

**HOW TO FIX **WARPED DIESEL HANDRAILS**** p.22



# Model Railroader®

**New Bachmann  
diesel tested** p.60

May 2017  
www.ModelRailroader.com

## PICTURE PERFECT

**Learn about Pelle Søbørg's  
new Midwestern layout** p.40

**Our fast-working  
contributing  
editor has built  
another great  
HO scale layout.**



**5 ways to enhance  
streamlined  
passenger cars** p.26

**PLUS**

**Build a long highway overpass** p.50

**Get the most from DCC automated sounds** p.58

**Add a rail shipper: stock pens along a fascia** p.36

**BONUS  
ONLINE  
CONTENT  
CODE PG. 4**





## AN AMTRAK® ICON REALIZED

### ANNOUNCING

Formed in 1971, Amtrak took over operation of most of America's passenger trains with an assortment of old locomotives, primarily decades-old E-units. The carrier worked with EMD to design new passenger locomotives and the result was the SDP40F, Amtrak's first all-new locomotive. With 150 built, the SDP40F became the face of Amtrak in the mid-1970s as they were found on the head ends of passenger trains from San Diego to Washington DC and from Seattle to Miami. In the early 1980s, eighteen surplus Amtrak SDP40Fs were acquired by the Santa Fe Railway and added to their freight locomotive fleet. Athearn® is excited to be able to add this iconic locomotive to the Genesis® line of high-quality models.

#### Amtrak Specific Features Include:

- Illuminated Gyrallight
- Illuminated UDE ("Big Hole") Light
- Leslie S4T and SL4T Air Horns
- Cab Interior



Santa Fe "notch nose" SDP40-2 version shown



Low profile fans and roof-line details variant



Amtrak style Leslie S4T horn



Amtrak style pilot, with steam line access door snow plow.

**VISIT [ATHEARN.COM](http://ATHEARN.COM) FOR COMPLETE LIST OF FEATURES. ORDER TODAY, QUANTITIES ARE VERY LIMITED!**

**HORIZON**  
H O B B Y

**VISIT**  
Your Local Retailer

**CLICK**  
[Athearn.com](http://Athearn.com)

**CALL**  
1.800.338.4639

**SERIOUS FUN®**

©2017 Horizon Hobby, LLC. Athearn, Genesis and McHenry are registered trademarks of Horizon Hobby, LLC. Amtrak and the Amtrak logos are registered service marks of the National Railroad Passenger Corporation. All other trademarks, service marks and logos are property of their respective owners. Final models may vary slightly from photos shown. 54461



# YOUR SOURCE FOR MODERN INDUSTRIAL PARK KITS & ACCESSORIES

HO SCALE

PRODUCT ARRIVING APRIL THROUGH JUNE 2017 – RESERVE NOW – [walters.com/MIP](http://walters.com/MIP)

## MODERN COLD STORAGE WAREHOUSE

933-4069 Kit \$59.98

- Great trackside industry in rural areas & big cities
- Detailed refrigeration units, cooling towers & roof-mounted piping



## ALL-NEW “TIP-UP” CONCRETE PANEL STRUCTURE KITS

Inspired by concrete “tip-up” warehouses, light and heavy manufacturing plants, strip malls and more seen all across North America, this new series of models makes it easy to add trackside industries and support facilities to any HO layout from the 1980s to the present!

## MODERN CONCRETE WAREHOUSE

933-4067 Kit \$49.98

- Perfect stand-alone industry or part of a larger factory complex
- Industrial electric meters & junction box
- Four roof-mounted air conditioners



## Complete your scene with these Industrial Park structures & accessories



**TRUCK & RAIL SCALE** 933-4068 Kit \$24.98

## TRUCK & RAILROAD DOCK DOORS

933-4070 \$14.98

## SECURITY DETAILS

933-4074 \$14.98



**MODERN GUARD SHACK** 933-4076 Kit \$29.98

## HVAC UNITS

933-4077 Kit \$14.98

## MODERN ELECTRICAL GEAR

933-4075 Kit \$14.98



## SAFETY & SECURITY POSTS PKG(20)

949-4148 \$5.98

## MODERN WALL LIGHT PKG(3)

949-4318 \$19.98

## PALLET JACKS PKG(4)

949-4144 \$9.98



## 50' FGE INSULATED BOXCAR

910-2013 to 2026 \$24.98



Support your local hobby shop • visit [walters.com](http://walters.com) • call 1-800-4-TRAINS

Delivery date/s and prices shown were accurate at press time; for updates visit [walters.com](http://walters.com).  
Preproduction models shown assembled and painted, some details and colors may vary. ©2017 Wm. K. Walters, Inc.



## Features



### 26 Upgrading streamlined passenger cars

Detail kits make it easy to bring models to the next level

by V.S. Roseman

### 32 A scenic showcase

Cisco Bridge is the centerpiece of this N scale Canadian National layout

by Scott Lamoureux

### 36 Model stock pens along a fascia

Rail-served businesses don't need to have a large footprint

by Andrew Dodge

### 40 Capturing the Midwest in HO scale **MREXTRA**

Sectional construction and a Great Plains locale set this model railroad apart

by Pelle Søbørg

- Online bonus [ModelRailroader.com](http://ModelRailroader.com)

### 50 Making a multimedia highway overpass **MREXTRA**

A variety of materials and scrap box parts make up the North Avenue viaduct

by Dana Kawala

- Online bonus [ModelRailroader.com](http://ModelRailroader.com)

### 56 Make a tripod holder for your smart phone

A few pieces of wood and a threaded socket are all you need to take shake-free shots on your layout.

by Lou Sassi

## In every issue

### 6 Digital MR

The latest features on our website

### 8 From the Editor

Model railroading present, past, and future

### 10 News & Products

Hobby industry news

### 18 Ask MR **MRVP**

Spotting differences in tank cars

### 20 N Scale Insight

Horseshoe curves work better in N scale



### 22 Step by Step

Replace warped handrails on an HO scale diesel

### 57 On Operation

Train orders and Form D's

### 58 DCC Corner

Getting the most from automatic functions

### 60 Product Reviews **MREXTRA**



Bachmann HO scale Electro-Motive

Division E7, Digitrax Evolution DCC starter

set, and more

### 66 Trackside Photos

### 77 Index of Advertisers and Cartoon

### 78 Trains of Thought

Pragmatic prototype modeling



**On the cover:** Pelle Søbørg's new HO layout still features the Union Pacific, but now rolling through the Midwest. Pelle Søbørg photo



## Next issue

In June, Rod Stewart puts the finishing touches on his Grand Street and Three Rivers RR HO scale masterpiece, we wrap up our Beer Line project layout, and more!

**MREXTRA**

[www.ModelRailroader.com](http://www.ModelRailroader.com)  
subscriber extra



Video on  
[www.MRVideoPlus.com](http://www.MRVideoPlus.com)

*Model Railroader* (USPS 529-810, ISSN 0026-7341) is published monthly by Kalmbach Publishing Co., 21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI 53187-1612. Periodicals postage paid at Waukesha, Wis., and additional offices. POSTMASTER: Please send address changes to *Model Railroader*, P.O. Box 62320, Tampa, FL 33662-2320. Printed in USA. Canada Publication Mail Agreement # 40010760.



To HO, N & O Scale Train Set Owners, with 3 Easy Steps...

# PLAN YOUR LAYOUT, WIRE AND OPERATE YOUR MODEL RAILROAD LIKE AN EXPERT!

For over 60 years, Atlas has been **THE** source for model railroad track & accessories. We're proud to continue the tradition as your one-stop source for realistic and reliable track, locomotives, rolling stock and accessories! Meeting all of your model railroading needs, **"You're on the Right Track® ...With Atlas".**



BEFORE using ATLAS Track



AFTER using ATLAS Track

1

Design your layout with Atlas' exciting Atlas Track Planning Software and guide books in HO, N and O Scales.



Item #11



Item #6



Item #176 - HO Code 100 90° Custom-Line® Crossing

2

Build your layout with Atlas Track & Electrical Components, found in our latest Track Catalog! Call Atlas at 908-687-0880 to obtain a copy!



#205 - HO/N/O Connector

3

Bring your layout to life with Atlas' full line of Structures & Accessories, and put real fun into your model railroad operation!



Item #66903 - Elektra Theater







**video  
PLUS**

## Get started with our can't-miss video playlist!

**MR Video Plus provides** step-by-step demonstrations, helpful tips, and real railroading action. Whether you want to improve your skills, get started in the hobby, or enjoy the thrill of rail adventure, we've got something for everyone.

To get you started, MR Video Plus has put together a new playlist of selected shows that you can watch for FREE! Visit [www.MRVideoPlus.com/preview](http://www.MRVideoPlus.com/preview).

## FREE PLAYLIST FEATURES



**You ask** the tough hobby questions, David Popp provides the answers and offers helpful hands-on demos.

## DIGITAL COMMAND CONTROL PROGRAMMING



**Take command** of technology, as Dana Kawala and Ben Lake help make Digital Command Control work for you!



**Explore the North American** railroad network with railfan/photographer Drew Halverson and his crew.

## Airbrushing with Aaron

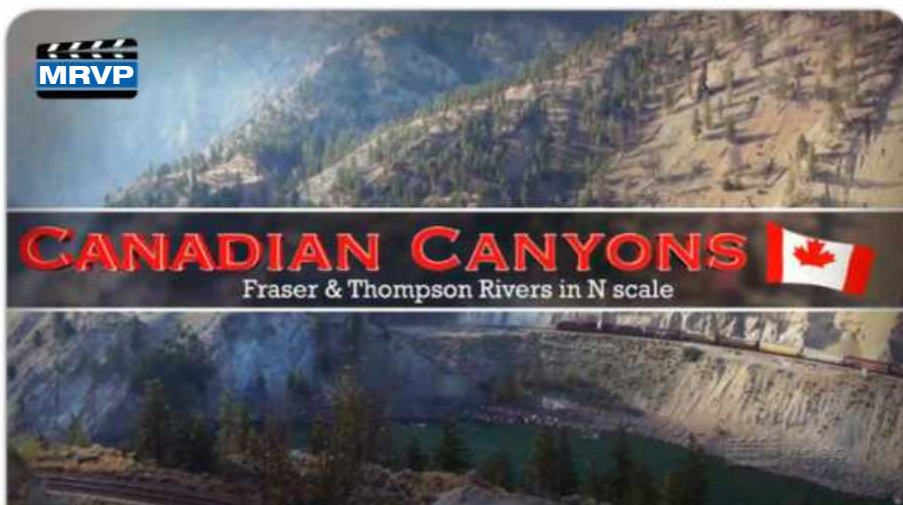


**Master airbrush painting** and weathering with help from *FineScale Modeler* senior editor Aaron Skinner.



**Have fun learning** about clever hobby tips, tricks, and tools from master model railroader Gerry Leone.

**...and many more EXCLUSIVE videos!**



## All-new series

### Preview our new project!

*Model Railroader* magazine and MR Video Plus staffers host this all-new N scale project layout. Watch the first episodes of the Canadian Canyons series as part of the free MRVP playlist. You'll discover expert advice and practical demonstrations of construction topics and more! From concept to completion, don't miss this video reference for building one spectacular layout! Get the playlist at [www.MRVideoPlus.com/preview](http://www.MRVideoPlus.com/preview).





# NEW Water System by Woodland Scenics®

- Specially designed system
- Model all bodies of water and their features
- Variety of authentic colors

Water Tints  
Water Undercoats  
Realistic Water™  
Deep Pour Water™  
Water Effects  
Water Ripples  
Water Waves  
White Water Highlight  
Dust Dabber™



# NEW Landmark Structures®



## H&H FEED MILL Built-&-Ready®

- Includes printed interior and Just Plug® lighting
- Positionable grain chute
- Available in N scale (BR4949), HO (BR5059) and O scale (BR5859)

## OLD HOMESTEAD Built-&-Ready®

- Cozy home for country living
- Includes printed interior with Just Plug® lighting
- Outhouse and other individual exterior features
- Now available in O scale (BR5860)



**WOODLAND SCENICS®**

Purchase at your local hobby store.  
[woodlandscenics.com](http://woodlandscenics.com)



# Guess who built another incredible layout?

**Our friend** Pelle Søeberg, one of *Model Railroader's* contributing editors, has built an all-new HO scale layout, as you can see on this month's cover. Pelle's story starts on page 40.

At this point you might be saying to yourself: hold on a minute, didn't Pelle just build a Mojave Desert layout, which was sort of a reboot of an earlier desert layout? And didn't he have even another layout featured in *Model Railroader* in the late 1990s, modeling Tehachapi Pass?

The answers are yes, yes, and yes. And if you're counting, this is Pelle's third layout in about a decade.

All have been HO scale layouts modeling the present-day Union Pacific RR; this is the first to model a location other than the Southern California desert.

Pelle loves to build layouts, as he explains in his story.

For him, it's all about the journey, not the destination. His most recent layout was taken down just 14 months after it was completed. I would not be surprised to get an e-mail from Pelle before the end this year that details his plans for yet another layout, with an attached photo of his train room, once again showing empty walls and an empty floor (he sent me a photo like that after the last layout was taken down).

Pelle's not the only model railroader who thrives on the journey, or construction, aspect of our hobby.

Later this year in *Great Model Railroads 2018* and in January's *Model Railroad Planning 2018*, we'll report on two other prolific builders, Andrew Dodge and his O scale Colorado Midland Ry., and Doug Tagsold on his Colorado & Southern Ry., modeled in 1:72 scale (you'll

have to wait for the article for an explanation about that).

**Most of us are not** building layouts at the pace that Pelle, Andrew, and Doug have set. Nor do we need to be. One of the best things about model railroading is that we can each set our own construction pace.

**Summer is just** a few weeks away, which means the annual National Model Railroad Association convention is fast approaching. This year the convention is in Orlando. I know, I know, it's hot in Florida in mid-summer. But don't let that keep you away. A national convention is an ideal place to broaden your model railroad knowledge and meet lifelong friends for the first time.

At the end of convention week is the National Train Show, on Aug. 4, 5, and 6.



In the past there have been more than 130 booths and exhibits at the show. This year's show includes an "Ask the Collectibles Appraiser" area, 44,000 square feet of floor space for modular layouts, and a 2,500-square-foot Lego display (it doesn't matter how old you are, Lego trains will still make you smile).

We'll be there too, just look for the *Model Railroader* and *Model Railroader Video Plus* booth.

NEIL BESOUGLOFF

## Model Railroader. Model railroading is fun!

## Contributing to Model Railroader

We welcome contributions from readers, including articles, photographs, and drawings. For more information on submitting material, call us at 262-796-8776 and ask for an MR staff member or e-mail us at [mrmag@mrmag.com](mailto:mrmag@mrmag.com). Model Railroader assumes no responsibility for the safe return of unsolicited material. We assume unsolicited material is intended for publication by Kalmbach Publishing Co. unless otherwise noted. We assume letters, questions, news releases, and club news items are contributed gratis.

### Advertising Department

Group Advertising Manager  
Ad Sales Representative  
Ad Services Representative

Scott Redmond  
Martha Stanczak  
Daryl Pagel

### To purchase an advertisement

Phone  
E-mail

888-558-1544, ex. 643  
[adsales@mrmag.com](mailto:adsales@mrmag.com)

### Circulation Department

Circulation Manager  
Single Copy Specialist

Catherine Daniels  
Kim Redmond

### To sell Model Railroader in your store:

Phone  
Outside U.S. and Canada  
E-mail  
Website  
Fax

800-558-1544  
262-796-8776, ex. 818  
[tss@kalmbach.com](mailto:tss@kalmbach.com)  
[www.Retailers.Kalmbach.com](http://www.Retailers.Kalmbach.com)  
262-798-6592



### Customer Sales and Service

Phone  
Outside U.S. and Canada  
Customer Service  
[Modelrailroader@customersvc.com](mailto:Modelrailroader@customersvc.com)  
Digital  
[Modelrailroader.digital@customersvc.com](mailto:Modelrailroader.digital@customersvc.com)  
Back Issues  
[Modelrailroader.SingleCopy@customersvc.com](mailto:Modelrailroader.SingleCopy@customersvc.com)

### Kalmbach Publishing Co.

Senior VP, Sales & Marketing  
VP, Content/Editorial Director  
VP, Consumer Marketing  
Corporate Advertising Director  
Corporate Art Director  
Art and Production Manager  
General Manager

Daniel R. Lance  
Stephen C. George  
Nicole McGuire  
Scott Bong  
Maureen M. Schimmel  
Michael Soliday  
Brian J. Schmidt

**SUBSCRIPTION RATE:** Single copy: \$5.99; U.S.: 1 year (12 issues) \$42.95; 2 years (24 issues) \$67.95; 3 years (36 issues) \$94.95. Canadian: Add \$13.00 postage per year. Canadian price includes GST, BN 12271 3209 RT, payable in U.S. funds. All other international subscriptions: Add \$20.00 postage per year, payable in U.S. funds, drawn on a U.S. bank. ©2017, Kalmbach Publishing Co. Title registered as trademark. All rights reserved.

What was the last model you built?

**Model Railroader Art Team**

Art Director  
Senior Graphic Designers  
Lead Illustrator  
Production Coordinator

Thomas G. Danneman  
Scott Krall  
Drew Halverson  
Rick Johnson  
Cindy Barder

**Model Railroader Video Plus**

Producer  
Associate Producer  
Associate Editor  
Assistant Editor

A. David Popp  
Kent Johnson  
Ben Lake  
Jenny Maaske

**Founding Editor**  
Managing Editor  
Senior Editor  
Associate Editors

Contributing Editors

Phone  
E-mail  
Fax

262-796-8776  
[mrmag@mrmag.com](mailto:mrmag@mrmag.com)  
262-796-1142

**All-nation boxcar**  
A.C. Kalmbach 1910-1981  
Neil Besougloff

**Varney gondola**  
Cody Grivno, Steven Otte, Eric White, Tony Koester, Pelle Søeberg, Larry Puckett

**Ambroid helium car**

**Cement car**

**Vancouver Station**



# Micro-Mark®

THE SMALL TOOL SPECIALISTS

Berkeley Heights, New Jersey 07922

*Your one-stop source for unique,  
hard-to-find tools, model kits and  
model building supplies at low prices!*

**FREE SHIPPING**  
on ANY order over \$50

when you place your order online at

**www.micromark.com**  
and enter Promo Code 4304

or call 1-800-225-1066 and mention Promo Code 4304

**See over 3,000 items at  
www.micromark.com  
including...**



TRAINS, TRACK,  
TOOLS & ACCESSORIES



STRUCTURES & SCENERY



HAND TOOLS



POWER TOOLS



PAINTING,  
WEATHERING  
& DECALING

\*Offer applies to standard shipping to the 48 contiguous U.S. ONLY. Cannot be combined with any other offer. Pre-Order items excluded. Offer ends 5/31/17.

## CUSTOM MODEL RAILROADS

Construction of Fine Scale Model Railroads

Private Layouts - Museum Exhibits - Custom Structures  
Let us build the Model Railroad of your Dreams



Quality built layouts since 1991

**www.custommodelrailroads.com**

**SUBSTATION No 9**

**NEW  
SUBSTATION  
KITS  
FROM CMR**



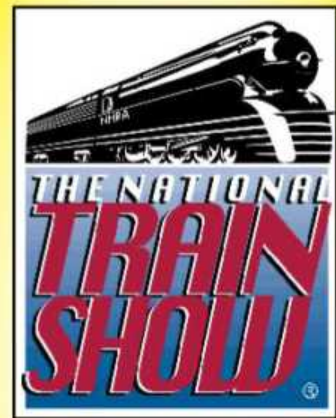
**NEW  
HO & N  
SCALE**

**410-889-0010**

Visit our website to see these and more kits from CMR

**www.custommodelrailroads.com**

**You're the kid.**



**Welcome to the  
candy store.**

**August 4-6  
Orange County  
Convention Center  
Orlando, FL**

**NationalTrainShow.org**

Sponsored by



The National  
Model  
Railroad  
Association

© 2017 NMRA

**Tired of the same worn out, low quality,  
sounds of the past?**



(Athearn GP50 Featuring WDK-ATH-2 WOWKit)

**Awesome *WOWSound* Awaits**

Get a WOWKit with everything included  
to upgrade to WOWSound

**www.  
TCDCC  
.com**



**ONE STOP SHOP**

**N, HO, O, ON30, S & G**

**SHOP ON-LINE 24/7**

**FOR YOUR FAVORITE PRODUCTS:**

ATHEARN • ATLAS • BACHMANN • BROADWAY LTD. • DIGITRAX  
INTERMOUNTAIN • KADEE • KATO • LGB • LIONEL • MAINLINE  
MANTUA • MICROTRAINS • MODEL POWER • MRC • MTH • NCE  
PECO • PIKO • PROTO • RAPIDO • SOUND TRAXX • TCS • TRAINLINE  
WALTHERS • WILLIAMS • WOODLAND SCENICS • AND MORE...

**SIGN-UP FOR OUR E-MAIL SALES**

**TRAINWORLD.com**

**1-800-541-7010**

**e-mail: ORDERS@TRAINWORLD.COM**

**751 McDONALD AVE., BROOKLYN, NY 11218**

**HUGE INVENTORY • GREAT SELECTION • FAST SHIPPING**

**10% OFF IN-STOCK  
HO, N & ON30 ITEMS**  
NO NEW RELEASES. CANNOT BE  
COMBINED WITH ANY OTHER OFFER.  
MENTION CODE WORO MRAM17  
EXPIRES 5-15-17



**We Supply the World**

AMERICA'S LARGEST  
INTERNATIONAL MAIL ORDER  
DISCOUNT TRAIN STORE



HO scale



Amherst  
Show  
report

## General Electric Tier 4 GEVo diesel locomotive.

ScaleTrains.com displayed a test model of this six-axle road unit. The Tier 4 GEVo will be decorated for Canadian National, BNSF Ry., CSX, General Electric, Norfolk Southern, and Union Pacific. Operator line models have a common body configuration with angled engine exhaust cab, walkway tread, and non-operating ditch lights. Rivet Counter

line models feature railroad-specific details and factory-applied detail parts. Direct-current HO scale Operator Line models with a 21-pin plug sell for **\$99.99**. Rivet Counter line models are priced at **\$149.99** (direct current with 21-pin plug) and **\$219.99** (with ESU LokSound Select Digital Command Control and sound decoder with "Full Throttle"). ScaleTrains.com, 844-987-2467, [www.scaletrains.com](http://www.scaletrains.com). Ken J. Johnson photo

# Plenty of variety at 2017 Amherst train show

**The 2017 Amherst** Railway Society Railroad Hobby Show was held in late January at the Eastern States Exposition Fairgrounds in West Springfield, Mass. The two-day show featured manufactur-

ers, railroad historical societies, operating layouts, vendors, and clinics.

Items on display at the show are featured on the following pages. We couldn't fit every announcement into our

print report. For more announcements and photos, visit our website at [www.ModelRailroader.com](http://www.ModelRailroader.com). Look for the show report under the "News & Reviews" link at the top of the page.

N scale



**Flatcar bridge.** The N Scale Architect has released this repurposed flatcar with photo-etched railings, two laser-cut concrete abutments, and three laser-cut wood trestle supports. The N scale kit (**\$35.95**) includes rail and road wood treadway options. The N Scale Architect, 607-746-8416, [www.thenarch.com](http://www.thenarch.com)

All scales



**Prodigy WiFi.** This device from Model Rectifier Corp. lets users of the firm's Prodigy Digital Command Control system (sold separately) run trains wirelessly with an app for Apple or Android smartphones. The Prodigy WiFi (**\$119.98**) can be used with up to eight smartphones. Model Rectifier Corp., 732-225-2100, [www.modelrec.com](http://www.modelrec.com)





## HO scale locomotives

- **Electro-Motive Division SD40-2 diesel locomotive.** CP Rail (dual flags scheme), CSX (dark blue and yellow), Kansas City Southern (*Southern Belle* scheme), Norfolk Southern (horsehead silhouette), and Union Pacific (road name and number on long hood). One road number per scheme. All-wheel drive, SoundTraxx Sound Value diesel sound package, and E-Z Mate Mark II couplers. \$209. Bachmann Trains, 215-533-1600, [www.bachmanntrains.com](http://www.bachmanntrains.com)
- **Early Baldwin Locomotive Works 2-8-8-2 steam locomotive.** Norfolk & Western: class Y-1 with 56" drivers and rectangular tender. Oregon RR & Navigation Co.: Class MC-1 with rectangular tender. Southern Pacific: Class MC-1 (Sierra version with 90-R tender, Colton version with 98-SC tender), MC-2 (Cab-Forward, one number each with 90-R and 98-SC-1 tender), AC-2 (Sport cab with 120-SC-2 tender), and AC-3 (square cab with 120-SC-4 tender). Union Pacific: Class MC-1 with rectangular tender. All models have 57" drivers unless noted. Factory painted and lettered brass model. \$2,750. The Coach Yard, [www.thecoachyard.com](http://www.thecoachyard.com)

## HO scale freight cars



- **Pennsylvania RR class X32 50-foot boxcars.** Double-door boxcar: Detroit & Mackinac; Delaware & Hudson; Detroit, Toledo & Ironton; Manufacturers Ry. Co.; Norfolk & Western; Northern Pacific; Oregon, Pacific & Eastern; Pennsylvania RR (shadow and circle keystone); Tennessee, Alabama & Georgia; Virginian Ry.; and Wabash. Single-door boxcar: Pennsylvania RR (circle and shadow keystone). Three road numbers per scheme. Injection-molded plastic models with metal wheels. \$24.95. Bowser Manufacturing Co. Inc., 570-368-2379, [www.bowser-trains.com](http://www.bowser-trains.com)

## HO scale structures

- **Spark Plug Lighthouse.** Resin kit with pewter detail parts, one-piece rock (rip-rap) base casting, optional awning, and flashing light unit. \$150. Crow

### HO scale



**American Car & Foundry 4,600-cubic-foot-capacity three-bay Center Flow covered hopper.** Athearn displayed a pre-production sample of its next Genesis series freight car, scheduled for release in December 2017. The HO scale car will be offered in seven road names and three body styles. The model will feature photo-etched running boards and 100-ton roller-bearing trucks with rotating bearing caps. A single car will retail for **\$49.98** and a three-pack will be priced at **\$147.98**. Athearn Trains, 800-338-4639, [www.athearn.com](http://www.athearn.com)

### HO scale



**Culver's restaurant.** Walthers debuted its next Cornerstone Series kit. The HO scale Culver's restaurant (**\$49.98**) features a printed drive-through menu board, factory-printed building logos and a street sign, one-piece windows with frames printed in silver, three outdoor tables with umbrellas, separate trash receptacles, and an air conditioner. Wm. K. Walthers Inc., 414-527-0770, [www.walthers.com](http://www.walthers.com)

### N scale



**60-foot heavyweight passenger cars.** Atlas showed pre-production samples of a baggage car, coach, combine, Railway Post Office, and observation car. The N scale 60-foot cars will feature separately applied diaphragms and interior details. Road names, price, and release date have yet to be announced. Atlas Model Railroad Co., 908-687-0880, [www.atlasrr.com](http://www.atlasrr.com)





HO scale

**Goldie Electric Co.** This two-building laser-cut wood kit is the latest offering from Bar Mills Scale Model Works. Goldie Electric Co. (\$134.95) has a footprint of 10" x 14" and includes resin and metal details, a forklift, and a Woodland Scenics pickup truck. The HO scale model is available direct only. Bar Mills Scale Model Works, 207-929-3400, [www.barmillsmodels.com](http://www.barmillsmodels.com)



O scale

**Independent Brand Northwest Pears 40-foot double-sheathed refrigerator car.** The Lowell Smith Signature Series has added a new paint scheme to its lineup of refrigerator cars. The custom-decorated Atlas O model features positionable ice hatches and sprung die-cast metal trucks. The O scale car sells for \$92. Lowell Smith Signature Series, [www.lowellsmith.net](http://www.lowellsmith.net)



HO scale

**Pennsylvania RR X58 class boxcars.** A new run of 50-foot boxcars is available from Tangent Scale Models. The X58 boxcar is decorated for Lehigh Valley, Conrail, Penn Central, and Pennsylvania RR. Each road name is offered in one to six road numbers; the boxcar is also available ready-to-run painted Conrail Red, PRR Freight Car Red, and PC Green but unlettered. The HO scale X58 boxcar (\$44.95) has prototype-specific details, wire grab irons and "trombone-style" uncoupling levers, and Kadon scale couplers. Tangent Scale Models, 828-279-6106, [www.tangentscalemodels.com](http://www.tangentscalemodels.com)

River Products, 401-723-0065, [www.crowriverproducts.com](http://www.crowriverproducts.com)



• **Carbone's Service Station.** Laser-cut wood kit with Tichy Train Group doors and windows, laser-cut peel-and-stick shingles, and color signs. \$65. Nick and Nora Designs, 302-229-6010, [www.nickandnoradesigns.com](http://www.nickandnoradesigns.com)

## HO scale details and accessories

• **Illuminated River Point Station Ford F-350 hi-rail trucks.** Features 14 light-emitting diodes with four different light patterns, strobe-flashing headlights and taillights, four flashing grill lights, and slick top with six flashing lights. Can be operated on 9V to 12VDC only. Available lettered for several railroads and painted white but unlettered. \$85. East Coast Circuits, 201-506-1448, [www.eastcoastcircuits.com](http://www.eastcoastcircuits.com)



• **Ford F-Series Super Duty pickup trucks.** Single- and dual-rear wheel regular cab versions. Multiple stock colors; also available with commercial, municipal, and emergency graphics. Hi-rail versions lettered for BNSF Ry., Canadian National, CSX, Norfolk Southern, and Union Pacific. \$21 to \$23 each. River Point Station, an ITI Co., 401-467-6907, [www.riverpointstation.com](http://www.riverpointstation.com)



• **53-foot tug/pilot/yacht.** Craftsman kit with laser-cut wood superstructure,





1



2



3



4



5

**1 FMC 5347 single-door boxcar.** This HO scale Master Line car is offered in seven paint schemes. It sells for **\$39.95**. Atlas Model Railroad Co., [www.atlasrr.com](http://www.atlasrr.com)

**2 59-foot cylindrical covered hopper.** Six new schemes have been added to

this Walther's Mainline HO scale model. The car retails for **\$29.98**. Wm. K. Walther's Inc., [www.walthers.com](http://www.walthers.com)

**3 Electro-Motive Division GP50.** Athearn released this HO scale Genesis series Burlington Northern diesel in four road numbers. The

model is offered in DC (**\$169.98**) and with a SoundTraxx Tsunami sound decoder (**\$269.98**). Athearn Trains, [www.athearn.com](http://www.athearn.com)

**4 Dry-Flo covered hopper.** Atlas offers this ex-BLMA N scale covered hopper in six road names (**\$32.95**).

Atlas Model Railroad Co., [www.atlasrr.com](http://www.atlasrr.com)

**5 40-foot insulated boxcar.** This N scale model (**\$36.95**) is lettered for CP Rail. The boxcar is available in two road numbers. Eastern Seaboard Models, [www.esmc.com](http://www.esmc.com)

## CHECK OUT OUR FULL SELECTION OF PREBUILT & PRELIT BUILDINGS FROM MENARDS®

For more information and to order, visit [menards.com/trains](http://menards.com/trains)

NEW!

**1:87 Scale Beverage Trucks**

Mountain Dew® (279-3976) .....	\$19.99
Pepsi® (279-3977) .....	\$19.99
Budweiser® (279-3978) .....	\$19.99

Beverage truck sold separately.

**Red Owl Store**

HO Gauge (279-5011) ..... \$69.99

- Prefit, prebuilt and ready to go!
- Lit by over 25 LED lights!
- Includes an electronic Red Owl sign and three animated roof vents.
- Complete with fully lit and decorated interior, seven figures, coin-operated horse and Jack the German Shepherd.

**Fire-Damaged Engine House**

HO Gauge (279-5006) .....	\$59.99
O Gauge (279-3092) .....	\$79.99

**Chippewa Valley Farm Supply**

HO Gauge (279-5005) .....	\$59.99
O Gauge (279-3389) .....	\$69.99

**Menards® Hobby Shop**

HO Gauge (279-5001) .....	\$59.99
O Gauge (279-2677) .....	\$79.99

**Menards® Power & Light**

HO Gauge (279-5004) .....	\$69.99
---------------------------	---------

**30-Sign Maintenance Shed**

HO Gauge (279-5009) .....	\$49.99
---------------------------	---------

**Train Station**

HO Gauge (279-5010) .....	\$69.99
---------------------------	---------

**Dakota™ Cabinet Factory**

HO Gauge (279-5002) .....	\$69.99
---------------------------	---------

**Grandpa's House**

HO Gauge (279-5007) .....	\$59.99
---------------------------	---------

ALL BUILDINGS REQUIRE A 4.5-VOLT TRANSFORMER AVAILABLE ON [MENARDS.COM/TRAINS](http://MENARDS.COM/TRAINS) SKU# 279-4061 OR SKU# 279-4062 (SOLD SEPARATELY).



## Multiple scales



**21-pin NEM digital sound decoders.** SoundTraxx offers these decoders for steam, electric, and four manufacturer-specific diesel versions. The 1-amp decoders have six function outputs and are designed to plug into models with an NEM-compliant factory-installed motherboard. The decoders measure 30.5 x 15.5 x 6.5mm and sell for **\$79.95** (Econami) and **\$109.95** (Tsunami2). SoundTraxx, 970-259-0690, [www.soundtraxx.com](http://www.soundtraxx.com)

## HO scale



**Atchison, Topeka & Santa Fe Topeka-built class Bx-94 and Bx-97 boxcars.** Moloco unveiled a new run of Santa Fe boxcars. The Bx-94 is offered in the 1989 repaint with 24" circle-cross herald, Mineral Brown with the "Super Shock Control" slogan (one road number), and red repaints (TS 12-77, 2-78, and 5-78). The Bx-97 car is available in the 1988 Mineral Brown repaint (reporting marks only, three numbers) and red repaint (TS 5-78). Each boxcar is offered in two numbers per scheme unless noted. The HO scale models sell for **\$53 each plus \$9.99 shipping** (free shipping for six or more cars) and are available direct from the manufacturer or select retailers. Moloco, [www.molocotrains.com](http://www.molocotrains.com)

## HO scale



**Greenville 7,100-cubic-foot-capacity auto parts boxcar.** ExactRail released this boxcar in new paint schemes, including Penn Central (1973 as delivered); Conrail (with New York Central reporting marks in three road numbers and Penn Central repaint); Detroit, Toledo & Ironton (1973 as delivered); Norfolk & Western (1973 as delivered); and Western Pacific (1973 as delivered, seven numbers). Each road name is offered in six numbers unless noted. The Platinum line HO scale model (**\$44.99**) has wire grab irons and brake rods, CNC machined metal wheelsets, and Kadee no. 58 couplers. ExactRail, 866-945-1701, [www.exactrail.com](http://www.exactrail.com)

resin hull, and pewter and resin detail parts. Measures 7 1/4". Waterline model, \$89.95; full-hull version, \$109.95. Sea Port Model Works, 603-926-8518, [www.seaportmodelworks.com](http://www.seaportmodelworks.com)

## N scale freight cars



• **Gunderson Rail Services 70-foot Husky-Stack well car.** Pre-production sample shown. TTX (Forward Thinking logo) and BNSF Ry. (red Burlington Northern patchout). Each road name offered in two road numbers. Die-cast metal body, body-mounted Magne-Matic couplers, separate brake hardware, and new American Steel Foundries Ride-Control trucks. Well accepts 48-foot intermodal container. \$27.90 to \$28.90. Micro-Trains Line Co., 541-535-1755, [www.micro-trains.com](http://www.micro-trains.com)

## O scale details and accessories

• **Extended metal draft-gear boxes and lids.** For nos. 804, 805, 816, and 740-series couplers. Four pairs of extended metal draft-gear boxes, lids, and lid screws. \$4.50. Kadee Quality Products Co., 541-826-3883, [www.kadee.com](http://www.kadee.com)

## Electronics/controls

• **Select Direct Micro Digital Command Control and sound decoders.** For narrow-bodied N scale diesel locomotives. Six lighting outputs. Number 73100: Retail version for retrofitting locomotives with sound and Digital Command Control produced before 2016. Number 73199: For upgrading direct-current locomotives also offered with factory ESU sound. \$109.99 each. ESU LLC, 866-591-6440, [www.esu.eu/en](http://www.esu.eu/en)

• **Loco Genie.** Wireless control board with remote. For direct-current trains. Multiple Loco Genie-equipped engines can run on the same track. No programming or addressing necessary. Includes speed, sound, direction, and lighting control. Walk-around range of 70 feet. In Digital Command Control, Loco Genie works like a standard 28-function sound decoder with wireless control. Compatible with all scales and dead-rail systems.



