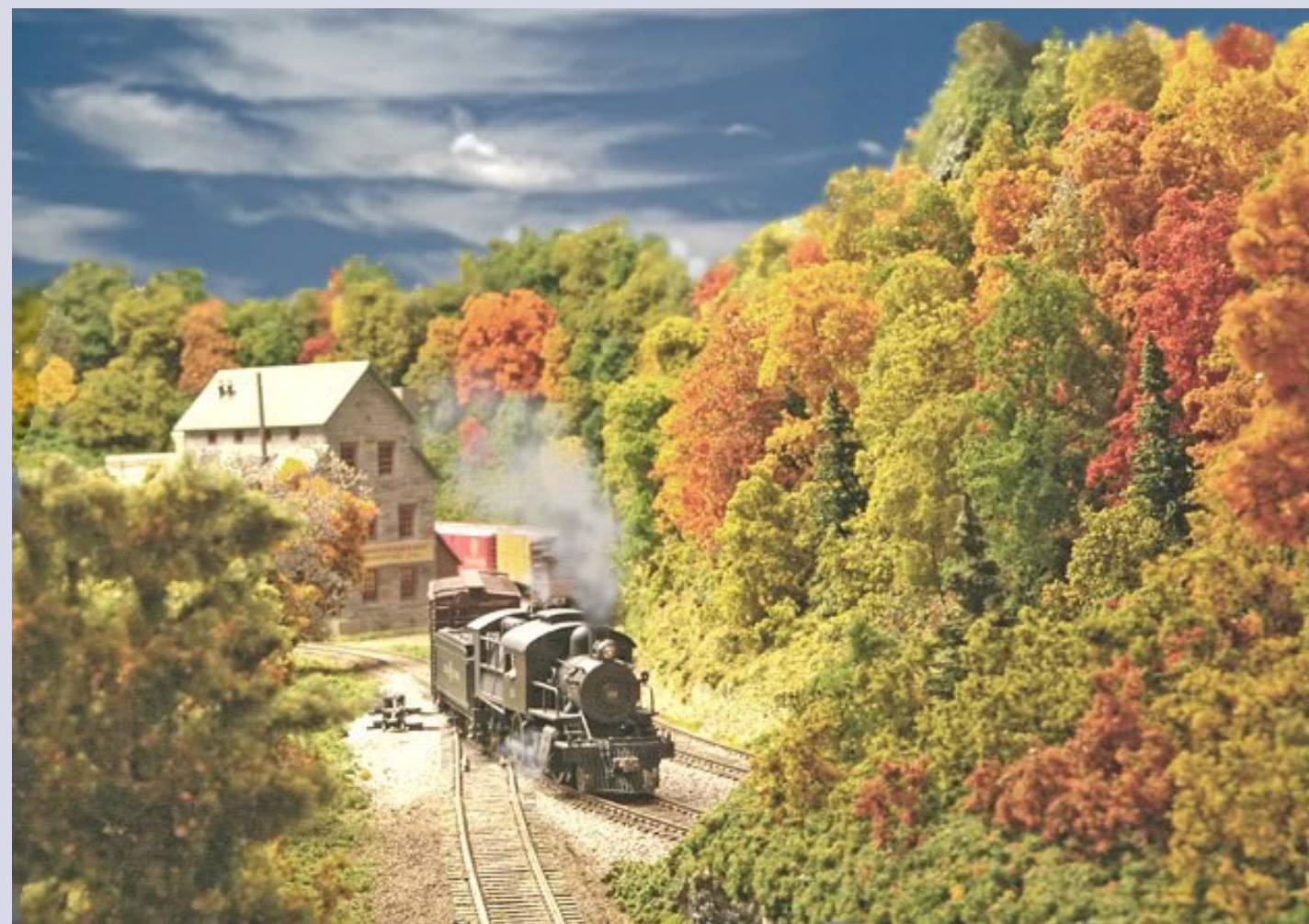


The website generally has one or more really interesting discussion threads going on. A recent example at the time we write these staff notes can be found here:

[mrhmag.com/node/9678](http://mrhmag.com/node/9678)

This thread, entitled *In defense of the puff ball*, has a number of insightful posts in search of how to do forested summertime slopes more easily. As the thread title suggests, the much maligned puff-ball tree-building technique could work if you do it right. But the trick is how to do it *right*.

For example, take a look at this image NYWB posted on this thread:



Not only is this some nice photography and excellent scene composition by MRH subscriber NYWB, the tree-covered hillsides look quite realistic.

Building a forested model hillside by planting one tree at a time is a recipe for driving one nuts, so can we do scenes like this one using puff balls? If so, what's the secret sauce to getting puff balls to look this good?

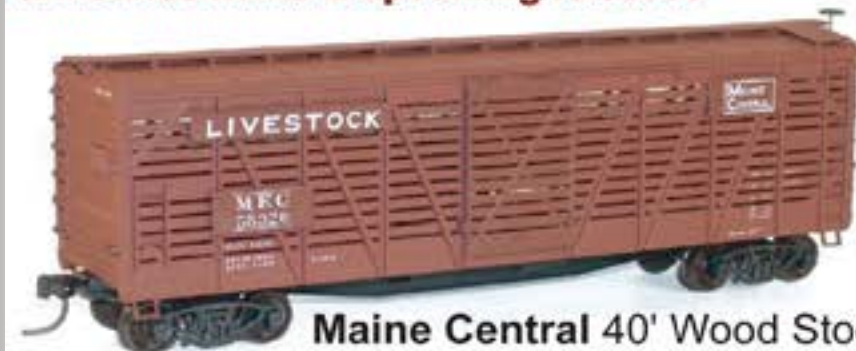
Follow the discussion on the MRH forum and find out. Or, if you already know, then drop by and enlighten the rest of us.

And speaking of cool MRH threads, every week MRH member Driline works hard to kick off the Weekend Photo Fun (WPF) thread.

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The idea is to encourage forum participants to engage in some show and tell using interesting photos of their work.

So make sure to drop by each weekend to check out the WPF thread on the MRH website, thanks to Driline.

## **Wanted: Part time Editor**

MRH is interested in adding a part-time assistant editor to the staff.

We're looking for something on the order of 80 hours per month.

We'd like to find someone who knows model railroading and who has a passion for good writing and good model photography. We're looking for someone who is computer-savvy and ideally has experience working

with either InDesign or Quark to do publication pasteup. Familiarity with tools like Photoshop and Illustrator or Sketchup is a plus.

If you are interested, then please send us a summary of your qualifications using the editor positions link on our website:

[mrhmag.com/contact/Editor\\_positions](http://mrhmag.com/contact/Editor_positions)

## **In this issue**

The November issue of MRH has more staff content than we've had for a while.

Our cover story features Joe Fugate's EasyTrees method of making deciduous trees. Joe makes trees surprisingly fast using this method, and the

resulting trees look like anything but something produced quickly. Joe covers his method step-by-step, along with the time it takes, so you can appreciate how quick this process really is. As a bonus, we have included a free video chapter from Joe's scenery video series illustrating Joe's deciduous tree making method.

Looking at columns this issue, Charlie Comstock continues his peninsula construction saga, moving away from benchwork and trackwork to wiring this time. We find Charlie's wiring methods to be some of the best you'll find anywhere, so you're in for a real treat.

Bruce Petrarca's DCC column provides some handy advice on how to send a loco out to get a DCC decoder install done.

Our prototype modeling columnist this issue, Tony Thompson, takes us through a Southern Pacific depot build, covering numerous tips on how to get good windows, doors, depot signs, and proper paint colors for the SP.

Ken Patterson's back with *What's Neat This Week*, taking us on a tour of Micro Engineering. If you've ever wondered how model track and plastic structures are made, here are some fascinating answers for you.

Mike Confalone finishes up his Allagash quarry project this issue by moving to the quarry work area and road. Mike's techniques, like always, will have you amazed at how easy it can be to get realistic scenery that rocks.



Layout tours – Trackwork – Structures – News – Track Planning – Beginner's guide – Model Railways – New techniques – DCC – Modular modeling – Modeling water – Rolling stock – Model houses – Signs – Small layouts – Weathering – First look – Signals – Curvature guidelines – Clickable ad links – Video – Operation – Prototype modeling – Lighting – MRH forum – Interactive reader's mailbox – Questions Answers and tips – Upcoming events – Tunnel liners – Building signs – Modeling the Modern – Scenery Scene – Painting equipment – Rolling stock tuning – The Tool Shed – Layout owner interviews – Show floor coverage – Static grass guns – Kibbles – LED lighting – Scratch building – Highway stripes

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Joe Fugate took inspiration from an MRH forum thread to compile his *Building an Affordable Rolling Stock* piece. In this article, Joe presents four tricks for getting a decent equipment fleet without breaking the bank.

Isaac Herrera shows you can do a lot with cardstock in the first half of his *Modeling a Streamlined Movie Theater* two-parter. Isaac's methods of printing detail to cardstock makes it darn easy to get interior detail in record time.

M.C. Fujiwara has been blogging on the MRH forum about an N scale shelf layout he built recently, and the content was fabulous. Since far more of you read the magazine than frequent the website, we pulled much of the content from M.C.'s thread and polished it into an article. M.C. sent us some additional material just for this article.

There's also the November news, the November product showcase, *Questions and Tips*, and some editorials, rounding out the November issue of MRH, our 33rd magazine so far. Enjoy! ☒



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# The Amherst Railway Society Railroad Hobby Show

Our 2013 Show will be

# January 26 & 27, 2013

## Save the dates!



### About The Show

Every year late in January or early in February, the Amherst Railway Society holds its Railroad Hobby Show at the Eastern States Exposition Fairgrounds (The home of The Big E) in West Springfield Massachusetts. More than 25,000 railfans and public attended the Show each of the past three years.

The event features real life railroads and scale model railroads, historical societies, travel agencies, art shows, flea market dealers, importers, manufacturers and photographers. You have to see it to believe it!



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# MRH

## Questions, Answers and Tips



### QUESTIONS AND ANSWERS

**Q. When using a car card and 4-cycle waybill system, am I correct that not all the waybills are going to be on the same cycle at the same time? If you stop and start sessions would this be an issue, or is it a case of look at the waybill and do what it instructs? Am I just over-complicating things?**

**A.** The answer to the first question is “yes.” The second answer is also “yes.” It doesn’t matter if you’re using 2-cycle or 4-cycle bills, either. Waybills will not all be on the same cycle. Crews react to the waybill’s routing instructions. A car may take more than one session to reach its destination, or may be held for more than one session for loading or unloading. Each waybill is independent of any

other. Normally a waybill stays with a car through an entire load and/or empty cycle.

Consider two examples:

Car One runs in a through train from staging to staging. Once it reaches its destination, it’s ready to have its waybill turned, or to have the old bill pulled and a new one assigned.

Car Two is routed from staging to an industry. One train may bring it from staging to a yard. Depending on when the car gets classified, it may or may not make connections with the local that will deliver it. If it doesn’t, it sits there in the yard until the next

session. You do not turn the waybill, because it has not reached its destination.

Let’s say the car has been delivered. If the industry can unload only half the car in a day, the car stays at the industry until the waybill gets turned to indicate it’s ready for pickup. Three complete sessions may have now passed. If the waybill gets turned between sessions, the local train picks it up, and delivers it to a yard for forwarding. Due to connections, the car may or may not get lifted by a main-line freight in the same session.

Car Two’s operating pattern can be further complicated. Let’s say that

1

XM Box car, general service

NW 3615134

X boxcar red Len 40

Door Width: 6.5 Cap: 55 Tons

Build Date: Rebuild: 11/67

Empty Car Request

XM Box car, general service

Case Trucking Co

Product: General Merchandise

Via:

Instructions:

XM Box car, general service

SA 354

X boxcar red Len 40

Door Width: 8.0 Cap: 50 Tons

Build Date: 05/56 Rebuild:

Freight Waybill

To: Best Foods

Coleman Place

Fr: Florida's Produce

Jacksonville, FL

AAR: VA Box car, ventilated

Lading: Produce

Routing: F FEC

NW 3545

EMD GP35

Road Engine

Diesel Cap: 10 Cars

Build: Rebuild:

☒ DCC ☐ Sound

NE Caboose

NW 530343

N red

Build: Rebuild:

49

**1: Car card and waybills systems can be as flexible as the operations designer chooses, assigning car routings and multi-move sequences, as well as directing empty car handling and locomotive assignments. (RC Langer photo.)**



when it arrives, the industry is already full, and the car has to be left “off-spot” somewhere convenient. That’s at least an extra session until the car is spotted at the industry. Let’s say that the local isn’t a turn, but runs in one direction from terminal to terminal, and returns the next day. If the industry can be switched only in one direction, the car could end up getting dragged all the way to a terminal and stay there past the end of the session before being hauled back in the opposite direction. Back-hauling a car can be more efficient than trying to figure out a runaround move to spot a single car in a spur that faces opposite the traffic flow. We could now be up to several sessions before delivery.

If you’re just starting up car card/waybill operation for your layout, “seed” the layout to distribute cars between industries, the yard and staging yards, all on different turns of the waybill, and different points in their journey. Some will be ready to be picked up, some to be loaded or unloaded. Fill the yard with roughly equal groups of cars on the move to industries on the layout, and half returning from industries. No rule says a car has to start at #1 on the waybill.

Some people always use all four moves of each waybill and permanently assign each waybill to a car. They balance traffic by having a fixed number of waybills for each industry. Car card and waybill operations can be made more flexible by removing waybills and re-billing cars, and using as many waybill cycles

(two, three, or four) as are needed to achieve the desired routing pattern. Or, you can pull the waybill entirely when a car has delivered its load, and follow a “return to xxx” routing printed on the car card. Some cars, such as free-running boxcars, may be sent back to the home road or used to cover an online load.

A third way to create a new routing is to “rebill” the car. This term means the car is moving under one waybill, but for one reason or another, the car is diverted to another point. Plastic pellets, for example, may be shipped to a storage-in-transit yard and then rebilled from that yard to a final destination via another waybill. Lumber and fresh produce loads were also handled this way.

With perishables and lumber, the shipper would load the car and bill it to a generic place (care of agent) and while the car was in transit, they would sell the commodity in the car to a customer, then do the diversion. Since lumber and perishables were sold on a spot market, less time was lost in transit. If the car didn’t sell quickly or was sold to a broker who then resold the load, the car might be diverted a couple of times. One waybill, multiple superseding destinations.

For storage-in-transit plastic pellets, the chemical company would make one waybill to send the car to storage, then create a completely separate waybill to ship the car from SIT to the final consignee. Two waybills,

two destinations. Since SIT cars can be stored for months or even years, having two waybills is easier to deal with than having a two-year-old waybill floating around.

RC Langer made an excellent blog post on setting up layout operations at [model-railroad-hobbyist.com/node/5210](http://model-railroad-hobbyist.com/node/5210).

Printable car card and waybill .pdf forms can be found at [nmra.org.au/Pages/waybills.html](http://nmra.org.au/Pages/waybills.html).

More data on basic operations is found at [gatewaynmra.org/designops.htm](http://gatewaynmra.org/designops.htm) although the references to Old Line Graphics are out of date. Micro-Mark now offers paperwork for car-card/waybill operations.

Tony Thompson recently covered an evolved car forwarding system in the May 2012 Model Railroad Hobbyist at [model-railroad-hobbyist.com/magazine/mrh-2012-05-may/getting\\_real](http://model-railroad-hobbyist.com/magazine/mrh-2012-05-may/getting_real).

– Dan , Peter Ulvestad, Chris van der Heide, sbird426, and Dave H.

## Atlas Custom Line vs. Super Track

**Q. Can anyone clarify the difference between Atlas Custom Line and Atlas Super Track turnouts? The #6 505/506 vs the 563/564?**

**A.** The overall dimensions of the two turnouts are different. The 506 is Code 83 Super Track [atlasrr.com/Images/Track/Trackphotos/506.JPG](http://atlasrr.com/Images/Track/Trackphotos/506.JPG) and the 564 is “Custom-Line” [atlasrr.com/Images/Track/Trackphotos/Code83/564.jpg](http://atlasrr.com/Images/Track/Trackphotos/Code83/564.jpg).

[com/Images/Track/Trackphotos/Code83/564.jpg](http://atlasrr.com/Images/Track/Trackphotos/Code83/564.jpg).

Custom Line turnouts are used in the Atlas track plan books and share dimensions with the Code 100 track. Super Track will not work off-the-shelf with the track plan books and will require trimming in many applications.

The Custom Line #6’s form a crossover with 2” spacing between tracks and using them on a crossover saves a little cutting. To achieve this, the rails on the diverging route are shorter than on Super Track, and the ties are arranged to accommodate this, which makes the appearance of the ties less realistic, as does the inclusion of ties cast around the rail joiner locations at the ends of all routes.

The geometry is identical.

Some people will tell you ties on one Atlas line are black and the other brown, or that one is more detailed, but both code 83 products have brown ties and the latest versions are very close in detail. Super Track has a more prototypical tie pattern where the tracks diverge, like Micro Engineering or Shinohara, while Custom Line has a pattern more like the train set track at the ends.

Unlike Super Track, Custom Line is set up to use Atlas switch throws and switch motors, so the throwbar doesn’t work as easily with a Caboose Industries standard ground throw,





2: Atlas code 83 switches are similar, but not the same, with the HO-Super Track 83 and Custom-Line Mark IV lines differing in tie patterns and compatibility with accessories. Custom-Lines come on a red and black card, and Super-Tracks on a silver one.

and there are no headblock ties. The throwbar on the Custom Line switch can be reversed to work from the diverging route side of the tracks. Super Track switches have long headblock ties and a throwbar extending well beyond the track on either side.

[The Atlas Custom Line throwbar snaps onto the points, and can readily be removed and flipped if need be. Tip the point inward a little, and use a small screwdriver to gently pry it away from the throwbar (the points each have a hole that engages a plastic pin on the throwbar). Once both points are removed, reverse the process to re-mount the throwbar in the desired direction. Sometimes a point can get misaligned and lean away from the stock rail. If this happens, hold the throwbar and carefully bend the point back to where it rests properly against the stock rail.]

The Super Track line comes on a card with a silver background and has only #6 switches. Custom Line comes on a red and black card has #4, #6, #8 and wye switches. The #8s work great, but the long frog castings (17' in HO scale) create enough of a dead spot to require powering to prevent locos from stalling.

A properly-tuned Atlas code 83 turnout is very reliable, and yields operation similar in quality to Micro Engineering turnouts, or Central Valley kits.

Which to choose depends on what you're looking for ... if you're looking

for a prototypical tie pattern to put into a well-detailed scene, you'll probably want the Super. If you're not that worried about track details, or want an easy-to-install crossover, the Custom Line will work.

– LD Bennett, Steve, Rob Spangler & Jim

**Q. I just got around to opening a Walthers "New River Mining" kit and noticed that the window mullions are molded into the clear plastic. I'm used to the two-piece deals with the frame and mullions applied separately and the clear plastic is added afterward. What is a good way to paint these?**

**A.** Readers offered several techniques.

**Rubber stamp:** Paint a thin layer of color on a flat rubber eraser, and then rubber stamp the windows onto it. Sometimes a second or third pass is needed but it works real nice. It helps to lightly rub the window frames face down over some 600 sandpaper placed over a flat section of glass. This gives the paint something to stick to. Just do a light buff; that is all it takes.

**Decals:** Cut strips of the appropriate width from a sheet of decal film, and apply to the windows.

**Markers:** A Sharpie permanent marker works. The markers come in several widths and colors. Run the marker along the muntins and frames. Buffing the 'painted' surfaces with fine sandpaper helps.

**Tape:** Grafstick tape ([grafsticktape-andlabel.com](http://grafsticktape-andlabel.com)) comes in widths from



1/64" to 3/16" wide and comes in several colors and gloss and matte finishes. Matte finish white is easy to paint. Grafstick tape is not ultra-sticky, but holds well enough. Chartpak is another popular brand. Both can be found online, and in art and office supply stores.

**Weathering powder:** Sprinkle some weathering powders on a flat surface, then rub the windows over it. This gives an excellent result if the window muntins' surface has been buffed with sandpaper.

**Mask & spray:** Use Micro Mask liquid masking medium from Microscale Industries. Just one little drop over each window pane usually covers them enough. Paint with brush or spray and peel off the mask.

**Replace:** Step 1, throw away the stock windows. Step 2, buy some Chartpak tape. It comes in many different widths and you can find a suitable size. Step 3, tape .010" clear styrene, or your favorite glass material, to a flat surface, and add the muntins to the clear glass in any pattern that suits you.

According to Wikipedia and the dictionary, we're talking about muntins, as well as mullions.

A muntin or muntin bar is a strip of wood or metal separating and holding panes of glass in a window. Muntins are also called "glazing bars," "muntin bars," or "sash bars."

Muntins can be found in doors, windows, and furniture. Muntins divide a single window sash or casement into a grid system of small panes of glass, called "lights." Mullions separate complete window units.

– E. G. Hall, John, Bill & Bill



## TIPS

### Under the layout

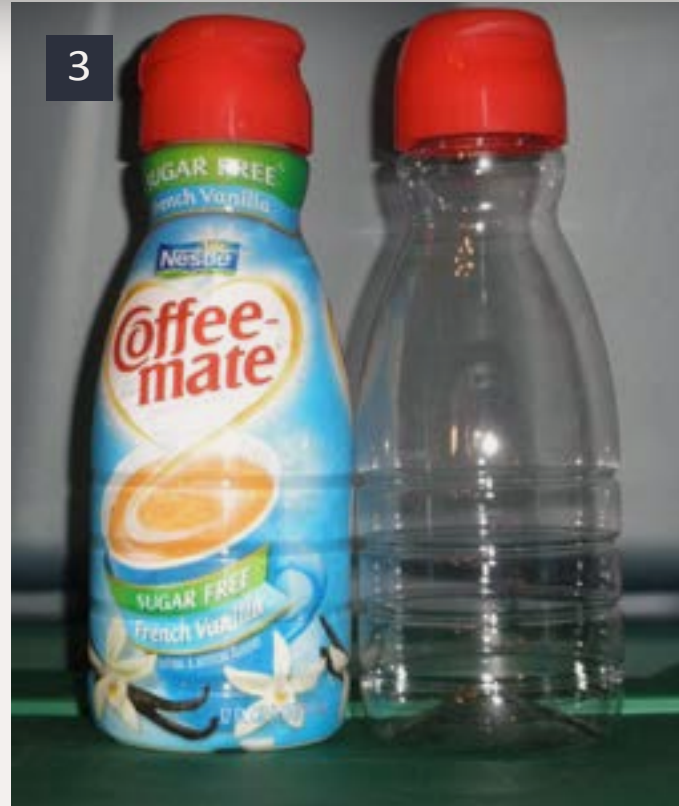
When working underneath a layout, I use an inflatable exercise ball to support myself. My layout has 48" legs and I use a 30" ball. I lay on the ball, face up, and can roll around underneath comfortably. It's never much fun to work under the layout, but the exercise ball provides simple comfortable support for a hard to reach location.

– Nancy Jean Burkholder

### Ballast tote

When travelling with our modular group, I wanted to find something convenient and cheap that would help me easily ballast connector tracks. My criteria included a clear container to view the contents, and a closable lid with an easy-pour spout. I found

3



3-5: A Coffee Mate liquid container made a perfect ballast hauler and applicator for Richard Michael Horn.

the solution in my refrigerator. I am an avid coffee drinker and use liquid Coffee Mate in my morning cup.

All I needed to do was peel off the plastic label, wash out the container, and I had a nice portable container that pours ballast right where I want it. The screw-on top of this container makes it easy to fill with ballast. The container has a closable top covering a nicely shaped pouring spout.

– Richard Michael Horn

4



5



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EXECUTIVE LINE

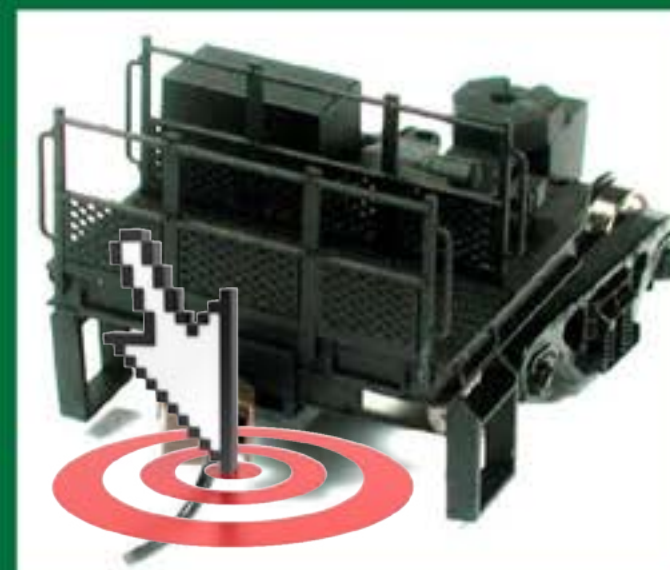
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## About our layouts columnist



**Charlie Comstock** is a MRH contributing editor.

[Click here](#) to learn more about Charlie.



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## UP THE CREEK: Peninsula Construction!

A regular report on the construction of a 1950s-something layout

**Getting wired – changing the short circuit protection, controlling eight Tortoises, plus , serendipity in the new South Jackson yard ...**

I'm working toward an unofficial deadline of getting the Bear Creek & South Jackson back into operation in time for a January op session. Good progress is being made.

### Staging progress

I'm pleased to report that the "A" side main staging yard (5) entry throat is completely operational. The turnouts are installed, Tortoises are installed and a simple control panel (1 and 2) operates them.

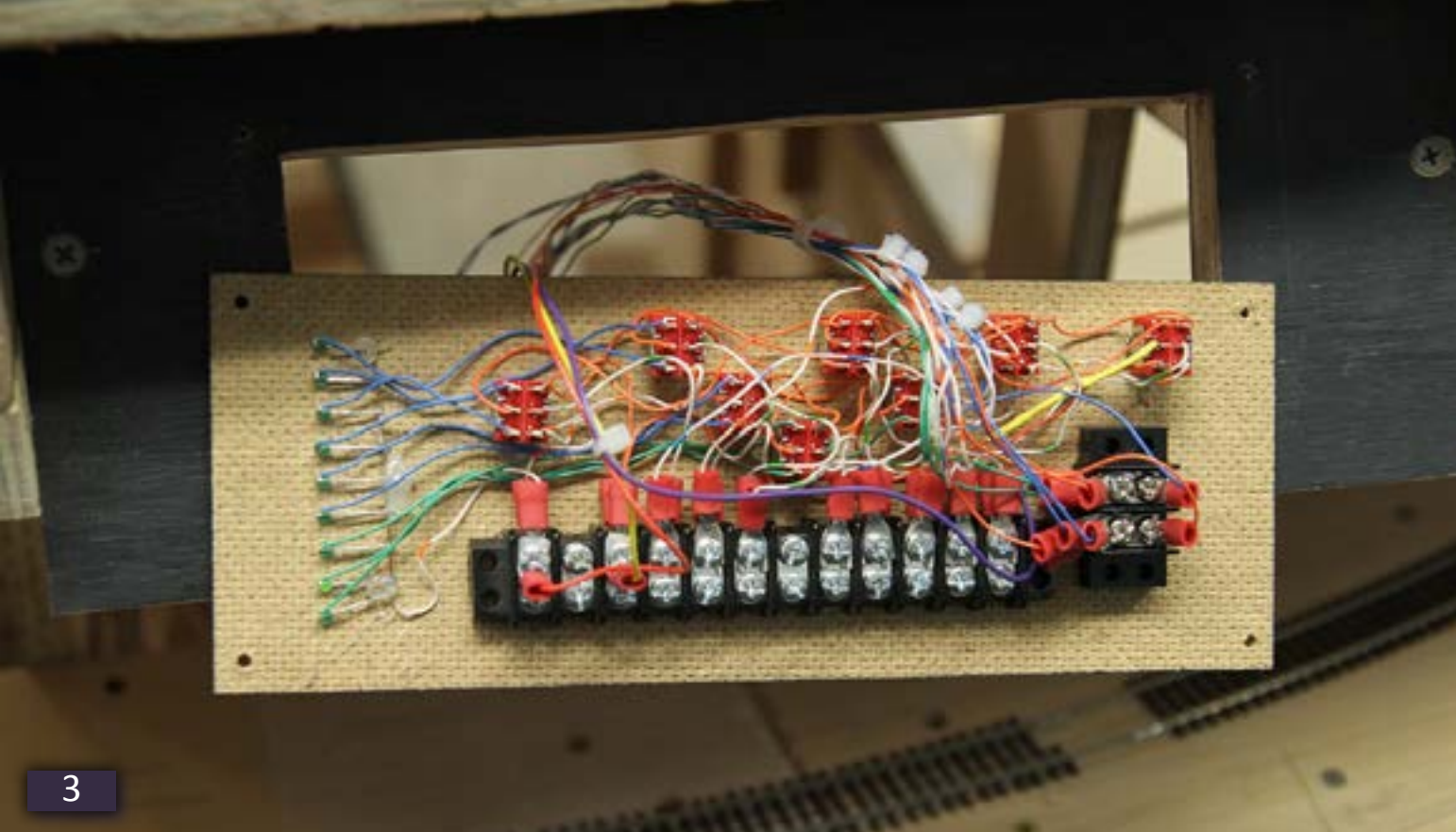
I plan to eventually have push-button track selection to simplify operation, but for now each turnout gets a toggle switch. Because the turnout configuration is a bit complex, I used DPDT

1. The preliminary control panel for the main-level staging yard. I ink-jet-printed the diagram on glossy photo paper, laminated it to 1/8" Masonite with Scotch 77 spray adhesive, and oversprayed it with polyurethane varnish to protect it from stains. The LEDs on the left light up to show the selected track.

2. The panel sits in the side of the fascia above the yard throat. I set the upper deck roadbed in place to double-check visibility.



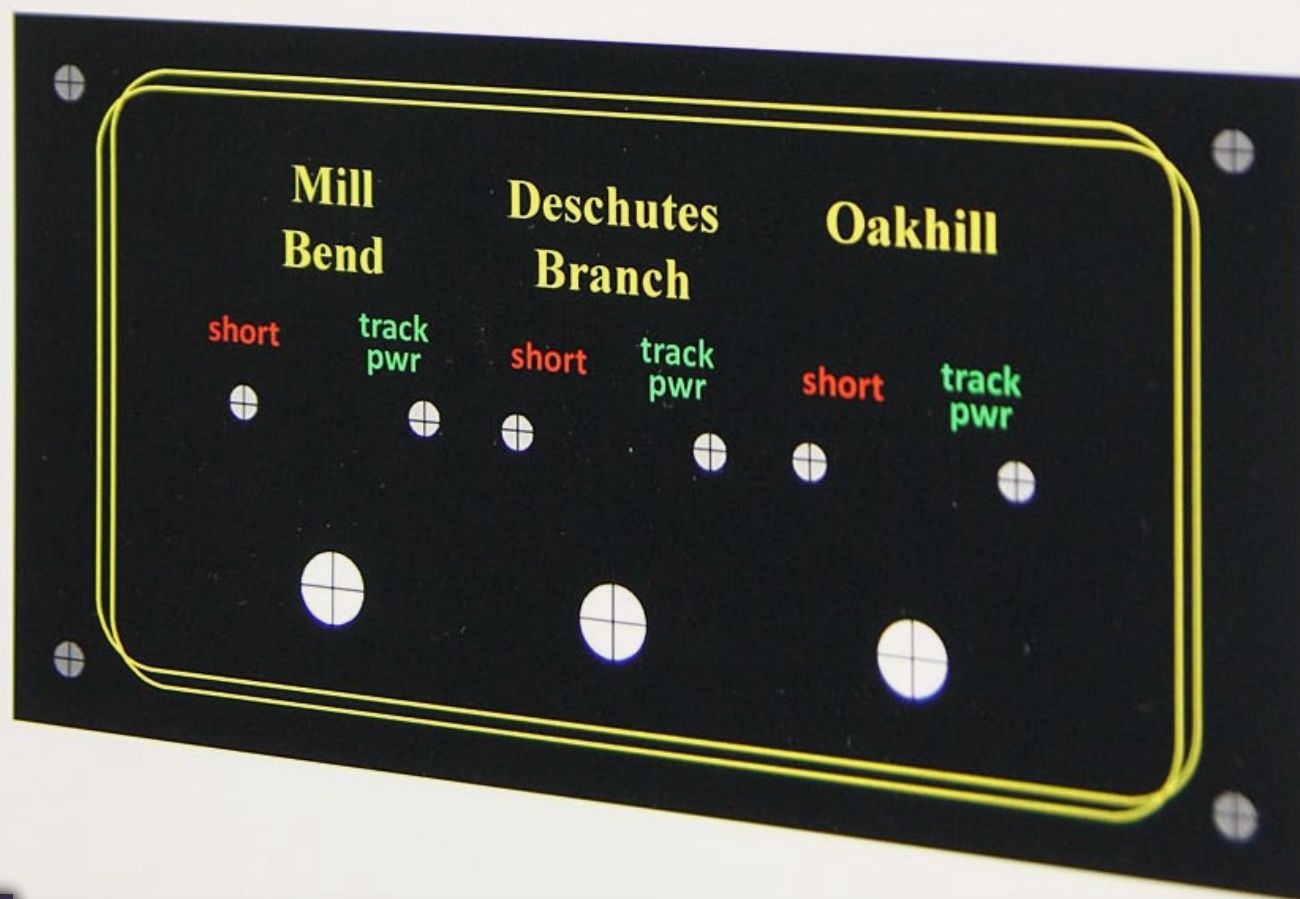




3

3. Lotsa wires behind the control panel. I built it from 3/4" plywood and 1/8" Masonite. I hot-glued the LEDs and barrier strips in place.

4. Here's an example of the diagram for another control panel I'm working on. I printed it on glossy photo paper with a Canon ip5200 ink jet printer. High contrast, crisp graphics look great.



4

switches – the first pole operates the Tortoises while the other poles are cascaded to illuminate a LED showing which of the nine tracks is selected.

The panel is built into the side of the fascia above the staging throat. I did some test installations so the panel will be visible and not intrude too far into the aisle.

With the panel installed and power in the tracks, it was time to run some trains through the turnouts looking for derailment prone locations. My work session crew found a couple I'll need to adjust.

## New short protection

For the last few years I've been using 1156 automotive taillight bulbs to isolate each block from the others. The isolation means a short circuit in one block won't affect trains in other blocks.

The theory is that by connecting the tracks to the boosters in series with a taillight bulb, when a short circuit occurs the bulb lights up and limits the current to about 1.5 amps. My 5 amp boosters handle this in stride.

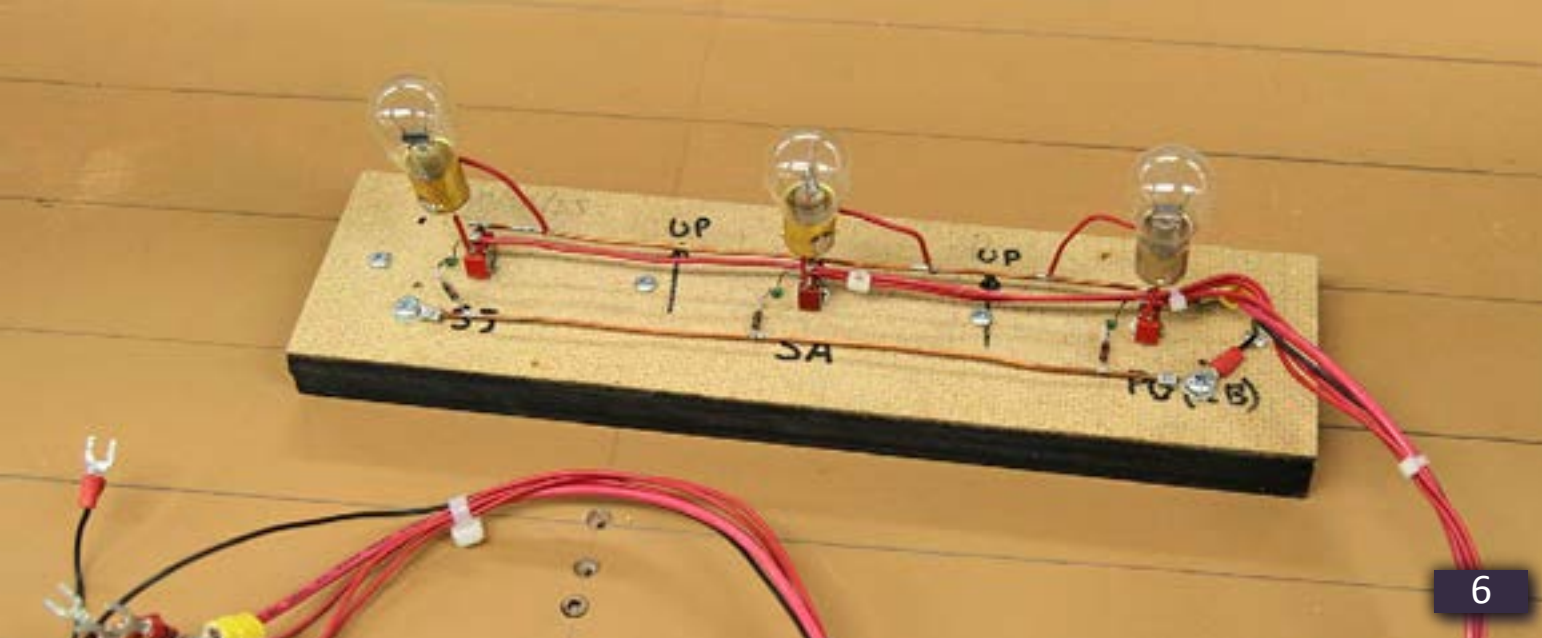
Without the bulbs, the booster would detect excessive current and shut down (to protect the booster and to

5. We used a long train of diverse car types to test the track work in the main staging area. It pays to thoroughly test new track before putting the upper deck in place. Visibility is good, especially when it comes to working on turnouts.



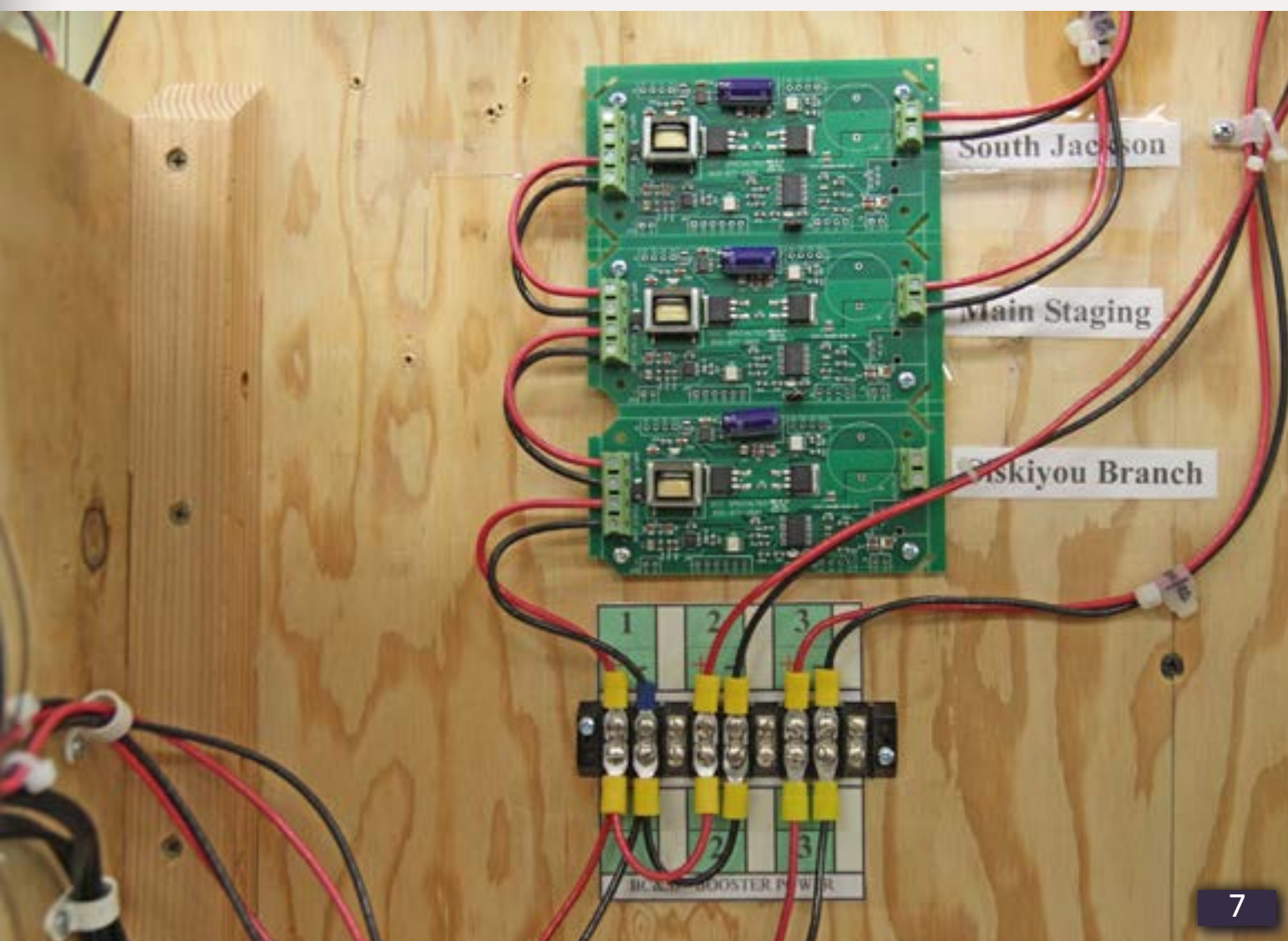
5





6. One of my 1156 taillight assemblies. Each bulb is wired through a SPDT switch. One position connects the bulbs in series with the track. The other position connects the track directly to the booster (no bulbs). The center position turns off track power. This allowed me to test the effect of the taillights on operation.

7. I'm replacing the 1156 bulbs with DCC Specialties PSX power shield electronic circuit breakers. The one shown handles three separate track circuits (blocks).



prevent things on the layout from getting hot enough to weld wheels to rails or set the roadbed on fire).

This works but there are a few undesirable side effects. I wired my taillights using a SPDT toggle switch (6) so I could run with or without the bulbs to observe any problems.

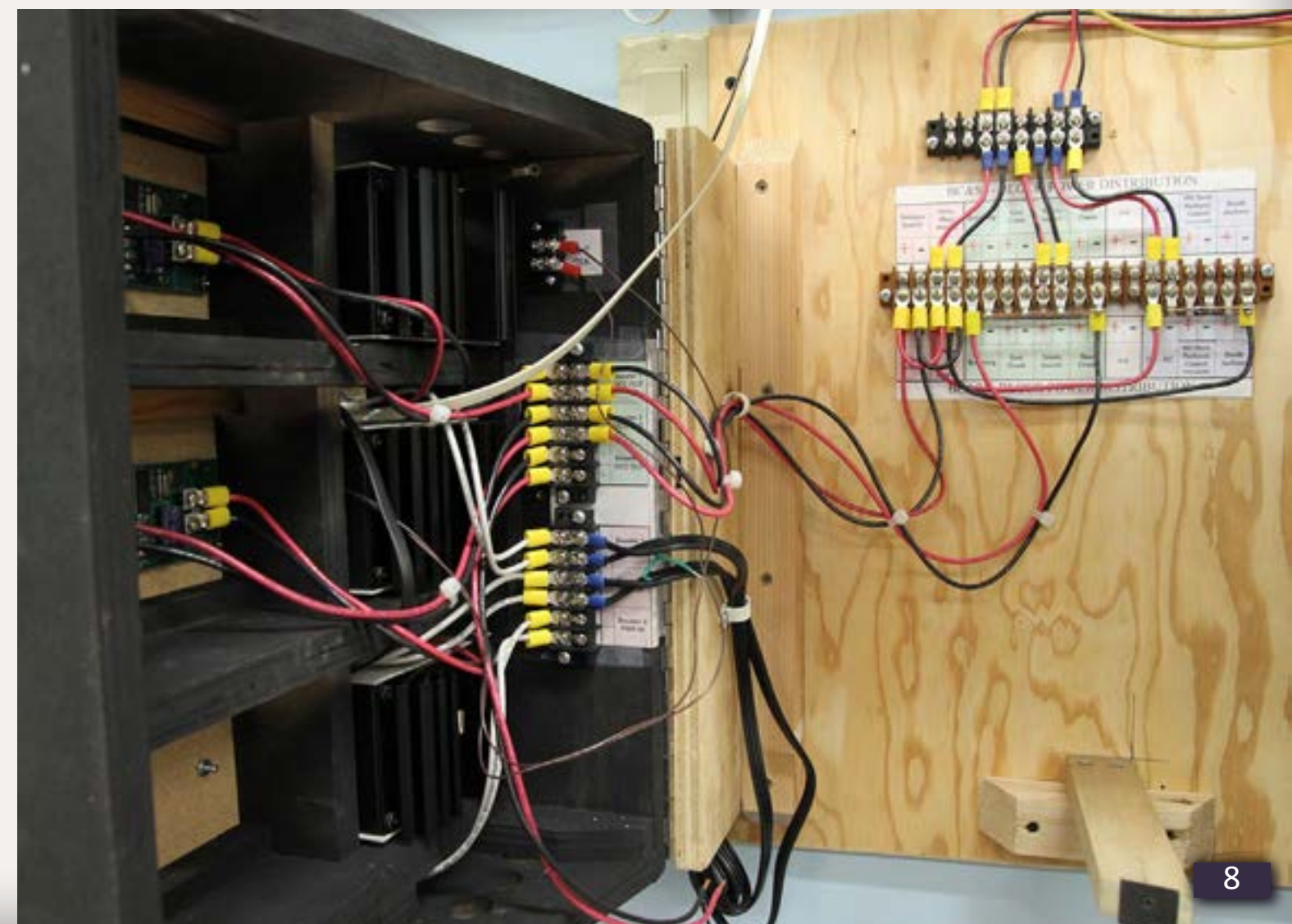
The good and the bad about current limiting 1156 bulbs (green bullets are advantages, red are issues):

- Taillights are cheap! Electronic devices are darned expensive.

