

21 FIXES FOR A RELIABLE CAR FLEET >> p.30

MODEL RAILROADING IS FUN!

Model Railroader®

January 2018 • www.ModelRailroader.com

Come back to 1957

Inside the construction of the HO scale
Winston-Salem Southbound project p.46

**A Texas & Pacific
layout gets
a new life** p.34

PLUS

Model a small tankcar-served industry p.39

Track plan for a modern short line p.54

Build a working flag-stop signal p.58

DCC and sound for a monster steam engine p.66

**BONUS
ONLINE
CONTENT
CODE PG. 4**

Vol. 85 • Issue 1

DC... it's in our DNA

There's a lot of buzz lately about DCC. And we're pleased that our Prodigy Systems have become a DCC mainstay. Yet, we have never lost our focus on the many thousands of modelers who depend on MRC for advances in technology and for new DC products every year.

You might say DC is in our DNA and has been since the very beginning. Wherever you are on the DC spectrum, beginner, experienced or advanced, MRC will continue to deliver the power, control and customer support railroaders have come to expect. We've been doing it for 70 years ... and counting.

For complete information on our DC, DCC, & AC train controls see your hobby dealer and visit us at modelrectifier.com

Tech 7 Our Newest Series for HO, N and Z

Every Tech 7 features Accutec Technology™

Tech 7 ampac 760 (0001276)

20 watts of power, slow speed circuitry, pressure sensitive braking and momentum control.

Also available:

Tech 7 ampac 780 Dual Action (0001278)

Two independent units in one housing.



High Power with BIG Features

Throttlepack 9950 (0001320)

Roll with 125 watts of power and a mode switch to go from N & HO to large G scale. LCD screen displays voltage and amps. Features momentum, brake & direction switches plus specialized slow speed circuitry.

NEW GOLD EDITION

Compatible with LGB MFX™ Sound & NMRA DCC Decoders. Operates bell and horn functions in DC mode.

Extra Power, Advanced Circuitry & Economical Pricing for HO, N & Z

Railpower 1370 (AA1370)

18VA of power delivers realistic performance on larger layouts, directional control switch, and 300 degree speed control throttle, LED pilot light, AC for accessories, U.L. Listed and 2 year limited warranty.



MODEL RECTIFIER CORPORATION
80 Newfield Ave. ■ Edison, NJ 08837 ■ Phone: 732 225 6360 www.modelrectifier.com

TECHNOLOGY. PERFECTED.

☐ Model railroads ☐ Plastic model kits ☐ Battery chargers ☐ Radio control ☐ Scenery ☐ Die cast



YOUR SOURCE FOR MODERN HO STRUCTURES

HO SCALE

Building realism into contemporary layouts is easy with Cornerstone. These modern industries, commercial buildings and businesses are just some of the 350+ kits available to update or backdate your railroad. Check out the full selection of HO and N Scale models now at walthers.com/walthers-cornerstone.



Modern Gas Station 933-3537 \$49.98
Main Building, Car Fueling Island & 4 Parking Lot sections & details



Gas Station Parking Lot 933-3540 \$11.98
Matches parts in Modern Travel Center Series - easily used by itself & with other kits



Modern Travel Center 933-3538 \$79.98
Great value includes Main Building, Truck & Car Fueling Islands, Car Wash, 6 Parking Lot sections & details



Gas Station Car Wash 933-3539 \$24.98
Great alongside Modern Gas Station or as a free-standing business



Modern Concrete Warehouse
933-4067 \$49.98



Modern Shopping Center
933-4115 \$39.98 Coming Soon!



Culver's®
933-3486 \$49.98



The UPS Store®
933-4112 \$39.98 Coming Soon!



DQ Grill & Chill®
933-3485 \$34.98

WALTHERS

Support your local hobby shop • visit walthers.com • call 1-800-4-TRAINS

Availability and prices shown were accurate at press time, for updates visit walthers.com. Preproduction models shown assembled and painted, some details and colors may vary. Figures, vehicles, scenery materials and railroad equipment shown sold separately. Wm. K. Walther, Inc. is using the Culver's® trademarks of Culver Franchising System, Inc. pursuant to a Licensing Agreement, and possesses no ownership interest in the same. "DQ", Dairy Queen®, and the ellipse shaped logo, are trademarks owned or licensed by American Dairy Queen Corp. Manufactured under license from American Dairy Queen Corp. ©2017 Wm. K. Walther, Inc.



Features



34 A new life for the Texas & Pacific

This renowned HO scale model railroad is now the heart of a public museum display
by Weldon Nash

39 Scratchbuild a compact industry

This prototypical oil-recycling plant will fit on most modern layouts
by Pelle K. Søbørg

46 Going Southbound

The Winston-Salem Southbound Tar Branch is a compact HO scale urban switching layout packed with operation
by Eric White

• Online bonus ModelRailroader.com



54 Minnesota's Otter Tail Valley RR

The 10 x 10 foot N scale track plan features coal, grain, and rural scenery
by Nathan Brett with Cody Grivno

58 A signal for flag stops

Add interest to operating sessions for passenger crews with this working detail
by Don Ball

62 Weeds and junk

Enhance a yard or engine terminal scene with static grass and scrap box parts
by Kim Nipkow

In every issue

6 Model Railroader Video Plus

Check out the latest videos

8 On the Web

The latest features on our website

10 From the Editor

We always come back to this truth

12 News & Products

Hobby industry news

24 Ask MR

What's a Soo Line car doing in San Diego?

28 N Scale Insight

A loading ramp for Bakersfield



30 Step by Step

How to tune up a freight car

66 DCC Corner

Replacing a factory-installed sound decoder



68 Product Reviews

ScaleTrains.com HO scale General Electric ET44AC, Pullman-Standard 4,000-cubic-foot covered hopper in N scale by Atlas, and more

• Online bonus ModelRailroader.com

76 On Operation

Superiority isn't complicated

• Online bonus ModelRailroader.com

78 Trackside Photos

• Online bonus ModelRailroader.com

89 Index of Advertisers and Cartoon

90 Trains of Thought

Both ends of the spectrum



On the cover: It's a hot

summer day in North Carolina as the crew gets to work on the Winston-Salem Southbound. Bill Zuback photo



Next issue

In February, Cody Grivno shows you how to get that paint scheme you need, Pelle Søbørg finishes his Safety Kleen project, we visit a B&O HO layout, and more!



www.ModelRailroader.com
subscriber extra



Video on
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.

Now Available from



Norfolk & Western "Island Regal"

ATLAS MASTER® HO PULLMAN 10-1-1 SLEEPER CARS NEW MODEL

The 10 section - 1 drawing room - 1 compartment design of plans 3973 and 3973a were among Pullman's many popular sleeping car configurations. Over 117 of these cars were built for various railroads, carrying some of the most colorful Pullman names, often named for various Indian chiefs. After Pullman disbanded in the late 1940s, many of these sleepers were sold to various railroads nationwide, where they continued in service into the 1960s. These models feature full, separately-applied underbody details and accurate paint, lettering and names.



Pullman "Chief Red Tomahawk"



Burlington (Pullman) "Carter Lake"



Chicago & North Western "Floyd River"



Northern Pacific "Chief Black Bear"



Pennsylvania "La Reine"



Southern Pacific "Prior Lake"



Union Pacific "Crown Point"



Visit www.atlasrr.com today and sign up to become an Atlas Insider!
We'll deliver all the latest Atlas news directly to your email inbox!

*CSX Licensed Product





Link. Look. Learn more!

When this month's cover feature concludes in print, the story continues on Model Railroader Video Plus! Visit MRVideoPlus.com to find more than 60 step-by-step videos covering all aspects of building and operating the Tar Branch. Not an MRVP subscriber yet? Watch the FREE VIDEOS to see what you've been missing!

Tar Branch videos include:



THERE'S ALWAYS MORE ON MRVP!

If a photo is worth 1,000 words, then the MRVP library, containing more than 1,000 videos, is nothing short of a treasure trove. With online access to such a wide array of content, you'll have game-changing techniques, cost-saving tips, and inspiring imagery of stunning layouts and more at the ready, 24-7 from any Internet-enabled TV, computer, tablet, or smartphone.



And even when you have specific hobby-related troubles tripping you up, you'll discover series like **Ask MRVP**, hosted by handyman David Popp, who's always eager to share and then show helpful solutions.

So whether you want to improve your skills, get started

in the hobby, or enjoy the thrill of a trackside adventure, Model Railroader Video Plus has something for everyone!

JOIN THE FUN!

With your subscription to MRVP, you'll have access to exclusive HD videos covering all aspects of model railroading. You'll enjoy:

- Behind-the-scenes access to MR staff and projects
- Authoritative advice from notable contributors
- Layout visits, interactive track plans, trackside adventures, and more!

Sign up at www.MRVideoPlus.com/27deal.



Kent Johnson, MRVP Associate Producer

N
SCALE



WESTERN PACIFIC #35 • Item No. 51351

NEW

CHUGGING 'ROUND THE MOUNTAIN NEW BALDWIN 2-8-0 WITH SOUND

The 2-8-0 was created to haul heavy coal loads over the mountains of Western Pennsylvania. Known as the Consolidation, it went on to become a popular heavy freight locomotive across the country and the world. Now N scale modelers can enjoy the sounds of this workhorse with Bachmann's new DCC sound-equipped Baldwin 2-8-0 that includes our Sound Value *SoundTraxx*® steam package with authentic prototypical chuff, short and long whistles, bell, air pump, steam release, and blower—all in 16-bit polyphonic sound. It also features die-cast construction and *E-Z Mate*® Mark II couplers. Get this impressive hauler chugging around your N scale railroad today!

Features include:

- DCC sound-equipped
- precision motor
- operating headlight
- completely hidden drive train
- gear drive
- detailed cab interior
- separate sanding lines
- separate detail parts, including bell, whistle, pop valves, and handrails
- builder's plate
- die-cast, fine-scale driver spokes
- *E-Z Mate*® Mark II couplers, front and rear



UNION PACIFIC® #619
Item No. 51352

NEW



NORFOLK & WESTERN #722
Item No. 51353

NEW



NYC® #1156
Item No. 51354

NEW



WESTERN MARYLAND® #751
Item No. 51355

NEW

SHIPPING EARLY 2018! MSRP \$399.00 each



GREAT MODEL RAILROADS 2018



Layout videos from this special issue

Click on the [Special Issues](#) tab at www.ModelRailroader.com to preview the spectacular N, HO, O, and large scale layouts featured in *Great Model Railroads 2018*. You'll also find links to videos of some of this year's featured layouts, included the HO scale Great Midwestern RR shown above.

SUBSCRIBER EXCLUSIVE



Product demos and bonus photos

Find the [full product review](#) for the all-new ScaleTrains.com HO scale GEVO Tier 4 diesel on page 68. *Model Railroader* subscribers can also watch an exclusive video and see bonus photos of the superdetailed and sound-equipped model. Click on the link under Online Extras at the MR home page.

ONLINE EXTRAS

The Tar Branch



More than 500 plans

Updated each month, the Track Plan Database includes the latest plans published in *Model Railroader*, including the HO scale Winston-Salem Southbound. Browse plans by scale, size, and type. Subscribers can also download a printable copy of any track plan in the database.



Computer desktop wallpaper

Get inspired with a trackside photo as a background on your computer screen. This month's wallpaper image is from Bob Wolfe's HO railroad on page 78. Click on the link under Online Extras.

Subscriber & Member Login

Login, or register today to interact in our online community, comment on articles, receive our newsletter, manage your account online and more!

Login

Register

Join our online community

Sign-up today and get links to the latest online extras and videos at ModelRailroader.com. You'll also have instant access to user forums, videos, and photo galleries. Click on the green Login and Register box at www.ModelRailroader.com.

The Serious Modeler's Resource!

The ultimate full-service train enthusiast's store.

We have all the supplies, tools and knowledge to help you build your dream layout. More than 172,000 items, over 510 manufacturers, most at a discount from full retail – all at a fair price.

As always, in-stock orders of \$100.00 or more ship free within the Continental U.S.!*

*surcharges may apply for oversized items.

CABOOSE™

Sharing Our Passion for Trains Since 1938

10800 West Alameda Ave.
Lakewood, CO 80226
(303) 777-6766
Open 7 days a week!

MyCaboose.com

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

Railroad Headquarters



410-889-0010
Visit our website to see these and more kits from CMR
www.custommodelrailroads.com

Z-Stuff for Trains

creates a signal bridge for HO Scale

Connect (2) wires to power to operate.
Signal heads can be on either or both sides.
Bridges to 8 trks wide - Sensors over each trk.



To Order: 708-352-9105

Technical questions:
585-377-0926

www.z-stuff.net

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

TRAINSHOW.COM

Buy Tickets Online Now
and Save Money!
www.TrainShow.com

FOR INFO OR TO EXHIBIT AT A SHOW CONTACT:
280 Carlton Drive, Carol Stream, IL 60188
(630)-290-1962 • Info@TrainShow.com



Great Train Shows
Quality Train Shows
Coast To Coast
Sat & Sun 10am - 4pm

November 11-12 • Puyallup, WA Western Washington Fairgrounds
November 18-19 • Kansas City, MO KCI Expo Center
November 25-26 • Pleasanton, CA Alameda County Fairgrounds
November 25-26 • Collinsville, IL Gateway Center
December 2-3 • Fort Wayne, IN Allen County War Memorial Coliseum
December 30-31 • Grayslake, IL Lake County Fairgrounds
January 6-7 • Council Bluffs, IA Mid America Center
January 6-7 • Sacramento, CA Cal Expo
January 13-14 • Columbus, OH Ohio Expo Center
January 20-21 • Louisville, KY Kentucky Exposition Center
January 20-21 • Puyallup, WA Western Washington Fairgrounds
January 27-28 • Saint Charles, MO Saint Charles Convention Center
January 27-28 • Portland, OR Portland Expo Center
February 3-4 • Indianapolis, IN Indiana State Fairgrounds
February 3-4 • Costa Mesa, CA Orange County Fairgrounds
February 10-11 • Tulsa, OK Expo Square
February 24-25 • Novi, MI Suburban Collection Showplace
March 10-11 • San Jose, CA Santa Clara County Fairgrounds



200 Booths of Manufacturers & Retailers!
Huge Riding Train for Kids—FREE!
HUGE Operating Model Railroads!
Demos, Seminars, New Products and Much More!
See These Major Manufacturers:

Jan. 6-7, 2018 • Monroeville, PA Monroeville Convention Center
Jan. 13-14, 2018 • Charlotte, NC Park Expo & Conf. Center
Feb. 3-4, 2018 • Houston, TX NRG Park Arena
Mar. 10-11, 2018 • Edison, NJ New Jersey Expo Center

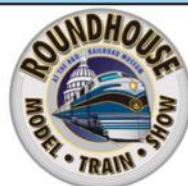


DuPage County Fairgrounds 9am-3pm
County Farm & Manchester, Wheaton, IL 60187
Largest Monthly Train Show in the US

Nov 12	Dec 10	Jan 14
Feb 11	Mar 11	Apr 8



Lewisville, Texas
Premier Events Center
December 9-10, February 17-18
FREE Admission For All with
Coupon at TrainShow.com



Baltimore, MD
B&O Railroad Museum
March 3-4
Model Train Show FREE
With Museum Ticket

HAVE TRAINS TO SELL? CALL 630-290-1962



Greenberg Shows
America's Premier
Train & Toy Show
Sat & Sun 10am - 4pm

November 11-12 • Monroeville, PA Monroeville Convention Center
November 18-19 • Wilmington, MA Shriners Auditorium
November 25-26 • Edison, NJ New Jersey Expo Center
December 2-3 • Timonium, MD Maryland State Fairgrounds
December 9-10 • Lebanon, PA Lebanon Valley Expo Center
December 16-17 • Chantilly, VA Dulles Expo Center
December 30-31 • Edison, NJ New Jersey Expo Center
January 6-7 • Hanover, MA Hanover Mall Exhibit Center
January 13-14 • Oaks, PA Greater Philadelphia Expo Center
January 20-21 • Richmond, VA Richmond Raceway Complex
February 10-11 • York, PA York Expo Center
February 17-18 • Wilmington, DE Chase Center on the Riverfront
February 24-25 • Fredericksburg, VA Fredericksburg Expo Center
March 3-4 • Rochester, NY Rochester Dome Arena
March 17-18 • Wilmington, MA Shriners Auditorium
March 24-25 • Hampton, VA Hampton Roads Convention Center

We always come back to this truth

If you look closely at the cover of this month's magazine, you'll notice a subtle change to the left side of the *Model Railroader* blue box. The "Model railroading is fun!" slogan is back on the cover, where it belongs.

We've had it inside the magazine for some years, but I thought it deserved a more prominent position. The slogan isn't just some marketing hype. It's at the core of why this magazine has been produced these 84 years.

The saying first appeared on the MR cover in April 1949, not long after the magazine's 15th anniversary.

In looking back through old issues, I was surprised to see how many times it's been on and off the cover over the decades, replaced by other slogans like "The practical how-to-do-it magazine," and "Exclusively scale model railroading." One of my favorites

was "Makes model railroading more fun."

Ultimately, though, we always come back to model railroading is fun. Because, well, it simply is.

To wit, I recently attended the Mid-Eastern Region National Model Railroad Association convention hosted in Harrisburg, Pa., by the Susquehanna Division.

It was a fantastic weekend of clinics, layout tours, and being with people who not only enjoy the hobby but are happy to share what they know about it. Many of them know a lot.

I was invited to an operating session on convention chairman Bob Charles' Pennsylvania RR layout. Not having a ton of operations experience, it made me a little nervous, but sounded like fun. The railroad is run by timetable and train order, and

one of the other guests was Steve King, a guy who has literally written the book on how to run a model railroad this way. No pressure.

Of the 10 or so guests who came, we had a good mix of people who operate on railroads regularly and some like me who do it more intermittently. Steve presided over the operations and patiently got everyone moving around the railroad. Before we knew it, several hours had gone by. Time really does fly when you're having fun, and we truly did.

Actually, I had less trouble with the operating rules and more with how I was going to put my train back together after tying a nice knot in my switching job. I'm pretty sure Bob is still chuckling over giving me that assignment.

Speaking of assignments, we have one for you. We'd like to



see what you do with your trains as far as winter and holiday scenes. Maybe you set a train up under the Christmas tree, or perhaps you have a snow scene on your layout year-round.

Email photos and descriptions (150 words or less) to us at mrmag@mrmag.com with "Holiday photos" in the subject line. Happy holidays!

Model Railroader. Model railroading is fun!

Founder A.C. Kalmbach 1910-1981
Editor Hal Miller
Managing Editor Jeff Reich
Senior Editor Dana Kavala
Associate Editors Cody Grivno, Steven Otte, Eric White
Contributing Editors Tony Koester, Pelle Søbørg, Larry Puckett, Lou Sassi
Phone 262-796-8776
E-mail mrmag@mrmag.com
Fax 262-796-1142

Model Railroader Art Team

Art Director Thomas G. Danneman
Senior Graphic Designers Scott Krall, Drew Halverson
Lead Illustrator Rick Johnson
Production Specialist Cindy Barder

Model Railroader Video Plus

Producer A. David Popp
Associate Producer Kent Johnson
Associate Editor Ben Lake
Assistant Editor Jenny Maaske

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. 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 Scott Redmond
Ad Sales Representatives Mike Ferguson, Martha Stanczak
Ad Services Representative Nanette Hackbarth

To purchase an advertisement

Phone 888-558-1544, ex. 643
E-mail adsales@mrmag.com

Circulation Department

Circulation Director Liz Runyon
New Business Manager Cathy Daniels
Retention Manager Kathy Steele
Single Copy Specialist Kim Redmond

To sell Model Railroader in your store:

Phone 800-558-1544
Outside U.S. and Canada 262-796-8776, ex. 818
E-mail tss@kalmbach.com
Website www.Retailers.Kalmbach.com
Fax 262-798-6592



Customer Sales and Service

Phone 877-246-4879
Outside U.S. and Canada 813-910-3616
Customer Service Modelrailroader@customersvc.com
Digital Modelrailroader.digital@customersvc.com
Back Issues Modelrailroader.SingleCopy@customersvc.com

Kalmbach Publishing Co.

CEO Dan Hickey
Senior VP, Sales & Marketing Daniel R. Lance
VP, Content/Editorial Director Stephen C. George
VP, Consumer Marketing Nicole McGuire
Corporate Advertising Director Ann E. Smith
Art and Production Manager Michael Soliday
General Manager 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.