\$79.98. Model Rectifier Corp., 732-225-2100, [www.modelrec.com](http://www.modelrec.com)

- **Light-It decoder.** Lighting decoder with built-in white light-emitting diode (can be disabled). Works with direct current and Digital Command Control. Up to three LEDs may be controlled separately. Includes built-in resistors. Functions as National Model Railroad Association signal decoder with 18 aspects. Each output individually dimmable. 15-pack, \$99.95. NCE Corp., 585-265-0230, [www.ncedcc.com](http://www.ncedcc.com)



- **Tower-LCC.** General purpose 16-line I/O node. Features National Model Railroad Association CAN bus Layout Command Control (LCC) 16-line logic level interface. Each line may be used as an

N scale



**Milwaukee Road substation no. 12.** Custom Model Railroads has released this laser-cut acrylic kit. Substation no. 12 features tab-and-slot construction and cast insulators. The N scale building measures 7" x 4¼" x 3½" and is priced at **\$117**. Custom Model Railroads, 410-889-0010, [www.cmrtrain.com](http://www.cmrtrain.com)

 **PARAGON**  
ROLLING THUNDER

# IN STORES NOW!



- HO SCALE
- SOUND/DC/DCC
- AVAILABLE IN 12 TYPES
- **CONTACT YOUR DEALER TODAY**

## ES44AC

[WWW.BROADWAY-LIMITED.COM](http://WWW.BROADWAY-LIMITED.COM)



## HO scale




**19th century derrick car.** Turn back the clock on your model railroad with this model from Bachmann Trains. The car is lettered for Canadian Pacific, Pennsylvania Lines, U.S. Military RR, and Virginia & Truckee. The HO scale plastic model has a positionable crane. The derrick car retails for **\$59**. Bachmann Trains, 215-533-1600, [www.bachmanntrains.com](http://www.bachmanntrains.com)

input and/or an output (up to six EventIDs per line). Powered directly from LCC bus connections (requires powered LCC bus [20 ma. bus load] plus I/O current). Onboard switching regulator provides 5V power for external interface modules. Includes internal logic elements. Compatible with Java Model Railroad Interface. Dual RJ45 connectors for LCC loop through connections. Dual 10-pin I/O connectors (+5V, Gnd, and 8 data lines per connector). Four light-emitting diode display status. \$69.95. RR-CirKits Inc., 704-843-3769, [www.rr-cirkits.com](http://www.rr-cirkits.com)

## Scratchbuilding supplies

- **Double-sided permanent adhesive transfer tape.** For bonding flat, smooth surfaces like wall sections or roofing material. Adhesive sets permanently in one hour. Can be cut with scissors. 3 3/4" x 12" sheets. Four-pack, \$9.99. Chooch Enterprises, 425-273-4794, [www.choochenterprises.com](http://www.choochenterprises.com)



- **Shake roof sheets.** Factory-weathered flexible vinyl. Includes roof cap material and double-sided adhesive transfer tape. Can be cut with scissors. Small (HO and N scales), medium (HO), and large (HO and O scales). Sheets measure 3 3/4" x 12". \$12.99. Chooch Enterprises, 425-273-4794, [www.choochenterprises.com](http://www.choochenterprises.com) 

## N scale



### 4-4-0 American steam

**locomotive.** Model Rectifier Corp. offers this locomotive decorated for Baltimore & Ohio; Atlantic Coast Line; Boston & Maine; Chicago, Burlington & Quincy; Chicago & North Western; and four other railroads. The 4-4-0 American has a five-pole Mashima motor with flywheel; a metal boiler, chassis, and cylinders; and separately applied metal handrails. Direct-current N scale models are priced at **\$269.98**. Versions with Digital Command Control and sound list for **\$339.98**. Model Rectifier Corp., 732-225-2100, [www.modelrec.com](http://www.modelrec.com)

## Large scale

### WOW501 WOWSound large scale sound decoder.

Train Control Systems offers this decoder for steam (no. 1600 with Version 4 of WOWSteam) and diesel (no. 1605 with Version 4 of WOWDiesel) locomotives. The large scale decoder features 5A motor output, 8A overall current rating, a built-in Keep Alive capacitor, screw terminals and mounting holes, two audio amplifiers, two speaker outputs, six 1A programmable light functions, and Audio Assist. The decoders measure 3" x 1.4" x 5" and sell for **\$199.95** each. Train Control Systems, 215-453-9145, [www.tcsdcc.com](http://www.tcsdcc.com)



## CORRECTION

**The Philadelphia Chapter** of the Pennsylvania RR Technical & Historical Society commissioned and owns the painting of a steam switcher on the Delaware Avenue Branch, shown on page 66 of *Model Railroad Planning 2017*. Prints are sold at artist Pete Lerro's website, [www.lerroproductions.com](http://www.lerroproductions.com). A correction to the story's track plan is in our track plan database at [www.ModelRailroader.com](http://www.ModelRailroader.com).



There may be some other well known tourist attractions in Florida, but model railroaders in all scales from points all over the world know **READY TO ROLL**

is their #1 destination because of our extensive in store inventory while providing the best possible customer service we can, honest pricing, dependability & reliability, year-in and year-out since 1990 in this same building. If you haven't checked us out yet, give us a try to see what the excitement is about. We'll say "Hi!" when you stop by or watch for an e-mail - wait for a call.



Call **TODAY** to order! 1-800-466-3131

## Storage Boxes

Foam Lined  
Self Closing  
Fully Assembled



**HO Scale**  
Holds 16 Cars - **\$25.95**  
**N Scale**  
Holds 48 Cars - **\$25.95**  
**Tote Bags**  
**\$31.95**  
Plus S&H

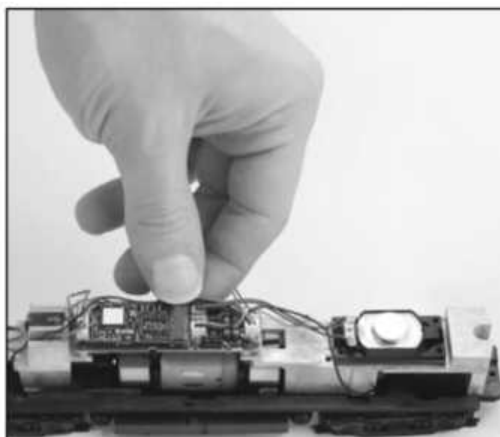
AXIAN TECHNOLOGY

623-580-0800

fax: 623-580-8008

21622 N. 14th Ave. • Phoenix, AZ 85027-2806

[www.axiantech.com](http://www.axiantech.com)



## Easy Installation Amazing Sounds

Tsunami<sup>2</sup>

Tsunami2 21PNEM digital sound decoders simply plug into models equipped with a 21-pin connector. With this decoder you can have your model up and running with top of the line sound technology in as little as 5 minutes!

For Bowser, InterMountain, Atlas, Scale Trains, Rapido, Fox Valley Models, and other manufacturers

**SOUNDTRAXX™**  
[www.soundtraxx.com](http://www.soundtraxx.com)



Scan the code to watch the complete install now!  
[www.soundtraxx.com/video](http://www.soundtraxx.com/video)

## NICHOLAS SMITH TRAINS

*Model Railroading For All Seasons®*

VISIT OUR WEBSITE, OR GIVE US A CALL

For orders only: 1-800-848-9119

Product Info (610) 353-8585 • Fax (610) 359-9846

USA Shipping - \$0.00-\$500.00 - \$13.00; \$500.01-\$1100.00 - \$17.00

MINIMUM ORDER: \$30.00 • 15% Restocking Fee on Returns

No P.O. Boxes Please; PA Residents Add 6% Sales Tax

### BRAND NEW!! LIONEL HO

LIO658018 HO Polar Express Locomotive w.Dcc...\$209.99  
LIO658019 HO Polar Express 3 Pack Passenger...\$109.99  
LIO658023 HO Polar Express Hot Chocolate Pass...\$37.99  
LIO658024 HO Polar Express Passenger Car...\$37.99

### Bachmann N Locomotives

BAC50551 UP 0-6-0 Sloped Tender...\$49.99  
BAC51458 Southern Baldwin 4-6-0 DCC...\$119.99  
BAC51459 NKP Baldwin 4-6-0 DCC...\$119.99  
BAC51460 C&O Baldwin 4-6-0 DCC...\$119.99  
BAC51461 B&O Baldwin 4-6-0 DCC...\$119.99  
BAC60051 Bethlehem Steel Plymouth Switcher...\$33.99  
BAC61251 UP GP50...\$29.99  
BAC61451 AT&SF H16-44...\$25.00  
BAC61452 B&O H16-44...\$29.99  
BAC61455 N&W H16-44...\$29.99  
BAC61456 Southern H16-44...\$29.99  
BAC61651 UP NW2 Switcher w. DCC...\$78.99  
BAC61652 GN NW2 Switcher w. DCC...\$78.99  
BAC61653 PRR NW2 Switcher w. DCC...\$78.99  
BAC61654 NYC NW2 Switcher w. DCC...\$78.99  
BAC61655 Unlettered Yellow NW2 Switcher DCC...\$78.99  
BAC62455 NYC GP7 DCC...\$79.99  
BAC62458 D&RGW GP7 DCC...\$84.99  
BAC62459 CNJ GP7 DCC...\$84.99  
BAC62460 Rock Island GP7 DCC...\$84.99  
BAC62995 PTC PCC Trolley...\$29.99  
BAC62997 SEPTA PCC Trolley...\$33.99  
BAC63151 WM S4 Diesel w. DCC...\$79.99  
BAC63152 SP S4 Diesel w. DCC...\$79.99  
BAC63153 NYC/P&LE S4 Diesel w. DCC...\$79.99  
BAC63154 ATSF S4 Diesel w. DCC...\$79.99  
BAC63155 UP S4 Diesel w. DCC...\$79.99  
BAC63751 B&O F7 A w. DCC...\$66.99  
BAC63851 B&O F7 B w. DCC...\$66.99  
BAC63752 GN F7 A w. DCC...\$66.99  
BAC63852 GN F7 B w. DCC...\$66.99  
BAC63753 NS F7 A w. DCC...\$66.99  
BAC63853 NS F7 B w. DCC...\$66.99  
BAC63754 EL F7 A w. DCC...\$66.99  
BAC63854 EL F7 B w. DCC...\$66.99  
BAC63755 SF Warbonnet F7 A w. DCC...\$66.99  
BAC63855 SF Warbonnet F7 B w. DCC...\$66.99  
BAC81466 B&O Doodlebug & Passenger Car...\$119.99  
BAC81467 B&M Doodlebug & Passenger Car...\$119.99  
BAC81468 MA&PA Doodlebug & Passenger Car...\$119.99  
BAC81470 NYC Doodlebug & Passenger Car...\$119.99

### Bachmann N Rolling Stock & Accessories

BAC13751 SF 72' Coach w. Lights...\$44.99  
BAC13752 PRR 72' Coach w. Lights...\$44.99  
BAC13753 B&O 72' Coach w. Lights...\$44.99  
BAC13754 NYC 72' Coach w. Lights...\$44.99  
BAC13755 UP 72' Coach w. Lights...\$44.99  
BAC13802 PRR Observation w. Lights...\$57.99  
BAC13803 B&O Observation w. Lights...\$57.99  
BAC13804 NYC Observation w. Lights...\$57.99  
BAC13805 UP Observation w. Lights...\$57.99  
BAC14161 Amtrak Amfleet Pv II Café...\$10.00  
BAC14162 Amtrak Amfleet Pv III Café...\$10.00  
BAC14163 Amtrak Amfleet Pv IV Café...\$10.00  
BAC14164 Amtrak Amfleet Acela Regional Café...\$10.00  
BAC17553 KCS 56' 4 Bay Center Flow Hopper...\$17.99  
BAC17554 CSX 56' 4 Bay Center Flow Hopper...\$17.99  
BAC17555 CP Rail 56' 4 Bay Center Flow Hopper...\$17.99  
BAC19661 MC 50'6" ACF Boxcar...\$17.99  
BAC19662 PC 50'6" ACF Boxcar...\$17.99

Hours: M,W,F 10-9 • T & Th 10-7 • Sat 10-5 •

Sun 10-5 (Nov. 1st-Dec. 24th)

2343 West Chester Pike • Broomall, PA 19008

(610) 353-8585 • ESTABLISHED 1909

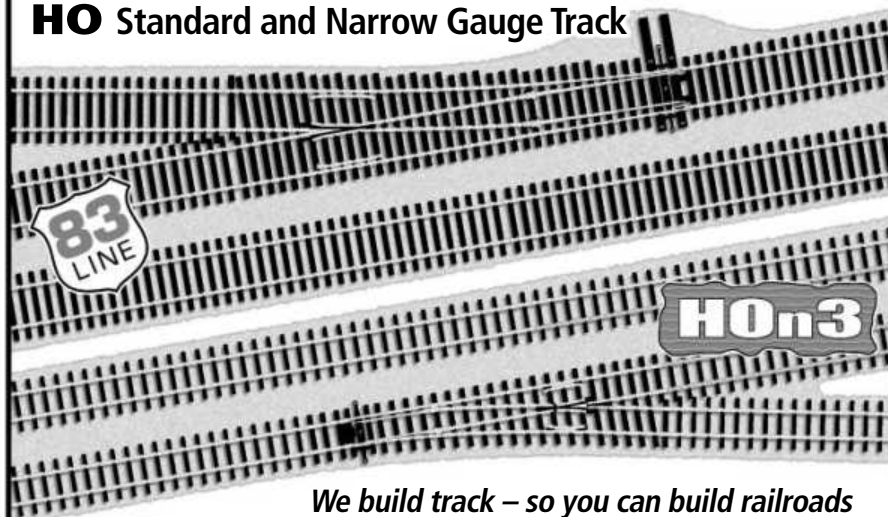
Prices Subject to Change Without Notice; Not Responsible For Typographical Errors

[www.nicholassmithtrains.com](http://www.nicholassmithtrains.com)

Model Railroader May 2017

## PERFECT PARTNERS

**HO** Standard and Narrow Gauge Track



*We build track – so you can build railroads*

**PECO STREAMLINE**

PRITCHARD PATENT PRODUCT CO. LTD, ENGLAND  
visit us at [www.peco-uk.com](http://www.peco-uk.com)





Though its TILX reporting marks brand this tank car as belonging to Trinity Industries Leasing Co., the lettering on the side clearly denotes who it's leased by and what it typically carries. The lack of a hazmat placard tells us it's currently empty. Thomas E. Hoffmann photo

## Spotting differences in tank cars

**Q** I'm seeking information on types of modern day tank cars – specifically, the differences in tanks used for corn syrup as opposed to petroleum products. I'd like to avoid the embarrassment of spotting the wrong type tank car at a given industry. Thanks.

*Richard Anthony, Roanoke, Va.*

**A** Tank cars often carry substances like food ingredients or volatile chemicals that at all costs must be protected from contamination. Therefore, they almost always spend their entire lives in dedicated service, carrying a single commodity from A to B, then returning empty. You'll never see a car carrying crude oil one trip and corn oil the next.

That's part of the reason few tank cars are owned by the railroads themselves. Instead, large industries, like food processor Cargill (reporting marks CMFX) or chemical company DuPont (DUPX), own their own fleets. Industries that don't want to maintain their own fleets lease them long-term from companies like Trinity Leasing (TILX) or Union Tank Car Co. (ULTX). (Note that all those reporting marks end in X; that indicates a car owned by a company other than a railroad.)

While experience may teach you to spot the subtle differences between types of tank cars, it's easier to go by the markings on the car. Tanks are almost always stenciled with the commodity they carry, whether it be refined oil, waste oil, corn oil, corn syrup, kaolin slurry, liquefied natural gas, liquid sulfur, sulfuric acid, or whatever. Cars that carry a dangerous cargo, like oil, acid, or flammable gas, will have another indicator, the hazmat placard. This diamond-shaped sign will have a number in the middle that denotes the cargo carried; 1203 is gasoline, for example. You can look them up online at [en.wikipedia.org/wiki/Lists\\_of\\_UN\\_numbers](http://en.wikipedia.org/wiki/Lists_of_UN_numbers).

So if you have an industry on your layout that calls for tank car service, get one that's lettered for the commodity to be carried and you can be assured it's the right kind of car.

That's the answer if you power your layout with direct current. If you're using Digital Command Control, a bigger gauge bus wire will help, but the best solution for voltage drop is power boosters employed at strategic locations around your railroad.

**Q** I'm trying to find an MR back issue from a number of years ago that featured an article on modeling the Southern Ry.'s Murphy branch. The article included a track plan. Is this issue available, and if so, how would I go about ordering a copy?

*Daryl Blake, Box Hill, VIC, Australia*

**A** You're right, that really was a number of years ago. More than 30 years, actually. The Southern Ry.'s Murphy Branch was published in our October 1984 issue. If you don't have that magazine in your back issue stash, you can read it online in our All-Access Archive, which includes every issue of MR since Vol. 1, No. 1. You can find the archive here: [www.ModelRailroader.com/AllAccess](http://www.ModelRailroader.com/AllAccess)

**Q** After about 40 years out of the hobby, a happy accident brought me back to model railroading. Having worked with the machining trades most of my working life, I've decided to start with an HO scale module of a locomotive backshop. I always wanted to model a first-generation diesel shop with locomotives in various stages of overhaul, especially with the long hood removed and all the internals exposed. Did any manufacture ever offer a non-operational locomotive as I describe, in HO? Prior to writing this note, I searched the web to see if anyone offers an EMD 567 or Alco 244/251 prime mover in HO scale. I also plan to equip the shop with a wheel lathe and a boring mill, but can readily scratchbuild these machine tools.

*William Ottney, Smiths Falls, Ont.*

**A** Walthers devotes an entire section of its catalog to locomotive servicing and backshop structures and details. The company offers an HO scale EMD 567 prime mover kit for \$9.98 (part no. 933-3119). I've never encountered a model or kit of any other prime mover, though. Nor am I aware of anyone that offers a locomotive model with the hood removed and interior details showing. If you scratchbuild one, that prime mover

**Q** I'm wondering what's the best gauge wire to use as a bus wire for a very large layout of 6 x 15 meters (20 x 50 feet)?

*Terry Vincent, Australia*

**A** As you may know, the higher resistance is in a wire, the more the voltage

through it drops. The longer a wire is, the higher the resistance, so voltage drop is a serious issue in a layout your size. To minimize resistance in your power bus, I'd recommend using 14, 12, or even 10 AWG for your main power bus. You can step down from there to 16 or 18 AWG for individual power districts.



model would be a great place to start. Check out Marty McGuirk's book *The Model Railroader's Guide to Locomotive Servicing Terminals* (Kalmbach Publishing, 2002) for more useful info.

**Q Is it OK to sand down the top dirty layer of a track cleaning block (like a Bright Boy) and keep using it?**

Nathan Penn

**A** I don't see a problem with doing that. Since the Bright Boy is itself abrasive, you might find it more efficient to use a small wire brush. But track cleaning blocks will pick up contaminants and lose their flexibility over time, plus they don't cost much, so replacing them on a regular basis is probably your best bet.

**Q Are there areas of the U.S. where gray track ballast predominates? Living in the U.K., I'm too far away to make a survey for myself.**

Don Lyons, Sudbury, U.K.

**A** Gray is a fairly common color for track ballast. A few railroads are known for their special ballast colors (the most well-known being the Chicago & North Western's "Pink Lady" granite), and in the old days, cheap materials such as cinders or mine tailings might be found on lesser-used tracks and sidings. But other than that, most railroads used whatever kind of hard stone was available in the largest quantities for the lowest price. So while color may vary around the U.S. – you'll see more tan shades out west, for instance – most ballast in the U.S. is some shade of gray, be it granite, limestone, basalt, or some other stone. Check out prototype photos or official engineering manuals for the line you're modeling if you want to be absolutely correct, but in general, you won't be far off using a medium gray for most main lines east of the Mississippi River.

**Q I'd like to know which passenger trains the Pennsylvania RR's T1 4-4-4-4 Duplex regularly pulled.**

Steven Ward Jr., Slaughter, La.

**A** Rob McGonigal, editor of *Classic Trains* magazine and our in-house Pennsy expert, responds: "Fleet production of the T1 began just as passenger diesels started to arrive on the PRR, so they were never (or only very briefly) regular power on the top trains like the



Because the class T1 4-4-4-4 arrived on the Pennsylvania RR about the same time as passenger diesels, the articulated steam engines saw service mostly on lower-tier trains. One such was the Chicago-to-New-York *Liberty Limited*, seen here stopped for engine servicing at Fort Wayne, Ind., in 1949. Robert A. Hadley photo

*Broadway Limited*. I do recall seeing multiple photos of T1s on the *Manhattan Limited*, which was kind of a third-rate NYC-to-Chicago train."

In the photo files of the David P. Morgan Memorial Library, I found a few more pictures of T1s heading up heavy-weight passenger consists, but they were either early test runs or second- to third-rank trains like the *Liberty Limited* (pictured above) and the *Golden Arrow*. Though their Art Deco-influenced streamlined prows would look great on your layout heading up a crack streamliner, on the prototype, they were more often found pulling secondary trains.

**Q Really like the magazine. However, it would be nice if you would publish more articles about S scale.**

Oakley Warren, Wyandotte, Okla.

**A** We agree. However, with the exception of project stories, the majority of our articles are contributed by our readers, the modelers themselves. So few modelers work in S scale that we get only a few such article submissions a year – and those are usually from the same handful of contributors. We'd love to have more on S, O, G, N, even Z scale. If you model in S scale, consider contributing a how-to or layout visit on your own railroad. We'd be glad to look at it.

However, if you take a closer look, you may find that we have more articles relevant to S scale modeling than you

think, even if they aren't strictly about S scale. Prototype drawings, scenery articles, stories on operation, scratch-building articles, painting and weathering tips, even track plans that can be scaled to your size – there's something to be gained in these pages no matter what scale you model in.

**Q In the February installment of Ask MR, a response to a question from Dick Walker of London, Ont., identified the compound  $Pb_3O_4$  or lead (II, IV) oxide as "red lead or cinnabar." As a geologist, I feel the need to point out that while "red lead" is a valid common-use name for the compound in question, cinnabar actually refers to a different mineral:  $HgS$  or mercury (II) sulfide. The correct mineral name for  $Pb_3O_4$  is, in fact, minium, which as mentioned in the February column was also the old Latin name for the compound. It's somewhat easy to confuse minium and cinnabar (both have similar density and hardness in addition to being red in color and quite toxic to humans).**

John Christoph, Tempe, Ariz.

**A** It's even easier to confuse them if you believe everything you read on the internet. As the Romans who named minium would say, mea culpa.

Send questions and tips to associate editor Steven Otte at [AskMR@MRmag.com](mailto:AskMR@MRmag.com).



# Horseshoe curves work better in N scale

**Caliente, Calif.**, is a little town on the Union Pacific between Bakersfield and Tehachapi. Fans of the railroad's Tehachapi Pass know Caliente for its horseshoe curve; the rest of the world likely has never heard of it. If you're modeling Tehachapi Pass, as I am, Caliente will probably be high on your list of places to include, right up there with the famed loop.

The horseshoe curve at Caliente is typical of such curves, often found on mountain railroads. A line will follow a river or creek upstream, then cross the stream, reverse direction, and continue climbing on the opposite bank. Back in the 1870s, the Southern Pacific followed Caliente Creek from the San Joaquin Valley up into the mountains. At Caliente, the railroad crossed the creek, doubled back on itself, eventually wound its way over to the Tehachapi Creek canyon, and topped the mountains at the town of Tehachapi.

What does this discussion have to do with N scale? Well, for one thing, a horseshoe curve in N scale has some design advantages over HO, assuming we're looking at a typical basement space, and it's more than just a matter of N scale's smaller size. It has to do with the size of the trains relative to the size of the operators running them.

On layouts built in any scale, we often need return curves at the ends of peninsulas. Such a curve can be viewed from the outside (as is the case with the model of Caliente at the HO scale La Mesa Club in the San Diego Model Railroad Museum), but a horseshoe curve can also be viewed from the inside. That's where I want to be, because that's where I most enjoy watching trains



"Caliente" is a Spanish word for "hot," and it's a hot spot on Jim Kelly's N scale layout. Jim talks about the advantages of N scale in planning a mountain railroad. Jim Kelly photo

at Caliente in real life. And that's where N scale's planning advantage comes in.

**The N scale advantage.** My 18"-minimum-radius curves give me a 3-foot diameter half-circle return curve, which I placed at the end of a 30"-wide aisle. The entire curve scene requires only 4 feet of width and gives me enough space to model the features I'm really interested in at the curve itself while allowing me to minimize the space given to the trackage leading to it.

Building the same scene in HO using roughly equivalent 33" minimum-radius curves would give you a curve 5½ feet across, a scene at least 6½ feet wide, and either more layout depth along the sides or a wider aisle than you'd probably want unless you're building a very large home or club layout. Since the trains enter this alcove on one side and come out on the other, the aisle can be a little narrower, as you don't need room for operators to pass each other.

In N scale I can have my horseshoe curve as well as

more layout on the far side of the backdrop in less space than the curve alone would require in HO. My high backdrop completely isolates the rest of the layout for a wrap-around effect.

## A stereophonic valley.

I enjoy being able to stand inside the horseshoe, particularly as the track is climbing the whole way. The lead locomotives are on my right, the caboose is 2" lower and on my left, and in the middle are the mid-train helpers. This is the way I most enjoyed viewing the prototype, and it brings back fond memories.


The experience will be even better once I have more locomotives equipped with sound so I can have diesels rumbling in each ear. Jim FitzGerald, who introduced me to Tehachapi Pass and Caliente back in 1979, lik-

ened the experience in the Caliente Creek Valley to railfanning in stereo.

**Pros and cons.** On a layout set in the mountains, turnback curves are scenic assets that help us gain longer mainline runs. On prairie railroads, curves are usually a design challenge necessitated by the fact that we've come to the end of the basement.

Why this particular curve? There's some neat stuff at Caliente – highways, a grade

crossing, and a post office. Throw in the confluence of Caliente and Tehachapi creeks, and a couple of bridges, and it's pretty darn interesting for a little town in the middle of nowhere. For me the history of the place and my memories make it even more meaningful.

I love having Caliente just a few steps away in my basement. 



**ON A LAYOUT SET IN THE MOUNTAINS, TURNBACK CURVES ARE SCENIC ASSETS THAT HELP US GAIN LONGER MAINLINE RUNS. - JIM**



**SHOWCASE-EXPRESS**  
Wall to Wall Expandable Display Case  
Case Size Available: Z, N, HO, S, O, G, #1 & Standard Gauge  
Lighting Kits and Backgrounds Available  
Join Top to Bottom  
or End to End 714-842-0672  
www.SHOWCASE-EXPRESS.COM

**ANE MODEL**  
LD101 DC / DCC dual mode command station  
www.anemodel.com

**Styrene strips, sheets and shapes for scratchbuilding and model detailing.**  
At your favorite hobby retailer  
**evergreen** scale models  
Call or write for free product information  
65 E Bradrock Dr, Des Plaines, IL 60018  
Toll-free: 877-376-9099 Fax: 847-813-6330  
www.EvergreenScaleModels.com

**MSL**  
www.modellbahnshop-lippe.com  
First class online shopping  
Your specialist for European models  
tax free (up to \$800)  
29 \$ shipping flat Express Saver UPS  
BEMO FLEISCHMANN Roco märklin  
modellbahnshop-lippe • 32760 Detmold • Leonardo-Da-Vinci-Weg 8 • kundenservice@mail.modellbahnshop-lippe.com

**From first train set to railroad empire...**

**NCE PRO CAB #5240010**

Our deluxe Pro Cab™ provides the most user-friendly access to all DCC system features. You'll spend less time pushing buttons and more time running trains! Simple menus on the easy-to-read backlit LCD display will guide you through the most advanced operations with no fuss. Carefully placed controls make controlling speed and functions feel like second nature. Rediscover the fun with a Pro Cab from NCE!

*Our complete line of DCC products grows with you!*

**NCE** The Power of DCC  
**See your dealer or visit ncedcc.com**  
NCE CORPORATION • 82 EAST MAIN ST. • WEBSTER, NY 14580 • 585.265.0230





## Replace warped handrails on an HO scale diesel

Cody Grivno used a Smokey Valley Railroad Products kit to replace the plastic handrails and stanchions on this HO scale Athearn Ready-to-Roll locomotive. The inset photo shows how the plastic stanchions faded and warped after 10 years on the layout. Bill Zuback photos



**When we built** our HO scale Wisconsin & Southern project layout in 2007 we purchased an Athearn GP40-2 diesel locomotive in WSOR colors. The Ready-to-Roll model featured Celcon handrails and stanchions, which were a big step up from the formed-metal stanchions and steel handrails then used on Athearn "blue box" locomotive kits.

In the following years, the color of the plastic handrails started to fade. Then the stanchions began to warp and the

handrails started to pull away from the model. It looked as if the locomotive sideswiped a freight car. We set the model aside until repairs could be made.

Fortunately, I remembered that Smokey Valley Railroad Products produces brass stanchions and handrail kits for an assortment of HO scale locomotives. Kit no. 30 is designed for Athearn GP38-2 and GP40-2 diesel locomotives. The kit includes stanchions and formed brass handrail pieces.

There are a few caveats with the kit. First, it was designed for Athearn Blue Box kit locomotives. Some modifications were necessary when adding the stanchions to this Ready-to-Roll model, which I'll cover in step 3.

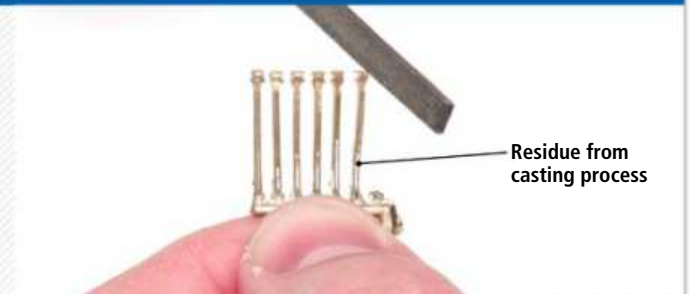
Also, some tweaking of the handrail sections may be necessary. The handrails are formed into their basic shape, but a little fine tuning with smooth- and serrated-jaw needlenose pliers makes the handrails look a lot better.

### STEP 1 PREPPING THE MODEL

Keep beveled edge of no. 17 blade against model to avoid gouging plastic



**When I first noticed** the plastic stanchions and handrails warping, I tried to fix the problem by gluing the mounting pins at the bottom of each stanchion and at the ends of the handrails into their corresponding holes using Loctite's Plastics Bonding System. Fortunately, I was still able to remove the one-piece handrail and stanchion assemblies with a no. 17 blade. I rocked the blade until each pin



released from its hole. I was careful not to shave off the plastic pins, as I needed the holes open for the new castings.

Some of the replacement cast brass stanchions had flash along the edges. I removed the excess metal using jeweler's files and sanding sticks. Do this with a light touch, as the castings are soft and bend easily. If a stanchion is bent, straighten it with smooth-jaw needlenose pliers.



**STEP 1 (CONT'D)**

Gloves keep skin oils off brass castings



Once I had the flash removed from the stanchions, I soaked the brass parts in white vinegar for about 15 minutes. This removed the casting residue and lightly etched the metal.

I washed the stanchions in warm water with dish soap added. Then I rinsed the castings and let them air dry. I cut each stanchion from the part tree in preparation for painting and priming.

**STEP 2 PRIMING AND PAINTING**

Alligator clip jig



Insignia Red, Model Master no. 4714



**This handy homemade jig** with alligator clips across the top proved the ideal tool for painting stanchions. Each stanchion has a pin at the base that fits into a hole in the locomotive shell. The pins fit perfectly in the alligator clips. Once I had the jig loaded, I sprayed the stanchions with Rust-Oleum Painter's Touch 2X Flat Gray Primer (no. 249088). This has become my go-to spray-paint primer, as it's compatible with metal, plastic, and wood and doesn't fill in fine details. I let the primer dry for 24 hours, the factory-recommended drying time, before proceeding.

The biggest concern I had about replacing the stanchions was finding a color that matched Athearn's Wisconsin & Southern red. Fortunately, Model Master no. 4714 Insignia Red, when applied over the Rust-Oleum Flat Gray Primer, proved an almost perfect match.

**STEP 3 INSTALLATION**

Handrail section 1

Handrail section 2

Handrail section 3



Fine-tune bends with needlenose pliers

**I started installation** by attaching the stanchions on the engineer's side of the long hood with medium-viscosity cyanoacrylate adhesive (CA). I made sure the stanchions were parallel with the edges of the hood doors.

Then I added the handrails. The Smokey Valley kit includes three pieces of brass wire that need to be trimmed to length. I used smooth- and serrated-jaw needlenose pliers to fine tune the bends where the handrail goes up to the cab and down the stepwell. I used CA to secure the handrails to the stanchions.

Next, I brush-painted the brass handrails with Model Master Reefer Gray (no. 4886), a close match to the Rust-Oleum Primer. Once the gray dried, I brush-painted the handrails Insignia Red and Model Master Reefer White (no. 4873) as shown at right.

Prime handrails with Reefer Gray before applying Insignia Red and Reefer White





## STEP 3 INSTALLATION (CONT'D)

I worked my way around the rest of the locomotive using the stanchions first, handrails second installation pattern. I had to make a few modifications along the way. First, I removed the L bracket on the back of the eight tall stanchions on the brakeman's side of the long hood so they would seat tight against the walkway duct.

Second, I shortened the two deck-mounted stanchions on the front and rear of the locomotive so they'd be the same height as the pilot-mounted stanchions.

I also added a Z bend in the handrails on the front and rear of the locomotive, as the deck-mounted stanchions are slightly forward of the pilot-mounted stanchions.

Before I discarded the plastic handrails, I cut off the molded chain that spans the two deck-mounted stanchions. I attached it to the brass stanchions with CA.

Finally, I filled the two holes on the front and rear pilots where the plastic handrails used to attach with .025" styrene rod. Then I painted the plugged holes with Model Master no. 4887 Grimy Black so these areas would blend in with the rest of the pilot.

With that, the handrail installation was complete. It took about two days, working on and off, to install the handrails. Now Wisconsin & Southern no. 3801 is ready to go back into service. 



Complete Train Control

# Introducing the **EVOLUTION**<sup>TM</sup>

## The next Evolution in Complete Train Control<sup>®</sup>

- Premium Advanced 5/8 Amp Starter Sets.
- Starter sets are available as standard tethered or duplex radio.
- The system features a DCS210 Advanced Command Station, DT500 series throttle, and includes a power supply to make getting started easier than ever.
- The DT500 series throttles can be purchased separately from the new Starter Set.

Find out more @ [www.digitrax.com](http://www.digitrax.com)



### Evolution (shown) | \$450 MSRP

Standard Set Includes: DCS210 Advanced Command Station, DT500 Advanced Super Throttle, UP5 Universal Panel, PS615 power supply, and a LT1 LocoNet Tester.

### Evolution Duplex | \$660 MSRP

Duplex Set Includes: DCS210 Advanced Command Station, DT500D Advanced Duplex Throttle, UR92 Universal Panel, PS615 power supply, and a LT1 LocoNet Tester.



**ATTAINABLE EXCELLENCE**

**BAR MILLS MODELS**

[www.barmillsmodels.com](http://www.barmillsmodels.com)

**HAWKINS RAIL**  
**38 YEARS OF SERVICE**

- GRAIN IS MOVING AT HAWKINS RAIL! -

See 130 car unit grain train running on the in-store layout. Many out of production items from estates. Providing same day shipment for 38 years! Call Jack Hawkins at 765-742-5577

See You at the UPHS Convention  
 3501 Union St., Suite 6. *Everything for the serious modeler.*  
 Hours: Mon-Fri 12-5, Sat 10-5  
 Closed Sun. Evenings by appointment.  
 ALL MODELS SUBJECT TO PRIOR SALE.

WE DO NOT HAVE A CATALOG. We ask that you call us or send us your want list with SSAE. We will advise you of the price, availability, and shipping charges. International shipments made only to countries accepting insured mail. We have no minimum order. Personal check orders are held 4 weeks. MASTERCARD and VISA accepted. Sorry, collect calls are not accepted, but feel free to call with your railroad questions, model or prototype.

**HAWKINS RAIL SERVICES**  
 Mail to:  
 P.O. BOX 6808  
 LAFAYETTE, IN 47903  
 PHONE: 765-742-5577

**TRAINSHOW.COM**

**FOR INFO CONTACT:**  
 280 Carlton Dr, Carol Stream, IL 60188  
 (630)-290-1962 • [Info@TrainShow.com](mailto:Info@TrainShow.com)

 <b>Great Train Show</b> Saturday & Sunday 10am - 4pm July 8-9 Pomona, CA Fairplex July 22-23 Belleville, IL Belle-Clair Fairgrounds	 <b>DuPage County Fairgrounds</b> 930am-3pm County Farm & Manchester, Wheaton, IL 60187 Largest Monthly Train Show in the US <table border="1"> <tr> <td>Apr 9</td> <td>May 7</td> <td>Jun 11</td> </tr> <tr> <td>Aug 13</td> <td>Sep 10</td> <td>Oct 8</td> </tr> </table>	Apr 9	May 7	Jun 11	Aug 13	Sep 10	Oct 8	 <b>Edison Expo Center</b> Saturday & Sunday 10am - 4pm March 18-19 • Edison, NJ New Jersey Expo Center March 25-26 • Wilmington, MA Shriners Auditorium April 1-2 • Rochester, NY Rochester Dome Arena July 22-23 • Monroeville, PA Monroeville Convention Center
Apr 9	May 7	Jun 11						
Aug 13	Sep 10	Oct 8						

**Tortoise**

For 25 Years, Simply...  
**The BEST!**  
**Slow Motion Switch Machine**

**MADE IN THE USA**

**800-6000 \$21.95**  
 6006 6-PACK \$126.00  
 6012 12-PACK \$245.00

- Enclosed Gear Drive Mechanism (NOT a Screw-Drive Machine!)
- Simple Mounting - All Linkage Included!
- 2 Sets SPDT Auxiliary Contacts

AT YOUR LOCAL HOBBY SHOP OR DIRECT  
 INCLUDE \$8.00 FOR SHIPPING & HANDLING

Send SSAE for more info or \$8.00 for complete 60 page Catalog & Application Book to:  
**CIRCUITRON**  
 211 RocBaar Dr., Romeoville, IL 60446-1163

**FREE ADMISSION**  
 Donations Welcome

**Arkansas RAILROAD MUSEUM**  
*Featuring Engine 819*

Steam locomotive 819, the last 4-8-4 Northern built in Pine Bluff, and the 1909 Baldwin-built 336, are both on the National Register of Historic Places. We have a number of rare diesel locomotives, a complete steam wrecker train, cabooses, a snow plow and other cars of an era gone by, plus many displays of railroad memorabilia.

**OPEN WEEKDAYS & SATURDAYS 9:00AM - 2:00PM**  
 1700 Port Road, Pine Bluff 71601  
**LOCATED JUST OFF U.S. HIGHWAY 65B**  
 Call 870-535-8819 For a special tour  
[www.arkansasrailroadmuseum.org](http://www.arkansasrailroadmuseum.org)

**Like us on Facebook!**

**Model Railroader MAGAZINE**

[www.facebook.com/ModelRailroader](http://www.facebook.com/ModelRailroader)

**BENCHWORK in a HURRY**

**Use Our Simple Modular System**  
 You Design Any Size Layout  
 For Any Gauge Track  
 We do the Woodworking  
 Easy to Assemble

**Sievers BENCHWORK**  
 PO Box 100  
 Washington Island, WI 54246  
 920-847-2264  
[www.sieversbenchwork.com](http://www.sieversbenchwork.com)





# Upgrading streamlined passenger cars

Cleaning crews are at work inside as mechanics on the ground give the trains a last check before their morning departure. V.S. Roseman shares tips for upgrading Walther's Mainline and other passenger cars to improve appearance and operation.

Detail kits make it easier to bring your models to the next level

By **V.S. Roseman** • Photos by the author

**T**oday, you can make an HO scale streamlined passenger train from a wide variety of state-of-the-art plastic models as easily as placing the cars on your layout. These passenger cars come ready-to-run and are decorated in a variety of roadnames and color schemes.