- Taillights have a substantial delay before they control short circuit current. I had to set my Digitrax boosters to their 500ms crowbar delay to prevent the boosters from shutting down before the lamps lit up enough to limit the current.

- Taillights start to glow with less than an amp passing through them at which point they greatly reduce the voltage available on the track. In other words, just when your locos grinding uphill need all the

8. I was in the middle of wiring the layout power behind the booster rack when I decided to change from taillights to electronic short circuit protection. The new wiring is shown to the left (7). Below is the old wiring. The new wiring locates the PSX Power Shields closer to the blocks they protect.







**8, 9. South Jackson looking toward the turntable's corner. Most joists have been set in place and some wiring installed.**

**10. With the South Jackson roadbed set in place it's obvious where the turntable will get installed.**



power they can get, the voltage available to them gets reduced.

- The time delay before a taillight starts to glow can cause feedback between the throttle and the loco, making loco control harder.
- Lots of active locos in a block may draw too much current to work with taillights. Two lamps can be wired in parallel but then the current allowed in a short circuit will double.

After reading the literature and talking with some friends who were using [DCC Specialties PSX Power Shield](#) units, I decided to give them a shot.

- PSX units are said to be able to tell the difference between the inrush current of a fleet of sound decoder equipped locos or a short when trying to recover from a short circuit.
- PSX units shut off track power in a few milliseconds when a short is

detected, making damage to track or locos much less likely.

- PSX units can be configured to work with relatively high currents. No more problems with multi-unit lashups.
- PSX units are a LOT more expensive than taillight bulbs.

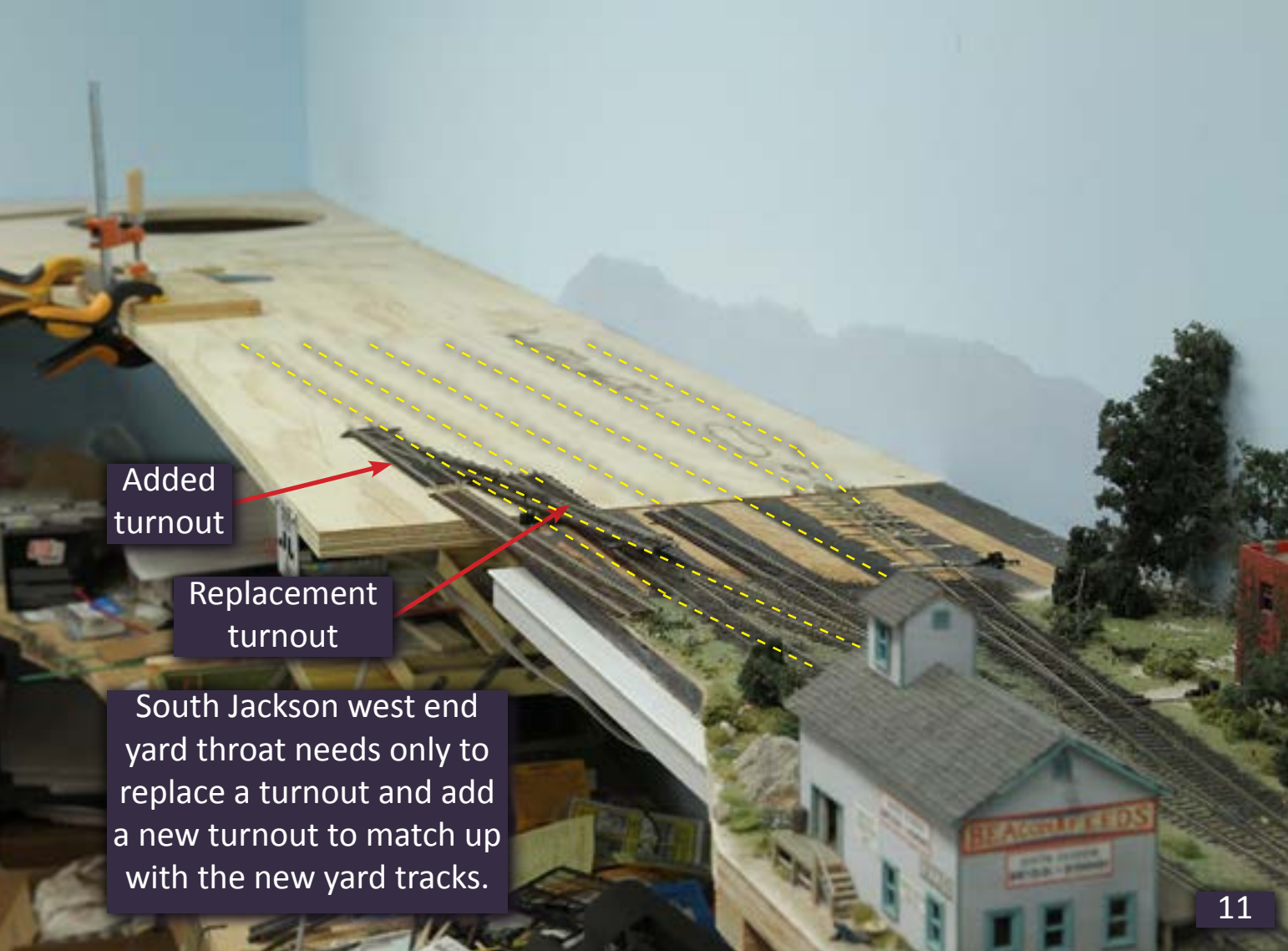
I don't have enough time using the PSX units to report on their performance at this time, but I'll try to do so in the future columns – stay tuned.

## Serendipity in South Jackson

If you've been a regular reader of my column, you'll know that when I connected the peninsula to the wall (and the rest of the layout), the elevation of South Jackson yard was incompatible so I had to remove most of South Jackson yard. I was expecting this, so it's not a big deal, but before I can start operating again I'll need







11, 12 (next page). It seemed a shame to remove a functioning yard throat before I had to. This throat was part of the “scrap-box” version of the South Jackson yard and was built with #6 turnouts instead of the #8s I wanted. However, I was relieved to discover that splicing the old west end South Jackson throat onto the new yard tracks would be a snap!

to replace the parts of South Jackson that disappeared.

The benchwork is nearly complete now, with wiring starting to go in below it. I knew the east (left) end of South Jackson would need a complete rebuild. What about the west (right) end? Would it be possible to reuse the existing yard throat or would that also need replacement before trains could run again?

What can I say? Through sheer luck it looks like the existing west end yard

throat will be usable by changing a single turnout!

It’s true that eventually I’ll rebuild this throat. The plan calls for combining the South Jackson and Mill Bend sidings into a long lap siding. However, not doing this right away greatly decreases the time before operations start again.

I can spend the time saved here on getting the rest of the layout up and running instead of rebuilding something that’s already present.

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# South Jackson Gazette

## No trains is no good say locals!

The local population along the Bear Creek & South Jackson railroad has been getting increasingly unhappy because trains have not been running for quite a while.

Promises from railroad general manager, Charlie Comstock, that the universe is expanding again and the new railroad will be bigger and better than ever aren't being taken seriously by many.

Said a group of patrons in the Bear Creek Grill while waiting for Gastonary Delyte to dish up their lunches, "Just doesn't seem like a reasonable thing. We see all the railroad's locos and rolling stock just sitting idle along the mainline and sidings all over the place. What's the matter with these guys? Don't they want to run trains anymore?"



A convoy of locals driving down he circular path to the new underground parking area on the expanding BC&SJ.

Normally truculent Horace Fithers was taking the side of railroad management for once. "If them fellers doing all the complaining had any sense at all they'd go out and help the railroad get the new universe built and the trains running through it. Heck, all ya got to do is go out to where they're workin' to see the universe is going to more than double in size! Now I say, that's something worth waiting for. And as far as them trains just sitting around, well anybody with any sense would know that's because all the engineers and conductors are out working on the new railroad."

Indeed, this reporter went on an expedition to the center of the world where a large new yard area is under construction. All I can say is it's going to be huge!

Said Mr. Comstock, "We're working as fast as we can. Trains are already running in our new underground parking area and we expect to resume regular operation on our augmented railroad in another couple of months. In the meantime I hope all those nay-sayers will stop – the gloom and doom is just plain annoying." ✕

\* Enjoy the Gazette? Read more at [bcsjrr.com](http://bcsjrr.com)



12

### What's left before ops?

Well, that's a good question. With staging and the helix operational I need:

- To finally wire the junction at the top of the helix. I've been putting this off because the two reversing loops that converge here need three 4PDT relays to control polarity, run signals, and power frogs. This is at the top of the priority list.
- Build the South Jackson turntable and get it installed while the road-bed is still removable (not covered with tracks).
- Lay the yard and industry tracks in the east end of South Jackson east.

- Connect the existing west end throat to the new body tracks
- More wiring!

Will I make it in time for a January op session? It's hard to tell for sure, but it seems possible. My day job sure gets in the way of layout progress! ☑



**Reader Feedback**  
(click here)







## New 4000<sup>cf</sup> Canadian Built Gondolas



HO Scale

Available only in Canada you say?... Pity, eh?



N Scale



## About our DCC columnist

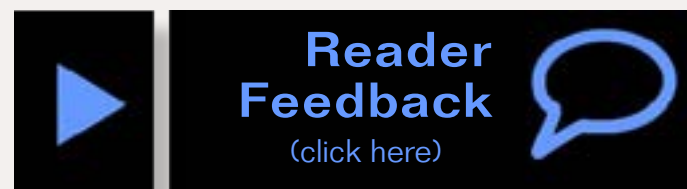


**Bruce Petrarca** is a well-known expert on all things DCC.

[Click here](#) to learn more about Bruce.

# DCC Impulses: Do I get an installation done?

## Tips on getting your locos running on DCC without doing it yourself



There really is help out there! ...

Now that I got to push a few paradigms with my *How Do I Get the Sound Out?* column ([model-railroad-hobbyist.com/magazine/mrh-2012-08-aug/dcc\\_impulses](http://model-railroad-hobbyist.com/magazine/mrh-2012-08-aug/dcc_impulses)), I feel that folks now know enough of how I think, and I'll be sharing some installation notes in a new sidebar. Starting this month, the after-word from my column may be more SMP thoughts or, like this month, ideas "From Mr. DCC's Workbench". This month, we will be thinking outside the box with an HO-scale U-boat. Check it out on page 34.

A recent email from a MRH reader got me thinking about this month's subject.

Okay, you've got a loco and you want DCC (with or without sound) installed into it.

In some of my first columns, I covered what it takes to do an installation yourself. You may or may not have the desire, experience, tools or time to do so.

Let's talk about other options.



1: Cleaning up an installation, the before and after photos.

### A friend

Many folks do DCC installation. Some are hobbyists who do work for friends. Some are part time and some full time professionals.

I'd like to say that they all do good work, but my experience shows otherwise (1).

Digging back in my history photos, I came up with one from 2001 (1). It is a Life-Like GP18. The Life-Like bulbs had burned out and the customer

sent it to me for LED installation. When I looked inside, I couldn't just do LEDs. I had to clean it up, as shown in the lower half of the photo.

Now, I don't know who did this installation, but I know that it wasn't the owner. By the way, the owner said that the loco ran much more reliably after I installed the LEDs and reworked the installation. I suspect a cold solder joint was the culprit.

Don't just assume that your friend who installs decoders takes the time



or knows what is needed to make a quality installation. You might discuss my standards ([mrdccu.com/services/workmanship.htm](http://mrdccu.com/services/workmanship.htm)) with him before hand. If he thinks I'm out of my mind, then you may want to reconsider having him work on your baby.

Excluding plug-in installations, I spend about an hour on a non-sound installation. Sound can run up to three hours. There are the few that just don't want to cooperate. I've spent as much as 10 to 12 hours on an occasional installation.

Since I had already quoted the installation based on a couple of hours labor, I didn't make much on those. Included in these estimates are the installation

itself, programming the decoder and taking care of the paperwork.

## A local dealer

You may very well have a local dealer who installs decoders. Talk with them before you just leave your brass steamer with them.

I suggest you ask to see some of their work *unassembled*. Look for things that will add to pleasure of ownership down the road. In addition to the workmanship standards I mention on my web site, look for things like connectors so that you can separate the shell from the frame for servicing.

Ask them how many installations they do a year. Do they have a dedicated

person (or more) who does the installations? What is their warranty on their work? What is their backlog? Is there someone you can contact that they have done work for, say a year ago – preferably with a loco similar to the one you are shopping?



2: HO loco in an Athearn box.

That brings me to a critical point. Most of the quality installers I know are up to their ears in work, even in the current economy. If the person you are talking with doesn't have a lot on his plate, I'd wonder why.



3: Extra padding kept the two locos in this box from being damaged.

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Many dealers handle local and mail order installations. You might ask them if they do and what has priority in their queue.

## Sending it out

Some times you cannot find what you want locally and will need to send your loco away to get its installation done. I have a lot of experience being on the other side of this sort of transaction, as I have done mail order installations for over a decade. I started Litchfield Station as an installation business and added systems later. Since I sold the business, I still do a limited number of installations.

I'll use the term mail in this column to refer to any of many ways of actually transporting the locos around, including UPS, FedEx, etc.

How do you maximize satisfaction?

This isn't really any different that working with a mail-order dealer or a local one, except you cannot go to over and visit your loco while it is waiting, if you mail it away.

Have a thorough dialog with the installer *before* you send a loco to him. Ask the same questions you would with a local dealer. This is a job interview and you are the employer. Make sure you are satisfied that the person you are hiring will do what you want.

Send your locos in the original manufacturer's box, if at all possible. Something close doesn't cut it. The majority of locos being sold today spend their early days in cargo containers. The manufactures spend a lot of time and money on packaging to withstand shipping. Use it.

If you don't have the original box, you can make up one adequate for shipping with a similar box and some pliable foam. The Kato U boat discussed in this month's "From Mr. DCC's Workbench" is for a local modeler, so it won't be mailed. However, how this Kato model fits into an Athearn blue box shows one way to roll-your-own box (2). If it were being shipped, I'd

want a thin layer of foam on each side of the loco, protecting it from the box.

If the original box has a cellophane window, put a bit of shirt cardboard inside it. If the loco moves around, it will punch through that cellophane in a heartbeat.

I recommend locomotives being packaged this way even when delivered to a local dealer. They may get knocked around a bit on the shelf while waiting their turn on the bench. Cushioning always helps.

Over package your loco(s) to send them: at least 2 inches of padding on all sides. Yes, this means some pretty large boxes. The shippers can be pretty rough on the boxes (3).

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(Photo from our N-Scale layout)



If the installer you select has a long lead-time, discuss when he wants you to send your loco. Most of us don't have a lot of storage room and don't want the responsibility of many customers' locos sitting in our possession. I typically notify a customer when I'm about a week or two from starting on his loco. That way, he can send it to me and I have it when I'm ready.

Some installers may always want payment up front. Some may want advanced payment in certain cases. Why? Well, especially with a bunch of sound installations, the cost of parts can add up. Today, I spent almost \$1000 on decoders, speakers, LEDs and wire.

Some locos require purchasing outside services, like frame machining, before the installation can start.

Some installations require putting more dollars into the loco than it cost originally. I think of the HO-scale EMD critters (4). They are nice, but only have two points of contact for each rail. To get reliable DCC operation, I use a Lenz Gold decoder and UPS module – about \$100 worth of electronics plus labor into a \$50 model.

## Communicate

I found that the most important thing I can do with my customers is to communicate and manage expectations. When we don't understand what each other wants and when it will possibly be done, that's when things



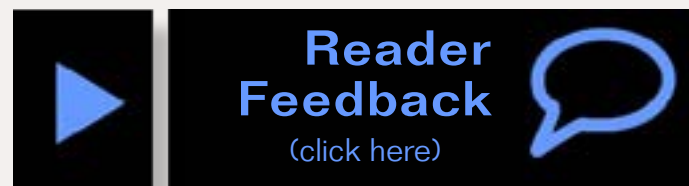
4: EMD Critter on PCMRC layout.

go awry. If you aren't getting communication from your chosen installer, call him. He should communicate with you, but human nature causes all of us to sometimes shy away from what we should do and just do what's comfortable.

I hope you enjoyed this slight sojourn away from the technical bent of the last few months into the more philosophical realm.

Join the discussion of this column by clicking the Reader Feedback link here. While you are at it, I hope you will feel free to vote AWESOME for this column.

I wish you green boards until next month! ☒

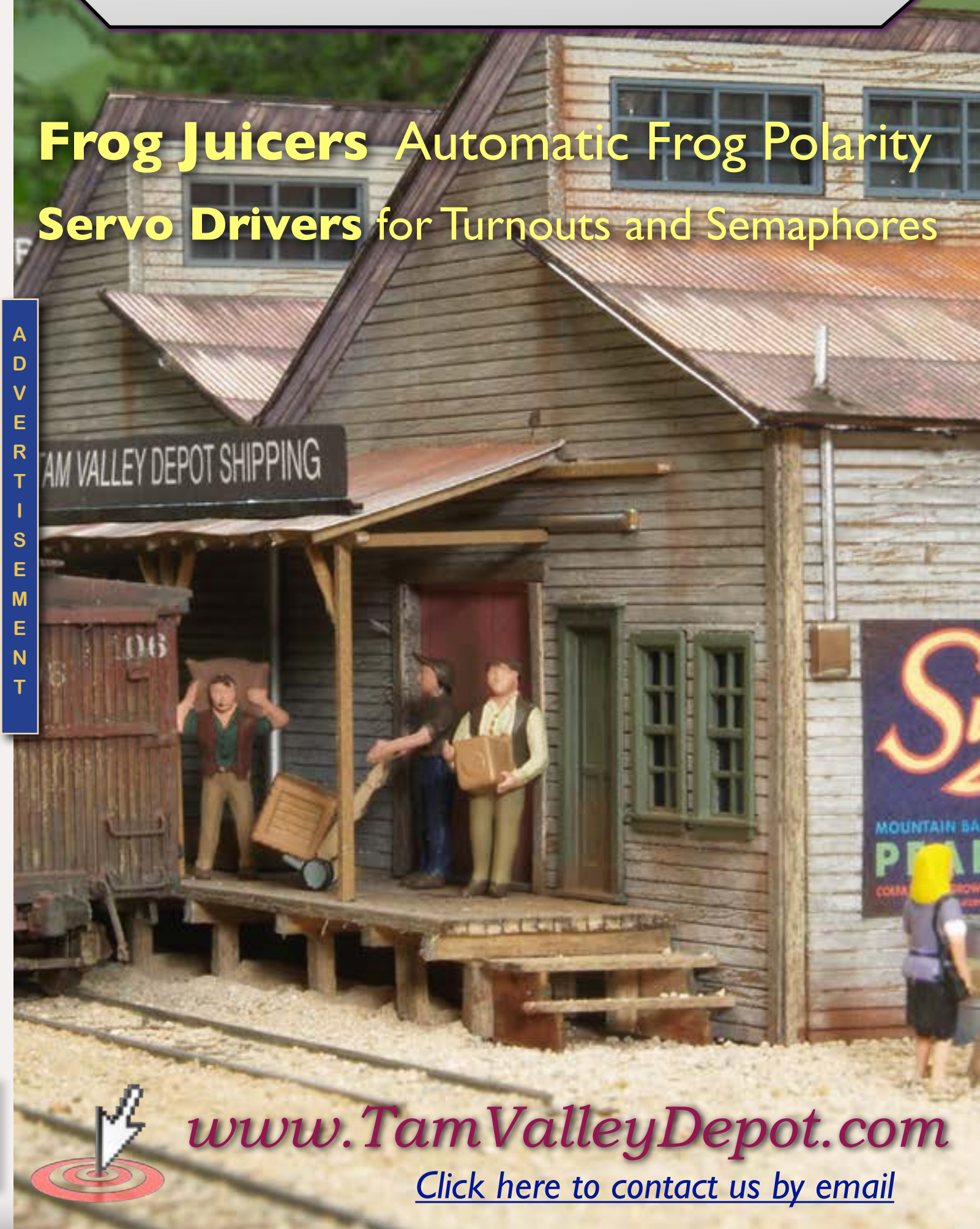


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## From Mr. DCC's Workbench – Thinking outside the box on a Kato U boat sound installation

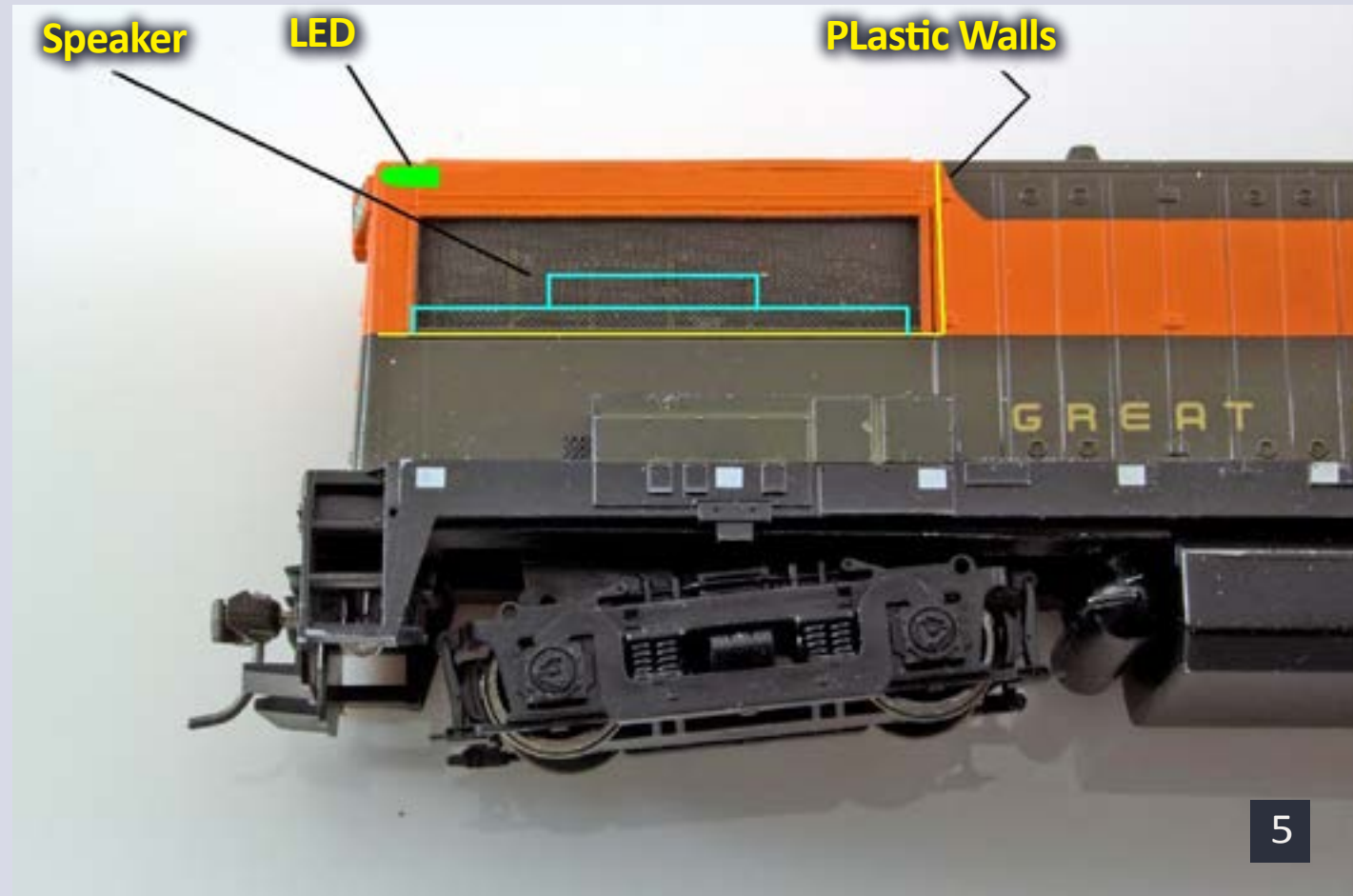
I recently completed a sound installation on an HO locomotive.

The loco had open grilles on the side, making it a perfect candidate for my out-of-the-box installation, as discussed in my August column ([mrhmag.com/magazine/mrh-2012-08-aug/dcc\\_impulses](http://mrhmag.com/magazine/mrh-2012-08-aug/dcc_impulses)).

After installing a LED for the rear light, I built a baffle out of 0.04-inch styrene, which allowed the speaker to be mounted so that the positive pressure went down out the trucks and the negative pressure came out through the open side grills.

For more information on how this was done and a sound comparison, click on the related video on this page.

This is an outside-the-box design, where there is no box containing the negative pressure. In fact the negative pressure is the primary sound heard outside the loco, being reinforced by the positive pressure coming down through the trucks and out.

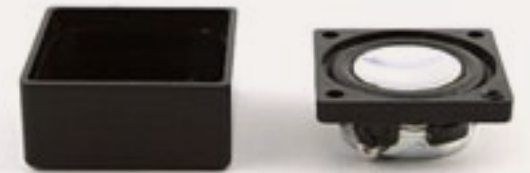


5: Speaker and its baffle in an HO locomotive.





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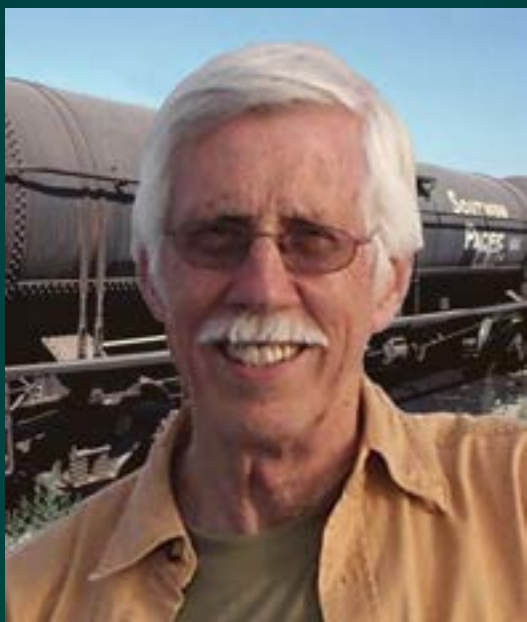
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## About this issue's prototype modeling columnist



Tony Thompson is a long-time modeler in HO. He's interested in Southern Pacific history and has published magazine articles and books on this subject. He writes the modeling column in the Southern Pacific Historical and Technical society's magazine, "Trainline", and served five years as the Society's president.

For more information, go to:  
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## GETTING REAL: Imaginary branch lines and a new depot Adventures in Prototype Modeling

### Adapting prototype depot plans to fit a layout space ...



**W**hen I moved back to California from Pittsburgh, Pennsylvania, I salvaged parts of my old layout to form the core of a new layout. In the process, I also decided to drop my previous concept of an imaginary shortline railroad that interchanged with the Southern Pacific, and instead build an imaginary SP branch line.

This may sound like hair-splitting. "Replacing one imaginary thing with another," I hear you say, "what difference does that make?" But it can make a rather big difference in the credibility of the product. Here's why.

The imaginary branch line, though certainly located in an imaginary place, or perhaps a real place that never had railroad service, nevertheless has a strong foundation of credibility. The locomotives and cabooses that operate on it, the depots, water tanks, and other structures, the signals and signage, and even the patterns of operation, will all be typical of

the parent railroad of this imaginary branch. That allows the branch to display a familiar set of visual elements that go with that real railroad.

I include Figure 1 to show the kind of thing I mean. This classic SP depot, and characteristic SP caboose, would not likely be confused with any other railroad. Even if an imaginary town name were on the depot, the strong SP clues would still be present.

In contrast, an entire imaginary railroad has locomotives and cabooses that, however generic in appearance, are lettered for something unfamiliar to a visitor; the same goes for all the other components, like depots, that won't fit into a pattern that a visitor recognizes. The builder has to invent everything about this railroad, from its name to its locomotive roster, and the visitor likewise has to suspend a lot of disbelief in seeing a lot of



**1: This is the Southern Pacific depot at Lebanon, Oregon, with an SP caboose standing on the house track (probably during a switching move). This depot shows the classic SP look, with its rectangular operator's bay, white window sashes, four-panel freight doors, and shingle roof. The depot was located on the East Side Line in Oregon, considered part of the Woodburn-Springfield Branch. (Shasta Division Archives.)**



railroad content that is unfamiliar. We unavoidably do so much compression and other modification of reality in building a layout, that I think we want to keep to a minimum the amount of disbelief that has to be overcome.

I recognized the power of this imaginary branch line idea during the year I lived in England. Many modelers there have used this idea for small layouts, in order to model a small junction or intermediate town or terminal town for such a branch, while still making it part of the Great Western Railway (GWR) or the London & North Eastern or whatever it is. I was struck by how successful this approach can be, and even wrote about it in a series of columns in the NMRA *Bulletin* (as it was then called), under the title “The View from . . . England.” They were published in 1983 and 1984. The idea continues to have legs. The 2011 edition of Kalmbach’s *Model Railroad Planning* contained an article by John Flynn about exactly this idea, in his case a GWR branch line.

For my own chosen prototype, the Southern Pacific, the branch line idea has modeling merit because small locomotives are appropriate, and traffic density and train length would likely be modest, all of which are good things for a small layout. And one would still model the kinds of traffic appropriate to the locale chosen. In my case, modeling the Central Coast of California, the characteristic

agricultural products of the area, such as produce, sugar beets, wine, and so forth are important parts of the mix.

## **Borrow from reality**

---

If you’ve read this far, you may be wondering where the rest of my column title comes in, the part about a depot. Well, to take advantage of one of the strengths of the imaginary branch line idea, the depots on my branch naturally have to be standard SP depots, or at least visually similar to the design of these depots. This would be what SP called a “combination depot,” with both passenger and freight facilities. What I’m now going to describe is the process of designing such a model depot, and its construction. It will have to fit in an existing location on my layout.

A natural first step is to inquire if commercial kits are available. American Model Builders make a fine pair of SP depot kits in my scale, HO, which model Common Standard (CS) Combination Depot No. 22 and No. 23 designs, and I intend to build at least one of these for some town on my branch. But my immediate problem is the depot at the junction between Southern Pacific’s Coast Line and my SP branch, where space is pretty limited. The CS 22 and 23 structures are far too big for that space. They have a footprint of about 25 by 80 feet (without loading dock), whereas I only have a space about 17 by 49 (scale) feet for this depot.

Accordingly, I looked around to see if plans were available for any SP depots that might fit my space, or that could be adjusted to fit. I found a good candidate in Bruce Petty’s Volume 5 of *Southern Pacific Lines Common Standard Plans* (Steam Age Equipment Company, Dunsmuir, CA, 1997). The book contains a drawing of the depot built at Sylmar, California about 1916. It’s included here as Figure 2 (next page). The structure was 12 feet wide, narrower than most SP depots, and 56 feet long.

I could obtain a more typical look by widening it to my 17-foot space, and the freight room could be cut down to make the depot 49 feet. In fact, among SP’s Common Standard depot designs, the most common difference among examples of a particular design is the length of the freight room. These were sized according to expected traffic, and in later years, as those predictions proved optimistic or pessimistic, many depots had freight rooms shortened or lengthened. So modifying the length of the freight room of an SP depot is entirely prototypical.

Anyone interested in learning more about SP’s standard depots, such as the CS 22 and 23 designs mentioned above, should consult Henry E. Bender’s pair of articles, “Southern Pacific Lines Standard Design Depots,” Parts 1 and 2, in the SP Historical & Technical Society magazine, *Trainline*, issues 57 (Fall 1998, pages 11–26) and

58 (Winter 1998, pages 27–33). The articles describe each standard design and include typical photos of each, as well as listing the towns where each design was built.

The Sylmar depot plans in Petty’s book, in full-size form, are conveniently to HO scale, so it was easy to dimension wall lengths and heights, and measure positions of windows and doors. (There is a scale on each page of the plan, permitting conversion to any scale.) The rectangular bay is mostly windows, so I could see that those would be decisive in assembling a model.

## **Model Materials**

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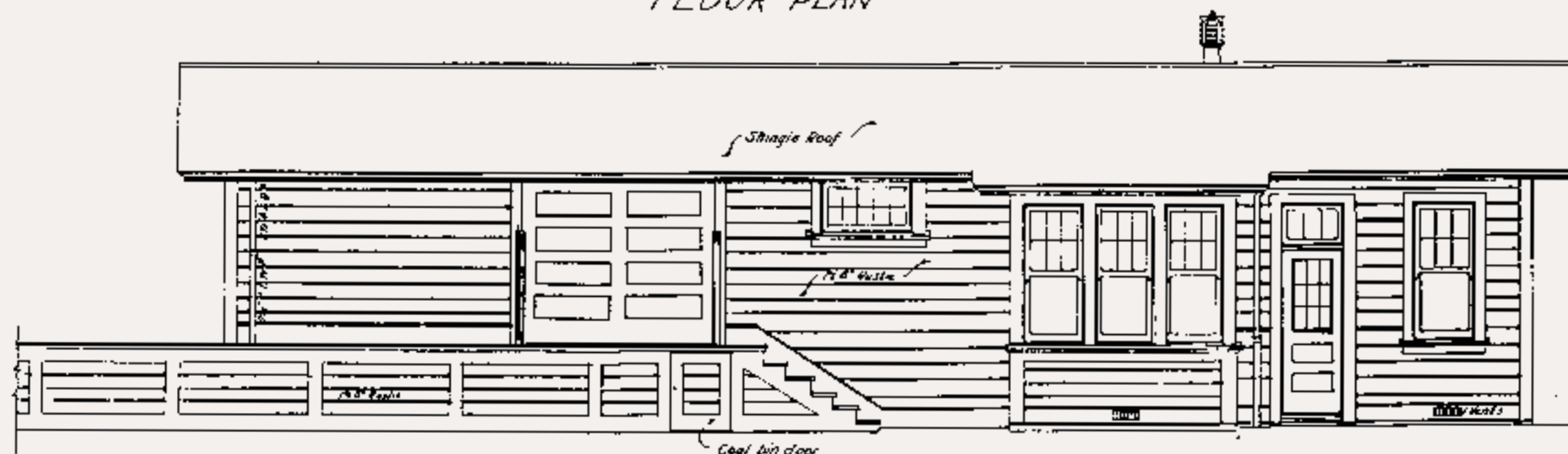
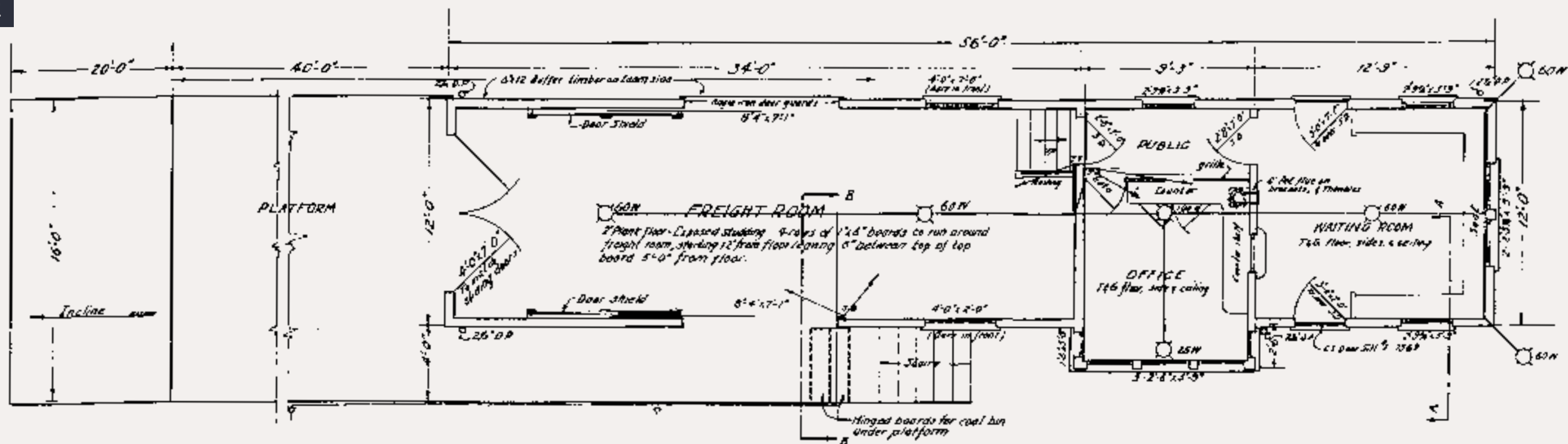
My next job was to see if such features as windows and doors were available in HO scale, reasonably similar to the prototype depot, to simplify building a model depot. And of course the siding and roofing needed to be identified too.

Evergreen offers a “novelty siding” much like the SP “rustic” siding, with a 0.083-inch board width.

That translates to about 7.25 inches in HO scale, close enough to the prototype’s 8-inch siding. The Evergreen part number is 4083.

For the shingled roof, both Pikestuff (Rix Products) and Northeastern ([northeasternscalelumber.com/products.html](http://northeasternscalelumber.com/products.html)) offer sheets of shingle roofing. I used the large Pikestuff





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SCALE IN FEET

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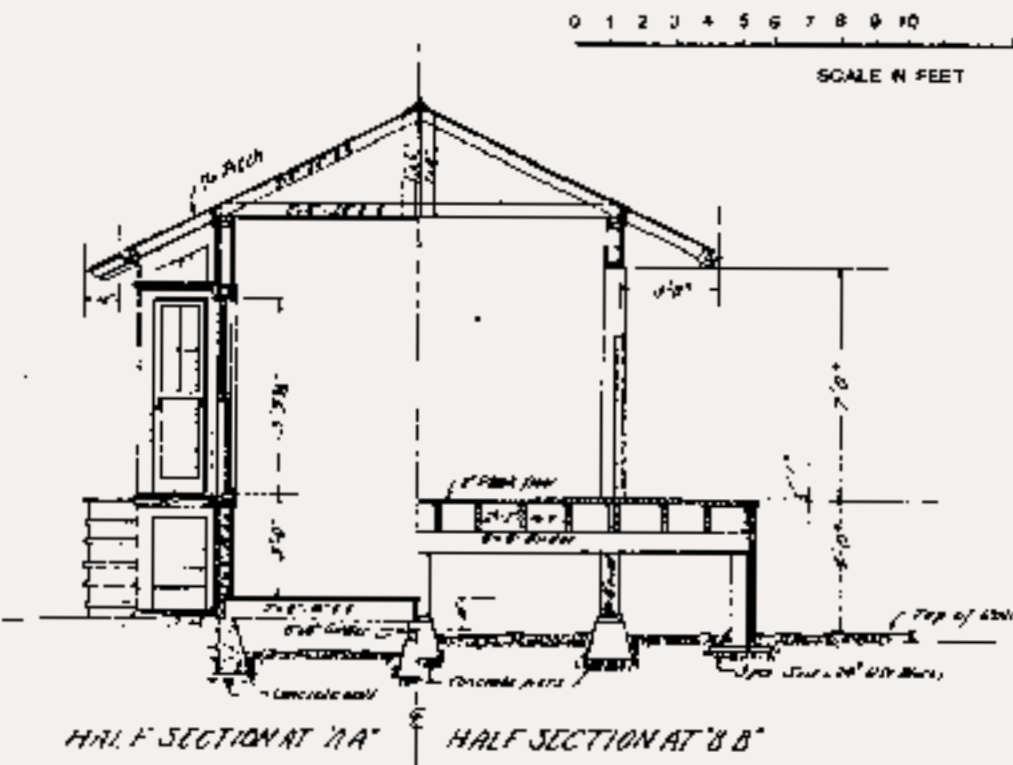
AT  
SYLMAR, CALIF.  
Plan, Elevation & Sections

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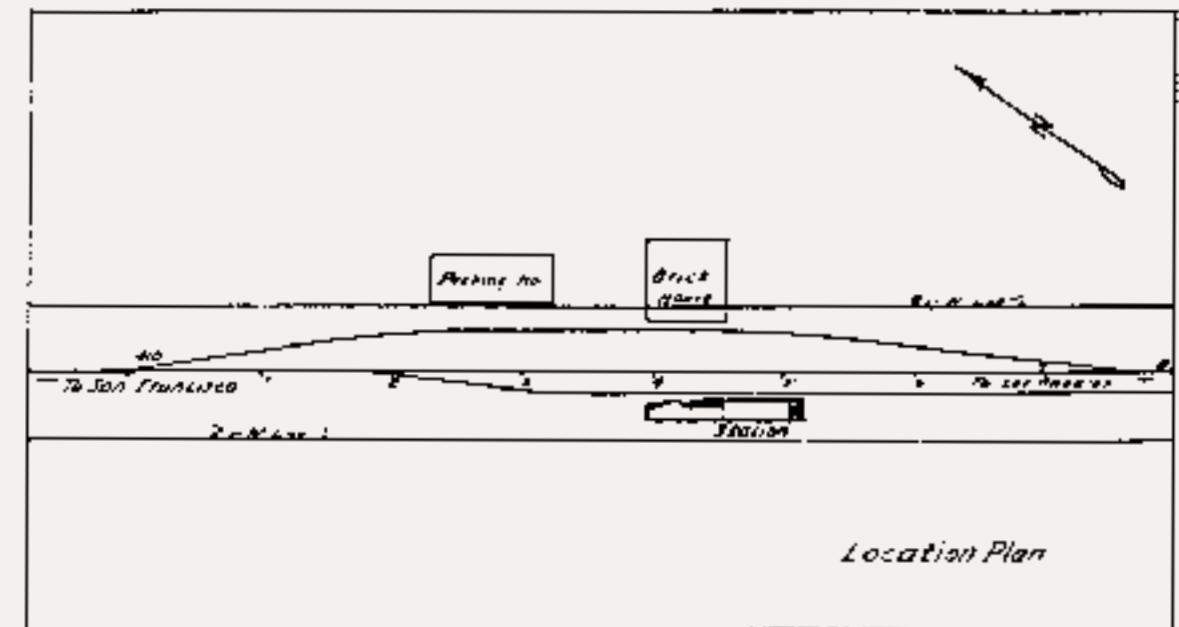
M. H. D.
Drawing 1281
Sheet 1 of 2

2-3: Plans for the SP depot at Sylmar, California, from Volume 5 of Southern Pacific Lines Common Standard Plans, by Bruce Petty. Used with permission. This is page one of the plans.





DETAIL OF 6" PATENT FLUE



### Location Plan

SOUTHERN PACIFIC CO  
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AT  
SYLMAR, CALIF.  
Plan, Elevation & Sections.

Feb 15, 1916.

M. H. D.	
Drawing	1281
Sheet	2 of 2

2-3: Plans for the SP depot at Sylmar, California, from Volume 5 of Southern Pacific Lines Common Standard Plans, by Bruce Petty. Used with permission. This is page 2 of the plans. Both pages of these plans are available as a high definition download in this month's subscriber bonuses.



sheet, part 1015. Like many modelers, I've fought my way through applying Campbell shingles to model roofs, and the basic idea is great. But I believe the result is more irregular than real shingle roofs would be in HO scale. Instead, I think a shake roof, or a well-aged roof, on which shingles have warped and become irregular, would be a better use for the Campbell shingles. For ordinary shingle roofs, I prefer a manufactured, uniform roofing like the Pikestuff material ([rixproducts.com](http://rixproducts.com)).

The Sylmar depot plan shows lots of windows and doors. Luckily there are Grandt Line ([grandtline.com](http://grandtline.com)) architectural features, both windows and doors, which capture the main look of the SP depot features, even if none of them are an exact match. Here is the list of Grandt parts I selected.