ATHEARN GENESIS ATHEARN TOP DEALER ATHEARN READY-TO-ROLL

HO GENESIS

Oil Tender 4-8-8-4 BIG BOY, DCC & SOUND
G97203 #4005 G97210 #4000 G97211 #4007
SALE \$479.99 EA.

Coal Tender G97207 #4019, Elephant Ears
SUPER SALE \$399.99 EA. G97212 #4013

4-6-6-4 CHALLENGER, DCC & SOUND

HO GENESIS

SUPER SALE \$399.99 EA.

G97224 UNION PACIFIC #3710, black
G97226 UNION PACIFIC #3982, black
G97231 UNION PACIFIC #3715, black
G97232 UNION PACIFIC #3984, gray

#G97225 UNION PACIFIC 4-6-6-4 CHALLENGER, DCC & SOUND

HO GENESIS

SALE \$469.99

Z-8 4-6-6-4 CHALLENGER SALE \$474.99 EA.

G97234 NORTHERN PACIFIC #5138
G97236 SPOKANE, PORTLAND & SEATTLE #920

HO GENESIS

4-8-2

MT4, DCC & SOUND SUPER SALE \$299.99

G97007 SOUTHERN PACIFIC #4360

F7A/B

DCC & SOUND

SUPER SALE \$379.99/set

G22660 CANADIAN NATIONAL
G22661 CANADIAN NATIONAL
G22672 GREAT NORTHERN

F7A/B BEST DEAL \$299.99/set

DCC & SOUND

GP-7 HO GENESIS

\$246.99 EA.

G64248 SANTA FE
G64249 SANTA FE #2790
G62771 ERIE

DCC READY \$144.99 EA.

G62731 READING #619
G62733 READING #633

FP7A/B \$399.99 EA.

G22680 AMTRAK
G22684 FRISCO

GP-9 DCC & SOUND

\$246.99 EA.

G64252 DRG #5931
G62779 SP #3708
G62781 SP #3712

SUPER SALE \$219.99 EA.

G62666 SCL #1036
G62676 PC #7394
G62703 C&E #221
G62704 C&E #234
G62705 C&E #237
G62754 NYC #6075

GENESIS HO Scale

GP15-1 DCC & SOUND

\$224.99

G68163 GATX #406

SUPER SALE \$239.99 EA.

G68109 MOPAC #1575
G68112 NS #1403

HO GENESIS

GP38-2 DCC & SOUND

\$239.99 EA.

G40605 MOPAC
G40606 MOPAC
G40608 SOUTHERN #5016

GP39-2 DCC & SOUND

SUPER SALE \$169.99 EA.

G40979 BN #2705
G40980 BN #2708
G40981 BN #2712
G40892 SF #1601
G40893 SF #3604
G40894 SF #3610

HO GENESIS

GP40-2 DCC & SOUND

\$209.99

G40877 CSX #6399

DCC & SOUND SUPER SALE \$149.99 EA.

G40966 PHI GTW #6413
G40968 PHI GTW #6416

HO GENESIS

GP40P-2 DCC & SOUND

\$229.99

G40859 SP #3198
G40860 SP #3199

HO GENESIS

GP50 DCC & SOUND

\$234.99 EA.

G65428 BNSF
G65431 FT WORTH & WESTERN

SD60E FIRST RESPONDERS

HO GENESIS

DCC READY \$189.99 EA.

G65200 NS #911

#G69758 CANADIAN PACIFIC HO GENESIS ES44AC DCC & SOUND \$229.99

SD45-2 DCC & SOUND

\$249.99

G86192 PAN AM
G86182 ARIZONA & CALIFORNIA #4001
G86183 ARIZONA & CALIFORNIA #4003
G86184 SF #5678
G86185 SF #5690
G86186 SF #5693
G86187 SF #5696

SD40M-2 DCC & SOUND

\$209.99

G67232 CSX #8972

SDP45-2 DCC & SOUND

SUPER DEAL \$159.99 EA.

G63577 SP #5693

SUPER SALE \$189.99 EA.

G63663 CONRAIL
G63664 CONRAIL
G63665 CONRAIL
G63666 CONRAIL

SD70AC HO GENESIS Atheme

DCC READY \$159.99 EA.

G68715 EMD/BLUE #1020
G68716 EMD/BLUE #1023
G68717 EMD/BLUE #1206
G68718 EMD/BLUE #1205
G68509 BNSF #9386
G68510 BNSF #9395

DCC & SOUND

\$269.99

G68829 BNSF

SUPER SALE \$249.99 EA.

G68659 UP #8309
G68661 UP #8634
G68682 UP #8647
G68683 UP #8656
G68684 UP #8669
G68689 NS #2713
G68685 BNSF #9388

BEST DEAL \$199.99 EA.

G68823 EMD/BLUE #1201

BEST DEAL \$199.99 EA.

G68609 BNSF #9386
G68643 FERROMEX #4009
G68644 FERROMEX #4011
G68645 FERROMEX #4014

TOP DEAL \$149.99 EA.

G68815 EMD/BLUE
G68816 EMD/BLUE

DCC & SOUND

\$254.99 EA.

G69323 CSX #4679
G69324 CSX MULBERRY
G69325 CSX TAMPA
G69335 NS
G69341 UP FLAG
G69342 UP FLAG

SUPER SALE \$239.99 EA.

G69308 UP FLAG #4908
G69310 UP FLAG #4921

SD70M-2 DCC & SOUND

\$249.99

G68666 CIX #142
G68689 NS #2713

SD70M-2 with DCC & SOUND

\$254.99 EA.

G68629 FEC
G68631 FEC

\$254.99 EA.

G69319 BNSF #4679
G69320 BNSF #6288
G69321 BNSF #8290
G69322 BNSF #3800

STANDARD DCC

\$109.99 EA.

G69215 NS #2800
G69218 NS #2806

\$149.99

G69213 SF #211

HO GENESIS

GAS TURBINE with TENDER DCC & SOUND

G41002 #55 G41003 #57

GAS TURBINE with TENDER DCC

G41002 #55 G41003 #57

HO Scale Ready-to-Roll Atheme EMD Model 40, Lil Critter

DCC READY \$69.99 EA.

89551 BLACK
89552 BLUE
89553 GREEN

HO Scale Ready-to-Roll Atheme SW1000

SALE \$99.99 EA.

98134 BNSF #3652
98138 ELGIN, JOLIET & EASTERN

HO Scale Ready-to-Roll Atheme SW1500

SALE \$94.99

98122 NORFOLK SOUTHERN

HO Scale Ready-to-Roll Atheme

DCC READY \$89.99 EA.

98792 DRGW #5201
98643 SP&S #75

HO Scale Ready-to-Roll Atheme

DCC READY \$89.99 EA.

25791 SEATTLE SOUNDER #906
25793 SEATTLE SOUNDER #911
25797 UTAH UTAR

HO Scale Atheme ADD 103/P42

Ready-to-Roll DCC READY \$99.99

Phase III
88833 AMTRAK 88835 AMTRAK 88837 AMTRAK
88834 AMTRAK 88836 AMTRAK 88838 AMTRAK

Phase IV INTERCITY \$99.99

88729 AMTRAK #82

Phase V \$99.99 EA.

88746 AMTRAK 88750 AMTRAK 88840 AMTRAK
88748 AMTRAK 88839 AMTRAK 88841 AMTRAK

GP-35 DCC READY \$79.99 EA.

91734 N&W #3545, blue
91735 PRR #2255
91736 PRR #2269
91761 ALASKA #2501
91762 ALASKA #2503
91771 UP #762
94206 CONRAIL #2277
94165 SP #6542
94166 SP #6521
96051 SP #6536

SUPER SALE \$69.99 EA.

91772 UP #783
96042 CP #8202
96044 CP #8213

HO Scale Ready-to-Roll Atheme

GP38-2 STANDARD DC BEST DEAL \$49.99 EA.

78895 NdeM #9242
78897 NdeM #9277

GP38-2 STANDARD DC SUPER SALE \$69.99 EA.

77168 PITTSBURGH & LAKE&ERIE #2053
77169 PITTSBURGH & LAKE&ERIE #2054
77170 PITTSBURGH & LAKE&ERIE #2055

HO Scale Ready-to-Roll Atheme

GP40-2 DCC READY \$79.99 EA.

89711 UP #1349

HO Scale Ready-to-Roll Atheme

GP50 DCC READY \$79.99 EA.

29326 NORFOLK SOUTHERN #4700
29327 NORFOLK SOUTHERN #4715
77871 UNION PACIFIC
77903 FLORIDA TRI RAIL

HO Scale Ready-to-Roll Atheme

77987 CHICAGO NORTH WESTERN DASH 9-44CW DCC READY \$93.99

WHILE VISITING NEW YORK CITY

STOP In To Either Of Our Two LOCATIONS

293 SUNRISE HIGHWAY-LYNBROOK, LONG ISLAND 11563

751 MCDONALD AVE. • BROOKLYN, NY 11218

HO Scale Atheme

ROUNDHOUSE GP50

14853 SANTA FE
14856 BN
14859 BNSF
14870 NORFOLK SOUTHERN
14872 UNION PACIFIC
14885 NORFOLK SOUTHERN
14887 INDIANA & OHIO
14889 TOLEDO PEORIA & WESTERN

HO Scale Ready-to-Roll Atheme SD38 DCC & SOUND

\$157.99 EA.

88576 CONRAIL
88579 CSX
88585 NORFOLK & WESTERN
88588 PENN CENTRAL

DCC READY \$114.99 EA.

88476 CONRAIL
88479 CSX
88485 NORFOLK & WESTERN

HO Scale Ready-to-Roll Atheme SD39

98786 NORFOLK & WESTERN

HO Scale Ready-to-Roll Atheme

SD40 DCC & SOUND \$144.99 EA.

98802 BNSF #7327
98803 BNSF #7337
98804 CB&QCS #880
98815 DWP #5910
98816 N&W #1603
98817 N&W #1604
98823 UP #3030

HO Scale Ready-to-Roll Atheme

SD40T-2 DCC READY \$109.99 EA.

98300 NYS&W #3010
98301 NYS&W #3012
98302 NYS&W #3014
98303 NYS&W #3016
98304 UP #2881
98305 UP #2886
98306 UP #2888

HO Scale Ready-to-Roll Atheme

SD45 DCC & SOUND \$144.99 EA.

65104 NS #3106
65105 NS #3145
65113 SP #7559

SD-45 DCC READY

\$144.99 EA.

98063 #9088
98064 #8937
98065 #9044

SUPER SALE \$89.99 EA.

98020 NdeM #109.99 EA.
98024 DRGW #5338
98030 PRR #6107
98031 PRR
98033 UP #440
98035 UP #448
98040 PENN CENTRAL

SD-45 DCC READY \$104.99 EA.

65003 NORFOLK SOUTHERN #1795
65004 NORFOLK SOUTHERN #3106
65005 NORFOLK SOUTHERN #3145
65006 FRISCO #344

SOUTHERN PACIFIC SD-45 with ELEPHANT EARS

DCC READY \$144.99 EA.

98063 #9088
98064 #8937
98065 #9044

SD-45 DCC READY

SUPER SALE \$89.99 EA.

95429 DRGW
95438 UP #3604
95440 UP #3648
98032 PRR

HO Scale Ready-to-Roll

80410 SEABOARD SD50 DCC READY

SUPER SALE \$79.99

HO Scale Ready-to-Roll Atheme

#78947 SOUTHERN PACIFIC C44-9W DCC READY

SUPER SALE \$89.99

HO Scale Ready-to-Roll Atheme

AC4400 DCC READY \$94.99

77698 CNW #8834

DCC READY \$99.99 EA.

77661 SOUTHERN PACIFIC #187
77663 SOUTHERN PACIFIC #136

WE HAVE THOUSANDS OF ATHEARN & OTHER HO BRANDS OF FREIGHT CARS ON-LINE TRAINWORLD.COM

57' MECHANICAL REEFERS with SOUND

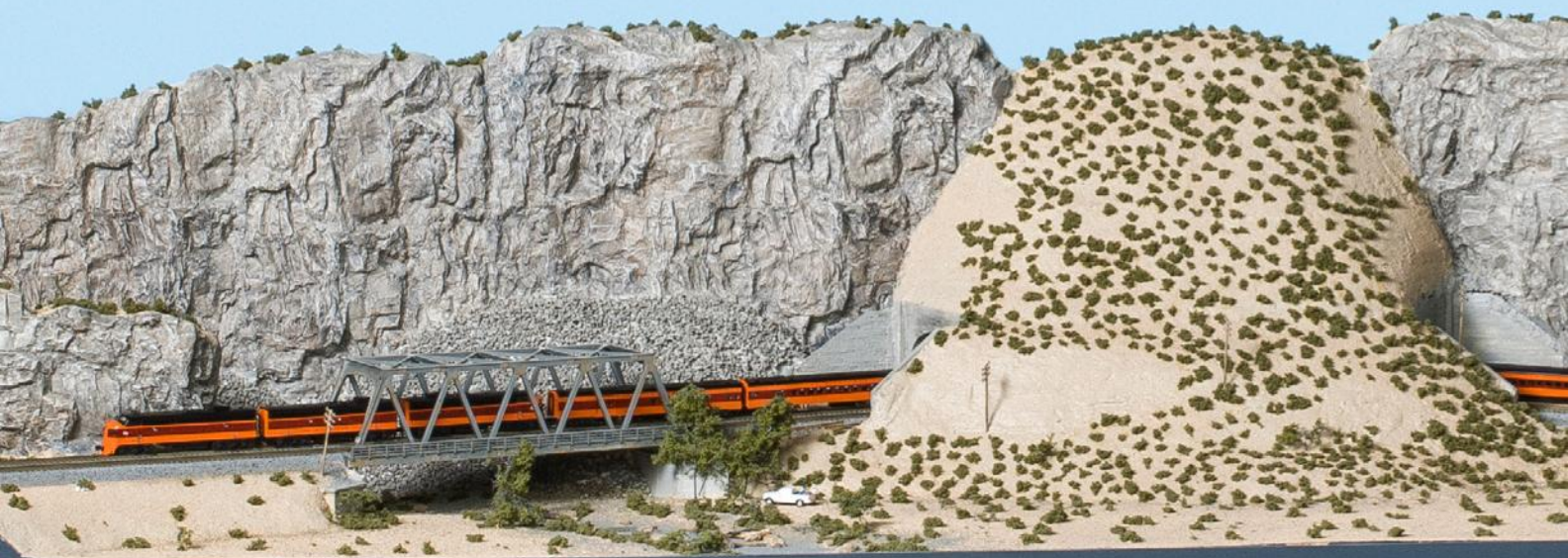
SEE ON-LINE

HO GENESIS

HO Scale Ready-to-Roll Atheme TANK TRAIN

SUPER SALE SEE ON-LINE

GATX EARLY GATX LATE



Milwaukee Road *Olympian Hiawatha*. Kato has released its much-anticipated N scale name train. The nine-car Milwaukee Road *Olympian Hiawatha* (\$280) includes a baggage-dormitory; two 48-seat coaches; a Super Dome lounge; a diner; a 14-section Touralux sleeper (*Mount St. Helens*); two 10-roomette, six-double-bedroom sleepers (*Lake Pewaukee*

and *Lake Oconomowoc*); and an 8-double-bedroom lounge-observation (*Coffee Creek*). In addition, Kato offers an Electro-Motive Division FP7 and F7B set (\$190) and a single FP7 (\$110). Alternate number boards (nos. 90A and 95C) are available for \$3. Kato USA Inc., 847-781-9574, www.katousa.com

H0 scale locomotives

- **Electro-Motive Division GP35 diesel locomotive.** BNSF Ry. (Atchison, Topeka & Santa Fe patchout), Chicago & Eastern Illinois, Kansas City Terminal (two road numbers), Lycoming Valley (two numbers), Montana Rail Link, and Western Pacific (orange in one number, dark green in three numbers). Three numbers per scheme unless noted. Wire grab irons, die-cast metal frame, and McHenry scale couplers. Direct-current model with 8- and 9-pin connector for Digital Command Control decoder, \$129.98. August 2018. Round-house line. Athearn Trains, 800-338-4639, www.athearn.com

- **Electro-Motive Division SD35 diesel locomotive.** New paint scheme: Chessie System (Toledo Ore RR Co. reporting marks, two road numbers). New numbers: Central of Georgia (high short hood), Central RR of New Jersey (green and yellow), Chessie System (Western Maryland marks, two numbers), Conrail, Norfolk & Western, Penn Central (black and white in two

numbers, with red "P" in one number), and Southern Pacific. Three numbers per scheme unless noted; also available undecorated (low short hood with and without headlight and high short hood). Detailed cab interior with crew figures, directional golden-white light-emitting-diode headlights, and Accumate couplers. Direct-current model, \$169.95; with dual-mode ESU LokSound Select sound decoder, \$279.95. Second quarter 2018. Atlas Model Railroad Co., 908-687-0880, www.atlasrr.com

- **Baldwin DS 4-4-1000 diesel locomotive.** Bessemer & Lake Erie, Central RR Co. of New Jersey (Statue of Liberty herald and Baltimore & Ohio patchout), Copper Range RR (two road numbers), Canadian Pacific (maroon and gray with and without front and rear number boards), Lehigh Valley (Tuscan with gray flag and small road numbers and Tuscan with white flag and large road numbers), Milwaukee Road (orange and black 1959 renumber, with and without hood-top safety railings), Nickel Plate Road (two numbers), Pennsylvania RR (Brunswick Green mid-1960s renumbering, two

numbers), SMS (ex-Copper Range and ex-Pennsylvania RR units), Southern Pacific (scarlet and gray, one number with road name on one line, one number with road name on two lines), Southern Ry. (black tuxedo scheme, two numbers), and Union Pacific ("Road of the Streamliners" slogan, two numbers). Can motor with flywheels, nickel-silver wheels, and grab irons. Direct-current model with 21-pin socket for Digital Command Control decoder, \$189.95; with ESU LokSound Select DCC sound decoder, \$289.95. Summer 2018. Executive Line. Bowser Manufacturing Co. Inc., 800-327-5126, www.bowser-trains.com

- **Electro-Motive Division SD7 and SD9 diesel locomotives.** SD7: Burlington Northern, Great Northern (*Empire Builder* scheme), Southern Pacific (as-delivered scheme), and Union Pacific ("Route of the Streamliners" slogan). SD9: Chicago, Burlington & Quincy ("Way of the Zephyrs" slogan), Denver & Rio Grande Western (bumblebee scheme), Pennsylvania RR (Brunswick Green), and Southern Pacific (gray and scarlet). Two road numbers per



scheme; both body styles also available undecorated. \$299.99. Plastic body with die-cast metal chassis, Paragon 3 dual-mode sound decoder, and factory-installed crew figures. Broadway Limited Imports, 386-673-8900, www.broadway-limited.com

- **General Electric Tier 4 locomotives.** BNSF Ry. (ET44C4), Canadian National (EF-644t), CSX (ET44AH), Navajo Transitional Energy Co. (two road numbers), Norfolk Southern, and Union Pacific (C45AH). Six numbers per road name unless noted. Injection-molded plastic body with railroad-specific details and wire grab irons. ESU motor-only decoder, \$219.95; with ESU LokSound sound decoder, \$299.95. Direct-current plug available upon request. Early 2018. InterMountain Railway Co., 800-472-2530, www.intermountain-railway.com

- **Self-propelled track cleaning engine.** Features TCS dual-mode decoder, abrasive and cloth cleaning pads, two rare-earth magnets, vortex vacuum, and working beacon. \$329.95. Korea Brass USA, www.korea-brass-usa.com



- **Atchison, Topeka & Santa Fe Budd RDC-1 and RDC-1m set.** Cast trucks;