However, most of the less expensive passenger car models come with only basic details. Walther's offers an affordable selection of Budd prototype streamlined passenger cars in its Mainline series. These completely assembled full-length cars will negotiate 18" radius

curves, come with interiors, and have sprung diaphragms and metal wheels. In addition, the cars are designed to accept easy-to-install upgrade kits that modelers can add as time or budget permits.

The Walther's 910-220 Interior Detailing Kit has a light-emitting diode (LED) lighting strip, formed stainless steel electrical contacts, and die-cast metal trucks with blackened metal wheels. This kit has body-mounted extra-length coupler drawbars that still permit operation on 18" radius curves.

Exterior detail kit 910-200 has pre-formed stainless steel handrails for one car plus standard length coupler draw-

bars for tighter coupling (these require 24" minimum radius curves).

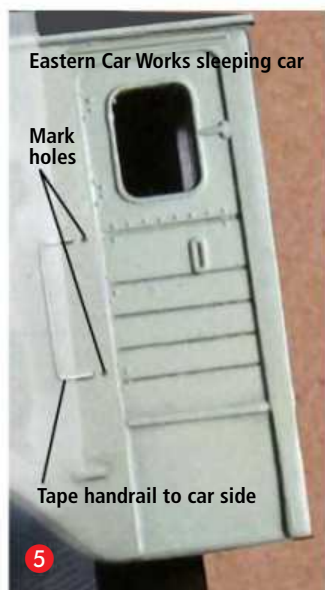
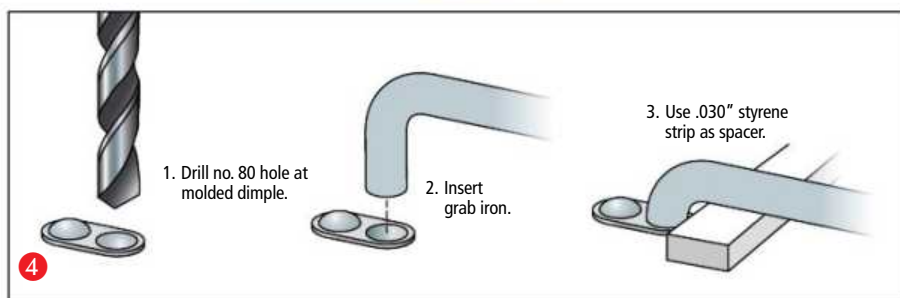
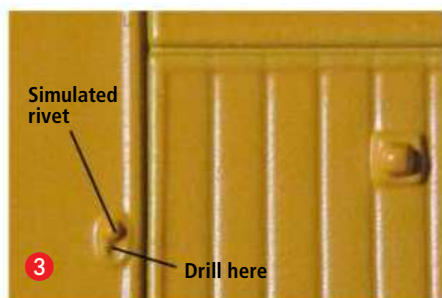
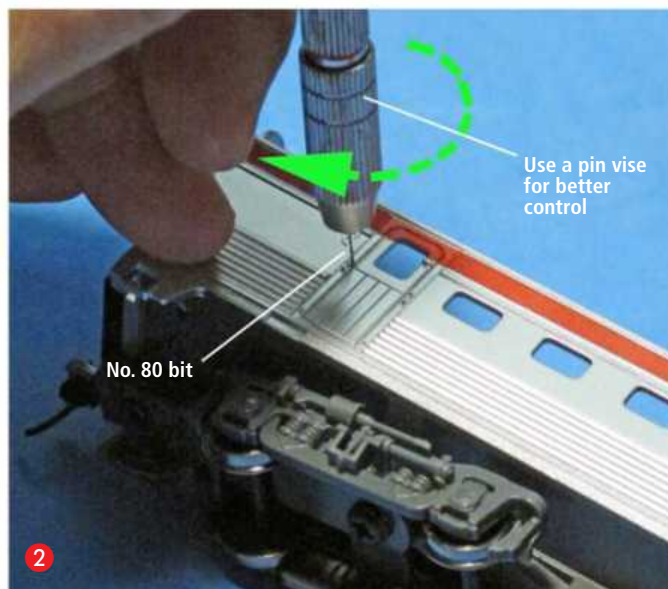
These kits are designed for easy installation in Walther's Mainline cars, and many of the parts can be used to upgrade other brands of passenger cars, as well.

Installing the Walther's Mainline upgrading sets will improve your passenger cars' operation and appearance. Your passenger trains should get attention, and you'll have the satisfaction of operating your upgraded streamliners.

*V.S. Roseman of Brooklyn, N.Y., is a prolific modeler and writer who has written more than 130 articles.*



## UPGRADE 1 **ADDING HANDRAILS**



**Adding handrails** is an easy activity for a rainy day or while listening to music. I installed a Walther's 910-200 handrail set on a Walther's Mainline dining car in photo 1. Drill the dimple in each bracket with a no. 80 bit in a pin vise. A pin vise, seen in photo 2, is an excellent hand tool to hold these tiny drill bits. Power tools are usually too big and cumbersome for this light work and are difficult to control at the very slow speeds required. The Walther's cars have molded brackets, shown in photo 3, that exactly match the handrails in the upgrade kit, so no wire bending is necessary.

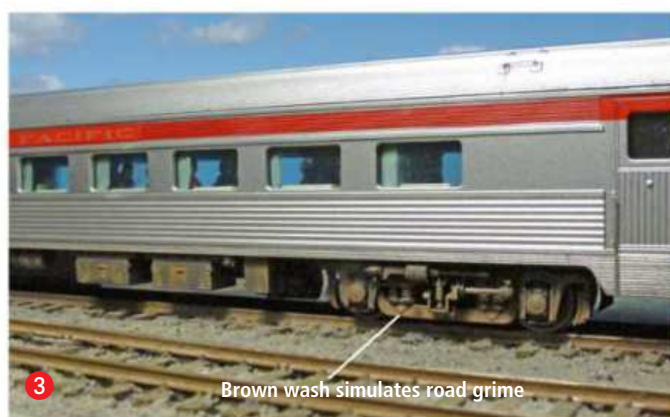
The sequence is shown in figure 4. Insert the ends of the wire handrail and put a dot of cyanoacrylate adhesive (CA) on the inside of each leg, or apply cement carefully around the mounting holes on the outside using a toothpick or similar applicator. Slip a piece of .030" thick plastic strip between the handrail and the body as you place the handrail to ensure a uniform distance from the car body.

**On other brands** of cars, such as the Eastern Car Works sleeping car shown in photos 5 and 6, hold or tape one of the handrails in place and use it as a guide to drill the mounting holes, far left. Once cemented in place, the brackets can be simulated by adding a plastic nut-bolt-washer casting at each end of the handrail.

Some makes of cars simulate handrails with molded on strips. These can be carefully scraped, sliced, or filed off before installing the freestanding wire handrails.



## UPGRADE 2 WEATHERING



**Intercity passenger cars** in the era of private railroad operation were usually washed after each run, as seen in photo ①. In many cases, station crews would wash all the windows of a streamliner at important station stops.

Even when the trucks and underbodies of a train are cleaned, by the time the train makes its first stop out of the terminal, there's usually some road dirt showing. Brake applications produce a rusty looking powder. A little weathering under the car shows off the detail and adds realism to your models.

Look at color photos in train books and magazines, such as the Amtrak car in photo ②, or watch some prototype videos. Notice the color of passenger car underbodies to see what these actually look like in service.

While weathering media and degree of weathering is a matter of personal preferences, I like paint washes. If you've never done this kind of weathering, experiment on an old junk car or on a sheet of plastic.

To make a wash, as used on the car in photo ③, begin with an earth color of your favorite paint and add thinner. The more thinner you use, the more transparent the wash will be. Evaluate the results to see if you're satisfied or want a more pronounced effect. Once the wash is dry, you can add more layers of color. If clear flat is available for the paint you're using, a few drops will keep the wash from becoming too runny. Read paint directions, because some clear flats are an overcoat and aren't designed to mix with paint.

Don't brush over the colors too much or you'll start to remove previous layers you've applied. You could also remove the original paint on the car.

When weathering passenger car trucks, mask or remove the wheels so you don't get paint on the wheel flanges and treads. Paint left on wheel treads comes off on the rails and creates dead spots in the track. The faces of the wheels can be painted a brown rusty color using as little paint on the brush as possible.

## UPGRADE 3 ADD PASSENGERS AND INTERIOR DETAILS

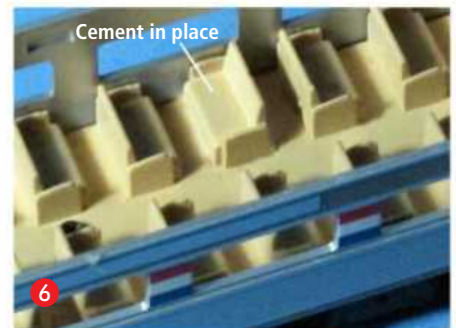
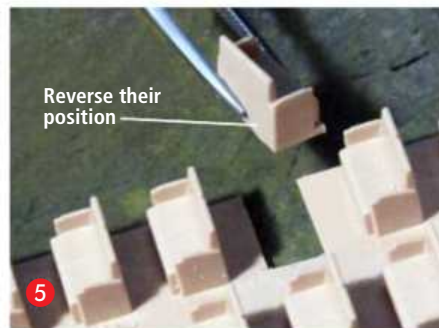
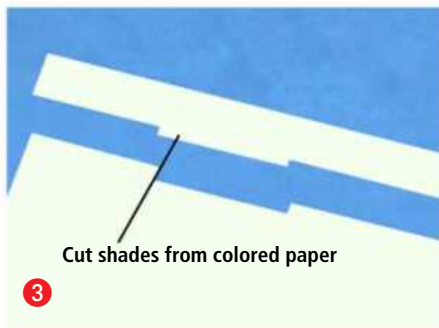
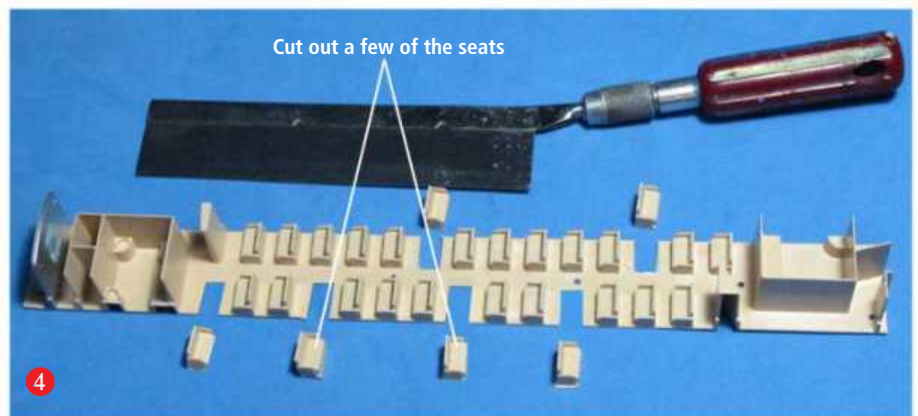
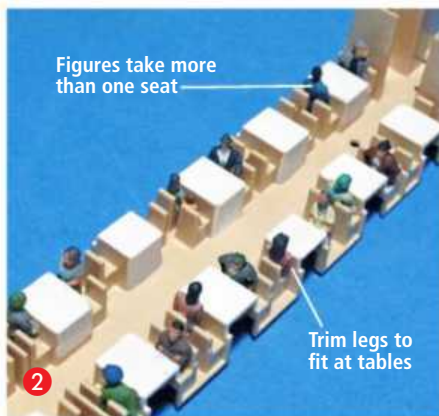
**A detail often omitted** from model passenger trains is the riders, and this is probably the easiest upgrade of all, seen in photo ① at the top of the next page. Several companies make seated HO scale figures.

The Walthers 949-6034 figure set has 30 seated, painted figures designed to fit in most model passenger car seats

without modification. To fit into narrow seats or next to tables in parlor cars, lounge or dining cars, use a flush cutter to trim the figure or file it to fit. In some double coach seats, only a single figure may fit, as shown in photo ②. Many figures need to have their legs cut off to fit into the seats due to the thickness of the model car's floor.



## UPGRADE 3 ADD PASSENGERS AND INTERIOR DETAILS (CONT.)



To reach the car interior on the Walther's Mainline cars, remove the roof. Instructions are provided in the interior detail sets.

There's also a video on the Walther's website ([www.walther.com/exec/page/videos](http://www.walther.com/exec/page/videos)) of the recommended method of releasing the roof. Scroll down to Walther's Showroom Update Episode 6. The segment on roof removal comes after a GP38 description. Jim Hediger's Workshop Tips column in the November 2015 *Model Railroader* has additional information.

**Virtually all** streamlined cars had adjustable roller shades. An easy way to make shades is to cut them from colored paper or .010" styrene sheet, shown in photo 3. Tape these to the pillars between the windows in the model with clear or frosted tape. An alternative would be to mask a strip of .010" clear styrene and spray your shades on. Then remove the

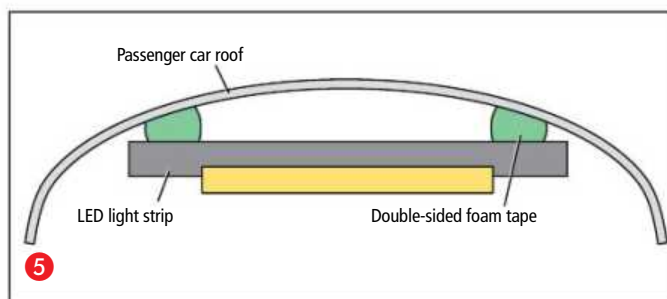
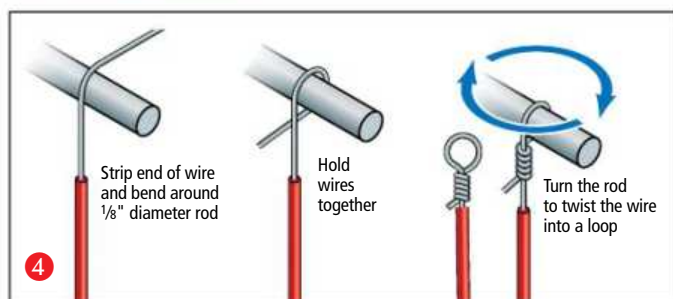
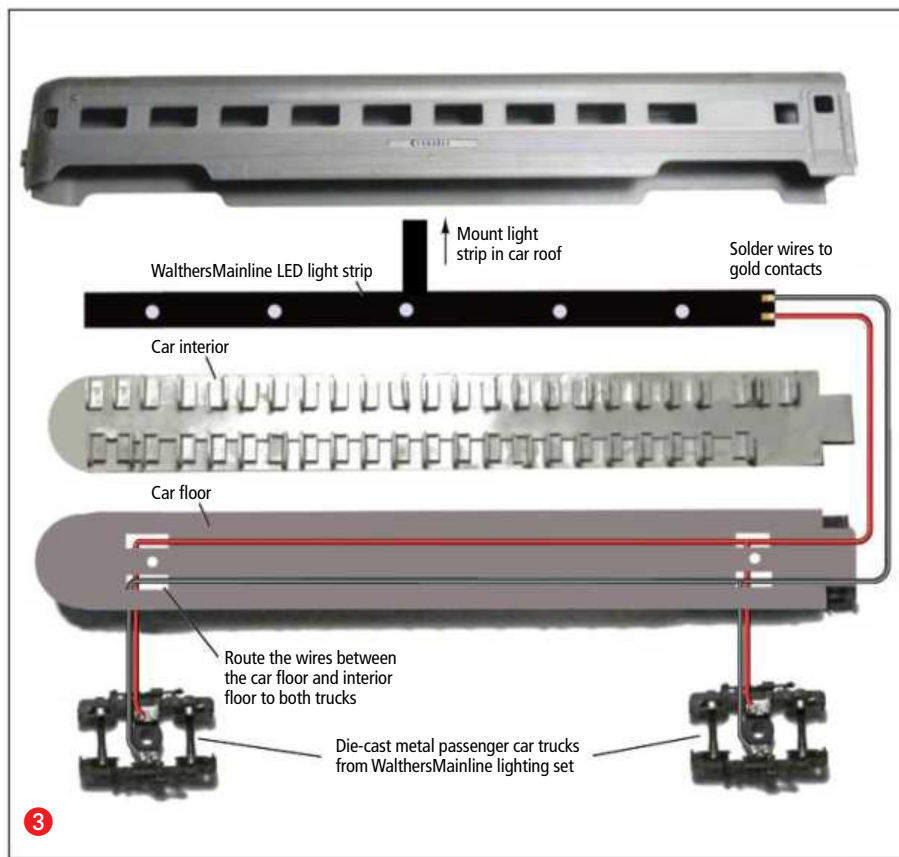
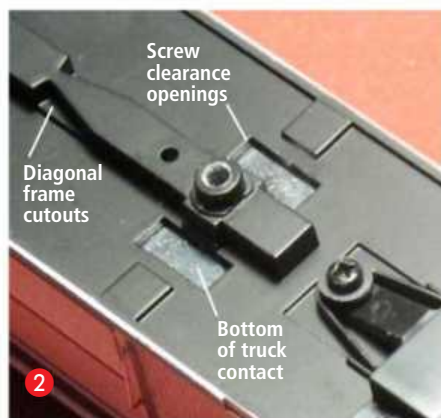
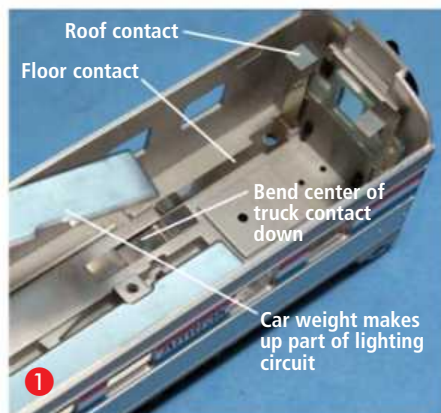
masking and fasten the plastic strip inside the windows with clear tape.

Some lounge cars and even some coaches had venetian blinds. Plano Model Co. ([www.planomodelproducts.com](http://www.planomodelproducts.com)) sells several sets of etched stainless steel venetian blinds for passenger cars. These can be glued to the inside of the glazing at the top of the window.

**If you can't turn** your passenger trains after a trip, coach passengers will be riding backward on their way back to the home terminal. An easy solution is to arrange some pairs of facing seats in your coach interiors. Many coaches had reversible seats, and groups would sometimes arrange them to ride together.

Saw out some seats and reverse their direction, as shown in photos 4 and 5. With passengers seated both ways, photo 6, your coaches will look good going either direction.

## UPGRADE 4 INTERIOR LIGHTING



It's a very striking effect to see a passenger train snaking through the shadows of dark station canopies or near a tunnel entrance with car interiors illuminated. But a 10- or 12-car train lit with incandescent bulbs uses enough current to affect engine performance. The WaltherMainline 910-220 interior detail kit includes an LED lighting strip that uses very little current.

The set includes a pair of die-cast metal GSC-41-N-11 trucks with contacts on the axles to pick up power from the track through all four wheels. The screws that secure the truck sideframes to the bolsters touch on floor contacts in the car. These contacts pass power through the weights in the floor to contacts that take power up the end walls to the roof, where they connect to the light board. The contacts, also part of the kit, are shown in photo 1.

To reduce problems with lights flickering, unscrew one left- and one right-hand sideframe screw on each truck about one quarter of a turn to improve contact between the trucks and car. Another solution I found was to slightly bend the floor contact, shown in photos 1 and 2, so the center

portion arches downward toward the truck before fitting the floor contact into the opening in the car floor.

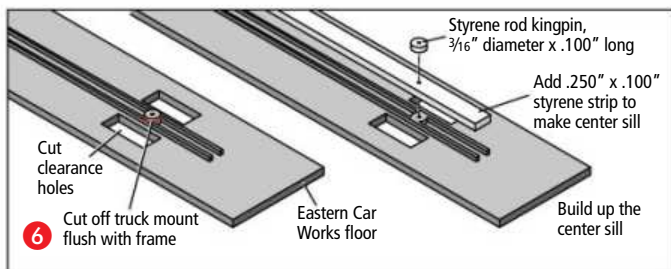
This lighting set can be fitted to other brands of cars. Photo 3 shows an exploded view. Carefully solder a wire to each of the two gold contacts on the light board.

The illustration at top right shows how to run the wires. Allow about 2" of extra wire length in the body so you can remove the roof without pulling on the wire.

If you're using the Walther trucks, strip off about 3/4" of insulation from the end of each wire, then follow the procedure in 4 to make a loop. Secure the wire to the truck by slipping the loop through a sideframe screw and tightening it. Do this on both sides of both trucks as shown in photo 3. NorthWest Shortline ([www.locobackshop.com/NWSL.html](http://www.locobackshop.com/NWSL.html)) and Walther ([www.walthers.com](http://www.walthers.com)) are two suppliers of "superflex" wire, which is excellent for this application.

Mount the board to the roof of the car with double-sided foam tape as shown in figure 5. I like to add a plastic strip



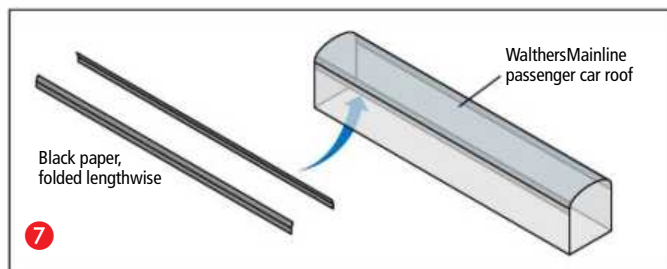


standoff if necessary so the LEDs don't touch the plastic roof on non-Walthers cars.

**To install** Walthers metal trucks on other brands of passenger cars, you may need to modify the floor to get the correct ride height on the car. The distance from the top of the rail to top of the roof on most prototype lightweight streamlined cars is 13'-6", or in HO scale, almost exactly  $1\frac{7}{8}$ ".

I modified an Eastern Car Works sleeping car floor as an example. Illustration 6 shows what I did. The clearance holes are approximately  $\frac{1}{4}$ " wide by  $1\frac{3}{32}$ " long.

These dimensions aren't critical as long as the truck sideframe screws don't foul the openings on curves. These openings can be used to thread contact wires from the trucks into the car. I made the openings by drilling two adjacent holes in the floor and using a file to square the openings.

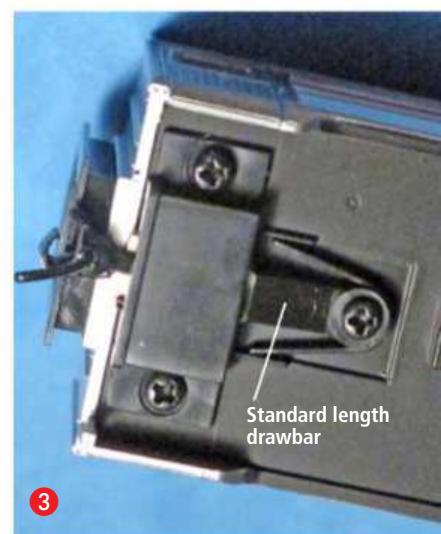
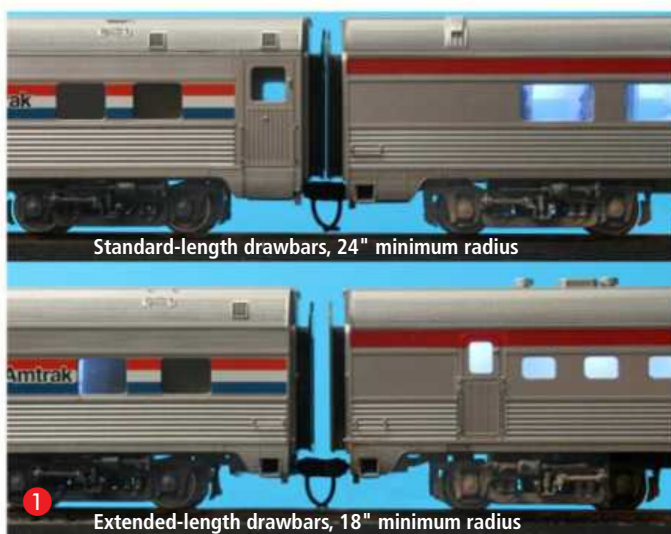


I drilled the  $\frac{3}{16}$ " diameter styrene rod kingpin with a no. 56 bit, then tapped it to accept a 2-56 screw. You could use a self-tapping screw. If necessary, make diagonal notches on the sides of the center sill as on the Walthers center sill shown in photo 2 to clear the truck sideframes on curves.

If you're lighting brands of cars other than Walthers, or if you want to use different trucks than those that come in the WalthersMainline lighting kit, you could use the Walthers-Proto 920-1060 lighting set, which has only the light strip.

**Some illuminated passenger car** models have a light leak at the seam between the roof and the body. To fix this, I cut two strips of black paper about  $\frac{3}{8}$ " wide by the length of the car and fold them in half the long way. I secure them as shown in 7 using clear tape.

## UPGRADE 5 BODY MOUNTING COUPLERS




**WalthersMainline passenger cars** come with "talgo"-type truck-mounted couplers. There's usually little difference between truck-mounted couplers and body-mounted types when your train runs forward. However, switching operations that require pushing cars through turnouts or around curves can cause talgo trucks to derail. Body mounting the couplers generally offers better operating reliability.

Walthers' swinging drawbar coupler mounts provide the advantages of body-mounted couplers and prototypically close coupling, seen in photo 1, yet permit cars to negotiate tighter radius curves than ordinary rigid coupler boxes.

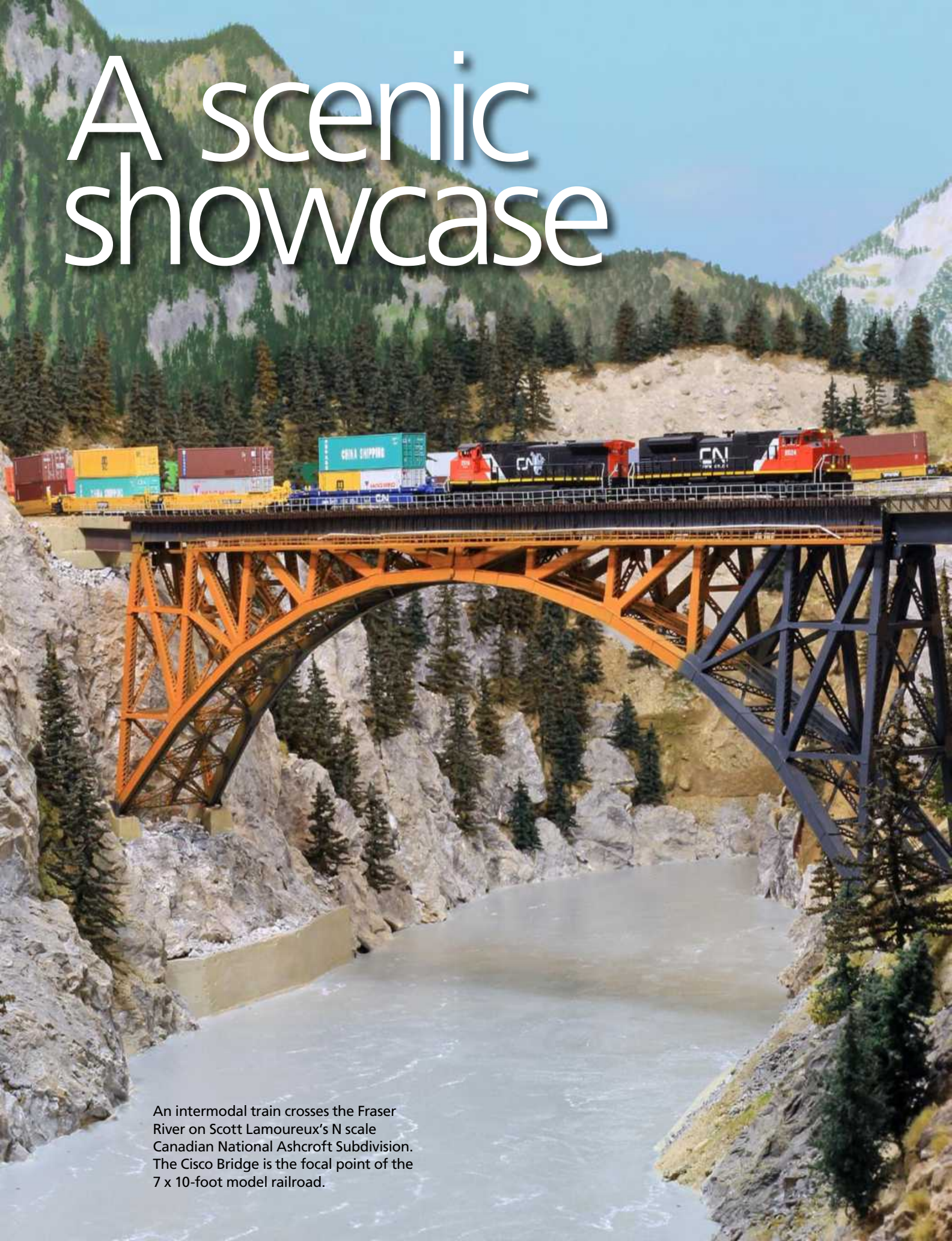
Full, illustrated instructions come with these kits and photos 2 and 3 show a finished installation.

After completing the installation, if the draft-gear box doesn't swing easily and center by itself, try slightly loosening one or both of the screws of the coupler box cover. A shot of Kadee Greas-Em or similar graphite lubricant for locks should help reduce any friction.

To use the plastic trucks with the body-mounted couplers, saw off the draft-gear box and arm of the plastic truck and discard. Replace the plastic truck on the car with its screw and install the couplers as described above. 



# A scenic showcase



An intermodal train crosses the Fraser River on Scott Lamoureux's N scale Canadian National Ashcroft Subdivision. The Cisco Bridge is the focal point of the 7 x 10-foot model railroad.



# Cisco Bridge is the centerpiece of this N scale Canadian National layout

By **Scott Lamoureux** • Photos by the author

A pair of spectacular bridges, a roaring river, soaring mountains, and frequent Canadian Pacific and Canadian National trains are some of the highlights of Cisco, British Columbia, nestled deep in Canada's Fraser River Canyon. Cisco was a natural source of inspiration for my new 7 x 10-foot N scale Canadian National Ashcroft Subdivision layout. As a CN modeler, I knew from the beginning the centerpiece of my layout had to be the "high" Cisco Bridge, a combination truss arch over the Fraser River with an approach on the east bank.

The high bridge was built in 1914 by the Canadian Northern Pacific Ry., a predecessor to CN. The engineers had to contend with both a difficult river crossing and locating the new line over the existing CP right of way. The result was two bridges that cross the river within sight of each other, yielding an iconic Canadian railroad scene. My goal was to re-create this magnificent scene by focusing on long sight lines and big scenery.

## Setting the stage

The layout features a large, irregular oval closed with a semi-permanent duckunder. For the Cisco scene, I wanted to maximize the perspective view looking toward the bridge and yet leave as much space as possible to build it. Though that plan sounds great, in reality I had a modest 10 x 10-foot basement room to work in, further constrained by a door and access to the furnace. The peninsula where Cisco is located extends five feet along the wall. I was able to expand the peninsula an extra two feet by curving the benchwork away from the wall to allow for door clearance.

My original plan was to portray both bridges at Cisco, but after placing the first bridge, it became clear that there wouldn't be enough space for the CP bridge. A short length of non-operational track represents the CP instead.

A cutoff built in 1977 to connect the CN and CP, necessitated by a major

derailment and fire on the CN bridge, is represented with cosmetic track as well. Canadian National and CP have directional operations in the canyon, giving me the option to run trains from either road.

## Bridge before scenery

Scenery is my favorite part of the hobby; my previous structure experience was limited to some simple building kits. For this layout to work I had to build the bridge first before committing to this railroad (and tearing out my old layout).

Plans for the Cisco Bridge were published in the January 2000 issue of *Mainline Modeler*. The drawings accompanied an article by Doug Hole, who built an HO version of the bridge. His craftsman-ship set a high standard to aspire to.

The full-size Cisco Bridge is 810 feet long, including 425 feet for the main truss-arch section over the river. I uniformly compressed the bridge to 80 percent scale. I also added a curve to the plate girder approach sections to fit the space.

Reference material on Cisco Bridge is abundant on the internet. There have been several major derailments and fires on the bridge over the years, resulting in many detail changes.

I began work by forming the main beams from Evergreen styrene strips. I added cross braces from Micro Engineering (HO) and Central Valley (N) kits. I used the braces that best matched the prototype, which meant I could only use a few parts from each kit.

I fabricated the deck from styrene strip and used telescoping square brass tube to join the two arch halves and stabilize the deck.

There were several key details that I completed prior to final assembly of the bridge. I installed the catwalk and constructed the long maintenance walkways using Gold Medal Models etched parts and styrene. The walkways have suffered from neglect on the prototype. The ends were removed so it no longer spans the full length of the bridge.

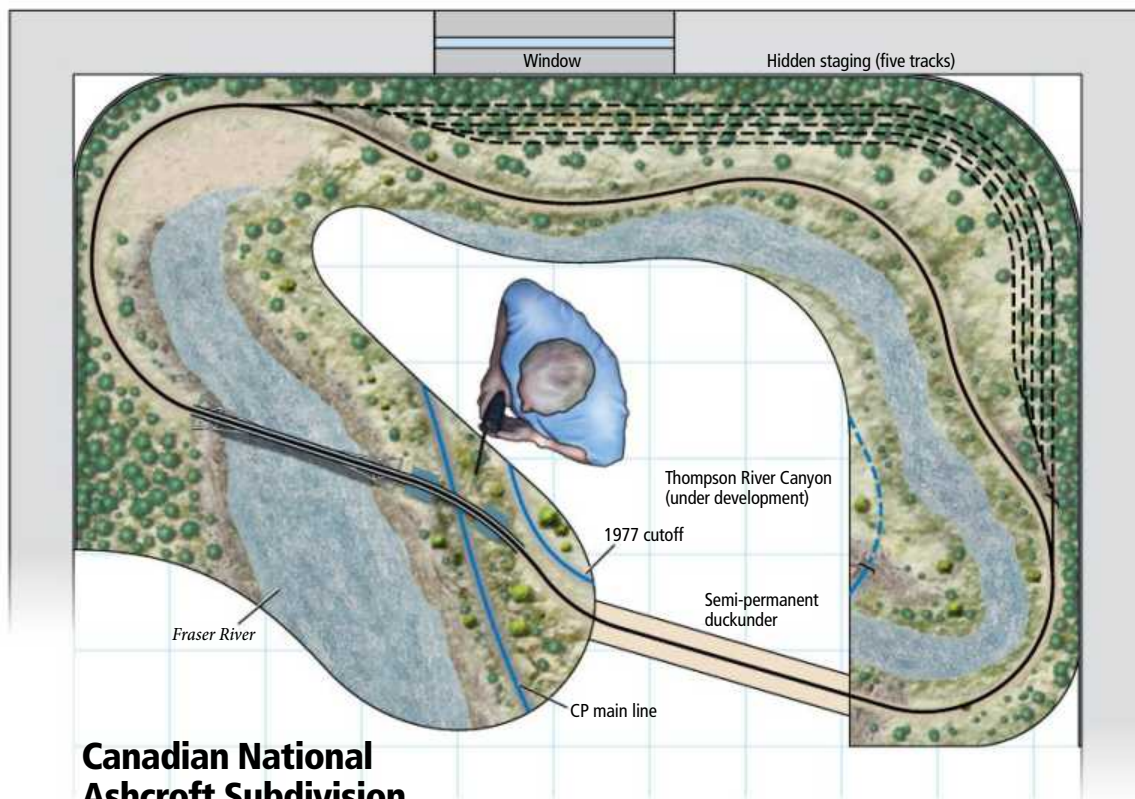
## Modeling the approach

With the arch section of the bridge largely complete, I turned my attention to the plate girder approach sections that are composed of two short pillars and five decks.

The pillars proved challenging, as they have a distinct style of cross-bracing not available commercially. I didn't want



This construction photo shows how Scott combined styrene, commercial plastic castings, and etched-brass parts to build the truss arch portion of the bridge.



## Canadian National Ashcroft Subdivision

N scale (1:160)  
Room size: 10'-6" x 7'-0"  
Scale of plan: 1/2" = 1'-0", 12" grid  
Illustration by Rick Johnson

Find more plans online in the  
ModelRailroader.com Track Plan Database.

to compromise on this detail, so I made custom etchings. I designed the braces in Inkscape ([www.inkscape.org](http://www.inkscape.org)), a free online drawing program. I had the braces etched from .010" brass.

I assembled the pillars with cyanoacrylate adhesive (CA). The glue, in conjunction with the tab-and-slot construction, yielded a strong assembly. The first pillar went together fine, but I had to modify the etched-brass braces for the second pillar.

I included railings and walkways on the approach. I made the ballasted deck from styrene. Then I added the etched walkways after painting and weathering the concrete deck.

The final components were the concrete support pylons. I made the pylons from clear pine and had the gusset plates and bridge shoes custom etched. To avoid damaging the delicate parts, I left off the deck railings during this phase. I installed them after most of the scenery was complete.

### Painting and assembly

I airbrushed the bridge components with acrylic paint. I first applied a weath-

## The layout at a glance

**Name:** Canadian National Ashcroft Subdivision  
**Scale:** N (1:160)  
**Size:** 7 x 10 feet  
**Prototype:** Canadian National  
**Locale:** British Columbia  
**Era:** modern  
**Style:** around the walls  
**Mainline run:** 28 feet  
**Minimum radius:** 15"

**Minimum turnout:** none  
**Maximum grade:** none  
**Benchwork:** open grid  
**Height:** 46"  
**Roadbed:** Woodland Scenics foam  
**Track:** code 55  
**Scenery:** foam board  
**Backdrop:** 1/8" hardboard  
**Control:** NCE Digital Command Control

ered black-gray mix, followed by Polly Scale Southern Pacific Daylight Orange. [The Testor Corp. discontinued the Polly Scale line. Model Master enamel no. 2770 GO Mango is a close match. – Ed.]

I again turned to *Daylight Orange* to paint the pillars and arch, keeping the coverage thin so some of the black would show through. The incomplete paint coverage matches the prototype.

I sprayed the bridge ties Rail Brown and the walkways a dirty aluminum color. Finally, I ballasted the approach deck and secured the code 55 track and code 40 guardrails.