- Small freight room windows: "horizontal sliding window," part 5081
- Waiting room doors: "factory front door," part 5139
- Waiting room & bay windows: "6/4 double-hung window," part 5233
- Side windows on bay: "8-pane window," part 5255

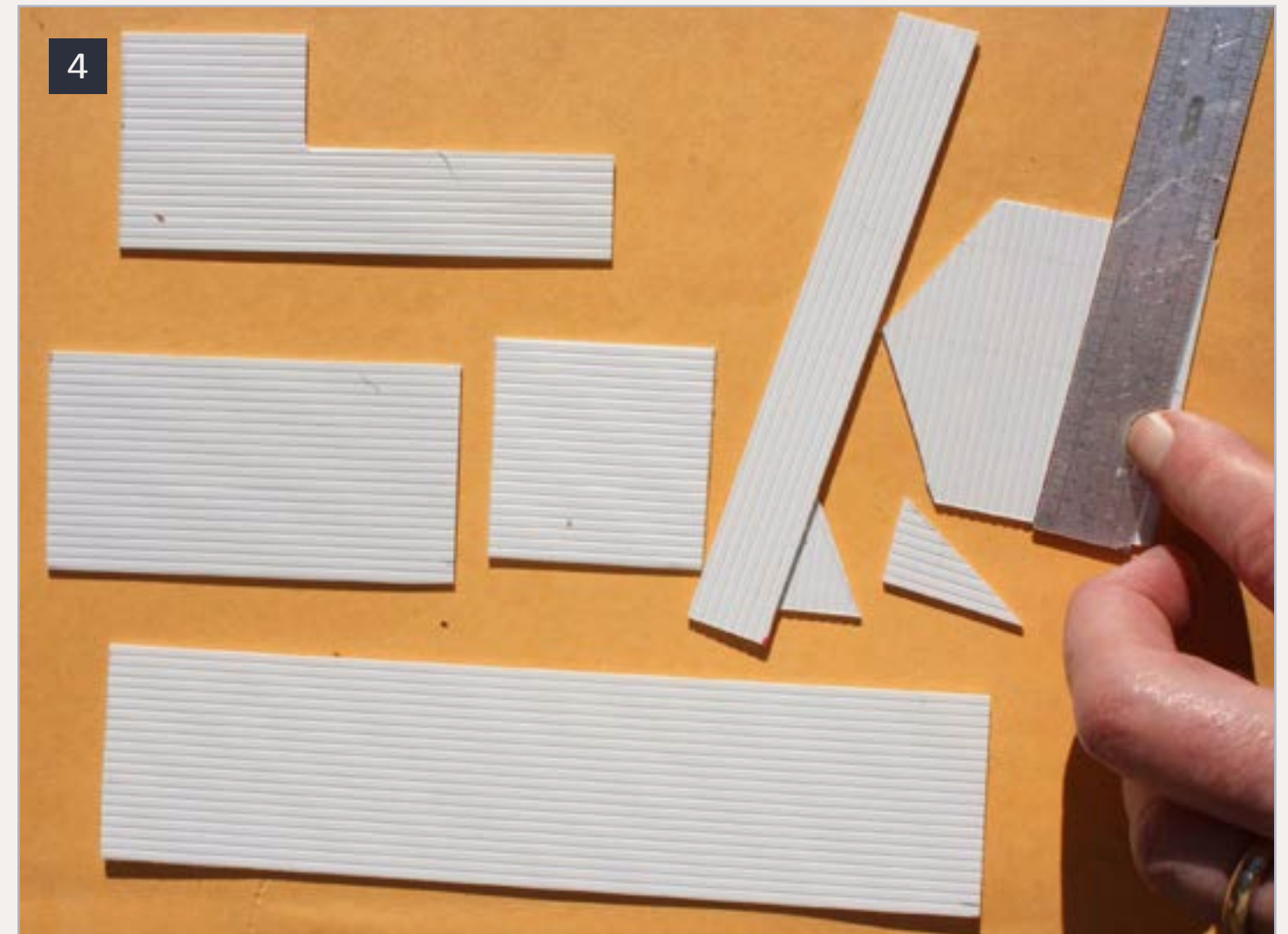
The Grandt 5233 and 5255 windows would need to have the mullions removed in the lower sash to match the Sylmar plan. This could be easily done with a sharp (fresh) hobby blade. On the other hand, single-pane

lower sash windows were uncommon in SP depots generally, which means that leaving the windows in stock form is a more typical look. That leaves only the freight room doors, which can be represented by adding trim strips to a flat panel.

In planning my model depot, then, the window and door openings are adjusted to fit the Grandt parts. All are adequately close to the prototype dimensions.

The size of trim boards for the corners of the building is an interesting challenge, because SP depots did not always use the same size boards for this application. A common size was 1 x 8-inch boards, both for corner trim and for window and door surrounds. But careful examination of photos, and scaling of sizes, also shows use of 1 x 6-inch and 1 x 4-inch boards in other cases. This dimension is not called out in the Sylmar depot drawings, but scaling from the elevation drawing shows about 1 x 6-inch trim boards. These are especially important to be applied around doorways, both the freight doors and the person doors, since the Grandt doors chosen for this model do not have surrounds.

I used several sizes of Evergreen styrene strip ([evergreenscalemodels.com](http://evergreenscalemodels.com)) in this project, primarily the scale 1 x 6-inch and 1 x 8-inch trim strips, but also a few other sizes, as noted in the sections below on construction and assembly.



**4: My first step was to lay out the wall sections on the Evergreen styrene sheet, then "scribe and snap" each section. In this photo I am verifying the width of an end piece, at 17 scale feet, with a couple of scrap pieces in the background. The triangles from the top of the depot ends were saved to make roof formers later.**

## Construction

I laid out wall sections on the back of the Evergreen 4083 sheet. Scribing the layout lines with a knife blade, then snapping the pieces apart, was quick and easy. Figure 4 shows the first parts, which were quite close in dimensions to what I had laid out. I laid out five pieces: two ends, a complete back wall, and the freight room and waiting room parts of the front

wall. The bay window section must be built separately.

Next I laid out all the window and door openings. For this kind of task, I find a small machinist's square to be an essential tool, Figure 5 (next page). These openings can't be simply scribed and snapped. Instead, the outline of the opening needs to be carefully cut. I like to use an X-acto no. 2 handle (or equivalent) and its larger blade for this kind of work, along with



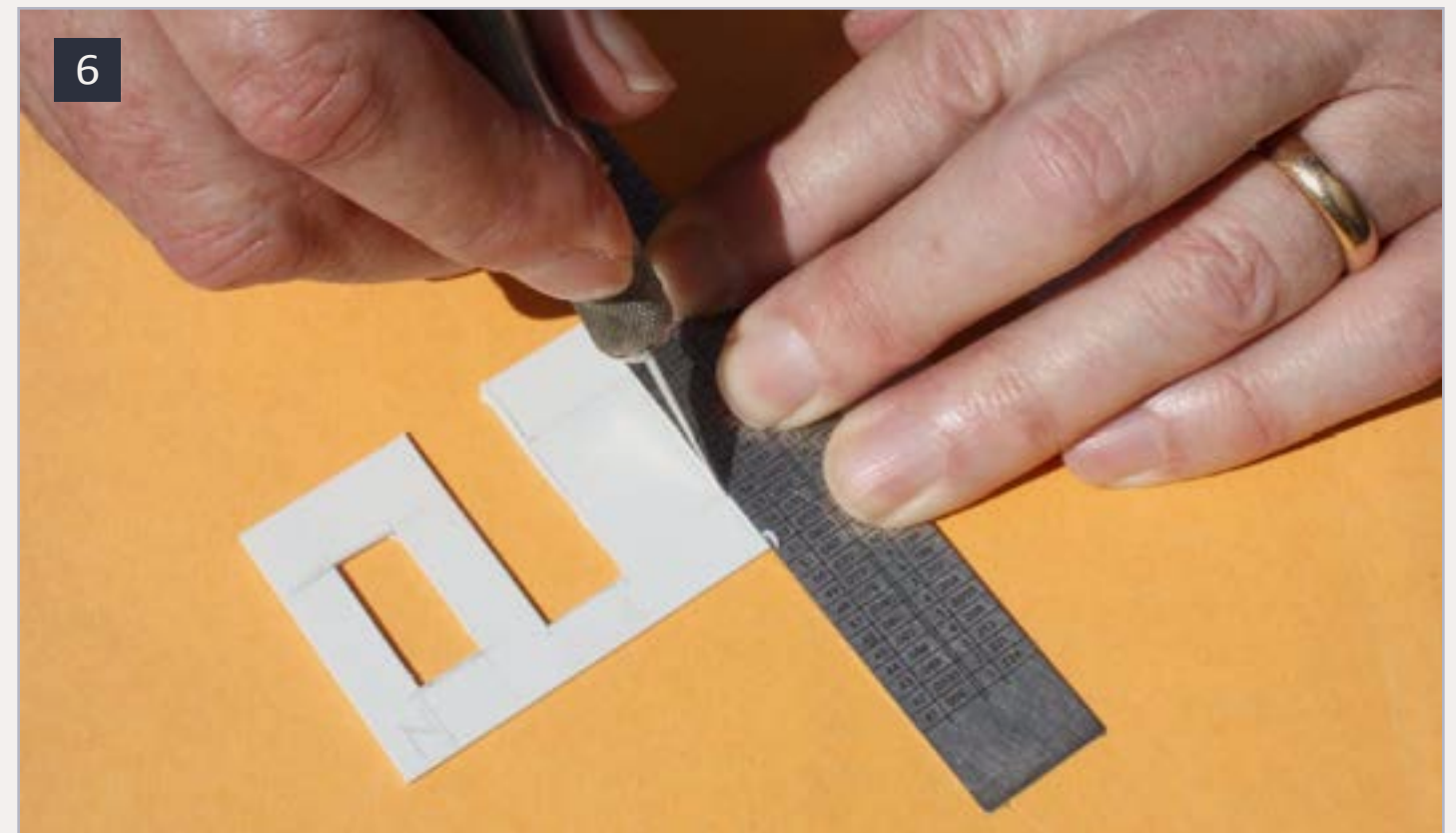
a steel rule, Figure 6. I soon found that when the cut was approaching being all the way through, the piece to be removed could be flexed and would break free along the cut lines. The accompanying photo, Figure 7, shows the freight room end, with these cuts just becoming apparent on the opposite side of the piece from the cut surface.

After all five wall sections had their respective window and door openings cut out, the openings need to be filed to final size. I always cut openings like this a little undersize, and cautiously file them until the Grandt parts will slip into place. Figure 8 (next page) shows this process, with a flat file, and Figure 9 (next page) shows the completed

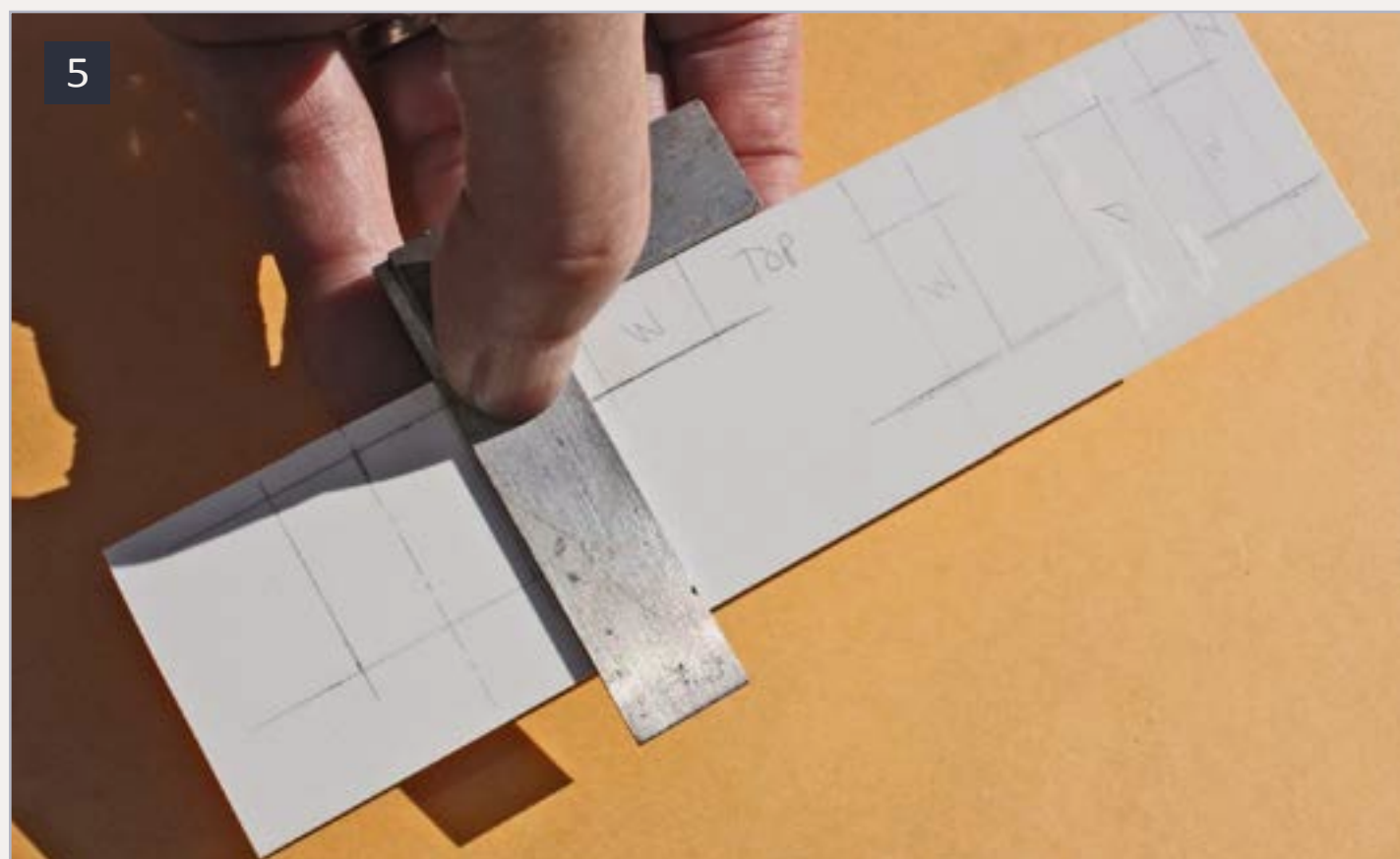
opening, accepting the Grandt window. One variation: the end wall of the waiting room has a pair of these windows, so the opening was cut at double width. I made a unit of the two windows by attaching a scale 4 x 3-inch styrene strip between the two windows, as Figure 10 (next page) shows. This assures a snug and accurate fit of the pair. Note that none of these windows or doors were glued in place at this point, as they are to be painted separately from the walls.

Once all door and window openings were completed, I made a final check to make sure each door or window fitted where it was supposed to go.

*Text continues on page 43.*



**6: The no. 2 handle and larger blade, or equivalent, make cutting along a steel rule comfortable. I always start with a brand-new blade for this kind of work.**

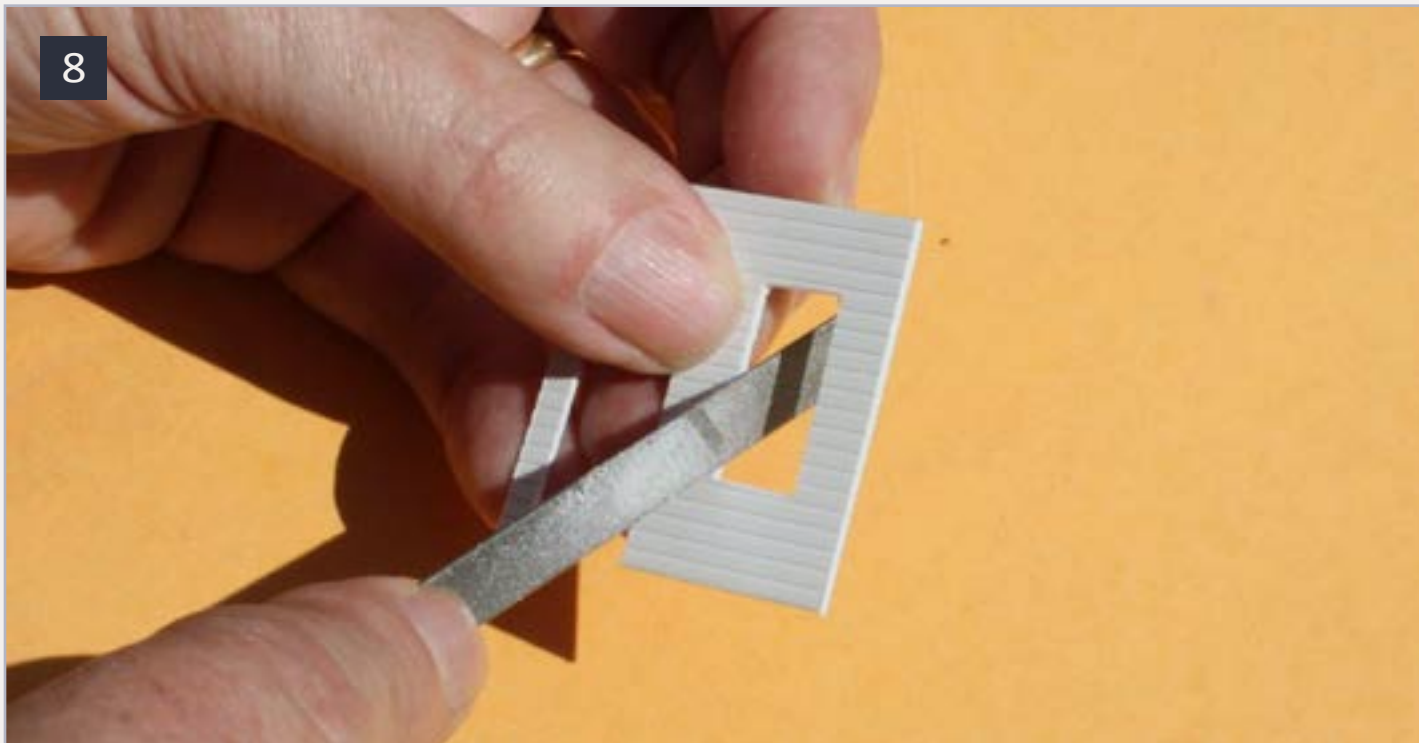


**5: A small machinist's square is essential in laying out parallel and perpendicular lines as cutting guides for door and window openings.**



**7: When cuts are nearly through, as just barely visible in this image (the vertical lines), it becomes possible to flex and snap out the piece in the center.**





8: All door and window openings are deliberately cut undersize, and then filed to just fit the Grandt parts. Here a flat file is being used to widen this window opening a bit more. This is the trackside wall of the waiting room.



9: Here is the Grandt no. 5233 window, just a slip fit into the same wall as shown in Figure 7.



10: The pair of windows in the end wall of the waiting room was glued together with a styrene strip between the two of them, as seen here from the back. The sill and top trim on the mating side edges of the windows were sanded flat before combining them.



11: The back wall of the depot, with windows and a door frame inserted into their respective openings, with only the large freight door remaining to be added (it will be constructed after painting of these parts).



*Text continued from page 41.*

Figure 11 (previous page) shows the long back wall with everything but the big freight door (to be built up) in place.

Next I turned my attention to the bay section. The dimensions of this section are essentially determined by the windows used. The side windows set the bay depth, and the trio of front windows determines the width of the bay. Thus I cut pieces of the rustic siding to match the depth and width of the three sides. With the three-window front group assembled (using the same method as described above for the double window in the waiting room), and all siding parts, here are most of the parts for the bay section, in Figure 12. The top segments of the sides will be cut to fit the roof slope after painting, so are not quite final size. Note that the total height of the side windows is not quite as tall as the front windows, but this will be disguised with trim boards in the final bay section.

As mentioned, the roof was made from Pikestuff plastic shingle material. The roof on the rear half of the depot is a simple rectangle. The front half has a small extension over the bay window, but with less depth than is present over the rest of the structure; this is noted on the plans. The roof overhang is two feet at each end of the depot, and three feet along the sides. The

gable ends have rafters which appear to be about 1 x 8 inches.

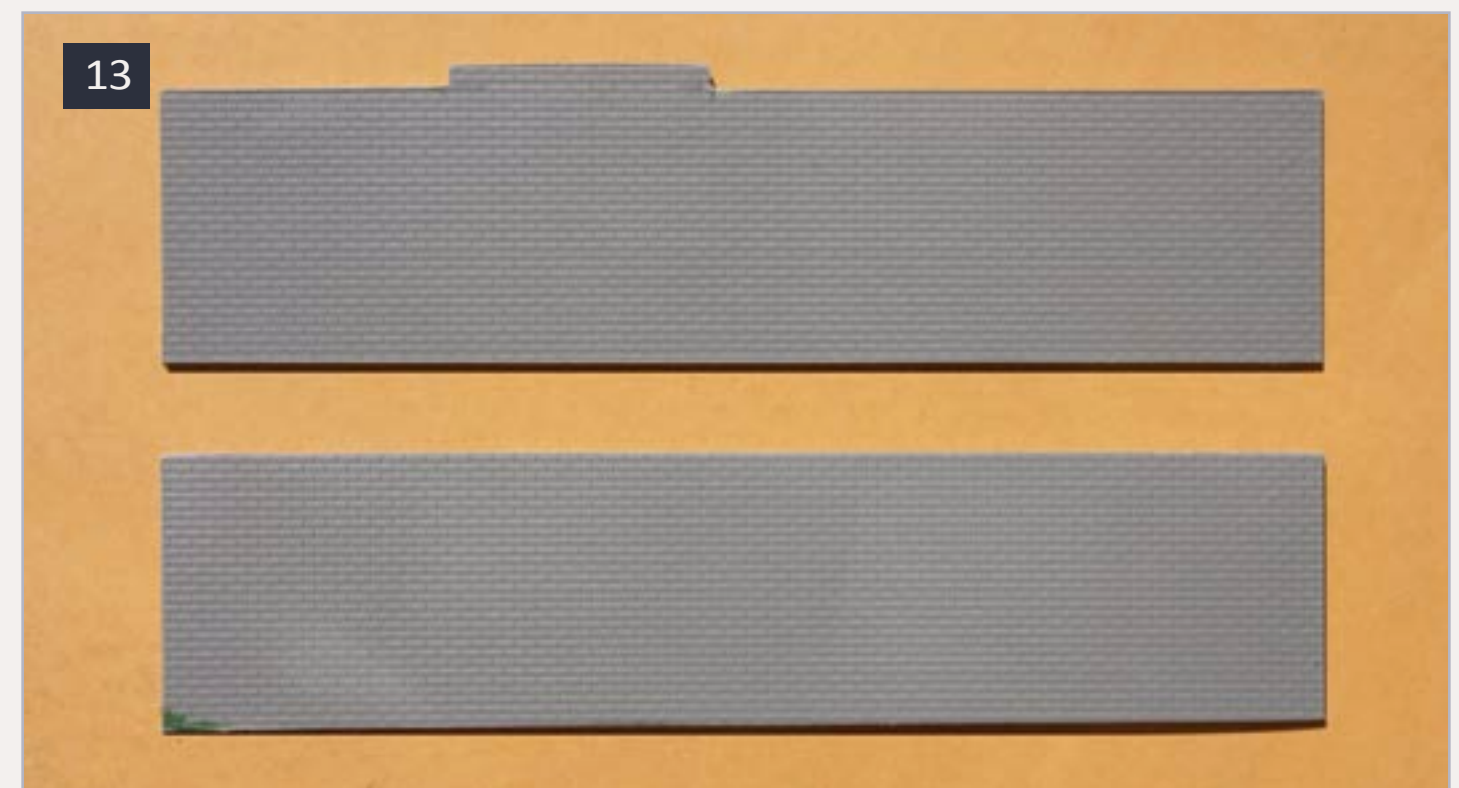
The dimension of the top diagonal edges of the depot end pieces, plus the three-foot overhang, gives the width of the roof pieces. My depot is 17 feet wide instead of the 12 feet shown in the drawing, so my roof dimension could not be scaled from the drawing. Likewise, the body length of my depot, 49 feet, plus the overhang at each end, gives the length, but again cannot be measured from the drawing. My final roof length was 52.5 feet, and each half was 12.25 feet wide (except above the bay section).

These pieces were cut from the Pikestuff sheet. Figure 13 shows them at this stage. I like to use an internal “former” inside roofs like this, to maintain the correct angle. Those triangular pieces you snapped off in cutting out the end pieces, if you saved them, now come in handy (see Figure 4, earlier pages). Glue two of them together, with a splice piece (such as one of the window cut-outs), and you automatically have a roof former. Here are some examples, Figure 14 (next page).

The roof edges at the top seam were tapered to fit together snugly. Then I assembled the roof and formers with Plastruct’s “Plastic Weld” cement, which seems to soften and weld plastics better than conventional styrene cement. The result is a solid and strong roof assembly, which suits my



**12:** All parts of the bay window section of the front wall are here, except the front wall above the windows. The triple-window assembly sets the width of the front wall, and the narrow side windows set the side-wall width. Some minor discrepancies in window dimensions will be concealed when trim boards are attached.



**13:** The half-roofs for each side of the depot are shown here, as cut from the sheet of Pikestuff shingle material. The roof only extends an additional 15 scale inches above the bay section.



preference for removable roofs on most structures.

Finally, I added gutters to the roof edges, because I wanted to be able to paint the entire roof assembly at one time. The depot drawing shows gutters at the lower edge of all roof sections. I used a Pikestuff set, no. 3001, for the gutters, and this set contains enough gutter material for this

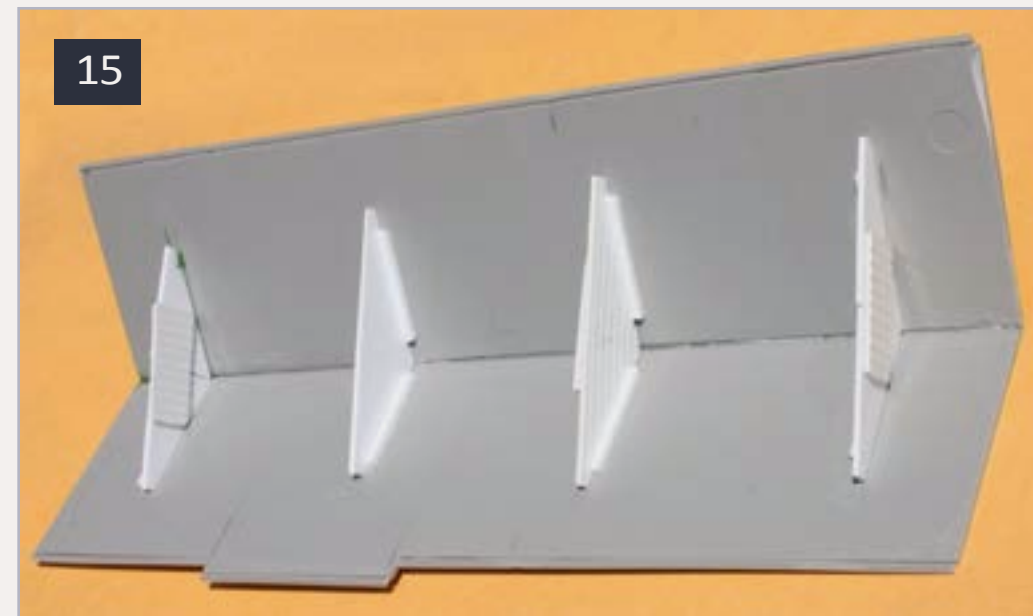
building. The internal structure of the completed roof is shown in Figure 15.

## Painting

The painting of SP depots remained standard for decades, with the walls painted Colonial Yellow, window sashes and mullions white, and doors and most or all trim painted in a color called Light Brown. (Incidentally, some modelers have called the SP Light Brown color



14: Internal roof braces or “formers” were made from the trim pieces above each depot end, plus one made from an interior wall piece, which need not extend above ceiling height. Scrap pieces of styrene splice the halves. An end wall piece is included to demonstrate the common roof angle.



15: When the roof pieces and internal formers are assembled, adding short pieces of scale 6 x 6-inch styrene in the corners, a strong one-piece roof structure is created. The 6 x 6-inch styrene corner pieces are not visible for two of the formers, because they are on the opposite side in this view.



16: Envelopes for Common Standard colors no. 201, Colonial Yellow, and no. 202, Light Brown, alongside the color drift cards, from the 1944 issue of these cards. The Bowles Printing Company of San Francisco issued these for Southern Pacific for decades, some as late as the 1980s.



“Samoa Brown,” but that was never the name of an SP structure color.) Last, shingled roofs were traditionally Moss Green. That’s right, it’s a four-color project. Any or all of it can be brush painted, but I like to use the airbrush for as much painting as possible.

There are not many sources of good reference colors for these three SP structure colors. I happen to have SP color drift cards for all three: color no. 201, Colonial Yellow; no. 202, Light Brown, and no. 208, Moss Green. (All these colors are part of Common Standard specification CS 22.) I’m aware of all the limitations of photographing and reproducing these kinds of cards, but I think a general impression of the colors is better than nothing. I photographed these in sunlight. Figure 16 (previous page) shows the Yellow and Brown drift cards and the envelopes in which they are stored; the envelopes have the SP names and

Common Standard numbers of the two colors. Figure 17 shows the Moss Green drift card and its envelope.

There is not at this time an exact commercial paint for either the Yellow or the Brown. I used the Star Brand paint, “Rio Grande Southern Depot Buff,” as a good approximation to Colonial Yellow. Figure 18 shows this Star Brand paint sprayed onto a white card, with the Colonial Yellow drift card on top of it, in bright sunlight. The match is not exact but I would call it quite close. For the Light Brown, I mixed Floquil Roof Brown with White, two parts brown to one part white, and added a few drops of Reefer Yellow.

As most modelers do with structures, I like to paint the walls before assembly. I also pre-painted the doors and trim strips brown, and inside parts of all windows white. With detail parts like windows, I simply place them on

a strip of tape and airbrush. Figure 19 shows them ready to be painted.

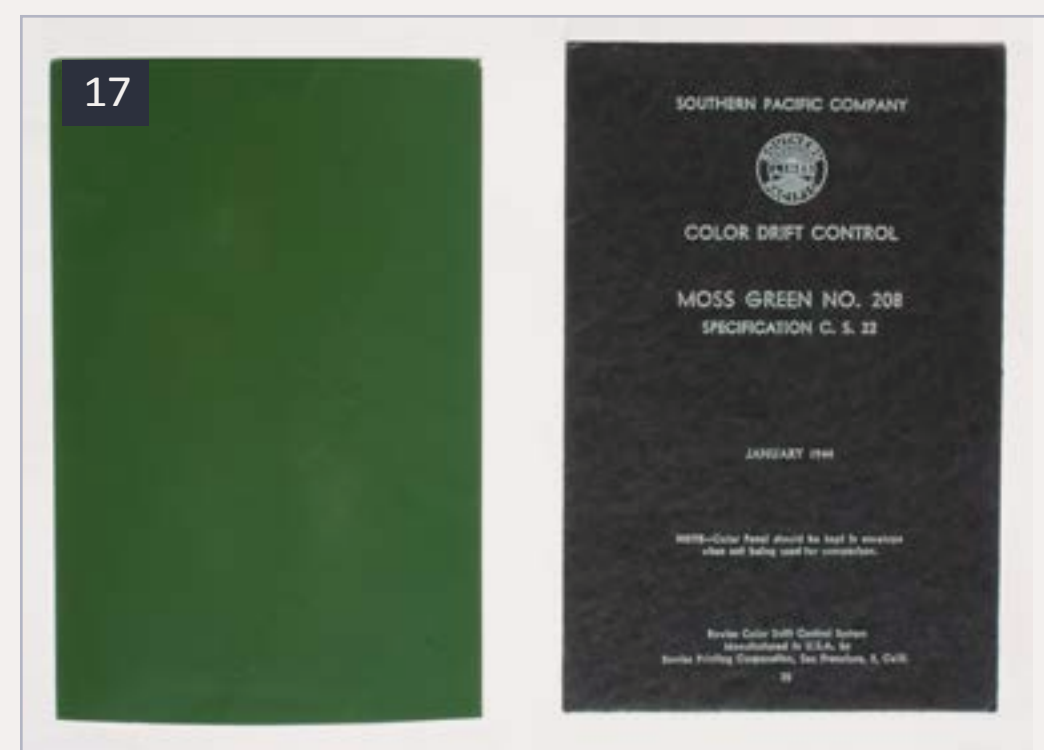
After the white was applied, I brush painted the Light Brown trim.



**18:** I sprayed a white card with the Star Brand paint color, “Rio Grande Southern Depot Buff.” In this photo in sunlight, that sprayed sample is overlaid with the SP drift card for Colonial Yellow. I believe the match of the two colors is close enough to be acceptable.



**19:** All windows, window assemblies, and door frames are shown here, on strips of tape (sticky side up), ready for airbrushing white. Only the door transom would have the white mullions, so the door itself is not painted white.



**17:** The drift card envelope and card for CS 208, Moss Green, used for roof shingles on SP structures. This is also from the 1944 Bowles drift card series.



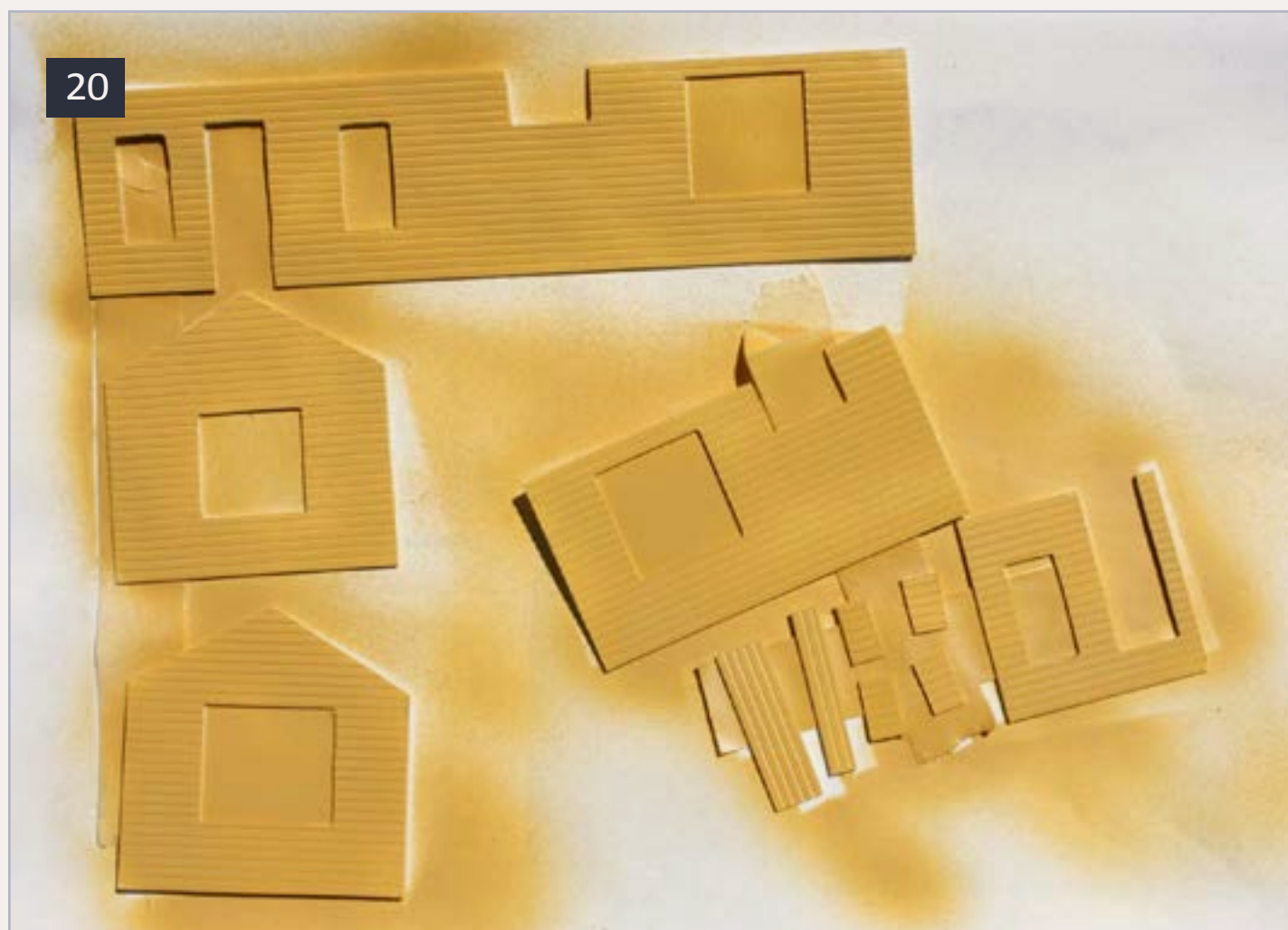
The same procedure was used for wall parts to be painted yellow. Figure 20 shows these after painting. Flat styrene panels have been glued behind the freight door openings as the first step in modeling these doors. One nice feature of the Star Brand paint is that it dries in 15 or 20 minutes, with no paint smell then evident.

The assembled roof was painted green. I modified Floquil Dark Green for this, since the Dark Green by itself seems to lack some yellow relative to

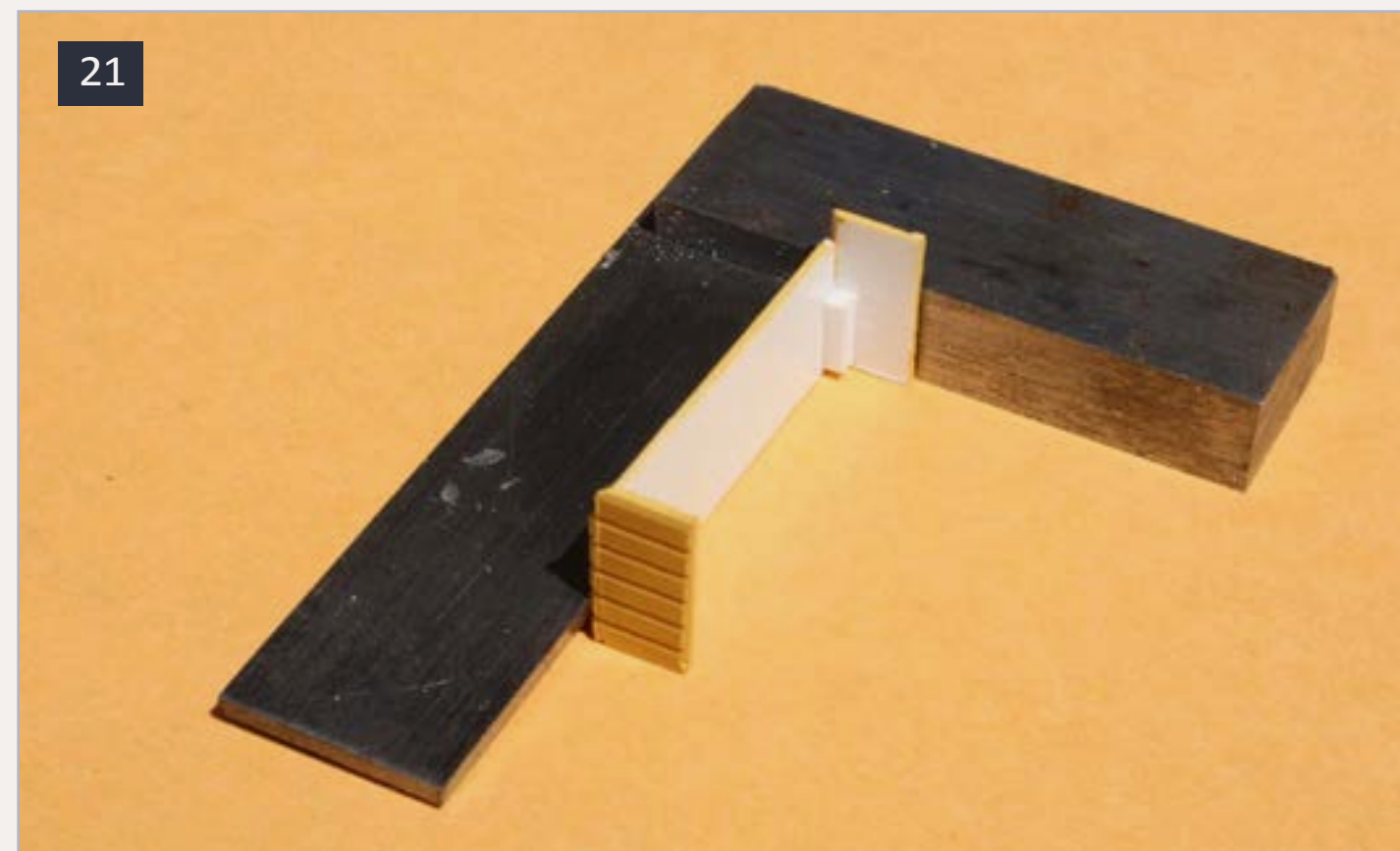
the color no. 208 drift card. I added about one part of Reefer Yellow to ten parts of the Dark Green, and the final result was close to the drift card. As mentioned below, however, a lighter color, to represent fading, may be good choice for this roof color.

## Assembly

I began assembling the components by building the bay window section. First, I connected the bottom pieces of siding, which had been mitered at



20: All wall parts that would become yellow were attached to tape strips, just as shown in Figure 18, and painted with an airbrush. The small pieces are components of the bay window section.



21: The bottom section of the bay window is carefully assembled with a machinist's square to ensure square corners, with internal pieces of scale 6 x 6-inch styrene posts to strengthen the joint.



22: In this view, one side window has been glued to the bottom section, and a corner filler strip (white) of scale 2 x 4-inch styrene has been added. The filler strip will be painted brown. Trim strips below the two types of windows are 1 x 4-inch and 1 x 8-inch widths, which match up along their lower edge.



the corners, and strengthened with an internal post 30 scale inches tall. The posts also help support the desk-top inside the bay. Figure 21 (previous page) shows the bay at this point. The two side pieces of the bay are taller than the front, because the side windows are a bit shorter than those on the front of the bay.

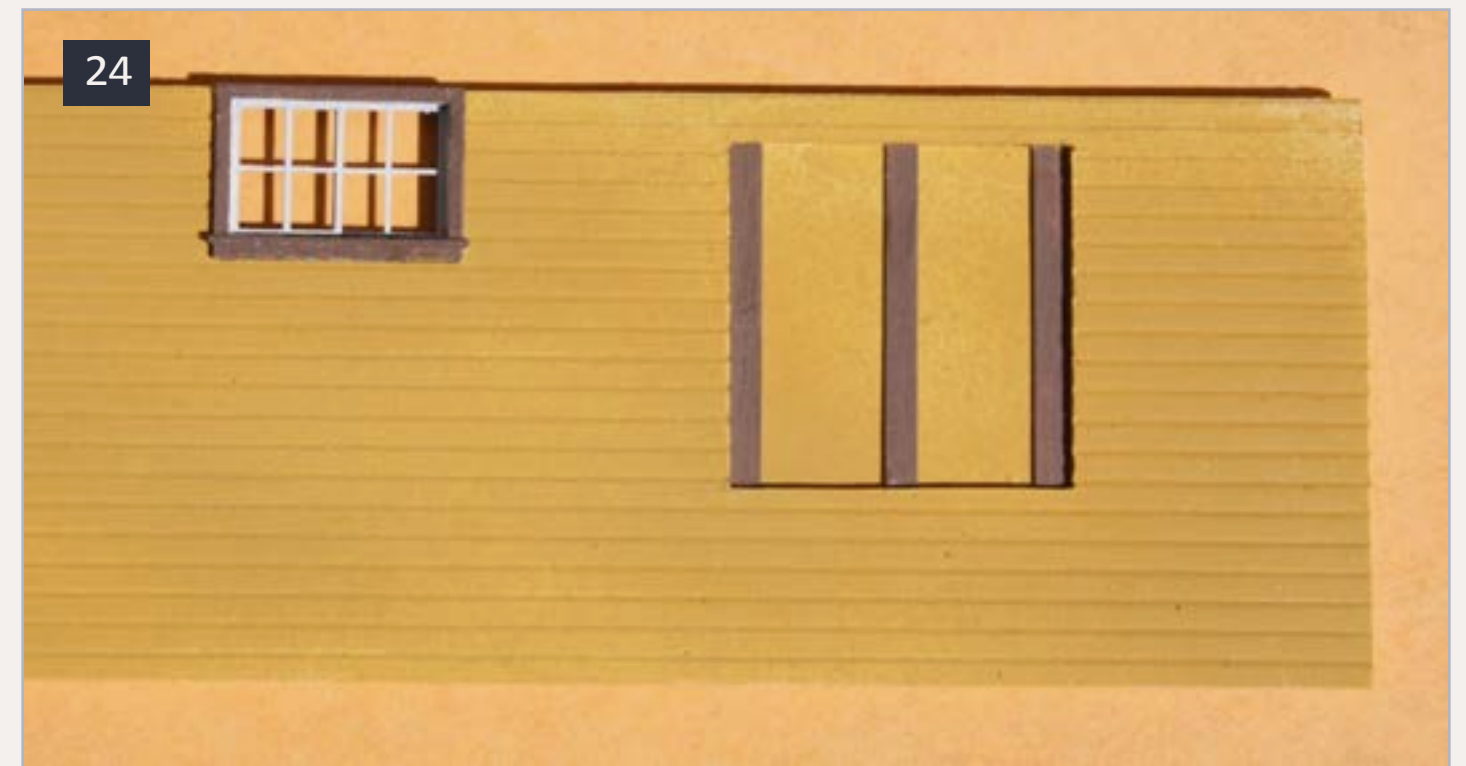
Next, the triple sash window assembly was glued to the bottom section, centered. Then a scale 2 x 4-inch styrene corner post was added on each side of the front window, and the side windows were glued in place. Now the difference in bottom edges of front and side windows is concealed by different widths of trim strips, with

a scale 1 x 4-inch strip below the front windows and 1 x 8 strip on the sides. Figure 22 (previous page) shows how it looks with one side window added, and the trim strips in place to disguise the height difference. I then added the second side window and trim.