HO scale



Milwaukee, Racine & Troy

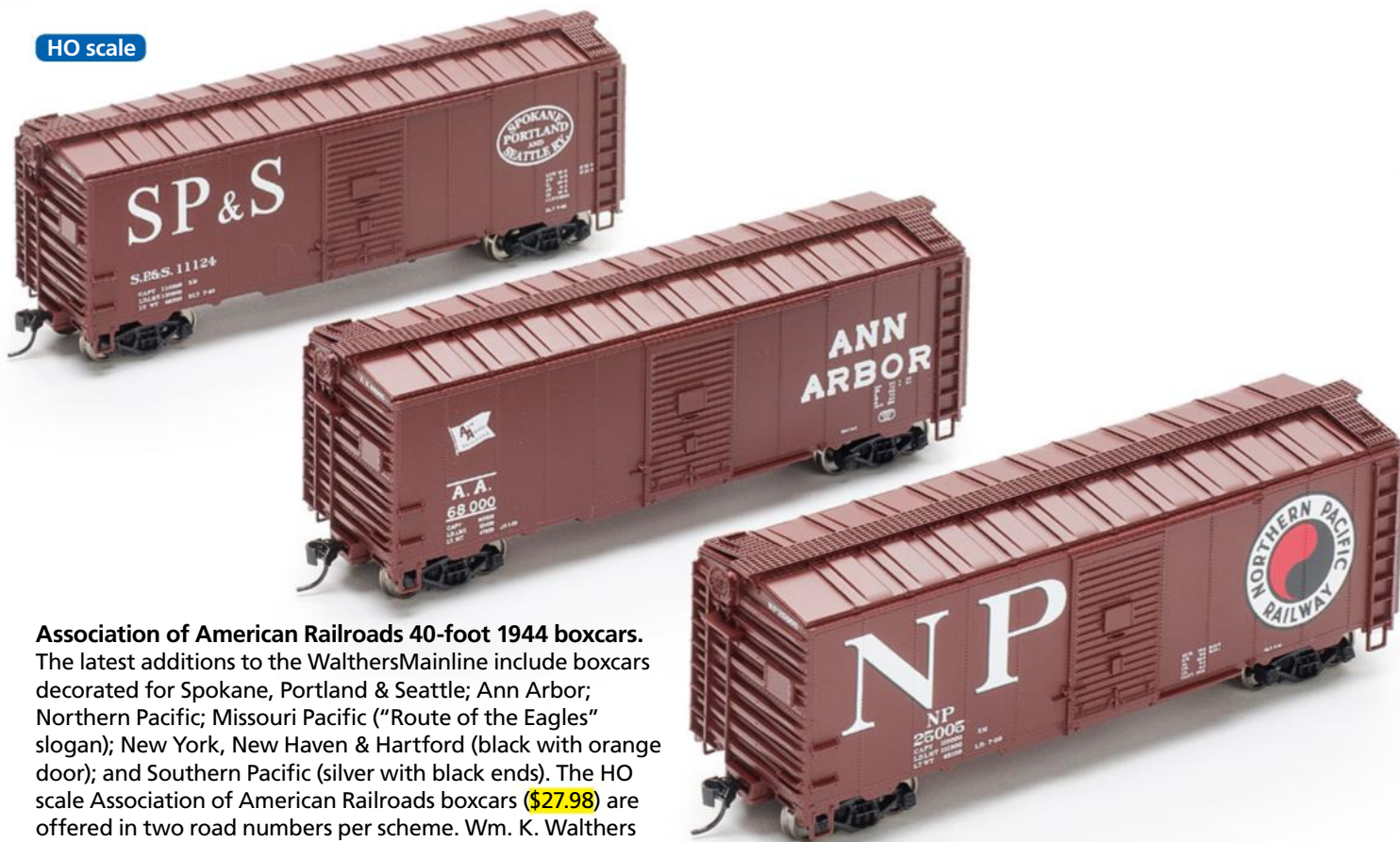
cabooses. Bring a piece of *Model Railroader's* layout to your home empire with these offerings from Atlas Model Railroad Co. The firm is offering riding platform no. 79 (based on an article in the November 2013 MR) in one road number and wide-cupola cabooses in two numbers. The models have roller-bearing trucks, a separate brake cylinder, and running boards as appropriate. The models are priced at **\$41.95** each. Atlas Model Railroad Co., 908-687-0880, www.atlasrr.com

reinforced cab ends with warbonnet paint; door-mounted Gyalite; detailed, illuminated interior; working headlights, class lights, and number boxes; and twin-motor drive system. Rapido will donate 5 percent of the retail price to the restoration of DC-191 at the Orange Empire Railway Museum. Direct-current set, \$450; with dual-

mode sound decoder, \$650. 2018 delivery. Rapido Trains Inc., 905-474-3314, www.rapidotrains.com

- **Electro-Motive Diesel SD70ACe diesel locomotive.** Arkansas & Missouri (two road numbers), Canadian National (ex-EMD demonstrator), CSX (dark blue and yellow), Ferromex, Norfolk Southern, and Providence & Worcester

HO scale



Association of American Railroads 40-foot 1944 boxcars.

The latest additions to the Walther's Mainline include boxcars decorated for Spokane, Portland & Seattle; Ann Arbor; Northern Pacific; Missouri Pacific ("Route of the Eagles" slogan); New York, New Haven & Hartford (black with orange door); and Southern Pacific (silver with black ends). The HO scale Association of American Railroads boxcars (\$27.98) are offered in two road numbers per scheme. Wm. K. Walther's Inc., 414-527-0770, www.walthers.com

(two numbers). Four numbers per scheme unless noted. Molded drill starter points for grab irons, light-emitting-diode headlights, and Proto-Max couplers. Direct-current model, \$129.98; with dual-mode ESU sound decoder, \$199.98. Walther's Mainline. Wm. K. Walther's Inc., 414-527-0770, www.walthers.com

HO scale freight cars

- **Assorted freight car kits.** CP Rail 50-foot plug-door boxcar with exterior posts ("Newsprint Service Only" stencil), \$17.98. Delaware, Lackawanna & Western 36-foot double-sheathed boxcar with wood ends and straight underframe, \$17.98. Cleveland, Cincinnati, Chicago & St. Louis panel-side two-bay hopper (single car, \$16.98; three-pack, \$49.98). New York, New Haven & Hartford 36-foot double-sheathed boxcar with metal ends and straight underframe, \$17.98. Pennsylvania RR Pullman-Standard 4,750-cubic-foot-capacity three-bay covered hopper, \$19.98. Injection-molded plastic kits with plastic wheelsets and Accumate couplers. Accurail, 630-365-6400, www accurail.com

- **Pacific Car & Foundry 50-foot plug-door boxcar.** Evergreen Freight Car Corp., Illinois Central (Southern Pacific patchout, two road numbers), Southern Pacific (1988 version in two numbers and 1978 version), and SP Construction (Fiber Optic Service, one number). Four numbers per scheme unless noted. Separately applied door closure rods and side ladders, wire grab irons, and 70-ton trucks with rotating bearing caps. \$39.98. August 2018. Genesis series. Athearn Trains, 800-338-4639, www.athearn.com
- **American Car & Foundry 11,000-gallon tank car.** New road numbers, without platforms: California Dispatch Line. New paint schemes, with platforms: Columbia Southern, Dow, DuPont, Olin Chemical Division, PPG Chemicals, and Texas Natural Gasoline Corp. Two numbers per scheme; also available undecorated (with and without platforms). Tank fittings and safety placards, 50-ton solid-bearing trucks, and Accumate couplers. \$42.95 (undecorated, \$24.95). First quarter 2018. Atlas Model Railroad Co., 908-687-0880, www.atlasrr.com
- **Assorted cabooses.** Short-body bay-window caboose: Missouri Pacific.

Transfer cabooses: Atchison, Topeka & Santa Fe; Burlington Northern (Cascade Green and Great Northern patchout, one road number each); Chessie System (Baltimore & Ohio reporting marks, one number); Chicago & North Western; Delaware & Hudson (one number); Elgin, Joliet & Eastern (one number); Family Lines (Louisville & Nashville marks, one number); Grand Trunk Western; Great Northern; Illinois Central Gulf; Napierville Junction RR (one number); Penn Central; St. Louis-San Francisco; Toledo, Peoria & Western; and Union Pacific. Two numbers per scheme unless noted. Plastic body, wire grab irons, and metal wheels. \$49.95. Bluford Shops LLC, 618-822-6833, www.bluford-shops.com



- **Pullman-Standard PS-1 40-foot Mini-Hy Cube boxcar.** New paint schemes: Burlington Northern (1973 and

1975 Cascade Green, one road number each); Chicago, Burlington & Quincy (1970 Havelock repaint, one number); Denver & Rio Grande Western (1967 brown with "DF" stencil, three numbers); and Illinois Central Gulf (1972 repaint with skinny letters and 1977 repaint with wide letters, one number each). See-through crossover platforms, 70-ton Barber S-2-A roller-bearing trucks with 33" metal wheels, and Kadee scale couplers. \$44.95. Tangent Scale Models, 828-279-6106, www.tangentscalemodels.com

HO scale structures

- **Freight station.** Laser-cut wood kit with removable roof and paper shingles. Measures 7½" x 4½" x 2¾". \$109.95. Atlas Model Railroad Co., 908-687-0880, www.atlasrr.com
- **Cazin's car workshop.** Laser-cut cardboard kit. Based on prototype photo of a French garage from the 1950s. Assemble with wood glue. Paint with acrylic or gouache. Measures



Electro-Motive Division GP9 diesel locomotive. This Southern Pacific road switcher features an Electro-Motive Division low short hood, see-through fan screens, a detailed cab interior, and factory-installed and painted wire grab irons. The HO scale Genesis series model is decorated for SP in four road numbers. Direct-current models sell for **\$189.98**; versions with a dual-mode SoundTraxx sound decoder have a manufacturer's suggested retail price of **\$289.98**. Athearn Trains, 800-338-4639, www.athearn.com



ALL-NEW FREIGHT CAR

1960s to Today • Numerous Variations



Pullman-Standard PS-2CD 4785cf Covered Hopper

Preorder Now at www.ScaleTrains.com and Select Retailers

ALSO AVAILABLE IN...



HO
1:87 SCALE

© 2018 ScaleTrains.com, Inc. ScaleTrains.com, Operator, Rivet Counter, and respective logos are trademarks of ScaleTrains.com, Inc. ScaleTrains.com, Inc. 7598 Highway 411 Benton, TN 37307 844-9TRAINS/844-987-2467 International 423-299-3689

Scene and photography by Ken J. Johnson
Preproduction model shown

N scale



Assorted freight cars. Now available from Micro-Trains are a Gulf 56-foot general-service tank car (two road numbers), **\$32.90**; a Grand Trunk Western 50-foot double-door automobile boxcar, **\$25.30**; and a Baltimore & Ohio 33-foot

two-bay war-emergency hopper with coal load, **\$23.90**. The injection-molded plastic N scale models have plastic wheelsets and Magne-Matic couplers. Micro-Trains Line Co., 541-535-1755, www.micro-trains.com

4.33" x 2.44" x 3.34". \$40.80 (price may vary based on exchange rate). Minifer, www.minifer.fr/en/

H0 scale details and accessories

- **Wabash National 53-foot plate trailer.** Burlington Motor Carriers, Dart, Heartland Express, Schneider National, XTRA Lease, and owner/operator (two numbers). Three numbers per scheme unless noted. Positionable rear bogie, vinyl tires, and printed mudflaps. \$29.98. July 2018. Athearn Trains, 800-338-4639, www.athearn.com

- **45-foot intermodal containers.** Maersk, Matson, Sea Castle, and Triton. Two three-packs per name. \$42.95. First quarter 2018. Atlas Model Railroad Co., 908-687-0880, www.atlasrr.com

N scale locomotives



- **General Electric P42 diesel locomotive.** VIA Rail Canada (Canada 150 scheme). Three road numbers. Golden white light-emitting-diode headlights, printed number boards, and body-mounted Kato couplers. \$185. Kobo Custom line. Kato USA Inc., 847-781-9574, www.katousa.com

N scale freight cars

- **Richmond Tank Car 20,900-gallon tank car.** Government of Alberta (UTLX reporting marks), Honeywell International Inc., Old World Transportation Ltd., Procor, Pullman Transport Leasing, Transportation Energy Inc., and Southern Pacific (fuel tender, one road number). Three numbers per scheme. Prototype-specific trucks, metal wheelsets (33" or 36" as appropriate), and body-mounted McHenry scale couplers. \$26.98. August 2018. Athearn N. Athearn Trains, 800-338-4639, www.athearn.com

- **FMC 50-foot combination-door boxcar.** Burlington Northern; Minnesota, Dakota & Western (white); Missouri Pacific; Seaboard Coast Line ("Smooth Cushioned Load" lettering); Railbox (factory weathered); and Union Pacific ("We Can Handle It" slogan). Three road numbers per scheme; also available undecorated. Screw-mounted roller-bearing trucks with metal wheels and body-mounted McHenry couplers. \$22.98. September 2018. AthearnN. Athearn Trains, 800-338-4639, www.athearn.com

- **General Steel Castings V-deck 42-foot pulpwood bulkhead flatcar.** New road numbers: Atlantic Coast Line; Delaware & Hudson; Gulf, Mobile & Ohio; Illinois Central Gulf; Maine Central; and Western Maryland. Two road numbers per scheme; also available undecorated. Die-cast metal chassis,

plastic deck and bulkheads, and pulpwood load. \$21.95 (undecorated, \$16.95). Atlas Model Railroad Co., 908-687-0880, www.atlasrr.com

- **Aluminum-sided auto rack.** New paint schemes: Amtrak (phases 3 and 4). Two four-packs per scheme. All-wheel electrical pickup, blackened metal wheels, and Kato knuckle couplers. Four-pack, \$95. Kato USA Inc., 847-781-9500, www.katousa.com

N scale passenger cars



- **70-foot heavyweight baggage-Railway Express Agency.** New paint scheme: Norfolk & Western. Injection-molded plastic with plastic wheelsets, clear window glazing, and Magne-Matic couplers. \$32.90. Micro-Trains Line Co., 541-535-1755, www.micro-trains.com

N scale structures



- **Sunny Days trailer.** Factory-painted and weathered structure with awnings,

wood railings and steps, TV antenna, window treatments, printed interior, and separate tables and chairs. Features light-emitting-diode interior lighting (for use with Just Plug Lighting System). \$54.99. Built & Ready Landmark Structures. Woodland Scenics, 573-346-5555, www.woodlandscenics.com

N scale details and accessories

- **Tri-State Commodities tractor-trailer sets.** Modified Kenworth W900 "Toad's Pad" with dry bulk trailer and Modified Kenworth W900 "American Graffiti" with grain trailer. \$64.95 each. First quarter 2018. Legends of the Road series. Trainworx, 970-874-9747, www.train-worx.com

O scale freight cars

- **American Car & Foundry 11,000-gallon tank car.** New paint schemes: Columbia Southern, Dow, DuPont, Olin Chemicals Division, and PPG Chemicals. Two road numbers per

HO scale



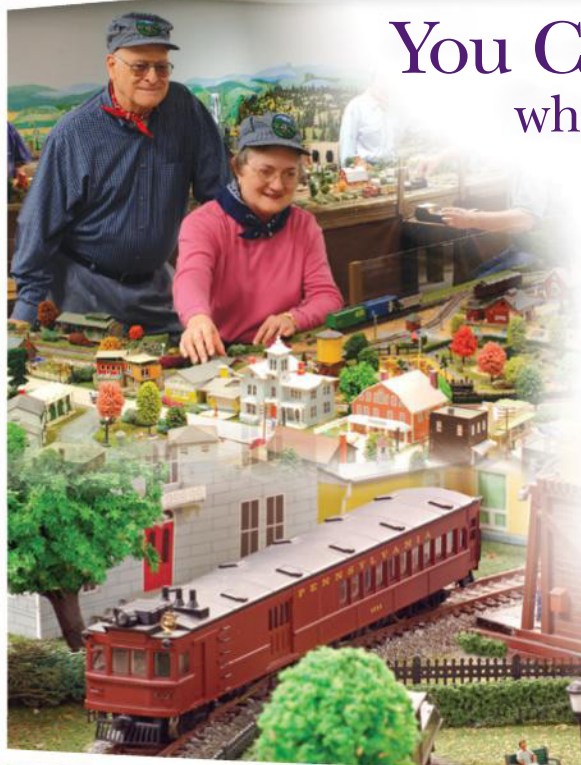
John Deere equipment. These die-cast metal and plastic models are the latest offerings from Ertl. The John Deere line includes a 310SE backhoe loader (\$17.99), a 9510 combine (\$13.99), 8200 tractor (\$6.99), and a 4020 tractor (\$5.99). The models have vinyl tires and a separately applied steering wheel. The backhoe loader and combine feature positionable parts; the combine includes modeler installed header, railings, and warning arms. You can purchase the HO models at your local John Deere dealer, www.deere.com/en/

scheme. Die-cast metal chassis; sprung, die-cast metal 50-ton solid-bearing trucks; separately applied handrails; and factory-painted and installed wire grab irons. \$77.95. Atlas O, 908-687-9590, www.atlaso.com

S scale freight cars

- **Kasgro Rail Corp. heavy-duty depressed-center flatcar no. 163201.** Cast-resin kit with assembly hardware and decals but no trucks or couplers. Flatcar,

You CAN bring it with you... when you move to our community.



Sharing the joy of model railroading is only one of the many possibilities available for active people 55 and over at our Continuing Care Retirement Community. We enjoy beautiful, one-of-a-kind surroundings and the benefits from the tax advantages of Pennsylvania residency.

Schedule a "Discovery Visit" at our campus.

717-802-8350



GREEN RIDGE VILLAGE

a PRESBYTERIAN SENIOR LIVING community

210 Big Spring Road • Newville, PA 17241

www.greenridgevillage.org

It is our policy to admit residents without regard to race, color, national origin, age, ancestry, sex, religious creed, handicap or disability.



Showcase



1 Fire station no. 12. This factory-assembled and painted HO scale structure from Menards has 16 light-emitting diodes, a fire truck, a motor-driven roof vent, and seven figures. Lighting requires a 4.5V adapter (sold separately). The fire station sells for **\$69.99** plus shipping (free shipping to your local Menards store). Menards, www.menards.com

2 55-ton two-bay coal hopper. New paint schemes on this Atlas O car include Kansas, Oklahoma & Gulf; Boston & Maine; Canadian National; Virginian Ry.; and

Westmoreland Coal Co. The O scale hopper (**\$79.95**) is offered in four road numbers per scheme. It has die-cast metal Andrews trucks; sprung, operating hopper doors; and wire grab irons. Atlas O, 908-687-9590, www.atlaso.com

3 70-foot heavyweight baggage car. Micro-Trains offers this model decorated as Denver & Rio Grande Western no. 711. The N scale car has plastic wheelsets and Magne-Matic couplers. It retails for **\$34.90**. Micro-Trains Line Co., 541-535-1755, www.micro-trains.com

4 Electro-Motive Division GP40P-2 diesel locomotive. Athearn offers this locomotive decorated for Southern Pacific (American Revolution Bicentennial scheme in one road number, scarlet and gray in two numbers). The HO scale Genesis series model has a single rear headlight and a split fuel tank with a steam-generator water tank. Direct-current models are priced at **\$169.98**. Versions with a dual-mode Sound-Traxx Tsunami2 sound decoder retail for **\$269.98**. Athearn Trains, 800-338-4639, www.athearn.com

5 General American Transportation Corp. 4,566-cubic-foot-capacity covered hopper. In stores now is this ScaleTrains.com Rivet Counter line model lettered for Archer Daniels Midland, Missouri Pacific, General American (gray buffer service car in two road numbers and Wonder Bread/Hostess Cakes), and Union Pacific. The HO scale models (**\$39.99**) are offered in four numbers per scheme unless noted and have etched-metal running boards and metal Type E couplers. ScaleTrains.com, 844-987-2467, www.scaletrains.com

\$69.99; flatcar with load kit, \$114.99. Concept Models, www.con-sys.com

- **Cryogenic tank car.** Cast-resin kit with assembly hardware but no detail parts. \$34.99. Concept Models, www.con-sys.com

S scale passenger equipment

- **American Car & Foundry steel welded-side express refrigerator cars.** Atlantic Coast Line 3000 through 3049-series (as-built purple and aluminum with yellow stripes and white lettering) and Railway Express Agency 6100 through 6599-series (as-built dark green and aluminum with red stripes and Dulux Gold lettering, mid-1950s dark green repaint with Dulux Gold lettering, and modernized 1962 car with Apple Green paint and white speed lettering). Factory-painted brass models. Pre-production price, \$389; post-production price, \$429. River Raisin Models, 248-366-9621, www.riverraisinmodels.com

S scale structures



- **Coal trestle.** Laser-engraved kit with cast-resin abutments. Accommodates one two-bay hopper. Multiple kits can be combined to build a larger trestle. \$40. East West Rail Service, www.eastwestrailservice.com

Z scale locomotives

- **Budd Rail Diesel Car.** VIA Rail Canada. Two road numbers. Directional light-emitting-diode headlights and AutoLatch couplers. American Z Line, 614-764-1703, www.americanzline.com



- **General Electric ES44AC diesel locomotive.** New paint scheme: Kansas City Southern. Three road numbers. Prototype-specific details, directional light-emitting-diode headlights, working ditch lights, traction tires, and can motor with dual flywheels. American Z Line, 614-764-1703, www.americanzline.com

Z scale freight cars



- **40-foot single-sheathed boxcar.** Atchison, Topeka & Santa Fe. Eleven road numbers (single car, two-pack, and

LIGHT YOUR MODELS!

with Super Bright, Cool Running, Long Lasting LEDs

- ✓ Easy to use
- ✓ Pre-wired
- ✓ With resistors
- ✓ Satisfaction guaranteed

ModelTrainSoftware.com

EVAN DESIGNS
PO Box 537, Denver CO 80535
303-419-1118

★ All AC/DC/DCC Use
★ Headlights
★ Warning Flashers
★ Welding, Fire
★ Building Lighting

Chip Nano Pico
AVAILABLE IN SEVEN COLORS

WITH OVER 10 YEARS EXPERIENCE

All pre-wired and ready to connect

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.