## The bridge diorama

With the bridge painted, I made a diorama for the Cisco Bridge scene using a 2 x 4-foot piece of birch plywood and foam board. This makes the bridge scene easy to remove in case I need to relocate.

After test fitting the bridge, I screwed the pylons to pieces of hardboard. Then I secured the hardboard to the foam with acrylic caulk. [Solvent-based caulk will dissolve foam. – Ed.] When everything was secure, I mounted the bridge to the pylons using brass tube pins and CA.





Scott built the Cisco bridge scene on a 2 x 4-foot piece of plywood. He built the surrounding scenery using foam board and plaster castings.

To model the spring runoff in June, when the river level is highest, I positioned the bridge deck 11½" (153 scale feet) above the water. This is less than the prototype 210 feet, but it looks OK.

## Mountain scenery

To re-create Cisco's mountain scenery, I first rough cut pieces of foam board. Then I added plaster rock castings I made using commercial and home-made silicone rubber molds. I secured the castings with caulk. On the west bank of the river I cast the rocks in place to simulate a continuous rock face.

I tinted the castings with black and umber washes applied with a brush and spray bottle. Then I painted the surrounding scenery with a base of brown latex paint topped with grout powders, fine ground foam, and static grass.

I modeled the crumbled rock from leftover plaster that I broke and sieved into coarse, fine, and dust piles. I soaked the plaster in washes of artist paints. I secured the crumbled rocks with diluted matte medium.

At this stage, I was confident enough to tear out my old layout and build new benchwork. With foam landforms, Atlas code 55 flextrack, and a hand-painted backdrop, the layout quickly took shape.

For the Douglas fir trees, I made forms by twisting craft wire. I then painted the wire with textured brown spray paint. I ground up brown and green craft store lichen in a blender and sprinkled it on the forms, which I'd brush-coated with full strength matte



Most of the visible track is shown in this photo. A hand-painted backdrop further reinforces the mountain scenery of the Fraser River Canyon.

medium. I sprayed the lichen with alcohol so the matte medium would soak in.

When that was dry, I dusted the trees with Krylon Camouflage Olive spray paint. So far, the layout has consumed hundreds of trees and more than 1,500 feet of wire.

The last item needed to round out the layout was the river. At the suggestion of a friend, I poured a thin layer of leveling cement over the plywood base. This solution worked well, giving a nice clean edge to the river along the banks.

I painted the river a muddy brown-gray color to simulate the turbid river during spring flow. I stippled on heavy



## Meet Scott Lamoureux

### Scott started modeling as a youth

with a Christmas HO train set from his parents. When he returned to the hobby he shifted to N scale. Scott lives in Kingston, Ont., with his wife, Linda, and two teenage children. He is a permafrost scientist and geography professor who works throughout the Arctic.

gloss medium for waves and lightly dry-brushed zinc white on some of the wave caps. Then I applied a coat of Pledge Multi-Surface (Future) floor polish, which adds convincing highlights and texture.

## A learning experience

Although it took more than two years to complete, I'm very happy with my N scale Canadian National Ashcroft Subdivision. I learned a lot of new techniques while building the layout, especially how to design and etch metal parts.

It's wonderful to watch long trains move through the scene far above the river below. Being able to compose breathtaking scenes where the landscape dwarfs the trains is, to me, one of the great advantages of N scale. **MR**





The west end of the Basalt, Colo., yard on Andrew Dodge's O scale Proto:48 Colorado Midland layout had few operational opportunities. He remedied that by modeling a portion of a stock pen between the tracks and fascia.

# MODEL STOCK PENS along a fascia

Rail-served businesses don't need to have a large footprint

By **Andrew Dodge** • Photos by the author



## FEW MODEL RAILROADERS

have enough space to fulfill all of their modeling wishes. When designing my O scale Proto:48 depiction of the Colorado Midland Ry., I faced this problem at multiple levels, but there were always solutions.

Two questions in particular came up, and one solution solved both. First, what prototypical industries or freight-generating facilities could I model along the main line of my Colorado Midland between Leadville and Basalt, Colo.? Second, what could I fit into the limited space between the track and the edge of the layout or between the track and the transition to the backdrop?

The solution, however, was right in front of me if I simply followed the prototype. In some circles, the Colorado Midland was known as the “stockman’s railroad.” Major stock movements occurred in the early summer when the high mountain pastures provided plenty of grazing space, and again in the fall when the animals would be shipped to areas at lower elevations and more moderate winter weather. Since I modeled the Midland in fall, I would have a great need for stock pens and all the operational opportunities they would provide.

However, this still brought me back to the space issue, since modeling stock pens in O scale can consume up to 8 square feet of space. Having 2, maybe 3, feet of layout depth at a maximum didn’t leave me with many options. Or looking at it from a more positive perspective, what could I do to solve the space problem while enhancing a somewhat dull, uninteresting scene?

### Making every inch count

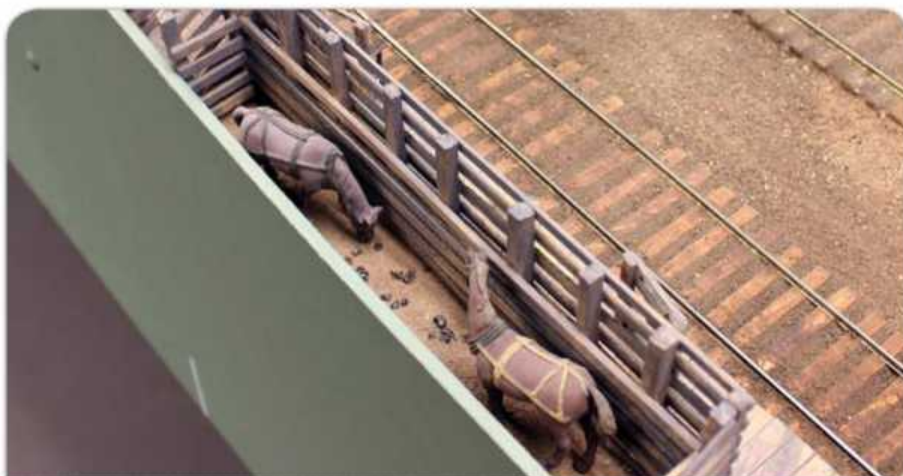
In the early 1900s, Basalt shipped 32 carloads of livestock each year. This number didn’t include animals unloaded and reloaded under the 28-hour rule that the federal government instituted in 1873 for the welfare of the animals. I’m unaware of any record as to the size and location of the pens, which afforded me a little bit of modeler’s license.

The east end of the yard included the station, hotel and eating house, water tank, section and bunk houses, and engine facilities. The west end was almost devoid of any points of interest, as seen in **fig. 1**. To fill that void and create more switching activity, I built a stock pen between the fascia and the track, as shown in the image on the opposite page.

All I needed was a few inches to include two loading ramps, pens, and some human-interest items. Operators



**Fig. 1 Before the stock pen.** Here’s what the Basalt yard looked like before the stock pen was added. Because of switching activity at the ice house at distant center, Andrew decided not to locate the stock pen along the backdrop.



Andrew didn’t overlook any details on his stock pens. He used small clumps of solder, painted brown, to simulate horse manure.

## Detailing a stock pen

**Since this article** features stock pens, one detail that shouldn’t be overlooked is manure. Visitors and relatives have reminded me that I needed to include that detail to make a believable scene.

Modeling manure is easy and improves the overall effect of the scene. I took a hot soldering iron, passed it by the end of the solder, and then tapped the solder-laden tip on a piece of sheet metal. The solder solidified immediately into small clumps. With paint, those silver clumps became convincing manure.

To model the hay, both clean and used, I used hemp rope. I cut the strands into 3 scale foot lengths to match the size of cut hay. Because rope is twisted in multiple groupings for strength, I pulled the strands apart and soaked them in water for a day or two so they would “relax.”

To model used hay, I put the rope into a bowl with coal dust and swirled it around until the hay looked used. Small pieces of the coal in the mix added to the appearance of dirty hay or straw that needs to be replaced. – *Andrew Dodge*





**Fig. 2 More space, more detail.** This loading-chute area is correct in width along the tracks, but the pens are greatly shortened due to the close proximity of the fascia. The shortened stock pens still meet the function of the prototype.



**Fig. 3 Protecting the pens.** The turnouts at Basalt can be reached without having to lean over the stock pens. The fascia further protects the pens from damage.

could now busy themselves moving cars for loading, unloading, and cleaning. Besides stockcars, boxcars would be used to deliver hay, straw, and feed grain.

### Fade to aisle

I have six stations on the modeled portion of my layout, and Busk was the

only one without stock pens. Busk is deep in a mountain valley and was the eastern entrance to the almost 2-mile-long Busk-Ivanhoe Tunnel under the Continental Divide. The sole photographic record of any of the Midland's stock facilities was taken at Ivanhoe. Restricted by the topography and Loch Ivanhoe, which the railroad crossed on a

causeway, the pens I've incorporated into my layout conform to the design of the prototype.

The prototype photo, taken at the turn of the 20th century, shows a long set of pens extending well out into the meadow with only a narrow loading area along the track almost opposite the station. It would have been nice to include all of the pens, but that would require extending the layout approximately 4 feet into the aisle. The practical solution, like at Basalt, was to cut off the pens at the fascia's edge. See **fig. 2**.

### Operating considerations

When planning sidings requiring switching, such as industrial or commercial areas, it's important to keep in mind the practical issues of being able to reach cars for coupling, uncoupling, and re-railing, as well as lining turnouts. Stock facilities can be a busy place where it's essential to easily switch cars without reaching over the layout and potentially breaking things. However, the fascia does afford the stock pens some protection, as seen in **fig. 3**.

My solution to the stock pen question met all my requirements of achieving visual points of interest, practical needs of modeling in a limited space, and the functions of operating a model based on a prototype. **MR**

*Andrew Dodge has written articles for Model Railroader, Model Railroad Planning, and Great Model Railroads. His story "How to model buildings using Plexiglas" appeared in the April 2014 MR.*





I think the "Off the Rails" series is the best. From episode 1 to the current episode, I love Gerry's advice and money-saving tips. I hope you never run out of ideas because I think you really help model railroaders like myself with a lot of little problems.

— ROCCO MALEY



## Have You Ever Had a WORKBENCH WRECK?

Who hasn't had a modeling mishap!? Join master modeler and show host, Gerry Leone, as he shows you how to prevent trouble on the workbench, shares advice, and demonstrates tricks and techniques in the second season of Off the Rails. From cool tools to quick tips, Gerry and his furry assistants will show you ways to become a better modeler and have a little fun along the way.



**1-Month Subscription to MR Video Plus =  
ONLY 22% of the cost of a 20-piece drill bit set (#41-#60)  
Subscribe now and let MR Video Plus show you how!**

**[MRVideoPlus.com/intro](http://MRVideoPlus.com/intro)**



# CAPTURING THE MIDWEST in HO scale

Sectional construction and a Great Plains locale set this model railroad apart

By **Pelle K. Sæborg** • Photos by the author





**W**e all have our preferences when it comes to model railroading. Some like operation most, some like collecting trains, and some specialize in modeling structures, locomotives, or cars. Others are experts in scenery, weathering, or electronics. And then there are the generalists who do a little of everything, which is the category I belong to.

Over the years, trains have almost become secondary to me. They are my excuse to create scenes in 1:87.1 scale that capture the essence of an area. My joy is in the construction, so I tend to lose interest in my layouts when they're finished. To me it's the journey, rather

than the destination. Operation has never really appealed to me. I've participated in operating sessions and found it entertaining, but it has been on much larger layouts than I have room for.

My previous layout only lasted for 14 months after it was completed, and for the last six of those months, my mind was focused on developing ideas for the next layout. During the Christmas holidays in 2013, my desert-scenery layout was cut up in sections and moved to a friend's basement.

Standing in my completely empty train room, imagining all the things I could build there, must be close to what an artist feels looking at a white canvas. Everything is possible and nothing has

gone wrong yet. Two and a half years later, a new layout fills the room – and as you read this, I'm probably planning my next model railroad project.

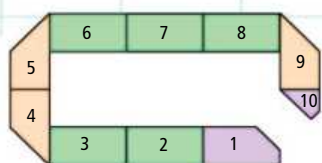
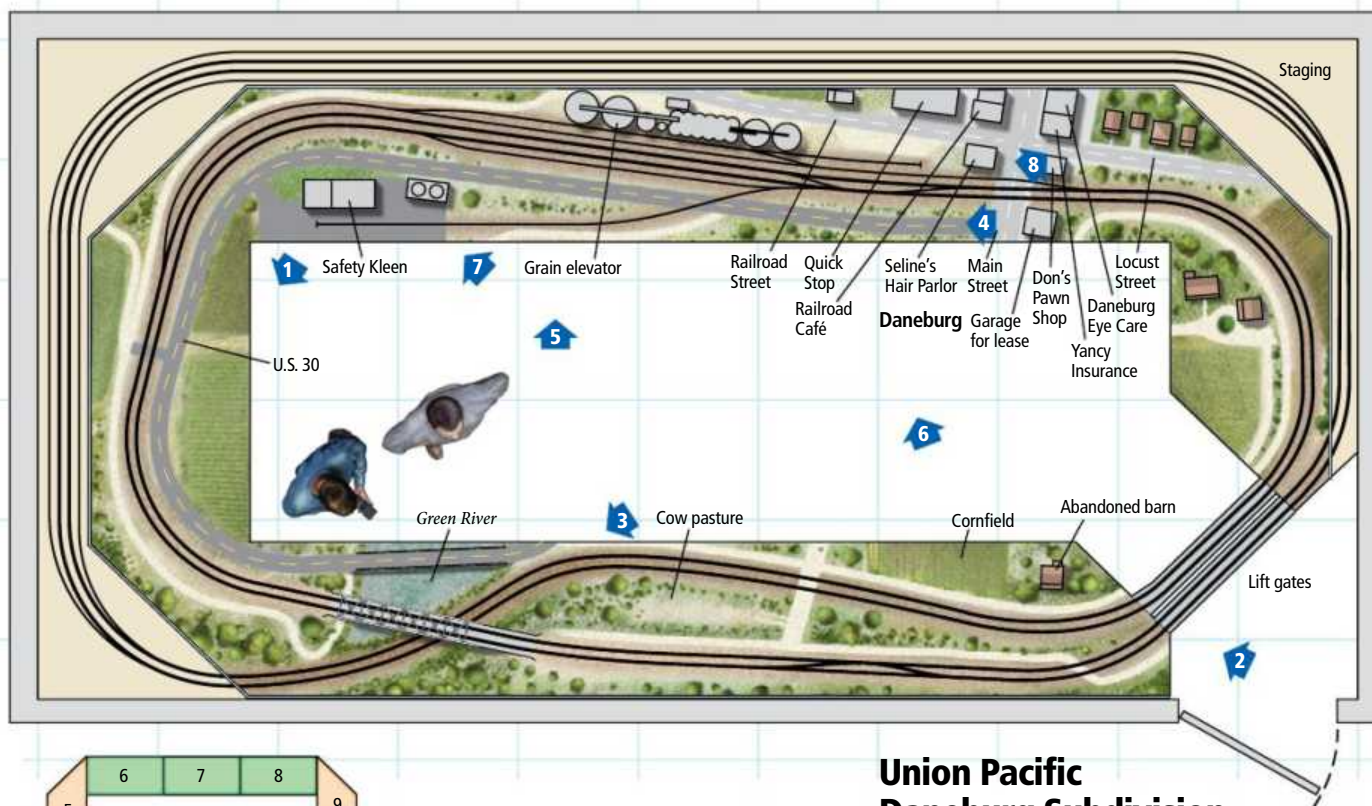
## Picking a theme

My train room measures 11 x 22 feet, which means I have to accept some compromises to model in HO scale. I really must get my priorities right, as I can't have it all. Actually, I can only have a fragment of what I want. Instead of getting frustrated over all the things I can't do, I define my wishes for the layout I want to build and make a prioritized list. It's more a matter of what can be left out rather than what can be crammed in.

**1** Nothing says "Midwest" like a Union Pacific freight rolling past a cornfield. Pelle Søeborg's new HO scale UP Daneburg Subdivision aims to capture the atmosphere of the Great Plains without modeling any specific prototype location.







- Standard straight section 62 x 32 inches (155 x 80 cm)
- Standard corner section 62 x 32 inches (155 x 80 cm)
- Non standard sections

## Union Pacific Daneburg Subdivision

HO scale (1:87.1)  
Room size: 11 x 22 feet  
Scale of plan:  $\frac{5}{16}$ " = 1'-0", 24" grid  
Numbered arrows indicate photo locations  
Illustration by Pelle Søborg and Rick Johnson  
Find more plans online in the  
ModelRailroader.com Track Plan Database.

### The layout at a glance

**Name:** Union Pacific Daneburg Subdivision  
**Scale:** HO  
**Size:** 11 x 22 feet  
**Prototype:** Union Pacific  
**Locale:** Freelanced, based on eastern Nebraska and western Iowa  
**Era:** present-day  
**Layout style:** around the walls  
**Mainline:** 60 feet (excluding staging)  
**Minimum radius:** 33"  
**Track:** flextrack: code 83 (main), 70 (sidings), and 55 (spurs)  
**Turnouts:** no. 6  
**Maximum Grade:** 1 percent  
**Height:** 46" to 50"  
**Scenery:** extruded-foam insulation board  
**Backdrop:** photographic  
**Control:** Lenz DCC

I wanted to model a Class 1 railroad, so it didn't make much sense to switch to another prototype. My previous layout featured the modern Union Pacific RR, so I stayed with the UP. That way I didn't have to buy new locomotives, which can be costly. I also wanted to model a main line so I can run different types of trains. To capture the flavor of a main line, I have to be able to run relatively long trains – 30 to 35 cars, depending on their length. Modern trains require long staging tracks and broad curves, both of which take up space.

Scenery-wise, I wanted to model a completely different location. My last two layouts both featured Southern California desert scenery. This time I turned my attention to the heartland of America. I've traveled through the Midwest several times, mainly Iowa and Nebraska, and I like the area's small, rural towns and endless cornfields. The Midwest seemed to offer the modeling challenges I was looking for, and the UP runs right through it.

Until recently I'd never imagined I would model the Midwest, so on previ-

ous trips to the region (I live in Denmark), I didn't take a single photo with modeling in mind. Pretty stupid, I'd say. So before I started on my new layout, I took one more Midwestern trip to get the pictures I needed and take in the atmosphere one more time to have it fresh in my memory.

### Planning

I'm the sole operator on my layout, so operational possibilities aren't my main focus. My previous layout had some potential, but the only operation that actually took place was when I did a little switching at Daneville – the one town on the layout – and at Duolith Cement, the largest industry on the layout. My ambition for operation on my new layout was limited to some switching.

The lesson I learned from cutting my previous layout into sections for removal was that no matter how careful you are, you can't do it without doing some damage. So after three permanent layouts, this time I built a sectional layout. [See the March 2016 MR. – Ed.] I wanted it to





2 This view from near the entrance of Pelle's train room shows most of the layout. During operation, the doorway is spanned by two lift-out bridges.

be movable rather than portable. I didn't have any intentions of taking it to shows and such, but I wanted it to be easy to move if I end up selling it or moving to another place.

I had one more wish for my new layout – I wanted a bridge somewhere. I love bridges and couldn't find a way to work one into my previous layout, so a bridge was a high priority this time.

I sat down and did some thinking. I could save quite a bit of space if I put staging between the backdrop and the wall. The staging wouldn't be directly accessible, but it wouldn't be completely impossible to reach if necessary. If a problem occurs, I can remove a section of the backdrop. On my previous layout I only needed to access the staging twice, so this isn't something I expect to do often.

The track plan consists of a double-track main line, two sidings, and an industrial spur. One siding serves the grain silos and the other is at the other side of the main line

in connection with an industrial track. A couple of crossovers connect the tracks.

I had to use modeler's license in my track plan design. To make one of the sidings long enough, I had to place one of the turnouts right next to a crossover, which isn't UP practice.

The staging consists of just four tracks. They typically hold two eastbound and two westbound trains that I can run when visitors come to see my model railroad.

## Benchwork

I designed a sectional system using standardized rectangular layout segments. These segments rest on an L-girder frame mounted on triangular gussets that attach to the wall studs. By avoiding any legs on the floor, I gained a lot of free space under the layout. This gives the impression of an aisle wider than it really is.

I used 1 x 2 lumber for most of the framework. Only

the braces were made from 2 x 2s.

I assembled the framework with screws only, no glue, to make it easier to dismantle if needed. When you don't use glue, the lumber has to be cut very precisely. I use a circular saw with an adjustable cutting angle.

The size of the layout sections was defined by the size of my train room. Each section measures 32 x 62 inches. The layout sections were made from 1/2" plywood screwed and glued together. I used medium-density fiberboard (MDF) for my previous layout, which is more sound deadening than plywood, but also quite a bit heavier. Keeping the weight of the sections down was a priority, so I went with plywood this time.

The sections with the town and grain elevator scenes were fully covered with sheets of plywood. For sections with hilly terrain, the subroadbed was made of plywood and the surrounding landscape of extruded-foam insulation board. The layout sections are attached to each other with bolts and wing nuts.

The staging tracks run along the walls and are hidden behind the backdrop.











3 Since Pelle's previous layouts had no bridges, a double-track bridge was a priority for this one. He built the bridge from a Central Valley Model Works kit.

One of the benefits of a sectional layout is that I could remove the layout sections to gain full access to the staging area while I was working on it.

## Track

I didn't apply the sound-deadening layer I used on my previous layout to this one, as the material is very heavy. Instead, I used two layers of cork. The 2 mm-thick base layer is wider than the roadbed, so the ballast will rest on cork instead of on plywood. It was my theory that if the ballast, which will turn hard as glass when it is glued down, rested on something soft and flexible instead of

directly on plywood, it would reduce the wheel noise.

I've used commercial flextrack and turnouts for all my previous layouts and didn't see any reason to deviate from that on this layout. When painted and weathered, flextrack looks realistic enough for me, and it's quicker and easier to install than handlaid track.

There isn't much straight track on my layout. Of course, the shape of the layout room makes some curves unavoidable, but I also introduced slight curves into track that could have been totally straight. Fluid track is so much more interesting to look at than straight track that curves only where it meets each corner of the room.

## Making authentic scenes

If you want to model a real place in HO scale, you'll soon find out that not many places will fit without being

dramatically scaled down. I don't have room for modeling a specific place or area, but a fictitious place can look just as authentic. I base my freelanced place on fragments from real places. That way I can create a place people think they have visited.

I first visit the area I want to model. While there, I focus not on the details, but on the big picture – what gives the area its atmosphere. I look for the ordinary things rather than spectacular things. In the actual modeling I understate rather than overstate to make my point. If you overdo a scene with too much detail, there's a risk your layout will turn into a caricature.

I take pictures of buildings I want to model. The buildings in the town on my layout are modeled after buildings in a variety of towns and places, so even though the town on my layout is a fictitious place, several of the structures are models of actual buildings.

4 The grain elevator complex in Daneburg, inspired by a prototype in Lexington, Neb., is the largest industry on the layout. Though selectively compressed, it still looms realistically over the trains.





**5** Breaks between layout sections can be hard to conceal when they cross backdrops or roadways. The gap between sections in this photo falls just left of the tree in the foreground.

I try to be very selective in what I put in the scene. We have a tendency to incorporate more structures and other elements than space allows. That won't work if you want a realistic scene. Elements spaced too closely will spoil the illusion of a real place.

I also avoid distracting objects – in other words, anything that sticks out. That doesn't mean you can't have a signature structure that attracts attention, like my grain silo complex. It just has to look as if it belongs in the scene.

The choice of colors plays an important role in achieving a realistic looking layout. Pay attention to the colors of the scenery in the real world. For example, a grass field might just look green to you, but if you take a closer look, you'll notice that it has many shades

ranging from fresh green to beige and golden shades. It's the same with concrete. It might appear uniform gray at first glance, but can contain many gray, brown, and even black shades, depending on how old it is. The same applies to surfaces and materials like brick, asphalt, wood, and more.

A well-made backdrop that blends with the scenery will expand your layout many miles. I made mine from photographs taken on my trip to the Midwest. To create an illusion of vast open spaces, I kept the horizon on the backdrop low. There isn't a lot of scenery on it, mostly a dominating blue sky.

The icing on the cake is the details you apply to the scene. People tend to think that my layouts are very detailed. In fact, they're not. Realism isn't directly proportional to the amount of details you apply to a scene. If a scene is cluttered with small details, they more or less neutralize each other. It's much better to apply only a few details at selected locations. They will be easier for the



**6** The four-track staging yard is inaccessible behind the backdrop at Daneburg, so Pelle uses a camera (whose monitor is visible on the wall) to watch trains there. He can remove a backdrop section to reach the yard if needed.















## Meet Pelle Søbørg

**Pelle Søbørg**, a resident of Farum, Denmark, is a *Model Railroader* contributing editor. He has also written a number of books on model railroading, the newest of which, *Build a Sectional Layout*, will be published this August.

section before moving to the next. In many ways, that was a rewarding way of doing things because it didn't take as long to see something finished as it did on my previous model railroads.

However, there are some issues that make a sectional layout less than optimal. You can't avoid seams cutting through the scenery where the sections join. These are especially noticeable on roads and tracks, where there is no scenery to camouflage them. Backdrops have the same problem. Each layout segment has an associated backdrop section attached to it, leaving a vertical seam between the backdrop sections.

## A learning process

We modelers have been blessed with many new scenery products in recent years. Working with different scenery materials than I've been used to has been a learning process for me, and it's been a

pleasant surprise how realistic the scenes I create with them appear. The experience I gained making the photo backdrop for my previous model railroad helped me to create a backdrop for this layout that blends better with the scenery.

Learning is what it's all about. My next layout should

be even better than this one. Right now I'm pretty pleased with the result, but when I look at pictures of my previous model railroads, I sometimes wonder how I could have been pleased with them at the time. Maybe that will happen with this layout, too. **MR**

**7** The other rail-served industry on the layout is the Safety-Kleen oil-recycling plant, based on a prototype in Grand Island, Neb. Other than the storage tanks, the structures are all scratchbuilt.

**8** Quiet homes built from laser-cut wood kits sit along Locust Street in Daneburg. Pelle feels the key to realism in a scene like this is not overloading it with details.

viewer to spot and automatically attract his eye. That way, you control what you want a viewer to look at. He'll see the detail and not the lack of details elsewhere, giving him the impression that your scene is very detailed.

## Sectional vs. built-in

Building a sectional layout is somewhat different from building a permanent layout. On a permanent layout, you can customize the shape of your benchwork to fit your track plan. On a

sectional layout, it's the other way around. You have to design your track plan to fit the layout sections.

My previous layouts were all permanent, and I preferred to finish one task before moving to the next. First I built the benchwork, including the subroadbed. Then I laid all the track. I followed the same process on my new layout up to that point, but from there on, I did things differently. Ordinarily I'd next build the road base, then make the terrain on the entire layout from extruded-foam insulation board. After that, I'd pave all the roads, painting and weathering. Finally, I'd apply scenery.

Instead of working on the entire railroad all at once as before, I finished each section one at a time on this layout. I finished subterrain, roads, scenery, structures, and even details like road signs and utility poles on each layout

**REALISM ISN'T DIRECTLY PROPORTIONAL TO THE AMOUNT OF DETAILS YOU APPLY TO A SCENE. - PELLE**





Resin supports and a plywood core are some of the materials senior editor Dana Kawala used to scratchbuild the North Avenue viaduct. The highway overpass spans the 4-foot width of the HO scale Beer Line addition.

# Making a multimedia **HIGHWAY OVERPASS**



A variety of materials and scrapbox parts make up the North Avenue viaduct

**By Dana Kawala** • Photos by Bill Zuback and the author



Originally my assignment for the *Model Railroader* staff's HO scale Beer Line addition was to build a modest roadway that went up a hill and across a short highway overpass above a set of tracks. However, the more I looked at the mock-up, the more I thought we could come up with something better. Why not make the viaduct cross the entire 4-foot width of the layout? Editor Neil Besougloff agreed and handed me a thin plywood sheet from our workshop scrapwood pile. The plywood ended up being just the first piece of a multimedia project that would also involve styrene, resin, foam, and white metal parts.

My model would loosely represent the North Avenue viaduct. The prototype was a 1,385-foot-long reinforced concrete bridge that carried its namesake roadway across the Milwaukee River and some of the industries along its banks. The bridge opened in 1921 and was demolished and replaced in 1990.

I approached the structure more as a scenic element than a replica of the North Avenue viaduct. It's not a stand-alone model; its primary purpose is to enhance the overall scene. My goal for the bridge was to create interesting sight lines for those operating, viewing, and photographing the layout. The road surface provided another elevated plane on which we could showcase scale vehicles, while the tracks snaking under the

bridge added a tunnel effect to the urban canyon setting of the Beer Line.

Even though I wasn't following the prototype girder for girder, I used prototype photos as inspiration. Instead of modeling the large arches that held up the span across the river, which is barely present in the scene, I focused on a portion of the viaduct that crossed the industries and tracks on the west side of the river. Although our Beer Line takes many geographical liberties, the viaduct did actually cross over Tews Cement, an industry on our layout. In fact, the company stored supplies under the viaduct, as we've depicted in the scene.

According to written descriptions, parts of the overpass that spanned railroad tracks used plate girders, while those that didn't used shallow concrete arches. I followed suit on the model using girders from a Micro Engineering Tall Steel Viaduct kit in two locations where the overpass crossed the tracks. For the shallow arches, I used an innovative material called Balsa-Foam.

For me, the real standout features of the overpass are the bridge piers from Crow River Products. If we hadn't found those parts, it wouldn't have made sense to build the model. I searched online and in stores, and couldn't find anything else that looked like the concrete piers used on 1920s to 1940s highway overpasses. These resin parts required a lot of filling and filing, as well as some

splicing to get the correct width, but the results were well worth the effort.

As important as getting the structure's look right was making sure the overpass stayed upright on a portable layout built to be connected in different configurations. The moment of truth for me came in November 2016 when the entire Beer Line layout was loaded onto a trailer for a pothole-plagued trip to Trainfest in neighboring West Allis, Wis. Thankfully the beefed-up bridge supports and my liberal use of epoxy kept North Avenue standing tall.

Follow along as I show you some of the key elements of this multimedia scratchbuilding project. Hopefully, you'll find a useful tip or two for your model railroad.

## Beer Line series

**Jan. 2017:** The Beer Line addition

**Feb. 2017:** Benchwork and tracklaying for the Beer Line addition

**March 2017:** Scratchbuilding Steinman Lumber Co.

**April 2017:** Mix kitbashing and scratchbuilding to model Ben-Hur Freezer Co. in 17 x 31 inches

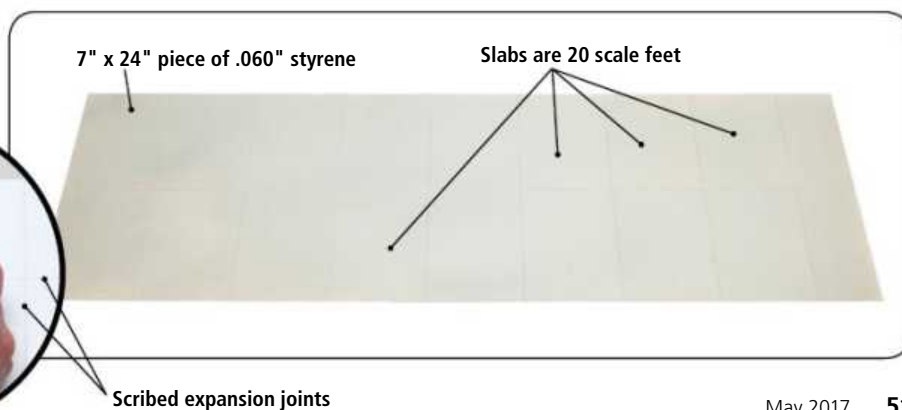
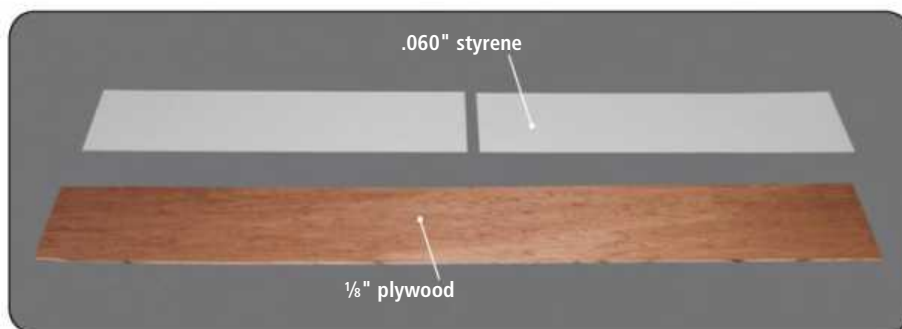
**May 2017:** Building the North Avenue viaduct

**June 2017:** Using different techniques to build a cement plant complex

### 1. PLYWOOD AND STYRENE BRIDGE DECK

Using a 120-tooth blade in a table saw, I cut a 7" x 48" strip of 1/8" thick plywood. I then painted the plywood with Rust-Oleum Painter's Touch 2X Flat Gray Primer followed by Flat Black spray paint. The underside of the overpass wouldn't be visible from normal viewing angles, and the black paint would help to further conceal it.

I used a utility knife and a metal straightedge to cut two 7" x 24" pieces from two 12" x 24" sheets of .060" plain styrene for the road surface. Next I used a scribing tool and a metal straightedge to scribe simulated expansion joints. I worked slowly and made only a few passes to avoid cutting through the styrene. The expansion joints are spaced 20 scale feet apart.



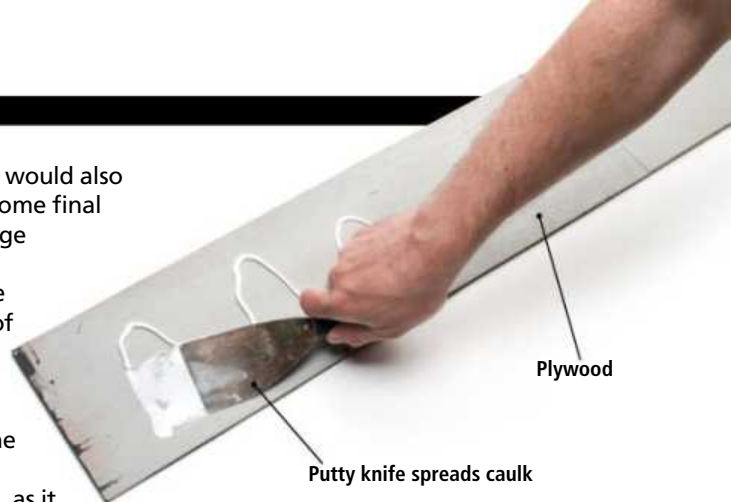


## 1. PLYWOOD AND STYRENE BRIDGE DECK (CONT'D)

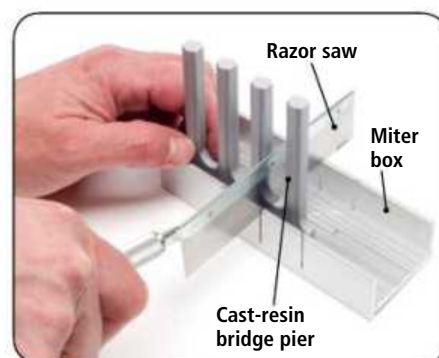
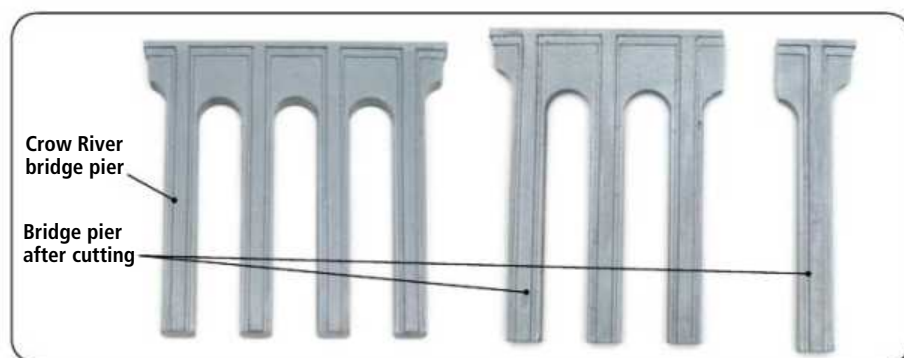
After using fine-grit sandpaper to remove any plastic shavings from its surface, I took the styrene to the spray booth. I applied a couple coats of Rust-Oleum Gray Primer then added a few coats of Rust-Oleum Camouflage Sand and Painter's Touch 2X Granite and Stone colors. I found I got the best results by holding the spray can a foot or more away from the styrene and spraying in light passes. Because the paint was almost dry when it hit the styrene, the multiple coats and shades of gray gave the road surface a realisti-

cally mottled surface that would also provide a good base for some final weathering once the bridge was assembled.

Next, I spread adhesive caulk on the top surface of the plywood and carefully pressed both pieces of styrene in place. After final weathering, the seam between the two pieces wouldn't be visible, as it would blend in with the other expansion joints on the road surface.



## 2. CAST-RESIN BRIDGE PIERS



**Making the bridge piers** was the most time-consuming part of the project. Most HO scale highway overpass kits that I found model round support columns that are common in 1950s and later construction. Luckily I found resin castings from Crow River Products that were a close match to the arched concrete piers seen in prototype photos of the 1921-vintage North Avenue viaduct.

Unfortunately the Crow River castings were only 3 1/2" wide. Even though the overall width of the overpass model would be 7", I couldn't simply place two piers together. On the prototype, the piers were only under the road surface, while the sidewalks were cantilevered from the sides of the bridge. Therefore I'd need bridge piers that were 5" wide to match the width of the planned road surface.

To get a single 5" wide pier required splicing two castings. That meant I needed 12 castings to make my six bridge piers.

Using a miter box and razor saw, I cut a pillar off of each pier. I made each cut in the center of the arch so that the splice that followed would be as even as possible.