The last step of the bay window section began with adding the front and side pieces of the top section, above the windows. The side pieces have an angle at the top, matching the roof angle (I matched it to the angle of my depot end pieces). The front piece of the bay top then was matched in height to the front of these side pieces. After corner trim had been added, the complete bay window



**23:** This shows the completed bay window section, with all trim boards in place. This section was held back and not applied to the structure until all other work was done, to facilitate glazing.



**24:** The first step in creating the freight doors was to add vertical strips of scale 1 x 8-inch styrene. These had been pre-painted brown. This is the back wall of the depot.



**25:** Once the vertical strips were in place, horizontal strips were added at top, mid-door, and bottom. Here one of these short strips is being added with tweezers.



section is shown in Figure 23 (previous page). The bay was then set aside to be attached after all other modeling was complete.

I represented the panels in the freight doors by adding strips of scale 1 x 8-inch styrene. The prototype side doors are one-piece sliding doors, while the end doors are a hinged pair and thus are modeled with a division between them. I pre-painted the strips Light Brown, and attached vertical strips first, then horizontal ones between them. Figures 24 and 25 (previous page) show this sequence in progress. Once the panels are created in this way, scale 1 x 6-inch styrene trim boards are attached on the three upper sides of the doorway,

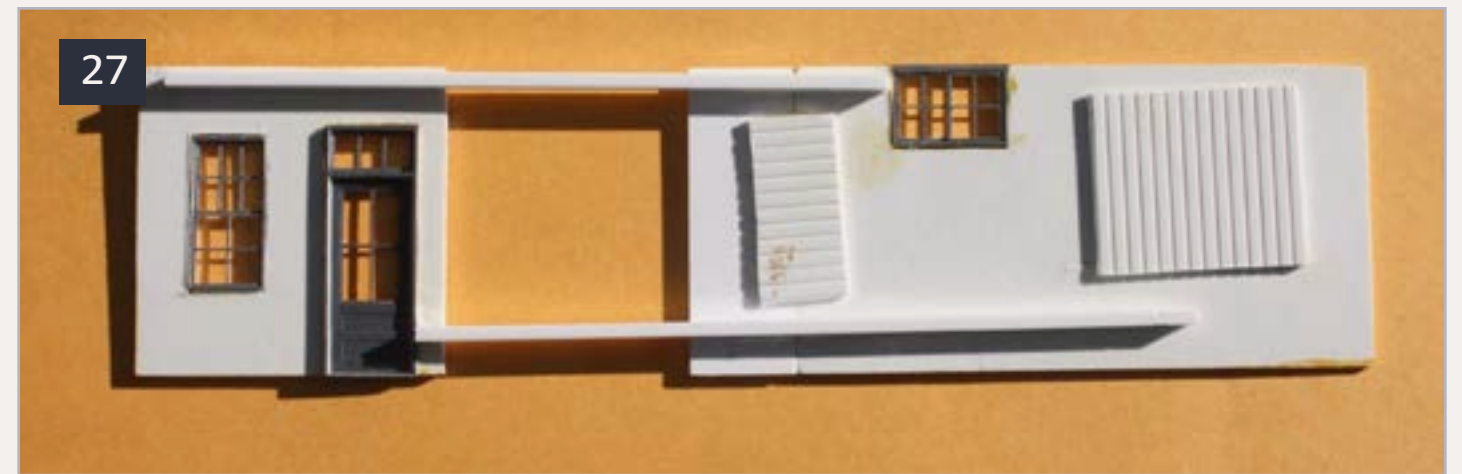
and a buffer timber below the door at floor level, except for the end door, which is to be flush with the loading platform.

A drawback to the Grandt "factory door" (person door) is that it essentially sits flush with the wall, and has no trim around it. Accordingly, I added scale 1 x 6-inch styrene trim to these doors. The windows likewise have minimal trim width. Although the typical SP depot windows had wider trim, I compromised by only adding a scale 1 x 4-inch styrene strip below the sills. Both of these trim additions can be seen in Figure 26.

The front wall of the depot was built in three parts because of the bay window section. I now connected the



**26:** Here a narrow trim strip is being added below the window sill. The 1 x 6 trim strips have already been added around the doorway.



**27:** Strengthening and aligning the front wall of the depot takes a little extra construction, since this wall has three parts. The two outer parts were connected with styrene strip, as evident in this view of the back of the wall at this point.

two outer parts firmly with a pair of long styrene strips. I used Evergreen no. 166, an 0.080 x 0.125-inch strip (approximately 8 x 12-inch section in HO scale). This strengthens and aligns the front wall. The bay window will be attached to this wall at the end of construction. Figure 27 shows the back of the front wall at this point.

Before assembling the walls, I measured all the openings for eventual glazing, because everything is now more accessible than when walls are closed in. The glazing was not actually installed until after all other work was completed.

With all wall parts now ready for assembly, I connected the corners one by one. Using the Plastruct "Plastic Weld" cement for extra strength, and scale 6 x 6-inch styrene strips inside each corner, I carefully checked that each corner was a square 90 degrees and that both walls were vertical.

With a small square, working on a flat surface, these determinations are easy, and this cement has a slow enough setting time to allow some final adjustment of parts.

I also applied a cross-brace inside the structure, to keep all sides straight, and to stiffen the building. That brace, and a piece of scale 8 x 12-inch styrene bracing on the rear wall, are visible in Figure 28 (next page). This depot had two interior walls, as shown in the drawing, and these should be added as view blocks. For example, it would not have been possible in the prototype structure to have seen through the building by looking through the bay window to the waiting room (or vice versa). Fitting styrene walls inside also stiffens the structure further, but I waited to apply them until glazing was done.

Next there were a few final details to be applied. First, I completed the



gutter downspouts. Downspouts provided in the Pikestuff gutter set are not meant for a roof with as much overhang as this depot, and thus don't reach the gutter, but I used them anyway. The connections of the downspouts to the gutters are concealed under the roof overhang (and I want my roof to be removable, not attached to the structure via downspouts). An alternative for anyone wanting complete downspouts would be to make them from styrene rod, 0.025- or 0.030-inch diameter.

Second, I added a bill box made from a small piece of styrene to the front of the depot. I've described this accessory in my blog on SP modeling, and if you like, you can read it at this link: [modelingthesp.blogspot.com/2012/03/bill-box.html](http://modelingthesp.blogspot.com/2012/03/bill-box.html). These

boxes were used for communication between train crews and agents, when an agent was not on duty. And third, I added scale 2 x 4-inch styrene strips on edge along the roof ends, to simulate the end rafter. These were then painted Colonial Yellow.

The fourth detail to be added was the "patent flue" for the stove. Many SP depots had brick chimneys serving as stove flues, but I created a flue somewhat like the one shown in the depot drawing. I used Evergreen styrene tubing, 1/8-inch diameter, sawed a slot in it, wrapped it with Plastruct 0.010-inch styrene rod, and added a cap made of styrene sheet, cut with a paper punch. I painted it Floquil Grimy Black. The completed flue is shown in Figure 29.



**28:** Interior of the completed depot, with cross-bracing to keep sides straight and all corners square. Interior corners contain scale 6 x 6-inch styrene strips. Interior partitions were added after glazing was completed. The stub downspouts can be seen on the front wall in this view.



**29:** The "patent flue" shown in the depot drawing was approximated with 1/8-inch Plastruct tubing, with an opening sawed at the top. The open portion is just visible here. Flashing around the flue is part of the roof mounting.

Last came signage. Southern Pacific depots did not have much lettering on them, other than the station sign. Those distinctive SP signs were white with black lettering, and were somewhat variable in size and proportions, depending on the length of the name, but were usually about 10 to 12 inches wide, and long enough to suit the name. Lettering was usually done with six-inch-high letters. Fortunately this lettering can be done with the correct SP "Egyptian" font, which can be purchased from Railfonts, at this link: [railfonts.com](http://railfonts.com). The signs were also trimmed off at 45 degrees on all four corners. To show the proportions, Figure 30 (next page) is an SP drawing of the sign, with the variable length clearly shown. I printed out the name (a Chumash Indian place name from the Central Coast) and glued it to styrene strips cut to the sign dimensions.

## Weathering and glazing

I performed my usual weathering with acrylic washes. Since these are water-based, the first step I took was to apply a coat of clear flat, in this case Dullcote. Otherwise the washes can "bead up" on a glossy surface. Most photos of SP depots in the 1950s do not show excessive dirt, so I did not weather very extensively. The roof, however, was lightened and dirtied with brownish-gray, to cut the deep green color. I then sprayed the entire depot with Dullcote again to protect the weathering.

Meanwhile, I cut two interior partitions. I had no intention of detailing the interior, but the large windows on the bay section and at the end of the waiting room do permit some glimpse of the interior, and as mentioned above, view blocks are necessary. I painted all interior wall areas which



could be visible on my layout with Floquil Light Green, as an approximation for SP's "institutional green" interior colors. Figure 31 shows these interior walls.

Measurements for glazing were made before assembling the walls, as I mentioned above. I like to use Evergreen clear styrene for glazing, usually the 0.010-inch thickness for smallish windows like these. It is added after all other work is done. For this job, there

is nothing better than model airplane canopy cement. It is tacky right away, making installation easy; it doesn't attack plastics; and it dries clear.

### Freight platform

I had to fit my freight platform into the layout space available, and so ended up with a smaller platform than SP applied to most of its depots. However, it looks all right in the space. I used scale 3 x 8-inch stripwood

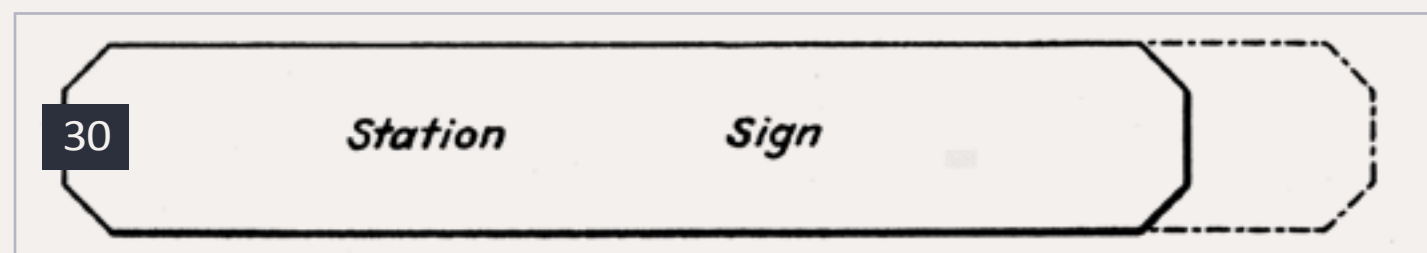
and pre-stained it a brownish black to represent weathered wood. Steps up to the platform on either side of the depot are from the Central Valley "steps and ladders" set, part no. 1602, painted to match the wood deck. The sides of most SP depot freight platforms were enclosed, but I chose to leave the sides as open framework. Here is a photo of the platform by itself, Figure 32 (next page).

my layout. For a prototype comparison of overall appearance, Figure 36 (last page) shows an SP depot with the same color scheme. The depot is not an exact copy of an actual depot, nor is the place name a real one, but the Southern Pacific heritage is unmistakable. That's my goal in the layout I'm building. ☒

### Completed depot

Here are two photos of the depot by itself, as Figures 33 and 34 (next page). And finally, Figure 35 (next page) is the completed structure in place on

*Pictures continue on the next pages.*



30: The SP depot sign was of variable length to accommodate very different lengths of place names. This drawing, from SP Common Standard drawing 1319, shows the proportions of the cut-off corners on these signs.



31: All interior surfaces which could be seen through windows from trackside were painted Light Green. The back of the trackside walls, and the freight room, were not painted. The

bill box is visible next to the door, and the desk inside the bay window can be seen also.

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32



32: The freight platform was sized to fit available space on the layout and to serve the end freight door on the depot. It was built from pre-stained scale 3 x 8-inch stripwood pieces. Sides were not enclosed. Steps are from a Central Valley detail set.

34



34: The back of the depot shows a buffer timber under the freight door on this side, and the weathering pattern. The green interior wall can be seen through the door.

33



33: This photo shows the front or track side of the depot, and the end door to the freight room (this will be level with the freight platform). Note the buffer timber under the front freight door, the downspouts, and the light weathering.

35



35: The completed depot in place on my layout, serving the junction of Shumala between the main line of SP's Coast Division and my imaginary branch line. I added an SP caboose alongside to echo Figure 1.





36: This Southern Pacific depot at Reedley, California, photographed in 1972, has faded yellow paint but shows the green roof and brown trim very well. It is different in many details from the Sylmar depot on which my model was based, but also shows a number of commonly-seen SP depot features. Compare Figure 1. (John R. Signor photo).

## PARTS LIST

### Evergreen styrene

- novelty siding, no. 4083
- clear sheet, 0.010-inch, no. 9006
- scale-dimension styrene strip: 1 x 4, 2x 4, 1 x 6, 1 x 8-inch
- 0.080 x 0.125-inch strip, no. 166
- 1/8-inch tubing, no. 224

**Grandt Line**, one package of each horizontal sliding window, part 5081, factory front door, part 5139 6/4 double-hung window, part 5233 8-pane window, part 5255

### Pikestuff (Rix Products)

- Shingle Roof, no. 1015
- Downspouts, Gutters, Chimney, no. 3001

### Central Valley Model Works

- Steps and ladders, no. 1602

### Plastruct

- 0.010-inch styrene rod ■



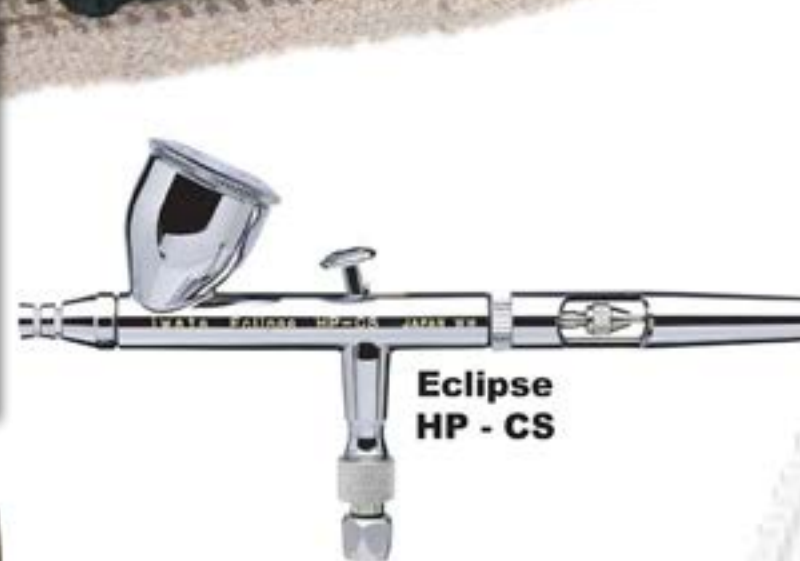
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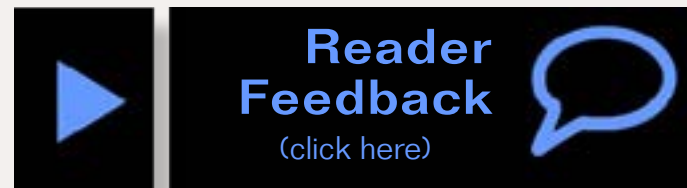
## About our columnist



**Ken Patterson** has been published many times in *Model Railroader*, *Railroad Model Craftsman*, and other model train publications. His backyard, on a bluff above the Mississippi River, provides an ideal background for his commercial photography.

## What's Neat This Week: Micro Engineering Visit

### Photo Presentation of Ken Patterson's Ongoing Experiences



Seeing how model track and plastic structures are made ...

**M**icro Engineering makes the best looking model track available in many scales. It wasn't always like that, however. Back in the 1960s, scale-sized rail and high quality flex track was a rare item.

The story of Micro Engineering is one of how the fine flex track and bridge kits that we all know today came to be. First let me digress and tell you how I first came to know Micro Engineering as more than just another brand name in the hobby.



1: In this photo you see me and my son photographing an Amtrak consist on a Micro Engineering tall viaduct model that is 12 foot long. It was constructed to shoot the 2007 HO Scale Walthers Catalog cover photo.



Back in 1989, I scored my first professional model railroad photo assignment with Micro Engineering. They contracted me to build and photograph the first tall steel viaduct parts into a 6 foot long bridge for ad photography.

That project also netted me a place in the Model Railroader Photo contest that year.

So Micro Engineering has special memories for me because they're the first firm to take a risk on this budding model railroad photographer, and through the work I did for them, I got my start as an industry model photographer.

**2: Serious modelers add joint bars to the rails and paint the ties, tie plates, and spikes to add realism to their model railroad track, as I'm doing in this mainline track scene. You can click on this month's video to see MicroEngineering's employee Charles make a piece of code 83 flex track.**

**3: Just outside the county limits of St. Louis in a town called Murphy, you can find Micro Engineering's building nestled in a green valley. Some of the best looking track and bridge kits in model railroading come from this unassuming location.**



Micro Engineering, Inc. is a family business started by Robert Rands out of a need for good HOn3 code 55 rail to represent 75 pound prototype rail. In 1964 Bob had this rail made and started selling the rail under the name Rail Craft. Through the 1960s they added more rail sizes to their product offerings, followed by the introduction of their high quality flex track product line.

As their product line diversified, the company changed its name from Rail Craft to Micro Engineering.

Bob's son Ron joined the company in 1972. Bob and Ron operate Micro Engineering with the same dedication that started Rail Craft nearly 50 years ago.

In 1984 they built the present 4000 square foot building and brought all manufacturing in house. They purchased an injection-molding machine and the tooling from which their flex track was made. They added additional molding machines, a CNC milling machine, and other tool and die equipment to expand their capabilities to develop and manufacture new products.

Through the 1980s, they expanded into making more products, including their bridge and structure kits in styrene.

So follow along as I tour the Micro Engineering facility and give you some fascinating insight into how flex track, turnouts, and bridge kits are made.

*Pictures continue on next pages.*



4



6



5



4: Inside Micro Engineering's building you find all the equipment and space needed to produce their track and accessories. Their production demands often require a second shift just to keep up with the orders.

5: Kim Driskill mills turnout points as Ron Rands looks on. Ron presently runs the company with a small group of employees.

6: Patty, an employee, loads the injection-molding machine with rails and frogs for what will be a turnout when the plastic is injected into the mold. The middle machine is making track, and the third machine is making bridge parts.

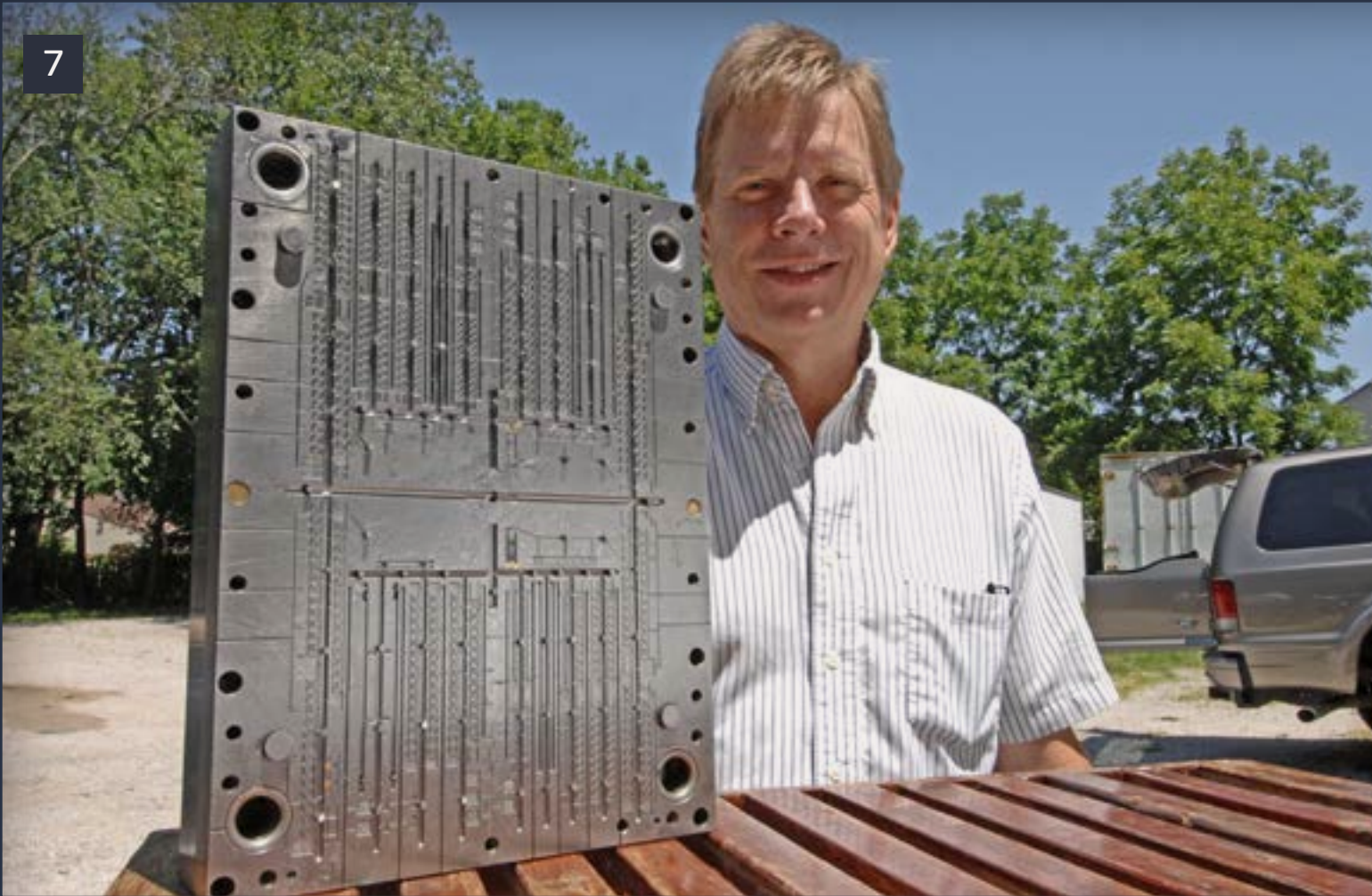


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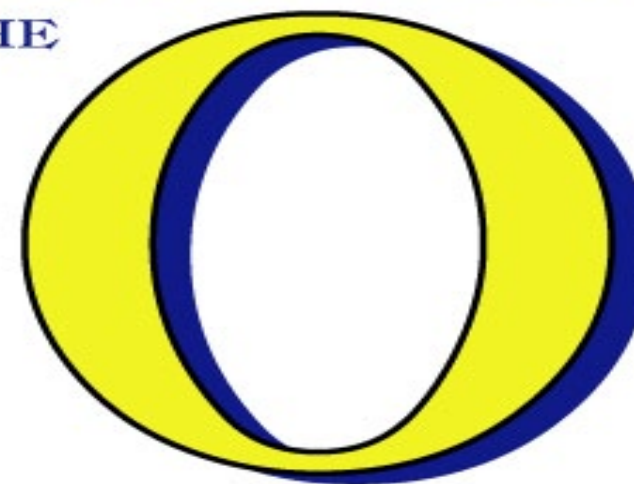
7: Ron Rands shows a very heavy die that is used in the tall viaduct parts tooling.

8: I have wanted to shoot this picture for years. This is a very interesting shot of the rail bin holding code 83 rail. You can get lost in this photo. Who says making model railroad track doesn't have an artistic aspect to it? Zoom in to see the individual rails.



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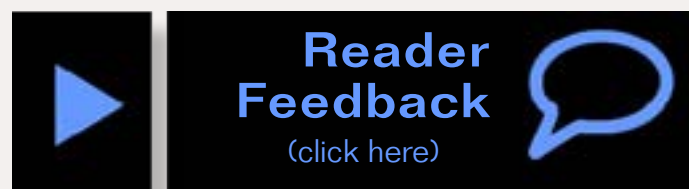


# Easy Trees



– *by Joe D. Fugate*  
Photos by the author

**How to mass-produce great-looking trees ...**



**M**odeling the 1980s SP in southwestern Oregon accurately means lots of trees. This need led me to devise techniques for mass-producing nice looking trees easily and at low cost. The EasyTrees methods I describe here allow anyone to generate nice looking trees quickly

and in quantity. In fact, the trees look nice enough that you can even use them occasionally for foreground trees (see the photo above).

I'm going to describe how to build deciduous trees. For my deciduous EasyTrees, I use Scenic Express SuperTrees for the tree superstructure.

I find the EasyTrees techniques to be very forgiving and rewarding. It's nearly impossible to make a bad tree.

In just a few hours time, you can have many dozens of trees ready for placement on your layout. Do as I do and invite some of your modeling buddies over for an evening, and you can literally get hundreds of great trees to enhance your scenery!

The initial steps of choosing and soaking the selected twigs in a matte medium solution follow the SuperTrees directions closely. After that, finishing the trees involves techniques I have

picked up from others, combined with my own ideas to yield a quick, simple, and inexpensive tree.

**1: The EasyTrees in this scene at Tenmile Creek trestle on Joe's Siskiyou Line layout represent alder and maple trees along the water course, and the darker green trees on the hillside in the back represent oaks. By varying the foliage color, EasyTrees can represent different species of trees quite effectively.**





2: A dense planting of EasyTrees can easily disguise the layout backdrop, as they do here in this scene at the Rice Hill siding's west switch on Joe's layout. This scene is less than 9" deep, but the closely planted trees make it look much deeper.

## Supplies

- SuperTrees sprigs (Scenic Express is a good source)
- Matte Medium
- Wood clothespins
- Medium green coarse ground foam
- Cheap spray paint in various colors: black, tan, gray, khaki, yellow, and various medium green shades
- 3M spray adhesive ■



3: In this photo from an operating session on Joe's Siskiyou Line, the section of the layout with vegetation looks quite natural, thanks to the EasyTrees! The bonus is it took just a couple evenings to make the 50 or so trees in this scene (yes, a scene like this can drink up that many trees).



## STEP 1: Preparation

2

Select twigs from the SuperTrees plant stalks appropriate for the size of trees you want to make. You can eyeball the stalks to break off the best-looking twigs, and then watch for any out-of-scale leaves or odd-shaped branches and break those off too.



4: I collect the chosen twigs in a large plastic bowl. This bowl has about 50 (that's right, 50!) twigs in it from about 2" – 6" in length, with the average twig being about 4" long.

### 5: PUT IN MATTE MEDIUM SOLUTION

The white container holds a matte medium solution made by mixing matte medium in water. I used one part matte medium to five parts water per the SuperTrees directions. Dip the twig into the matte medium.

### 6: LET THE TWIG SOAK

Immerse the twig completely and let it soak for two to three minutes. The matte medium, when it dries, will form a tough rubbery film on the twigs, making them less delicate and susceptible to damage from handling. Make sure to do this process over newspapers, since any slopped matte medium solution will dry as a tough film spot that can be a chore to remove.





## STEP 1: Preparation *Continued* ...

2



### 7: SHAKE OUT THE EXCESS SOLUTION

Here's the really messy part, so putting down lots of newspapers helps tremendously. Remove the twig from the solution and tap your hand (not the tree twig) sharply against the newspaper to fling any excess solution off the tree. You may need to blow stubborn matte medium "film bubbles" out of the tree branches — a strong quick puff usually does the trick.

### 8: Hang the twigs to dry

Finally, hang the tree up to dry using a clothespin on some twine. Hanging them upside-down works best since some of the twigs have a tendency to curve unnaturally. For especially stubborn twigs exhibiting a strong curve, you can attach another clothespin to the bottom of the twig to act like a weight to pull the tree down straight. You can even carefully straighten badly-bent twigs by "creasing" the central trunk (that is, snapping the trunk ever-so-gently with your fingernails, but not breaking it completely off). If needed, you can come back to the "creased" trees and add a drop of superglue to strength the break.



I have a location above the floor in my shop where I fasten a makeshift "clothesline" when I'm making trees. I do the dipping and soaking on the floor, then hang the trees overhead, with the same newspaper to catch any remaining drips of matte medium solution from the hanging trees. Let the twigs air-dry for four or five hours and then move on to the fun part: turning them into finished trees!



## STEP 2: Making the Trees

2

If this remaining process of making the trees is nothing else, it is fast. Just to prove the point, I have included the actual times in the photo captions to show you just how quickly these trees come together. Since this process involves spraying paint and other smelly chemicals like spray adhesive, pick a place to do this work that's well-ventilated — like out-of-doors on a warm day. If you must work indoors, use a ventilated spray-paint booth so harmful chemical fumes are blown outside.



9: 7:35pm: Put trees in styrofoam base  
The twigs I selected here are from 4" to 5" tall — medium-sized foreground deciduous trees for an HO layout.

10: 7:37pm: Spray trees with gray paint  
Next, take some cheap gray or khaki spray paint and spray the trees with it. This forms a base color for the tree trunk and branches.



11: 7:38pm: Accent tree branches with black paint  
Using flat black spray paint, accent the tree body with it. Focus on the part of the tree where the foliage will go, and avoid the central tree trunk. If you do get a little black paint on the trunk, that's okay, but aim for a light touch with the black. This step adds a lot of depth to your tree.



## STEP 2: Making the Trees *Continued ...*

2

12



14



13



12: 7:39pm: Apply spray adhesive

Apply spray adhesive to the foliage part of the tree. In the photo you can see that the adhesive sometimes leaves a “frosty” look to the tree in spots. Don’t worry about this. The remaining steps will automatically take care of this, and your trees will still look just great.

13: 7:40pm: Sprinkle on ground foam

Now the fun part — sprinkling on the ground foam. You can control how dense your final tree looks by how heavily you apply the foam. If you want “airy, open” looking trees, then apply the foam lightly. If you want dense foliage on your trees, then apply the foam accordingly. You should vary your tree density since that’s more like what you find in nature. Also, pay attention to how the trees look in the area you are modeling and aim to match that foliage density.

14: 7:42pm: Spray trees with medium green paint

I like the control these remaining steps give to the final look of your tree. Pick a medium yellow-green paint and spray your trees with it. By spraying the foliage with paint, you can create just about any shade of green you want for your trees. You can use more light green for ash, medium green for maple, and a darker green for oak.



## STEP 2: Making the Trees *Continued ...*

2

15



15: 7:43pm: Accent treetops with light yellow paint  
This final step really makes your trees snap! Using a pale yellow color, lightly accent the tops of the trees from above. If you accidentally over-do it, just come back with your basic green foliage color and spray it lightly over the excess yellow highlight. The light yellow accent brings out the shape of the foliage and makes the trees look more like their full-sized cousins do in the bright sunlight. Interior layout lighting is quite a bit dimmer than outside sunlight, so giving the trees a little help with the light yellow paint makes quite a difference.

16: Here you can see the final trees, photographed under my incandescent layout lights against my blue-sky background. In less than 10 minutes, we now have five great looking trees. That's less than two minutes per tree, so if you do the math, you can see how a couple of evening's work can give you well over a hundred trees!


16





## STEP 2: Making the Trees *Continued* ...

2  
Now all you need to do is plant the trees and bring your layout scene to life.

To see this process demonstrated, here's chapter 14 from my Siskiyou Line video series. 



Joe Fugate has been a model railroader since the late 1960s and is a published model railroad author. Joe's HO Siskiyou Line layout, a pioneering mushroom benchwork configuration, was first discussed in depth by Joe in the January and February 1997 issues of Model Railroader magazine. Joe's also helped popularize the use of auto taillight bulbs for short management on DCC layouts.



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# The Allagash Gets a New Quarry, Part 3

## Big Scenery in a Small Space

– by **Mike Confalone**  
Photos by the author

In this final installment, Mike Confalone finishes his new quarry scene, providing his layout with a “big” new industry that doesn’t take much space ...



In this final installment, Mike Confalone adds ground cover, quarry structures, and foreground scenery to his compact industry.



## STEP 10: Moving from Background to Foreground

I completed installing trees on the ridge about 2/3 of the way across the top of the quarry. It was now time to consider perspective once again. Based on my careful studies of the prototype quarry, I determined that the right-hand side of this scene should be treated as foreground. In other words, the first 2/3 of the ridgeline beginning on the left represented a vanishing point – ever IN-creasing distance, with smaller trees, and with the visible

sky representing the end point of the scene. The last 1/3 of the space, on the right hand side, would begin the transition back to foreground, where the larger size of the trees would imply ever DE-creasing distance as I moved closer to the front of the scene. I accomplished this by painting the wall with a dark gray-brown paint and planting dense and larger trees. The idea here was to NOT be able to see the sky through the dense foreground forest.



73-74: I painted the wall behind what would be covered with trees. I used a dark brown/gray color, and carried it down the wall common with the garage, where the tracks would disappear.



## STEP 10: Moving from Background to Foreground *Continued ...*



75-77: I created tree “flats” or half-trees from bottle brush. These were flocked with the green needles and hot-glued onto the painted wall surface. The flats take up less space back-to-front on the narrow ridge line, and still provide depth and texture when placed against the dark painted wall. I repeated this process right up to the midway point on the tunnel and then stopped.



## STEP 11: Building the Quarry Work Area *Continued ...*

The area immediately in front of the quarry face, and the surrounding quarry “yard” are areas where the work of the quarry gets done. Drilling and blasting, as well as crushing, sorting, piling and transport of the finished product all take place in this area. To finish this area, I again referred to the prototype photo and carefully examined what was on the ground.



78: There didn't appear to be an asphalt surface inside the quarry work area, so I utilized some of my fine aggregate (stone dust mixed with white grout) and rolled it with a wallpaper seam roller to create a uniform, compacted surface that reflected heavy truck travel.

79-80: I sprayed the surface with alcohol and then used a pipette to apply diluted white glue.





## STEP 11: Building the Quarry Work Area *Continued ...*



81: The next day, after the glue had set up, I sanded the area with a sanding block. This loosened the very top layer of the compacted stone dust, giving a more prototypical appearance.

82: I placed the loose piles of the various grades of aggregate into the quarry work area, along with a weathered pay loader. The largest pieces of granite are actually scraps of the plaster rocks. The quarry looks like it's ready for business!

## Mike Confalone does it again!

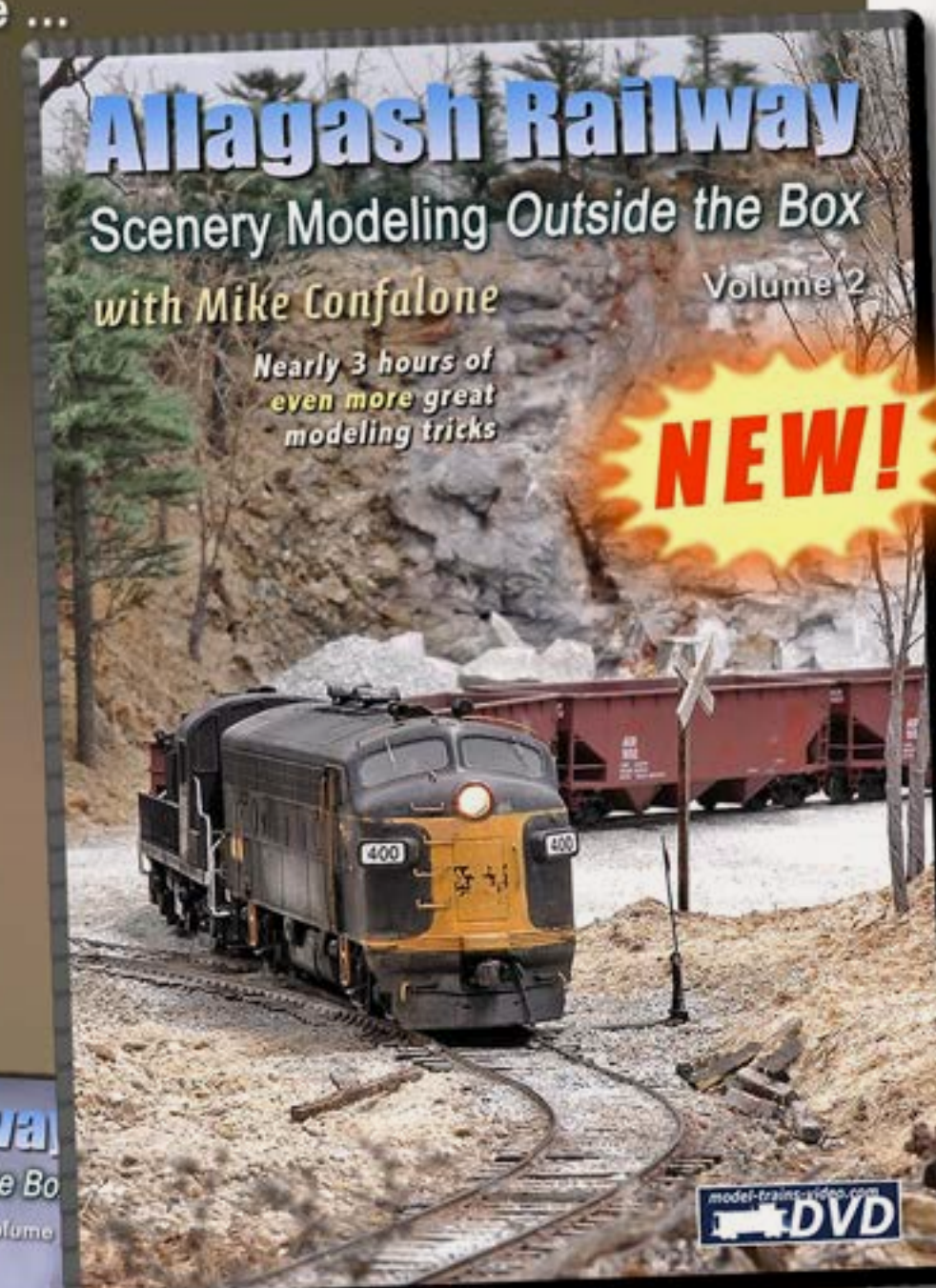
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## STEP 12: Expanding the Scene

At this point, the construction phase of the quarry itself was 100% complete. It was time to expand again!



83: Since I no longer needed to be able to reach the far corner of the scene, I was able to go ahead and expand the bench. Additional 1x4 framing and some birch plywood was added, deepening the scene considerably.



84: I marked off the location for the scale house and scale, built by master structure builder Rich Cobb. I would later move the structure farther back into the scene, and flip the scale onto the other side of the building. I also marked the approximate location of a grade crossing that would lead into the quarry work area.



## STEP 13: Detailing and Ballasting the Track

With the bench expanded, I was really starting to see light at the end of the tunnel. The next step was to weather and ballast the quarry siding track using some simple but effective methods.



85: There is no quick way to make realistic track. For weathered, dilapidated track like this quarry siding, I like to paint the individual ties, to give the impression of older, bleached-out neglected ties. I paint the ties with washes of Polly Scale Mud and Concrete. These two colors provide an excellent, varied color palette.

86-87: After the ties had dried for a few hours, I spooned some gravel over the ties and brushed it in with a soft brush. This gravel was just a bit darker than the material on the ground in the quarry work area, to ever so slightly differentiate the railroad ballast from that of the surrounding quarry ground. To achieve this color difference I used a bit less white grout in the gravel, and added a pinch or two of brown grout. I used alcohol and diluted white glue to secure the ballast.

Weathering the sides of the rail is just as important as weathering the ties. To achieve effective results, I use AIM weathering powders



and a stiff brush. The two colors I like to use are Medium Earth and Dark Earth. I brush the material onto the sides of the rail. The powders adhere to the rail and give the look of dusty, flaking rust not only on the rail, but on the tie plates and ties themselves.



## STEP 14: Building the Foreground Scenery

With the track detailed and weathered, I was in the home stretch and could see the finish line. I was now firmly in the foreground, and this was the last major area remaining to be scenicked.



88: I went back to the tried and true brown latex paint and marked off what would represent the entry way into the quarry.

89-90: I spread the same stone dust/gravel mixture in the foreground entry as I did in the quarry work area on the other side of the tracks, and secured it in place with the usual alcohol/diluted white glue mixture.





## STEP 14: Building the Foreground Scenery *Continued ...*



81: After locating the perfect spot for the scale house and scale, I secured it with some high-tack construction adhesive. I then added land forms in the extreme foreground, and in front of the tunnel area using green florist foam.

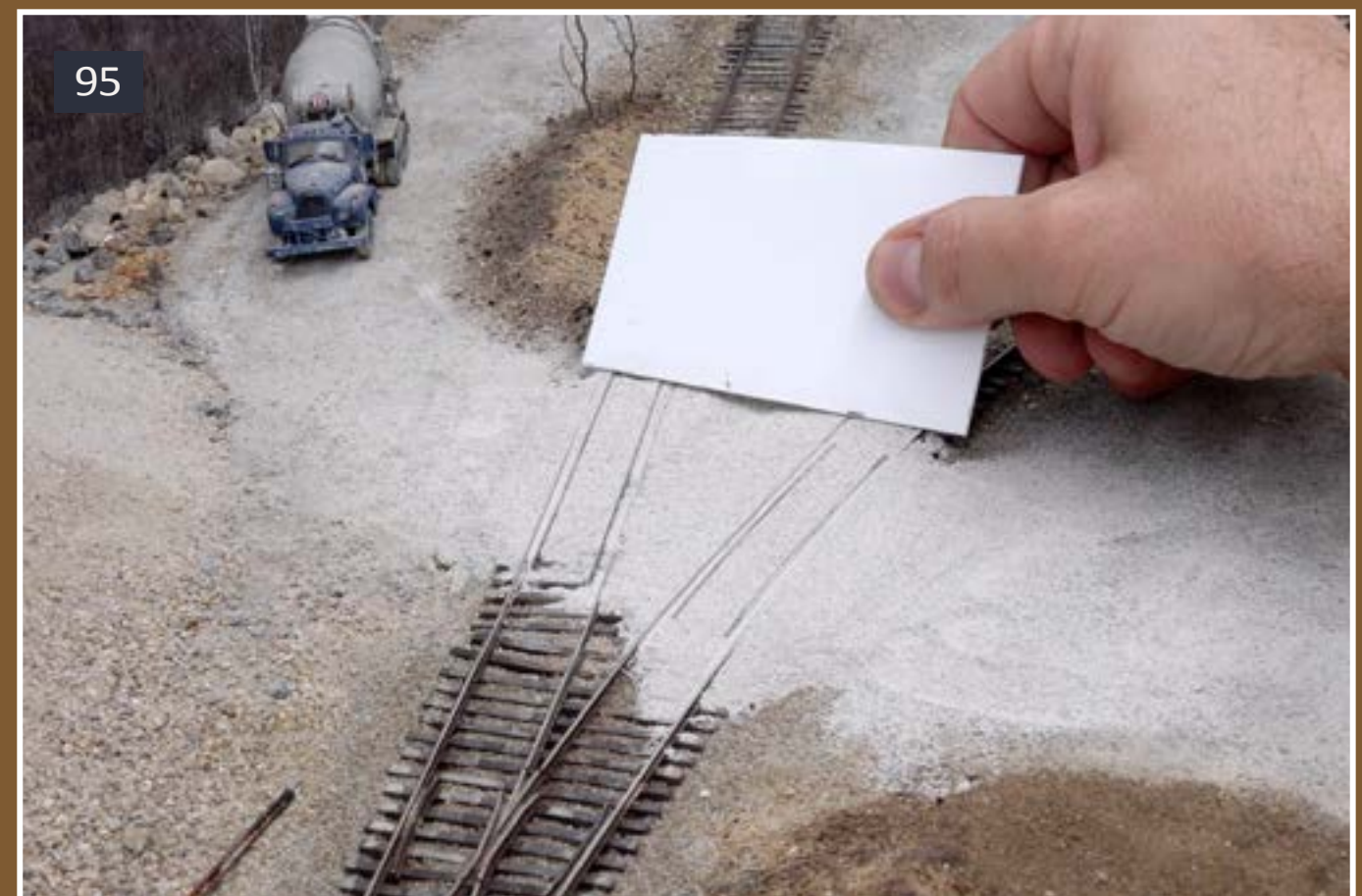
92: The bucket of universal mud was called back to service again to fill in gaps. Then, I painted the remaining green florist foam brown.

93: I sifted on some static grass and dead leaves.





## STEP 14: Building the Foreground Scenery *Continued ...*



94-96: I constructed the three grade crossings using scrap pieces of Code 70 rail. These would represent simple gravel crossings, instead of using wood planking or asphalt. I put some of the stone dust/white grout mixture between the rails and smoothed the road surface with a scrap piece of .060 styrene, and then the wallpaper seam roller. I made sure to clean the flangeways before gluing anything.





## STEP 14: Building the Foreground Scenery *Continued ...*



97-98: I brushed in an additional thin layer of stone dust/gravel to the areas where I thought truck travel would be heaviest – toward the grade crossings, toward the scale etc. This would give a bit more detail to the road system inside the facility and draw the eye toward the various rights-of-way. I also brushed some material up to the scale, leaving only the top surface exposed. The entire road system was then wetted with alcohol and glued in place.

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## STEP 15: Finishing the Scene

There were just a few more things I needed to accomplish before I could call the project complete.



99: Perhaps the most important must-do was to completely hide the fact that the track disappeared through a hole in the wall and into the adjacent room. To do this, I had to cover the land form in front of the tunnel with trees. I used some of the half-tree flats, and some full-size trees to accomplish this.