All roads, cruise ship ports, and airports lead to

RTR

READY TO ROLL

831 NW 143rd STREET
MIAMI, FL 33168 - 3017
(305) 688-8868
rtrtrains@aol.com

Florida

Key West Florida Keys

AIRWIRE® Wireless Battery Operation For All Scales

Now its easier than ever to convert a track-powered NMRA-DCC decoder to a battery powered AIRWIRE decoder. Imagine no layout wiring, no reverse loop nightmares, and no track or wheel cleaning. The CONVRTR™ Series works with sound and motion DCC decoders such as TCS-WOW, Soundtraxx and QSI. The T5000 Wireless Throttle is used to setup and operate the DCC decoder - no need for any other systems or equipment. Selection of the CONVRTR is based on available space and the required output power. The smallest CONVRTR, rated at 1.5A, is perfect for HO. With 17 frequencies, there's plenty of interference-free expansion room. Download the user guides from our website for more details.

CONVRTR-15 Rated @ 1.5 AMPS

- ✓ Suitable for HO scale locomotives
- ✓ Unlimited Surge Current, Fully Protected
- ✓ Stuck Horn Protection
- ✓ 10V to 18V Battery Range
- ✓ 2.4 inches long x 0.6 inches wide

CONVRTR-25 Rated @ 2.5 AMPS

- ✓ Suitable for On30, S, or O scale
- ✓ 2.6A Surge Current, Fully Protected
- ✓ Stuck Horn Protection
- ✓ 10V to 18V Battery Range
- ✓ 2.0 inches long x 0.9 inches wide

CONVRTR-60 Rated @ 6.0 AMPS

- ✓ Suitable for high current O or G-scale
- ✓ >20A Surge Current, Fully Protected
- ✓ Stuck Horn Protection
- ✓ 10V to 24V Battery Range
- ✓ 2.2 inches long x 1.2 inches wide

CVP Products POB 835772 Richardson, Tx 75083 www.cvpusa.com



Complete Train Control

Introducing the LNWI Wifi Interface

- Wi-Fi interface to a Digitrax LocoNet for up to four compatible mobile Wi-Fi devices and Apps.
- Compatible with most Android and Apple devices running supported throttle apps
- Easy Setup and Configuration. A single LNWI works 'out of the box', with no additional configuration required.



LNWI Loconet Wifi Interface | \$79 MSRP

The LNWI allows you to connect compatible WiFi devices to LocoNet and run trains using compatible throttle apps

Find out how easy it is @ www.digitrax.com/throttleapps/

HO scale



General Motors Diesel Division SD40-2F. Bowser trains has added this six-axle Canadian road unit to its Executive Line. The HO scale SD40-2F is decorated in four Canadian Pacific paint schemes, two or three numbers per scheme. The models feature a detailed cab interior, metal grab irons, a brass bell

and air horn, operating ditch lights and class lights, and Kadee couplers. Direct-current models retail for **\$219.95**. Versions with an ESU LokSound Digital Command Control sound decoder are priced at **\$319.95**. Bowser Manufacturing Co. Inc., 570-368-2379, www.bowser-trains.com

two four-packs). Separately applied brake wheel and etched-metal running boards, positionable doors, blackened metal wheels, and AutoLatch couplers. American Z Line, 614-764-1703, www.americanzline.com

Club offerings



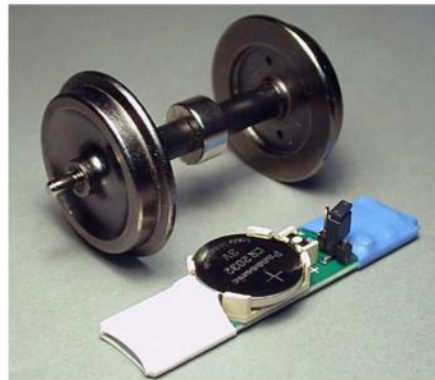
- **New England Milling American Car & Foundry 4,650-cubic-foot-capacity three-bay Center Flow covered hopper.** Atlas HO scale Master Line model custom-decorated for the Nashua Valley Model Railroad Association. One road number. \$37.95 each plus \$7 shipping. Massachusetts residents add 6.25 percent sales tax (\$2.47 per car). Send check payable to NVRRA, Suite E2015, 2 Shaker Rd., Shirley, MA 01464. Credit card orders call 978-225-0650.

Z scale structures



- **O.H. Wright & Co. Bartlet Building.** Laser-cut wood parts with laser-engraved siding and planking and tab-and-slot construction. Measures 3.2" x 3.2". \$39.95. Showcase Miniatures, 334-750-3276, www.showcaseminatures.net

Electronics/controls



- **Large scale rotation wheelset for RollBy OnBoard Speedometer.** Built

from Bachmann 31mm diameter/45mm gauge insulated wheelset. Allows the OnBoard Speedometer to install easily in a large scale freight car. Includes RollBy OnBoard Speedometer circuit board and wheelset. \$99.95. Boulder Creek Engineering, 303-443-5784, www.bouldercreekengineering.com



- **Rokuhan C005 e-Train Controller.** Controls HO, N, and Z scale locomotives in direct current and Digital Command Control. Includes e-Train Controller, adapter, input cable, and feeder cable. Operate with a smartphone or tablet using app (iOS 8.0 and above or Android OS 5.0 and above). Controller can be operated wirelessly through the use of an optional Bluetooth module (not included). Maximum rating of controller is 12V, 1.5A for N and Z scales; 16V, 1.5A in HO. Produced by Rokuhan, available from Ztrack Distribution, 614-764-1703, www.ztrackdistribution.com

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

HALFPRICEHOBBY.COM

100's of HO and N Scale specials at 50% off of M.S.R.P. at 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 for pricing and availability.

Styrene strips, sheets and shapes for scratchbuilding and model detailing.

At your favorite hobby retailer

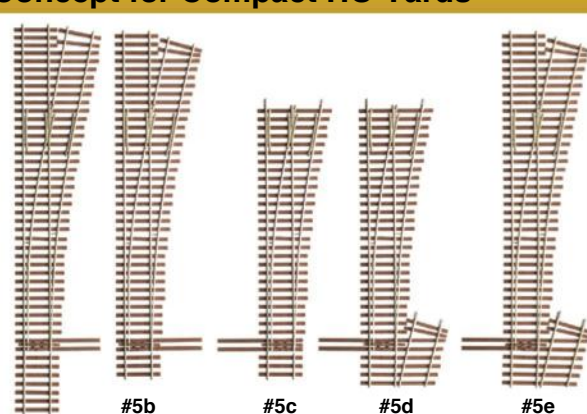


evergreen
scale models

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

The Ladder Track System
A Unique Concept for Compact HO Yards

The new Micro Engineering Ladder Track System is a series of five different **HO Code 83 # 5 turnouts** that can be used in various combinations to allow up to 30% more yard in the same layout space. Information .pdf's and turnout templates are available for download at our web site. See the Ladder Track System at your dealer or order direct.




#5a Standard Turnout **#5b Curved Diverging Track Turnout**
#5c Lead Ladder **#5d Intermediate Ladder** **#5e Last Ladder**

ME Micro Engineering Company
1120 Eagle Road
Fenton, MO 63026
Phone 800-462-6975
Fax 636-349-1180

Made in the USA
www.microengineering.com
service@microengineering.com

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.

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

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

Start your next layout on the right track!

Subscribe to **Model Railroader** today!

Go to <http://subscribe.trains.com/help>

MSL
www.modellbahnshop-lippe.com

Your specialist for European models tax free (up to \$800)
29 \$ shipping flat Express Saver 

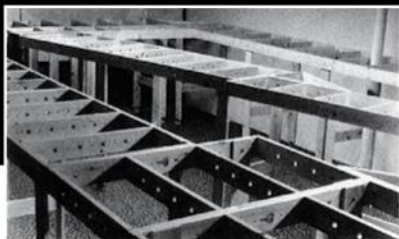
First class online shopping

märklin **TRIX**
Roco **BRAWA**
FALLER **FLEISCHMANN**





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
Free Brochure

Sievers

BENCHWORK

PO Box 100
Washington Island, WI 54246
920-847-2264

www.sieversbenchwork.com

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

O scale



Ford F-250 XLT pickup trucks. Atlas O offers these trucks with a Crew Cab and 6-foot bed and a Super Cab and 8-foot bed. Both body styles are available in black, dark blue, gray, red, and white. The models, produced by Sword, feature plastic and die-cast metal construction and have positionable front wheels, doors, hood, and tailgate; sprung suspension; and engine and underbody detail. Individual trucks sell for **\$74.95** each. An Escort pack (one each Super Cab and Crew Cab painted white, Wonder Pole high pole, back rack unit with emergency light, "Oversized Load" sign, and crossbed toolbox) is priced at **\$169.95**. Atlas O, 908-687-9590, www.atlaso.com

• Updated Tsunami2 Baldwin and other diesels digital sound decoders.

Now with Cummins QSK19C x 3 GenSet sounds and gas turbine electric features. GenSet sounds include electronic air dryer selection, volume and alternate mixer controls for each prime mover, correct blower motor fan sounds, and adjustable prime mover tuning. Gas turbine electric sounds are configurable for "Slab Side," "Veranda," and "Big Blow" locomotives, including "backfire" sound effect. TSU-4400, \$179.95. TSU-21PNEM, \$109.95. TSU-PNP, \$109.95. TSU-2200, \$124.95. TSU-1100, \$129.95. SoundTraxx, 970-259-0690, www.soundtraxx.com




• **KOD8-F drop-in decoder.** For Kato N scale Electro-Motive Division FP7. Features auto-adjusting back-electromotive force control and Quiet Drive. Eight functions with built-in onboard resistors for light-emitting diodes (LEDs) and one super-bright sunny white LED with medium-length leads. Four of the functions (F1-F4) have resistors for LEDs and 1.5V bulbs. Two hardwired functions (F5-F6) output at 12V and need external resistors for LEDs or 1.5V bulbs. \$48.95. Train Control Systems, www.tcsdcc.com

Decals

• **Louisville & Nashville 180000-series three-bay hoppers.** HO scale. White or yellow lettering. Includes multiple L&N heralds, 14 "canned" road numbers, repack stencils, and dimensional and end data. Designed for Bowser hoppers, but will work on other hoppers. Letters one car. \$4.69 each, postpaid. Virginia residents include sales tax. Great Decals, 3306 Parkside Terrace, Fairfax, VA 22031; www.greatdecals.com

• **Canadian Pacific National Steel Car and Trinity covered hoppers.**

HO scale, \$8.25; N scale, \$6.75. Microscale Industries, 714-593-1422, www.microscale.com 

In Memoriam

Flemming Örneholm, 1934-2017

Flemming Örneholm, 83, of Vanløse, Denmark, died on Sept. 30, 2017. Three versions of his HO scale Eaglecreek & Northern Ry. were featured in *Model Railroader* magazine. The first appeared in July 2005; the second was the cover story in October 2006; and the final version, also a cover story, ran in February 2012.



January 27th & 28th, 2018

Eastern States Exposition

1305 Memorial Avenue

West Springfield, MA 01089

Better Living Center • Young Building

Stroh Building • Mallory Complex

Saturday: 9 am - 5 pm | Sunday 10 am - 5 pm

For more information about the show, visit us online at
www.railroadhobbyshow.com or like us on Facebook.




Plastruct
Plastic Model Parts

**PLASTIC
MODEL
PARTS**



- Strip & Rod
- Tubing & Fittings
- Structural Shapes
- Sheet
- Diamond Plate
- Landscaping
- Trackside Kits
- Cements
- Tools

Visit our Website : www.plastruct.com

Send \$5.00 for our 144 page VOL 10 Catalog.


Plastruct

1020 S. Wallace Place, Dept. MRR
City of Industry, CA 91748

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

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

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

Athearn N

ATH14991	GATX Tanktrain Early 3 Pk A/B Cars.....	\$64.99
ATH14992	GATX Tanktrain Early 3 Pk Inter #1.....	\$64.99
ATH14993	GATX Tanktrain Early 3 Pk Inter #2.....	\$64.99
ATH14994	GATX Tanktrain Early 3 Pk Inter #3.....	\$64.99
ATH14995	GATX Tanktrain Late 3 Pk A/B Cars.....	\$64.99
ATH14996	GATX Tanktrain Late 3 Pk Inter #1.....	\$64.99
ATH14997	GATX Tanktrain Late 3 Pk Inter #2.....	\$64.99
ATH14998	GATX Tanktrain Late 3 Pk Inter #3.....	\$64.99
ATH14999	GATX Tanktrain 3 Pk A/B Cars.....	\$64.99
ATH14500	GATX Tanktrain 3 Pk Intermediate #1.....	\$64.99
ATH14501	GATX Tanktrain 3 Pk Intermediate #2.....	\$64.99
ATH14502	GATX Tanktrain 3 Pk Intermediate #3.....	\$64.99

MTH HO

MTH8021481	PRR GG1 #4907 Red Single PS3.....	\$289.99
MTH8021501	PRR GG1 #4900 Green Sing PS3.....	\$289.99
MTH8021521	Amtrak GG1 #924 w. PS3.....	\$289.99
MTH8021531	Conrail GG11 #4841 w. PS3.....	\$289.99
MTH8022031	NH Alco FA-1 A/B w. PS3.....	\$259.99
MTH8022150	PRR PA-1 AB DCC Ready.....	\$179.99
MTH8023351	Southern ES44AC w. PS3.....	\$149.99
MTH8023361	Conrail ES44AC w. PS3.....	\$149.99
MTH8023371	Central of Georgia ES44AC PS3.....	\$149.99
MTH8023381	Interstate ES44AC w. PS3.....	\$149.99
MTH8023391	Lehigh Valley ES44AC w. PS3.....	\$149.99
MTH8023401	Monongahela ES44AC w. PS3.....	\$149.99
MTH8023411	Nickel Plate Road ES44AC PS3.....	\$149.99
MTH8023431	Norfolk & Western ES44AC PS3.....	\$149.99
DCC READY OF THE ES44AC ABOVE.....		\$114.99
MTH8032411	PRR H10 2-8-0 w. PS3.....	\$334.99
MTH80324XX	31/41 Long Island H10 2-8-0 PS3.....	\$334.99
MTH8032XX1	49-52 C&O 2-6-6-6 w. PS3.....	\$379.99
MTH8032571	UP Big Boy 4-8-8-4 w. PS3.....	\$514.99
MTH8032641	N&W J-Class #611.....	\$424.99
MTH8032651	N&W J-Class #611 Spirit Roanoke.....	\$424.99
MTH8520160	BNSF GP38-2 DCC Ready.....	\$89.99
MTH8520171	BNSF GP38-2 w. PS3.....	\$134.99
MTH8520211	CSX GP38-2 DCC Ready.....	\$89.99
MTH8520211	CSX GP38-2 w. PS3.....	\$134.99
MTH8520261	Maryland Midland GP38-2 w. PS3.....	\$134.99
MTH8520270	Maryland Midland GP38-2 DCC Rdy.....	\$89.99
MTH8520280	New York & Atlantic GP38-2 DCC Rd\$89.99	
MTH8520291	New York & Atlantic GP38-2 w. PS3\$134.99	
MTH8520310	NS GP38-2 DCC Ready.....	\$89.99
MTH8520321	NS GP38-2 w. PS3.....	\$134.99
MTH8520340	P&LE GP38-2 DCC Ready.....	\$89.99
MTH8520341	P&LE GP38-2 w. PS3.....	\$134.99
MTH8520370	UP GP38-2 DCC Ready.....	\$89.99
MTH8520381	UP GP38-2 w. PS3.....	\$134.99
MTH8520400	CN GP38-2 DCC Ready.....	\$89.99
MTH8520411	CN GP38-2 w. PS3.....	\$134.99
MTH8520430	Chessie/B&O GP38-2 DCC Ready.....	\$89.99
MTH8520431	Chessie/B&O GP38-2 w. PS3.....	\$134.99
MTH8520460	Conrail GP38-2 DCC Ready.....	\$89.99
MTH8520471	Conrail GP38-2 w. PS3.....	\$134.99
MTH8520520	Southern Pacific GP38-2 DCC Rdy.....	\$89.99
MTH8520531	Southern Pacific GP38-2 w. PS3.....	\$134.99

KATO N

KAT10005	D51 Steam Passenger RTR Set.....	\$204.99
KAT106085	UP Water Tender 2 Pack.....	\$62.99
KAT106086	UP Excursion Train Passenger Cars.....	\$179.99
KAT1062015	Operation North Pole Set 2015.....	\$139.99
KAT1062016	Operation North Pole Set 2016.....	\$144.99
KAT1068001	Amtrak ACS-64 Bookcase Set.....	\$172.99
KAT10680011	Amtrak ACS-64 Set DCC.....	\$234.99
KAT10680012	Amtrak ACS-64 Set DCC/Lights.....	\$279.99
KAT1068002	Amtrak Amfleet PV VI Coach Set.....	\$399.99

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

Model Railroader January 2018

What's a Soo Line car doing in San Diego?

Q While traveling to San Diego, I came across this rail car. Can you tell me why it's in San Diego?

Trent Kohl, Delafield, Wis.

A As the lettering on the side indicates, that's a privately owned rail car. Private companies and wealthy hobbyists buy and refurbish rail cars like these and pay the railroads to haul them around the country.

This particular car was built in 1921 as a business car for the president of the Soo Line. It was later bought and refurbished by the San Diego Trust & Savings Co., which renamed it in honor of the founder of the Atchison, Topeka & Santa Fe. It's now owned by Kennebec Financial Corp., which is also based in San Diego and owned by the founders of San Diego Trust & Savings.



This business car, spotted by a reader in San Diego, is a long way from Soo Line rails. Not to mention, the Soo Line merged into the Canadian Pacific in 1990. Trent Kohl photo

The car can still be seen roaming the rails behind an Amtrak train now and then. Modeling a privately owned car is a great excuse for builders of modern-day model railroads who want to run vintage varnish.

Q On my new N scale layout, there will be a copper mine. I have a question regarding the inbound and outbound traffic for such an industry. Sure, there are ore car empties in, loads out. There

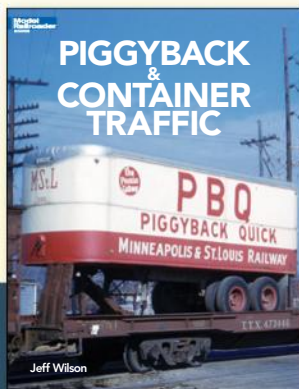
will be a powerhouse on site. Is it possible to use the empty ore cars to deliver coal to the powerhouse to avoid empty car traffic? What else does a copper mine need to operate?

Michael Buehrer, Schaffhausen, Switzerland

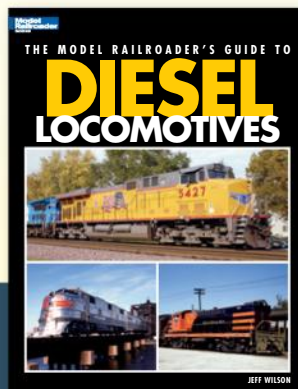
A My colleague Brian Schmidt over at *Trains* magazine knows of at least one

Prototype Books for MODEL RAILROADERS

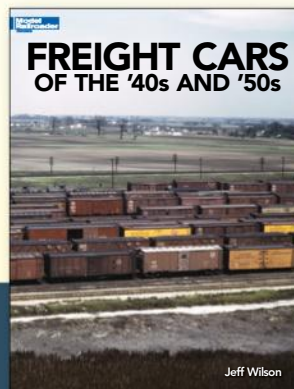
When building a realistic layout, every detail matters — from the types of trains used to the specific structures along the track. Each of these books provides an overview and prototype photos of various railroad cars and operations to help you build an accurate — and successful — layout.