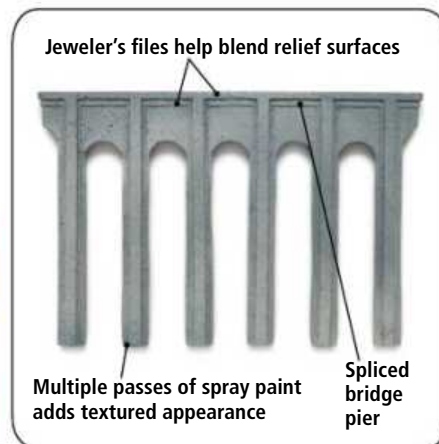
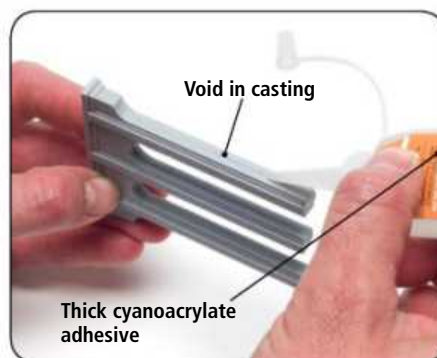
Because the parts are resin, there were many voids and other imperfections that had to be filled and filed away. For example, many of the pillars had a cavity running down one or more sides. To deal with these imperfections I used thick gap-filling cyanoacrylate adhesive. After the CA dried I used sanding sponges and files to smooth the surfaces. I also used a flat file to smooth the cut ends of each casting.

I washed the parts in our workshop sink with warm water and a little dish soap, then dried them thoroughly. Next, I glued the cut ends together with CA and placed a metal straightedge along the bottoms of the pillars to make sure the

pier stood square. Then I dabbed CA accelerator along the seam on both sides to instantly cure the CA.

I used sandpaper to smooth the seam between the two parts. Small jeweler's files were useful for blending together the narrow relief surfaces in the castings.

After a week of splicing, sanding, and filing, I took the six complete piers to the spray booth. Using the same technique as I described when painting the road surface, I painted the pillars with Rust-Oleum spray paint. The key is to build up the color with light passes.





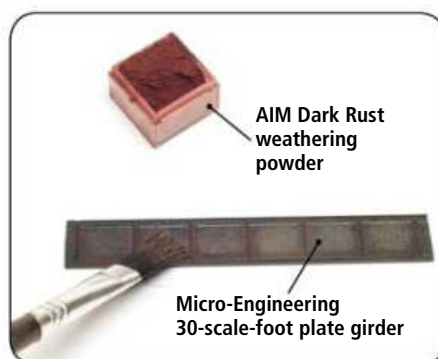
### 3. MOUNTING THE PIERS AND PLATE GIRDERS

I marked the pier locations on the scenery base. The first pier at each end is  $3\frac{1}{2}$ " from the edge of the layout. Although the spacing between the model piers looks equidistant, it actually varies from  $7\frac{1}{2}$ " to  $8\frac{3}{4}$ " to account for the tracks and other structures underneath.

Next, I found the center of the bridge deck's 7" width and drew a centerline along the underside of its 48" length with a steel rule. Then I measured  $1\frac{1}{2}$ " from each long edge and drew guidelines. These mark the outermost edges of the supports. Finally I marked the centerlines across the bottom at each support location.

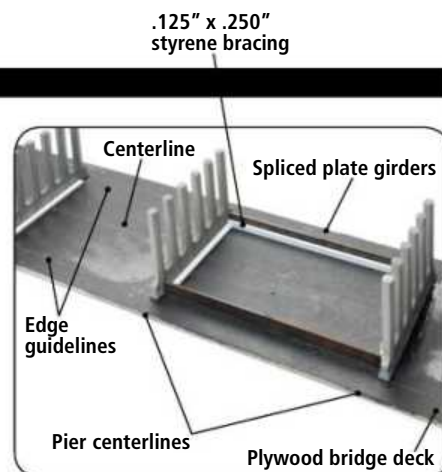
To attach a pier to the deck I used 5-minute epoxy. This thick 2-part adhesive comes in a syringe-like tube and creates a stronger bond than CA. After sanding the top of a support to make sure it was flat, I applied a bead of epoxy and secured the part to the bottom of the bridge deck. I used a steel rule to make sure the part was properly aligned along the centerlines and guidelines.

Within the 5 minutes before the epoxy started to set, I used a machin-



ist's square to check and adjust the vertical alignment of the support. Next, I used epoxy to secure a 4" length of .125" x .250" styrene strip across the width of the pier on both sides. Once the bridge was built the bracing wouldn't be visible from normal viewing angles.

The outermost spans cross railroad tracks, so following the prototype, I modeled steel plate girders in those locations, using parts from a Micro Engineering Co. HO scale Tall Steel Viaduct kit. For each side, I spliced two 30-scale-foot girders end-to-end using CA. Then I sanded the joint smooth. Eventually I had four spliced girders.



I also cut four  $3\frac{3}{8}$ " segments and four .125" styrene I-beams for the end spans.

After spray-painting all the girders and the I-beams Flat Black, I applied A.I.M. Products light and dark rust weathering powders. I used my fingertip to blend the powders on the girders. Then I sealed the surface with a light mist of Testor's Dullcote.

Following the guidelines on the bottom of the bridge deck, I glued the girders in place with 5-minute epoxy. Then I added .125" x .250" styrene strips on the inside surfaces of the girders to keep them square. I also used epoxy to glue the I beams in place between the girders on each end section.

### 4. Balsa-Foam ARCHES

I turned to Balsa-Foam from American Art Clay Models as the medium for the shallow arches of the interior spans. Balsa-Foam cuts easily and can be quickly sanded to shape. This made it ideal for modeling the shallow arches. Its surface also has a coarse texture that when painted does a credible job of simulating concrete.

Two of the interior spans measured 8" between support centerlines.



Taking into account the thickness of the supports, I'd need four  $7\frac{3}{4}$ " long shallow arches, one for each side, in those locations. The third interior span measured  $7\frac{1}{2}$ ", which meant I'd need two  $7\frac{1}{4}$ " long arches for that span.

I made a pattern out of thin cardboard for the  $7\frac{3}{4}$ " supports. First I marked and measured  $\frac{1}{2}$ " to mark the height of the support. Then I marked the center of the support, measured down  $\frac{3}{8}$ ", and made another mark. Finally I used a French curve to help me draw the line connecting the marks, making the arch.

Using my hobby knife, I cut out the cardboard pattern and set it atop the  $\frac{1}{2}$ " thick sheet of Balsa-Foam. Replacing the knife's blade with a fresh one, I then carefully cut out one arch, moved the pattern and cut out a second arch.

I set one arch flat side down on a self-healing cutting mat. Then I carefully drew the knife along the arch's length, resulting in two identical  $\frac{1}{4}$ " thick arches. Next I held all four pieces together and smoothed the



arches with a sanding sponge to ensure the arches were consistent.

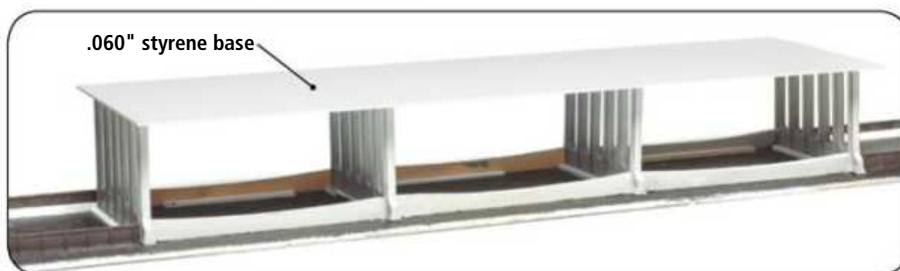
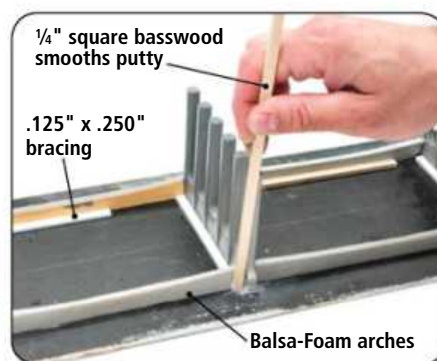
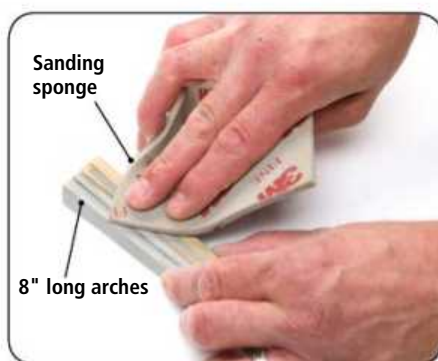
The process was identical for the shorter span, except I only needed two arches.

Because the material is quite porous, I had to apply several light coats of spray paint. I did my best to match the color of the arches to the bridge supports.

#### 4. BALSA-FOAM ARCHES (CONT'D)

I then used epoxy to cement the painted parts and .125" x .250" styrene bracing between the piers. I filled gaps between the arches and the bridge supports with Squadron White Putty. A 1/4" square strip of basswood proved a useful tool for making sharp corner joints with the putty.

At this point the bridge had spent most its time upside down, and I was concerned about how well it would support itself when turned upright. I cut a 7" x 24" rectangle from .060" styrene sheet to serve as extra support for the center section of the overpass. After applying epoxy to the bottoms of the pillars on the four interior piers, I carefully set the styrene rectangle in place with a gentle press. I let the epoxy set overnight, and the bridge was rock solid when I turned it rock-side-up the next morning.



#### 5. RAILINGS AND EDGING

Each Rix Products HO scale railing section is 50 scale feet long, so I needed seven sections per side. Although they interlock, the connected sections tended to bow upward. I carefully filed the ends and dry-fit the parts until they rested flat. I then glued the parts together with plastic cement and filled any gaps with white putty. I filed everything smooth, including the flash along the tops of the rails.

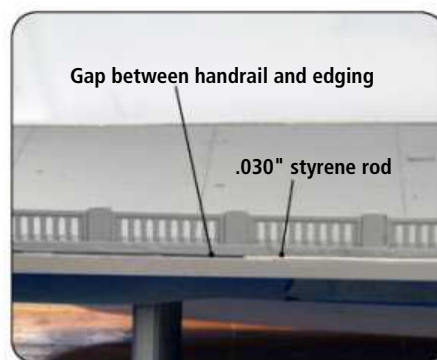
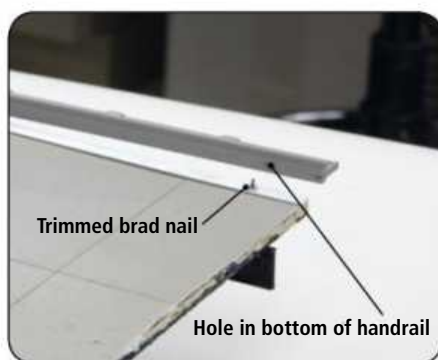
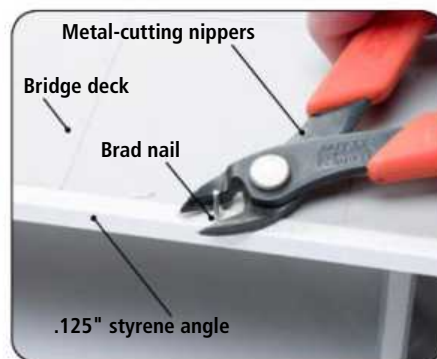
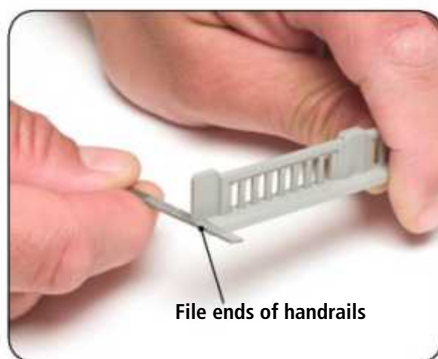
I set the spliced railing sections along the sides of the bridge deck. They were both about 5/16" too long, so I removed the excess with a razor saw. Then I spray-painted the railings with the same colors I'd used on the piers.

Next, I used CA to attach .125" styrene angle to the long sides of the deck. This material would also provide a surface to mount the railings.

Because of their length, I had to rely on more than a glue joint to secure the railings. I made my own alignment pins to keep the long sections straight.

After marking the centerline along each angle, I made eight equidistant marks along each centerline. Then I used a no. 59 drill bit in a pin vise to make a 3/16" deep hole in each location. Using epoxy, I glued 19-gauge brad nails into the 16 holes. I cut off the nail heads, leaving 3/16" of the nails exposed.

Using a Microbrush, I dabbed black model paint on each nail. While the paint was still wet, I carefully set the railings straight down on the pins, then



lifted them off. The resulting black dots showed where I needed to drill.

After spreading a bead of epoxy along the angles, I pressed the handrails in place, making sure the pins and holes matched up. Then I used rubber bands to hold the parts in place overnight until the epoxy fully cured.

There was still a gap between the bottom of the railings and the top of the edging. I filled the gap with .030"

styrene rod attached with plastic cement. After I filed the surface flat, the gap was no longer visible. I filled other imperfections with white putty, then painted the sides of the bridge deck with the same gray colors as I'd used on the railings. On the spans that would be over the tracks, I applied black weathering powder to the sides of the deck and railings to simulate soot residue from locomotive exhaust.



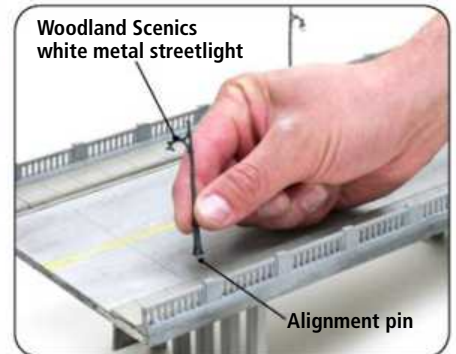
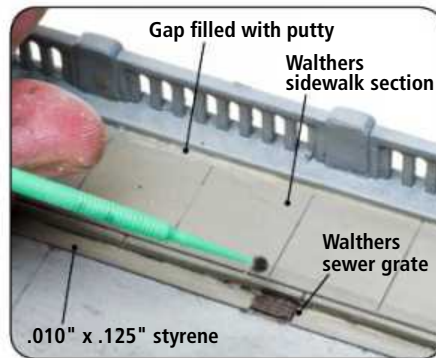
## 6. SIDEWALKS AND STREETLIGHTS

I used parts from three Walthers Cornerstone Concrete Street System kits for the sidewalks. After airbrushing the sidewalk sections with Testor's Model Master Concrete acrylic paint, I used CA to glue the sections to the deck along the railings and filled any gaps with white putty. I also used sewer grates from the Walthers kits that I painted with Testors Model Master Rust.

Once the grates were in place, I glued .010" x .125" styrene strips that I'd painted Concrete to the bridge deck between the grates. To finish off the gutters, I used a Microbrush to apply black paint above the sewer grates to simulate the openings in the curbs.

In the 1940s pavement markings varied from state to state, and center-lines could be white, yellow, or black. According to my research, Wisconsin used yellow solid lines to indicate no passing zones. For the overpass, I masked the lines with blue painter's tape, then applied Testor's Cadmium Yellow with a brush. Both lines are 1/16" wide with a 1/16" space between them, about 5 1/2 scale inches.


To weather the road surface I applied an India ink and alcohol wash. Next I mixed Earth and Grimy Black A.I.M. weathering powders in a cup. Using a brush I spread the powder down the center of each lane. After putting on a latex glove, I blended the powders into the road with my fingers.



The streetlights are non-operating white metal castings. I painted the posts Flat Black and the globes Flat White. A coat of Microscale Kristal Klear makes the globes look like glass.

I staggered the streetlights between the two sides of the street and placed them 100 scale feet apart. I used a Dremel Stylus motor tool with a 1/16" drill bit to make holes in the sidewalk to

fit the streetlights' alignment pins. I also added a drop of CA to the tip of each pin before inserting it.

After touch-ups and weathering, I set the overpass on the layout using adhesive caulk under its center base. Once the layout was scenicked, the styrene base was completely concealed. Scale vehicles, figures, and a few scraps of trash finished off North Avenue. 

### Materials list

**American Art Clay Co. Inc.**  
www.amaco.com  
43013P Balsa-Foam soft-density  
6" x 9" x 1/2" sheet (2 pack)

**Crow River Products**  
crowriverproducts.com  
Kit 209C HO scale highway  
overpass support (12)

**Evergreen styrene**  
106 .010" x .125" strip (8 pieces)  
189 .125" x .250" strip  
210 .030" rod (8 pieces)  
274 .125" I-Beams (2 pieces)  
294 .125" angle (8 pieces)  
19060 .12" x 24" .060" plain  
sheet (2 pieces)

**Micro Engineering Co.**  
80-167 HO scale 30-foot plate  
girder (8)

**Microscale Industries**  
MI-9 Micro Kristal Klear

**Monroe Models**  
2901 AIM weathering powders  
(Dark Rust, Grimy Black, Light  
Rust, Medium Earth)

**Rix Products**  
628-0104 HO scale early  
highway overpass railings  
(4 packages)

**Rust-Oleum**  
Painter's Touch Ultra Cover  
2x spray paint

249078 Satin Granite  
249127 Flat Black  
249415 Gray Primer  
249855 Satin Stone Gray  
Specialty Camouflage  
263653 Sand

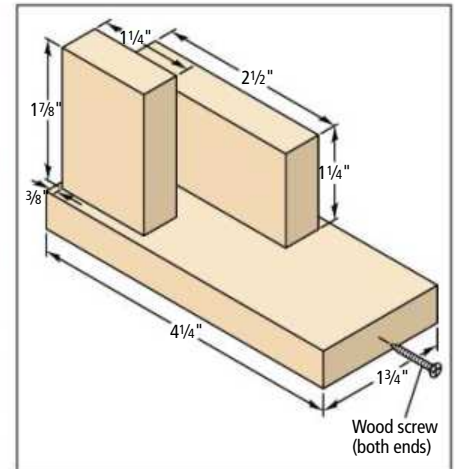
**Testor Corp.**  
1260 Dullcote  
4611 Cadmium Yellow  
4675 Model Master Rust  
4873 Model Master Reefer White  
4876 Model Master Concrete

**Wm. K Walthers Inc.**  
933-3155 HO scale concrete  
street system, straight sections  
(3 packs)

**Woodland Scenics**  
D48 HO scale Street and Traffic  
Lights (non-working)

**Miscellaneous**  
1/8" plywood 7" x 48" strip  
19-gauge brad nails  
2-part epoxy  
Adhesive caulk  
India ink (diluted with 70 percent  
isopropyl alcohol)  
Gap-filling cyanoacrylate  
adhesive  
Plastic cement  
White modeler's putty

# Make a tripod holder for your smart phone



My solution for mounting my iPhone was to cut three pieces from a sheet of  $\frac{1}{2}$ " balsa wood into the above dimensions. I used wood glue to attach the pieces.


I drilled a hole into the bottom plate to clear the machine screw, then screwed two flathead wood screws into each end of the bottom plate, leaving about  $\frac{1}{2}$ ".

After setting the cradle into position, I attached a couple rubber bands to one screw, ran them under the tripod head and attached them to the opposite screw. I slipped the camera into the cradle and was ready to shoot.

I did this to get steady video for a clinic presentation, but you can do it just for fun. The videos turn out great!

## An alternative approach

Shortly after writing this, I received an ad from Amazon.com for a "selfie stick," an extendable rod designed to allow a smartphone user to photograph himself. It also looked like it might allow me to extend my reach and take stable video of my model railroad.

I ordered one, which came as a two-pack that had threaded brass plates installed for under \$5. I screwed one of them to my tripod, slipped my iPhone 6 into it, and proceeded to shoot video. It worked! It might be an alternative if you don't build your own. 

*Lou Sassi is from Willow Spring, N.C., and is a longtime contributor to Model Railroader magazine.*

Lou Sassi found out that it was difficult to shoot a video with his iPhone without shaking, so he built a holder for his phone that attaches to a conventional tripod. Now he can shoot a video without using his hands.

A simple holder made out of balsa wood makes shooting a video much easier

By Lou Sassi • Photos by the author

**One day while working** on a keynote presentation for my local National Model Railroad Association Division, I decided to use the video capabilities of my cell phone and incorporate them into the presentation.

I usually end my clinics with a still photo of a train pulling away from the camera. It seemed much more interesting to finish with a video of a trackside run-by of one of my On2 $\frac{1}{2}$  Sandy River trains. But after a couple attempts of taking a video, it was apparent that handholding the phone was not an option. It was just too difficult to hold the phone without shaking it. It was even

more noticeable when shooting small-scale subjects.

Since I had a camera tripod, I decided to mount the phone to its head. This way, I'd only touch the phone to turn it on and off. The only problem was my phone has no accommodation for tripod mounting. So I decided to make my own phone holder to work with my tripod.

## Making the holder

My tripod has a mounting plate that attaches to a camera with a machine screw. The entire camera then simply snaps in place on the tripod head.



# Train Orders and Form D's

**Business had me** driving home from Vicksburg, Miss., to Baton Rouge, La., on U.S. Highway 61 late one afternoon. It was a familiar drive, made more enjoyable when Illinois Central Gulf's Woodville Branch threaded through stately oaks robed in Spanish moss and neared the highway. I hit the gas when I spotted a coupler bearing a marker; never before had I seen a train here.

The branch was Mississippi's first railroad. It was incorporated as the West Feliciana RR in 1831, connecting St. Francisville, La., with Woodville, Miss. Service had fallen to once or twice per week and the line was nearing abandonment when I chanced upon the short local in 1978.

This memory inspired me to describe how easy it is to implement some basic dispatching practices. Let's design operation for a West Feliciana layout, comparing timetable-and-train-order (TT&TO) with the contemporary Form D Control System (DCS) and Track Warrant Control (TWC) versions that TT&TO spawned. Track authority is conveyed in a similar manner under DCS and TWC, so we'll treat them as one. We'll operate only extra trains, those without a timetable schedule, which is typical for a line with light traffic.

The table above contains the stations I named and shows how their names might evolve if the line would follow contemporary DCS rules.

**Let's imagine a day** when Woodville has several loads of woodchips for the paper mill at St. Francisville. Under TT&TO, the dispatcher (DS) completes train order No. 1: ENG 8147 RUN EXTRA ST

WEST FELICIANA STATIONS		
TT&TO		DCS
Woodville	Northward (read up)	Wood
Ashwood		Ash
Laurel Hill		Hill
Wakefield		Wake
St. Francisville		Fran

FRANCISVILLE TO WOODVILLE AND RETURN TO ST FRANCISVILLE. This order creates Extra 8147 North and authorizes it to occupy the main track and run from St. Francisville to Woodville. It must reach Woodville before returning as Extra 8147 South.

Under DCS, DS radios Form D W-1 to Extra 8147, dictating: CIRCLE LINE 2 OPERATE IN NORTH DIRECTION ON WOODVILLE MAIN TRACK BETWEEN FRAN AND WOOD. The crew notifies DS after arriving at Woodville, fulfilling the first Form D. Only then can DS issue Form D W-2 to authorize the train to return: CIRCLE LINE 2 OPERATE IN SOUTH DIRECTION ON WOODVILLE MAIN TRACK BETWEEN WOOD AND FRAN.

Note the subtle distinctions between the two forms. The train order addresses Engine 8147, creating the train Extra 8147 North, while the Form D's address Extra 8147 North. One train order authorizes movement in both directions, but the same movement requires two Form D's under DCS rules.

If only one train would run on the branch this day, DS might instead have dictated Form D W-1: CIRCLE LINE 2 OPERATE IN BOTH DIRECTIONS ON WOODVILLE MAIN TRACK BETWEEN FRAN AND WOOD. This gives exclusive right to Extra 8147. It could go north to Laurel Hill to pick up some pulpwood flats, come back south to deliver them at St. Francisville, then run north again to spot empties at Woodville. The authority remains in



Illinois Central Gulf GP10 8147 leads a train of wood-chip hoppers near Wakefield, La., late one August 1978 afternoon, perhaps operating as Extra 8147 South. Jerry Dziedzic photo


effect until DS cancels it, as he would when the crew notifies him it has tied up at St. Francisville at day's end.

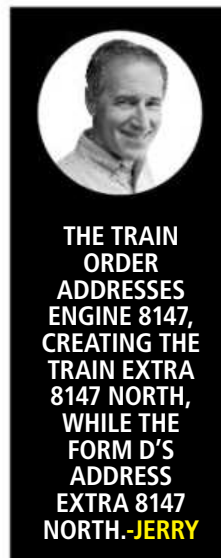
Its counterpart, Order No. 1, might then read ENG 8147 WORKS EXTRA BETWEEN ST FRANCISVILLE AND WOODVILLE. This particular wording creates Work Extra 8147, with no direction named, and authorizes it to operate as freely between these two stations as does the bidirectional Form D. The train order remains in effect until DS annuls it, another subtle distinction. Annulling a train order and cancelling a Form D are alike. The term itself changed as the system evolved.

Each example must show a time complete for train orders or a time effective for Form D's. The dispatcher gives the time after the instructions are read back correctly. "Complete" corresponds with "effective", as "annul" does with "cancel."

**Our West Feliciana crew** wouldn't need a full-time dispatcher or operator. TT&TO, DCS, or TWC paperwork could be prepared in advance of an operating session, ready except for a time complete or effective. Current editions of the Northeast Operating Rules Advisory Committee (NORAC) and General Code of Operating Rules (GCOR) can be found online to consult for more detail. Train order, track warrant, and Form D images are easily searchable. (Search for "NORAC Form D".) A clearance card

should accompany a train order, but it could be omitted to start with.

Safety demands such strict procedures. Precisely worded instructions in a prescribed form make their meaning clear to all who will act on them. Write a few orders or Form D's for your next session, adding another detail for your crew to enjoy. 



# Getting the most from automatic functions



Hurricane damage forced these Virginian & Ohio Electro-Motive Division and Alco diesels to detour over Larry's Piedmont Southern rails. Just as full-size railroads had to integrate control systems on locomotives from different manufacturers, DCC decoder manufacturers have various ways of controlling automatic sound and lighting effects. Larry Puckett photo

In the November 2016 DCC Corner column, I wrote about remapping decoder functions to make it easier for operators to access the growing number of user-triggered functions available with decoders from different manufacturers.

However, there are also a growing number of automated functions and features that can be activated without operators having to touch a button, or which occur as a side effect of another action. Let's take a look at a few of these as offered in some of the most common sound decoders.

**One feature common** to many sound decoders is the brake squeal. At one time you had to hit a function button each

time you wanted the brakes to squeal. In most current decoders the brake squeal is activated when some threshold is reached, usually due to a change in throttle setting. However, there can be some interesting interactions.

For some time I tried to make the brakes squeal on my ESU LokSound Select-equipped Atlas Alco S-2 switcher. I tried all kinds of different combinations of on-and-off thresholds using configuration variables (CVs) 64 and 65, to no avail.

Then someone on the LokSound Yahoo Group mentioned that you need to crank up the deceleration momentum value in CV4. I had set the value to 12, and that was too low a threshold for an audible squeal. Setting CV4 to a value of

30 brought the brakes to life and a value of 80 really drew them out when I reduced the throttle setting.

SoundTraxx Tsunami and Train Control Systems WOWSound decoders have their own idiosyncrasies with brakes. With SoundTraxx you have to turn on automatic brake squeal by setting CV198 to 4, and then adjust the sensitivity setting in CV196 (default is 3). The brakes then squeal when function 11 braking is used or when there's a rapid reduction in the throttle setting. WOWSound uses a minimum speed step setting for the point at which brake squeal starts. This is entered using indexed CVs 201 to 204.

If you're not happy with the default setting of 15, I suggest you go to the



programming section of the WOW-Sound website for the exact values if you don't use Java Model Railroad Interface's (JMRI) DecoderPro. [JMRI is available for free download at [www.jmri.sourceforge.net](http://www.jmri.sourceforge.net). – Ed.]

The brakes on WOWSound decoders only squeal when brakes are applied using F7. The brake sounds are changed at random, so they're a little different every time.

**Another neat sound feature** I bet many folks don't use or know about is the ability to adjust the automatic notch rate with some decoders. This feature allows you to change how quickly the locomotive engine RPM sounds ramp up as you advance the throttle.

With SoundTraxx Tsunami2 and Econami decoders you can use CV114 to set the number of speed steps between the notches at anywhere from 1 to 15 steps per notch. Older Tsunami decoders use CV116. This makes a big difference in the sound you get from your decoders as you advance the throttle.

The SoundTraxx approach forces the increase in locomotive RPMs to a constant rate of change – set it to 7 and you max out at about speed step 50 (assuming you are using 128 speed steps). If you operate your locomotives at prototypically slow speeds, that's fine. At speeds above step 50 there will be no more increase in RPM.

LokSound Select decoders basically spread the notches out evenly over the lower half of the speed table, and the rate can't be changed.

With WOWSound decoders you can set the number of steps between each notch independently. That way you can bunch up the RPM increase in the lower speed steps, then spread it out more in the higher speed steps as the locomotive picks up speed.

As with the brake squeal setting, the notch steps are entered using indexed CVs 201 to 204. The programming section of the WOWSound website has the exact values. I find the notch step feature especially useful with yard switchers that don't often get out of the lower speed step range, but may have to notch up a bit to shove a long cut of cars around.

Also keep in mind that all these decoders offer some form of manual notching, which allows the engineer to control the point at which RPMs increase. Manual notching usually works

by controlling the speed with the throttle and using function buttons to change the RPMs.

**Now let's talk about Rule 17.** As I wrote in the November 2016 column, this rule actually covers an array of rules related to the use of headlights. In most cases, decoders offer automatic headlight dimming whenever the locomotive comes to a stop.

All three of these manufacturers' decoders take this a step further, allowing you to set up the headlights so both the front and rear lights can remain on in both directions, with dimming when running in the opposite direction.

WOWSound decoders are probably the easiest of the three to program for Rule 17. I just write a value of 56 to CV61 and then program CVs 49 and 50 to a value of 40. SoundTraxx is more complex, since the CVs involved also program a large array of lighting features. Setting CVs 49 and 50 to 145, and on Tsunami2 and Econami decoders CVs 57 and 58 to 253, did the trick in my case.

LokSound decoders require changing several function CVs after setting index CV31 to 16 and CV32 to 2. Once these are set, program CV257 to 16, CV266 to 1, CV268 to 0, CV273 to 16, and CV282 to 2. If you have problems, try resetting the index CVs before programming each of the function CVs.

**Finally, here's one** that may drive you and your engineers crazy. It's possible to set features to occur when the locomotive reverses direction. For example, you could set it to sound the horn and ring the bell automatically each time the locomotive reverses direction. But this would probably get old fast, and most railroads didn't require this when doing repeated switching maneuvers.

Other automatic features can be programmed to activate when the grade crossing whistle or horn is activated. One typical use would be to have the ditch lights flash and the bell ring when the horn is blown for a crossing.

**Most of what I've discussed** isn't a concern when locomotives are operated

individually. However, consists can complicate things. Some of the differences in the ways decoders implement various functions are negligible, but others may take some planning, and a few make it difficult to operate mixed consists.

For example, a WOWSound decoder's F7 braking function and LokSound's Full Throttle brake feature would fight one another. [See more about LokSound's Full Throttle features in the April DCC Corner. – Ed.] Also, these features wouldn't work well together in universal consisting, since the brakes would only activate on the lead locomotive.

I know of some folks who've gone whole-hog and decided to standardize their locomotive fleet using one brand of decoder. But replacing all your decoders


is a prohibitively expensive option for most modelers.

With a little advanced planning when installing decoders, you could easily use the same types of decoders in locomotive models you plan to operate in consists. Also, as I wrote in the November 2016 DCC Corner column, similar functions can be remapped to the same throttle buttons.

Using advanced consisting, as I described in the July 2016 column, allows you to control which functions respond to throttle commands when operated in a consist. More importantly, there are some differences in

functions that don't matter in a consist. For example, you don't have to worry about headlights, horns, and bells in the center locomotives, since they would be off anyway.

**Programming all these** features to work automatically the way you want them to can get a bit complicated. In some cases it can be difficult to find out how various interactions work, or the function may not be fully documented in the manuals. Consequently, I've found DecoderPro to be the best reference for figuring this out.

In most cases the sliders and selection boxes are grouped according to function, making it easier to set up complex features. For more on programming these and other decoders, visit my website at [www.dccguy.com](http://www.dccguy.com). 





## Bachmann SoundValue HO scale EMD E7A

**For those modeling passenger** service in the last half of the 20th century, General Motors' Electro-Motive Division E-units are essential. This EMD E7A from Bachmann Trains would make a fine addition to an HO diesel roster. The model captures the lines of its sleek post-war prototype and comes in a version equipped with Bachmann's dual-mode SoundValue decoder, which was developed in conjunction with SoundTraxx.

**Prototype.** From 1945 to 1949, EMD produced 428 E7A (cab equipped) and 82 E7B (cabless booster) diesel-electric locomotives for railroads across the United States. The E7A locomotives had the same side panels as earlier E3 and E6 locomotives, but had the more blunt "bulldog" nose that would be found on

later E8 locomotives as well as EMD's F unit freight diesels.

Like other E units, the E7A rode on six-axle trucks in an A-1-A configuration with two drive axles and an unpowered idler axle between them. For its prime mover, the E7 used two 12-cylinder 567A diesel engines that produced a combined 2,000 hp.

Delivered in 1945, a pair of E7A locomotives had the distinction of being the first road diesel-electric locomotives to serve on the Pennsylvania RR. Over the next few years Pennsy purchased more E7s than any other railroad. Designated the EP20 class on the PRR, the roster totaled 60 E7 locomotives, including both A and B units. Some of the EP20s soldiered on during the Penn Central and Conrail years.

Pennsylvania no. 5901 is the sole surviving E7A and is on display at the Railroad Museum of Pennsylvania in Strasburg, Pa.

**The model.** The dimensions of the Bachmann E7A match prototype drawings in *The Model Railroader Cyclopedia: Vol. 2, Diesel Locomotives* (Kalmbach Publishing Co., out of print). The model's well-defined molded detail, including rivet seams and grills, matches the drawings as well as prototype photos.

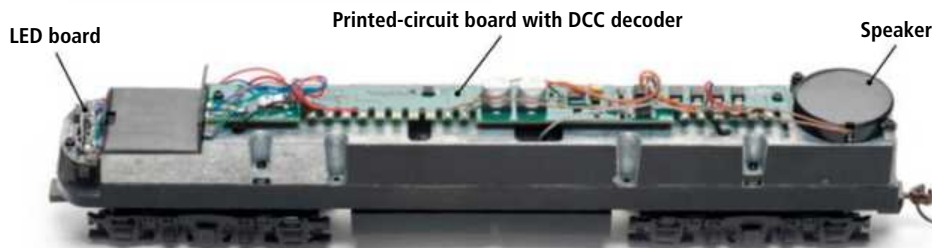
Separately applied detail parts include the airhorns, windshield wipers, and handrails. There is clear window glazing in all the cab and side windows. Bachmann offers a few body shell variations to match specific roadnames. The shell on our review sample matches no. 5881 as it was delivered, with small number-boxes. Also correct for the Pennsy prototype is the single headlight above the nose door.

As delivered in the late 1940s, the E7s were painted with Dark Green Locomotive Enamel and five gold pinstripes. Our review sample is decorated as the prototype appeared after being repainted in the early 1950s with a Tuscan Red body and five Buff pinstripes running along the sides. With "PRR" inside the key-stone herald on the nose door and no



Our review sample is sharply decorated in the Pennsylvania RR Tuscan five-stripe paint scheme. Separate detail parts include handrails, horns, and windshield wipers.





The flywheel-equipped motor and truck-mounted gearboxes are surrounded by a die-cast metal chassis. The SoundValue decoder is included on the main PC board.

striping across the side window glass, the paint scheme on the Bachmann model resembles that of a PRR passenger diesel painted after 1953. However, at that time, the EP20s would have started to receive larger number boxes and train-phone antennas, which aren't on the model.

The lettering and striping matches prototype photos. Initially, the PRR five-stripe version of the model is available only in one road number. Hopefully Bachmann will add other road numbers, as the EP20s commonly ran in pairs or multiple units.

**Mechanism.** After removing the front coupler, I carefully lifted off the plastic locomotive shell. The die-cast metal chassis consists of two halves that enclose the flywheel-equipped motor. The main printed-circuit (PC) board, which includes the SoundValue decoder, runs along the top of the weight. A smaller PC board on the front of the chassis includes a surface-mount light-emitting diode (LED) for the headlight. A downward-facing round 28mm speaker in a plastic enclosure is attached to the rear of the chassis.

Truck-mounted gearboxes transfer power from the motor to all six axles. All-wheel drive and almost 1.5 pounds of weight make the Bachmann E7A a powerful puller. Single-handedly, the locomotive can pull 28 free-rolling passenger cars on straight and level track. The E7A also pulled nine passenger cars up our layout's 3 percent grade.

All-wheel electrical pickup and an 18" minimum radius allowed the locomotive to easily handle the tightest curves and yard ladders of no. 5 and no. 6 turnouts.

#### MORE ON THE WEB

Subscribers can watch a video of the Bachmann SoundValue E7A in action. Click on the link at [ModelRailroader.com](http://ModelRailroader.com)

**DC performance.** After I applied 5V to our DC test track, I heard the sound of the dual 567s rumble to life. The rpm level increased and decreased with the throttle setting. All the sound effects are automatic, including forward (two toots), reverse (three toots), and stop horn (one toot) signals, as well as a bell that rings when the E7A travels at less than 10 scale mph. The sounds are momentarily interrupted whenever the direction switch is flipped, which I found distracting.

The model rolled smoothly at 1.5 scale mph with 6V applied to the track and accelerated to 80 scale mph at 12V. A prototype E7 could be geared for 85, 92, 98, or 117 mph top speeds.

**DCC performance.** The locomotive also featured smooth performance on our DCC test track, as shown in the charts at right. I could adjust configuration variables (CVs) to fine-tune the locomotive performance by customizing speed tables and adding acceleration and deceleration momentum.

A list of all the decoder's supported CVs are available on the Bachmann website. Additional programming information can be found in the Tsunami user manuals at [www.soundtraxx.com](http://www.soundtraxx.com).

The decoder has the same excellent sound quality and much of the functionality of a Tsunami decoder. Although there aren't any brake or coupler sounds, user-triggered features include important effects like the bell, headlight, dimmer, and short and long horn blasts. I also easily set the decoder for manual notching, which allowed me to use function buttons to increase or decrease the engine rpm sounds independently from the throttle setting.