100-101: Not all grass is lying down in the early spring. Depending on the amount of winter snow, there can still be some vertical grass in March or April. To add variety and texture, I decided to apply some honey-brown 6mm static grass using my Noch Grassmaster. A little bit of full-strength yellow carpenters glue applied with a finger does the trick. I vacuumed up the excess static grass.



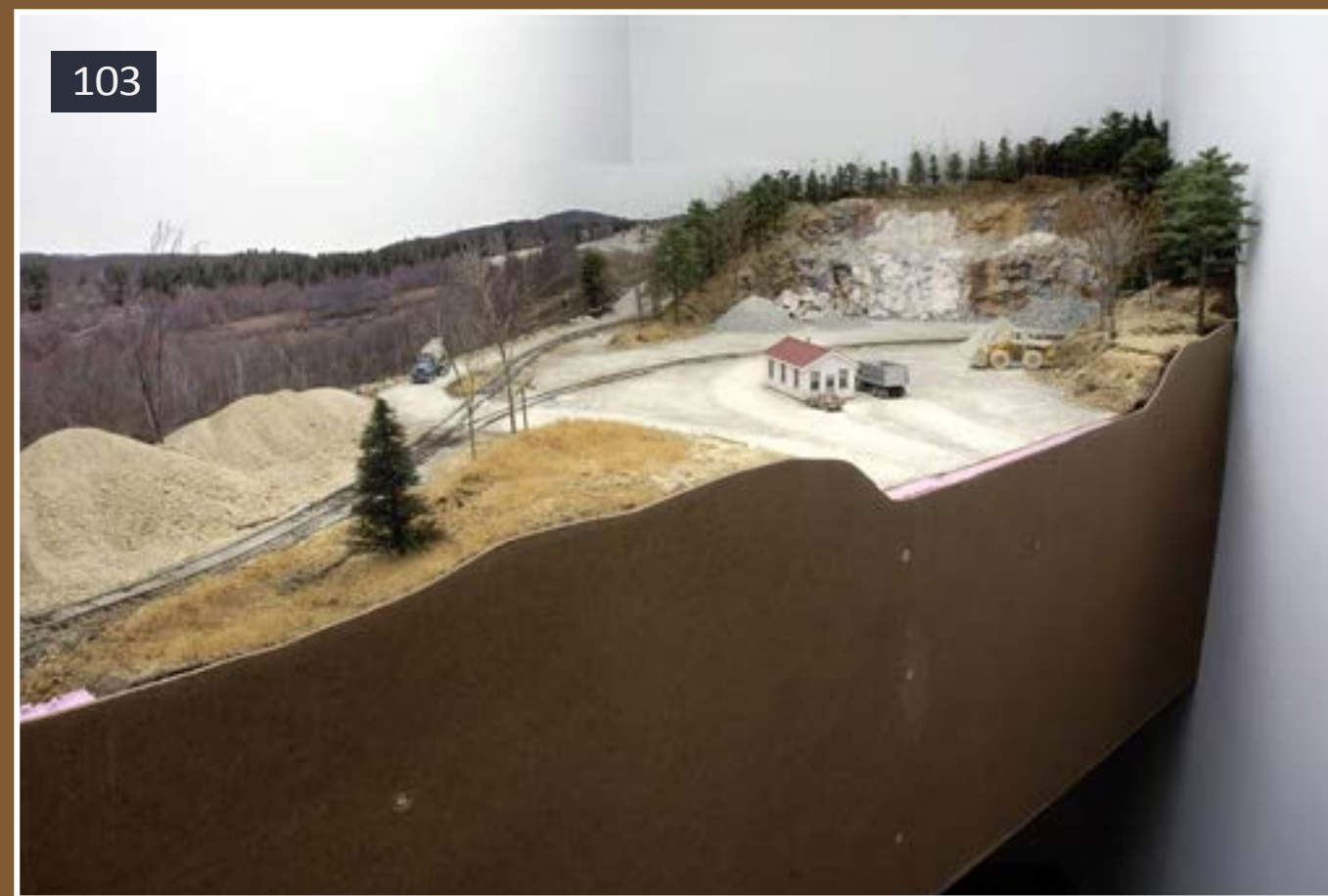


## STEP 15: Finishing the Scene *Continued ...*



102: I didn't want to obstruct the view looking into the quarry, so I added just a couple of very small bare trees and a small spruce to the grassy area. This gave some vertical element and perspective/scale to the front of the scene without spoiling the view. I also added head block ties and a switch stand for the quarry siding, and an old crossbuck for the grade crossing that leads down to the concrete batch plant.

103-104: The newly-contoured fascia was installed. I filled the gaps between the fascia and the plywood with strips of pink foam and mud, and added a bit of ground cover to the mud.





## STEP 15: Finishing the Scene *Continued ...*

105



105: The finished scene with freshly-painted fascia. I will add signs on the buildings and some machinery in the quarry work area at a later date. But for now, it's time to have some fun. Let's switch this place!



Mike Confalone grew up in Smithtown, New York, and got into model railroading at age 10 or 11. Like many young teens, he joined the local model railroad club and got his first glimpse of model railroading on a large scale.

College in the mid-1980s took him away from the hobby for a while, but he still found time to visit the local hobby shop in Scranton, Pennsylvania, and do some modeling on the side. Railfanning also became a favorite pastime. After graduation in May 1989, he and his wife, Susan, moved to New Hampshire.

He publishes a Northeastern prototype railroading magazine called *Railroad Explorer* ([www.railroadexplorer.com](http://www.railroadexplorer.com)), and has published six books on prototype railroading.

He has built several layouts over the years, but it wasn't until the early 2000s, after a visit to Dick Elwell's Hoosac Valley layout in western Massachusetts that he really got a kick in the rear. Seeing Dick's fully-scenicked and operational layout prompted him to get serious.

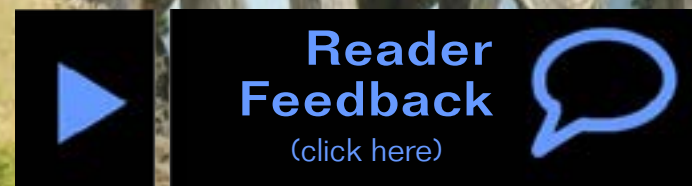
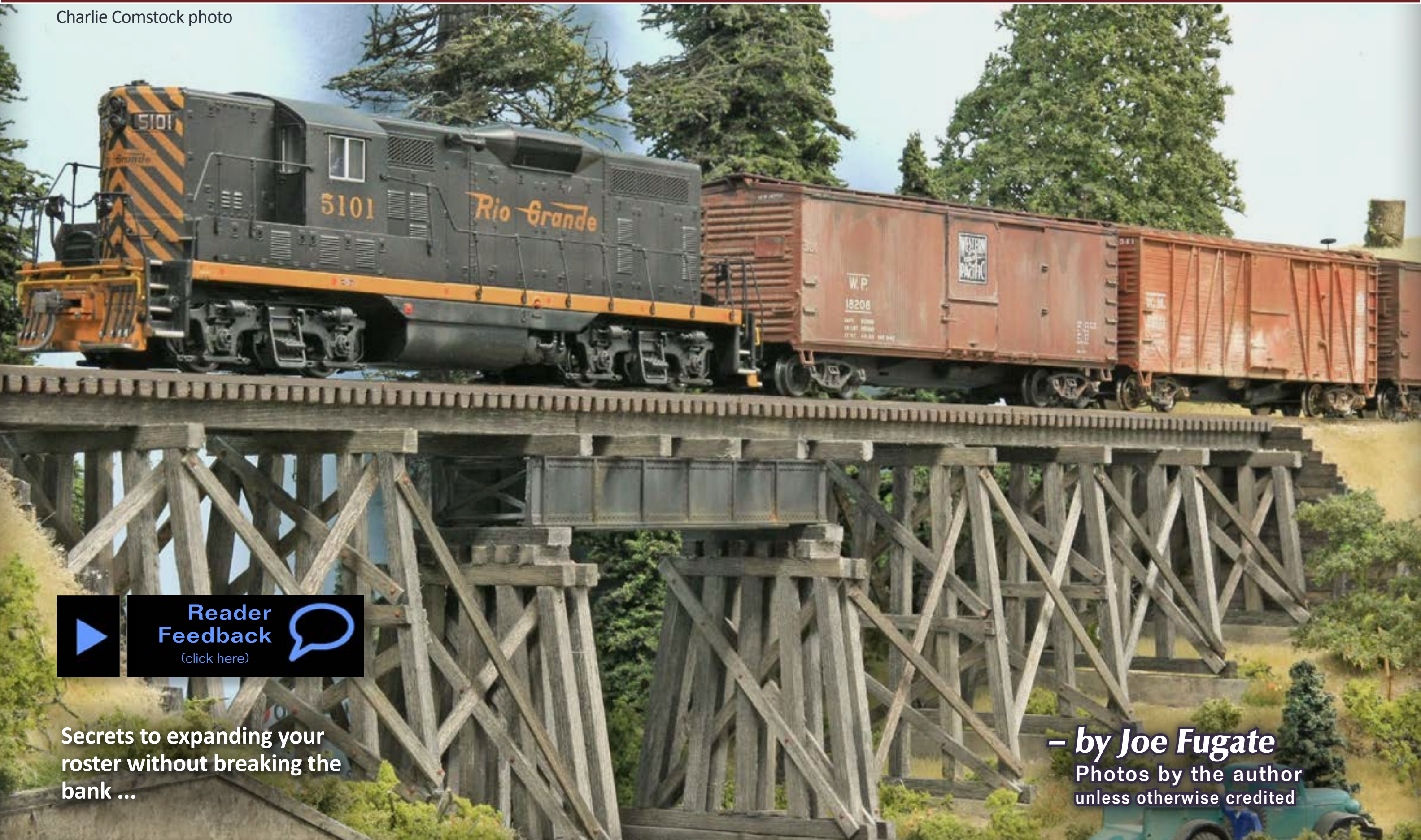
Today, his proto-freelanced, under-construction Allagash Railway occupies a 58' x 24' space – his entire basement and the former two-car garage. This is a long term project that will take much of the current decade to complete. The challenge of bringing his own piece of New England railroading to life in HO scale is the driving force behind his passion. He loves all aspects of model railroading, from benchwork on up, but his specialty is scenery and weathering. He also enjoys the challenge of prototypical operations.

He and Susan love to garden and landscape their wooded two-acre property in southern New Hampshire. He also plays a mean guitar, but his Fender and Marshall-fueled rock-band gigging days are over, at least for now!



# Building an Affordable Rolling Stock Fleet

Charlie Comstock photo



Secrets to expanding your roster without breaking the bank ...

– *by Joe Fugate*  
Photos by the author unless otherwise credited



**Lead picture: Charlie Comstock has several cars in his fleet that are relatively affordable Accurail kits. As Charlie says, “I use Accurail for my ‘fleet’ cars. No, they don’t have the detailing of a Kadee, but they don’t have the price tag either. Their double-sheathed box cars look pretty nice when weathered.”**

**W**ho hasn’t commented on the “average” price of a good piece of rolling stock these days? In HO and N, \$25 is considered low end, with \$35-40 the median, and \$50-65 not unheard of.

So what are modelers to do if they want to have a decent-sized roster of 100 cars or more and to not have it put them in the poor house?

There are ways to build a roster affordably, and building a roster was discussed in the last few months on the MRH website forum: [mrhmag.com/node/4731](http://mrhmag.com/node/4731) ...

For purposes of this discussion, we’ll consider anything under \$25 per item to be in the “highly affordable” bracket. The trick is how to get more than a few items of equipment in your roster to be in this price range.

## Money-saving trick 1: Weathering

One of the first tricks a more savvy modeler discovers is that nicely weathered equipment looks more

detailed than it really is. Just take a look at the Accurail cars Charlie Comstock shows in photo 1. Notice how nice they look! They clearly can hold their own against the more detailed items out there.

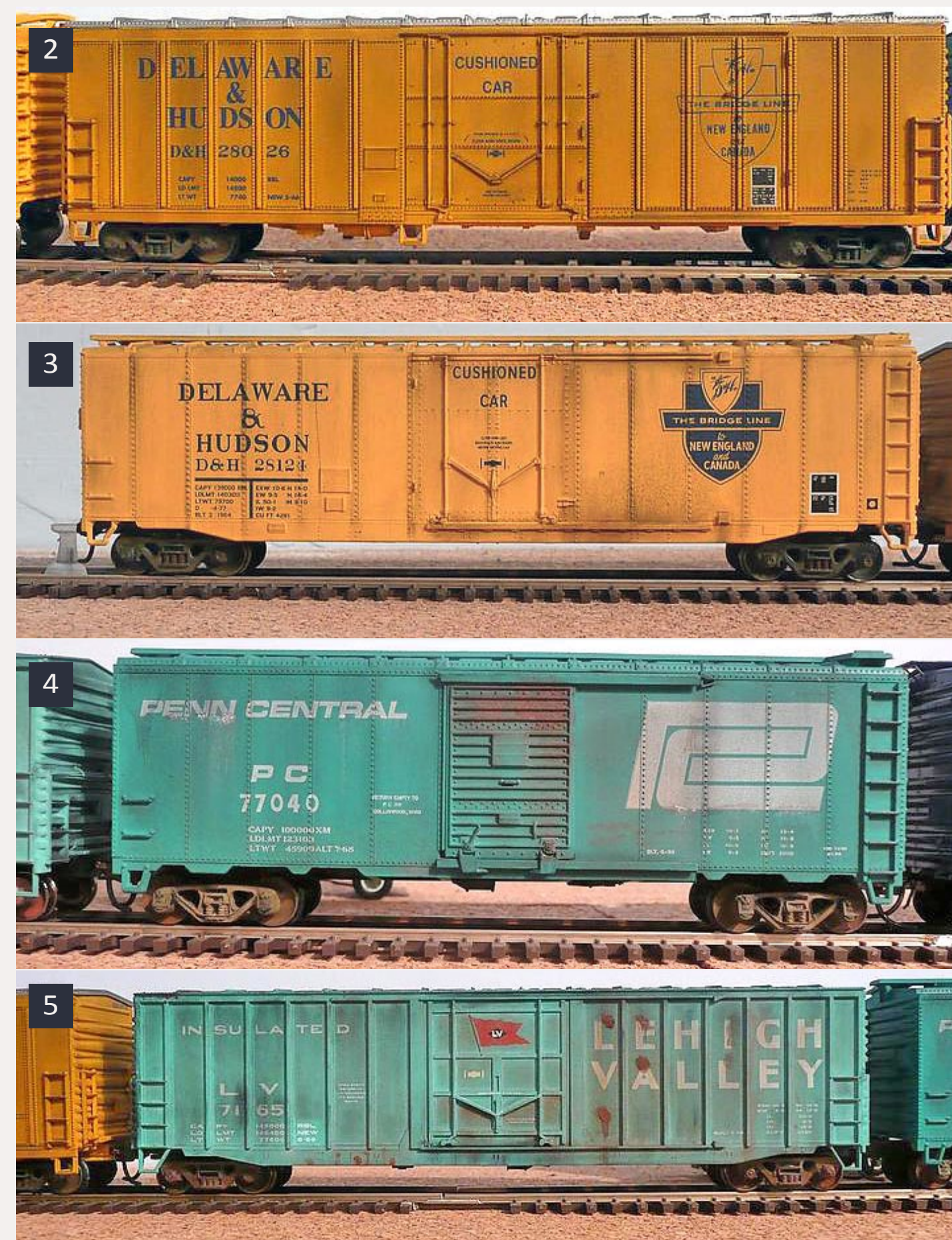
List price on these cars is about \$15, with them available at a discount of two or three dollars off that price. These are kits, which means you do have to construct them, but the effort is not that great. These kits fall in the category that’s been dubbed “shake-the-box” kits. The tongue-in-cheek term suggests that you could shake the box and open it to find the car is almost assembled!

Accurail’s not the only one that makes some cars that are this affordable. There are also Intermountain’s kits (especially undecorated kits), cars made by Bachmann, Bowser, and

**2-5: These four different cars are Accurail or Athearn ready-to-roll cars that have had their wheel sets changed out, Kadee couplers installed, and been properly weighted for reliable operation. Richard Branch weathered the trucks, wheel sets and car body using photos of real rail cars as a guide. These relatively inexpensive cars, once weathered, make great fleet cars for bulking out the rolling stock roster of Rich’s Greenpoint Dock and Transfer Railroad.**

Con-Cor. If you’re able to purchase these cars at hobby shops or online stores that offer a discount, it’s easy to find them for less than \$25.

If you’re willing to shop for discounts, you can find cars from Atlas, Athearn ready-to-roll, Stewart, and Walthers for under \$25.



Richard Branch photos



Once you have these cars, generally you can just change out the wheel sets, install good couplers, weight the cars consistently, do some paint touch up on details like brake wheels, and then give the car a nice weathering job consistent with what's appropriate for your era and road.

The idea is to make up a fair percentage of your roster using these highly affordable "fleet" cars. As Charlie's photo shows, some careful weathering will make those less-expensive cars blend right in with your more detailed show-piece items. Most people won't even notice unless they pick up and study the "fleet cars" closely.

If your layout is an operating layout, you will want your cars to run well, which is why you need to make sure you're using consistent wheel sets and couplers, and weight the cars consistently. If you do that, and apply some decent weathering, no one will notice your fleet cars are a bit less detailed.

To further illustrate what weathering can do for your rolling stock, check out the photos posted by Richard Branch (2-5). Richard also told us: "I keep three baby food jars each filled with pre-weathered wheels, trucks, and couplers. That way I just slap those on once the car



**6: Bulky stirrup steps and the huge "door claws" on this 40-foot hi-cube Athearn Blue Box car clearly give away the car's less expensive heritage. While you can find these cars for good prices, no amount of weathering will hide the trainset-level bulky details.**



**7: Replacing this car's bulky steps with A-Line metal stirrup steps and carving down the bottom runner "door claws" (and gluing the door in place) updates this car's first-glance appearance with only a bit of effort. Once weathered appropriately, this car will blend right in with the more finely-detailed equipment in your roster.**

body is weathered. As I said on the forum these cars are mostly Athearn RTR and Accurail, so the price is right on these guys."

## Money-saving trick 2: Replace bulky details

Another way to build up a fleet of more affordable cars is to replace a few of the most bulky details on the less expensive cars with finer details, so they fit in better with your more expensive showpieces. The idea here is to keep to the simpler, easier things to replace and not worry about the hard stuff like replacing cast-on ladders.

Bulky stirrup steps stand out immediately to highlight the less expensive cars. Thanks to detail part vendors like A-Line, you can get fine-cross-section metal stirrup steps in bulk quite affordably. They offer three different styles, and they'll cost you less than a dollar per car. Replacing bulky stirrup steps is a great one evening project. The visual improvement from this one simple change is dramatic, and you'll find the durability of the replacement stirrup steps to be much better. See [ppw-aline.com/detlfrgt.htm](http://ppw-aline.com/detlfrgt.htm) for more details.

Another common improvement is to carve down the huge door claws on older Blue Box Athearn cars and then



glue the doors back onto the car. The doors will no longer operate, but that's a small price to pay for much finer looking door detail on inexpensive fleet box cars (6-7 prior page).

While you're replacing these more obvious bulky details, also paint the brake wheel a color that's a close match for the car color. You don't need to get the color to match exactly because weathering will disguise minor color differences.

Once you replace the "cheaper car" dead giveaway bulky details, and follow the guidelines in trick one, your less expensive fleet car should fit right in with the higher-priced showpieces (8).



### Money-saving trick 3: Buy used

Used cars can be had used at swap meets, on eBay, and at the Yahoo Group yard sale lists. By using tricks one and two on the older less high-end cars, you can find lots of bargains and help fill out your rolling stock fleet with these less pricey cars.

You can also find some of the newer high-end cars used at swap meets and on eBay or on the Yahoo Group yard sale lists. Sometimes people are thinning out their collection, they're changing prototypes, or they're switching scales. You can often find higher-end cars for a fraction of full price if you're willing to consider used.

When buying the older low-end cars (Tyco, Model Power, Athearn Blue Box, and so on), If you're a stickler for prototype accuracy, you need to do your homework. Just because a manufacturer painted a car in a particular paint scheme, that doesn't mean that prototype car actually had that paint scheme. That's where it helps to do

**8: Many less expensive cars come with some additional details unpainted, like the brake wheel on this Athearn Blue Box model. Applying a quick coat of paint will improve the look, and you only need to get the color close. Once the car is weathered with road grime, any slight color differences blend in.**

advanced research on what prototypes you need. Some low-end cars are generic, meaning that combination of ends, roof, ribs/seams, and side sills never actually existed. The combination could be close enough for your prototype, or it could be just plain wrong. It pays to check before making a purchase.

With today's mobile devices like tablets and smartphones, you can do a web search right on the spot to check for photos or more information on that prototype car.

For example, the 40-foot Cotton Belt Hi-Cube from Athearn (6) looks like a decent model, but was there a prototype like it, or did Athearn just apply the Cotton Belt paint scheme to another road's prototype? A quick Internet search for "cotton belt hi-cube" turns up a nice article by Andrew Martin on the Scribd website (9) [[scribd.com/doc/103033209/A-Very-Short-History-of-the-40-Foot-Hi-Cube-Boxcars](https://www.scribd.com/doc/103033209/A-Very-Short-History-of-the-40-Foot-Hi-Cube-Boxcars)].

So yes, there is a prototype for this car, and the Athearn Blue Box is a surprisingly faithful model of it.

Having your mobile Internet-connected device with you when you frequent swap meets will help you sort out the bargains from the junk (9 next page).

### Money-saving trick 4: Disciplined purchasing

Finally, another way you can build your roster in an affordable manner is to be more disciplined with your

purchases. Don't just purchase anything that catches your fancy. Be very deliberate about how you buy cars for your roster.

First, look for cars under your price point that could form the bulk of your fleet – the core 50-75% of your cars. That leaves the rest of your budget to apply to the more expensive, more highly detailed cars.

When it comes selecting cars to purchase for your roster Thom Garbelotti (aka, Scarpia on the MRH forum) posted his purchase discipline approach:

"My purchase guidelines are as follows (note at any time I get a no answer, then I make no purchase):

1. Is it marked for my road, the Central Vermont? Yes means an almost guaranteed sale.
2. Is it in the era that I am hoping to model? If Yes, see next question.
3. Is it marked for a road that would be seen on the CV? If Yes, then purchase.
4. Is it a really cool model? If Yes, see next question.
5. Is there any chance it might have passed through the CV in my era? If Yes, then purchase.

For instance, I recently ordered a six pack of CNR 1937/1944 40' Boxcars (Trueline Trains), as the answer was yes to questions 2 and 3 (CN was the parent company of the CV).



36082 - 36120	39
36121 - 36126	6
Total	124

Table 1: Southern Pacific Railway System 40' High-Cube data

The Cotton Belt had one other set of Hi-Cube cars (SSW 36000-36013) built. These had been rebuilt from cars in the SSW 33850-33949 series built by Pullman-Standard in 1951. The roofs were raised and they were given new 10'-6" wide by 11'-9" tall doors. They were converted at Pine Bluff between December 1965 and January 1966<sup>[2]</sup>.

Operationally the Cotton Belt (SSW) had the lion's share of these 40 foot cars. It would appear that they were delivered in different lots during 1966 and into 1967 and thus while consecutively numbered were given different listings in the ORERs of the time.



Figure 2: SSW "Cotton Belt" 33607, Victoria TX, 11/08/1984. (T.E. Cobb photo)

3 Modelling the 40 foot Hi-Cube

3.1 A word of caution

It should be noted that these cars were a minority car, and for the most part in captive service between the major white-goods manufacturers and the regional distribution locations hauling high volume low weight cargo. While mostly used during the mid to late 1960's they appear to have all be off the roster, or at least

9

9: Doing an Internet search for "cotton belt hi-cube" returned this article with some helpful details and photos of this car. I can see from this web article that the Athearn Blue Box 40-foot Cotton Belt hi-cube model is a reasonable prototype to have on my HO Siskiyou Line.

New Britain Freight Roster 1946-1954																	
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fx   Road																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Road	Number	AAR	Class	Mo	Year	46	47	48	49	50	51	52	53	54	In Service?	W?
2	A&WP	37638	XM			1947	-	x	x	x	x	x	x	x	x	N	N
3	ABX	431	T			1948	-	-	x	x	x	x	x	x	x	N	N
4	ACL	43901	VA	O-15			-	x	x	x	x	x	x	x	x	N	N
5	ACL	77034	FM	P-13	8	1943	x	x	x	x	x	x	x	x	x	Y	N
6	ACL	82331	HM		11	1943	-	-	-	-	-	x	x	x	x	N	N
7	ACL	93276	GB	K-9	11	1941	x	x	x	x	x	x	x	x	x	N	N
8	ACL	94231	GB	GB			x	x	x	x	x	x	x	x	x	N	N
9	ACL		G				x	x	x	x	x	x	x	x	x	N	N
10	ALTON	61099	HM				x	x	x	?	?	?	?	?	?	Y	N
11	AOX		TM	Type 2			x	x	x	x	x	x	x	x	x	N	N
12	ART	24035	RS				x	x	x	x	x	x	x	x	x	Y	N
13	ART		RS		10	1941	-	-	-	-	x	x	x	x	x	N	N
14	ART		RS		10	1941	-	-	-	-	x	x	x	x	x	N	N
15	ART		RS				x	x	x	x	x	x	x	x	x	N	N
16	ATSF	31343	XM	Bx57	5	1950	-	-	-	-	x	x	x	x	x	Y	N

10

10: Randy Hammill has planned his model railroad roster in great detail using the spreadsheet shown here. Randy lists the cars in his roster, cars on his wish list, and other cars of interest. If you want more discipline in your model roster spending and you enjoy research, this is a great way to really nail down your roster needs. See the text below for a link to the actual sheet.

I also ordered three of the Baltimore & Ohio M-53 Wagontop boxcars as they were a big yes to question 4 (very cool model!) and a yes on question 5 as a good possibility.

Note that the type of car (RTR, plastic kit, resin kit, etc.) alone isn't relevant to my decision. I have Tichy kits, Funaro & Camerlengo kits, and a couple of Bethlehem Car Works kits to be built. I ordered these cars online – it can be harder to find information on the more "craftsman" style kits. The new car releases tend to get the more prominent press.

You can also take a more deliberate approach like Randy Hammill (modeling the New Haven, centered on New Britain, CT) and plan out your entire roster, car for car. You can find Randy's roster spreadsheet here:

[docs.google.com/spreadsheet/ccc?key=0Ao5ZObrtv8vldDI6RjRUMVpvM1VfNTZCSml3a3R0WGc&hl=en\\_US#gid=0](https://docs.google.com/spreadsheet/ccc?key=0Ao5ZObrtv8vldDI6RjRUMVpvM1VfNTZCSml3a3R0WGc&hl=en_US#gid=0).

Summary

By using these four money-saving tricks, you will find you can build a more affordable roster. The larger your





roster needs to be, the more useful these money-saving tricks can be.

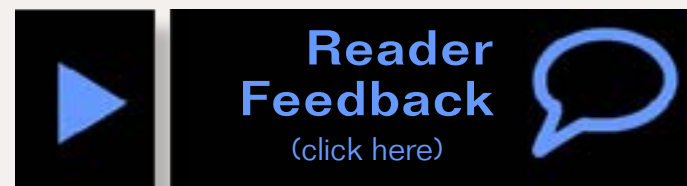
As long as you're willing to bulk out your rolling stock collection with cheaper cars that involve just a little extra effort, you should find the pressure on your budget to be eased, leaving room for more carefully managed big spends on the high-end cars you can't get any other way. Yet those high-end cars won't make everything else in your fleet pale by comparison if you follow tricks 1 and 2.

Remember to make sure the fleet cars run well: standardize on one brand of metal wheelsets, one brand of coupler, and standardize your rolling stock weight. Just because the fleet

cars cost less, that's no reason to cut corners on their performance.

Please post on the comments thread to this article any other budget rolling stock roster tips you have.

Here's to doing scale model railroad-ing with a passion, but doing it more affordably! ☒



## Source for Prototype Rolling Stock Information

Morning Sun Books ([morningsunbooks.com](http://morningsunbooks.com)) has an excellent series of all-color books including equipment guides for many different railroads.

Some sites on the Internet have good photo collections as well. Internet sites will typically have more modern digital shots, but some older material from the 1970s and 1980s has been scanned and made available. Here's some of the good ones for reference material:

- [locophotos.com](http://locophotos.com)
- [railcarphotos.com](http://railcarphotos.com)
- [rr-fallenflags.org](http://rr-fallenflags.org)
- [rrpicturearchives.net](http://rrpicturearchives.net)
- [canadianfreightcargallery.ca](http://canadianfreightcargallery.ca)

I've found these prototype references to be most helpful.

— Chris van der Heide ■

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# Modeling a Streamlined Movie Theater

– by *Isaac Herrera*  
Photos by the author

Bring the golden era of the downtown movie theater to your layout, complete with animated lighting ...





**O**f all the aspects there are to building a pike, setting the era is one of my favorites. Lots of things can be used to effectively signify a particular year. Between the vintage cars and figures with hats, movie theaters make for a very effective “dater,” showing titles from years gone by, the distinctive poster art, and architecture that puts anything built today to shame. And so, in my quest to create a miniature 1941, such a structure is an absolute must. A streamline-moderne movie theater with a working marquee is just what the doctor prescribed.

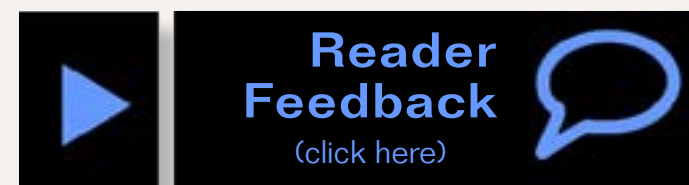
You don’t have to model that particular era if you want to build one. With a few minor changes, this structure will fit any layout set from the mid-30s to the present day. If you’re not familiar with this style of architecture and find it a bit too outlandish or plain to look realistic, rest assured: If anything, this is a toned-down design. This is one of those rare styles that somehow manages to look fresh and modern through the ages, and will surely provide a welcome diversion from the more traditional downtown fare (As well as a nifty little light show during night sessions!).

An advantage to modeling the streamline-moderne style is that its smooth surfaces and clean lines make for a simple, yet effective structure. It’s odd, in fact, that this is one architectural style that is rarely seen in models. Outside of the electronics and the

occasional bits and pieces from the scrap box, I didn’t use any commercial parts in this build. Everything is made out of cardboard, paper and clear acetate. My main sources for material were a large sheet of illustration board and –believe it or not – a cereal box.

This article comes with printable parts (please check bonus downloads), so all you have to do is print, cut and paste. That is, lots and lots of cutting and pasting, so take your time! The templates can also be customized to your own taste with the right image-editing software. You can adjust the length to your available real estate, or maybe even build it as a flat. It’s also possible to change the name, the neon pattern, the color scheme, type-faces, and shapes. There are all kinds of possibilities.

Having said that, buckle up, because this is gonna be quite a ride!



## STEP 1: Prepping the Walls

Cut and paste the wall patterns on thick illustration board (1). The theater’s width is based on 2 and a half DPM modular wall segments.



1: The walls cut out and ready for assembly.



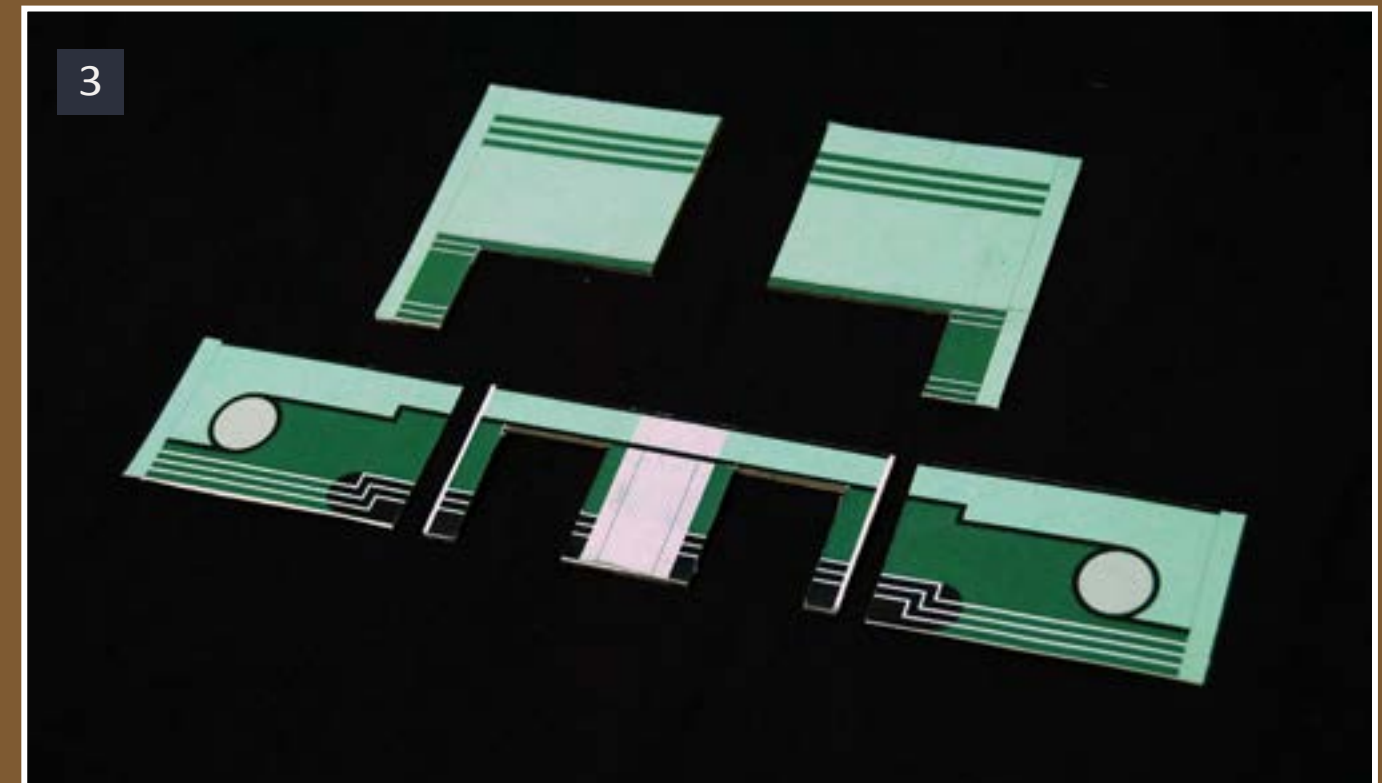
## STEP 1: Prepping the Walls *Continued ...*

In preparing the side walls, make sure you leave a paper “lip” on both ends, about 2 or 3 mm long, depending on the thickness of your material (2). This is to cover up the corner joints. The lower walls with the poster displays will be properly dealt with in another step, so paste those patterns on the thinner cereal box cardboard for now (3).

The rear and side walls have visible horizontal and vertical beams – glue these on the cereal box material and put them in place (4). You may want to paint the edges or they’ll stick out like a sore thumb.



2: The “lip”.



3: The lower front walls – the segments with round windows are made with thin cardboard.



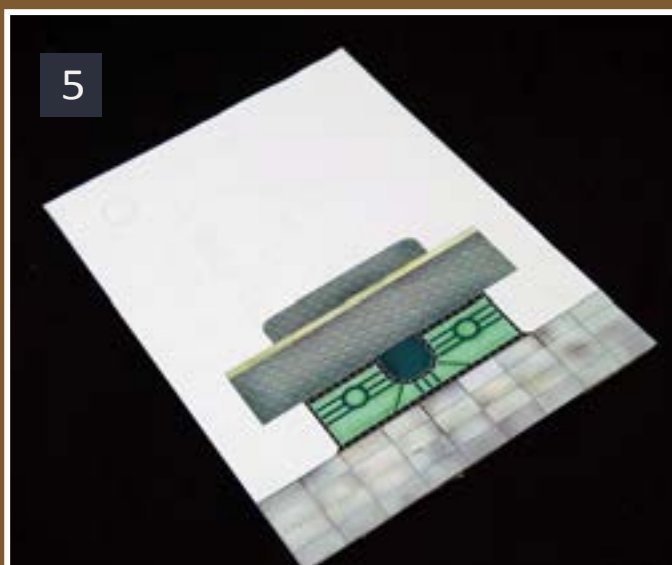
4: The beams.



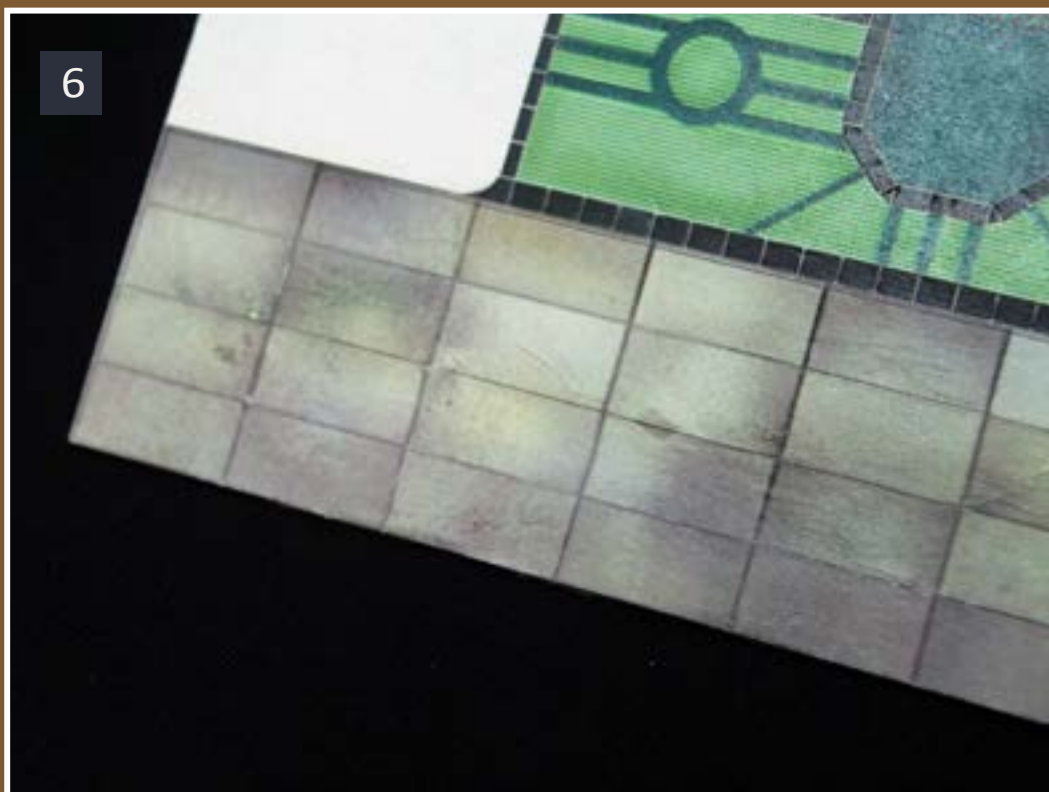
## STEP 2: Floor and Sidewalk

Cut and paste the floor piece as shown in figure 5. If you're building the whole downtown scene you can use the provided sidewalk pattern all along your streets. I scribed a few cracks on mine using a sharp knife and a not-so-firm pulse (6).

Also, using a needle, I scribed the lines on the entrance tiling. There's also a mark for a hole for wiring.



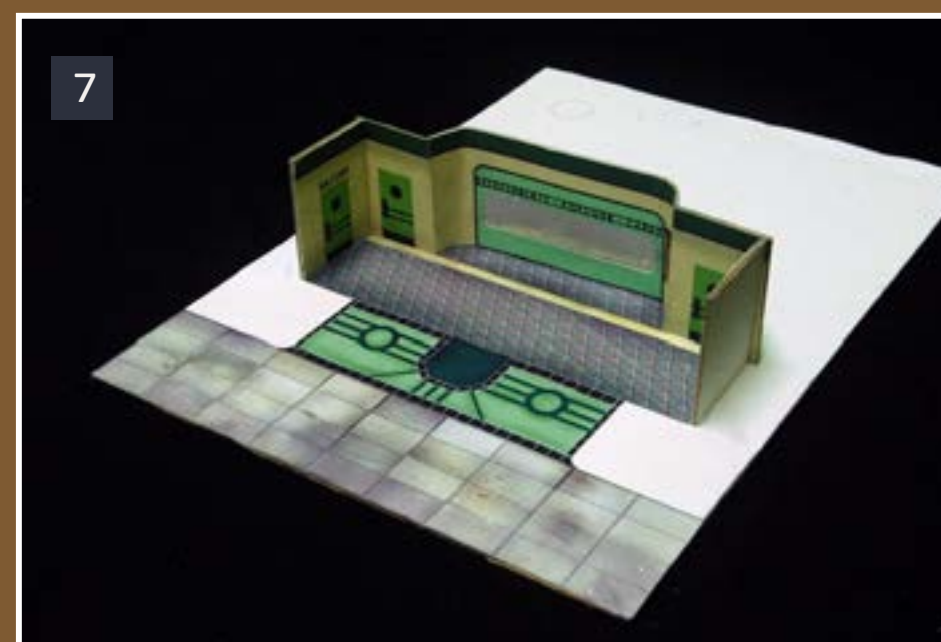
5: The floor piece.



6: Cracks and tiling.

## STEP 3: Parting the Interior and Putting Up the Walls

With the large windows on the doors and the upcoming lighting, a furnished lobby is a neat addition. Since this is not a major structural component, and one of the walls has coved corners, the patterns go on thin cardboard (7). To add a bit of color, you might want to spruce up the walls with posters and other signs before installation (We'll furnish the place in a later step). I also added a piece of foil to the refreshment area to simulate a mirror (8). To create the coved corners, bend the wall on a pencil, but be careful not to wrinkle it.



7: Interior walls in place.

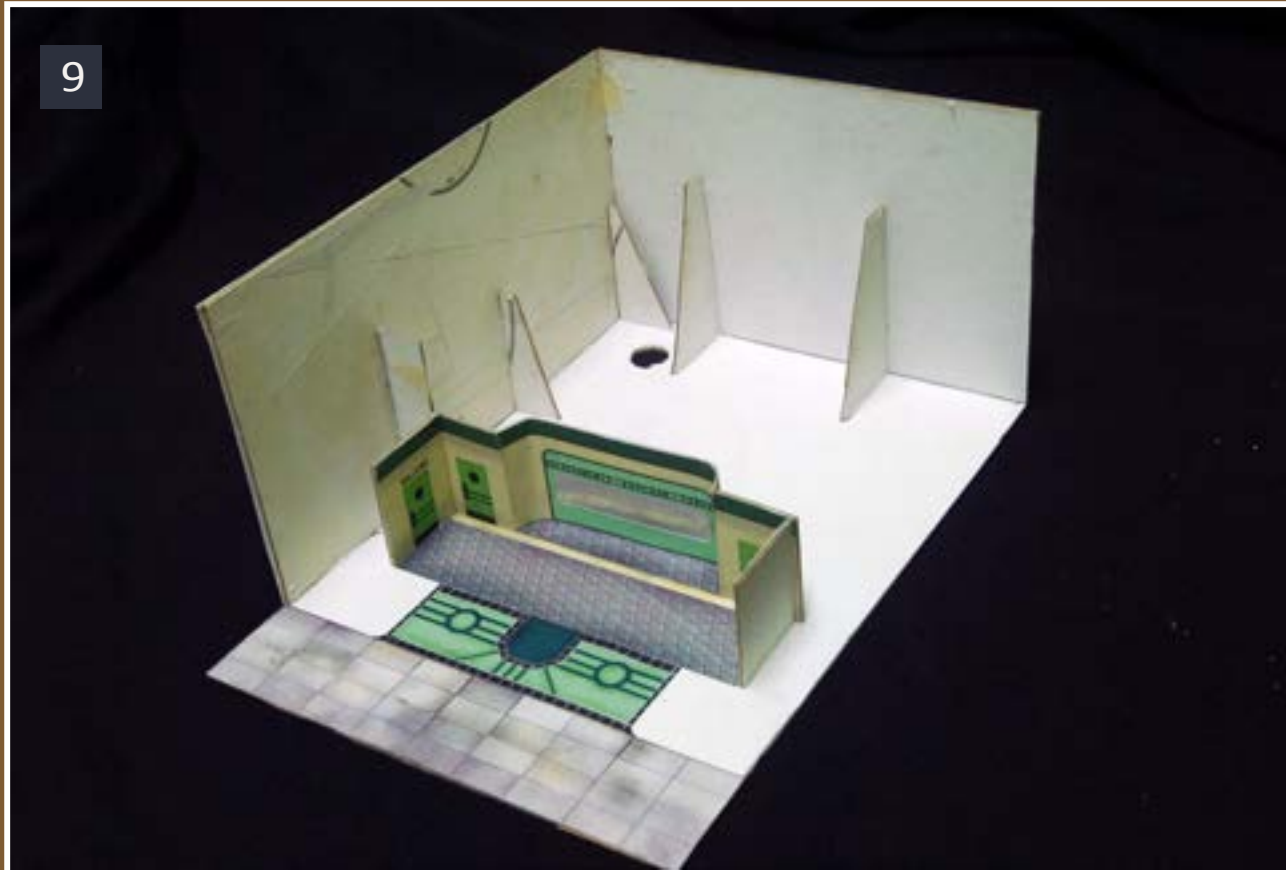


6: Cracks and tiling.