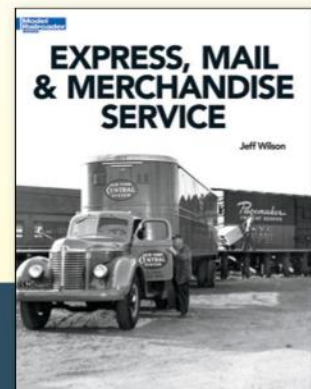
A guide to railroad intermodal equipment and operations from the steam era to today.
#12804 • \$21.99



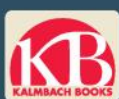
Topics include spotting features, characteristics, and operation of diesel locomotives.
#12437 • \$19.95



Learn about the rail cars that operated during one of the most popular eras in modeling.
#12489 • \$21.99



This book covers rail express and merchandise traffic from the 1900s through 1960s.
#12802 • \$21.99



Buy now from your local hobby shop!
Shop at KalmbachHobbyStore.com

operation that used the same cars for both coal and iron ore, so it's conceivable your copper mine might do the same. But the catch is that the cars have to be cleaned out in between loads to prevent contamination. It would be up to the mine owner (you) whether that extra step and expense is worth it. Would your mine train crew get more operational interest out of a separate coal delivery, or from shifting ore cars to a clean-out track to sit for a time before being moved to the ore tippie for loading?

As for other traffic, mines would occasionally receive shipments of mining equipment to replace worn-out gear; this might come in a once-weekly boxcar, or if it's a large piece of equipment, under a tarp on a flatcar or gondola.

Also, mines need workers. If your mine is in a remote location, miles from any settlement, the railroad might add a passenger car to its mine run to bring in the daily crew, then take them home when the shift is done. If this car is a combine, mining equipment could be shipped in the baggage compartment.

Q How far apart should streetlights be placed on my layout? I model in N scale.

William Semanko, no city given

A Street light placement depends on many factors, including the width of the road, the height and brightness of the lights, how far out over the road the light extends, and the class of road. Furthermore, guidelines vary from state to state. So the accurate but unsatisfying answer is, whatever looks right to you.

But if you want a rule of thumb to go by, stagger your streetlights on opposite sides of the road, and place one about every three times the height of the streetlight apart. So for a light that's 25 scale feet high, place one every 75 scale feet (that's $5\frac{5}{8}$ " in N scale, or just over $10\frac{3}{8}$ " apart in HO scale). For a shorter, ornamental lamppost that might be 15 scale feet high, place one every 45 scale feet ($3\frac{3}{8}$ " in N scale, or about $6\frac{1}{8}$ " in HO). That should be close enough to prototype practice that no traffic engineer who happens to be on your operating crew will give you a hard time.

READER TIP

Delayed uncoupling solved

Even though trouble with delayed uncoupling of HO scale Kadee couplers is fairly infrequent, I've found that it happens most often when one of the couplers is on a locomotive. It occurred to me that this may be because the couplers on locomotives are mounted in molded-on draft gear boxes, not Kadee's own, and thus are pushed to the side less by uncoupling magnets.

So I replaced all the couplers on my locomotives with long-shank couplers. The improvement was immediate and dramatic.

Some will be bothered by the less prototypical appearance of the longer shank. But I think reliability beats realism. So, you decide: Better looking or better working? – *Jean C. Piquette, Portsmouth, R.I.*

PECO

The Track Specialist

...and so much more!

HO C83

HO C100

N C80

On30 C100

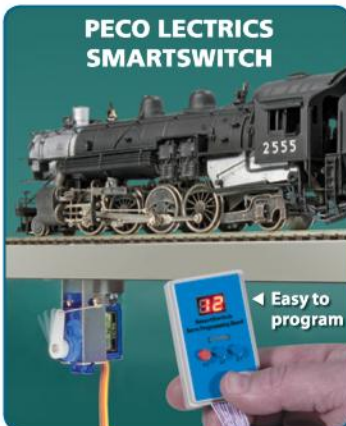
HO N3 C70

83
LINE



PICK UP A
FREE CATALOG
AT YOUR HOBBY
STORE

PECO LECTRICS
SMARTSWITCH



Easy to
program

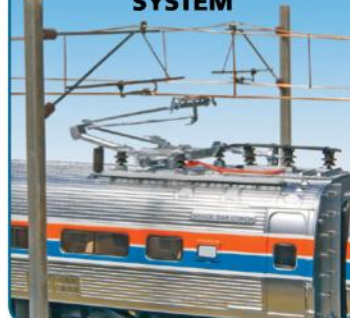
PECO LECTRICS TURNOUT
MOTORS (many to choose from)

PL-10

MILLIONS
SOLD!



HO SCALE CATENARY
SYSTEM



STATIC
GRASS
SYSTEM

(recently
expanded
line with new
applicators,
grasses and
grass tufts)



Free track templates at www.peco-uk.com

Q What signs were used to alert the engineer running on dual-gauge track that it was about to change to single gauge? Also, did the engineer rely on sight or knowledge to know the gauge beyond the sign, or was that information included? Thank you!

Richard Rustad, Aiken, S.C.

A Running a train is nothing like driving a truck, where a driver might be given a destination and left to himself to figure out the best route to get there. No engineer would be sent out blind, not already knowing what his route was going to be and what the track would be like when he got there. What's more, no dispatcher would send a train onto a track where the gauge was in question. Such information would be contained in the railroad's employee timetable.

If a train is to venture onto dual-gauge track, the safe clearance points would be clearly marked for trainmen of both railroads to see, and the employee timetable would warn the engineer to expect and look for such markers.

Now, as far as we can tell, there was no special sign for the transition of dual gauge track to single gauge – because no train ever crossed from track of one gauge to another. So the end of dual-gauge track would be marked just like the end of single track, depending on your railroad's engineering standards.

Q I very much enjoy your track plan drawings. Not only are they works of art, but the program used to create them would be most helpful in preparing my own custom layout design. Where can I buy this program?

Randall Steffan, Billings, Mont.

A Our staff artists use Adobe Illustrator to draw the track plans we publish. Though it's a great program for drawing track plans that look like works of art, it would not be very useful as a track-planning tool. As far as Illustrator knows, a track plan is just a collection of shapes and images; it has no provisions for joining track elements, tracking elevations, etc. For a look at programs that

would be better suited for designing track plans from scratch, check out my article, "Guide to track-planning software," in our November 2009 issue.

Q I recently bought two Walthers Cornerstone HO scale ore dock kits. I was wondering if the kits could support the weight of 36 ore cars loaded with hematite sand (which is heavy) simulating taconite pellets?

Eric Wiese, Michigan

A Considering that a string of 36 HO scale ore cars will stretch that weight over a span of about 12 feet, the structure should have no problem supporting the weight, assuming it's securely glued together and affixed firmly to the underlying benchwork/terrain. I would be more concerned with the locomotive power needed to shove those loaded cars up the steep ramp of the ore dock, as well as how top-heavy the loaded cars will be on curves and grades. Anyway, that sounds like a fun project; let us know how it turns out.

NEW BOOK BY
JEFF WILSON





P32092

DETAIL DRIVEN

Autos, trucks, and trailers are important elements in establishing the era and location of a layout. In *Building Vehicles for Model Railroads*, Jeff Wilson shares his expert tips and techniques for modeling accurate vehicles in HO and N scales from the late steam era through today. From assembling kits to converting toys to scale models, this book is a must-have guide for modeling a realistic layout.

#12810 • \$21.99

Buy now from your local hobby shop!

Shop at KalmbachHobbyStore.com

Sales tax where applicable. *Building Vehicles for Model Railroads* will arrive in January 2018.

Q When modern diesel locomotives are mu'd in a consist, is there any rationale to which way the trailing locomotives are oriented as either cab forward or cab reversed?

Willis Weigand, Georgetown, Texas

A Which way the individual locomotives face in a multiple-unit consist is a matter of convenience for the train crew. Usually, multiple units will be oriented facing forward, so if the lead unit breaks down and has to be removed from the consist, the next locomotive in line will be facing the right way to take over lead engine duties.

However, there may be reasons that one unit – usually the last one – might need to be facing the other way. If the crew is to return with its train, but the destination doesn't have a turntable, wye, or other means to easily turn an engine, the rear unit will be oriented facing backward so it can become the lead unit on the return trip. Likewise, if a train is a local, having one of the units facing backward can improve the crew's



A pair of BNSF Ry. diesels double-teams an intermodal train on Johnson's Curve, west of Coram, Montana, in October 2009. Having the trailing unit facing backward may be useful to the train crew once it arrives at its destination. Frank Keller photo

visibility during switching maneuvers. I can also imagine a backward-facing locomotive would be convenient if a train has to split into two at a junction point and head in different directions, as some passenger trains used to do. These are just some of the reasons an engine

might be pointed backward in a multi-unit consist, but if there isn't a reason for your particular train to do so, orient your locomotives facing forward.

Send questions and tips to associate editor Steven Otte at AskMR@MRmag.com.

HO SCALE AT MENARDS®



30-Sign Locomotive Maintenance Shed

HO Gauge (279-5009) \$49.99
O Gauge (279-3069) \$69.99

Engine not included.

Decorate your shed with any of the 30 railroad decals included!



Pepsi® Bottling Plant
HO Gauge (279-5014) \$69.99
O Gauge (279-3860) \$99.99



Red Owl® Store
HO Gauge (279-5011) \$69.99
O Gauge (279-3472) \$99.99



Train Station
HO Gauge (279-5010) \$69.99
O Gauge (279-3846) \$99.99



Grandpa's House
HO Gauge (279-5007) \$59.99
O Gauge (279-3390) \$69.99



Menards® Hobby Shop
HO Gauge (279-5001) \$59.99
O Gauge (279-2677) \$79.99



Watkins City Block
HO Gauge (279-5013) \$69.99
O Gauge (279-3971) \$99.99



Morton® Salt Factory
HO Gauge (279-5012) \$69.99
O Gauge (279-3847) \$99.99



Herman's German Sauerkraut Factory
HO Gauge (279-5003) \$69.99
O Gauge (279-3073) \$99.99



Chippewa Valley Farm Supply
HO Gauge (279-5005) \$59.99
O Gauge (279-3389) \$69.99



Fire Station No. 12
HO Gauge (279-5015) \$69.99
O Gauge (279-3848) \$99.99



Fire-Damaged Engine House
HO Gauge (279-5006) \$59.99
O Gauge (279-3092) \$79.99



Dakota™ Cabinet Factory
HO Gauge (279-5002) \$69.99
O Gauge (279-2678) \$109



Menards® Power & Light
HO Gauge (279-5004) \$69.99
O Gauge (279-3051) \$99.99



American Power & Light
HO Gauge (279-5008) \$69.99
O Gauge (279-3388) \$99.99

Mercedes-Benz Vans

Red (279-3697) \$14.99
Silver (279-3698) \$14.99

Beverage Trucks

Mtn Dew® (279-3976) ... \$19.99
Pepsi® (279-3977) \$19.99

Crush Vehicle

(279-3923) \$24.99

Hydraulic Excavator

(279-3937) \$24.99

Tower Cable Excavator

(279-3925) \$29.99

Material Handler

(279-3921) \$29.99

Dump Truck

(279-3928) \$19.99



FOR MORE INFORMATION OR TO ORDER, VISIT MENARDS.COM/TRAINS

An N scale loading ramp for Bakersfield

In 1979, Jim FitzGerald, remembered fondly by many of us N scalers as Mr. Ntrak, introduced me to the Tehachapi Loop and its environs, and my model railroading fate was sealed forever.

I wrote a remembrance of Jim in the May 2014 *Model Railroader* for my N Scale Insight column. You can read it at www.modelrailroader.com, along with the rest of these columns. (They're all under the "How-To" heading in the topics listed across the top of the page.)

A year or two after being introduced to Tehachapi, Jim and I were back at the Santa Fe yard in Bakersfield. This time I was loaded with about a dozen rolls of film and the intent to photograph everything in sight as reference material for designing and building my layout.

Naturally, as it turned out, I didn't take enough photos, but then in those days, we almost never did. Film and developing weren't cheap and one had to be a bit choosy.

This was the pre-digital camera era. Digital cameras have become quite an aid to our modeling. When in doubt, just shoot it and sort it

all out later. So often the mundane subjects are just the ones we need for modeling.

The Bakersfield yardmaster in the early 1980s, Ken Hatfield, was showing Jim and me around. Among the many interesting things we saw was a loading ramp made from an 89-foot flatcar.

Ken was justifiably proud of this creation, pointing out that when equipment hits it a little too hard, which is bound to happen sooner or later, "It just shoves the ramp back a little and we go in with a front-end loader and put it back." This, he pointed out, was a lot more economical than spending thousands of dollars to build a concrete or wood ramp that would inevitably get torn up.

Railroads have always been known for their resourcefulness, and this was one more example. The earliest tank cars were tubs mounted on flatcars. Phased-out boxcars have been used for storage, yard offices, and even stations, although usually just temporarily. Even the boilers from steam locomotives were sometimes recycled for stationary use at canning factories or small power plants.

Building the ramp. The hardest part of this project might be sacrificing a Micro-Trains 89-foot flatcar. These are gorgeous pieces of rolling stock and not exactly inexpensive. Maybe you can pick one up cheap at a swap meet, or maybe you'll get "lucky" like I did and damage one beyond repair.

On the bright side, you can save one truck as a spare to use on another car. You'll need one truck for this project, but it can be one that was broken or replaced because it caused derailments.



In the 1980s the Santa Fe's Bakersfield yard used a down-and-dirty ramp to handle local piggyback service. Jim Kelly used a Micro-Trains 89-foot American Car & Foundry flatcar to represent the prototype. Follow along to copy this simple project. Roen Kelly photos

My first concern was bending the flatcar without breaking it. Step one was separating the metal frame from the plastic deck.

Then I filed a notch in the center sill 26 scale feet back from the end of the car. You want to allow enough distance for the tractor backing the trailer to level off before moving out onto the flatcar. As you can see in 1, my notch is a lot bigger than it need have been.

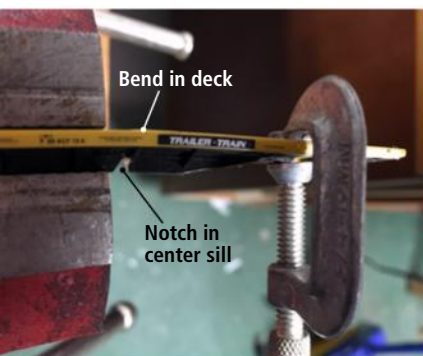
I bent the frame in my bench vise by trial-and-error, taking it back and forth to the layout a few times to check it out. I glued the frame and deck back together with Walther's Goo. First I spread a thin layer on each of the surfaces to be joined, let the Goo set for several minutes, then clamped the parts together in my

vise. I used a miniature C-clamp to secure the short deck section beyond the bend. All that was left to do was attach the truck and glue the wheels to the track. I used a cyanoacrylate adhesive (CA) gel for those jobs.


A bit of history. I like projects like this because they freeze a blip in history on our layouts. My Bakersfield yard is set in 1985, during a time when the railroad industry

was rapidly transitioning from the boxcar era to the intermodal period we're in now.

Trailers on flatcars (TOFC) would soon be overtaken by containers on flatcars (COFC). Circus-style loading ramps like this would be gone, just as the icing platforms once served by the same tracks used for this improvised ramp. 



1 Glue it up. Jim clamped the main portion of the car together in his bench vise and used a small hobby C-clamp to secure the short end. Note the notch Jim filed in the car's center sill.



WHEN IN DOUBT, JUST SHOOT IT AND SORT IT ALL OUT LATER. SO OFTEN, THE MUNDANE SUBJECTS ARE JUST THE ONES WE NEED FOR MODELING. - JIM

Rail & Wheel Maintenance with the **Tidy Track®** System

- All tools needed for corrective and preventive maintenance
- **Easy, efficient** and **safe** for your equipment and scenery
- Visit woodlandscenics.com for the complete listing of products

TIDY TRACK®



Rail Tracker™ Cleaning Kit*

- N, HO and O Scales
- Follows track easily, hugging the rail
- Clean inside tunnels, under bridges and power lines
- A variety of pads for different track conditions



Roto Wheel Cleaner™*

- N and HO Scales
- Quickly cleans all wheels at once
- Power from transformer or track
- Will not scratch wheels

* Patented Product

NEW Landmark Structures®

Built-&-Ready Landmark Structures are unique and hand painted buildings that are ready to be placed on a layout straight from a hobby store shelf.



Letters, Parcels & Post Built-&-Ready®

- Includes printed interior and Just Plug® Lighting
- Features include a flag, loading dock and unattached mailbox
- Coming soon - N BR4953, HO BR5063, O BR5864



WOODLAND SCENICS®
woodlandscenics.com

Purchase from your local hobby store.



How to tune up a freight car

Before a freight car enters service, it should be given a tune-up to make sure its wheels are in gauge, the couplers are at the correct height, and the car meets the National Model Railroad Association's recommended weight. Bill Zuback photos

Whether you're new to model railroading or have been at it for a long time, going to the hobby shop and buying a new freight car is exciting. However, before that freight car turns a wheel on your layout, it should be given a check-up to make sure it operates smoothly and reliably.

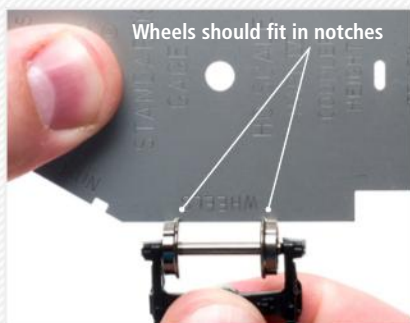
There are plenty of potential trouble spots on freight cars. Wheels that are out

of gauge can cause short circuits, mismatched couplers may uncouple while the train is rolling around the layout, an underweight car is bound to wobble down the tracks, and low-hanging trip pins may snag on a crossing or uncoupling magnet.

Of course, these problems typically rear their heads at inopportune times, such as an operating session or open

house. Following the steps in this article will reduce the potential frustration and embarrassment caused by faulty freight cars. After your car has been in service for a while, periodic inspections – the frequency determined by how often you operate your model railroad – will keep your freight cars in tip-top shape and provide you operational enjoyment for many years to come.

STEP 1 WHEELS AND TRUCKS



Most of today's HO scale freight cars feature metal wheels, and this Athearn HO scale Ready-to-Roll boxcar is no exception. First, I used a National Model Railroad Association (NMRA) Standards Gauge to make sure the wheels were in gauge. I set the flanges



into the notches labeled WHEELS, as shown at left.

If the wheels are too wide or too narrow, they'll need to be adjusted (this isn't possible if the wheelset is molded as a one-piece plastic casting). In some cases you can grip the axle and

twist the wheels into gauge with your fingers. If a hand adjustment won't work, specialized wheel pullers are available from Micro-Mark (no. 82392) and NorthWest Short Line (no. 45-4).

Once the wheels are in gauge, give each axle a spin. There should be no detectable wobble in the wheels. If you notice a wobble or the wheel doesn't run true, get rid of it and put in a new wheelset.

In my experience, metal wheelsets (metal wheels on insulated metal axles) tend to be the best performers. Metal wheels on plastic axles are OK. However, if the wheels are pushed onto the axle too hard, it may distort the plastic. Plastic wheelsets are the most prone to wobbling. Since the

STEP 1 WHEELS AND TRUCKS (CONT'D)

Reboxx Exxact Socket, no. T-100



wheels and axles are one piece, there's nothing you can do fix gauge issues.

Today's trucks are better than ever. Not only is there a wide variety available for freight and passenger cars, almost all trucks have well-defined details and in a few cases even have separate parts.