The SoundValue decoder doesn't have the built-in equalizer of the Tsunami, but I still appreciated that I could easily set the volume level for each supported sound effect. This let me make sure that

## Facts & features

**Price:** \$299 (DCC sound), \$199 (DC, no sound)

#### Manufacturer

Bachmann Industries Inc.

1400 E. Erie Ave.

Philadelphia, PA 19124

[www.bachmanntrains.com](http://www.bachmanntrains.com)

**Era:** 1945 to 1980s

#### Road names

DCC with sound: Pennsylvania (five-stripe, Tuscan); Baltimore & Ohio; Chicago, Burlington & Quincy; New York Central; Southern. DC with no sound: Atlantic Coast Line, Louisville & Nashville, Milwaukee Road, PRR (single stripe, Tuscan), Union Pacific

#### Features

- All-wheel drive and electrical pickup
- Die-cast metal chassis
- Eight-pin DCC socket (DC version)
- Can motor with dual brass flywheels
- Light-emitting diode (LED) headlight
- Minimum radius: 18"
- Plastic E-Z Mate Mark II knuckle couplers at correct height
- RP-25 contour metal wheels in gauge
- Weight: 1 pound 7.5 ounces

#### PERFORMANCE TESTS

<b>DRAWBAR PULL</b>	4 ounces	
	28 HO scale passenger cars	
<b>SCALE SPEED (DC)</b>		
<b>VOLTS</b>		<b>SCALE MPH</b>
6 (start)		1.5
7		20
9		60
12		80
<b>SCALE SPEED (DCC)</b>		
<b>SPEED STEP</b>		<b>SCALE MPH</b>
1		1.5
7		38
14		76
28		90

I could always hear the horn above the sound of the engine.

The decoder supports programming on the main as well as on the programming track. I easily changed the decoder address to match the locomotive number. I also advance consisted the model to run with another manufacturer's SoundTraxx Tsunami-equipped E unit.

With realistic sound and exceptional pulling power, the Bachmann SoundValue E7A would look right at home hauling a streamliner along an HO scale main line. — Dana Kawala, senior editor



## Digitrax Evolution advanced DCC starter set

**Digitrax adds another advanced** command station, the DCS210, and a new DT500 throttle to its Digital Command Control (DCC) lineup. The new throttle and command station are also key components of the firm's Evolution DCC starter set. [Another new Digitrax product, the DCS240 advanced command station, was reviewed in the December 2016 issue. – Ed.]

In 2016, Digitrax began a process of overhauling its non-decoder Digital Command Control (DCC) product line. First Digitrax announced in February that the UR91 simplex radio receiver would be discontinued. In November came the word that simplex throttle production would be discontinued as of February 2017, and DCS100/200 command station production would come to an end after 20 years.

**DCS210 Command Station.** The DCS210 advanced DCC command station booster combination is essentially a little brother to the DCS240. The DCS210 has 100 address slots: less than the 400 slots available on the DCS240 but more than the 20 slots available on the Zephyr XTRA starter set. The number of slots determines the maximum number of locomotives and consists that the system can handle. Like the DCS240,

the DCS210 has the LOCO RESET button on the front of the unit that makes it easy to clear all the address slots.

There's also the EZ Route quick start button on the its front, which allowed me to set up routes and control turnouts from the DT500 throttle.

Because these new command stations require clean DC power, a new 15VDC 5-amp switching power supply is also included. Like the DCS240, the DCS210 features a dual power option that supports either the included 5A power supply or a more powerful 8A power supply (not included).

While the DT500 throttle is available separately, the DCS210 command station is available only as part of the Evolution starter set. The DT500 throttle is available in either a tethered, infrared-ready version or duplex radio wireless version. Depending on the throttle type, either a UP5 connector panel (tethered) or UR92 duplex radio/infrared transceiver (wireless) is included along with a 2-foot connector cable and an LT1 LocoNet cable tester. A UR90 infrared receiver (sold separately) is required to upgrade the tethered/IR version of the DT500 to infrared wireless operations.

Unlike the DCS240, the DCS210 doesn't have a built-in USB/PR3 computer interface, so those who wish to add that

capability will need to purchase a PR3 Xtra separately.

**DT500 throttle.** On the surface the only apparent difference between the DT500 and its predecessors, the DT400 and DT402, is the DT500 designation. However, as soon as I installed a battery in the throttle I saw a big difference – instead of instantly turning on like other Digitrax throttles, the DT500 just sits there. Finally, Digitrax has incorporated an on-off switch into a throttle. By pressing the PWR key on the DT500, I could turn the unit on and off. No more fumbling with the slippery battery cover and flipping the battery around inside to turn the unit on or off.

The DT500 also sports power-saving features designed to help conserve the battery. If left unused for more than 3 minutes, the throttle will go into power-saving mode. While in this state it will ping the system every 60 seconds and maintain control of locomotives. Hitting the EXIT key or moving the control knob will cause the throttle to wake up. If left alone for 20 more minutes, the DT500 will fully turn off. Adjusting the brightness of the display backlight or turning it off also extends battery life. These power-saving features can be turned on and off in the throttle configuration.



**More new features.** While the DT500 is backwards-compatible with earlier command stations, the special features of the DT500 work only with the DCS210 and DCS240 advanced command stations. The most powerful is the Query Mode. By pressing the PWR then the DISP key, the right throttle knob allowed me to scroll through a series of 32 separate pieces of information. Included among these are the hardware and software versions of the device being queried, input voltage, track voltage, current being drawn from the device, and the number of address slots in use, idle, free, and in consists.

I could also adjust the track voltage with voltage trim mode using another series of key clicks and the throttle knob. For example, the HO scale track voltage can be adjusted over a range of 14.5V to 18V. There are other voltage ranges for N and O scale. On previous Digitrax systems, this adjustment required opening the command station's case and turning a small knob.

Like its predecessors, the DT500 can be customized. Among the 27 different options are the ability to turn on the 20 minute shut down, turn off key clicks, turn on the fast clock, turn off ballistic tracking, alter the function of keys for F2 and F3, change the display backlight brightness, and turn off the power-saving mode. Most important is the ability to reset the throttle to factory defaults. For most folks these settings are a good starting point, but it's easy to experiment with other options.

**Easy upgrades.** Most new components in the Digitrax non-decoder product line now share the ability for users to upgrade firmware. This requires a PR3 interface and the DigiIPL software that can be downloaded free from the Digitrax website. This feature allows users to keep all their devices up to date the same way you regularly update your computer operating system and smart mobile devices, extending their useful lifespans while adding new features.

It's equally important to upgrade any old UR92 duplex radio transceivers on a layout to guarantee all the new features on the DT500 operate correctly. For example, I couldn't get the new DT500 Steal/Zap feature to work until I upgraded the UR92 firmware. I could then use one throttle to "steal" or select a locomotive

## Facts & features

**Price:** \$450 (tethered, Infrared-ready), \$660 (duplex wireless)

### Manufacturer

Digitrax, Inc.  
2443 Transmitter Road  
Panama City, FL USA 32404  
www.digitrax.com

### Features

- DCS210 advanced command station/booster
- DT500 throttle with on/off button
- PS615 15 VDC 5 amp power supply
- UP5 throttle connector panel or UR92 duplex transceiver
- Supports up to 100 locomotives and 100 throttles
- User-updatable firmware
- External reset button for clearing mobile decoder information
- External button for EZ Routes setup
- Improved programming track output with higher voltage
- Non-volatile flash memory—no internal batteries required for DCS210
- Easy track voltage setting using throttle
- Support for either 5 or 8 amp output dependent on power supply

already in use by another throttle, while automatically de-selecting it from the previous throttle.

**A winning combination.** Digitrax reports that it developed the Evolution starter set for new DCC users, as an upgrade path from their Zephyr Extra set, or as a replacement for older DCS100/200 units. The features of the DT500 add so much to the operational capabilities of the DCS210 that the components should be purchased as a set. Likewise, many of the advanced features of the DT500 throttle are only available when used with an advanced command station like the DCS210 or DCS240.

The combination of the command station, throttle, and suitable power supply in the Evolution starter set offer anyone wanting to get into DCC an impressive entry point with plenty of power and the ability to expand in the future. Furthermore, it offers Digitrax owners a convenient way to upgrade their current system with new features and pick up the new DT500 throttle in the package. — Larry Puckett, contributing editor

**HALF PRICE HOBBY** .COM

**100's of HO and N Scale specials  
at 50% off of M.S.R.P. at  
[www.halfpricehobby.com](http://www.halfpricehobby.com)**

Regular Stock items always discounted  
from 20 to 50% off with low flat rate  
shipping of \$8.99

Featuring products from Athearn and other  
quality brands

Special orders and pre-orders accepted at  
regular discounted prices.  
Please email [service@halfpricehobby.com](mailto:service@halfpricehobby.com)  
for pricing and availability.

**Turn your PC into a  
Centralized Traffic  
Control Facility!**

*Monitor and control the operation of your entire model railroad from a state-of-the-art control console displayed in full-color on your PC screen.*

Automate signals, turnouts, reversing loops, sound, lighting, collision avoidance, and much more.

Make your trains obey signals, make station stops, or run according to time tables. Configure routes and dispatch trains with a single click of the mouse.

**All automatically from your PC...**

Introducing the "Train-Brain," the fast, affordable way to add computer control to your model railroad.

Think computer control is too expensive? Our starter kit with **all** the hardware **and** software needed to get into model railroad computer control costs **just \$99.**

[www.cti-electronics.com](http://www.cti-electronics.com)

- All gauges, Z to G
- DCC or conventional
- Just plug and play
- Easy-to-use software
- Works on any PC

**KALMBACH  
HOBBYSTORE**

**Find More of What  
You're Looking For**

**Shop for books, DVDs,  
downloads, gear and  
other products related  
to your favorite hobby.**

— Visit —  
**[KalmbachHobbyStore.com](http://KalmbachHobbyStore.com)**

P27901

QUICKLOOK

## Wheels of Time HO 62-foot bulkhead flatcar

**Price:** Bulkhead flat: \$38.95; 3-pack, \$116.85; 12-pack, \$467.40. Plain deck (no bulkheads): \$35.95; 3-pack, \$107.85; 6-pack, \$215.70.

**Manufacturer**

Wheels of Time

P.O. Box 846

Mountain View, CA 94042

[www.wheelsotime.com](http://www.wheelsotime.com)

**Era:** 1966 to 1998 (as decorated)

**Road names:** With bulkheads: Southern Pacific, Golden West Service, St. Louis Southwestern (Cotton Belt). Plain deck: CP Rail (6 numbers), Kansas City Southern (6 numbers), St. Louis Southwestern (also available painted brown but unlettered and data only). Twelve road numbers per scheme unless noted.

**Comments:** Long strings of bulkhead flatcars loaded with finished lumber were once a common sight snaking their way out of the Pacific Northwest

and over the Rockies. Wheels of Time's new HO scale body style reproduces those cars with considerable fidelity, excellent printing, and fine details.

Wheels Of Time's model is molded plastic, with separately applied bulkheads, ladders, grab irons, uncoupling levers, and brake gear. A sheet steel weight is sandwiched between the underframe and the deck. The car weighs 4.1 ounces, which is 1.15 ounces light based on the National Model Railroad Association's Recommended Practice 20.1. A load would be the easiest way to bring it up to recommended weight.

The parts are well tooled, with well defined molded detail, open stake pockets, and three rows of nail holes down the center of the deck. The wire grab irons and metal brake platform are well made, and the ladders are close to scale thickness.

Our sample's Oxide Red paint was smooth and even, as was the brown paint on the deck and bulkhead planking. The white printing is crisp and opaque, and even the smallest type is legible under magnification.

All the dimensions I measured matched those on a drawing I found in the 1974 *Car Builder's Cyclopedia* (Simmons-Boardman). The model is equipped with Kadee magnetic knuckle couplers, which were mounted at the correct height. The car's blackened metal wheelsets were in gauge. It handled the 18" curves and no. 4 turnouts of our Beer Line layout well.

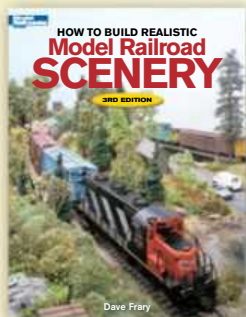
A unit train of these beauties hauling dressed lumber out of the Pacific Northwest would be impressive. A well-weathered model would be a great addition to a work train on a more modern layout, too. – Steven Otte, associate editor



# Make a Scene

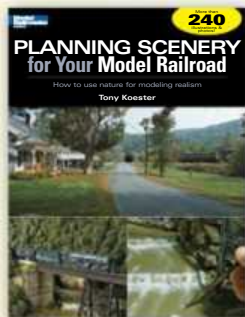
## Do Something Everyone Will Remember

If you want to make a scene, it better be memorable. That's why you can rely on our books to help you build stunning and realistic model railroad scenery. Check out the titles below and get started today!



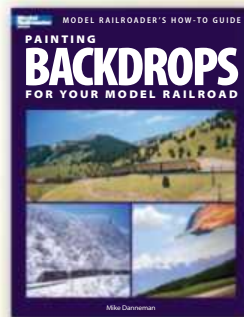
*How to Build Realistic Model Railroad Scenery, 3rd Edition*

#12216 • \$24.95



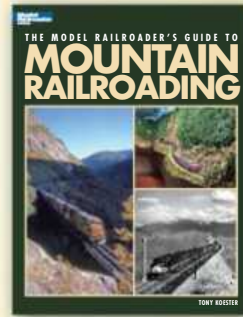
*Planning Scenery for Your Model Railroad*

#12410 • \$21.95



*Painting Backdrops for Your Model Railroad*

#12425 • \$18.95



*Model Railroader's Guide to Mountain Railroading*

#12462 • \$21.95



Buy now from your local hobby shops!  
Shop at [KalmbachHobbyStore.com](http://KalmbachHobbyStore.com)



## QUICKLOOK

### Kato N scale SDP40F diesel locomotive

**Price:** Direct-current, \$125; with ESU LokSound Digital Command Control and sound, \$250

**Manufacturer**

Kato USA Inc.  
100 Remington Rd.  
Schaumburg, IL 60173  
www.katousa.com

**Era:** 1988 to 1994 (as decorated)

**Road names:** Atchison, Topeka & Santa Fe (three road numbers) and BNSF Ry./Maersk (one number)

**Comments:** Yes, we reviewed the passenger version of Kato's N scale Electro-Motive Division SDP40F in the September 2016 issue. But the freight version is more than new paint on an existing shell. Above the cab on the injection-molded plastic shell is a rooftop air conditioner and two ground plates with Sinclair antennas. The rooftop steam generator equipment,

doors on the sides of the cowl body, and rear classification lights are all prototypically plated over.

Between January and May 1985, 18 former Amtrak SDP40Fs were rebuilt at Santa Fe's San Bernardino, Calif., shops. The six-axle road units were reclassified SDF40-2s and numbered 5250 through 5267. During the rebuild, the steam generator stacks and vents were removed, a new front door was added, the nose was modified, and front handrails were installed, among other modifications.

Though the front end was rebuilt, crews still had a difficult time reaching the cab using the front step and grab iron. To remedy this, the SDF40-2s were modified a second time. Starting in 1988, new front step wells were added and the nose was notched.

The Kato model depicts the post-1988 SDF40-2s. The model's dimensions

closely match prototype drawings published in Robert C. Del Grosso's *BNSF Railway Company 2007 Locomotive Review and Diagrams II* (Great Northern Pacific Publications, 2007).

The Santa Fe model weighs 5.7 ounces. The wheels are correctly gauged, and the couplers are at the correct height. The direct-current model moved at 1 scale mph at 1.2 volts. With a drawbar pull of 1.45 ounces, the locomotive is capable of pulling 35 freight cars on straight and level track.

I also tested the SPD40F on our Red Oak project layout. The locomotive comfortably negotiated the 13" radius curves and Peco no. 6 medium turnouts.

Kato did an excellent job capturing the distinct lines of Santa Fe's SD40F-2 diesel locomotive. The notched nose, rooftop details, and plated over parts give this model a sense of history. —  
*Cody Grivno, associate editor*



## Tips, Tracks, & Techniques

Get a Full Year (12 issues) of *Model Railroader*!

- How-to projects.
- Expert product reviews.
- Tips & techniques.
- Inspiring layout photos.
- Track plans.



To subscribe, visit  
[ModelRailroader.com/Offer](http://ModelRailroader.com/Offer)

### Z-Stuff for Trains creates a signal bridge for HO Scale



Order now: [www.zstuffexpress.com](http://www.zstuffexpress.com)  
708-352-9105

Dealers or technical  
questions: [www.z-stuff.net](http://www.z-stuff.net)  
585-377-0925

Realistic action  
with a two wire  
installation  
(power and ground).

- Modular (2 to 8 tracks)
- Sensors built-in under the deck
- 2.5" modules for track spacing close to that dimension
- Signal heads either side or BOTH sides
- 8 sec. delay between indications
- Delay can be set to be any time from 1 sec. to 60 sec.
- Each track position has an input wire for down track sensing and indication.

## Caboose is now Open!

We have all the supplies, tools and knowledge to help you build your dream layout.

All scales Z to G sold and repaired • Special & Pre-Orders

10800 West Alameda Avenue,  
Lakewood, Colorado 80226

Phone: (303)777-6766

Open 7 days a week!

**CABOOSE**

Sharing Our Passion for Trains Since 1938

[www.MyCaboose.com](http://www.MyCaboose.com)









NEW  
RIVER  
MINING  
COMPANY

High in the Appalachians in 1954, a Baltimore & Ohio EL-3a spots empty hoppers at the New River Mining Co. Michael Tricker of Ashford, Middlesex, U.K., photographed the scene on his HO scale B&O Paquetin Division layout, which was featured in the June 2013 *Model Railroader*.





**Union Pacific gas-electric motorcar** no. M66 has left the passenger station at Waverly and is passing Waverly Yard tower as it begins its morning run to Bucky's Crossing. Rod Vance of Farmville, Va., kitbashed and superdetailed a Bachmann doodlebug to make the HO scale motorcar. He shot the photo on his HO scale Willow Creek RR.

## Send us your photos

**Trackside Photos** is a showcase for the work of *Model Railroader* readers. Send your photos (digital images 5 megapixels or larger) to: *Model Railroader*, Trackside Photos, P.O. Box 1612, Waukesha, WI 53187-1612; or upload them to <http://fileupload.kalmbach.com/Submission/contribute>. For our photo submission guidelines, contact associate editor Steven Otte at [sotte@mrmag.com](mailto:sotte@mrmag.com).





**A Chicago, Burlington & Quincy Electro-Motive Division SW1000** backs toward the main line after dropping off some empty cars. Garry Boyd of Cadiz, Ky., shot the photo on his HO scale CB&Q Heartland Division layout, set in 1962. Garry scratchbuilt the metal-clad grain elevator.



**The Halmark & Sons Circus train** has arrived, and the roustabouts have started unloading quickly to get set up for the afternoon performance. Paul Dolkos shot the photo on the 1950s-era O scale diorama built by Harold Fleming of Great Falls, Va., a circus modeler.



# Model Railroader

*The Most Beautiful  
Models in the World*



YESTERDAY • TODAY • TOMORROW

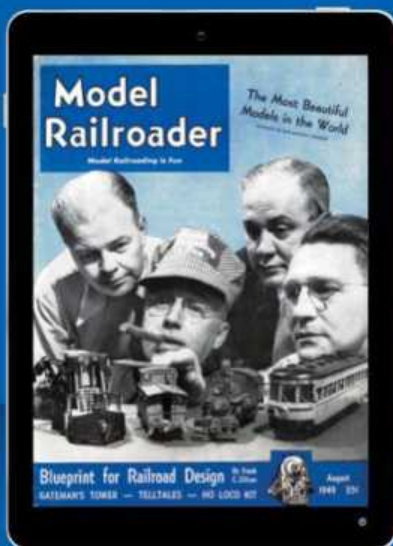
## Model Railroading is *Still* Fun

Very few monthly magazines can boast 1,000 issues. In April 2017, *Model Railroader* reached this milestone with a special collector's issue.

To see how far we've come since our first edition in 1934, subscribe to ***Model Railroader's All-Time Digital Archive*** today and get every issue ever published including our **1,000th issue!**

A subscription to the Archive offers you more of everything — thousands of layout stories, how-to projects, expert tips and reviews, on any device connected to the internet.

It's all there when you add the All-Time Digital Archive.  
**Order today at [ModelRailroader.com/Archive](http://ModelRailroader.com/Archive)**





**TrainSetsOnly.com**  
 ✓ Competitive Pricing ✓ 1000's of Items In-Stock  
 ✓ Quick Shipping ✓ Great Service  
 ✓ N, HO, O, and G Scales  
 Locomotives • Rolling Stock • Track • Power • Structures • Scenery

**THE TRAINMASTER, LLC**  
 Pursuing Excellence  
 Detailed Craftsman Kits  
 www.TheTrainMaster.com

**DON BLACK WE BUY & SELL BRASS**  
 VISIT US ONLINE  
 WWW.DONBLACK.COM  
 HUNDREDS OF PICTURED  
 MODELS TO CHOOSE FROM  
 Don Black 119A Bernhurst Rd New Bern NC 28560  
 Toll Free 1-866 HO BRASS

**HO SCALE**  
**Newest!**  
 40-Ton  
 ARA Trucks  
 Tahoe Model  
 Works  
 TEL: 775-600-9992 Send SASE for flyers  
 PO Box 3935 • Carson City, NV 89702  
 www.resincarworks.com/tahoe.htm

**FIFER HOBBY SUPPLY LLC**  
 Your Local Internet N Scale Hobby Shop  
 WWW.FIFERHOBBY.COM

**3DK**  
 Downloadable Model  
 Railway Card Kits  
 An incredibly detailed & realistic  
 range of HO & O Scale building kits.  
 Try our free kit before you buy!  
 www.3dk.ca

**Timberline Scenery**  
 All Timberline trees & tree kits are  
 BOTTLE BRUSH TREES!  
 Check out our trees • ground cover  
 paints • stains • rocks & more at...  
 www.TimberlineScenery.com

**SS LTD**  
 2000+ HO Scale Hand Cast Pewter  
 Super Detail Parts & Kits!  
 Building Better  
 Structures Begins  
 with SS LTD!  
 CHECK OUR WEBSITE!  
 -OUR LATEST ONLINE CATALOG- www.scale-structures.com  
 800-352-1554

**Pennsylvania (PA) Model RR Supply**  
 Model Trains carried in G, HO, N, OO, O, Z,  
 Atlas, Bowser, MTL, Walther's and more.  
 British Trains and Die-cast Imported and Stocked!  
 Dapol, Hornby, Oxford Die-cast, PECO and more.  
 570-287-4288 www.pamodelrrsupply.com  
 Great prices & service!

**Model Scenery & Structure**  
 WINSTON SALEM, NC  
 Call anytime 24/7  
 845-797-9533  
 custom layouts  
 design build install  
 www.modelsceneryandstructure.com

**Need Track?**  
 Walther's, Digitrax & Cobalt Dealer  
 Full line of On30, HO, N Scale Peco/Atlas track  
 Micro-Engineering & Caboose Industries.  
 Handlaying supplies, ties, rail spikes, etc.  
 Full line of Kadec couplers, Tortoise and more!  
 www.BILLS TRAINS.COM  
 For Questions and Non-Computer Users, CALL ME!  
 phone: (813) 653-3322 • e-mail: billstrains@aol.com

**TOMAR INDUSTRIES**  
 9520 E. NAPIER AVE., BENTON HARBOR, MI 49022  
**End of Train Device**  
 N Scale - \$21.15  
 HO Scale - \$16.95  
 O Scale - \$24.25  
 \$4.00 each  
 includes:  
 painted casting w/1.5v lamp installed  
 flasher unit, battery holder  
 269-944-5129  
 www.TOMARINDUSTRIES.COM  
 AMBER LENS #806  
 RED LENS #822

**RailroadBackdrops.com**  
 The Hobby's Best Backdrops Period. Beautiful Full Color  
 Photographic Backdrops. All Designs Available In All Scales.  
 Waterproof, Scratch Resistant, Tear Resistant, Washable!  
 RailroadBackdrops@Gmail.com

**Acrylic Airbrush Paint**  
 Easy prep. Easy clean-up.  
 Only \$3.95 1 fl. oz.  
 FREE shipping available  
 Call 404-432-7823  
 www.Modelersdp.com

**CUSTOM LAYOUT BUILDING**  
 AFFORDABLE EXCELLENCE  
 207-564-0705  
 WWW.MODELRAILSCENES.COM

**TK TRAIN HOBBY**  
 Phone 740-633-6607  
 HO, N, O & G Trains, Track, Scenery,  
 Accessories and Much More!  
 We have Walther's, Athearn, Spectrum,  
 Branchline and many others!  
 Visit us on line for great savings!  
 www.tandkhobby.com

**Say you saw their ad in**  
**Model Railroader**  
**MAGAZINE**  
**Model Railroader**

**RIVER POINT**  
 Crew Cab Ram  
 coming Q4-12  
 Let us know  
 what  
 you  
 want!  
 Hurry!  
 HO  
 New: SKU 536-5455.15  
 www.RiverPointStation.com  
 River Point Station Division of ITI  
 115 Maple Street, Warwick, RI 02888-2130 USA  
 Tel. (401) 467-6907 rps-info@riverpointstation.com  
 Available Worldwide at Hobby Stores  
 Dealers may order from RPS or through Walther's

**S Scale Trains**  
 22 steam & diesel engines  
 25 freight cars, passenger and  
 cabooses. The most realistic  
 track made. 33 year reputation.  
 Send \$7 for 68 pg catalog  
 www.americanmodels.com  
 Phone 248-437-6800  
 AMERICAN MODELS 10087  
 Colonial Ind, S Lyon MI 48178

**HO & N Scale Model Train Manufacturer**  
**SCALE TRAINS**  
**WWW.SCALETRAINS.COM**

**AffordableModelRailroads.com**  
 GETTING YOUR DREAMS ON TRACK  
 Professional Layout Design & Construction  
**Quality Workmanship**  
**Affordable Pricing**  
 Built In Our Shop or....  
 We Come Build On Your Site!  
 MR@AffordableModelRailroads.com  
 (800) 216-9202



## WIG-WAG, LLC

[www.wig-wag-trains-cart.com](http://www.wig-wag-trains-cart.com)

Personal service, Great pricing.  
Your N-Scale supplier! Actual cost shipping.

1-888-298-7177

HO/N/O signs, billboards,  
laser-cut structures  
and much more from:

## Blair Line, LLC

PO Box 1136, Carthage, MO 64836  
[www.blairline.com](http://www.blairline.com)



RAIL  
LINE  
MODELS  
ROAD  
"N-HO  
-S-O"  
"FARMERS  
UNION"  
[RAILROADLINEMODELS.COM](http://RAILROADLINEMODELS.COM)

## YardSaleTrains.com

Hard to Find Near New Exclusive N Scale

Kato • Atlas • MTL • Kadee • DC or DCC • Scenery  
Track • Buildings • Details • Bridges • Tools

[www.yardsaletrains.com](http://www.yardsaletrains.com)  
(720)840-7274

## railroadbooks.biz

has 1,800 plus new titles,  
all at discount!

Domestic shipping FREE over \$50.00

E-mail for free printable  
PDF list.

chuck@railroadbooks.biz  
[www.railroadbooks.biz](http://www.railroadbooks.biz)

International  
Service.  
Book Search.

ORDERS:

U.S. (800) 554-7463

BUSINESS &  
INTERNATIONAL:

+01 (812) 391-2664  
SEND:  
\$2.00 for paper  
book list.

PO Box 4, Bloomington, IN 47402-0004 U.S.A.

## Rix Products Pikestuff

Web site: [www.rixproducts.com](http://www.rixproducts.com)  
Send LSASE for new 20 page catalog.  
3747 Hogue Rd. Evansville In. 47712  
Phone (812)426-1RIX FAX (812)423-3174  
Model Railroad Structures & Accessories

**BACKDROPS**  
HO, O, N Scales  
[WWW.TRAINJUNKIES.COM](http://WWW.TRAINJUNKIES.COM)  
-----Up to 100 Feet Long-----

**ALLEGHENY SCALE MODELS**  
LOCOMOTIVES AND ROLLING STOCK  
HO, O, S, N, and Large Scale Out of Production Models  
Sales, Consignments, Estates, Appraisals  
[www.alleghenyscale.com](http://www.alleghenyscale.com)  
phone: 908-684-2070 470 Schooley's Mtn. Rd.  
oscale@alleghenyscale.com Suite 8-117  
Hackettstown, NJ 07840

**Valley Trains N Hobbies**  
Specializing in N scale, locomotives, rolling stock,  
scenery, DCC & decoders! We also have HO!  
See us at Greenberg Shows in Edison, NJ.  
[www.valleytrainsnhobbies.com](http://www.valleytrainsnhobbies.com)

[www.TamValleyDepot.com](http://www.TamValleyDepot.com)  
Model Railroad Electronics  
Frog Juicers Automatic DCC polarity reversers  
for frogs on turnouts and crossings.  
Dead Rail System Servo Switch  
Radio controlled Machines  
Battery Power Small and  
Trains powerful

**PRINTED ROAD SIGNS**  
Details - Fences - 55 Gal Drums  
Custom Decals  
All scales.  
Catalog call 336-329-9038  
[www.TICHYTRAINGROUP.com](http://www.TICHYTRAINGROUP.com)

**GOODDEALSDCC**  
[www.gooddealsdcc.com](http://www.gooddealsdcc.com)  
HOME OF THE PROGRAMMER TEST TRACK SYSTEMS  
DC & DCC Compatible Gary Cohn  
All Scales Available 106 Center Street  
Custom Orders Fox River Grove, IL 60021  
Dealer Inquiries Welcome [gary@gooddealsdcc.com](mailto:gary@gooddealsdcc.com)

**MODERN  
Buildings  
in HO & N!**  
(337) 436-8481  
[www.summit-customcuts.com](http://www.summit-customcuts.com)

**East Coast Railroads**  
**ECR**  
[EastCoastRailroads.com](http://EastCoastRailroads.com)  
HO Scale Limited Run Models  
Sales@EastCoastRailroads.com  
Raleigh, NC ••• 919-322-5003

**CHOOCH**  
Great  
Scenery  
[www.ChoochEnterprises.com](http://www.ChoochEnterprises.com)

**Touch Toggles** Elegant  
Run track circuits, Tortoises, twin-coils,  
servo motors, and more with a touch!  
See our website for  
a video introduction  
Made in the USA  
[www.berrethillshop.com](http://www.berrethillshop.com)

**ALL  
ELECTRONICS  
CORPORATION**  
Electronic Parts  
and Supplies  
for Your Project.  
[www.allelectronics.com](http://www.allelectronics.com)

**Jamestown  
Train Depot**  
Quality New &  
Used Train Sales  
[www.JTTrains.com](http://www.JTTrains.com)  
Lowest Price Guarantee  
Service, Repair & Upgrades for most manufacturers  
We Also Buy Train Collections, 540-878-0397

**Dixitax**  
Complete Train Control  
We have  
all the BEST  
Dixitax products!  
**Litchfield**  
STATION  
[www.LitchfieldStation.com](http://www.LitchfieldStation.com)  
623-298-7355

**SPRING MILLS DEPOT**  
[WWW.SMD.CC](http://WWW.SMD.CC)  
Affordable storage systems for HO and N scale. High  
quality extremely limited custom run HO scale cars.  
**CUTTING EDGE  
REALISTIC DETAIL  
NEVER BEFORE SEEN!**  
★ ARRIVING FALL 2017: DODX 68' FLATCARS ★

After You've Looked at the Others...  
**Progressive  
pmd  
Model Design**  
MUSEUM QUALITY - CUSTOM  
**LAYOUT  
MODELING  
SERVICE**  
**WHAT CAN WE  
BUILD FOR YOU?**  
[www.PROGRESSIVEMODELDESIGN.COM](http://www.PROGRESSIVEMODELDESIGN.COM)  
211 RocBaer Drive, Romeoville, IL 60446  
(815) 886-9010 FAX: (815) 886-9076  
**Ultimate Model Magic™**



## Ron's Books

The largest railroad book seller with over **6,000** titles and over **475** DVDs! Free shipping on orders over \$25 in the U.S. Send \$3 for a catalog.

P.O. Box 714  
Harrison, NY 10528  
914-967-7541  
ronsbooks@aol.com

Online catalog at  
ronsbooks.com

## BPL BRASSWORKS

The first stop for those with distinctive taste. Fine scale brass models, both old and new.

**WWW.RAILMODEL.COM**

BUYING? Outstanding support - trades, reservation management, multiple payment options, one-on-one service, daily updates, latest projects!

SELLING? A single model or extensive collection, experience and robust resources bring you comfort and confidence - consigning or selling

Email: [info@railmodel.com](mailto:info@railmodel.com)

Phone: 262 375-1107 Fax: 866 719-7977  
10936 N Port Washington Suite 240  
Mequon, WI 53092

Custom  
Layout  
Building

Layout Design

By Lance Mindheim

[www.shelflayouts.com](http://www.shelflayouts.com)

301-404-8164

## Classified Advertising

**Schedule of Events Rate:** \$35 per issue (45 word maximum). Ads will contain the following information about the event: state, city, sponsoring organization and name of event, meet, auction or show, dates, location, times, admission fee, name and/or telephone number and/or email of person to contact for information. Name, daytime telephone number and street address of the person providing the information is also required but need not be included in the ad. Unless otherwise requested, ads will be published in the issue month that the event occurs in. Additional months are available at the \$35 per issue fee. Please specify issue date(s).

**Word Ad Rates:** per issue: 1 insertion — \$2.03 per word, 6 insertions — \$1.89 per word, 12 insertions — \$1.77 per word. \$30.00 MINIMUM per ad. To receive the discount you must order and prepay for all ads at one time. Count all initials, single numbers, groups of numbers (i.e. 4-6-0 or K-27), names, address number, street number, street name, city, state, zip, phone numbers each as one word. Example: John A. Jones, 2102 South Post St., Waukesha, WI 53187 would count as 10 words.

For MR's private records, please furnish: a telephone number and, when using a P.O. Box in your ad, a street address. *Model Railroader* reserves the right to refuse listing.

**All Copy:** Set in standard 6 point type. First several words only set in bold face. If possible, ads should be sent typewritten and categorized to ensure accuracy.

Send your submissions to: *Model Railroader* — Classifieds 21027 Crossroads Circle, P.O. Box 1612 Waukesha, WI 53187-1612 Toll-free (888) 558-1544 Ext. 815 Fax: 1-262-796-0126 E-mail: [onlineclassads@kalmbach.com](mailto:onlineclassads@kalmbach.com)

All ads must be prepaid and pertain to the subject of model railroading.

## Schedule of Events

**CA, SAN LUIS OBISPO:** San Luis Obispo Train Day: May 13, 2017, 10:00am-4:00pm. Trains, Extensive HO Layout, Swap Meet, RR Art, Wine-Rail Excursion, Food and More! \$5.00, Kids \$3.00. Take Amtrak's Coast Starlight®. San Luis Obispo Railroad Museum, [www.slormm.com](http://www.slormm.com)

**DE, ROXANA:** Spring Fling Train & Toy Show. Roxana Fire House, Route 20, between Millsboro & Fenwick Island. Saturday, May 6, 2017, 9:00am-3:00pm. Admission: \$5.00 adults, children 10 and under free. Operating layouts, refreshments, door prize. For information contact Bill Ziegler, 302-537-0964 or [www.delawareseasiderailroadclub.com](http://www.delawareseasiderailroadclub.com)

**FL, BROOKSVILLE:** Regal Railways presents Toy Trains & Hobby Show. Hernando Fairgrounds, 6436 Broad St. Saturday, May 20, 2017, 9:00am-2:00pm. Adults \$5.00. Vendors, videos and operating layouts. Serving lunch items. Contact: Joe at 727-244-1341 or visit: [www.regalrailways.com](http://www.regalrailways.com) for more information.

**FL, ORLANDO:** NMRA 2017 Orlando National Convention. Rosen Plaza Hotel, 9700 International Drive, Zip: 32819. July 30 - August 5, 2017, 8:00am-11:00pm each day. Admission: See website, [www.nmra2017orlando.org](http://www.nmra2017orlando.org) Contact: Gilbert Thomas, 8119 Woodvine Circle, Lakeland, FL 33810, 863-412-3090, E-mail: [Thomas\\_12399@msn.com](mailto:Thomas_12399@msn.com)

**IA, DAVENPORT:** 6th Annual Davenport Model Railroad & Memorabilia Swap Meet. Mississippi Valley Fairgrounds, 2815 W. Locust St. Saturday, May 6, 2017, 9:30am-4:00pm. Admission: \$5.00. Tables \$20.00. All scales, operating layouts, food available, free parking. This is Iowa's Largest Train Show. Info: 563-391-6431, 8:00pm-10:00pm

**KS, KANSAS CITY AREA:** Turkey Creek Division Train Show Swap Meet. Shawnee Mission High School cafeteria 7201 Johnson Dr., Overland Park, KS. Saturday, July 29, 2017, 8:00am-3:00pm. Admission \$6.00, under 12 free. Layout tours 3:30pm-8:30pm. Vendors and Registrants contact Larry Alfred, [captalfred@gmail.com](mailto:captalfred@gmail.com) 913-782-6584. Go to: [www.tc-nmra.org](http://www.tc-nmra.org) for forms.