### STEP 3: Parting the Interior, Putting Up the Walls *Continued ...*

With that in place, put up the exterior side and rear walls. It's a good idea to add some sort of bracing, especially if you're making this into a much bigger structure. For this purpose I used cardboard triangles cut from the walls' leftovers (9). I also braced the interior walls.



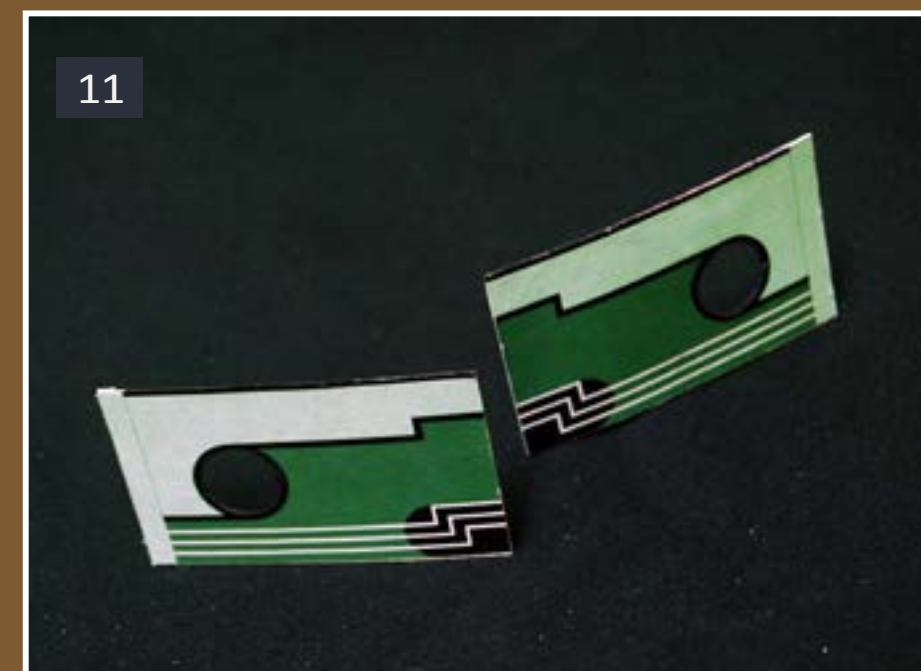
9: Bracing on walls.

### STEP 4: Front walls and Posters

Because of the round windows and coved corners, these walls will require special treatment. Using an x-acto knife, carefully cut out the window openings and smooth them with fine sandpaper (10). Paint the rim of the windows black and paste a piece of acetate on the back (11).



10: Cutting the openings- I usually cut into quarters first.



11: The smooth painted rim.

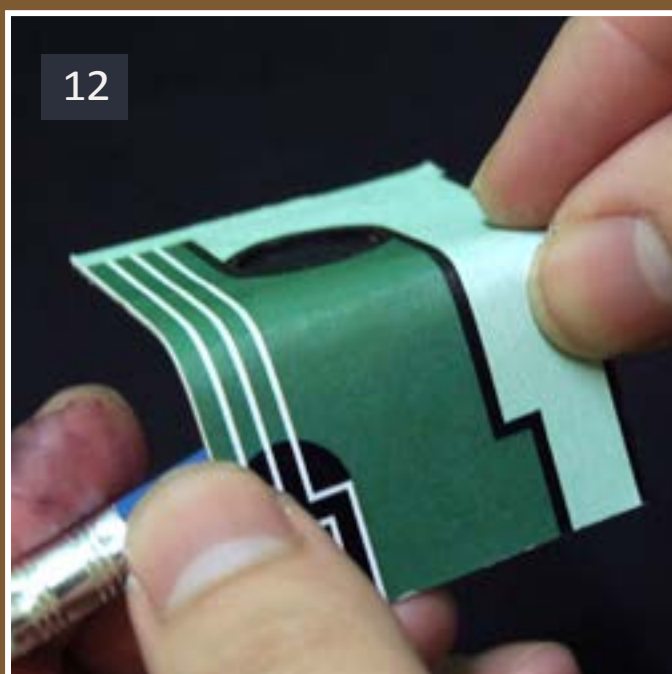


## STEP 4: Front walls and Posters *Continued ...*

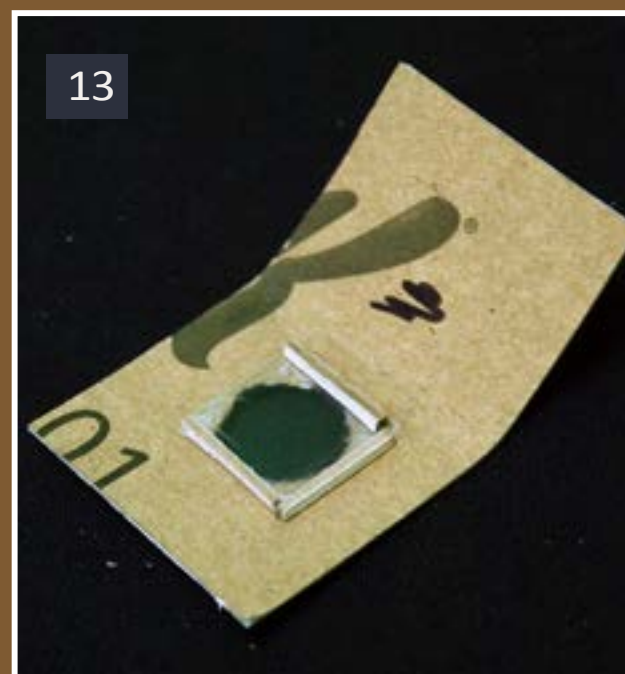
As with the interior walls, give these their curved corners by carefully bending them using a pencil to get the right radius (12). Use the floor pattern as a guide to curve the right place.

These round windows will display posters so we need to add a little holder. On the back of the wall, add three strips of thin card as shown in figure 13. Paint the edges and paste your choice of posters. I wanted to be able to change mine, so I only added a tiny dab of glue at the bottom. Make sure the posters are printed on thin paper because we want a bit of light to shine through to simulate an illuminated display case.

With all said and done, paste the walls in place. It's also a good idea to brace these to keep them in place (14).



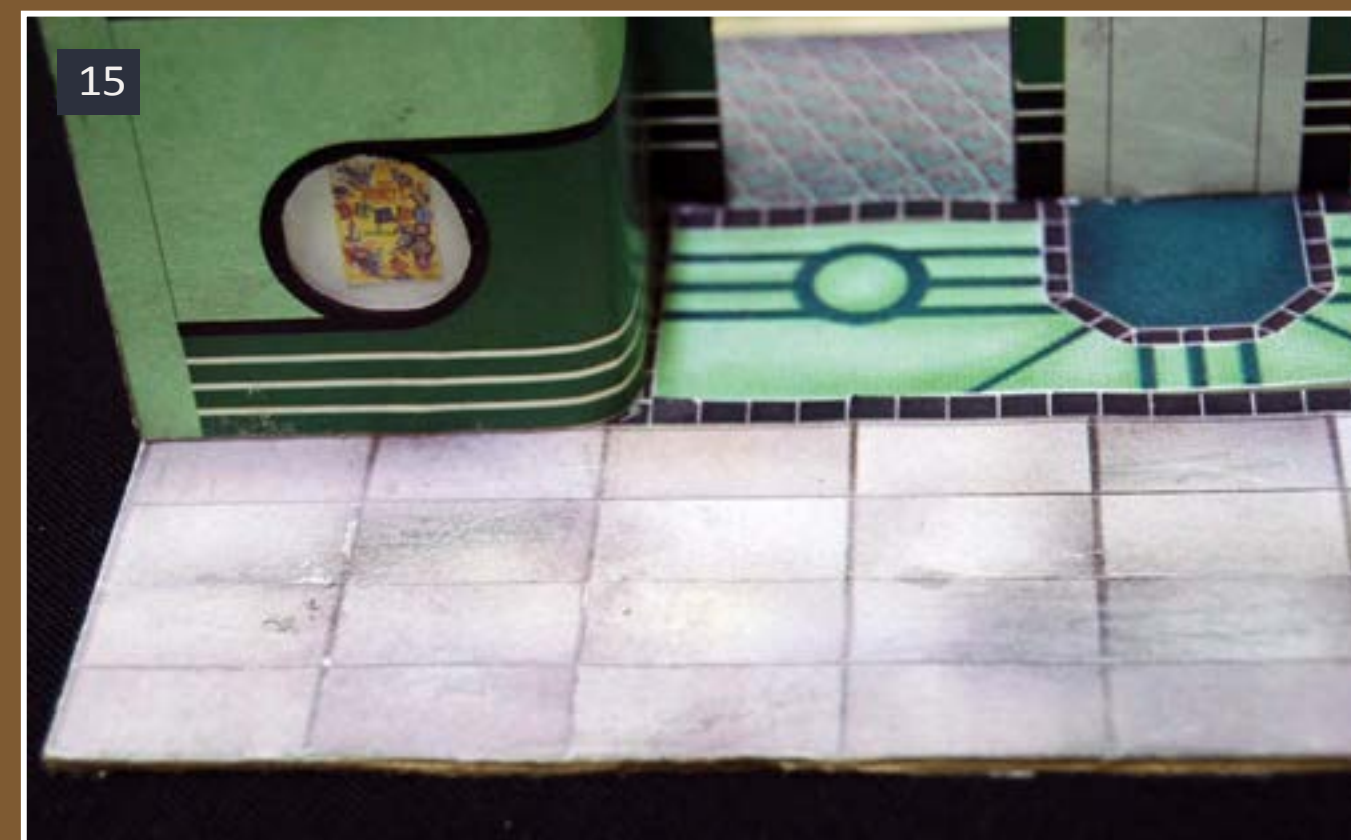
12: Bending the walls into shape.



13: Poster holder.



14: Installed walls.

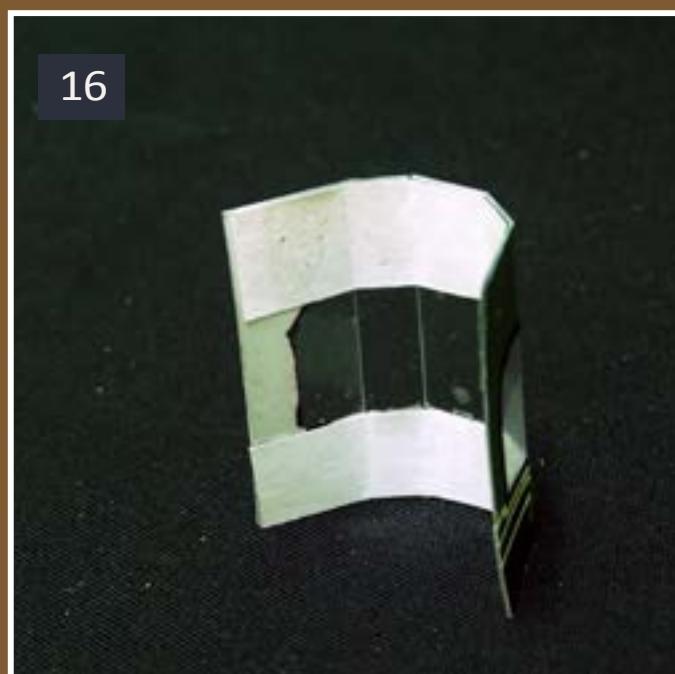


15: A closeup of curved wall and the installed poster..

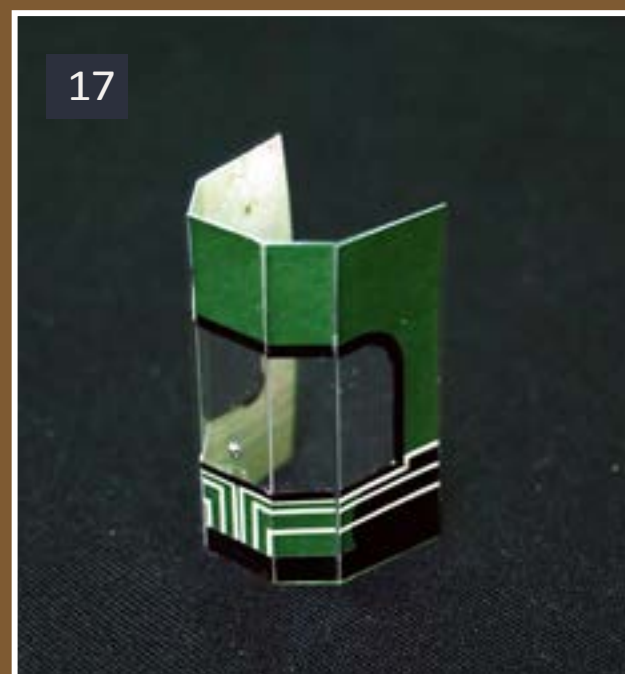


## STEP 5: Box Office

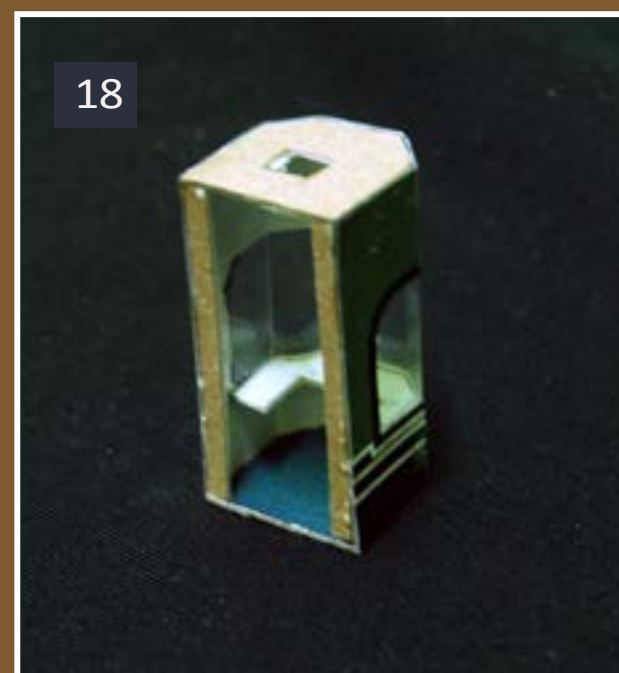
You can have a movie theater without many things, but a box office ain't one of them. Since this is mostly a large window, we'll start this off with a piece of clear acetate cut to the right size. Score it using the provided pattern and fold it into shape. In the middle section, cut a small opening – this is where patrons get their tickets. Right above that cut, add a small drop of white glue, and once it's dry, paint it silver. This is the speaker. Now add the coverings, both inside and out (16-17). Now we wrap the wall around a floor and a roof made of thin cardboard – the roof has a small hole for lighting. To further brace the box office, as well as a bit of interior detail, I added a small cardboard desk just below the window. I also added two strips of thin card at the rear to keep the sides straight (18-19). And finally, we add a uniformed attendant before gluing the box office in place.



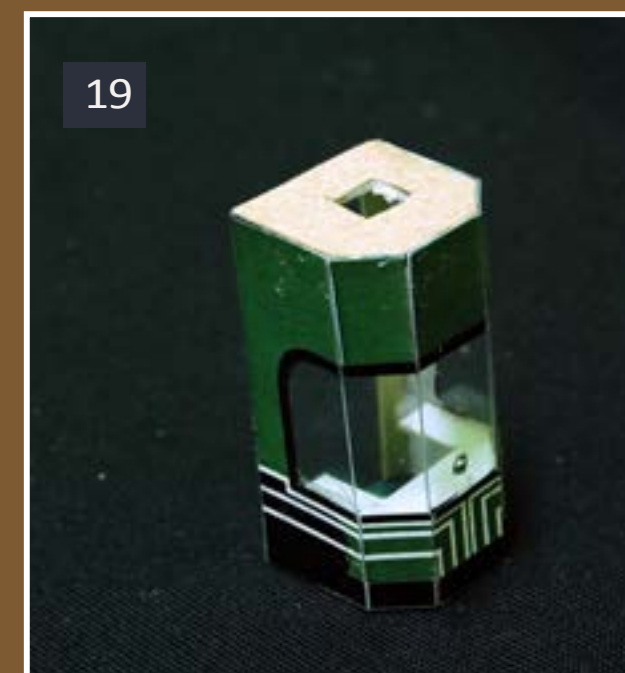
16: The inside.



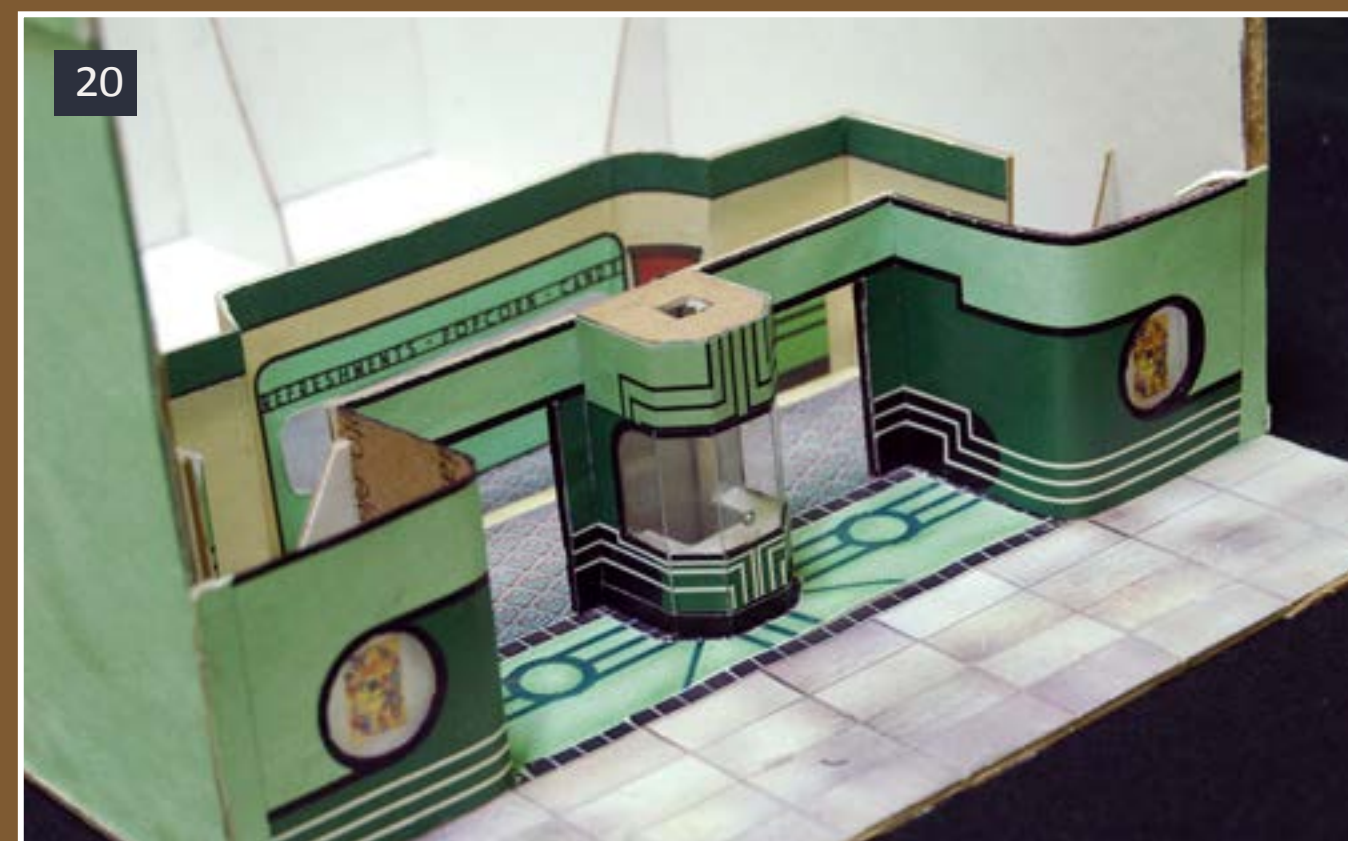
17: Front.



18: Assembled box office from the rear...



19: ...and from the front.

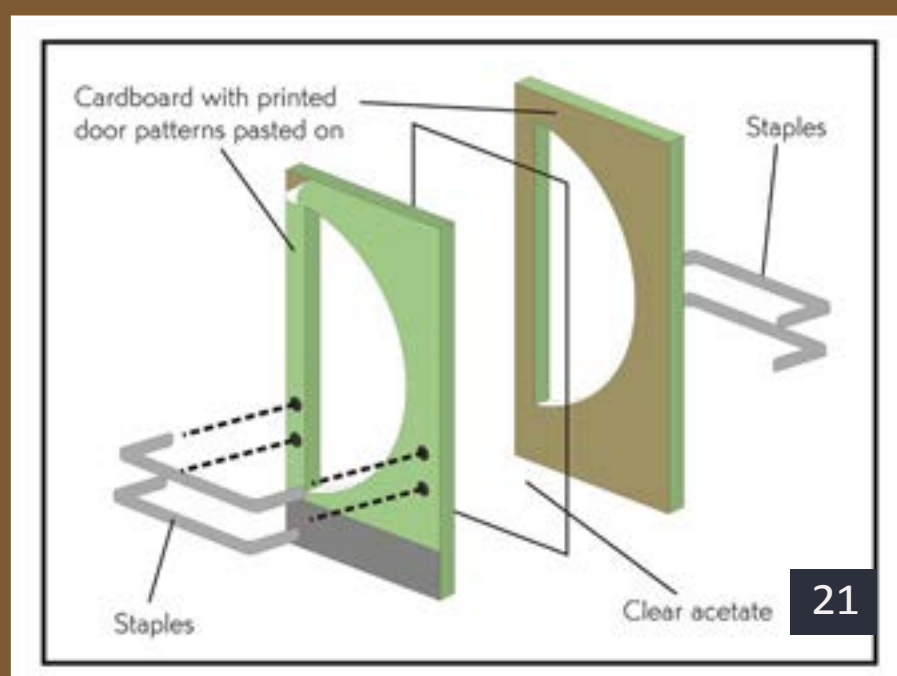


20: The box office in place (The figure was added after the picture was taken).



## STEP 6: Doors

To make the doors (21), cut them out along the dotted line and paste them on thin cardboard. Then carefully cut out the openings and trim the margin. You have to be careful not to tear the door apart as you trim, as it gets pretty narrow... I should know, I broke two! Having done that, cut out a piece of clear acetate and glue it in place. To add a little bit of shine, I painted the bottoms silver to simulate chromed kick plates. If, like me, you're modeling an open pair of doors, add the inside part and slit them apart. And now come the handles. On the black dots, carefully punch small holes using a pin and cut a pair of staples so they protrude 3mm from the door. And now they go into place (22).



21: Door assembly.



22: Finished doors.

## STEP 7: Top Wall

To complete our façade, we'll now add the upper walls (23). This part comes in two sections, since we'll need a gap for the bundle of wires coming out of the big sign. Glue the wall in place and add bracing to the back as shown. At this point I also painted the inside of the walls in a matching shade of green. Finally, add the roof supports as shown (24). (Note the interior – I left that for the end as an optional step)



23: The walls in place.



24: Bracing.



## STEP 8: Trim

The façade is adorned with simple trim which is easily done with paper strips. Paste the base on thin cardboard, and then add the strips as shown. You may want to paint this part, since there are a lot of exposed edges, and in paper models, there's nothing quite as distracting as the clean white edge of the paper. And now our walls are perfectly joined and held together. (I got ahead of myself here and started out on the marquee here... but that's coming in part 2!)



25: The trim in place.

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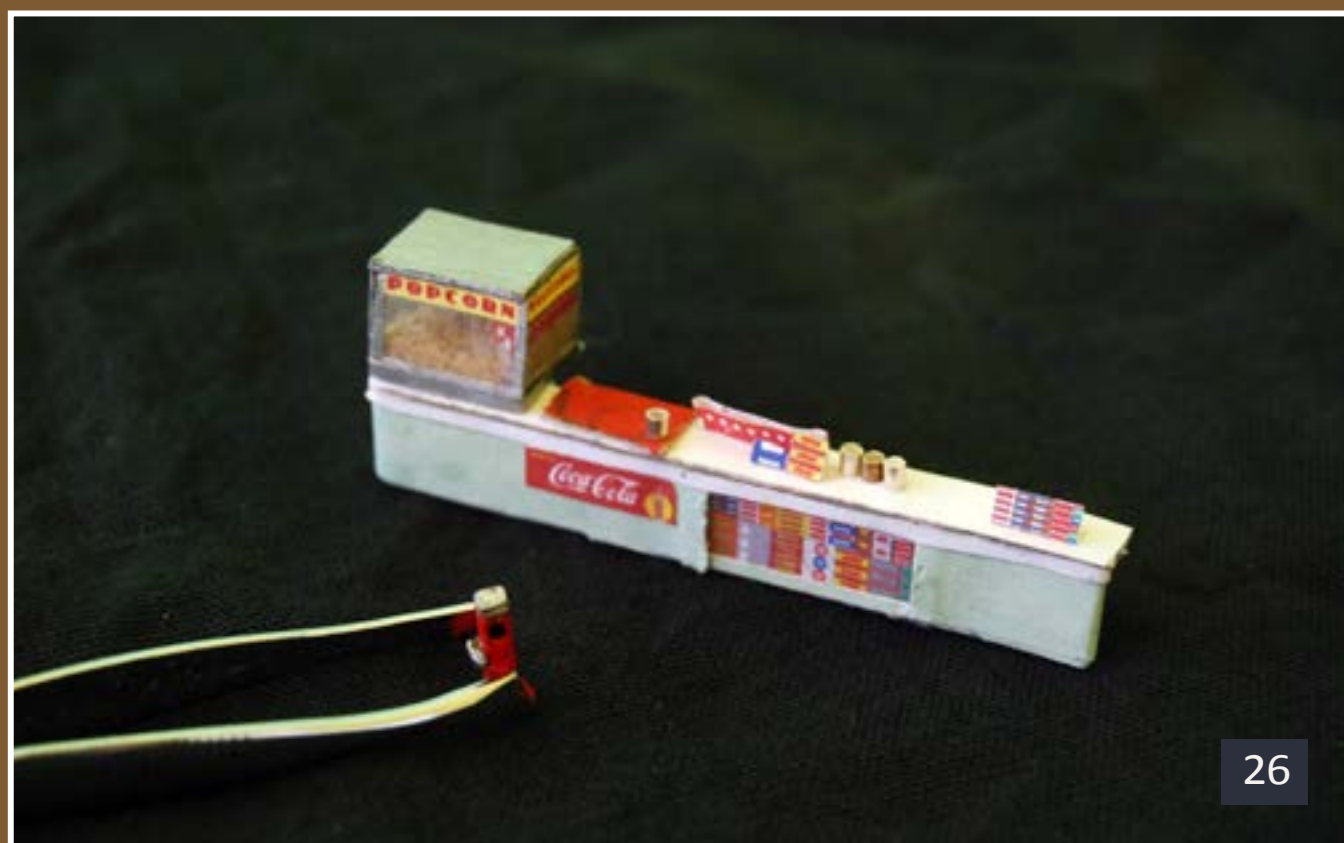
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## STEP 9: The Interior

As I mentioned before, the big windows and lighting pretty much demand some interior bits and pieces (26). Given the narrow view, only things we need are the snack bar and a ticket machine at the door. The ticket machine (which shreds tickets as patrons walk in) is just a track tie painted red with black and silver accents. The counter is fashioned in card with simple printed “candy” cut outs on display. The round bits were found in the scrap box. Just for fun, I made an all-too-essential popcorn machine, loosely-based on a vintage Burch countertop model from the 30’s (27). The popcorn itself is fine sawdust. Dress up the place with some period advertising and put everything in place (28). I didn’t add a ceiling because, no matter how you look at it, you wouldn’t be able to see it.



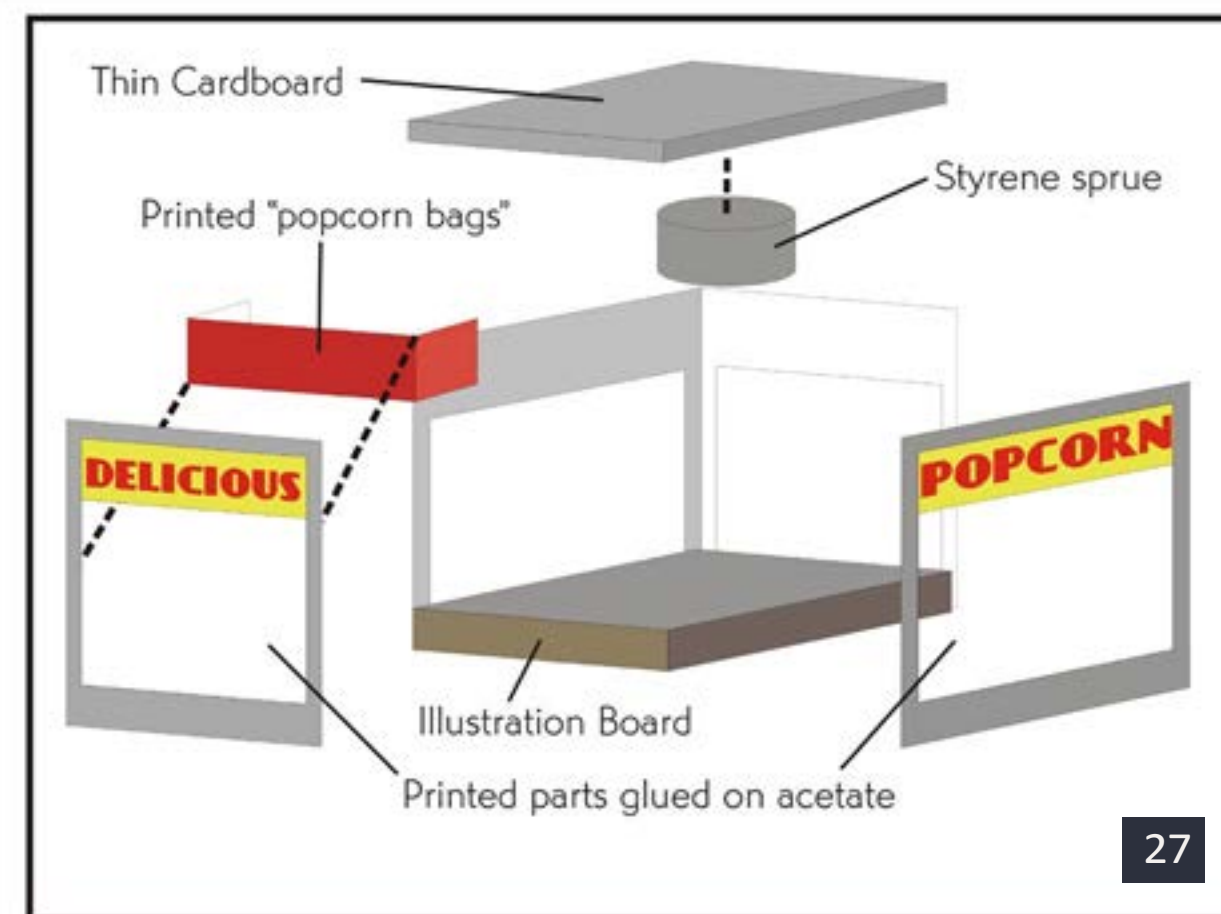
26

26: The parts.

27: Assembling a popcorn machine.

28: Everything in place.

And that’s as far as we’re taking it in this episode. Of course, you’ll note we have a huge gap out in the front, but we’ll fill it in later – and how! Tune in next month because we’re gonna have some fun with lighting. I’ll be seein’ ya.



27



28



Isaac Herrera is 25, and currently works as a prop builder and illustrator. He has been active in the hobby since the age of 10.

In addition to model railroading, his hobbies include photography, animation, vintage clothes and 8mm movies.



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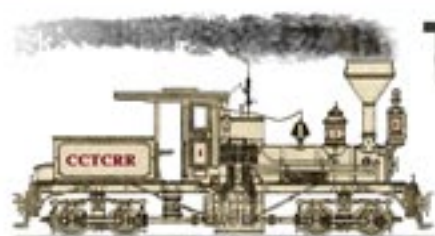
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# Shelf Layout Project in N Scale

– M. C. Fujiwara  
Photos by the author



up on Dad's San Francisco Bay Area pride, too!

I redrew the design for Atlas Code 55 track and to use the Fast Tracks templates I use to hand lay turn-outs. I added one more siding to service a brewery (Dad gets thirsty), and renamed the industries for fun (sometimes including a reference to local lore).

Having moved an average of once a year for the past 11 years, we wanted to keep the hinged design for portability, but we also wanted structures on the layout. My brilliant brainstorm (if I do say so myself), was to insert a 3" piece between two sets of hinges and a 3" backdrop / vertical support on the far left of the layout. Now, instead of pancaking, the shelf wraps into a box with a 3" gap between sections, providing an interior space for structures and scenery (4).

## Doing the benchwork

The shelves are 1/2" MDF cut from one 2'x4' piece. The three sections are not of equal width: the left ("base") section is 12"x36", the center is 11 1/2"x3", and the right is 11"x36". This allows the permanent attachment of 4"-tall strips of 1/8" Masonite (cut from scraps salvaged off a previous layout, but could come from a single 2'x4' sheet).

See how M.C. Fujiwara built this gorgeous shelf 12" x 75" N scale layout, with help from his kids, in a few months ...

Based on the MRH website thread: [mrhmag.com/node/5666](http://mrhmag.com/node/5666). Byron Henderson's "Alameda Belt Line" (*Model Railroad Planning* 2005).

I built an N-scale shelf switching layout with my young daughter and son. Even though layout design is one of my trades, my

daughter brushed aside my ideas and jumped on Byron Henderson's "Alameda Belt Line": a 1' x 6' shelf designed to fold in half for portability.

My daughter does have good taste: the design includes a long runaround to facilitate switching an oil company, wharf, team track, and a large

fruit canning industry. The plan also includes off-layout traffic transfer capability via car float and an interchange with the Southern Pacific Lines.

She also likes the fact this location is local: Alameda, near Oakland, California, is a short car ride away from us. So it looks like she's picked



There are 1" MDF strips under each section edge, with four adjustable 7/8" furniture feet at each corner of each 3' section.

I then spray-painted the backdrop flat dark grey primer, and painted the boards with Krylon ultra-flat khaki. I constructed a 6"x7" box out of scrap Masonite and MDF to house the DC power pack (3).

A roof with detailed parts will fit over the power pack area for photography. I can also screw a Masonite hard-board front cover on to the box.

I made the bulk oil tanks using 4" and 2" ABS pipe caps. The large tank, at 2.5" high, will be permanently attached to the layout. I made the two smaller tanks removable, making them also serve to cover the front two pairs of hinges.

I use a removable power house to cover the back pair of hinges. Those three structures are the only non-permanent buildings on the layout: I use flats, low relief, or position structures to not get hit by the backboard or

any other structure when closing the modules for transport.

I installed a handle on the bottom of the right section, and a latch on the left (4 next page). When folded up, it's a 1'x3'x4" box that's easily carried.

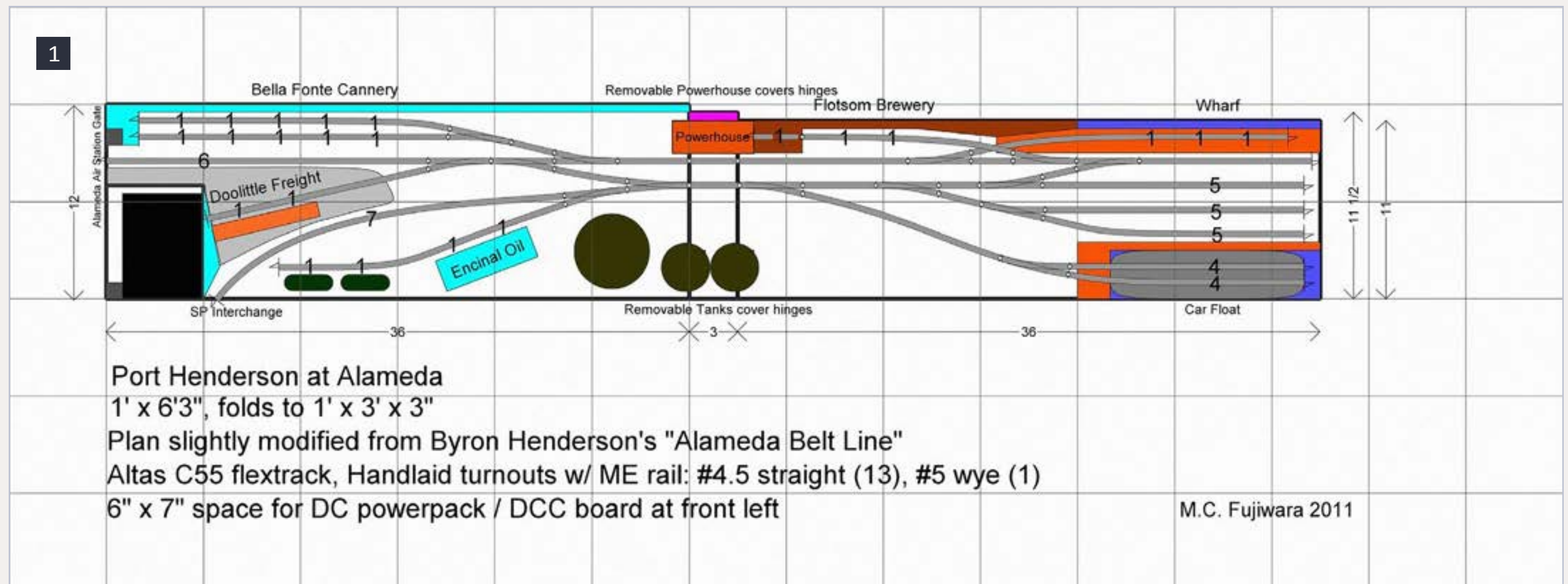
You can see a bus wire runs the length of the bottom and through the end-strip supports. I connect feeder wires with suitcase connectors. To mount this as a shelf, I thought about placing foam on the brackets (like for weather-proofing windows) on the brackets to take up the wire space and still support

the boards (see actual mounting practice at end of article).

## Doing the track

I laid a small section of track over both joints, and then cut the rails when the Gorilla Glue cured. I find the Dedeco ultra-thin cutoff disk cuts as thin as a jeweler's saw (or seems like it). Having the hinges on top actually lifts the track up, preventing any crimping or squishing of rails (5).

One of my goals for this layout has been to build as much ourselves as



1: M.C. Fujiwara's N scale shelf layout track plan, inspired by Byron Henderson's Alameda Belt Line.



we can, and to use up much of the train stuff I've accumulated over the past couple years. I'm using Atlas C55 flex track and building our own turnouts using Micro Engineering code 55 rail on PC board ties. We use Fast Tracks printable templates as guides, but adjust to our needs.

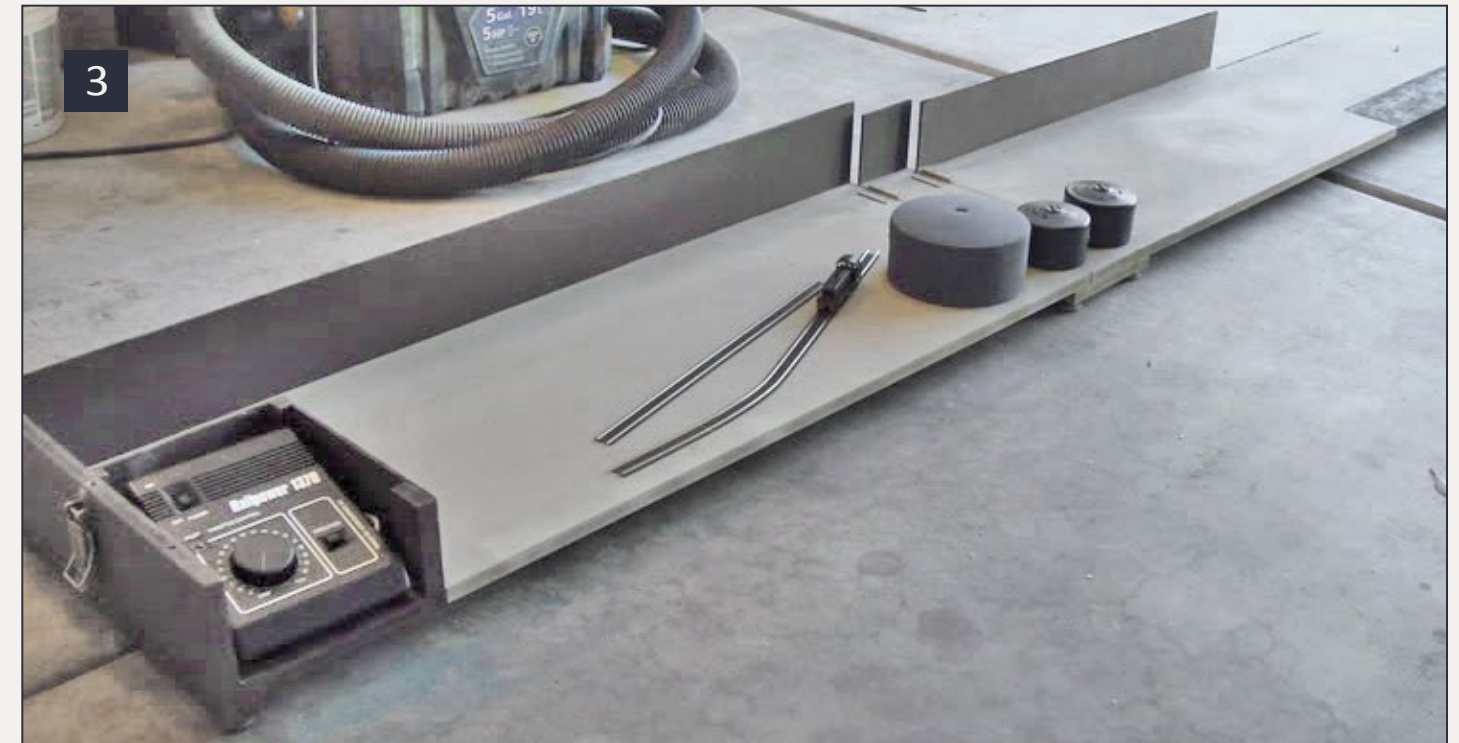
The crossing turned out pretty well. I did it with a lot of eyeballing and relying on the trusty NMRA gauge. I'm sure I'll do even better on the next one I build (6).

For the first couple of turnouts we built, my daughter and I used the jig I've had collecting dust for a couple years (7 next page). We used some spare trucks to test out the turnout as we constructed it.

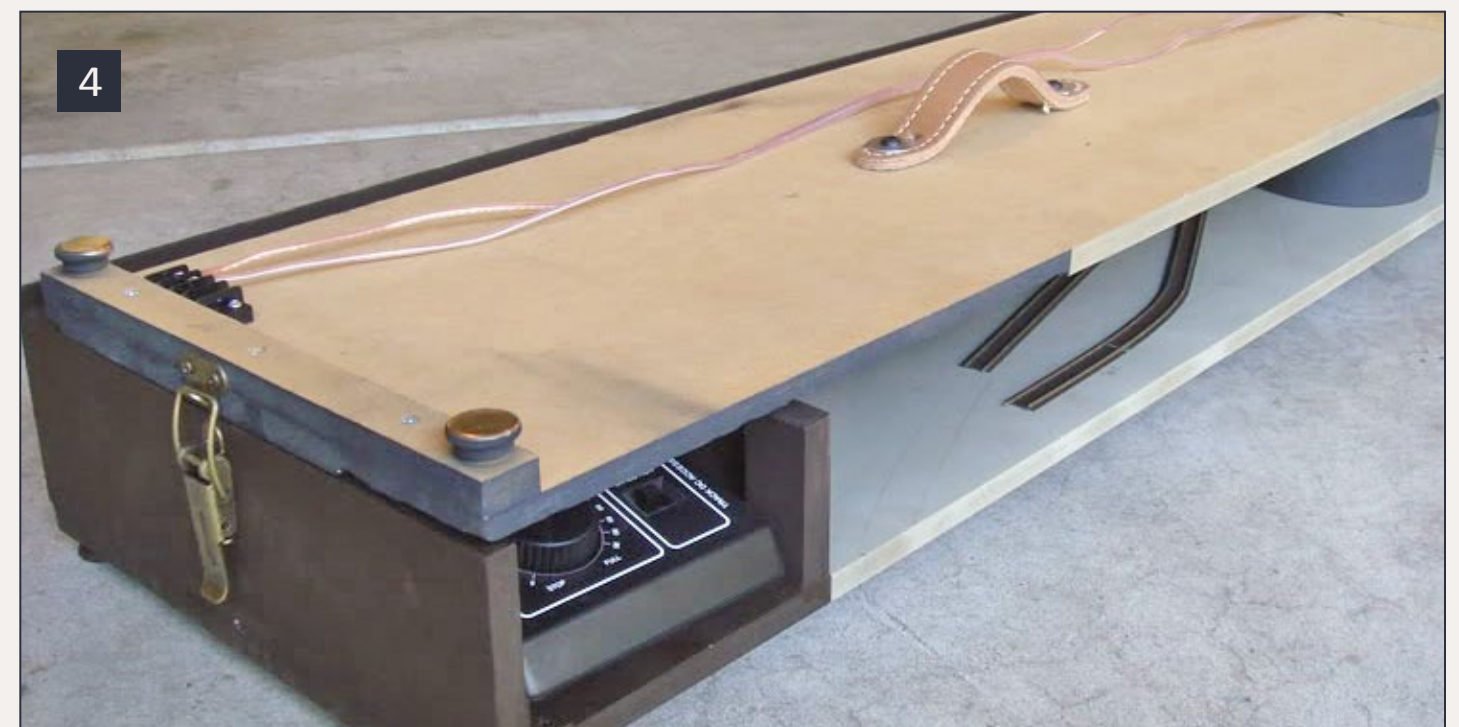
My daughter now knows how things are glued or soldered together, she's learned about hard and soft metals, and why not to touch the soldering iron tip (dad accidentally demonstrated why touching a hot soldering iron tip is a bad idea).