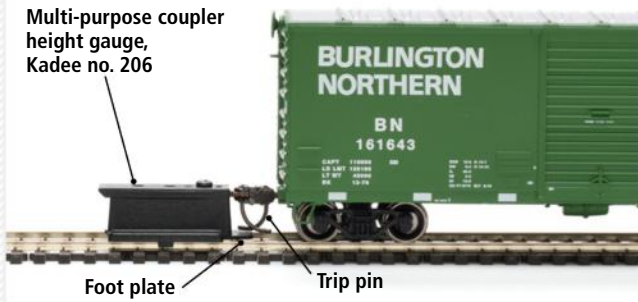
However, it's still a good idea to check for flash (excess plastic that oozes out of the mold). If you notice

the wheels don't roll freely, it's likely one of two problems: the sockets are too shallow for the axle or there's flash in the sockets.

One tool will solve both problems. The Reboxx Exxact Socket (no. T-100) is a hand-operated tool that reams the sockets to the correct angle, allowing the wheels to roll freely. Micro-Mark offers a similar tool called the Truck Tuner (no. 82838).

STEP 2 COUPLERS

Multi-purpose coupler height gauge, Kadee no. 206



The first thing to check on couplers, regardless of the brand, is the height. Couplers at mismatched heights are prone to uncoupling. I used a Kadee insulated multi-purpose coupler height gauge (no. 206) to check the couplers on the Athearn boxcar. As you can see, the coupler is at the same height as the one on the test gauge, and the trip pin clears the foot plate.

.015" fiber washer, Kadee no. 208



If the coupler height isn't an exact match, there are a few ways to fix the problem. Small adjustments can be made with Kadee fiber washers. Number 209 (gray) is .010" thick, and no. 208 (red) is .015" thick, as shown above.

It's best to use only one washer per bolster. Two or more washers may elevate the car to a non-prototypical ride height or cause it to rock side to side.



Underset shank

Centerset shank

Overset shank

Sometimes washers aren't enough to solve coupler height mismatches. In those situations, try using underset- or overset-shank couplers. The names are derived from where the coupler shank meets the head. A traditional centerset-shank coupler is shown above for comparison.

Washers and specialty couplers can be used alone or in tandem. I used .015"-thick fiber washers and underset-shank couplers to remedy a coupler height mismatch issue on a Varney gondola, as seen on page 27 of the July 2017 *Model Railroader*.

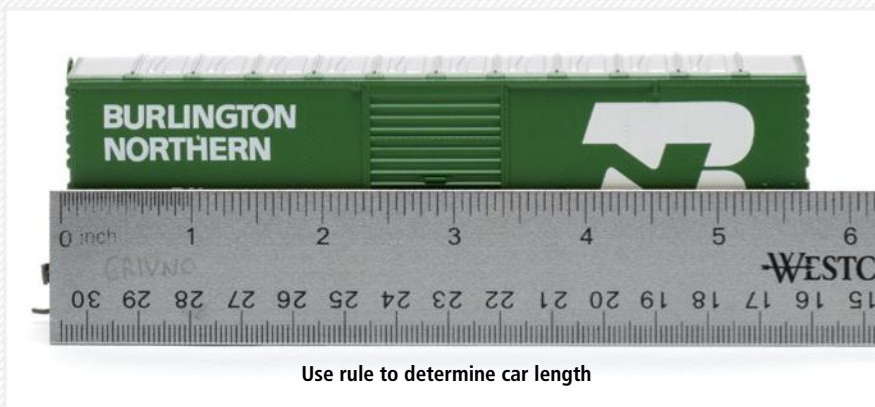


Trip pin pliers, Kadee no. 237

If a coupler has a low trip pin, it can snag on uncoupling magnets, grade crossings, and turnouts, which may damage the coupler or cause the car to derail. To remedy this, Kadee sells trip pin pliers (no. 237), as shown in the photo above. The pliers have a curved jaw for making kink-free bends.

The pliers can also be used to fix trip pins that are too high. This is problematic on layouts that rely on between-the-rails magnets to uncouple cars. The trip pin should be $\frac{1}{32}$ " above the railhead in HO scale.

STEP 3 WEIGHT AND TRUCKS



Use rule to determine car length

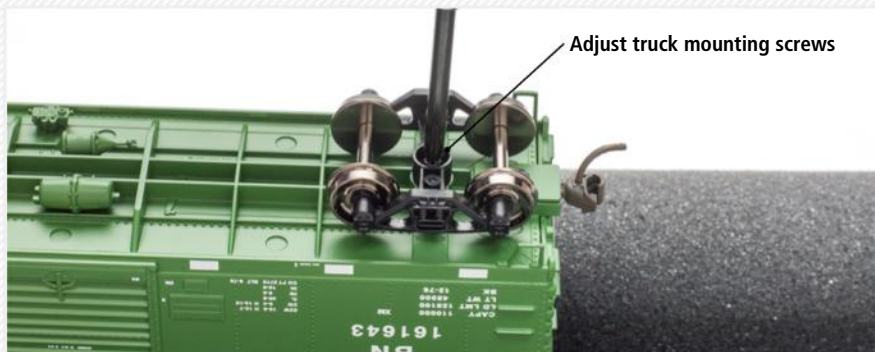
National Model Railroad Association (www.nmra.org) Recommended Practice (RP) 20.1 covers car weight. In HO scale, the recommendation is an initial weight of 1 ounce plus ½ ounce of additional weight per inch of carbody length.

The Athearn 40-foot boxcar measures 5 11/16" (5.6875 as a decimal). To determine the boxcar's recommended weight, I multiplied 5.6875 x .5, which gave me 2.8. Then I added 1, which equaled 3.8. The boxcar needed to weigh 3.8 ounces.



Stick-on weight, Woodland Scenics P378

To bring the car to its NMRA recommended weight, I used peel-and-stick weights from Woodland Scenics. The lead-free weights (no. P378) are designed for Pinewood Derby cars, but work well for model railroading. After marking the center of the steel weight, I attached the Woodland Scenics weights.



Adjust truck mounting screws

I concluded by adjusting the truck mounting screws. I tightened one screw so the truck rotated freely. I left the other screw looser so the truck had some lateral and longitudinal play. If the car wobbles, tighten the looser screw.

The goal of any model railroad is to have derailment-free operations. These easy-to-follow techniques will get your freight cars out of the box and off to a smooth-running start. **MR**



Kitchen scale

Next, I weighed the car using a digital kitchen scale (a postal scale would also work). Straight from the package, the boxcar weighed 3.5 ounces. Per NMRA RP-20.1, the model was .3 ounce too light.



With the extra weight added, I put the shell on the underframe and weighed the boxcar. At 3.8 ounces, the model meets NMRA RP-20.1.

Recommended car weights

(NMRA Recommended Practice 20.1)

Scale	Initial weight (ounces)		Additional weight (ounces per inch)
O	5	+	1
On3	1 1/2	+	3/4
S	2	+	1/2
HO	1	+	1/2
N	1/2	+	.15

Note: The recommended weight is the combined total of the initial weight plus the additional weight calculation (ounces per inch x the car length).

Holiday Product Guide

TRAINS & TRAVEL

WORLDWIDE RAIL TOURS

- USA • CUBA
- AFRICA • EUROPE
- SOUTH AMERICA
- PRIVATE RAIL CARS

Visit our web site for details
www.traintrips.biz

P.O. Box 312 • Portola, CA 96122
1-800-359-4870 • (530) 836-1944

2018 RAILROAD TOURS

Over 30,000 products in-stock?
Check.
Real-time inventory?
Check.
Great Prices?
Check.

Why shop anywhere else?



modeltrainstuff.com (888)-410-2672

TamValleyDepot.com



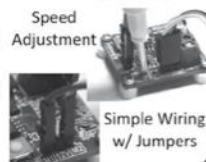
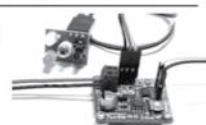
Frog Juicers

Over 100,000
installed



New! Turtle Stall Motor Decoder

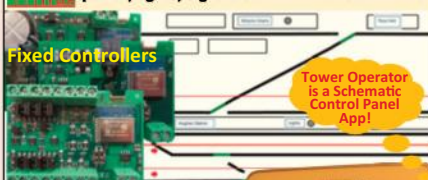
Use the Tam Valley
Fascia Controller to run
Tortoises, MP1, Cobalt,
SwitchMaster or any DC
motor. Accepts DCC
accessory commands.



Simple Wiring
w/ Jumpers

WifiTrax www.wifitrax.com

Introducing **WiFi Layout!**
Control your layout features directly, switches,
power, lights, signals etc. No track commands.



Fixed Controllers

Tower Operator
Is a Schematic
Control Panel
App!

• **WiFi Layout**
Control your layout features
from tablet or desktop with
our **Tower Operator**
schematic control panel app
and fixed controllers.

• Control your Locos with
cab control over your
WiFi network using **Loco
Operator** free app and
mobile controllers.

Locos work alongside those
with traditional DCC on same
track. Fixed units
can use DCC power.

Mobile Controllers

Free App for Windows 10, Android
Two trains each install, Speedo, Consists

TICHY TRAIN GROUP

HO HO

If it's on the website
or in the catalog we have
it in stock, **PERIOD.**
22 Freight Car Kits
10 Structure Kits
60 Billboards (preprinted)
35 NBW/Rivets, 30 Signs
200+ doors, windows, details
Dealer inquiries invited.

Call for Catalog
336-329-9038

www.TICHYTRAINGROUP.com
POB 220 Alamance NC 27201

Trains, Toys & Hobbies

HO SPECIALISTS



Books, Brass & Bemo
Visit our website at :

www.trainstoysandhobbies.com

For hundreds of Brass Models, Railroad
Books and Bemo Models in stock

Trains Toys & Hobbies
2505 B Philadelphia Pike
Claymont, De. 19703

Home of the **HOn3** Rerailer

Largest Selection on Delmarva
New, Used, Buy, Sell, Trade, Consignment

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

P27901

SPROG DCC

the DCC Programmer and Control Family

Simplest DCC
Programming
Cost-effective
Operation

Broad Range

- SPROG II** - program any decoders
- SPROG 3** - program / run a layout
- PI-SPROG** - Raspberry Pi + wifi = simple!
- S-Nano** - connect boosters
- SBOOST** - power districts & auto-reverse

Power supply, software
& lifetime support included

Get seasonal specials at:
sprog.us/sprog-mr



railroadbooks.biz

has **1,900+** new titles,
all at discount

International Service.
Book search.

Domestic shipping
FREE over \$50.00

NEW TITLES
ARRIVING WEEKLY

www.railroadbooks.biz

Holiday Product Guide

A new life for the Texas & Pacific



This renowned HO scale model railroad is now the heart of a public museum display

By Weldon Nash

Photos by Harold Blair



A model railroad seldom survives the passing of its owner, since he's the primary designer and builder of the layout. In most cases, the

owner leaves years of personal enjoyment and work behind, but unless other family members have participated in building the layout, there's seldom anyone left with the knowledge or interest to keep it operating.

The cost of dismantling and selling a large model railroad is difficult to rationalize because it normally has to be removed from a family home. Thus, the most expedient approach is usually to save and sell the individual models and trains, but scrap the layout. This means all of the modeler's artistic scenery work is lost in the process.

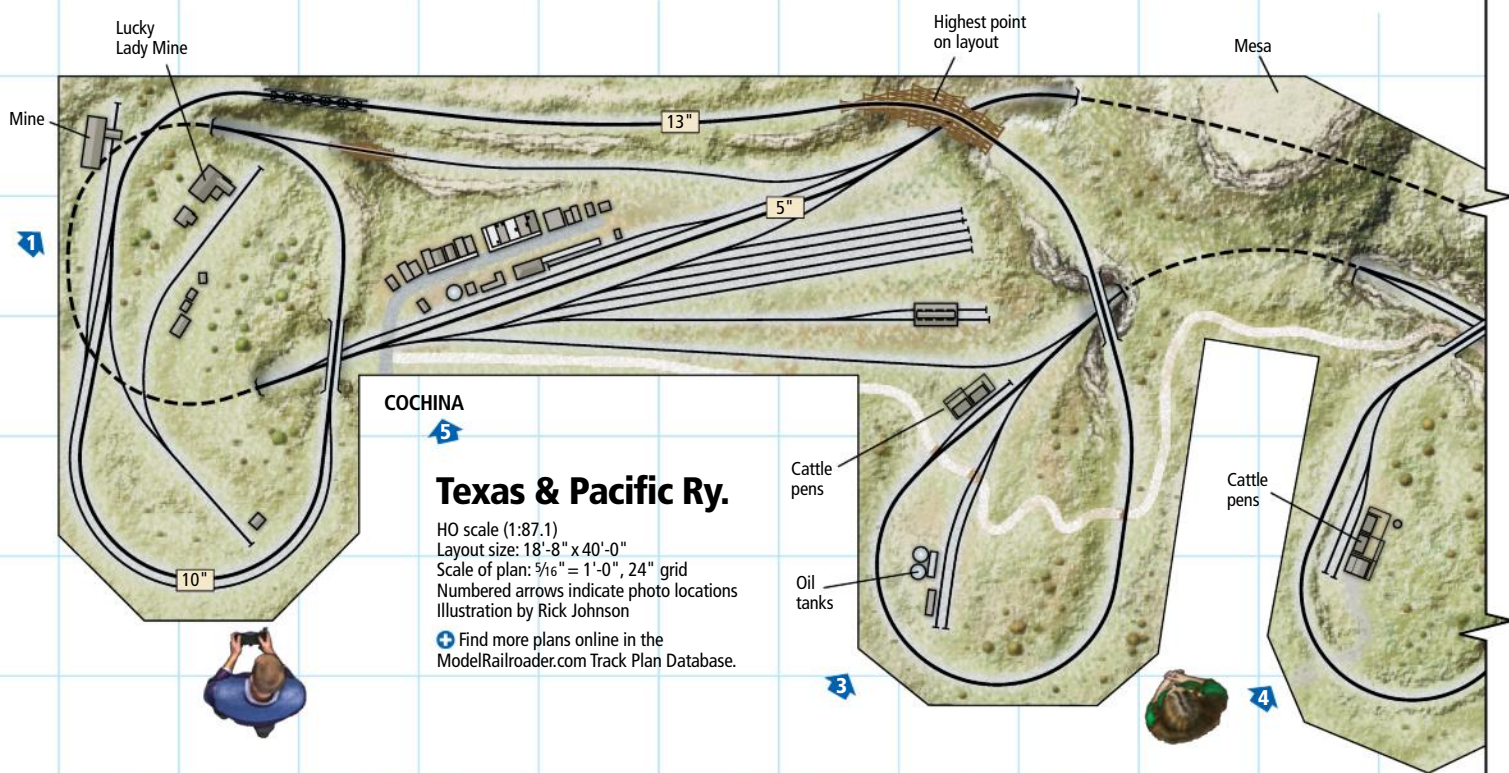
This article relates an unusual approach to this problem in which a beautifully crafted model railroad, the HO scale Texas & Pacific, was given a new life after its owner had passed away.

A 25-year project

The layout involved in this project is an extensive HO scale model railroad built in Fort Worth, Texas, by two close friends, R.D. Moses and Jack Luck, who have both passed on. Over a period of 25 years, they created a large 14 x 48-foot layout that depicted the Texas & Pacific Ry. as it appeared in rural west Texas during the 1950s.

Since there are few basements in Texas, the layout was housed in a building in the Moses family's backyard.

1 An Electro-Motive Division F7 tops the summit at the scratchbuilt Lucky Lady Mine on the R.D. Moses Texas & Pacific Model Railroad. The HO scale layout is now part of the Jefferson County Historical Society & Museum in northeastern Texas.



② This view shows the T&P inside the depot, complete with a new backdrop painted by local artist Terry Ward. Club members have also converted the layout to Digital Command Control.



The layout is housed inside a building reminiscent of a vintage T&P depot, complete with a replica of a 1957 schedule board. The 22 x 55-foot structure provides plenty of room for visitors.

and textures of the real thing, as do their hundreds of scratchbuilt mesquite trees.

The layout also includes dozens of highly detailed models of mines, villages, oil wells, cow towns, and ranches. The dirt ranch roads are so realistic that I almost expected to see the dust rising from behind the pickup trucks. Scale figures populate every building and scene.

Planning for the future

Prior to his passing in 2009, R.D. established and endowed a family trust to ensure that his T&P Ry. would continue. He stipulated that the model railroad be donated to a worthy, non-profit organization that would continue to maintain and operate the layout for years to come.

After several months of considering proposals from organizations based as far away as New York and California, the Moses Family Trust chose Jefferson, a small, historic town in northeast Texas, as the new home for the layout. Located 15 miles north of the Marshall exits off Interstate 20, Jefferson has a rich railroad history.

The layout at a glance

Name: Texas & Pacific
Scale: HO (1:87.1)
Size: 18'-8" x 40'-0"
Prototype: Texas & Pacific
Locale: rural west Texas
Era: 1950 to 1960
Style: linear walkaround

Mainline run: 193 feet
Minimum radius: 24"
Minimum turnout: no. 6
Maximum grade: 3 percent
Benchwork: open grid
Height: 45" to 54"
Roadbed: cork over plywood

Track: Atlas flextrack
Scenery: Hydrocal over aluminum screen
Backdrop: hand painted
Control: Digitrax DCC



The Jefferson & Cypress Bayou Model Train Club played a key role in getting the model railroad to Jefferson. Club founders Norman Buell and Roy Richie approached the Jefferson Historical Society with a suggestion that if the museum acquired the layout, the club would commit to operating and maintaining it. In July 2011, the museum accepted the donation of the R.D. Moses T&P Model Railroad.

Moving the railroad

The first step after acquisition was to pack and move the model railroad from its original location. Moving a building-size layout without damaging the scenery proved to be quite a feat. Displays

Fine Art Services, a company that specializes in moving large museum art, was hired to perform the move.

The firm's proposal included dividing and crating the railroad into two sections. Next, each section had to be lifted over the Moses' home and placed on waiting flatbed trucks. The railroad was then temporarily moved into a climate-controlled warehouse in Fort Worth until arrangements could be made to move it to a similar warehouse in Jefferson in September 2011.

In the meantime, the Jefferson Historical Society and Museum built a replica of an early 1900s T&P depot on

the museum property to house and display the layout. Depot construction began in January 2012 and was completed by early May 2012. The building is a simple wood depot with board-and-batten siding and bracketed eaves. It's approximately 22 x 55 feet to accommodate the layout and provide comfortable walking aisles for visitors.

Bring on the trains

On April 16, 2012, the model railroad arrived on site in its two huge crates on an air-ride flatbed tractor trailer. The final installation in the new depot was almost as

exciting as the initial move. After almost 8 hours of effort, the crated layout was in its final position in the new building. Then the plywood crating was carefully removed to reveal the entire layout for the first time in 7 months. Amazingly, all of the scenery and buildings remained intact and undamaged. Even the tiny kite was still flying at the miner's camp!

At this point, the Jefferson & Cypress Bayou Club took over, with 30 days to reconnect the layout halves, carefully clean the scenery, tune up the track, and make sure everything was operational before the grand opening on May 19, 2012, for the inaugural Jefferson Train Days.

While the club members were busy getting the layout operational, a talented local artist named Terry Ward painted a new scenic backdrop around the layout. At the same time, club members installed and painted the new fascia and bead-board skirting to finish off the front of the layout.

The Grand Opening and Jefferson Train Days event was successful, with more than 500 visitors stopping in to see the trains running on this fabulous piece of craftsmanship. In addition, at least 30 Moses family members were in attendance.

Unanimous support

Throughout this project, the museum and the train club have received an amazing amount of community support. Jefferson's population is only about 2,000, yet



③ An eastbound freight rolls past oil field storage tanks and loading tracks outside of Cochina. The scene is indicative of how well R.D. Moses and Jack Luck captured the wide-open look of west Texas in the 1950s.



④ It wouldn't be west Texas without cattle and cowboys. At the layout's midpoint, a T&P GP7 leads a peddler freight around the cattle loading pens.



⑤ Steam meets diesel at the Frontier Days celebration in Cochina, Texas. The layout continues to be enjoyed by about 200 visitors a month.

the museum received more than \$90,000 in donations from local citizens and philanthropic organizations to cover the costs of building the depot and moving the model railroad. In addition, local building contractors and other residents donated labor and materials to help complete the depot project. Since the opening, an average of

200 visitors per month visit the R.D. Moses Texas & Pacific Model Railroad.

Club members remain busy staffing the depot. Led by club secretary Jeremy Peeler, they also converted the T & P layout to Digital Command Control (DCC). Member David Sinclair donated a new Digitrax DCC system and was also

a major donor to the depot's building fund.

Visitors welcome!