**MN, WOODBURY:** Newport Model RR Club Flea Market & Train Show. Woodbury High School, 2665 Woodland Drive, Zip: 55125. April 29, 2017, 9:00am-2:00pm. Admission \$5.00. Future Show: October 14, 2017. Club Address: Newport Train Club, PO Box 0061, St. Paul Park, MN 55071. Contact: Ed, 651-233-3310

**NC, SPENCER:** Model Train and Railroadiana Show at the North Carolina Transportation Museum. May 12-13, 2017, Friday 12:00pm-7:00pm and Saturday 9:00am-5:00pm. Speakers, train rides, newly opened 1905 Back Shop! Details: [nctrans.org](http://nctrans.org) or 704-636-2889, ext. 251

**NY, BALDWIN:** The Sunrise Trail Division NER/NMRA Spring Meet. First Church Baldwin Methodist, 881 Merrick Road, Zip: 11510. April 29, 2017, 10:00am-4:00pm. Admission: \$7.00, under 12 and Scouts in uniform free w/adult. Operating layouts, clinics, White Elephant table. Lunch available. Contact: Steve Perry, [sepperry@optonline.net](mailto:sepperry@optonline.net), 631-744-6462, [www.sunrisetraildiv.com](http://www.sunrisetraildiv.com)

**OH, COLUMBUS:** The 9th Ohio N Scale Weekend, "For N-Scalers by N-Scalers" Franklin County Fairgrounds, Hilliard, Ohio. Presented by Central Ohio N-Trak. May 20-21, 2017, Saturday, 10:00am-5:00pm and Sunday 9:00am-3:00pm. Set-up Friday May 19th, 1:00pm-8:00pm. Event registration \$10.00. Event info [www.centralohiontrak.org](http://www.centralohiontrak.org) or e-mail [ohionscaleweekend@yahoo.com](mailto:ohionscaleweekend@yahoo.com)

**PA, ALLENTOWN:** East Penn Traction Club 23rd National Trolley Meet. Allentown Fairgrounds. May 19-20, 2017; Adults \$23.00 in advance, \$25.00 at door. Information [www.eastpenn.org](http://www.eastpenn.org) or Charles Long, 215-247-1951 or [prtpc17@navpoint.com](mailto:prtpc17@navpoint.com)

**SC, GREER:** Greer Model Train Show. National Guard Armory, 105 Woodruff Road, Zip: 29651. Saturday, May 20, 2017, 9:00am-3:00pm. Admission \$5.00, under 10 FREE. Over 100 vendor tables, Thomas the Train & Friends, Railroad collectibles. Contact Todd at 843-307-8674, [southcarolinatradeshow@gmail.com](mailto:southcarolinatradeshow@gmail.com) or [www.SouthCarolinaTradeShows.com](http://www.SouthCarolinaTradeShows.com)

**TN, JOHNSON CITY:** George Carter Railroad Museum Train Expo. East Tennessee State University indoor Minidome, 1081 John Robert Bell Drive. June 2-3, 2017, Friday 10:00am-8:00pm and Saturday 10:00am-4:00pm. Admission \$5.00, under 12 free. Free garage parking. Vendors, working layouts, live steam. Contact Roger Teinert 423-791-4937 or William Hensley 865-257-6605.

**TX, AUSTIN:** Austin Area Train Show, Williamson County Expo Center, 210 Carlos Parker Blvd., Taylor, TX (minutes past Dell Diamond). May 6-7, 2017, Saturday 10:00am-5:00pm and Sunday 10:00am-4:00pm. Admission \$7.00 (12 and under free w/adult). Clinics and self-guided layout tour included. Information: visit <http://centennxmr.org/trainshow.html>

**TX, JEFFERSON:** TRAIN SHOW. Jefferson Historical Museum, 223 W. Austin, Zip: 75657. May 20-21, 2017, Saturday 10:00am-5:00pm and Sunday 11:00am-4:00pm. \$6.00 Admission includes layout tour of R.D. Moses T&P Model Railroad. Separate amusements include steam train ride and Jay Gould's private car tour. 903-665-2775, [www.jeffersonmuseum.com](http://www.jeffersonmuseum.com)

**VA, FISHERSVILLE:** 31st Annual Shenandoah Valley Model Train and Railroad Show. Augusta Expoland, 277 Expo Road. Sunday, May 7, 2017, 10:00am-4:00pm. Adults \$5.00, children under 12 free. Vendor tables \$20.00. Contact: Bill Kauffman at 540-209-2698, [kauffmanb@gmail.com](mailto:kauffmanb@gmail.com) or visit [www.acmrrc.org/annual-model-train-show](http://www.acmrrc.org/annual-model-train-show)

**WI, SPOONER:** Railroad Heritage Day, June 17, 2017. Spooner Elementary School, 1821 Scribner St. Model train show, layouts, vendors. Tour railroad museum inside restored 1902 Chicago & North Western depot. Train rides on Wisconsin Great Northern. Presented by Spooner Railroad Memories Museum. Admission \$1.00. Contact David Masterjohn, 715-491-5030.

## Classifieds

### Wanted-N Scale

**#1 ESTATE BUYER OF N SCALE COLLECTIONS!** We buy all makes and types - including Brass & European! Even N3! Call us TOLL FREE: 1-866-462-7277. Don Black 119 Bernhurst Road, New Bern, NC 28560. E-mail: [don@donblack.com](mailto:don@donblack.com)

**A FAMILY-OWNED COMPANY,** Irek's Toys and Trains, purchases trains of all types from brass to plastic. We also offer a competitive consignment option. No collection too small or large. Estate specialists. A leader in model train sales. Fast, Easy, Professional and Friendly service guaranteed. Willing to travel. Call, write, fax or e-mail. Ask for Chris, 972-675-8697. Fax: 972-767-4785. E-mail: [thetrainguy@gmail.com](mailto:thetrainguy@gmail.com) or write to 120 East FM 544, Suite 72 #328, Murphy, TX 75094.

**ALWAYS BUYING N Scale Collections-** Kato, Atlas, Micro-Trains, Custom Painted, Brass or Plastic. Quality Items Wanted- Over \$1,000,000 Available. Please call Dan Toll-Free at: 1-877-227-5557 or 352-292-4116. Mail your list to: Dan Glasure, PO Box 755, Ocklawaha, FL 32183 or E-Mail: [Dan@DansTrainDepot.com](mailto:Dan@DansTrainDepot.com)

**BUYING N scale train collections,** large or small. Call Tom 630-443-9137.

**CANADIAN TRAIN COLLECTIONS AND ESTATES:** Buying entire collections anywhere in Canada or the USA. Brass, plastic, engines, cars, buildings, memorabilia - everything! Call Don toll-free 1-877-955-7245. E-mail: [trainsandsuch@telus.net](mailto:trainsandsuch@telus.net)

### For Sale-HO Scale

**50'S ERA HO TRAIN LAYOUT** and building. 15' wide by 28' long building with electric heat, air conditioning. Mountains, tunnels, river, lake, 20' hand-painted mural. Call for information 260-463-3255. Layout can be transported.

**HAG, MÄRKLIN, TRIX, FLEISCHMANN** and other European brands at very competitive prices. World class repair facility. E-Shopping fast, convenient, secure, reliable! Please visit us on the web at [www.helmuthobbies.com](http://www.helmuthobbies.com) Helmut's Hobby Specialties, 83 Brookshire Dr., Warrenton, VA 20186. 540-349-4910.

### For Sale-HO & N Scale

**GOT DIRTY TRACK?** HO & N scale track cleaners. Made in USA. Dealer inquiries welcome. [www.StealthTrackCleaner.com](http://www.StealthTrackCleaner.com) 616-784-4104

### Wanted-HO Scale

**#1 A+ ESTATE BUYER OF ALL TRAIN ESTATES-** Brass Pieces & Collections wants your material. Including all types of Brass, old trains, kits, plastic, diecast, buildings, etc.- we buy it all. Buildings and estates included. We seek better items for personal collections. Call us before you sell for our offer as we pay the highest prices. Call Don Black toll free 1-866-462-7277. Don Black, 119 Bernhurst Road, New Bern, NC 28560. E-mail: [don@donblack.com](mailto:don@donblack.com)

**\$1,000,000 CASH AVAILABLE-** For your collection! Brass, Plastic, Memorabilia, we buy it all. Call us 352-292-4116 or mail your list to: BRASSTRAINS.COM, 10515 SE 115th Ave., Ocala, FL 34472. E-mail: [dan@brasstrains.com](mailto:dan@brasstrains.com)

**A FAMILY-OWNED COMPANY,** Irek's Toys and Trains, purchases trains of all types from brass to plastic. We also offer a competitive consignment option. No collection too small or large. Estate specialists. A leader in model train sales. Fast, Easy, Professional and Friendly service guaranteed. Willing to travel. Call, write, fax or e-mail. Ask for Chris, 972-675-8697. Fax: 972-767-4785. E-mail: [thetrainguy@gmail.com](mailto:thetrainguy@gmail.com) or write to 120 East FM 544, Suite 72 #328, Murphy, TX 75094.

**A FATHER & SON TEAM** are looking for large high-quality Brass & Plastic Collections. We buy your entire collection, not just the cream. Over \$1,000,000 Available. Many items bought are used for personal layout. Call Dan Toll-free at: 1-877-227-5557 or 352-292-4116 or Mail a List to: Dan Glasure, 10515 SE 115th Ave., Ocala, FL 34472 or E-Mail: [Dan@DansTrainDepot.com](mailto:Dan@DansTrainDepot.com)

**BRASS PASSENGER CARS:** Craftsman's kits: LIRR brass and plastic. Challenger Broadway Limited and Challenger NP Cars. Please call Bob 212-874-6569 or e-mail [grandt7@yahoo.com](mailto:grandt7@yahoo.com)

**BUYING HO** train collections, large or small. Also brass. Call Tom 630-443-9137.



**Wanted-HO Scale (continued)**

**CANADIAN TRAIN COLLECTIONS AND ESTATES:**  
Buying entire collections anywhere in Canada or the USA. Brass, plastic, engines, cars, buildings, memorabilia - everything! Call Don toll-free 1-877-955-7245. E-mail: trainsandsuch@telus.net

**For Sale-O Scale**

**A 17X17 FOOT "L" SHAPED LAYOUT** and "O" gauge collection. Lionel N&W and Southern Railway locomotives with TMCC. Assorted rolling stock. MTH transformer. Many new, in-box items. Motivated seller. All must go. Contact: Gary Vernon, 336-922-0800, in NC, bluegrasssubvet@triad.rr.com

**Wanted-O Tinplate**

**BUYING O** and Standard gauge collections. Lionel, Flyer and all others. Call Tom 630-443-9137

**For Sale - Miscellaneous**

**EMBROIDERED RAILROAD PATCHES**, 1,000 designs. Catalog \$5.00. The Patch King, PO Box 145, York Harbor, ME 03911.

**TREES!** Unique Evergreen Trees and Kits. Realistic and Fun. Save Time & Money. Handcrafted in Oregon. www.coastmans.com Mr. Rasmussen 360-820-3553.

**Wanted - Miscellaneous**

**ALL TRAIN COLLECTORS & MODELERS:** We need more trains to supply our ever expanding group of interested buyers. We buy HO & N Scale Trains - Brass, Marklin, Rivarossi, Atlas, Kato, MicroTrains, etc. as well as better trains in all scales. We also purchase store inventories. We also can auction your trains with rates starting as low as 15%. We travel extensively all over the US and Canada. Send us your list today or for more information see [www.trainz.com/sell](http://www.trainz.com/sell) Trainz, 2740 Faith Industrial Dr., Buford, GA 30518. 866-285-5840, Scott@trainz.com Fax: 866-935-9504

**MODEL AUTOMOBILE AND TRUCK KITS WANTED:** unbuilt or built, any size collection. Fred Sterns, 48 Standish, Buffalo, NY 14216. 716-838-6797. email: fsterns@aol.com

**Custom Painting & Building**

**CUSTOM BUILDING & PAINTING**, kit building, kit-bashing & scratchbuilding. Locomotives, rolling stock, structures & more. 12 Penny Lane, Newark, DE 19702, 302-229-6010, [www.tmbcustommodels.com](http://www.tmbcustommodels.com)

**CUSTOM LAYOUT BUILDING & LAYOUT DESIGN.** Specializing in fine scale and prototype based projects. The Shelf Layouts Company, Inc. [www.shelflayouts.com](http://www.shelflayouts.com) 301-404-8164

**LEADING MODEL RETAILERS**

Retail Directory spaces are sold on a year's basis at \$654 per year (payable in advance) or at \$60 per month (billed to established accounts for one year minimum); also for six months at \$353 (payable in advance). Ads will be set in standard listing typography. All insertions must be consecutive and may be invoiced if you have credit established with us. No mention of mail order business permitted.

**ALABAMA • Anniston**

Northeast Alabama's Largest!  
All Scales - All Major Brands  
Tues - Fri 10-6; Sat 9-3  
E-mail: [modelcitymodels@gmail.com](mailto:modelcitymodels@gmail.com)  
[www.modelcitymodels.com](http://www.modelcitymodels.com)  
**MODEL CITY MODELS**  
2750 Pelham Rd. South #9 256-435-0095

**ALABAMA • Enterprise**

Southern Alabama's largest train store.  
MTH & Lionel authorized dealer. N, HO, HO3, O & G scales. Tues - Sat 10am to 4pm  
[highcountryhobbies@gmail.com](mailto:highcountryhobbies@gmail.com)  
[www.highcountryhobbies.com](http://www.highcountryhobbies.com)  
**HIGH COUNTRY HOBBIES**  
206 South Main St. 334-489-4558

**ALASKA • Anchorage**

[www.anchoragehouseofhobbies.com](http://www.anchoragehouseofhobbies.com)  
Alaska's best hobby supplier since 1964.  
Two stories, 6,300sf, 1st floor all R/C,  
2nd floor general hobbies, plastics, trains,  
slot cars, telescopes & more!  
**ANCHORAGE HOUSE OF HOBBIES**  
2803 Spennard Rd. 907-277-7778

**ARIZONA • Apache Junction**

New Store! Arizona's premier hobby shop.  
Full scale, all service hobby shop. Trains,  
planes, cars, boats and R/C. Special orders.  
Open Mon - Sat  
**OBIES TRAINS**  
2114 West Apache Trail #11 480-203-1796

**ARIZONA • Avondale**

DCC Systems, Decoders, Layout Supplies  
Professional Installations G to Z scales  
Mon - Fri 8:00-5:00, Sat 8:00-Noon  
Online Store: [LitchfieldStation.com](http://LitchfieldStation.com)  
E-mail: [Sales@LitchfieldStation.com](mailto:Sales@LitchfieldStation.com)  
**LITCHFIELD STATION**  
1412 N. Central Ave., Ste. D 623-298-7355

**ARIZONA • Phoenix**

Come and see our NEW store!  
Wednesday - Saturday 10-5  
Shop online at [www.aawtrains.com](http://www.aawtrains.com)  
**AN AFFAIR WITH TRAINS**  
18440 North 7th St., #12 623-434-6778

**ARIZONA • Phoenix**

Narrow gauge almost exclusively.  
On3 - Sn3 - HO3 - On30.  
Kits, parts, brass & books.  
Mon-Fri 8-12, 1-5, Sat 8-12.  
**CORONADO SCALE MODELS**  
1544 E. Cypress St. 602-254-9656

**ARIZONA • Tempe**

Family owned, full service. Special orders  
welcomed. Athearn, Lionel, Bachmann,  
Digitrax & Soundtraxx dealer. Plastic models,  
books, magazines, paints, building materials,  
scenery, & more. Free classes and clinics.  
**HOBBY DEPOT**  
216 W. Southern Ave. 480-968-1880

**ARKANSAS • Jacksonville**

Headquarters for scale hobbies. Models;  
N-HO-O trains; tools; paint, etc.  
Discounts & special orders.  
Open 10-6, closed Sundays and Wednesdays.  
[www.railandspreehobbies.com](http://www.railandspreehobbies.com)  
**RAIL & SPRUE HOBBIES**  
1200 John Harden Dr. 501-982-6836

**CALIFORNIA • Atascadero**

All scales G to Z. Special orders welcome.  
Midway LA & SF. US 101-US 41, easy access.  
Open Tuesday - Friday 10-6, Saturday 10-5  
E-mail Anita at: [ctrainsa@hotmail.com](mailto:ctrainsa@hotmail.com)  
Web site: [www.centralcoasttrains.com](http://www.centralcoasttrains.com)  
**CENTRAL COAST TRAINS**  
7600 El Camino Real # 3 805-466-1391

**CALIFORNIA • Bellflower**

Friendly Hobby Store! We carry N, HO, HO3, S, Sn3, RailMaster, Athearn, Scaletrains.com and more. DCC, Soundtraxx, LokSound, Digitrax dealer. Special Orders Welcomed!  
[www.railmasterhobbies.com](http://www.railmasterhobbies.com)  
**RAILMASTER HOBBIES**  
9812 Belmont St. 562-867-5627

**CALIFORNIA • Burbank**

All scales G through N, collectibles old & new.  
Authorized LGB, Lionel, MTH & Märklin dealer.  
One of the most complete train stores in So. Calif. UPS worldwide shipper.  
Visit our website at [www.trainshack.com](http://www.trainshack.com)  
**THE TRAIN SHACK**  
1030 N. Hollywood Way 800-572-9929

**CALIFORNIA • Concord**

Largest selection in the East Bay. 93 foot HO layout. Buy - sell - trade - consign - repairs - detail parts in all scales. Lionel. Discount prices & friendly service.  
Website: [www.just-trains.com](http://www.just-trains.com)  
**JUST TRAINS**  
5650 Imhoff Dr. 925-685-6566

**CALIFORNIA • Costa Mesa**

Lionel, AF, LGB, HO, N, & Z Gauge.  
New, used, & collectibles.  
Buy, sell, trade & repair.  
Tue - Fri 12-7, Sat 9-5, Sun 11-3.  
**THE TRAIN CROSSING**  
1089-C Baker Street 714-549-1596

**CALIFORNIA • Hemet**

We carry Lionel, MTH, HO, N, Atlas, Walther's, Ross switches, Gargraves & Peco.  
45' long in-store layout. Open 7 days.  
[www.dynamichobbies.net](http://www.dynamichobbies.net)  
**DYNAMIC HOBBIES**  
811 East Florida Avenue 951-925-9331

**CALIFORNIA • Hollister**

Model planes, car, ships & figures. Model train scales: Z, N, HO, O & G. Paints, tools. R/C & parts, incl. service. Craft & educational kits, supplies, products. ESU Lok Sound Dealer - clinics available. Tue - Sat 11-6; Sun 12-4  
**B.C.T. HOBBY & CRAFTS**  
201-C McCray St. 831-635-0537

**CALIFORNIA • Lodi**

Z - N - HO - HO3 - O27 - On30  
Locos - Rolling Stock - Digital - Structures  
Landscaping Material & more.  
[www.Rogersrailroadjunction.com](http://www.Rogersrailroadjunction.com)  
See website for virtual tour.  
**ROGER'S RAILROAD JUNCTION**  
105 S. Sacramento St. 209-334-5623

**CALIFORNIA • Pasadena**

Model rail specialists since 1951.  
LGB, Lionel, O, S, Sn3, HO, HO3, N, Z.  
Complete stock of brass imports, new & used.  
Books, tools, structures, detail parts.  
Open 7 days. [www.thewhistlestop.com](http://www.thewhistlestop.com)  
**THE ORIGINAL WHISTLE STOP INC**  
2490 E. Colorado Blvd. 626-796-7791

**CALIFORNIA • Roseville (Sacramento)**

Exclusively model trains since 1989.  
Athearn, Kato, MDC, Lionel, Atlas, LGB, Märklin, Brass Imports, books, detail parts.  
Everyday low prices. Open 7 days.  
[www.rrhobbies.com](http://www.rrhobbies.com)  
**RAILROAD HOBBIES**  
119 Vernon St. 916-782-6067

**CALIFORNIA • San Diego (La Mesa)**

Exclusive trains. Craft kits & supplies.  
detail parts, scratch supplies, books.  
Ride the trolley to Reed's.  
Open Mon through Sat 10-6; Sun 12-4  
[www.reeds-hobbies.com](http://www.reeds-hobbies.com)  
**REED'S HOBBY SHOP**  
8039 La Mesa Blvd. 619-464-1672

**CALIFORNIA • San Mateo**

Lionel, Märklin, HO scale  
Domestic and imported trains  
Open 7 Days - Call for Hours  
[www.talbotstoyland.com](http://www.talbotstoyland.com)  
**TALBOT'S HOBBIES**  
445 South "B" Street 650-931-8110

**CALIFORNIA • Santa Clara**

100% trains. Discount prices. Super selection.  
Monday 9:30am-3:00pm  
Tuesday - Saturday 9:30am-6:00pm  
Closed Sunday  
Dennis Cole E-mail: [dc0le4449@att.net](mailto:dc0le4449@att.net)  
**THE TRAIN SHOP**  
1829 Pruneridge Ave. 408-296-1050

**CALIFORNIA • Santa Rosa**

HO and N Scale is our specialty. We sell new and vintage. Factory-trained DCC installation.  
Model trains is all we do.  
Mon - Fri 10-6, Sat 10-4  
**POGGIES TRAINS**  
100 Foley Street 707-545-7643

**CALIFORNIA • Westminster (Orange Co.)**

World Famous  
Model Toy Trains Only  
7,000 sq. ft. Super Center  
[www.arniestrains.com](http://www.arniestrains.com)  
**ARNIE'S MODEL TRAINS**  
6452 Industry Way 714-893-1015

**CALIFORNIA • Yuba City**

A full service model train store. Large inventory. HO, N, O & O27 Tinplate. Books, videos, collector & gift items. Repair service. We buy old toy trains.  
[www.westerndepot.com](http://www.westerndepot.com)  
**THE WESTERN DEPOT**  
1650 Sierra Ave. #203 530-673-6776

**COLORADO • Colorado Springs**

New and used brass. Southern Colorado's oldest, largest, and most complete train store.  
All gauges. Authorized Lionel and MTH sales and service.  
[www.CustomRailwaySupply.com](http://www.CustomRailwaySupply.com)  
**CUSTOM RAILWAY SUPPLY**  
1015 Garden of the Gods Rd., #150 719-634-4616

**COLORADO • Denver (Lakewood)**

Formerly Caboose Hobbies, sharing our passion for trains since 1938. All scales and gauges from Z to G. Custom services include expert repair and DCC installation.  
Open daily or at CabooseHobbies.com  
**CABOOSE**  
10800 W. Alameda Ave. 303-777-6766

**CONNECTICUT • Canaan**

Mainly model railroading.  
All scales.  
[www.berkshirehillshobby.com](http://www.berkshirehillshobby.com)  
Tues - Fri 11-6, Sat & Sun 10-5.  
**BERKSHIRE HILLS HOBBY SUPPLY**  
93 Main St. (Rt. 44) 860-824-0527

**CONNECTICUT • Cos Cob**

HO, N, Lionel. Lionel authorized dealer & repair. Plastic, wood kits, rockets, tools, structural & diorama supplies.  
Special orders welcome.  
**ANN'S HOBBY CENTER**  
405 E. Putnam Avenue 203-869-0969

**CONNECTICUT • Manchester**

All scales Z, N, HO, O, O-27, G, #1, MTH, Lionel, Märklin, LGB, Walther's, Aristo, Trix, etc.  
Digital Sales-Install. Large operating layouts.  
Mon-Wed 10-6 Th-Fri 10-9 Sat-Sun 10-6  
[www.timemachinehobby.com](http://www.timemachinehobby.com)  
**Time Machine Hobby - New England Hobby Supply**  
71 Hilliard St. 860-646-0610/Fax-645-0504

**CONNECTICUT • Winsted**

A hobby shop for modelers by modelers.  
From hard to find to latest & greatest.  
Free classes & clinics / multi scales.  
Large store of quality products @ fair prices.  
Friendly service: [www.rhobbiesupply.com](http://www.rhobbiesupply.com)  
**RR MODEL & HOBBY SUPPLY**  
100 Whiting Street 860-379-3383

# Your classified ad can:

- Tell 'em what you've got
- Tell 'em what it will do for them
- Tell 'em how to get it

## Don't wait any longer!

Place your classified ad today!

888-558-1544 x815

**CONNECTICUT • Wolcott**

Exclusively brass models. One of the largest selections in the country. All scales. Buy, consign, trade - entire collections bought.  
Mon - Fri 9-4  
[www.thecaboose.com](http://www.thecaboose.com)  
**THE CABOOSE**  
5 Mohawk Drive 203-879-9797

**DELAWARE • Ocean View**

No sales tax at the Delaware seashore.  
Lionel new & used . . . also Atlas, Bachmann, MTH. We buy used trains. Auth. Lionel repairs.  
Large inventory of used HO trains.  
Open Tues - Sat 11-4:30, Closed Sun & Mon  
**SEASIDE HOBBIES**  
15 Daisey Ave. 302-539-1601

**FLORIDA • Cape Canaveral**

Lionel, American Flyer, MTH  
Trains bought and sold  
[www.traincity.com](http://www.traincity.com)  
[www.chocchooauctions.com](http://www.chocchooauctions.com)  
**TRAIN CITY, INC. - CHARLES SIEGEL**  
387 Imperial Blvd., Ste. 2 321-799-4005

**FLORIDA • Ft. Myers**

N, HO, O scale model railroading.  
Paint, tools, scenery, accessories, & plastic models.  
Mon - Sat 10:00am-6:00pm; Closed Sun  
[www.metrotrainsandhobbies.com](http://www.metrotrainsandhobbies.com)  
**METRO TRAINS & HOBBIES**  
12951 Metro Parkway 239-332-0422

**FLORIDA • Lantana (West Palm area)**

Full line Hobby Shop specializing in Trains.  
Mon - Fri 10-6, Sat 10-4, Sun 12-4  
[www.depot.com](http://www.depot.com)  
1/2 mile east of I-95 exit #61.  
**THE DEPOT HOBBY SHOP**  
518 W. Lantana Rd. 561-585-1982

**FLORIDA • Melbourne**

The Space Coast's Model Train Shop.  
Z thru G scales. N scale our specialty!  
Digitrax, Kato, Lionel & Walther's Dealer.  
Atlas, IM, BWW, Piko, LGB & Rokuhan.  
Mon-Sat 10am-5pm E-mail: [trftrains@cfl.rr.com](mailto:trftrains@cfl.rr.com)  
**TRF TRAINS & MNT HOBBIES**  
2715 N. Harbor City Blvd., #12 321-241-4997

**FLORIDA • Miami**

Shop "Warehouse Style" for N to G.  
MTH, Lionel, Kato, LGB, Broadway Ltd., Atlas, Walther's at discount prices.  
Open Mon - Sat 10am-5pm  
Nov - Jan open Sunday 10am-1pm  
**READY TO ROLL**  
831 NW 143rd Street 305-688-8868

**FLORIDA • Ocala**

HO, N trains & accessories  
Visa, MC, AX, Discover  
Open Mon - Fri 10:5-3:30, Sat 9-4  
Call for Sunday hours.  
**ROB'S HOBBY WORLD**  
8585 SW Hwy. 200 352-854-2799

**FLORIDA • Pensacola**

Competitive prices, friendly service.  
All makes & models, trains & accessories  
Z - G. Lionel, Micro-Train, MTH Dealer  
[www.traincityjohnson.com](http://www.traincityjohnson.com)  
Old Palafox St. at 10 Mile Rd.  
**TRAINS BY JOHNSON**  
10412 N. Palafox Hwy. 850-478-8584

**FLORIDA • Port Charlotte**

Full line hobby shop specializing in trains of all scales new and used. Name brand dealer. Large selection of model kits and diorama also.  
We buy train collections. Open Mon - Sat  
Email: [kandktrainsllc@gmail.com](mailto:kandktrainsllc@gmail.com)  
**K & K TRAINS**  
3271-E Tamiami Trail 941-883-6931

**FLORIDA • Port Orange (Daytona Beach)**

Your Southern Connection for Quality Products! Featuring O, HO, N, Woodland Scenics. MTH MegaStation & National Service Center. Breyer Horses. Mon - Fri 9:30-5; Sat 9:30-4. [www.roundhousesouth.com](http://www.roundhousesouth.com)  
**ROUNDHOUSE SOUTH**  
4611 S. Ridgewood Ave. 386-304-7003

**FLORIDA • Sarasota**

Trains, trains, trains.  
Model railroading at its best.  
Visit us in the store or  
on the Web at [www.gcmrr.com](http://www.gcmrr.com)  
Open Mon - Fri 10-6; Sat 10-5  
**GULF COAST MODEL RAILROAD, INC.**  
3222 Clark Rd. 941-923-9303

**FLORIDA • Tampa Bay - Pinellas Park**  
2600 sq. ft. Showroom. Lionel & MTH Dealer  
NEW, USED, BUY/SELL • All Gauges Z thru G  
Over 6,000 Parts. Repair Services. Trains.  
Track, Sets, Scenic Supplies. Tues - Sat 10-6  
[www.zitrniktrains.com](http://www.zitrniktrains.com)  
**ZITNIK TRAINS**  
5193 73rd Ave. N. 727-201-9668

**FLORIDA • Tampa/St. Pete/Clearwater/PP**  
The last decent place in Florida not  
endorsed by Mickey Mouse. Huge inventory  
in all gauges. Great store, come see!  
Daily 10-6; Sat 10-6, Sun 11-5  
[www.hrrtrains.com](http://www.hrrtrains.com)  
**H & R TRAINS**  
6901 US Hwy. 19 N, Pinellas Park 727-526-4682

**GEORGIA • Atlanta (Lilburn)**  
HO, Atlas, Bachmann, MTH  
Complete scenery supplies.  
Operating HO layout and 400 sq. ft. layout.  
HUGE selection in a 11,000 sq. ft. store.  
[www.legacystation.com](http://www.legacystation.com) 800-964-8724  
**LEGACY STATION TRAINS**  
4153 Lawrenceville Hwy., #12 770-339-7780

**GEORGIA • Atlanta (Riverdale)**  
Atlanta's Finest Shop for serious modelers!  
Quality items in all scales at fair prices.  
Service - Repairs. Over 34 years of quality  
service. Close to all Interstate Hwys.  
8-min. from Atlanta Airport. Tue-Sat 10-5:30  
**RIVERDALE STATION**  
6632 Hwy. 85, Riverdale Plaza 770-991-6085

**GEORGIA • Braselton**  
Bargains Galore!  
Located 1/2 mile off I-85 exit 129.  
Featuring HO, O, toys and die cast items from  
Trainz.com  
Hours: Mon - Sat 10-6, Sun 1-5  
**ANTIQUE MALL TRAINS**  
5134 Georgia 53 706-654-3693

**GEORGIA • Buford (Atlanta)**  
Quality, Selection & Service.  
Discount pricing in all scales.  
Mon - Sat 11-6, Sun 1-6  
Across from NS Mainline in Downtown Buford  
Web store at: [www.trainmastermodels.com](http://www.trainmastermodels.com)  
**TRAINMASTER MODELS**  
601 East Main St. 678-546-3600

**ILLINOIS • Burbank**  
Specializing in HO.  
One of the most complete exclusive model  
railroad shops in the midwest.

**THE GOLDEN SPIKE TRAIN SHOP**  
6357 W. 79th Street 708-598-3114

**ILLINOIS • Des Plaines**  
N, HO, S, O, G Std. & Narrow gauge too.  
Lots of scratchbuilding parts, stuff too.  
Brass, books & DVDs. Close to O'Hare,  
M, T, W, F 10-6; Th 10-8; Sat 9:30-5; Sun 11-5  
Web Store: [www.desplaineshobbies.com](http://www.desplaineshobbies.com)  
**DES PLAINES HOBBIES**  
1524 Lee St. (Mannheim Rd.) 847-297-2118

**ILLINOIS • Downers Grove**  
HO and N Scale Model Trains and Accessories  
Two Blocks South of Metra Station  
at Maple Ave.  
[www.timberlinetrainshop.com](http://www.timberlinetrainshop.com)  
**TIMBERLINE TRAIN SHOP, LTD.**  
5228 Main St 630-324-6136

**ILLINOIS • Elgin**  
HO & N Scale  
Scratch building supplies, paints, tools and  
much more. We special order. Digitrax dealer.  
[www.bgtrainworld.com](http://www.bgtrainworld.com)  
**B & G TRAIN WORLD**  
829 Walnut Ave. 847-888-2646

**ILLINOIS • Geneseo**  
Scale Trains, Models & Hobby Supplies  
Specializing in Midwest Roads  
Visit our website at [GRHobbies.com](http://GRHobbies.com)  
or call for directions and hours.

**GREEN RIVER HOBBIES**  
119 W. Exchange St. 309-944-2620

**ILLINOIS • Marion**  
Full-Line Hobby Shop.  
HO & N scale locomotives, scenery,  
plastic models, P/C, tools, paints, and more.  
Open Tue - Fri 1:30-6:30pm, Sat 10am-4pm  
**CHUCK'S DEPOT**  
1913 W. Rendelman St. P/F 618-993-9179

**ILLINOIS • Maryville**  
Large 60' x 70' customer operated DCC HO  
layout. Located 17 miles from St. Louis near  
I-70/I-55 exit 15B. For shop hours/maps  
pictures, layout construction times, train  
running see [www.k-10smodeltrains.com](http://www.k-10smodeltrains.com)  
**K-10'S MODEL TRAINS**  
19 Schiber Court 618-288-9720

**ILLINOIS • Mundelein**  
Specializing in trains, HO, N, O, G, Lionel.  
Books and videos. Northern IL railfan  
headquarters. Closed Monday. Please call for  
other hours. Fax 847-949-8687.  
[ronhobby@aol.com](mailto:ronhobby@aol.com)

**RON'S MUNDELEIN HOBBIES**  
431 N. Lake St. (Rt. 45) 847-949-8680

**ILLINOIS • Springfield**  
HO / G / N.  
Special orders / discount prices.  
Display layouts / clinics / assistance.  
Call for hours.  
**CASTLE TRAINS & TREASURES**  
4782 Old Jacksonville Rd. 217-793-0407

**INDIANA • Bremen**  
Small town, Large shop, O, HO & N scales.  
Discounts. Three operating O, HO & N layouts.  
Large selection since 1961.  
Mon, Tues, Thur, Fri 10-6; Sat 10-4.  
**BREMEN HOBBIES**  
308 N. Bowen Ave., SR 331 574-546-3807

**INDIANA • Indianapolis**  
Bachmann - HO-50+ new engines/500+ rolling  
stock including Thomas- N scale/50+ new  
engines/300+ rolling stock- On30/70+ engines  
100+ rolling stock- 400+ used O27 pieces-  
1,000+ acc. Open every day but Xmas, 11-6  
**SANFORD & SON TRAIN YARD**  
3444 North Shadeland Ave. 317-748-3337

**INDIANA • Indianapolis**  
Trains are our only business! HO, N, O27.  
Brass, books, magazines, detail parts, paints &  
accessories. 1 block West of  
Shadeland Ave. on Washington St.  
Mon-Sat 10:30-6. [www.waynestrains.biz](http://www.waynestrains.biz)  
**TRAIN CENTRAL**  
6742 E. Washington (U.S. 40) 317-375-0832

**INDIANA • Lafayette**  
New location. You have to see it to believe it.  
Color photos, rolling stock, structures,  
detail parts; HO, HO3, O, N scales.  
Monday - Friday 12-5; Sat 10-5.  
Evenings by appointment.  
**HAWKINS RAIL SERVICES**  
3501 Union St., Suite 6 765-742-5577

**IOWA • Urbandale**  
N, HO, & O  
Lionel, MTH, Atlas  
Exit #129 I-80/I-35, 2 miles south  
Iowa's premier Model Railroad store  
Open 7 days a week.  
**HOBBY HAVEN**  
2575 86th Street 515-276-8785

**KANSAS • Overland Park (KC Area)**  
O, S, HO, N, Z & G Scale  
Lionel, MTH, A/F, Marklin, LGB & more!  
New, Used & Vintage. Extensive scenery line.  
Repair, custom work & layouts.  
[www.fredstrainshop.com](http://www.fredstrainshop.com)  
**FRED'S TRAIN SHOP**  
7327 West 80th St. 913-383-3500

**MAINE • Yarmouth**  
Specializing in HO trains. Custom weathering,  
painting, DCC, scenery, diorama building,  
structure building. Between Falmouth and  
Freeport on Route 1. Tues - Sat 10am-6pm  
(Call ahead Mon) [www.mainemodelworks.com](http://www.mainemodelworks.com)  
**MAINE MODELWORKS**  
374 US Route One, Unit 2 207-781-8300

**MAINE • York**  
Model trains & slot cars. Most scales available.  
Accessories & services. New, pre-owned &  
vintage. Working layout! Open 7 days 10-5  
[www.yorkvillagemarketplace.com](http://www.yorkvillagemarketplace.com)  
**YORK VILLAGE MARKETPLACE**  
891 U.S. Route 1 207-363-4830

**MARYLAND • Annapolis**  
If we don't have it, we'll get it! LGB, Woodland  
Scenics, Walther's Dealer, Aristo,  
Delton, Pola, Lionel, Bachmann,  
Spectrum, Proto 2000. Mon - Sat 10-6.  
Full line Kalmbach! [trains.things@yahoo.com](mailto:trains.things@yahoo.com)  
**STAR HOBBY**  
1564 Whitehall Rd. 410-349-4290/4291

**MARYLAND • Baltimore/Cockeysville**  
Model RR headquarters since 1913.  
Excellent selection HO & N equipment &  
accessories; Lionel. All at disc. prices.  
Mon - Fri 9:30-5; Sat 9-5  
[www.modeltrainstuff.com](http://www.modeltrainstuff.com)  
**M.B. KLEIN**  
243 Cockeysville Rd., Ste. A 410-229-9995

**MARYLAND • Sykesville**  
Central Maryland's best kept secret - a family  
friendly model train shop that specializes in  
HO & N Scale at very generous discounts.  
Please call for hours or visit us at  
[www.themoosecaboose.com](http://www.themoosecaboose.com)  
**THE MOOSE CABOOSE**  
1341 W. Liberty Rd. 410-795-4610

**MASSACHUSETTS • Ashburnham**  
Specializing in New England road names,  
HO/N Scale. Micro-Trains, Walther's, Horizon.  
Special orders discounted. Tu & Th 10-4, Wed  
& Fri 11-6. Sat 10-6 [www.halfpricehobby.com](http://www.halfpricehobby.com)  
**SHEPAUG RAILROAD COMPANY**  
23 Westminster St. 978-537-2277

**MASSACHUSETTS • Duxbury**  
G - 1 - O - S - HO - N - Z  
Buy - Sell - Trade - New - Used - Repairs  
Marklin Dealer  
Wednesday - Sunday 11-6  
**DUXBURY GREEN, INC.**  
382 Kingstown Way (Rt. 53) 781-585-2164

**MICHIGAN • Bridgeport**  
Scales Z to G. All at discount prices.  
Am. Models, Aristo, Athearn, Atlas, Bachmann,  
Con-Cor, IHC, USA, Kadee, Kato,  
K-Line, Lionel, H. Walthers, LGB, HLW.  
[www.vrrailroad.com](http://www.vrrailroad.com)

**JUNCTION VALLEY RR HOBBY SHOP**  
7065 Dixie Hwy. 989-777-3480

**MICHIGAN • Flint**  
G (LGB & 1:20.3), O (Lionel & MTH), On30, HO,  
N, & Z. Locos, cars, figures, buildings, track,  
kits, scenery supplies, details, books & videos.  
Digitrax Dealer. Repair service. VISA/MC.  
Mon-Fri 10-8, Sat 10-6, Sun 12-5  
**RIDERS HOBBY SHOP**  
2061 S Linden Rd 810-720-2500