**2:** Here's the basic "benchwork" configuration for this shelf layout. Notice the 3" section in the middle between the two modules. In photo 4 you can see the modules folded up for transport. The 3" middle piece helps the two sections form a box, providing room for structures and scenery, yet allowing for easy transport.



**3:** After painting the benchwork a basic gray, you can see the cubby for the power pack fits perfectly (we later switched to using a Stonebridge Models e-Z throttle tethered to a jack under the layout). The test placement of some track and some bulk oil tanks gives some idea how the module will look and allows a fold-up test in photo 4.



**4:** Here are the sections folded up to see if the unit is easy to transport and it passed the test. The addition of a handle on the underside of the second section, and a latch on the two section ends, creates a solid unit that is portable.



We Gorilla-Glued the pc board ties of the turnout fixtures to the MDF base for added stability, but used caulk to fasten down the flex track. Having no foam in which to easily push T-pins, we used canned veggies to weigh down the track while it cured.

We drilled feeder holes, soldered the feeders to the rails and used suitcase connectors underneath to fasten the feeders to the bus wire. Then we just had to take the SP NW2 for a spin (8).

We used a thin layer of Magic Water to coat the thin strip of water off the wharf and to fill in the carfloat quay area. After we installed the permanent carfloat, we used Modge Podge to create wave and ripple effects.

And then there's the most incredibly exciting part of N scale model railroading: doing tie replacement!

The PC board ties are slimmer than Atlas flex or even the ties Fast Tracks sells, so I slip 1/32" x 3/64" basswood strips (after a dip in my "Big Jug O' Stain") under the turnouts. Yes, it's tedious. Luckily, "family bonding" also



**6: The addition of the brewery to Byron's original plan required a crossing between two turnouts that started curving immediately after each turnout, so I got to try out building a crossing for the first time.**

includes a Chopper II, thin strips of white glue between rails, tweezers, and my daughter sharing the joys of tie replacement (8).

## Giving the shelf a more permanent home

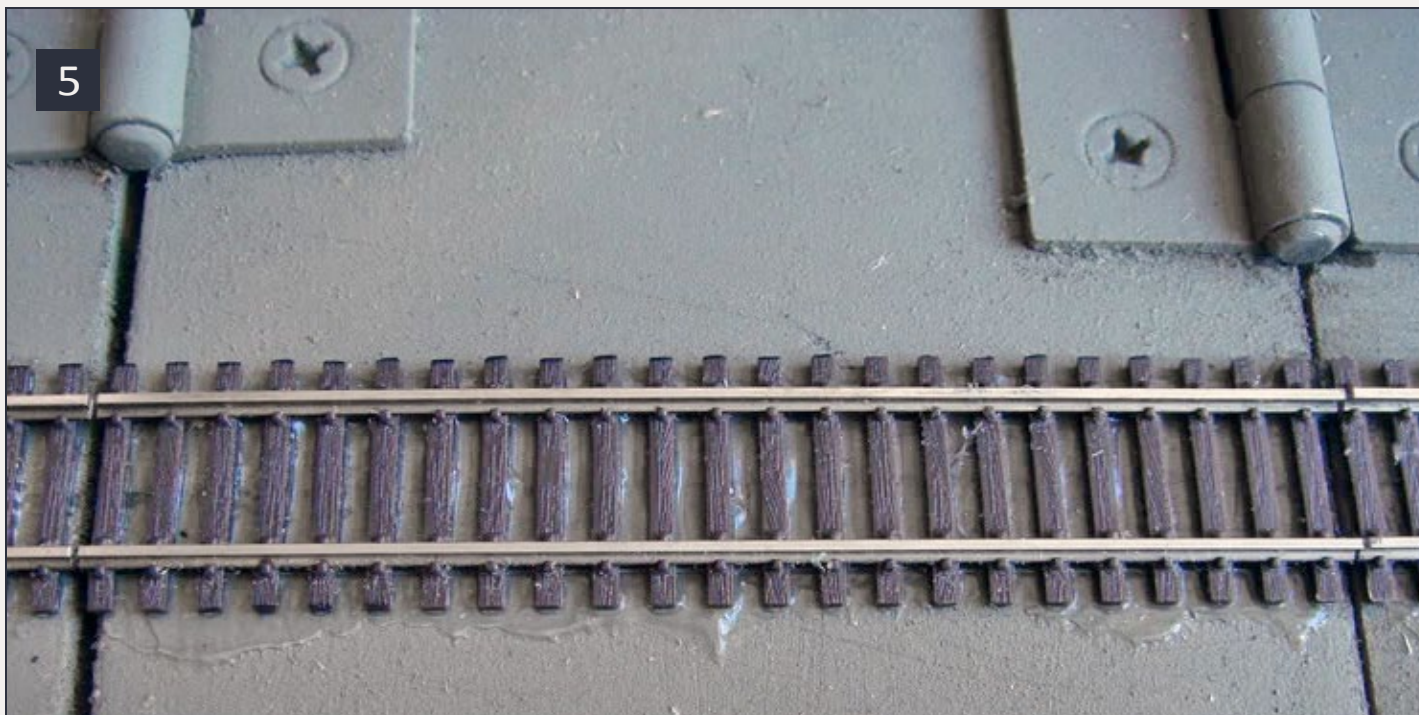
The growing number of Free-moN modules in the garage and the desire to actually run trains prompted me to finally build a shelf for the "Alameda-Belt-in-a-Box" layout. I was going to put the shelf in the bedroom until my

daughter reminded me that my wife goes in there too.

So out in the garage the layout goes!

For even more details on the construction of this shelf layout, see M.C. Fujiwara's MRH website thread: [mrh-mag.com/node/5666](http://mrh-mag.com/node/5666).

*More pictures and captions on the following pages ...*



**5: For track joints, just cut the track as shown here. By having the hinges on top, folding up the sections pulls the track away from the joint and causes no problems.**





7: In a great moment in father/daughter bonding history (no CA involved), I taught my pre-teen daughter how to use a soldering iron to build turnouts.



9: My daughter helps me cut replacement ties using our NWSL Chopper II. Busy hands are happy hands!



8: We took the SP NW2 for a spin on the wharf deck we built out of pc board ties and 1/32" x 3/64" basswood strips. After taking this photo, we painted the pc board ties to match the stained wood.



M.C. Fujiwara is a writer and editor, as well as the model railroad layout designer of Yardgoat Layout Designs ... see: [www.yardgoatlayoutdesign.com](http://www.yardgoatlayoutdesign.com).

M. C. lives in his native San Francisco Bay Area with his wife and two children, who enjoy helping their dad build his 23"x 41" Mt. Coffin and Columbia River N-scale layout by making trees, painting rocks, and running trains.





10: Filling in the gaps in the ties with replacement ties made from stained 1/32" x 3/64" basswood strips. I just coat the back of the tie with white glue and slip it in place using tweezers.



11: We masked off everything but the track, made sure the turnout points were covered, and then, working in thirds, we sprayed the rails with Floquil Grimy Black, scraped the rail tops with bits of wood, and then Bright Boy'd the rails to clean off all the paint off the railheads.





12: : We pulled off the masking and here's the result. We went back and touched up the points and the ties around them by hand with Floquil Grimy Black and a small brush. (Note: we've since found that NeoLube works much better to stain ties and rails around sensitive areas like throwbars and point rails.)



13: We started putting together the "Bella Fonte Cannery" (based on the Del Monte facility on Alameda. See the prototype at [flickr.com/photos/40361283@N06/3708909019](https://www.flickr.com/photos/40361283@N06/3708909019)). We got this structure by kit-bashing two DPM Gripp's Luggage Mfg kits (Woodland Scenics) into a single 25" long flat. Here my daughter discovers the joys of painting around window panes.



14: My young son decided to pitch in by helping superglue in the window "glass" on our Bella Fonte Cannery.





15: To prepare the cannery location, we affixed some cardstock background buildings that will show up behind it. On the upper left, you can also see the freight house concrete pad we poured using thinned and tinted light-weight spackle. When it dries we'll sand it smooth (so the ties still show through a little), and then weather it.



17: At the very end of the cannery is a little jog in the building to help block off the end of the module. I put some cinders on the roof to mimic a tar-and-gravel industrial roof. Each track holds 5 cars, for a total of 10 cars that can be placed at this one industry.



16: My daughter sprayed the structure with Red Oxide primer. Then we applied a mortar wash and weathering. We superglued the structure flat to the black styrene backdrop. This industry will eventually have an awning and concrete dock.



18: We decided to install just the concrete loading dock with Gold Metal industrial stairs at each end, but we elected not to do the awning. On the upper left, we're starting the Doolittle Freight structure that will disguise the power pack box. We've also installed an old decommissioned SP tank car at the end of the oil industry spur.





19: I finished weathering the carfloat by dry brushing on some light gray, then applied some glue and put gravel and coal droppings down. I drizzled some of my “Big Jug O’ Stain” on there, and then powdered it up nice and good. You can see the construction details of my carfloat project in the January 2012 issue of MRH.



20: I installed the carfloat and apron, applied some water effects using Modge Podge, and added some basic ground cover. Following the advice of David K. Smith, I screwed the float to the layout to ensure proper rail alignment. It’s nice to have the track 100% done, along with our staging connection to the off-layout world through the carfloat.

21: We’re continuing to make progress on this end of the shelf layout. We’ve finished the Doolittle Freight house and we’ve installed a wood fence between the freight house concrete pad and the SP interchange track. We weathered the road and crossing, put in a little fine foam of “weed” and “green blend”, and added some fine gravel under the tank and around the cannery. I’ve used cinder “ballast” for the SP interchange line in front of the fence.





22: Here's a closeup view of the Doolittle Freight loading dock. This makes a nice structure to hide the power pack box. That blue and white box car sticking out of the freight house behind the loading dock is a quarter-length car that's been chopped off to disguise the fact the spur does not really go inside.



23: I got my 0-8-0 going and weathered a little for some photo ops, rolling back the layout era to Alameda in the late 1940s. The scene's coming along nicely.

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24: Here's the middle of the layout, with the two smaller oil tanks. The concrete berm, two small tanks, and the larger brick structure beyond the two tracks are all removable, and disguise the hinges of this "Alameda-in-a-Box" layout (see 25). Remember, because I mounted the hinges above the boards, folding the layout lifts the sections out and up, meaning track and scenery can be nearly seamless when flat.



25: Here are the structures removed and the hinges exposed. As you can see, the structures do a nice job of disguising the joints. The structures plus a few judiciously placed bushes ought to make the joints practically invisible when the layout is deployed and being operated. Note the angle stop at right.



26: Got more done on the oil unloading platform / complex, as well as some more bushes and details like the pile of pipes and the handrails on the top of the large oil tank at the right.



27: Here's a close-up of the oil facility, with a truck and more details like oil drums and some wood debris behind the "office shed". In this closer shot you can see the weathering powders I've added to the oil platform, the office shed, and the large oil tank.



28



28: I added a Quonset hut to the other side of the oil tanks. In hindsight, I should have thought more about a foundation for the Quonset. I experimented with some bushes and gravel but I'm not entirely pleased with it. I'll probably build up a real foundation for it later.



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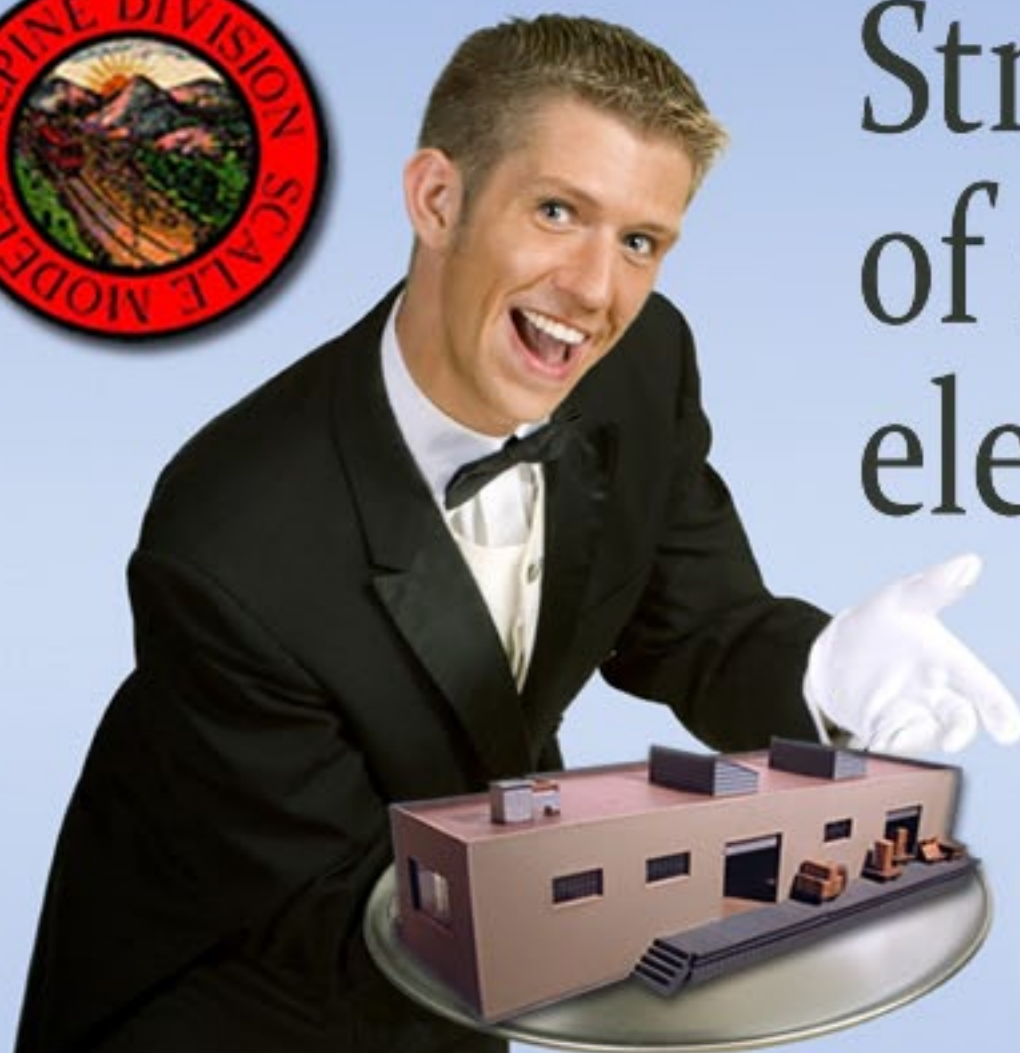


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29: To create a place to mount the layout, I used Rubbermaid shelving with 1"x4" framing top and bottom. Had to mount it tall enough to clear the Mt. Coffin and Columbia River layout (18" tall) that I place on the table below, so the rail height is about 54".



30: I added 4" of 1/8" hardboard fascia to the front and sides top and bottom and painted everything flat black.



31: I installed two packs of Ikea "Inreda" LED pucks along the underside of the valence framework. They put out no heat whatsoever (which is good, since my garage already gets over 100 degrees F in the summer) and can rotate / adjust some to direct the light.

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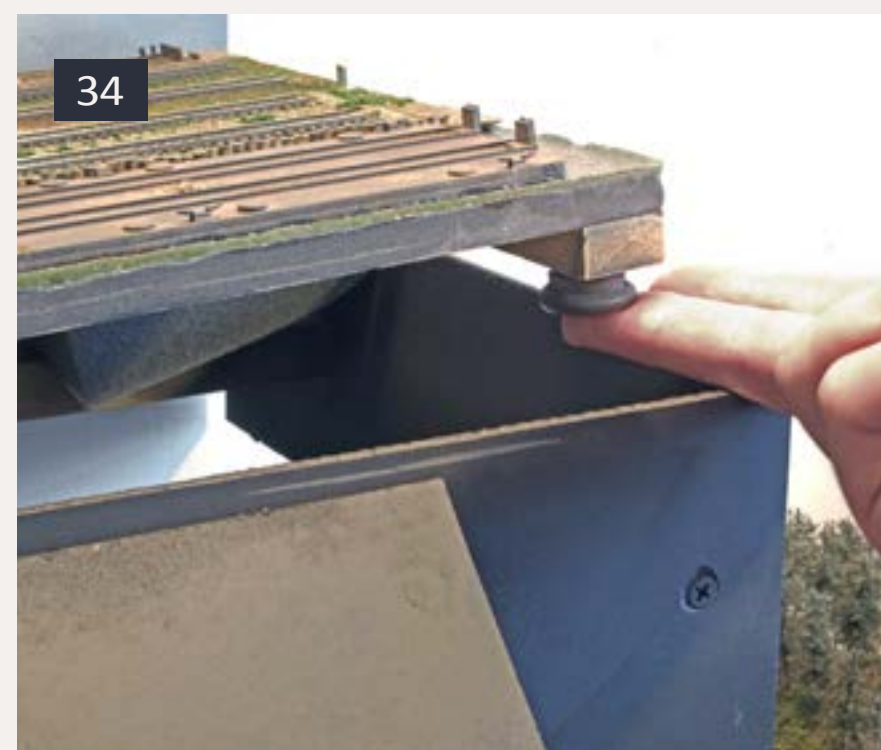




32: A view angled from below shows how the open valance framework allows diffused “house light” in as well as the eight LED pucks that provide direct illumination. For a backdrop, I got some 0.060” styrene sheet cut to 18” x 8’ from Tap Plastics and notched out the spaces for the upper supports. I spray painted it grey primer, then slate blue, and finally misted it with flat white, feathering the white in heavier along the bottom horizon.

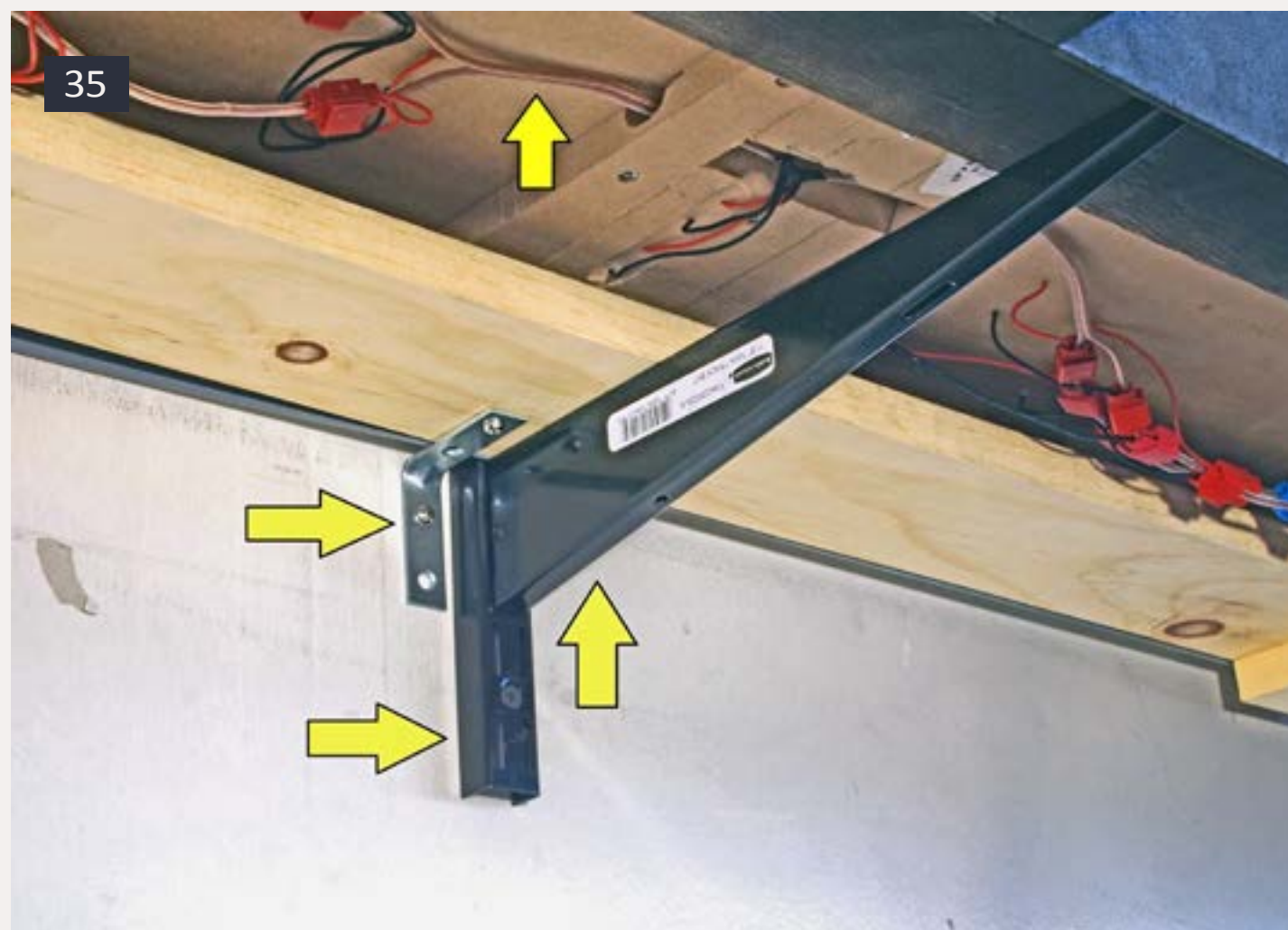


33: I added 5” angled shelves with a strip of molding along the bottom to provide a place for uncouplers, throttles, phones, and car cards – keeping the layout free from clutter.



34: The fascia extends about 2” above the shelf itself, creating a “pocket” for the actual foldable and portable “Alameda-Belt-in-a-Box” layout (here being lifted up by me). When placed on the shelf, the fascia comes up even with the scenery.





35: A view under the shelf reveals the bus wire attached to the folding layout, the plywood shelf framing, the 11" bracket on the 24" double-slot support (screwed into studs), and the small metal "L" anchoring the shelf itself to the wall (very important here in California earthquake country)

36: Here's the final shelf layout in its new home. It's been a rewarding project, and we learned a lot along the way. This just proves you don't need a lot of space to have a fun model railroad.

37: My young son enjoys running trains on our Port Henderson at Alameda layout. Who says model railroading can't be a family affair?







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Atlas Model Railroad Company introduced their HO scale model of General Electric's U30B in 2009. They elected to replicate a Phase 2 version with tall engine access doors near the center of the long hood. The model quickly gained acceptance amongst hobbyists including tough-minded RPM modelers. Especially popular was the high, short-nose edition decorated for Norfolk & Western which sold out early. Atlas will release a new run of U30Bs, including the N&W scheme pictured here, during the first quarter of next year. It will be available DCC-ready as well as with QSI® Quantum System™ and DCC decoder.







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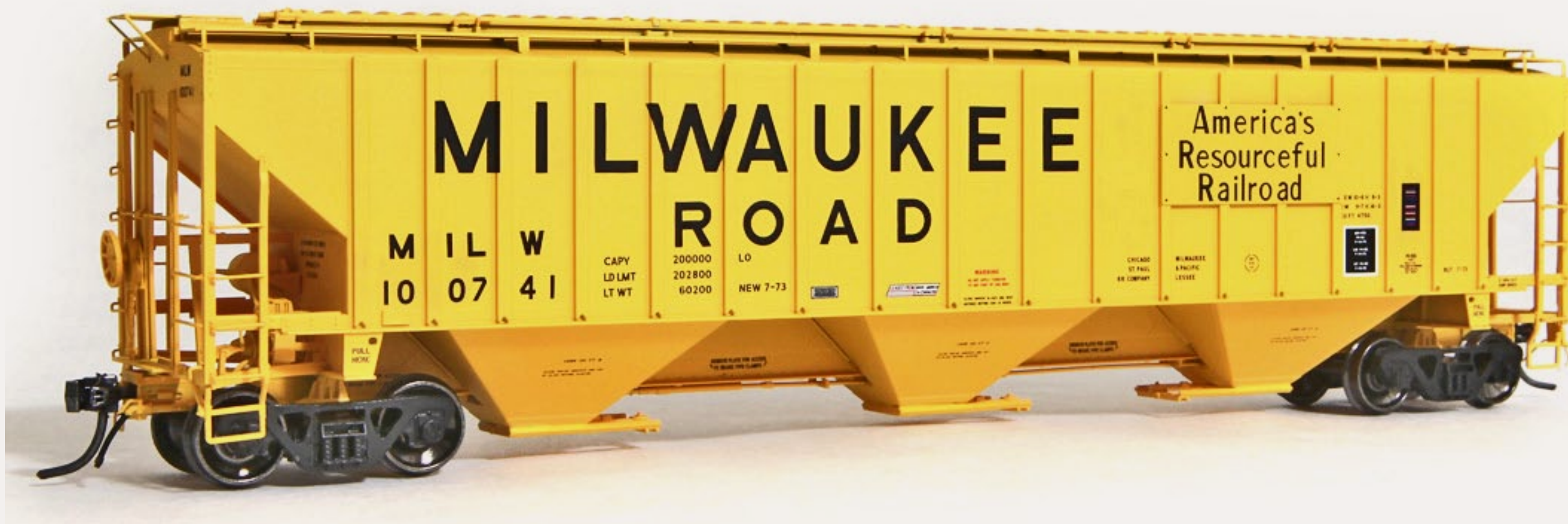
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Among the many beautifully scaled, state-of-the-art HO scale models offered by Tangent Scale Models is this Pullman-Standard 4750 cu ft covered hopper car. The dimensionally-accurate and precise lettering combine to make this a truly outstanding model. It adheres closely to the more than 56,000 prototypes P-S built between 1972 and 1981. In addition to this Milwaukee Road edition, Tangent also offers the model decorated for GTW (1972 blue version), NAHX-Farnhamville Iowa, PTLX- Michigan Elevator Exchange, PTLX- Pillsbury, and PTLX- Tri Country Grain.







## About our News & Events Editor



Richard Bale writes our news column under the byline of *The Old Yardmaster*. He has been writing about the model railroad trade for various hobby publications since the 1960s.

[Click here](#) to learn more about Richard.



# MRH News Desk: The Latest Model Railroad News, Products, and Events

## November 2012

### Support for Store-Front Hobby Stores

During the iHobby Trade Show held in Cleveland last month, Athearn Division of Horizon Hobby announced a new marketing program designed to support traditional brick and mortar hobby shops. Under the innovative plan, selected Athearn products will be sold exclusively through participating in-store hobby dealers. The new Police versions of Athearn's Genesis series HO scale Southern Pacific cabooses are the initial items to be offered under the new plan. See the HO section for details on the distinctive SP police cabooses...

### Identifying Production Runs

To make it easier for modelers to identify the road number series of a model, Atlas is now showing the letter "A" in the bottom right hand corner of the box label to indicate the initial series of road numbers. Subsequent releases of the same road name with a new road number will be indicated with a "B" or successive letters. This is a good idea that will hopefully be followed by other manufacturers...

### Diesel Paradise Is Coming...

Bachmann has announced that it will produce HO models of Norfolk Southern's 30th Anniversary Heritage locomotives. Athearn and InterMountain are already working on their versions of the same decorative locomotives. The situation promises to be a paradise, albeit an expensive one, for diesel modelers as each manufacturer will offer locomotives decorated for Wabash, Erie, Jersey Central, New York Central, Virginian, Central of Georgia, Southern, Lehigh Valley, NKP, and PRR...

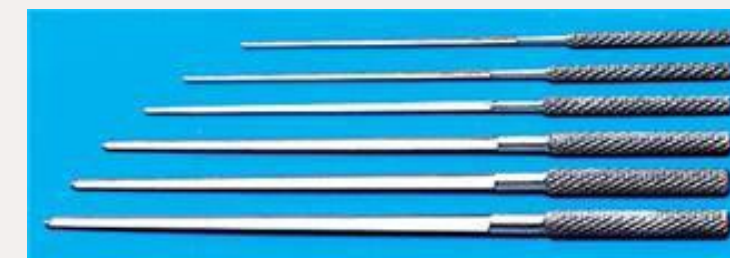
Let's take a look at some of the many new products announced this month...

## NEW PRODUCTS FOR ALL SCALES



Logic Rail Technologies ([logicrailtech.com](http://logicrailtech.com)) has introduced the ST-1, a simple Signal Tester that can quickly and safely test and identify the lead wires of any LED-based signal that does not already have a resistor attached. A limiting resistor incorporated in to the ST-1 circuit provides safe

current for testing purposes. The tester can be used with either common anode (positive) or common cathode (negative) signals. The Signal Tester (ST-1) sells for \$14.95 each.



Micro-Mark ([micromark.com](http://micromark.com)) offers two sets of six hardened steel reamers that are

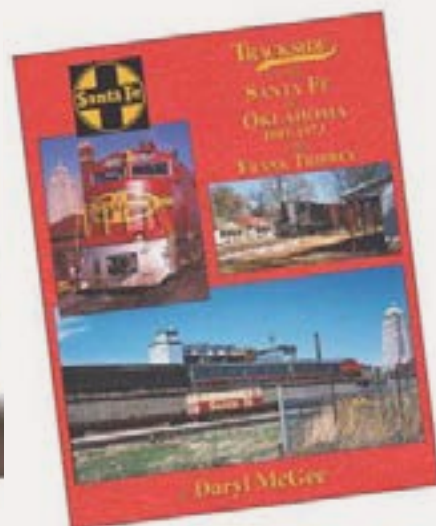
handy for enlarging, shaping, cleaning, removing burrs, and cutting holes in metal or plastic. Set number 26108 (pictured) is priced at \$20.95 and is suitable for reworking holes from .024" to .073". Also available is a set of six reamers (number 85137) for holes .073" to .236". The larger set is priced at \$29.95. The reamers in both sets have knurled handles and come in a plastic storage wallet.





**Monster Model and Laser Works ([monster-modelworks.com](http://monster-modelworks.com))** is selling sheets of Interlocking Cobblestone (sett stone) that fit together like a puzzle with virtually invisible seams. Modelers can

add them end-to-end for a road as long as needed, or extend to the sides to widen streets. In addition to replicating streets, the cobblestone can be used for interior floors in structures. The laser-engraved stonework is designed from photos of real cobblestone streets. Instructions include suggestions for realistic weathering. Cobblestone sheets are available for N scale (3.8" by 1.87" at \$4.99), HO scale (7.1" by 3.5" at \$8.99), S scale (9.5" by 4.6" at \$15.99), and O scale (12" by 5.9" at \$23.99). Prices shown are for single sheets. Multi packs are also available at a considerable savings. Visit the above website for complete information. Monster Model also offers standard and narrow gauge engine house doors and hinges in N, HO, S, and O scales. The doors are detailed on both sides and can be positioned either open or closed. A list of dimensions and pricing is available at the above website. Custom sizes are also available.



**Morning Sun Books ([morningsunbooks.com](http://morningsunbooks.com))** has released three new titles for railfans this month. They include *Conrail in Color: Volume 2, 1980-1989* in which author Jeremy F. Plant chronicles the new motive power and new business era

of the 1980s. Also released this month from author Daryl McGee is "Trackside on the Santa Fe in Oklahoma, 1957-1973 with Frank Tribbey." Included are rare images in the Sooner State from a neglected corner of the Atchison Topeka & Santa Fe empire.

The third title released for November is "Southern Railway in Color Volume 3" by Kurt Reisweber. The book offers a fascinating view of the South's leading railroad operating in some backwoods lines with F3s and SD24s working side-by-side. All books mentioned are priced at \$59.95 plus postage.



**Ring Engineering ([ringengineering.com](http://ringengineering.com))** has introduced an Accessory Module (AM-1) to control turnouts on layouts equipped with RE's RailPro wireless control system. The new AM-1 can control up to four snap (solenoid) or motor-driven turnouts. The AM-1 sells for \$79.99. It can also control lights and servo motors. A RailPro controller, such

as a HC-1 (Handheld Controller) will be needed to control, setup, and monitor the AM-1.

**RP CYC Publishing Company ([rpcycpub.com](http://rpcycpub.com))** has released Volume 25 of its Railway Prototype Cyclopedia. Principal articles in this 113-page edition include Santa Fe Bx-34, -37, and -43 Class 1937 A.A.R. Modified Standard Box Cars, and 1936 A.A.R. Standard 50-Ton and Related 33' Offset-Side Hopper Cars-Part 7. Volume 25 is available through the above website.

**York Modelmaking and Display Ltd ([yorkmodelmaking.co.uk](http://yorkmodelmaking.co.uk))** has expanded its manufacturing of architectural scale models to include several laser-cut products of interest to model railroad hobbyists. Self adhesive tiles in a range of colors are now available in N, TT, OO, S and O scales. Round windows, signal box steps, speed and whistle signs, and a lattice footbridge are among the detailed items available on the company's website. The company has recently introduced an online community forum for model railway enthusiasts at [yorkmodel-making.co.uk/community](http://yorkmodel-making.co.uk/community).



## O SCALE PRODUCT NEWS



**Atlas O** ([atlaso.com](http://atlaso.com)) will release O scale models of a billboard-era wood-side refrigerator car during the first quarter

of next year. The ready-to-run model represents a 40' car built in the early 1930s by Pullman for the Northern Refrigerator Car Company. The model has positionable ice hatches, a USRA-type steel fishbelly-underframe, 40-ton Bettendorf-type solid-bearing trucks, and a vertical brake shaft. Ladders, grab irons, corner steps, uncoupling bars, and brake components are all separately-applied parts. Road names include Central Creamery, Horvitz Brothers, Jelke Margarine, Midland Continental Railroad, Producers Creamery, and Nucoa Products as illustrated here. Two car numbers will be available for each road name. An undecorated model will also be offered. Models equipped for 3-rail operation have an MSRP of \$79.95. Two rail models with body-mounted scale knuckle couplers have an MSRP of \$84.95.



Atlas O has released several O scale Cararama Volvo industrial vehicles including the timber tractor shown here. Other models available now are a bulldozer, excavator, and a dump truck. The ready-to-use models have a list price of \$19.95 each.



During the first quarter of 2013, **Bachmann** ([bachmanntrains.com](http://bachmanntrains.com)) will begin delivery of an On30 scale 14-ton two-truck Stearns-Heisler steam locomotive. The 1890s-era ready-to-run model comes with a dual-mode NMRA-compliant DCC decoder for speed, direction, and lighting.

It is sound-ready with a factory-installed speaker. Additional features include

die-cast construction, all-gear drive, enclosed gearbox, metal driveshafts, constant soft-white LED lighting, blackened brass railings, and three stacks. Decorating schemes include Greenbrier & Big Run #5; Midwest Quarry & Mining #4; unlettered black; unlettered black with white stripes and running board edges; and unlettered black with red windows, white tires, and running board edges. The model has an MSRP of \$419.00 each.



**Morgan Hill Models** ([morganhill-models.com](http://morganhill-models.com)) has produced a second run of kits for its popular On30 scale 20' tank car. The tank and car frame are cast resin. Basswood for the deck and tank supports is included along with detailed instructions that offer suggestions for painting, staining,

and weathering. For illustration only, the model is shown here with Macleod Western T-16 trucks and Kadee #5 couplers. Note that decals, couplers and trucks are not included. The limited-edition body kit is priced at \$39.95.

**NorthWest Short Line** ([shop.osorail.com/category.sc?categoryId=14](http://shop.osorail.com/category.sc?categoryId=14)) has steel replacement gears for Bachmann's On30 Shay locomotive. NWSL item 2801-6 is a replacement set of four steel bevel gears that directly replace the original factory plastic gears. Installation instructions are included. The set of four replacement gears is priced at \$27.95.



**Mount Blue Model Company** ([mountblue-modelco.com](http://mountblue-modelco.com)) has released four new passenger car body kits to modify existing Bachmann On30 equipment. The new kits are

available at \$47.00 each and include an RPO car, a White Pass & Yukon Route parlor car with large picture windows, a double-door baggage car, and the private parlor car seen here. Each body kit includes laser-cut sides and ends, basswood quarter-round corner posts, and window glazing material. The roof, underframe, trucks, and couplers shown in the photograph are from a Bachmann donor car, and are not included in the Mount Blue kit.





Also new from Mount Blue is an On30 kit for a 22' Cairo & Kanawha boxcar. The kit can be built with full interior details and working side doors. Components include brass, plastic, and etched metal details, laser-cut plywood and bass-wood parts, and truck brake details. The C&K kit is priced at \$49.95. Trucks and couplers are not included. For illustration, the photo shows the C&K car with Kadee #5 couplers, and Kadee HO arch bar trucks fitted with large diameter wheels.



**Williams by Bachmann** ([bachmanntrains.com](http://bachmanntrains.com)) is scheduled to begin shipping its latest O scale EMD GP30 diesel this month. Features on the O scale 2-3/3-rail ready-to-run model include

directional LED lighting, separately-applied grab irons, drop-down steps, windshield wipers, formed-wire handrails, traction tires, operating smoke unit, and a True-Blast Plus™ 16-bit sound system that provides engine sound, horn, and bell. The GP30 comes with a six-amp reverse board with directional lock-out. In addition to the Great Northern scheme seen here, the model will also be available decorated for New York Central, Atlantic Coast Line, and Union Pacific. The manufacturers list price is \$349.95 each.



**Woodland Scenics** ([woodlandscenics.com](http://woodlandscenics.com)) has introduced three new O scale Built-&-Ready® structures. The trio includes a two-story Corner Emporium (item BR5844 at \$139.99), a Country Store undergoing an expansion (item BR5845 at \$149.99), and Deuce's Bike Shop (item BR5846 at \$149.99). The structures are loaded with details and include interior lighting.



## HO SCALE PRODUCT NEWS



**Athearn's** ([athearn.com](http://athearn.com)) new Genesis series Southern Pacific Railroad Police caboose is scheduled for release by mid November. Several versions of the distinctive HO scale ready-to-run caboose will be produced. No. 4762

shown here (item 63020) has a police shield and spotlights installed on the bay, radio antennas, and RV-type air conditioners with wind deflectors on the roof. Additional models will be available in police-white including a UP patch version. Police cabooses in traditional SP brown are also in the mix. The police cabooses



will be available with lights at an MSRP of \$99.98. Non-lighted versions will not be produced. In keeping with Athearn's recently-announced program to support brick-and-mortar hobby dealers, this unusual version of SP's class C-50-9 bay-window caboose will be available exclusively through participating in-store hobby dealers.



Athearn has scheduled a May release date for Genesis series F7A and F7A/F7B diesels decorated in Great Northern's big sky blue freight scheme. The HO scale ready-to-run locomotives have a die-cast metal frame, injection-molded body with plastic and photo-etched metal detail parts. Special details include a single headlight, MU hoses, uncoupling levers, and air hoses at both the front and rear of each unit. Non-sound models will be DCC-ready using Quick Plug™ technology. They will be priced at \$169.98 each or \$309.98 for paired A/B units. Sound-equipped models have Soundtraxx® Tsunami® DCC decoders and are priced at \$269.98 each or \$489.98 for paired A/B units. Prices mentioned are MSRP.



Also coming from Athearn in May are Soo Line (Minneapolis, St. Paul & Sault Ste. Marie) FP7A and FP7A/F7B diesel units decorated in the road's maroon passenger scheme. In addition to the usual Genesis-series features and details, the Soo Line A-units have dual headlights and a longer body to accommodate a water supply and generator to provide steam to heat the passenger cars. Additional details are the same as those mentioned for the Great Northern units above. Non-sound units will be DCC-ready using Quick Plug™ technology. They will be priced at \$189.98 each or \$359.98 for paired A/B units. Sound-equipped models have Soundtraxx® Tsunami® DCC decoders and are priced at \$289.98 each or \$519.98 for paired A/B units. All prices mentioned are MSRP.



Athearn's May 2013 release schedule includes SD70ACe locomotives decorated in Union Pacific's Heritage series, UP #1988 The Katy, and UP#4141 President George H. W. Bush. The run also includes an SD70M-2 decorated for Norfolk Southern in four different road numbers. Features include formed metal grab irons, safety tread on walkways, etched see-through grilles, and correctly-sized operating ditch lights. Athearn will apply several optional details as appropriate to the road name, such as nose or cab mounted headlights, HTCR or HTSC trucks, single or double fuel tank filters, and GPS domes and antennas. Non-sound units will be DCC-ready using Quick Plug™ technology. They will have an MSRP of \$199.98. Sound-equipped versions have an MSRP of \$299.98, and come with Soundtraxx® Tsunami® DCC decoders.



Athearn has scheduled a May delivery date for a new run of its HO scale Pfaudler milk cars with a radial roof. Originally developed by Roundhouse, Athearn has upgraded the cars with individual grab irons, separate door rods, metal corner steps, and separately-applied brake details. Since the cars are often assigned to passenger trains, the model, like the prototype, comes with high-speed trucks equipped with machined 33" metal RP25 wheels. The ready-to-run models will have an MSRP of \$26.98. Road names include Bellows Falls, Dairymen's League, Hoods, and Borden's as seen here.





Also coming in May from Athearn are 26' Tite Bottom ore gondolas decorated for CP Rail, Nacionales de México, Southern Pacific, and Union Pacific. The cars come with a removable cast resin ore load. The HO scale ready-to-run cars are available individually at an MSRP of \$22.95 and in six-packs with different road numbers at \$124.98.



**Atlas Model Railroad Company** ([atlasrr.com](http://atlasrr.com)) has announced new paint schemes for its ALCo Century Series C424/425 diesel locomotive. The HO scale ready-

to-run models will have redesigned AAR-style truck sideframes with separate brake cylinders; separate bearing cap detail; directional lighting with golden-white LEDs; separately-applied wire grab irons, ladders, and drop steps; AccuMate® couplers; and two painted crew members.

Road names for the C424 Phase 2 versions will be Erie Mining; Springfield Terminal (Guilford); and Toledo, Peoria & Western. C424 Phase 3 locomotives will be decorated for Canadian National (wet noodle), Morristown & Erie, and Canadian Pacific as shown here. C425 Phase 2 locomotives are virtually identical to the C424 with the exception of a bulge above the radiator intake grille at the rear of the long hood. The models will have either a horizontal or vertical headlight per the prototype which will include Livonia Avon & Lakeville, Morris Knudsen, and Penn Central.

Atlas Silver series analog models have an MSRP of \$129.95. They come with an NMRA plug for DCC (not included). Atlas Gold series DCC-equipped models have an MSRP of \$239.95.



Atlas plans to release its HO scale ALCo RS-11 diesel locomotive with new numbers and

paint schemes during the first quarter of 2013. Nickel Plate Road, and Seaboard Coast Line will be available with new road numbers. In addition to the Central Vermont scheme shown here, road names will be Duluth, Winnipeg & Pacific; Nacionales de México; Northern Pacific; and Pennsylvania Railroad (Brunswick green). Features include directional lighting, separately-applied wire grab irons, directional golden-white LED headlights, MU hoses, uncoupling bars, painted crew members, and an NMRA compliant plug for DCC decoder (not included). The ready-to-run model will have an MSRP of \$129.95.



During the first quarter of next year Atlas will release HO scale 50' GARX bunker-less refrigerator cars. The AAR class prototypes were a 1950s-era joint effort of General American and Evans Products. Spotting features are the overhanging diagonal panel roof and the horizontal rivet strip on either side of the 7'-7" doors. Road names be C&NW, Frisco, Illinois Central, Rock Island, Southern Pacific, and the Rio Grande scheme illustrated here. The Master series ready-to-run cars will have an MSRP of \$28.95. An undecorated version will list at \$24.95.





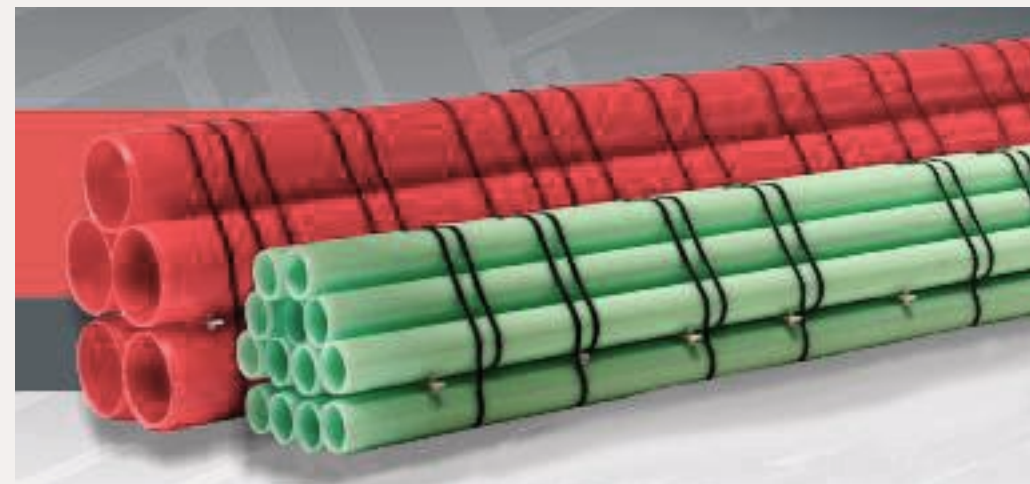
Atlas has scheduled the seventh production run of its popular Trainman® series ACF 3560 cu ft triple-bay covered hopper for release during the first quarter of 2013. USLX – Morton

Salt Division (grey and black) has been added to the series. New road numbers will be available for Alaska Railroad, Central Farmers Fertilizer, Chesapeake & Ohio, Corn Products, and CSX. The ready-to-run models in this release have an MSRP of \$21.95. Undecorated versions have an MSRP of \$17.95.