The Jefferson Historical Society & Museum and the Jefferson & Cypress Bayou Model Train Club welcome everyone to visit Jefferson and the R.D. Moses T & P Model Railroad. The

exhibit is open daily. For more information on the town, the museum hours, and other information, go to visitjeffersontexas.com and jeffersonmuseum.com. **MR**

Weldon Nash is a member of the Jefferson & Cypress Bayou Model Railroad Club. This is his first article for Model Railroader.



The Safety-Kleen facility outside Daneburg is one of two rail-served industries on contributing editor Pelle Søeborg's layout. The oil-recycling business is based on a prototype he photographed in Grand Island, Neb.



Scratchbuild a **COMPACT INDUSTRY**

This prototypical oil-recycling plant will fit
on most modern layouts

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

ONE OF THE THINGS on my to-do list for a research trip to the American Midwest was to find a small, modern, rail-served business I could model on my layout. This turned out to be harder than I expected.

Although I found several small businesses that used to be rail-served, the rails looked like they hadn't been used for decades. Many times, the track wasn't connected to the main line anymore.

Then in Grand Island, Neb., I got lucky: A small Safety-Kleen facility that was still served by rail. Safety-Kleen is an oil recycling business, and the one in Grand Island receives a tank car or two at a time. It was perfect for my needs.

The complex consists of an office connected to a small storage building. At the other end of the property there's a storage tank complex and a covered truck loading rack. Even though the prototype is small, I still had to compress my version to make it fit the available space on my layout.

Construction

The most difficult part to build was actually the smallest structure of them all, a portable loading platform. Its tiny size and my diminishing eyesight wasn't the most ideal combination, and it took me the better part of a day to build it. The other structures weren't complicated to build.

The easiest part was the storage tanks, which came from a Walther's Fuel Distributor kit. This kit included a shed with a loading rack, which I modified to make look more like the one at the prototype industry.

Most of the main structure had to be scratchbuilt. It was a relatively uncomplicated project, though, thanks to Evergreen styrene and my well-stocked scrap box.

I used styrene for the entire structure, except for handrails and the thin vertical pipes on the tanks, which I made of brass. Styrene is my favorite material for scratchbuilding. It's easy to cut and glue, and you can get strips in almost any dimension and shape. There are also a variety of plain and textured sheets available to suit most needs.

For gluing styrene I use Tamiya Extra Thin Cement. You simply hold the parts together and apply the cement along the joint with a brush. The cement will flow into the joint, leaving almost no visible traces. For gluing metal to styrene, I use cyanoacrylate adhesive (CA). I prefer the gel type.

Realistic painting

What really makes a structure come to life and appear authentic has a lot to do with the painting and weathering. I mixed almost all the shades used to paint the various parts of the industry. Be aware that a color looks darker on a bigger surface, so you almost always need to mix a lighter shade than you think. Colors can also look very different under a layout's artificial light than they



This trackside view of the facility shows the storage tanks and the etched-metal fence surrounding the property. The business can handle two tank cars at a time.

do under sunlight, so you have to adjust for that. The colors even look slightly different under my workbench light compared to how they look under the layout's fluorescent lamps. Test your colors on a sheet of scrap styrene before you paint the structure.

Unfortunately, I can't give you exact mixing ratios for my colors, as I mix them by eye, often directly in the airbrush cup. Even if I could give you the exact ratios I used, there's no guarantee the colors will look the same under your layout lighting.

You need a neutral base for the colors. I gave everything a coat of Vallejo no. 73-601 Surface Primer, a light gray acrylic primer that covers well and dries quickly. Acrylic primers are more sensitive to grease than enamel primers, so it's important that you clean all parts thoroughly before applying the primer. I wash the parts gently in hot water with a little dishwashing detergent added to it. I blow as much water off as possible with my airbrush and put the parts aside to dry. I cover them with plastic bags to protect them from dust.

Assembly and installation tips

I learned an important lesson from building the cement plant for my previous layout: Make each section in sub-assemblies that can be painted separately. I didn't do that on the cement plant, which made the masking and painting part of the job complicated and time-consuming. On this project, I built each structure in several sub-assemblies, so painting them different colors required a minimum of masking. This complicates construction, but in the end it saves time.

The prototype has tinted windows, so I made a tinted window sheet by applying automobile window tint film to a sheet of clear styrene. Some air bubbles formed under the film when I applied it, but in most cases I could eliminate them by poking tiny holes in the film with the tip of a hobby knife and squeezing out the trapped air.

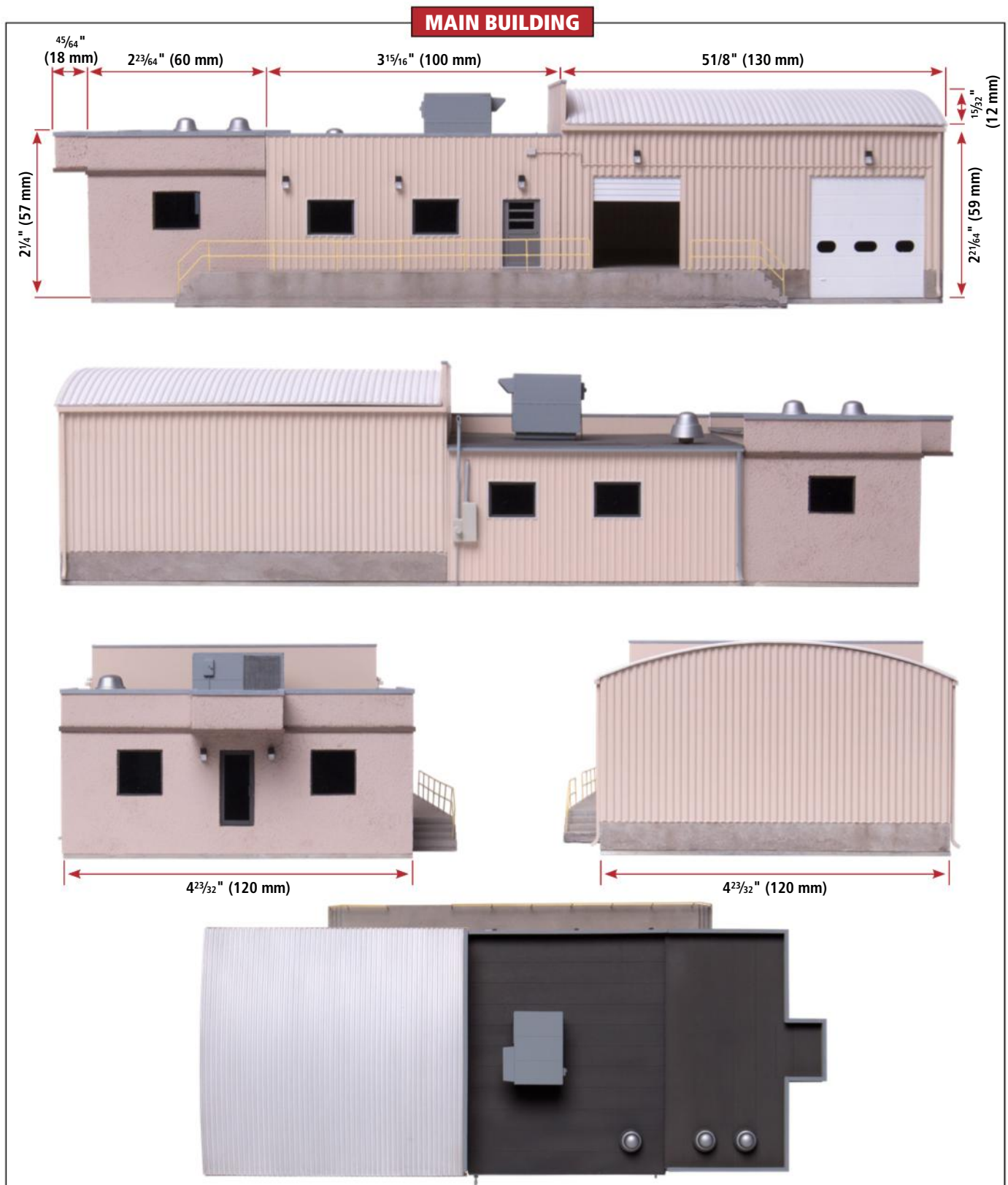
Installing the structure on my layout went quickly, as I'd already prepared the concrete loading/unloading area and applied scenery materials. I put up an etched brass security fence from Micron Art, which I airbrushed gray, to protect the facility from trespassers. Many modelers paint their security fences silver, but in the real world a chain link fence is silver only for a short time. Galvanized metal will, over the years, turn flat gray. Old fences often have rust, also.

All that's left now is to pray that someone will make a small Safety-Kleen tank truck like the one I photographed at the prototype, or at least a set of decals so I can decorate my own.



This overall view shows the orientation of the structures and track. The industry is small enough to fit on most layouts, but large enough to warrant rail service.

Part 1 THE OFFICE/WAREHOUSE

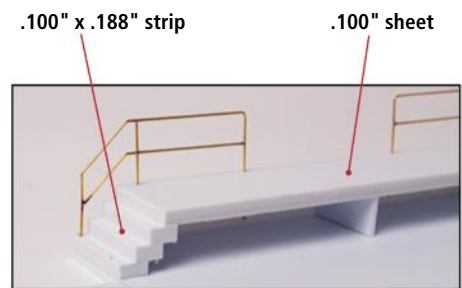
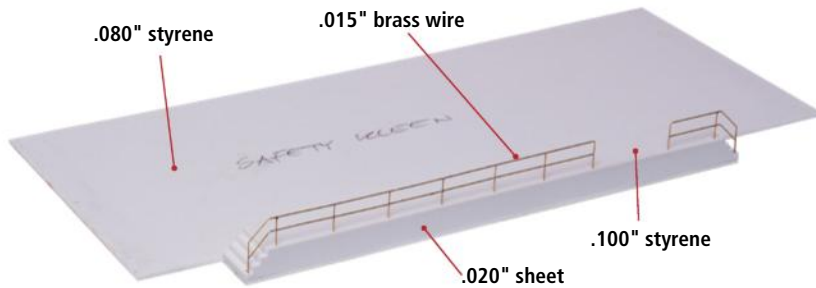


The main building is made up of three distinct sections: A front office/reception area with stucco walls, a back office with corrugated metal walls and a flat roof, and a

corrugated metal warehouse with a taller arched roof. I built the three sections separately and joined them on a one-piece styrene foundation to simulate concrete.

Part 1 THE OFFICE/WAREHOUSE (CONT'D)

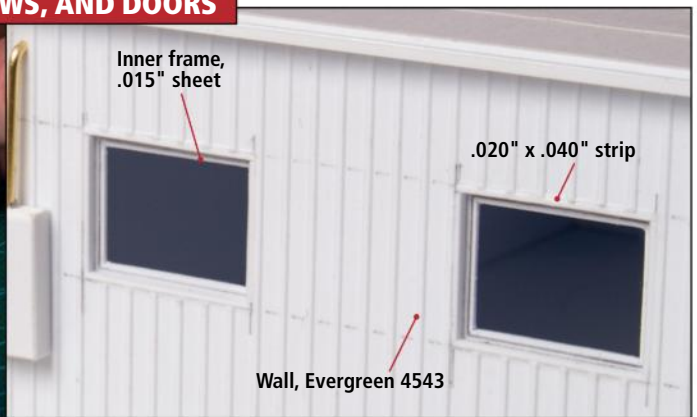
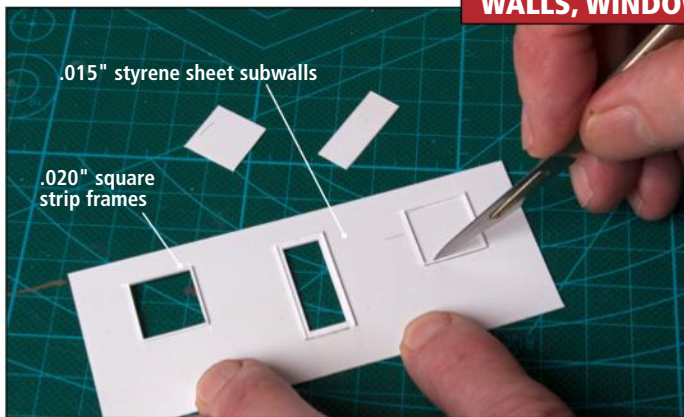
FOUNDATION



The **foundation** for the office and storage buildings is a sheet of .080" styrene. The platform was also made of styrene sheet, and the handrails are .015" brass wire soldered together. After the glue had dried, I sanded all the joints

smooth to make it look like a single piece of concrete. The back view of the platform shows how the steps were assembled from .100" x .188" styrene strip. The platform was faced with a sheet of .020" styrene.

WALLS, WINDOWS, AND DOORS



To make **window and door frames** for the stucco-walled front office, I first marked the openings with a pencil on .015" styrene sheet. I made outer frames by gluing .020" x .020" strip styrene to the outside of the marks, then cut out the openings with a hobby knife. Finally, I cut

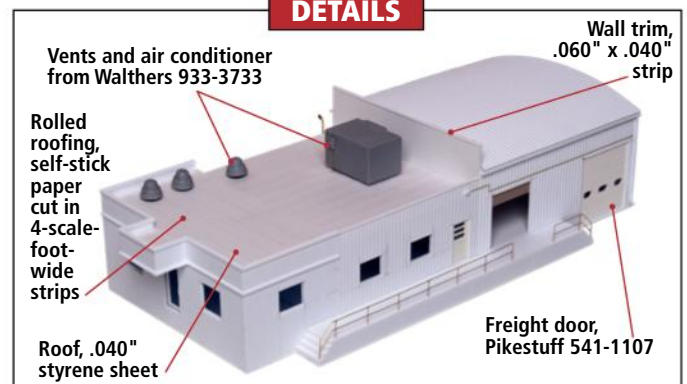
openings in the walls and installed these frames from the back. On the metal-sided office, I first cut out window openings in the siding, then glued .020" x .040" strip styrene frames inside the openings. The inner frames were made by cutting window openings out of .015" styrene.

ARCHED ROOF



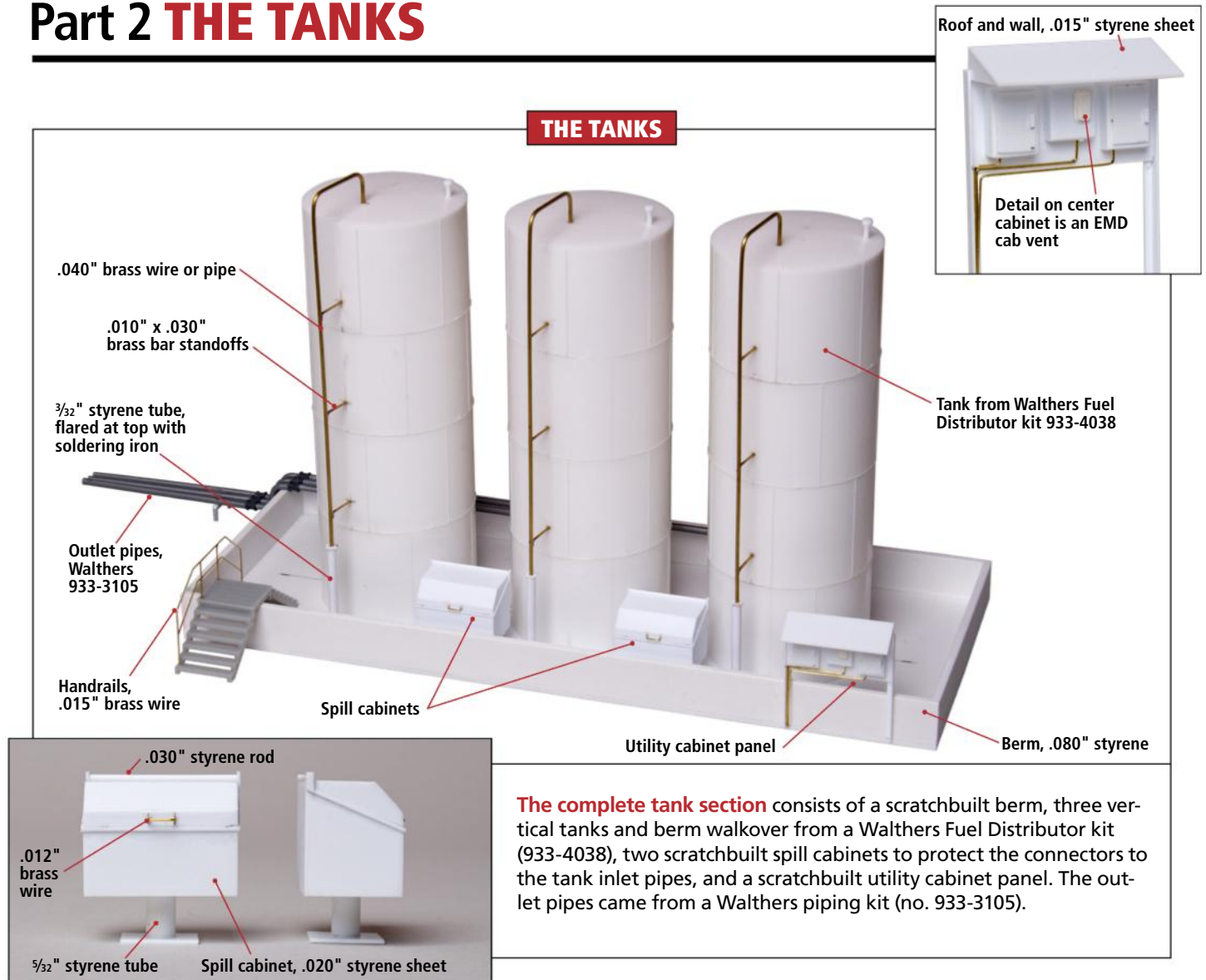
The **arched roof** on the warehouse was made from Evergreen metal siding. The roof holds its shape thanks to three trusses cut from .060" styrene. The edge was reinforced with .100" x .188" styrene strip.

DETAILS



I found some **details** for the structure in my scrap box, while others came from a Walther's roof detail kit (no. 933-3733). I covered the roof in rolled roofing I cut from self-adhesive paper, then later painted it gray.

Part 2 THE TANKS

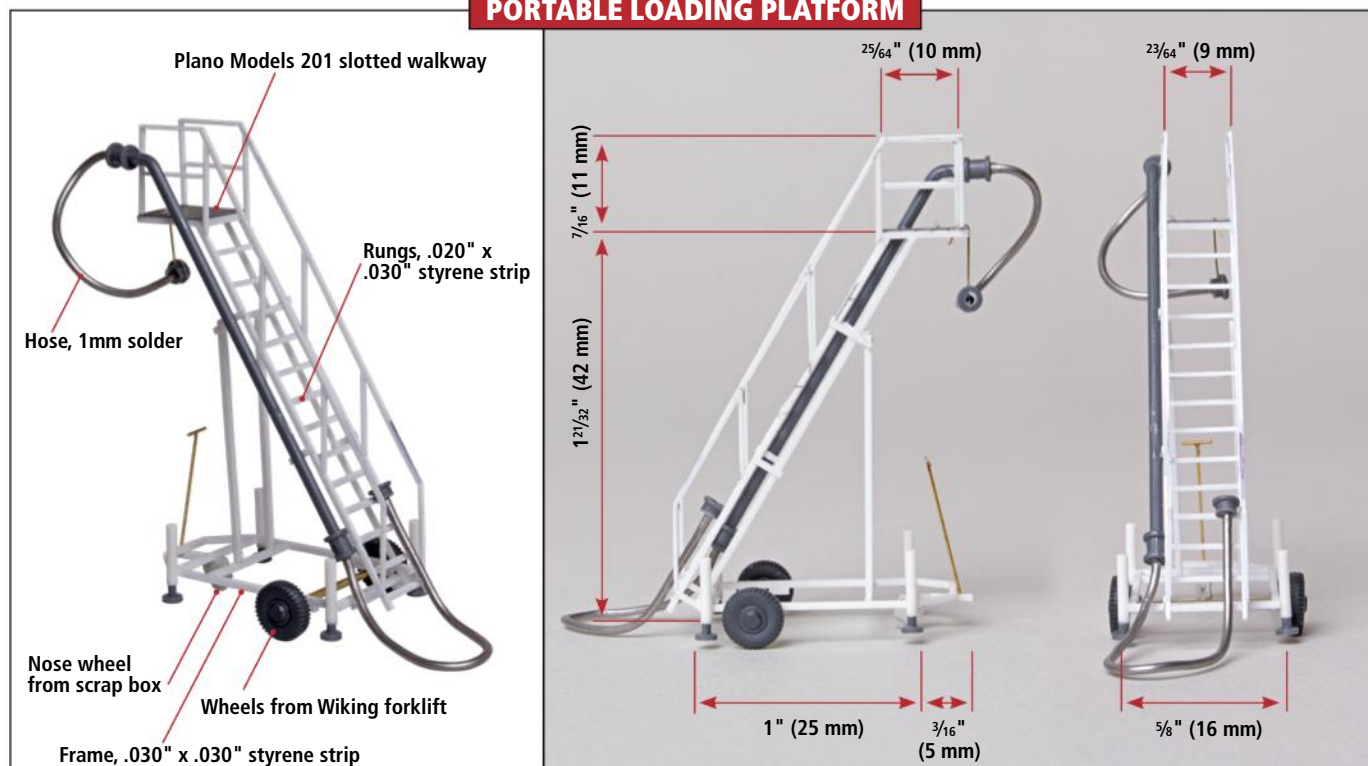


Part 3 LOADING PLATFORMS



Part 3 **LOADING PLATFORMS (CONT'D)**

PORTABLE LOADING PLATFORM



The portable loading platform, used to transfer oil from tank car to truck, was one of the most involved parts to build. Styrene and brass stock and some parts salvaged from other kits completed the build.