**MICHIGAN • Fraser**  
Full line hobby shop.  
Open Mon - Fri 10 -8, Sat 10-6, Sun 12-5  
[www.pdhobbyshop.com](http://www.pdhobbyshop.com)  
**P & D HOBBY SHOP**  
31280 Groesbeck Hwy. 586-296-6116

**MICHIGAN • Grand Rapids**  
LGB, O (Lionel, MTH & Scale), HO, N & Z  
Locos, cars, figures, buildings, track, tools,  
kits, scenery supplies, details, books, videos.  
Digitrax Dealer. Repair service VISA/MC  
Open Mon - Fri 10-8, Sat 10-7, Sun 12-5  
**RIDER'S HOBBY SHOP**  
2055 28th Street SE 616-247-9933

**MICHIGAN • Leslie**  
Michigan's Largest N Scale Dealer  
Tue - Thur 1-9, Fri & Sat 1-5  
\*Closed Saturdays Memorial to Labor Day  
We also carry Z, HO & G Scales.  
[www.ggtrains.com](http://www.ggtrains.com)  
**G&G TRAINS**  
1800 Baseline Road 517-589-5977

**MICHIGAN • Saginaw**  
Personalized Customer Service!  
Trains & Accessories N to G  
Authorized Lionel/K-Line, MTH, DIGITRAX  
Sales & Service - over 12,000 parts  
[www.traindoctor.com](http://www.traindoctor.com)  
**BRASSEUR ELECTRIC TRAINS**  
410 Court St. 989-793-4753

**MICHIGAN • Traverse City**  
Let your imagination run wild!  
Z to G, Lionel, scenery, tools,  
structures, scratchbuilding supplies,  
special orders, ships, armor, cars, more...  
**TRAINS & THINGS HOBBIES**  
210 East Front St. 231-947-1353

**MICHIGAN • Troy**  
FORMERLY MERRILL SEVEN • NEW LOCATION  
All scales Z thru G, new and used  
Complete selection of RR equipment/supplies  
BUY • SELL • REPAIR • PARTS  
Tues - Fri 11-7, Sat 11-6  
**EMPIRE TRAINS & HOBBIES**  
3278 Rochester Rd. 248-680-6500

**MICHIGAN • Wyoming**  
HO, N and Marx bought and sold  
American Flyer and Lionel also  
Tuesday thru Friday 12-6, Saturday 10-5  
Other hours available by appt. Please call.  
**HOBBY RECYCLING**  
2313 Lee St. SW 616-257-7155

**MISSOURI • Branson/Hollister**  
The Ozarks' full-line hobby center  
N - G scale trains & building accessories  
Mon - Sat 9am-5pm, Closed Sun  
E-mail: [bransonhobbyctr@aol.com](mailto:bransonhobbyctr@aol.com)  
[www.bransonhobbycenter.com](http://www.bransonhobbycenter.com)  
**BRANSON HOBBY CENTER**  
251 Saint James St. 417-335-6624

**MONTANA • Billings**  
Model railroading headquarters for the  
Northern Rockies. HO, HO3 & N scale. Kits,  
parts, tools, books. Tues-Fri 10-5:30; Sat 10-4.  
Closed Sun and Mon. [trains28@bresnan.net](mailto:trains28@bresnan.net)  
[www.jimsjunction.com](http://www.jimsjunction.com)  
**JIM'S JUNCTION**  
811-B 16th St. West 406-259-5354

**NEBRASKA • Deshler**  
Largest HO/N scale inventory from Denver to  
Chicago. Stop in and say WOW! All major  
brands plus books, videos, tools & scenery.  
Mon-Fri 10-6, Weekend hours vary - call  
ahead! [www.springcreekmodeltrains.com](http://www.springcreekmodeltrains.com)  
**SPRING CREEK MODEL TRAINS,**  
304 E. Bryson Ave. 402-365-7628

**NEBRASKA • Omaha**  
Trains & supplies for all scales Z-G. We are  
DCC ready & installation service available.  
Service work, repairs, technical support.  
Family owned since 1938. Mon-Fri 8:00-5:30;  
and Sat 10:00-5:00 [www.houseoftrains.com](http://www.houseoftrains.com)  
**HOUSE OF TRAINS**  
8106 Maple St. 402-934-RAIL (7245)

**NEVADA • Las Vegas**  
While in Las Vegas,  
check out our train selection.  
Close to the Las Vegas strip.  
Hours: Mon - Fri 10-7, Sat 10-6, Sun Noon-5.  
**HOBBYTOWN USA**  
4590 W. Sahara Ave., #103 702-889-9554

**NEVADA • Las Vegas**  
Electric trains & accessories  
N, HO, S, O  
Lionel/American Flyer Dealer  
**TRAIN EXCHANGE**  
6008 Boulder Hwy. 702-456-8766

**NEVADA • Las Vegas**  
Big selection of HO, N and Lionel O Gauge  
trains. Only 7 miles west of the Las Vegas  
strip. [www.westsidetrainslv.com](http://www.westsidetrainslv.com)  
**WESTSIDE TRAINS**  
2960 S. Durango #117 702-254-9475

**NEW HAMPSHIRE • Hampton Falls**  
HO - N - O & accessories  
Carrying Atlas, Athearn,  
MTH, Railking, Lionel, Walther's  
Open 7 days a week 10-5  
**BRENTWOOD ANTIQUES**  
106 Lafayette Rd. (Rt. 1) 603-929-1441

**NEW JERSEY • Kenil**  
Full service hobbies, a full line of  
HO, N, 3-Rail, military, cars, boats,  
planes, dollhouses, scratchbuilding  
supplies, plus details-detail details!  
**KENIL HOBBIES**  
590 Rt. 46 973-584-1188

**NEW JERSEY • Mountain Lakes**  
One of northern NJ's largest train stores. Auth.  
Lionel sales, service, and parts. Old  
Lionel trains bought and sold. LGB, Atlas, Life-  
Like, MDK. Auth. Walther's dealer.  
**THE TRAIN STATION**  
Romaine Road 973-263-1979

**NEW JERSEY • Piscataway**  
Serving hobbyists since 1933.  
Large selection of HO, N, & O scale  
Railroad books - complete repair service  
[www.themodelrailroadshop.com](http://www.themodelrailroadshop.com)  
**THE MODEL RAILROAD SHOP, INC.**  
290 Vail Ave. 732-968-5696

**NEW JERSEY • Point Pleasant Beach**  
A Complete Model Railroad Store • Over 600  
Engines in Stock • N • HO • O DCC/DCS/MTCC  
Authorized MTH & Lionel Dealer. Walther's •  
Atlas • Atlas O. Sun - Thur 10-6, Fri - Sat 10-8  
[www.thetrainroomnj.com](http://www.thetrainroomnj.com)  
**THE TRAIN ROOM**  
715 Arnold Ave. 732-892-5145

**NEW JERSEY • Somerville**  
Full line all scale N thru G.  
Specializing in service.  
Tues to Fri 11 am - 7 pm;  
Sat 11 am - 5 pm; Sun 12 pm - 4 pm  
[www.biglittle.com](http://www.biglittle.com) Fax # 908-685-8894  
**THE BIG LITTLE RAILROAD SHOP**  
63 W. Main St. 908-685-8892

**NEW JERSEY • Westmont**  
Athearn, Atlas, Bowser, Walther's.  
Structures, books.  
Exclusively trains since 1955.  
HO and N.  
**SATTLER'S HOBBY SHOP**  
14 Haddon Ave. 856-854-7136

**NEW YORK • Hurley**  
Trains - Z, N, HO, S, O, G scale, models,  
rockets, hobby supplies. Lionel & MTH  
authorized dealer, 4 working layouts. Repairs,  
buy/sell. Open 7 days. An old fashioned  
general store. [www.hurleycountrystore.biz](http://www.hurleycountrystore.biz)  
**HURLEY COUNTRY STORE INC**  
2 Wamsley Pl. (Old Hurley) 845-338-4843

**NEW YORK • Mineola L.I.**  
Since 1949, Long Island's largest full-line  
hobby superstore. 10,000 sq. ft. Featuring  
MTH, Lionel, Marklin HO and Z, HO and N  
scales. Books, detail parts and much more.  
[www.willishobbies.com](http://www.willishobbies.com)  
**WILLIS HOBBIES INC**  
300 Willis Ave. 516-746-3944

**NEW YORK • Smithtown**  
O, HO, & N gauges.  
All major lines carried.  
We are model railroaders.  
**3 GUYS HOBBIES**  
10 Lawrence Ave. 631-265-8303

**NEW YORK • Syracuse (East)**  
100% scale model railroading. HO, S, O, N.  
Northeastern, New England, Canadian  
specialists. Exclusive Northeast Modeler,  
West Shore Line kits. Closed Mon. Call for free  
map & hours. [www.centralhobby.com](http://www.centralhobby.com)  
**CENTRAL HOBBY SUPPLY**  
102 Walter Dr. 315-437-6630

**ALABAMA • Anniston**  
Northeast Alabama's Largest!  
All Scales - All Major Brands!  
Tues - Fri 10-6; Sat 9-3  
E-mail: [modelcitymodels@nti.net](mailto:modelcitymodels@nti.net)  
[www.modelcitymodels.com](http://www.modelcitymodels.com)  
**MODEL CITY MODELS**  
2750 Pelham Rd. South #9 256-435-0095

**NORTH CAROLINA • Arden**  
HO, N, Model Trains and accessories.  
Broadway Limited, Kato, Walther's,  
Digitrax, Atlas, Athearn, and more.  
Mon - Fri 9:00am-10:00pm Order by phone 24  
hours. [www.factorydirecttrains.com](http://www.factorydirecttrains.com)  
**FACTORY DIRECT TRAINS**  
7 Glenn Bridge Rd., Ste. B 800-990-3381

**NORTH CAROLINA • Raleigh/Wake Forest**  
Authorized Digitrax, Soundtraxx, Walther's,  
Bowser dealer. DCC experts. Installation &  
Service. Computerized customer order  
tracking. "Sharing the joy of model railroading"  
[www.trainbuddy.com](http://www.trainbuddy.com)  
**TRAIN BUDDY™ PRODUCTS**  
1200 Jenkins Rd. 919-562-4378

**NORTH CAROLINA • Spencer**  
Across from NC Trans Museum. Big selection  
of trains in all scales. Digitrax Dealer, RR  
videos/books & children's toys Tue-Sat  
10-5:30. [www.littlechoochoo.com](http://www.littlechoochoo.com)  
or [info@littlechoochoo.com](mailto:info@littlechoochoo.com)  
**LITTLE CHOO CHOO SHOP, INC.**  
500 S. Salisbury Av. 704-637-8717/800-334-2466



**NORTH CAROLINA • Wilson**

Complete stock HO, N, O, G, Discounts.  
HO layout display, I-95 Exit 119, east on US  
264, 4 miles to exit 42, right on Downing Street  
and go to first light.  
Tues. - Sat. 10 a.m. - 6 p.m.

**THE ANTIQUE BARN TRAIN SHOP**

2810 Forest Hills Rd. SW 252-237-6778

**OHIO • Alliance**

New and used trains of all scales. Custom  
painting, full service repair department.  
Tue, Thu, Fri 12-6pm, Sat 10-3pm.  
[www.allianceink.com/robstrains](http://www.allianceink.com/robstrains)

**ROB'S TRAINS**

333 E. Main St. 330-823-7222

**OHIO • Columbus**

Exclusively trains.  
LGB, Lionel, O, HO, N scales.  
Books, Thomas, videos.  
Mon - Thur 10-6, Fri 10-8, Sat 10-6, Sun 12-5  
[www.trainstationohio.com](http://www.trainstationohio.com)

**THE TRAIN STATION**

4430 Indianola Ave. 614-262-9056

**OHIO • Mansfield**

Full line hobby shop since 1977.  
2 through G scales.  
Authorized Lionel service station.  
Thomas the Tank and Brio.  
Open Mon-Sat 10-5, Fri 'til 6:30.

**JOHN'S HOBBY SHOP**

15 N. Main St. (on the Square) 419-526-4426

**OREGON • Eugene**

Complete HO & N for beginners, experts.  
O-27 and G too. We carry all major brands.  
Scratchbuilding supplies, books, tools.  
Open Mon - Sat 9-6, Friday to 7  
[www.eugenetoyandhobby.com](http://www.eugenetoyandhobby.com)

**EUGENE TOY & HOBBY**

32 East 11th Ave. 541-344-2117

**OREGON • Portland**

HO, N, Z, Lionel, DCC, brass.  
Reservation discounts, new, used,  
Consignments, 16 minutes from Airport  
[www.hobbysmith.com](http://www.hobbysmith.com)

**THE HOBBY SMITH**

1809 NE Cesar Chavez Blvd. 503-284-1912

**OREGON • Portland**

Your complete model railroad store.  
Gauges Z through G.  
Mon - Fri 10-6, Sat 10-5, Closed Sunday  
[www.wsor.com](http://www.wsor.com)

**WHISTLE STOP TRAINS**

11724 SE Division St. 503-761-1822

**PENNSYLVANIA • Blue Ridge Summit**

The Exclusive model railroad store.  
From N to G, we stock it all.  
OPEN 7 days a week.  
Only minutes from Frederick, MD.  
[www.mainlinehobby.net](http://www.mainlinehobby.net)

**MAINLINE HOBBY SUPPLY**

15066 Buchanan Trail E. 717-794-2860

**PENNSYLVANIA • Bristol**

We carry most major brands and accessories  
for N - G gauge. SELL - BUY - REPAIR  
Hours change seasonally so please call or see  
website: [www.trainpopsattic.com](http://www.trainpopsattic.com)  
[trainpopsattic@gmail.com](mailto:trainpopsattic@gmail.com)

**TRAINPOPS ATTIC**

400 Mill St. 215-788-2014

**PENNSYLVANIA • Broomall**

Lionel, American Flyer, LGB, Atlas & MTH  
HO, N, ON30, Standard, O & S gauges  
bought, sold & traded. Auth. service station.  
Mon, Wed, Fri 10-9, Tue & Thu 10-7, Sat 10-5  
[www.nstrains.com](http://www.nstrains.com)

**NICHOLAS SMITH TRAINS**

2343 West Chester Pike 610-333-8585

**PENNSYLVANIA • Duncansville (Altoona)**

Everything in the store is discounted. Trains,  
models, R/C, rockets, and pinewood derby.  
Email: [littlejuniariver@aol.com](mailto:littlejuniariver@aol.com)  
Hours: Tues - Fri 10-6, Sat 10-5, Sun 12-4  
Visit [www.holidayhobbies.com](http://www.holidayhobbies.com)

**HOLIDAY HOBBIES**

1205 Plank Road 814-696-3533

**PENNSYLVANIA • Jeannette**

Trains exclusively. Lionel, MTH, HO & N.  
Supplies and accessories at discount prices.  
Open daily 9:30-5, Mon & Fri 9:30-7, Sat 9-4.  
Closed Tue. Expanded hours Nov. and Dec.  
[www.needztrains.com](http://www.needztrains.com)

**NIEDZALKOSKI'S TRAIN SHOP**

214 South 4th Street 724-523-8035

**PENNSYLVANIA • Landisville (Lancaster)**

Model Trains New & Used  
Supplies, Paint, Tools  
Rockets, Slot Cars, Lionel/MTH Trains  
Tue - Thur 10-6, Fri 10-7, Sat 10-4  
We buy train collections large & small

**COOL TRAINS HOBBIES**

106 W. Main Street 717-898-7119

**PENNSYLVANIA • Lansdale**

Exclusively Trains  
Specializing in DCC  
NCE • Digitrax • Tsunami • ESU  
[www.linsjunction.com](http://www.linsjunction.com)  
[linsjunction@comcast.net](mailto:linsjunction@comcast.net)

**LIN'S JUNCTION**

128 S. Line St. 215-412-7711

**PENNSYLVANIA • Montoursville**

Mon - Fri 9-5:30, Sat 9-5  
Extended weekday & Sun hours in Nov. & Dec.  
E-mail: [emrns@chilltech.net](mailto:emrns@chilltech.net)  
[www.englishmodelrailroad.com](http://www.englishmodelrailroad.com)

**ENGLISH'S MODEL RAILROAD SUPPLY**

201 Streibigh Lane 570-368-2516

**PENNSYLVANIA • Philadelphia (Feasterville)**

Lionel, American Flyer, LGB, MTH, Marklin,  
Bachmann, Williams. HO, N & Z. We buy, sell  
& repair. Mon-Fri 12-8; Sat 10-5  
[www.JoesTrainStation.com](http://www.JoesTrainStation.com)

**JOE'S TRAIN STATION**

21 East Street Rd. 215-322-5182

**PENNSYLVANIA • Strasburg**

From trains to castles to scenery, everything  
for the layout builder. Open 7 days a week.  
N, HO, O, Lionel, LGB. Buy, sell, trade used  
trains. Located adjacent to the  
Choo Choo Barn. [www.etrainshop.com](http://www.etrainshop.com)

**STRASBURG TRAIN SHOP**

226 Gap Road 717-687-0464

**RHODE ISLAND • Warwick**

HO trains & accessories, detail parts, plastic &  
crafts person kits. Hobby supplies, tools.  
Tue - Fri 12-8, Sat 10-6, Sun (Nov - Dec) 12-4  
1/2 mile west of airport  
E-mail: [aahobbies@gmail.com](mailto:aahobbies@gmail.com)

**A. A. HOBBIES, INC.**

655 Jefferson Blvd. 401-737-7111

**SOUTH CAROLINA • Greenville**

Model Trains Only - ALL AT DISCOUNT  
PRICES! 140,000+ items in all scales available  
online 24/7 at: [www.BlueRidgeHobbies.com](http://www.BlueRidgeHobbies.com)  
Retail store features HO and O.  
Open Tue, Wed & Fri 9:00am-1:00pm

**BLUE RIDGE HOBBIES**

2327 N. Pleasantburg Rd., Ste. H 800-988-2125

**SOUTH CAROLINA • West Columbia**

All scales, all major brands of  
model railroad equipment.  
We buy & sell used Lionel trains.  
Open daily 10-6. Closed Sun.

**NEW BROOKLAND RR & HOBBY SHOP**

405 State Street 803-791-3958

**TENNESSEE • Knoxville**

Located in Knoxville's premier shopping  
destination. We are the area's most diverse  
hobby store with a large selection of HO, N,  
and O. Open 7 days a week.  
Turkey Creek Area.

**HOBBYTOWN USA**

11145 Turkey Dr. 865-675-1975

**TENNESSEE • Nashville**

HO, O, N, & G scale. Special orders plus  
plastic kits, rockets, R/C, more. I-65, Exit 74 E  
or I-24, Exit 59 W. Near Old Hickory Blvd. &  
Nolensville Rd. Mon-Tues-Wed 11-6; Thur  
11-9; Fri-Sat 10-6. [www.hudsonhobbies.com](http://www.hudsonhobbies.com)

**HUDSON CLASSIC HOBBIES**

15119 Old Hickory Blvd. 615-833-8337

**TEXAS • Athens**

Specializing in HO, HOon3 & Brass.  
Blackstone • Tsunami • InterMountain • Kadee  
Digitrax Dealer • Walther's • Coach Yard  
Decoder installs & custom painting.  
[jack@harrishobbies.com](mailto:jack@harrishobbies.com) [www.harrishobbies.com](http://www.harrishobbies.com)

**HARRIS HOBBIES**

9323 CR 1127 903-489-2646

**TEXAS • Corpus Christi/Portland**

HO, N, O and G scale. New and used trains.  
Radio control planes, boats and cars.  
Plastic kits, rockets, all at discount prices.  
Thurs & Fri 10pm-6pm, Sat noon-6pm  
Sun 2-5pm and also by appointment.

**JIM'S HOBBIES**

207 7th St. (Portland) 361-229-0229

**TEXAS • Dallas**

Official Lionel Layout Builder Since 2001  
Traineeing shop/showroom includes:  
Custom Layouts, Modulars, Model Stations,  
Bridge Kits, etc. Come see...there's always  
something new!!! [www.TrainWorkStore.com](http://www.TrainWorkStore.com)

**TW TRAINWORX**

2808 McGowan St. 877-881-4997

**TEXAS • Dallas (Addison)**

Great discounts on thousands of G to Z scale  
items. NCE & Digitrax dealer.  
Monday - Saturday 10-6

**DISCOUNT MODEL TRAINS**

4641 Ratliff Lane 972-931-8135

**TEXAS • Houston**

HO & N, Lionel trains.  
Complete line of plastic kits, military and  
architecture supplies.  
Open Mon - Fri 11am-6pm, Sat 10am-5pm  
[www.gangdmmodelshop.com](http://www.gangdmmodelshop.com)

**G & G MODEL SHOP**

2522 Times Blvd. 713-529-7752

**TEXAS • Houston**

All trains, all scales. Magazines, Books, Videos,  
Repairs, Brass, Consignments. Discount  
program, will ship. [papabentstrains@gmail.com](mailto:papabentstrains@gmail.com)  
M, Tu, Th & F 10-6; W 10-7; Sat 10-5; Sun 12-5  
Major Credit Cards. [www.papabens.com](http://www.papabens.com)

**PAPA BEN'S TRAIN PLACE**

4007-E Bellaire Blvd. 713-523-5600

**TEXAS • Irving (Dallas Area)**

U/C and R/C planes, HO, N trains.  
RR & aviation magazines and books.  
Scale plastic kits, balsa wood.  
Mon 1-6, Tue-Wed 12-6, Thur-Fri 10:30-7,  
Sat 10:30-6. [www.malhoobby.com](http://www.malhoobby.com)

**M-A-L HOBBY SHOP**

108 S. Lee Street 972-438-9233

**TEXAS • San Antonio**

Model railroading our specialty.  
Marklin, G, HO, N, O, Z.  
Superdetailing parts galore.  
Books, structures, figures and tools.  
Tuesday - Saturday 10am-6pm

**DIBBLE'S HOBBIES**

1029 Donaldson Ave. 210-735-7721

**VERMONT • Rutland**

Exclusively Model Railroading. Most major  
lines. Brass, custom painted models.  
Competitive prices. Personal service.  
Open by appt. Eves 6-10, Sat 10-10.

**THE STEAM SHACK**

14 Engram Avenue 802-775-2736

**VIRGINIA • Ashland (Richmond)**

OPEN 7 DAYS MON - Sat 10-7; SUN 11-4  
Authorized Dealer Most Brands & Repairs  
New & Vintage G, O, HO, N & Z Special Orders  
RAILFANS!!! 60 trains pass our store daily.  
I-95 Exit 92B West 1.2 mi to Tracks

**TINY TIM'S TOYS & TRAINS**

104 S. Railroad Ave. 804-368-0063

**VIRGINIA • Midlothian (Richmond)**

HO, N, Atlas & Walther's Trains  
Brass, DCC, Repairs & Installations  
Digitrax Dealer  
Located in the Village Market Place  
Open Mon - Fri 10-6, Sat 10-4

**TODD'S HOBBIES**

13140 Midlothian Turnpike 804-464-4900

**VIRGINIA • Roanoke**

Lionel, LGB, G, AF, HO, N & MTH  
Buy, sell, trade, repair.  
Mon-Fri 10-6; Sat 10-5  
Two minutes off Exit 146 on I-81.

**RAIL YARD HOBBY SHOP**

7547 Williamson Rd. 540-362-1714

**VIRGINIA/MARYLAND • Chantilly, VA**

Full service storefront & online store. All makes  
& scales. New/used trains sales, service, repair  
& upgrades. Retail Store - [www.trainerpot.biz](http://www.trainerpot.biz)  
Authorized Lionel Service Station & Digitrax  
dealer. Online Sales Visit [www.JTTrains.com](http://www.JTTrains.com)

**TRAIN DEPOT**

13944 Willard Rd., Suite I 703-953-3767

**WASHINGTON • Burien (Seattle)**

Close to SEA-TAC airport - short drive from  
downtown Seattle. New & vintage electric  
trains in all scales. Tues - Sat 11-6  
[www.electrictrainshop.com](http://www.electrictrainshop.com)

**THE ELECTRIC TRAIN SHOP**

625 SW 152nd St. 206-244-7077

**WASHINGTON • Kirkland**

Lionel, American Flyer, LGB, HO, N.  
Buy, sell, and repair.  
Supplying all your railroading needs.  
Open Mon-Sat  
[www.eastsidetains.com](http://www.eastsidetains.com)

**EASTSIDE TRAINS, INC.**

217 Central Way 425-828-4098

**WASHINGTON • Spokane**

100% trains.  
Open Monday-Friday 10am - 6pm.  
Always open Saturday 10 - 5.  
Closed Sunday & holidays.

**SUNSET JUNCTION MODEL TRAINS**

419 E. Sprague Ave 888-838-2379

**WISCONSIN • Bay View (Milwaukee)**

Specializing in HO, N, Books, DVD's, DCC.  
Special Orders Welcome. Discount Prices.  
Tue-Wed 11-5, Thur 11-6, Fri 11-5, Sat 9:30-3  
[www.southsidetrains.com](http://www.southsidetrains.com)

**SOUTH SIDE TRAINS**

3979 S. Howell Ave. 414-482-1566

**WISCONSIN • Green Bay**

Exclusively trains, specializing in DCC, N,  
G, & HO. DCC installation and award winning  
custom painting and building available.  
[WWW.ENGINEHOUSESERVICES.COM](http://WWW.ENGINEHOUSESERVICES.COM)

**ENGINEHOUSE SERVICES, LLC**

2737 N. Packerland Dr. 2H 920-490-4839

**WISCONSIN • Milwaukee**

Exclusively Model Railroading since 1932.  
One-stop shopping from Z to G.  
800-487-2467 [walthers.com](http://walthers.com)

**WALTHERS SHOWROOM**

5619 W. Florist Avenue 414-461-1050

**WISCONSIN • Monroe**

N & HO scale trains & accessories,  
plastic kits, Books, videos & tools.  
Summer hours: Tues - Sat 10-5  
Winters: Add Sun 12-4  
Call ahead to be sure we're open!

**THE HOBBY DEPOT**

835 17th St. 608-325-5107

**WISCONSIN • Waukesha (Pewaukee)**

Marklin • Lionel • MTH • AF • LGB • Z to G  
• buildings • scenery • detail parts • books •  
scratchbuilding supplies • special orders •  
NMRA discounts • Mon - Fri 11-8 • Sat 10-5  
Sun 12-5. [www.hiawatahobbies.com](http://www.hiawatahobbies.com)

**JETCO'S HIAWATHA HOBBIES**

2026 Silvermail Rd. 262-544-4131

**CANADA-BC • Savona**

Model trains in G, O, S, HO, N, Z. Old toy  
trains, railway antiques, art, books, DVDs,  
souvenirs and Thomas too. Canadian road  
names a specialty. 20 min. west of Kamloops.  
[www.kellyskaboose.ca](http://www.kellyskaboose.ca)

**KELLY'S KABOOSE, THE RAILWAY STORE**

6648 Savona Access Rd. 250-377-8510

**CANADA-BC • Summerland**

Specializing in European Model Trains,  
Marklin, Trix, Roco, LGB, Brawa, Fleischmann  
& many more. Huge selection of trains,  
kits, & access. HO-N-Z-1-O-G Scales.  
[www.EuroRailHobbies.com](http://www.EuroRailHobbies.com)

**EURO RAIL HOBBIES & MORE INC**

9901 Main St. 866-799-6098

**CANADA-BC • Vancouver**

Large selection of model RR supplies includ-  
ing Min. by Eric, Athearn/MDC, Atlas, Peco,  
Shinohara, Rapido, SoundTraxx, brass, etc.  
Special orders. [www.central-hobbies.com](http://www.central-hobbies.com)  
Open 11-6, Friday 10-9. Closed Sundays.

**CENTRAL HOBBIES**

2825 Grandview Hwy. 604-431-0771

**CANADA-ON • Dundas**

Your #1 line hobby shop. Open 7 days a  
week. N, HO, AF, Lionel, LGB. Scenery and  
scratchbuilding supplies. Walther's dealer.  
Kato products. Special orders welcome!  
E-mail us at: [sales@dundasvalleyhobby.ca](mailto:sales@dundasvalleyhobby.ca)

**DUNDAS VALLEY HOBBY**

15 Cootes Dr. 905-628-9156

**CANADA-ON • Fergus**

Model Trains for Beginners to the Experts.  
Buy, Sell, Trade, Repair.  
HO, N, O, Q/27, S, G.  
Come See Our Trains.  
[www.2bintrains.on.ca](http://www.2bintrains.on.ca)

**2B IN TRAINS**

6168 Road 29 519-787-3280

**CANADA-ON • London**

Complete Canadian trains & more N, HO, G,  
Athearn, Hornby, Peco, Walther's. Special  
orders, plastics, parts, supplies, books, DVD's.  
Mon - Fri 10-6, Sat 9-5. [sales@rhobby.ca](http://sales@rhobby.ca)  
[www.rhobby.ca](http://www.rhobby.ca)

**BROUGHDA**



## Model Railroader MAGAZINE



## Next Issue

### New scenes on Rod Stewart's layout

Check out the latest additions to his model railroad, including a mountaintop coal mine and a steel mill complex, each made up of several scratchbuilt or kitbashed structures.

### Visit an N scale Pacific Northwest layout

Two train club members teamed up to build a 15 x 17-foot Union Pacific layout featuring mountain scenery, tall trestles, and long mainline runs.

### And how to:

- Build a small cement plant
- Make a tractor-mounted log grappler
- Mount a switch machine horizontally
- Make 3D-printed cement mixers

## Subscribe today!

1-800-533-6644

[www.ModelRailroader.com](http://www.ModelRailroader.com)

## DISPLAYADINDEX

We believe that our readers are as important as our advertisers. If you do not receive your merchandise or a reply from an advertiser within a reasonable period, please contact us. Provide details about what you ordered and the amount you paid. If no action is obtained after we forward your complaint to the advertiser, we will not accept further advertising from them. *Model Railroader* magazine, 21027 Crossroads Circle, Waukesha, WI 53187

ANE Model Co., Ltd.....	21	Menard, Inc.....	13
Arkansas Land of Legends .....	25	Micro-Mark .....	9
Atlas Model Railroad Co., Inc. ....	5	Model Railroader All-Time Digital Archive. .	70
Athearn .....	2	Model Railroader Books.....	64
Axian Technology.....	17	Model Railroader Video Plus .....	39
Bachmann Industries, Inc.....	80	Modelers Marketplace .....	71-73
Bar Mills Scale Model Works.....	25	Modellbahn Shop .....	21
Broadway Limited Imports .....	15	National Train Show .....	9
Caboose Ltd.....	65	NCE Corp.....	21
Circuitron .....	25	Nicholas Smith Trains.....	17
CTI Electronics .....	63	PECO Products .....	17
Custom Model Railroads .....	9	Ready to Roll, Inc.....	17
Digitrax .....	24	Showcase Express .....	21
Evergreen Scale Models .....	21	Sievers Benchwork.....	25
Great Midwest Train Show .....	25	SoundTraxx .....	17
Great Train Expo .....	25	Train Control Systems.....	9
Greenberg Shows .....	25	Train World.....	9
Halfpricehobby.com .....	63	Wm. K. Walthers, Inc.....	3
Hawkins Rail Services .....	25	Woodland Scenics.....	7
Kato USA, Inc.....	79	Z Stuff for Trains.....	65

The Display Advertiser Index is provided as a service to *Model Railroader* magazine readers. The magazine is not responsible for omissions or for typographical errors in names or page numbers.



# Pragmatic prototype modeling

**A friend is embarking** on building a layout. Like many of us, he has a favorite prototype – by coincidence, the same segment of the railroad I’m modeling – and he wants it to reflect its primary attributes. Eager as he is to get started, he – again, like many of us – has some concerns:

“I’m stuck between wanting to be as prototypical as possible, yet impatient to get a layout built and running ASAP. As a beginner, I know I don’t have the experience that many modelers have, so trying to scratchbuild the downtown area of my hometown as it appeared in the 1950s seems pretty daunting.

“That said, the only people who are likely to see my layout are my wife and kids – and they aren’t going to know the difference if I have Norfolk Southern’s ‘Nickel Plate’ ES44AC no. 8100 pulling a string of 40-foot wood reefers or an NKP GP7 pulling double-stacks!”

He concluded that he wants to be as realistic as possible for his own sake, but he’s willing to bend the visual effects a little for the sake of simplicity. Maybe.

**Another good friend**, Ray Breyer, offered him some advice that’s worth sharing:

“If you want to be a ‘protosincere’ modeler,” Ray suggested, “there are a few things to keep in mind:

- Do as much research as practical, and don’t be afraid to ask questions.

- Keep in mind that what reality looks like and what a model ‘needs’ to look like are actually two different things.

- Stick firmly with your goal, which should be modeling a single year, or even a single month. Fewer distractions and alternatives mean faster progress!



Modeling a specific time and place – as I have here Metcalf, Ill., ca. 1954 – doesn’t require that everything be a perfect replica. As long as it looks the part, that’s often good enough. The depot was scratchbuilt by Randy Laframboise, but the elevator is a stock Walthers kit, and the grain bins are Resin Car Works castings. Tony Koester photo

- Realize that you’ll never know every little detail about what you want to build, and don’t let that be a hindrance to your progress.

- Don’t be afraid to do something one year and go back and fix mistakes a few years down the road.

- Be a pragmatic modeler. Be as accurate as your time, finances, skills, knowledge, and artistic vision allow.

- Finally, keep in mind that you can never actually model each and every rivet, and that you don’t actually need to, especially once the trains finally start rolling.

**“Look to those** who are better modelers than you are for inspiration, guidance, and advice,” Ray added. “But never fall into the trap of thinking that, just because you’re not as good as they are, you should give up and do nothing.” His conclusion was equally on

the mark: “Keep firmly in mind that building a model railroad isn’t a contest. Nobody’s judging you, this isn’t life or death, and model railroading is supposed to be fun. I fell into the trap of trying to model my pet prototype ‘perfectly.’

I ended up with a case of modeling paralysis for a decade, simply because I couldn’t fit exactly what I wanted into my layout space. I finally wised up, scaled back, and became a proto-freelancer. Nine months later, I’m almost done laying track. And I’m much happier!”

Ray added a footnote: “If the rivet counters give you grief, just remind them that some of the hobby’s most respected modelers are freelancers!”


**I started to write** that, as one who is doing his best to model a specific prototype, I try to follow that prototype’s example to the best of my

ability. But that’s not true. If I tried to do everything as well as I possibly can, I wouldn’t get much done. It would take way too long.

Building a model railroad, especially a basement-size model railroad, is all about compromise. Allen McClelland’s famous “Good Enough” principle applies perfectly here. I do things as well as I think is required to convey the impression of that prototype in that particular time and place.

I try to do everything from room preparation to model building to operating procedures to the same level of quality and realism. There’s little sense in doing X to extreme tolerances while doing Y to a lesser standard.

**The end result** has proven pleasing. To me, it is indeed “Good Enough.” I’ve gotten a lot done in a decade and a half. My crew seems to enjoy running the railroad.

So I have high hopes for my neophyte friend finding satisfaction in this hobby, especially if he heeds Ray’s advice. It worked for me. 



IF I TRIED TO DO EVERYTHING AS WELL AS I POSSIBLY CAN, I WOULDN'T GET MUCH DONE.  
- TONY





**KATO**  
PRECISION RAILROAD MODELS

## GE's "Evolution" Series returns to the Scene!

GE's ES44AC "GEVO" series of locomotives will be getting a new release from Kato USA this coming spring - with restocks with new road numbers coming in all of the most popular paint schemes!

The Kato ES44AC is built on the same bullet-proof chassis that has powered the SD70MAC, C44-9W and AC4400CW locomotives, making it a reliable and powerful addition to any modern freight layout!

Also accompanying the new ES44AC Releases will be a brand new series of Bethgon Coalporter 8-Car Sets, perfect for pairing up with these heavy-hauling diesels. Each set contains 8 individually numbered coal cars with removable coal loads, allowing them to be run empty or full!

Item #	Description	MSRP
--------	-------------	------

### In Hobby Stores Now!

#176-8920	N GE ES44AC "GEVO" - Canadian Pacific #8706	120
#176-8921	N GE ES44AC "GEVO" - Canadian Pacific #8759	120
#176-8922	N GE ES44AC "GEVO" - Union Pacific #5475	120
#176-8923	N GE ES44AC "GEVO" - Union Pacific #5530	120
#106-4624	N Bethgon Coalporter 8-Car Set - UP/CMO "Building America"	145

### Shipping Through July 2017:

#176-8924	N GE ES44AC "GEVO" - BNSF "Swoosh" #5751	120	March 2017
#176-8925	N GE ES44AC "GEVO" - BNSF "Swoosh" #5785	120	
#176-8926	N GE ES44AC "GEVO" - Canadian National #2801	120	June 2017
#176-8927	N GE ES44AC "GEVO" - Canadian National #2825	120	
#176-8928	N GE ES44AC "GEVO" - CSX #700	120	July 2017
#176-8929	N GE ES44AC "GEVO" - CSX #721	120	
#106-4623	N Bethgon Coalporter 8-Car Set - Norfolk Southern	145	March 2017
#106-4625	N Bethgon Coalporter 8-Car Set - BNSF "Swoosh"	145	April 2017



Previous Product Photo Shown



Previous Product Photo Shown



Previous Product Photo Shown







KANSAS CITY SOUTHERN #651  
Item No. 67203

## WHAT DOES 3,000 HORSEPOWER SOUND LIKE? LISTEN TO BACHMANN'S HO SOUND VALUE SD40-2

The dependable, versatile 3,000-HSP SD40-2 was one of EMD's best-selling locomotives. Bachmann has added a DCC sound-equipped version to its line of popular SD40-2 diesels. It includes the Sound Value SoundTraxx® diesel sound package with prototypical prime mover, 3 air horns, and bell—all in polyphonic 16-bit sound. This model also features all-wheel drive, operating headlight, and E-Z Mate® Mark II couplers. Visit your favorite hobby dealer to hear this diesel rumble down your line today!

**SHIPPING NOW! MSRP \$209.00 each**



CP RAIL #5612 - DUAL FLAGS  
Item No. 67201



CSX #8013 - DARK FUTURE (HTM)  
Item No. 67202



NORFOLK SOUTHERN #3430  
Item No. 67204



UNION PACIFIC® #3450  
Item No. 67205