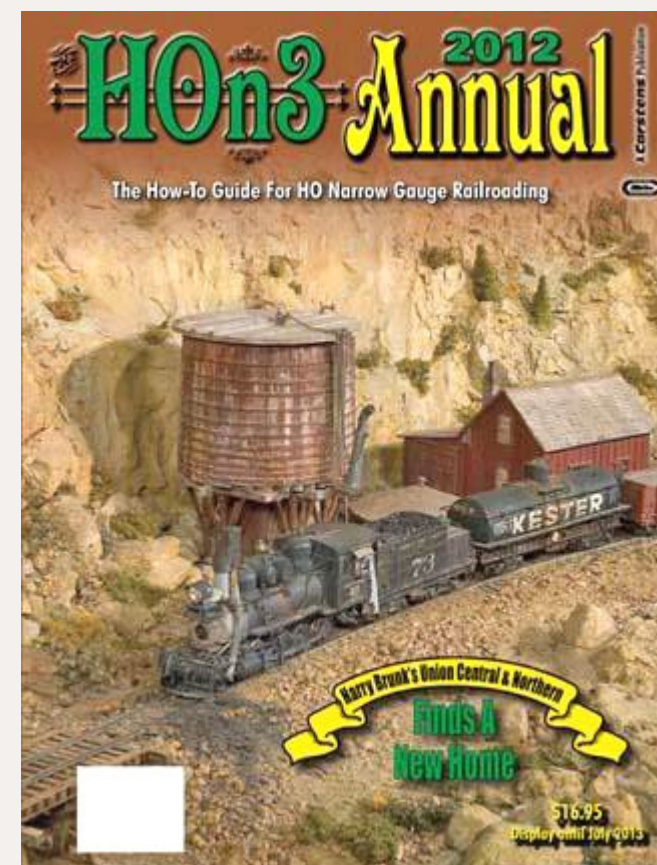


Bachmann ([bachmanntrains.com](http://bachmanntrains.com)) has released its HO scale ALCo S4 diesel locomotive in four road names including New York Central – P&LE, AT&SF, Union Pacific, and Southern Pacific. The ready-to-run model is equipped with a DCC decoder and Bachmann's Sound Value SoundTraxx® diesel sound. The 16-bit polyphonic sound includes prime mover, three air horns, and bell. The S4 model has an MSRP of \$175.00 each.

Bitter Creek Models ([bittercreekmodels.com](http://bittercreekmodels.com)) is producing several upgraded detail parts from the old Red Ball and BC Models line including cast metal trucks from the 1860-1912 era. Also available are an HO scale low-profile metal Ground Throw turnout control that were originally developed by Fred Baumgarten. Although designed for HO scale trackwork, the positive-action manual ground throws are useful in other scales as well. An illustrated list of items can be viewed at the above website.



BLMA ([blmamodels.com](http://blmamodels.com)) has released preliminary photos of HO scale pipe loads it plans to release during the second quarter of next year. The scale pipe replicates prototype thin-wall steel pipe in 80' lengths and comes in both 24" (green) and 48" (red) diameters. Pipes in the stacked load are separated by wood (plastic) cradles and banded with shiny black simulated steel strapping. The smaller green pipes are banded into a load of 13. The larger red pipe load consists of five pipes. The loads will be sold direct from the factory at \$18.95 each. Quantity purchase will be available at a reduced price.



Carstens Publications ([carstensbookstore.com](http://carstensbookstore.com)) has released the 2012 edition of its HOn3 Annual. Editor Chris Lane has packed the popular publication with 116-pages of narrow gauge modeling including a 12-page photo tour of the Union Central & Northern that includes an interview with its creator Harry Brunk. The HOn3 Annual is priced at \$16.95.

CMW-Classic Metal Works ([classicmetalworks.com](http://classicmetalworks.com)) showed a wide selection of their HO scale vehicles at the recent iHobby Trade Show in Cleveland. New items included a 1950 Plymouth four- door sedan that will be available next





year in four authentic prototype paint schemes. Also on display were decorated samples of CMW's 1941/1946 Chevrolet trucks with new bodies including the medium duty dump body seen here. CMW models are available through hobby dealers or on line at [buy-hobbies.com](http://buy-hobbies.com).



**ExactRail** ([exactrail.com](http://exactrail.com)) has released another production run of its HO scale Platinum series PS-2CD 4427 cu. ft. covered hopper. The mix includes this previously unreleased paint scheme for Cargill- TLDX. Six new road numbers are available for Milwaukee Road, Burlington Northern, CNW, and Lehigh Valley. The ready-to-run models come with Kadее #58 couplers and ride on ExactRail's ASF 100-ton Ride-Control™ trucks with 36" machined metal wheels. The brake platform and roof walk are photo-etched stainless steel. Hand-applied details include air hoses, bell cranks, uncoupling lever, and brake components. The model is priced at \$36.95 and is sold direct only through the above website. See the Plano listing below for converting this car to a low mounted brake wheel.



**Golden West Hobbies**, 22909 Slough Road, Edgewood, CA 96094, is selling HO scale ALCo S-4 locomotives decorated for Yreka Western Railroad. Road numbers 1171 and 1172 are available. The ready-to-run

locomotives were produced for Golden West by Atlas Model Railroad Company. Information about pricing and availability can be obtained by sending an inquiry to [goldenwesthobbies@gmail.com](mailto:goldenwesthobbies@gmail.com) or to the above postal address.



**Hobby Station** ([tncenterprise-shobbystation.com](http://tncenterprise-shobbystation.com)) is selling several exclusive 36' wood reefers custom produced by Atlas. In addition to the HO scale John F. Stegner meat reefer shown here, the same car is available

decorated for C.F.Vissman & Company. For pricing and availability contact Hobby Station through the above website.



**Kadee Quality Products** ([kadee.com](http://kadee.com)) HO scale collectible Christmas car for 2012 is a 50' PS-1 boxcar with a Superior 10' six-panel door. The ready-to-run model has a white body and galvanized roof. It is available now at an MSRP of \$38.95.



Coming in January from Kadee is an HO scale 40' PS-1 boxcar decorated for CNJ- Jersey Central Lines. The car has a Superior six-panel 8' door and comes with Kadee #2100 couplers. It will have an MSRP of \$33.95.

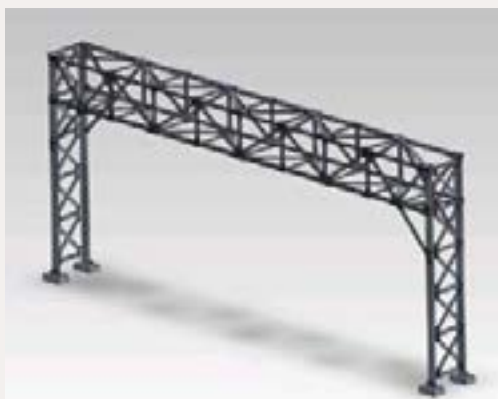


Also due in January is a VGN-Virginian 40' boxcar with an 8' Youngstown door. The ready-to-run model will have an MSRP of \$32.95 and comes equipped with Kadee #2100 couplers.





**Monster Model and Laser Works** ([monstermodelworks.com](http://monstermodelworks.com)) is selling a track-side, flat-front version of its HO scale Brick Freight House. At track level, the flat is just 1-3/8" deep. The model represents a brick industrial structure suitable as a freight house, warehouse or factory in an urban setting from the early 1900s to the present. The kit is composed of laser-engraved basswood walls, turnbuckles, rooftop drains, and down spouts. The kit follows simplified tab-and-slot construction. Instructions include weathering tips. The Brick Freight House flat kit is priced at \$49.99.



**NJ International** ([njinternational.com](http://njinternational.com)) is selling a kit for a standard signal bridge that, depending upon your track spacing, can serve as a signal base for three or four tracks. Signal heads are not included. The HO scale kit is composed of nicely-detailed injection molded plastic. The HO kit has an MSRP of \$39.99. Delivery is scheduled for December.

**Plano Model Products** ([planomodelproducts.com](http://planomodelproducts.com)) offers kits to convert PS2 CD 4427 cu ft covered hoppers with high-mounted brake wheels to low-mounted brake wheels as seen on Milwaukee and CNW cars manufactured by Walthers and ExactRail. Since installing the 4427 PS2CD modification kit requires drilling about 100 holes, Plano includes a brass drilling template in kit #10875 (\$8.50) which will convert one car. For subsequent conversions, modelers can purchase kit #10876 (\$9.50) which will convert two cars and includes a paper drilling

template. Modelers doing the CNW car may also want Plano's CNW Apex patterned roof walk #10878 (\$8.50). The above website includes photos of the modification kits applied to both the Walthers and ExactRail models.



**Scale Model Masterpieces** ([DEBENLLC.com](http://DEBENLLC.com)) is now shipping the long-awaited Bordello & Pool Hall kit. According to company literature, construction of the HO scale craftsman kit has been simplified from the original kit which was issued in 1979. The number of detailed LabStone castings has been increased from 10 to 27, improved widow glazing, and a new precision-cut roof. The upgraded version also has

more comprehensive instructions. The model has been designed to allow the smaller pool hall to be built on either side of the main structure. The finished model has a footprint of 4.5" by 5.75". The model is available direct at \$179.95.



Fox Theater is the latest HO scale kit from **Sidetrack Laser** ([sidetracklaser.com](http://sidetracklaser.com)). The kit builds into a flat-front background structure with a finished footprint of 6" by 1.75" including the marquee overhang. The Art Deco design is appropriate for theaters from the late 1920s to the present day. The kit is composed of laser-cut components, Grandt Line windows and doors, and paper graphics. The kit has an MSRP of \$26.95.



**Tangent Scale Models** ([tangentscalemodels.com](http://tangentscalemodels.com)) has announced a new production run of its highly-rated HO scale Bethlehem Steel Company 52'-6"



70-ton drop-end riveted gondola car with new paint schemes and road numbers. In addition to the Lehigh Valley (in 1973-era Cornell red repaint) car seen here, this release includes ready-to-run models decorated for Baltimore & Ohio (class O-59A in the original 1940 paint scheme with Capitol Dome herald on a black car body), Central Railroad of Pennsylvania-CRP (original 1944 scheme with white Lady Liberty slogan on a black car body), Central Railroad of New Jersey-CNJ (same as CRP car with 1952 reweigh date), Reading- RDG (original 1941 scheme with white READING on black car body), Western Maryland (original 1953 red scheme), an undecorated RTR model, and in kit form. The models are priced at \$32.95 each and come equipped with Kadee® metal couplers and 70-ton ASF A-3 Ride-Control™ trucks with metal wheels. Tangent allows mixing for multiple car discounts on purchases in increments of 6, 12, 36, and 48. Visit the above website for details.



**Torrington Area Model Railroaders** is selling HO scale PS-2 eight-hatch covered hopper cars decorated for Guilford/B&M and Guilford/MEC. Two different road numbers are available for each decorating scheme.

The custom models were produced by Atlas. They are priced at \$14.00 each. For ordering information send an inquiry to [clubcars@gmail.com](mailto:clubcars@gmail.com) or TAMR, 69 Brewster Road, West Hartford, CT, 06117.



**Walthers** ([walthers.com](http://walthers.com)) will begin delivering four Proto™ Budd passenger cars in late December or early next year. The release will include an 85' drawing room 29-seat lounge car, an 85' dome car, a 73' baggage car, and a 63' RPO car. Decorating schemes will include Amtrak Phase IV and Phase III, Santa Fe, Pennsylvania, CB&Q, New York Central, Canadian Pacific, Rock Island, and

Southern Pacific. Note that ATSF baggage and RPO cars are unskirted. The baggage car will also be available in Amtrak Phase I and II livery.



Features on all cars include factory-installed grab irons, simulated stainless steel exterior, tinted windows, and sprung operating diaphragms. The Budd cars will have an MSRP of \$74.98. The dome and drawing room car are also available with factory-installed interior lights at \$84.98.



come with ProtoMax™ metal knuckle couplers. SceneMaster™ 45' trailers decorated for SP (Golden Pig Service) and TOTE (Totem Ocean Trailer Express), along with 48' trailers decorated for JB Hunt and XTRA trailers are available on a choice of TTUX or TTOX Front Runner cars. Each car and trailer set has an MSRP of \$31.98.



Walthers is now shipping eight versions of its Mainline™ series 50' Front Runner cars with trailers. The two-axle Front Runners have 28" turned metal wheels and

WalthersProto™ is selling HO scale models of a CC&F bulkhead flat car decorated for ONT-Ontario Northland,



AC-Algoma Central, BCOL-British Columbia Railway (green), and BCIT-British Columbia Railway (two-toned green) as seen here. The cars have separately-applied ladders and grab irons, and a die-cast metal frame. The ready-to-run models have an MSRP of \$29.98.



Double-sheathed reefers with steel roofs and Dreadnaught ends are scheduled for release this month in Walther's Mainline™ series of ready-to-run HO scale freight cars. The 40' cars with simu-

lated wood sides will be available decorated for ERDX-Atlantic & Pacific, LMLX-Libby McNeill & Libby, NMCX-Patrick Cudahy, and PFE-Pacific Fruit Express (Gothic lettering with black SP and UP heralds). The cars have an MSRP of \$21.95 and come with 33" metal wheelsets.



Walther's has introduced a new HO scale Cornerstone® kit for a Chinese restaurant. The kit for the Golden Dragon Chinese Take-Out features pagoda-style architecture, stylized exterior signs, and printed interior detailing. The finished building has a footprint of 3-1/8" x 2-1/2" x 2-5/8". The kit has an MSRP of \$24.98.



**Woodland Scenics** ([woodlandscenics.com](http://woodlandscenics.com)) has introduced two new HO scale DPM® Select building kits. The main walls of the buildings use an interlocking wall-alignment system that helps ensure accurate assembly. The kits include a Victorian three-story Corner Department Store that has

a number of details including store window mannequins, light fixtures, roof details, wrought iron balconies and fire escape, window awnings, signage, and dry-transfer decals for the windows. It has an MSRP of \$54.99.



Also new is Woody's Country Mart with expansion construction in progress. Additional lumber is included to detail the construction area. Other details include fuel tanks, signage, an ice machine, ladder, various items of merchandise, a boy and his pooch, and dry transfer decals. Woody's has an MSRP of \$49.99.



**Yarmouth Model Works** ([yarmouth-modelworks.com](http://yarmouth-modelworks.com)) showed this preproduction sample of their forthcoming Canadian Pacific 40' War Emergency boxcar at the Naperville RPM Meet held late last

month. The HO scale cast resin model replicates the prototype Canada Car & Foundry built for the CPR in 1943. CC&F followed the 1937 AAR design but used 5/8" plywood on the exterior, which saved 2000 pounds of steel during the critical period of WWII. Two distinctive double rows of rivets were used to fasten the plywood to the steel braces. The one-piece body is vacuum-cast in grey polyurethane resin using patterns created by Aaron Gjermundson. The floor and other details are separate castings. The kit will include laser-cut running boards, Tahoe trucks, Tichy brake components, and photo-etched ladder stiles and corner steps. Black Cat Publishing has created special decals for the car. Pricing and availability are pending.

## N SCALE PRODUCT NEWS



**Athearn division of Horizon Hobby** ([athearn.com](http://athearn.com)) has scheduled a May delivery date for a new release of its N scale Pfaudler milk cars. The models



feature a radial roof, screw-mounted trucks and McHenry® knuckle spring couplers. Since the cars frequently operated in passenger trains, the model, like the prototype, comes with high-speed trucks. The ready-to-run models will have an MSRP of \$19.98. Road names include Bellows Falls, Borden's, Dairymen's League, and Hoods.



Atlas ([atlasrr.com](http://atlasrr.com)) is planning a second-quarter release for its N scale ALCo RS-3 and RSD-4/5 diesel locomotives.

Road names for the RS-3 will be Jersey Central, Nickel Plate Road, Pacific Great Eastern, Penn Central, Seaboard Coast Line, and Vermont Railway. RSD-4/5 schemes include Ferrocarril Del Pacifico, N de M, and Southern Pacific as shown here. Two numbers will be available for each roadname. The Atlas Master® series ready-to-run N scale locomotives will have an MSRP of \$119.95. Undecorated versions will be available for both locomotives.



Also due from Atlas during the second quarter are N scale 40' PS-1 boxcars decorated for Toledo, Peoria & Western; Erie; Vermont Railway; Monon (CIL); New

Haven; Western Pacific, and Lehigh Valley. The models will come with Barber S-2A 50-ton trucks with metal wheels, etched metal running boards, Youngstown or Superior doors (as appropriate for each road name), and Ajax, Equipco, and Miner brake wheels. Decorated models will have an MSRP of \$26.95. An undecorated version will have a list price of \$21.95.



Atlas has scheduled a third release of its N scale 50' mechanical refrigerator car for the first quarter of next year. Road names with new numbers on this run

will be Burlington Route, Canadian National, Canadian Pacific, Pacific Fruit Express, Swift Refrigerator Lines, and Tropicana. The Trainman® series ready-to-run model will have an MSRP of \$15.95 each. Undecorated cars will be available at \$12.95.



and E-Z Mate® Mark II couplers. In addition to the New York Central-PL&E version seen here, the ready-to-run model will be available decorated for Western Maryland (speed writing), Southern Pacific, ATSF (zebra stripes), and Union Pacific (with Dependable Transportation slogan). The locomotive has an MSRP of \$129.00 each.



Bachmann is now selling this three-dome tank car decorated for Chemcell, Northern California Wineries, Transcontinental Oil Co., Carbide & Carbon Chemicals, and Philadelphia Quartz Co., as seen here. The N scale ready-to-run car has an MSRP of \$22.00 each.



Also coming from Bachmann this month is this newly-tooled 50' boxcar with sliding doors, metal wheels, a detailed underframe with separate brake rigging, and body-mounted E-Z Mate® Mark II couplers. In addition to the New York Central scheme seen here, the N scale model will be available for Central of Georgia (football scheme with running boards), Delaware & Hudson (I Love New York slogan, without running board), Santa Fe (with running boards), and Union Pacific (without running boards). The ready-to-run model will have an MSRP of \$27.00 each.

Bachmann's November releases include an ACF 50' steel refrigerator car decorated for Canadian National, Burlington Northern, Fruit Growers Express, Tropicana (white and green), and WADX- American Refrigerator Transit Co. The N scale ready-to-run model has an MSRP of \$23.00 each..





and 48" (red). Pipes in the stacked load are separated by wood (plastic) cradles, and banded with shiny black simulated steel strapping. The smaller green pipes are banded into a load of 13. The larger red pipe load consists of five pipes. The loads will be sold direct from the factory only at \$16.95 each. Quantity purchase will be available at a reduced price.

**CMW-Classic Metal Works** ([classicmetalworks.com](http://classicmetalworks.com)) showed their new line of scale vehicles at the Cleveland iHobby Trade Show last month. N scale models included an REA delivery truck, a GMC TDH 3610 city transit bus, a 1953 Ford Country Squire station wagon, and a 1959 yellow Ford taxi. CMW vehicles are available through hobby dealers or on line at [buy-hobbies.com](http://buy-hobbies.com)

**Great Lakes Models** ([greatlakesmodels.com](http://greatlakesmodels.com)) is selling laser-cut grain panel doors for N scale boxcars. The door panels were used primarily on 40' boxcars in the 1920-1940 era. The boards were installed to the inside of the boxcar door and the grain would be blown into the car above the boards. Piles of extra doors were often seen near grain loading and unloading locations. Great Lakes sells a sheet of 18 panels at \$5.46 per sheet.

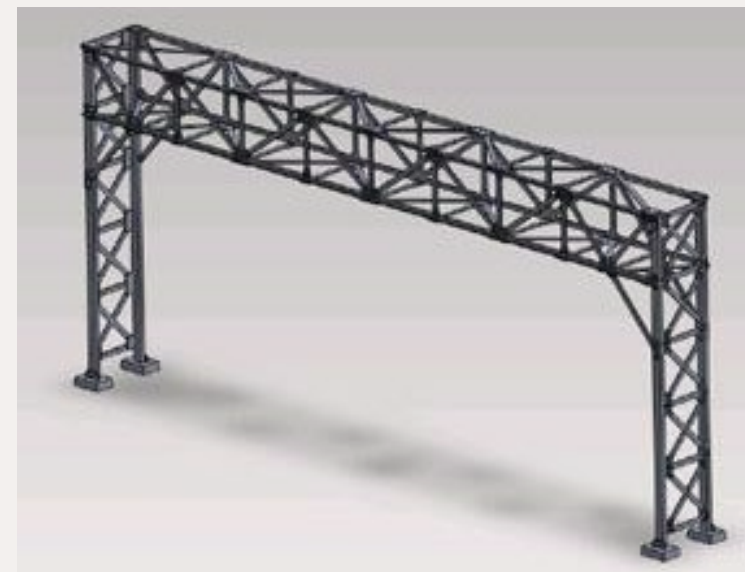


**Micro-Trains Line** ([micro-trains.com](http://micro-trains.com)) has scheduled the release of N scale Santa Fe plug-door insulated boxcars for next month. The ready-to-run cars will be available in a four-pack at \$79.95.

**BLMA** ([blmamodels.com](http://blmamodels.com)) has released preliminary photos of N scale pipe loads it plans to release during the second quarter of 2013. The scale pipe replicates prototype thin-wall steel pipe in 80' lengths and comes in diameters of both 24" (green)



January will see the release of N scale centerbeam flat cars with loads. The ready-to-run cars will be decorated for Trailer Train. Micro-Trains will sell the centerbeams in a four-pack at \$109.95.



**NJ International** ([njinternational.com](http://njinternational.com)) has developed a kit for a standard signal bridge that, depending upon the spacing of your track, can serve as a signal base for three or four tracks. Signal heads are not included. The N scale kit is composed of nicely detailed injection molded plastic. The kit has an MSRP of \$29.99. Delivery is scheduled for December.

## Z SCALE PRODUCT NEWS



**Full Throttle** ([wdwfullthrottle.com](http://wdwfullthrottle.com)) is selling a two-pack of Z scale ACF 51' cylindrical center-flow covered hopper cars decorated for Penn Central (road number 884358 in PC green) and Conrail (road number 885235 in red). The specially decorated cars are based on models manufactured by Bowser. The two-pack has an MSRP of \$54.00 and comes in a clear plastic presentation box.





**Micro-Trains Line** ([micro-trains.com](http://micro-trains.com)) is scheduled to release these Southern Pacific boxcars in January. The ready-to-run Z scale models will be sold in a four-pack at \$89.95.



Also coming from Micro-Trains in December is a four-pack of Z scale CP Rail steel gondolas at \$99.95.

## NEW DECALS, SIGNS, AND FINISHING PRODUCTS

**Archer** ([archertransfers.com](http://archertransfers.com)) showed its collection of surface rivet patterns for railroad modelers at the Naperville RPM Meet including its new releases for G scale in 7/8" (AR88082) and 5/8" (AR88083) rivet head sizes. A sheet of 3-dimensional rivets has straight, alternate-center, and double-row patterns in

one rivet size. The sheets are \$17.95 each. Although Archer identifies its rivet sheets for a specific scale, different sizes may be suitable for use in other scales. For example, rivets intended for application on an O scale car, might be ideally sized for an HO scale bridge structure.



**Microscale Industries** ([microscale.com](http://microscale.com)) has issued four new decal sets, including a set that combines Seaboard Air line and Seaboard Coast Line streamline passenger cars. Also new are Nacionales de México cylindrical and cement hoppers, Penn Central streamlined passenger cars and Metroliners, and a combined Southern Pacific and Cotton Belt (SSW) set for tank cars with white lettering. The new lettering sets are priced at \$7.00 for HO and \$5.75 for N scale. Still in the works at Microscale are new decal sets for SP and Cotton Belt cement hoppers, L&N and SCL covered hoppers, GN wood boxcars, Pacer Stacktrain 53' containers, and Maxi IV well cars.

### DISCLAIMER

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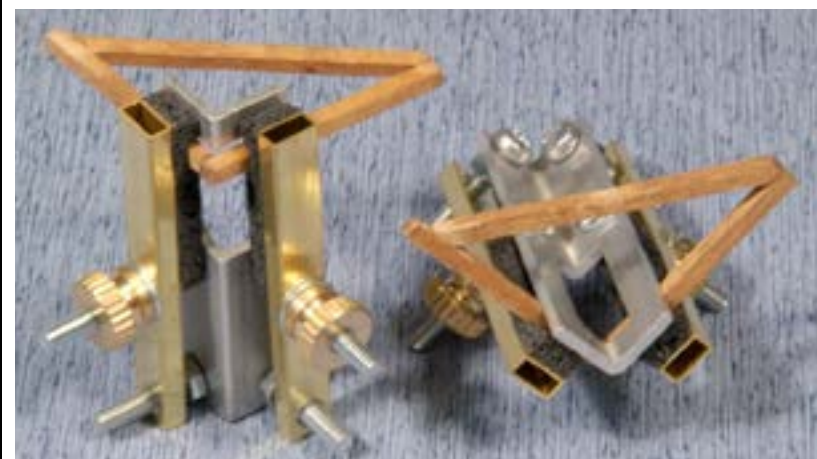
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## Selected Events

### November 2012

**CANADA, BRITISH COLUMBIA, BURNABY,** Trains 2012 (November 9-11) and 5th Annual BC RPM Meet (November 10) in a combined gathering. BC RPM features model and diorama displays, and informative show 'n tell sessions. Speakers include Mike Barone, Scott Calvert, Mark Dance, Jack Hamilton MMR, Timothy J. Horton, Greg Kennelly, Rob Kirkham, Al Lill, Marc Simpson, Pete Steinmetz, Robert Turner, Didrik Voss MMR, Russ Watson, and Zohn Zuk. Trains 2012 offers operating sessions, escorted layout tour, banquet, and prototype tours. \$25.00 CDN registration (does not include banquet). Cameron Centre at 9523 Cameron Street. Info at [bctrains.org](http://bctrains.org) or send email to [ahutchinson.mudbay@gmail.com](mailto:ahutchinson.mudbay@gmail.com).

**CALIFORNIA, ROSEVILLE,** November 10-11, 36th Annual International Railfair Model Railroad Show. One of the largest model railroad events in the west. Placer County Fair Grounds, 800 All American City Blvd. Info at [international-railfair.com](http://international-railfair.com).

**CALIFORNIA, SAN JOSE,** November 24-25, Great Train Expo, at Santa Clara County Fairgrounds, 344 Tully Rd. Info at [greattrainexpo.com](http://greattrainexpo.com).

**COLORADO, DENVER,** November 10-11, Great Train Expo, at National Western Complex, 4655 Humbolt St. Info at [greattrainexpo.com](http://greattrainexpo.com).

**ILLINOIS, COLLINSVILLE,** November 24-25, Great Train Expo, at Gateway Center, One Gateway Drive. Info at [greattrainexpo.com](http://greattrainexpo.com).

**KENTUCKY, LOUISVILLE,** November 11-17, Train Show & Sale sponsored by Division 8, Mid-Central Region, NMRA. Highland Post American Legion, 2919 Bardstown Rd. Info at [div8-mcr-nmra.org](http://div8-mcr-nmra.org).

**MAINE, BREWER,** November 17, Annual Train Show featuring operating layouts, vendor tables, and The Train Doctor. Sponsored by Eastern Maine Model Railroad Club. Jeff's Catering, 15 Coffin Avenue in the East West Industrial Park. Contact Geoff Anthony at 207-374 2786 or [geoff04614@gmail.com](mailto:geoff04614@gmail.com) for information including details on vendor tables.

**MICHIGAN, ANN ARBOR,** November 25, Southeast Michigan Model Railroad Flea Market & Show. Operating scale, tinsplate and LEGO layouts. Washtenaw Farm Council Grounds, 5055 Ann Arbor-Saline Road. For info contact John Young [cdhyoung@yahoo.com](mailto:cdhyoung@yahoo.com) or Jeff Fryman [wab2ndops@yahoo.com](mailto:wab2ndops@yahoo.com).

**MICHIGAN, LIVONIA,** November 25, Model Railroad Show & Workshop, sponsored by Div 6, NCR/NMRA. Demonstrations on power systems, scenery, structure building, kit building, backdrops, wiring, track-laying tips, and basic building techniques. Includes video shows and operating model railroad layouts, plus a Build & Take clinic (\$3-5 fee). Livonia Seniors Building, 15218 Farmington Road at Five Mile Road. Information from Mark Ellis at 734-421-2673 or [emark@sbcglobal.net](mailto:emark@sbcglobal.net).

**NEW JERSEY, NORTH HALEDON,** November 23-25, 55th Annual Model Railroad Show, sponsored by Garden State Model Railway Club, 575 High Mountain Rd. Info at [gsmrrclub.org](http://gsmrrclub.org).

**PENNSYLVANIA, MONACA,** November 18, Beaver County Fall Model Train Show at Center Stage, 1495 Old Brodhead Road. Hosted by Beaver County Model Railroad Club. Info at [bcmrr.railfan.net](http://bcmrr.railfan.net) or contact Walt Steiner at 724-843-3783.

**PENNSYLVANIA, YORK,** November 25 and December 2, 8-9, 15-16, 22-23, and 29-30, Annual Open House, hosted by Miniature Railroad Club of York. Saturdays 3 to 8 PM, Sundays 1 to 5 PM. 381 Wheatfield Street. Donation at door. Info at [mrrcy.com](http://mrrcy.com) or call 717.458.2932.

**SOUTH CAROLINA, NORTH CHARLESTON,** November 10-11, Annual Train Show and sale hosted by Charleston Model Railroad Club. Danny Jones Armory Park, 5000 Lackawanna Blvd. For details including table rental information visit [chamrc.com](http://chamrc.com) or send email to [trainshow@chamrc.com](mailto:trainshow@chamrc.com).

**UTAH, SANDY (Salt Lake City),** November 17-18, Great Train Expo, South Town Expo Center, 9575 So. State St. Info at [greattrainexpo.com](http://greattrainexpo.com).

**WISCONSIN, WEST ALLIS (Milwaukee),** November 10-11, Trainfest 2012. Billed as America's largest operating model railroad show with operating layouts in all popular scales, demonstrations, exhibit booths, vendor tables, and clinics including the popular Model Railroading 101. Displays include the latest products from more than 75 model railroad manufacturers. Hosted by Wisconsin Southeastern Division of NMRA. Exposition Center at Wisconsin State Fair Park. Visit [trainfest.com](http://trainfest.com) for additional details including ticket information.

### December 2012

**AUSTRALIA, VICTORIA, BEECHWORTH,** December 1-2, Beechworth Railway Weekend. Sponsored by Murray Railway Modellers featuring railroad history, models, memorabilia, and books. Old Telegraph Station and Memorial Hall on Sydney Road. Information at [morsecodians.com.au](http://morsecodians.com.au) or send inquiry to [beechworthmemorialhall@gmail.com](mailto:beechworthmemorialhall@gmail.com).



**CALIFORNIA, DEL MAR (San Diego area),** December 1-2, Great Train Expo. Del Mar Fair Grounds, 2260 Jimmy Durante Blvd. Info at [greattrainexpo.com](http://greattrainexpo.com).

**CANADA, ONTARIO, TORONTO,** December 29 - 30, Model Railroad Club of Toronto's 2012 Holiday Show. Liberty Village (formerly 37 Hanna Avenue), More info at [modelrailroadclub.com](http://modelrailroadclub.com).

**COLORADO, COLORADO SPRINGS,** December 15-16, Train Expo Colorado, includes sales tables, operating layouts, clinics, and manufacturers presentations. Financial Services Expo Center, 3650 N. Nevada. Info at [tecoshow.org](http://tecoshow.org).

**KANSAS, OVERLAND PARK (Kansas City area),** December 29-30, Great Train Expo. Overland Park International Trade Center, 6800 West 115th Street. Info at [greattrainexpo.com](http://greattrainexpo.com).

**MICHIGAN, NOVI,** December 8-9, Great Train Expo. Suburban Collection Showplace, 46100 Grand River. Info at [greattrainexpo.com](http://greattrainexpo.com).

**NEW JERSEY, BROOKLAWN,** December 1, 8, 15, Gateway Model Railroad Open House. 100 E. Browning Road. Info at [gatewaymodelrr.org](http://gatewaymodelrr.org).

**OREGON, PORTLAND,** December 8-9, Great Train Expo. Portland Expo Center, 2060 N. Marine Drive. Info at [greattrainexpo.com](http://greattrainexpo.com).

**WASHINGTON, PUYALLUP (Tacoma area),** December 15-16. Great Train Expo. Puyallup Fair & Events Center, 110 9th Avenue SW. Info at [greattrainexpo.com](http://greattrainexpo.com).

## FUTURE 2013

**AUSTRALIA, MELBOURNE,** March 29-31, 2013, 11th Annual Australian Narrow Gauge Convention. Carwatha College, Noble Park North. Info at [cngg.org.au/index.html](http://cngg.org.au/index.html).

**AUSTRALIA, MELBOURNE,** April 12-14, 2013, 13th National Australian N Scale Convention. Rydges Bell City Event Centre, Preston, Melbourne. Info at [convention2013.nscale.org.au](http://convention2013.nscale.org.au) or send email to [nscale2013@bigpond.com](mailto:nscale2013@bigpond.com).

**CALIFORNIA, PASADENA,** August 28-31, 2013, 33rd National Narrow Gauge Convention. Hilton Hotel, 199 S. Los Robles St. Info at [33rdnngc.com](http://33rdnngc.com).

**CALIFORNIA, SACRAMENTO,** February 23-24, 2013 World's Greatest Hobby on Tour, featuring manufacturers displays, operating layouts, interactive activities, and workshops presented in a family-oriented atmosphere. Cal-Expo. Attendee and exhibitor info at [wghshow.com](http://wghshow.com).

**CALIFORNIA, SAN DIEGO,** February 9-10, 2013 World's Greatest Hobby on Tour, featuring manufacturers displays, operating displays, interactive activities, and workshops presented in a family-oriented atmosphere. Del Mar Fairgrounds, 2260 Jimmy Durante Blvd. Attendee and exhibitor info at [wghshow.com](http://wghshow.com).

**CALIFORNIA, SAN FRANCISCO AND SOUTH BAY AREA,** January 25-27, 2013 Bay Area PCR/Layout Design/Operations SIG Meet. Three day program with clinics and layout visits. Harry's Hofbrau, 390 Saratoga Ave, San Jose, CA, 95129 Complete information and pre-registration available at [pcrnmra.org/sigs](http://pcrnmra.org/sigs).

**CALIFORNIA, SANTA CLARA,** January 24-26, 2013, O Scale West and S West Annual Meet. Hyatt Regency Hotel, 5101 Great American Parkway. Info at [oscalewest.com](http://oscalewest.com).

**CANADA, ONTARIO, TORONTO,** February 2-3, 9-10, 16-18, Model Railroad Club of Toronto's 75th Anniversary & Final Liberty Village Show Events. . Liberty Village (formerly 37 Hanna Avenue), More info at [modelrailroadclub.com](http://modelrailroadclub.com).

**FLORIDA, COCOA BEACH,** January 10-12, 2013, Prototype Rails/Cocoa Beach 2013. Major RPM meet hosted annually by Mike Brock. To preregister send \$35 check payable to "Prototype Rails" to Marty Megregian; 480 Gails Way; Merritt Island, FL 32953. Event at Hilton Hotel, 1550 N. Atlantic Ave. (Highway A1). For hotel reservations call 800-526-2609 or 321-799-0003. Refer to Prototype Rails for reduced rate.

**GEORGIA, ATLANTA,** July 14-20, 2013, National Model Railroad Annual Convention and National Train Show.

**GEORGIA, PINE MOUNTAIN,** February 1-3, 2013, Southern Rails (formerly Narrow Gauge Railway Day). Family oriented event with clinics, contests, vendors and "down south" fun, at Callaway Gardens. Info at [southernrails.org](http://southernrails.org).

**GEORGIA, PORT WENTWORTH (Savannah area),** April 4-6, 2013, 13th Annual Savannah RPM at Port Wentworth Community Center located on Appleby Road. Program follows the usual RPM format with clinics, model displays, vendors, historical societies, and brotherhood. Information from Bob Harpe at [Rharpe@comcast.net](mailto:Rharpe@comcast.net) or Denis Blake at [dblake7@columbus.rr.com](mailto:dblake7@columbus.rr.com). Send \$20.00 for weekend registration to Robert Harpe, 313 Paradise Drive, Savannah, GA 31406.

**MASSACHUSETTS, WEST SPRINGFIELD,** January 26-27, Amherst Railroad Hobby Show, sponsored by Amherst Railway Society. Major event attracting 25,000 or more people annually with operating layouts, clinics, and up to 250 vendor tables. Participants include manufacturers, publishers, importers, and historical societies. Easter States Exposition Fairgrounds. Info at [railroadhobbyshow.com/abouttheshow.php](http://railroadhobbyshow.com/abouttheshow.php).



**MINNESOTA, BLOOMINGTON**, April 25-28, 2013, 28th Annual Sn3 Symposium. Ramada Mall of America Hotel. Info at [sn3-2013.com](http://sn3-2013.com).

**MISSOURI, ST. LOUIS**, January 12-13, 2013 World's Greatest Hobby on Tour, featuring manufacturers displays, operating displays, interactive activities, and workshops presented in a family-oriented atmosphere. America's Center. Attendee and exhibitor info at [wghshow.com](http://wghshow.com).

**NEW MEXICO, ALBUQUERQUE**, June 6-9, 2013, Rails Along the Rio Grande, NMRA Rocky Mountain Region, Rio Grande Division 6, convention with clinics, layout tours, train show, OpSig sessions, UPRR and BNSF modelers showcase night, and banquet. Marriott Pyramid North. Info at [rarg2013.org](http://rarg2013.org).

**PENNSYLVANIA, YORK**, January 5-6, Annual Open House, hosted by Miniature Railroad Club of York, Saturdays 3 to 8 PM, Sundays 1 to 5 PM. 381Wheatfield Street. Donation at door. Info at [mrrcy.com](http://mrrcy.com) or call 717.458.2932.

**TEXAS, FORT WORTH**, January 5-6, 2013 World's Greatest Hobby on Tour, featuring manufacturers displays, operating displays, interactive activities, and workshops presented in a family-oriented atmosphere. Will Rogers Memorial Center. Attendee and exhibitor info at [wghshow.com](http://wghshow.com).

**TEXAS, HOUSTON**, February 16, 2013, Greater Houston Train Show, features 20,000 sq ft of operating layouts, instructive classes, model and photo contests, train videos, and vendors. Also tours of many local home layouts. At Stafford Center, 10505 Cash Road at Murphy Road. Hosted by San Jacinto Model Railroad Club. Info at [sanjac.leoslair.com/resources/2013-Public-Flyer.pdf](http://sanjac.leoslair.com/resources/2013-Public-Flyer.pdf). ■

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# REVERSE RUNNING: Time for a “get out of jail free card” with the era police?

Stepping outside the box with a contrary view



tell me it looks like the 1950s.

However, the prevailing trend in era modeling has become to pick this kind of modeling apart and to say “you’re modeling 1959 and just not doing a very good job of it.”

This judgemental statement assumes era perfect modeling must be the ideal and *you should be ashamed if it’s not.*

So what if I chose NOT to be an era-perfect modeler. Does that mean my layout is now a “poor” model?

Allen McClelland’s gutsy “good enough” philosophy said no, it’s not a bad model. It’s a great model, because you’re choosing an approach that lets you relax and that’s okay. For a modeler who prefers to generalize the era on their layout to within a decade like the 50s, if they’ve done a decent job of capturing the feel of the 1950s, shouldn’t that be considered good modeling? Even darn good?

I take issue with the “era police” assuming this era-perfect viewpoint. It’s just one viewpoint, and a hyper-narrow, elitist one at that.

I’m starting to think concepts like ultra-era-precision as a mainstream hobby ideal hurts the hobby more than it helps. I don’t think it improves the public image of the hobby much. It gives the impression that unless you measure up, the era police will label you a “sloppy modeler”.

How does calling a reasonable scale modeling philosophy “sloppy” help the hobby or encourage others to get involved? What happened to Allen McClelland’s liberating “good enough” philosophy being applied to era?

At the end of the day, what’s so terribly wrong with a moderate level of era-generalization?

How far must the era police carry the ultra-era-specific line of thinking?

I’m modeling September 1955. “No that model actually isn’t correct for September. You’re modeling December 31, 1955 and doing a poor job of it.” Oh really?

Who says being year-specific or even month-specific is specific enough? Who decided what constitutes “precise enough” when it comes to era precise modeling?

I think it’s time to speak the truth – if you’ve opted to be mildly era general by “modeling the 1950s” and

the layout reminds us of the 1950s, then you’ve succeeded and let’s have none of this “modeling 1959 poorly” rhetoric!

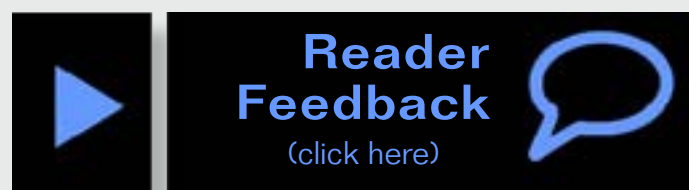
Are we in danger of making the hobby so specialized that we’re ultimately hurting its future? What if the ultra-era-specific prototype movement was actually BAD for the hobby?

Our fetish to keep narrowing era modeling ever tighter and ever more precise makes it much harder for manufacturers to produce a product affordably for a broad market. This ultra-era-precision mindset subdivides and shrinks the product market, and that can’t be good for the hobby.

“Naw, I can’t use that model because it’s not right for 1954 – it’s only correct for 1958 and I don’t model 1958. And I certainly don’t want to model my layout era poorly. Gotta do it right, you know!”

I’d like someone to tell me how this is making the manufacturers’ job any easier or enabling them to market less expensive models?

It’s time to turn back this hobby trend of ultra-era-specific modeling. Getting to within a decade for those who prefer that approach should be called *good enough* once again like it once was. ☒



— by Joe Fugate

I remember the freedom Allen McClelland’s “good enough” philosophy brought back into the hobby in the 1980s. Finally, here’s a respected proto-oriented modeler who had the guts to declare we didn’t need to kill ourselves modeling everything perfectly.

So I have to wonder: why can’t “good enough” also apply to era modeling?

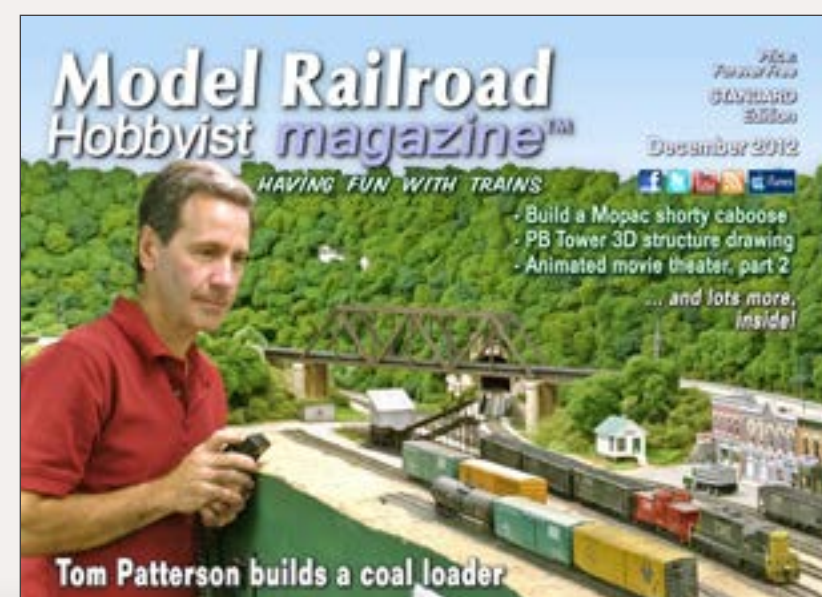
I may say “I’m modeling the 1950s”. As long as the equipment ran in the 1950s, I’m okay with it on my layout. Anyone who looks at my layout will



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## For the love of model trains

### Coming in December 2012 MRH

- Tom Patterson builds a coal loader
- Build a Conrail caboose
- Great Western Layout ops
- Estate considerations for modelers
- Movie theater with animated lights, part 2
- Aisle lift-out bridge ...and lots more!

Derailments, humor,  
and document options  
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