Part 4 **PAINTING AND FINISHING**

PAINTING CONCRETE

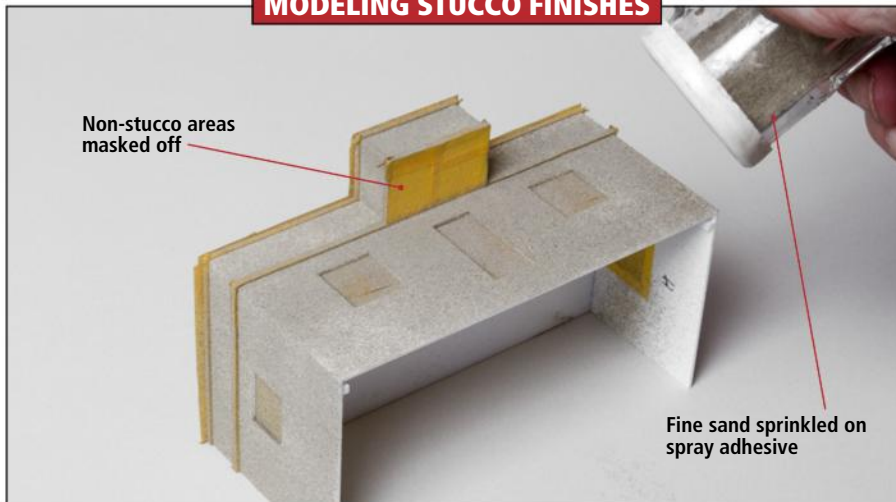


Re-creating the look of concrete realistically can be a challenge. I use several shades of gray to achieve a realistic look. I first gave the berm a base coat of Tamiya AS-2 Light Gray. I then dabbed the sides and bottom randomly with two shades of gray – a custom-mixed warm gray (Model Master Flat Gull Gray with some Model Master Sand

added) and Light Gray. When the paint had dried, I gave the surface a dark wash (a few drops of Vallejo Air 71052 German Gray mixed with water and rubbing alcohol). I applied black and brown powdered chalks to make streaks of dirt on the vertical surfaces. Finally, I sealed everything with a coat of Vallejo Matte Varnish.

Part 4 PAINTING AND FINISHING (CONT'D)

MODELING STUCCO FINISHES



I first masked the areas without stucco with masking tape, then sprayed the walls with 3M Spray Mount. I then sprinkled very fine sand on the tacky adhesive. After an hour's drying time, I brushed off all the loose sand. I then painted the walls with a mix of Model Master White, Tan, and Skin Tone Dark.

PAINTING IN SECTIONS



Tanks, Vallejo Premium White 62.001

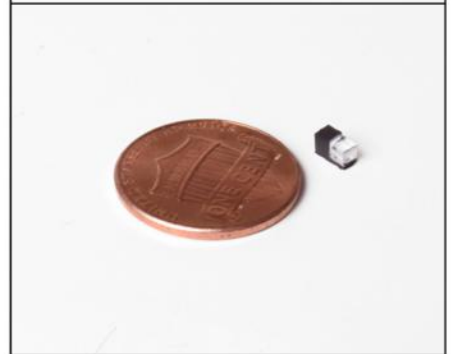


Floor, Light Ghost Gray with weathering wash




Instead of assembling each structure before I painted it, I built them in sub-assemblies based on the color they would be painted to minimize masking. Unless noted, all paints are Testors Model Master acrylics.

OUTDOOR LIGHT FIXTURES



I filled a .080" wide trough-shaped mold I made from styrene strips with "Magic Water," a two-part resin product from Unreal Details. I let it cure for 24 hours before pulling it out of the mold and cutting it into .080" cubes.

I then built lamp housings from Evergreen .100" styrene angle with .040" x .080" styrene strip glued on top. I painted the housings black and glued the clear pieces to them with Micro Kristal Klear. These lamps are non-working, but it wouldn't be too much trouble to drill a small hole in the back and glue in a surface-mount light-emitting diode. 



GOING SOUTH

The Winston-Salem Southbound Tar Branch is a compact HO scale urban switching layout packed with operation

By Eric White

Photos by Bill Zuback

A GP9 WITH FIVE CARS and a caboose in tow picks its way through the weeds. You can almost hear the cicadas singing and feel the perspiration run down the back of your neck on a still, hot summer day in North Carolina.

It's 1957 on the Winston-Salem Southbound, and this Electro-Motive Division diesel has only been on the property since spring. The railroad is busy serving its regular customers and delivering material for a new project, the construction of Interstate 40.

This is the scene on *Model Railroader's* 2018 Winston-Salem

Southbound Tar Branch project layout. The 2'-9" x 8'-2" switching layout is an all-star collaborative effort between the MR staff, Model Railroader Video Plus, MR contributing editor Tony Koester, and MRVP contributing editor Gerry Leone.

Model Railroader Video Plus is a subscriber video service. But select videos from the Southbound series are now available free on www.MRVideoPlus.com. David Popp, MRVP producer, designed the layout after being inspired by photographs in the David P. Morgan Memorial Library here at Kalmbach Publishing.



① A Winston-Salem Southbound GP9 spots cars on the Liberty Street Annex on our 2018 project layout.

SOUTHBOUND

David described the full-size railroad in “Modeling a busy shortline terminal,” a story in *Model Railroad Planning 2017*. He gave a short description of this layout in “Building the Southbound” in MRP 2017. Now, we’re bringing the full story to *Model Railroader*.

A track plan for the Southbound

While the photos may have inspired David to model the Southbound, as we’ve been calling it around the office, it was a book, *The Winston-Salem Southbound Railway* by Jeff Miller and

Jim Vaughn (Jeff Miller, 1996), that offered a track map and the inspiration for David’s track plan. On the map, David found the Tar Branch, which led west from the WSS main in South Winston-Salem, then north and back into Winston-Salem proper.

At the end of the branch was a concentration of track serving several distributors, the railroad’s main office and freight house, an ice house, a team track, and a spur for unloading materials for construction of the highway.

David used the track map to create a temporary mock-up using Kam-Konnect

The Tar Branch series

January: Going Southbound; meet *Model Railroader*’s Winston-Salem Southbound layout

February: Benchwork and track

March: Structures

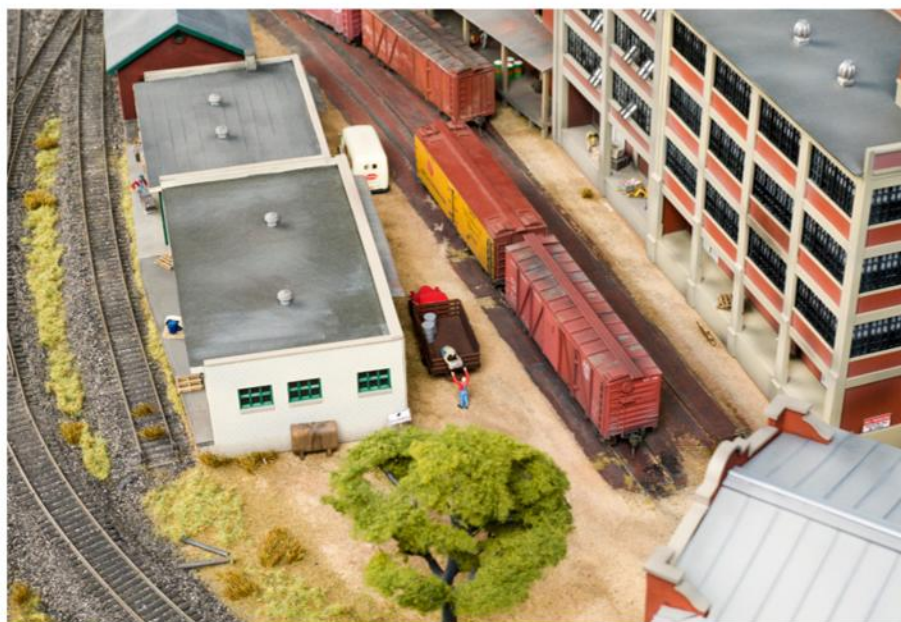
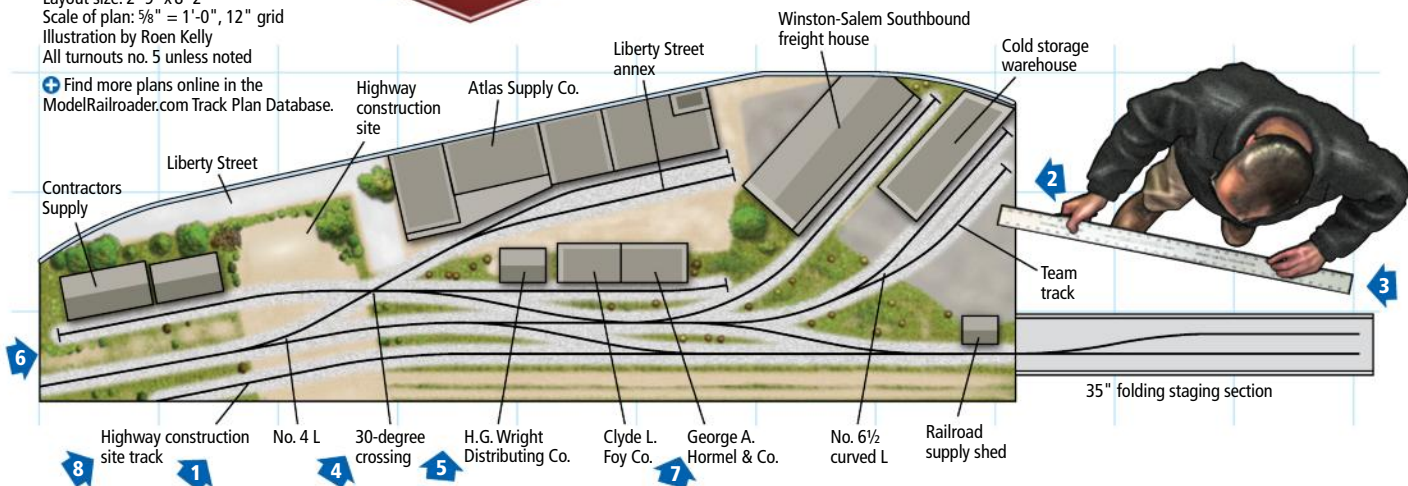
April: Backdrop, lighting, and scenery



The Tar Branch

HO scale (1:87.1)
Layout size: 2'-9" x 8'-2"
Scale of plan: 3/8" = 1'-0", 12" grid
Illustration by Roen Kelly
All turnouts no. 5 unless noted

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



2 Gerry Leone stopped by the *Model Railroader* offices to lend a hand detailing the Tar Branch. One of the mini-scenes he created is this pair of workers unloading a stake bed truck behind the Hormel warehouse.

layout tables. He scrounged under the staff's Milwaukee, Racine & Troy layout to come up with some stand-in structures, and found some leftover pieces of track in the workshop to flesh things out.

His goal was to see if a reasonable facsimile of the Tar Branch could be built in an 8-foot-long area. Once he found it feasible, he put his ideas down on paper.

For staging trains, David added a 35"-long folding section with two tracks to the right side of the 8'-2"-long layout. Trains enter the layout from staging and go into a passing siding that allows the locomotive to run around its train in order to work the two facing-point sidings. The rest of the spurs are trailing-point turnouts that require switchback

moves to serve the customers, keeping operation interesting.

The largest business on the layout is the Atlas Supply Co. It anchors the center of the model railroad, and is served by two tracks carrying loads of plumbing, heating, and mill supplies.

In front of Atlas are a row of three smaller businesses: the H.G. Wright Distributing Co., the Clyde L. Foy Co., and the George A. Hormel & Co. warehouse. Wright was Winston-Salem's exclusive Miller Beer (among other brews) distributor; Foy was a food broker; and Hormel, of course, was a meat distributor.

To the right of Atlas Supply is the WSS freight house. This two-story brick building also housed the railroad's main

The layout at a glance

Name: The Tar Branch
Size: 2'-9" x 8'-2"
Prototype: Winston-Salem Southbound Ry.
Location: Winston-Salem, N.C.
Era: mid-to-late 1950s
Style: shelf
Minimum radius: 20"
Minimum turnout: no. 4
Maximum grade: none
Benchwork: L-girder
Height: 46"
Roadbed: milled Homasote on 1/2" plywood
Track: handlaid code 83
Scenery: Sculptamold on extruded-foam insulation board and plywood
Backdrop: building photographs with handpainted cloud sky
Control: NCE Digital Command Control

offices on its second floor. Adjacent to the freight house is the Southbound's cold storage building. Beyond that is a team track that was part of a small yard on the full-size railroad.

And benchwork to hold it up

Like all of our project railroads, this one rolls on casters. The layout is long and narrow, so David used L-girder construction for a solid foundation.

In addition to being well-suited to the layout's design, using L-girders also allowed David to explain the virtues of the system in an MRVP video. One of the points made early in the video series is the flexibility available with the cross



joists. One of the joists was in a location needed for a switch machine. Since the joists are screwed in from below, it was a simple matter to unscrew it and move it over a couple inches. We'll have more about the benchwork in February.

The joists also support a curving backdrop, made of tempered hardboard. The backdrop's curve helps make it self-supporting, and also helps better frame the scene on the layout. Additionally, it supports a quartet of halogen spotlights and a lighting valance. The lights were on sale at a local home center, and David couldn't pass them up.

Trackwork and second thoughts

The Winston-Salem Southbound was conceived as an MRVP project, so some aspects of it were determined by what techniques the video crew wanted to record. One of those techniques was handlaying turnouts.

Tony Koester has plenty of experience building turnouts, and as he was going to be in the area, it was only natural to get him in front of the camera armed with rail stock, wood ties, files, and a soldering iron.

The track is laid on Homasote roadbed, which is known for its spike-holding ability. This is a prime consideration when handlaying track.

David was so taken with Tony's work that he handlaid most of the rest of the track on the layout. David didn't build all of the turnouts himself, but he reasoned the track between the turnouts wouldn't be too much trouble. It would also allow him to more accurately represent branchline trackage, and it would offer another subject for a video.

Within a few days of Tony heading back home after his visit, David's sessions in the workshop were accompanied by quiet muttering about the wisdom of handlaying track in a limited amount of time and reflections on people who make things look easy.

Taking control

A small layout such as this doesn't need a complex control system, but we still wanted to take advantage of all that modern Digital Command Control has to offer, including sound-equipped locomotives. Therefore, we installed a simple and reliable NCE PowerCab system.

3 The Winston-Salem Southbound's GP9 no. 1501 spots a load of pipe for the Atlas Supply Co. Learn how David Popp built the pipe load in the April 2017 Step by Step column.

The PowerCab's Power Panel is attached to a 16AWG bus wire. This runs from end-to-end of the layout. David dropped 22AWG feeder wires from the track about every 2 feet, then soldered many of the rail connections together to ensure reliability. The feeder wires are attached to the DCC bus with insulation-displacement, or suitcase, connectors.

On turnouts with metal frogs, including Tony's handlaid turnout, David installed Blue Point switch machines. These cable-operated machines include double-pole, double-throw switches to route power to the frogs. In addition to the handlaid turnout, we used turnouts from Walthers, which have metal frogs, and Peco, which are either Insulfrog plastic frog turnouts or Electrofrog metal frog turnouts.

Modeling the Carolina Piedmont

With a switching layout plan, a flat layout surface keeps things simple. Atop



4 A reefer full of Schlitz Beer from Milwaukee arrives at H.G. Wright Distributing for the thirsty folks of Winston-Salem. David kitbashed this row of buildings from DPM Landmark Structures and City Classics kits.

the 1 x 3 joists of the Winston-Salem Southbound is a 1/2" layer of plywood. To create interesting topography on this surface, David added layers of extruded-foam insulation board.

The left-rear corner and front edge, especially from the center to the right, are the high points, such as they are. But even a little elevation change makes things more visually interesting. The foam was carved with serrated knives to a rough shape, then smoothed over with Sculptamold, a papier-mache product.

Most of the ground cover is weeds and gravel. David made extensive use of grass tufts and grass fiber mats to create the weedy areas along the right-of-way (See Step by Step in the February 2017 issue).

Dirt and gravel were reproduced with products such as Real Dirt and crushed stone and ballast from Highball Products.

In addition to dirt and gravel, there's also a section of track that's laid into pavement. To simulate this, David made a stamp using RTV rubber mold-making materials to impress a brick pattern into DAS brand modeling clay. After the clay cured, David painted and weathered the surface to look like brick pavers.

Since this is a small layout, David spent extra time on the trees. In a series of videos on MRVP, he explained how to build "hero" trees. These are more detailed, and time-consuming, so they're not something you're likely to use to cover mountain landscapes.

Even with a more-detailed approach, David did take into consideration the time spent, and he shared some shortcuts in the videos that make use of commercial products to get a great result before leaf-fatigue sets in.

To continue the scene into the distance, a backdrop is attached to the ends of the 1 x 3 joists that rest on the L-girders. It's an example of another aspect of the flexibility of the framing system in that you can cut the lengths of the joists to create a smooth, curving layout edge either on the front or the back.

The only vertical supports are 1 x 3s at the ends and in the center. The center support also carries the halogen lighting David installed. These small fixtures create bright pools of light that mimic sunshine on a partly cloudy day.

The backdrop was painted sky blue, and former Kalmbach illustrator Jay Smith turned his talents loose on the sky to airbrush some clouds based on photos the MRVP staff found online.

Once the sky was painted, David and associate editor Cody Grivno cut out images from SceniKing backdrops to add some background buildings. One landmark structure was missing, though.



While David was researching the Winston-Salem Southbound, he found the Forsyth (N.C.) County Public Library. The library has a digital photo archive (www.digitalforsyth.org) that helped fill in the gaps in the Winston-Salem Southbound book David was using. Photo librarian Molly Rawls was instrumental in finding many of the images David used in his *Model Railroad Planning 2017* article.

She also filled another gap – the spot in the backdrop where the old Salem town hall belonged. On her way to work one day, she stopped to take a few photos of the now re-purposed building. *Model Railroader* senior graphic designer Drew Halverson edited the images to make a print for the backdrop.

If they build it, we will model it

Of course, a backdrop needs something in front of it, and in this case it's a



5 The Atlas Supply Co. is a hive of activity on the Southbound. David Popp kitbashed the structures, and Gerry Leone added the details. The engineer of no. 1501 needs to keep alert amid the bustle.

series of buildings. To model the structures of the Tar Branch, we turned to kitbashing, scratchbuilding, and re-purposing.

David took on the buildings in the center of the layout. The Atlas Supply Co. consists of (appropriately enough) an Atlas Model Railroad Co. Middlesex Manufacturing Co. kit, American Hardware Supply from Walthers, and a City Classics Smallman Street Warehouse kit. The three buildings in front of Atlas Supply are made from City Classics Carnegie Street Manufacturing Building kits and a Woodland Scenics DPM Landmark Structures Freight House kit.

Gerry Leone added much of the detail to the Atlas Supply Co. complex. Besides a myriad of 55-gallon drums, he added figures engaged in their tasks; vehicles, crates, and pallets; and custom-printed decals on the walls of the building.

Ben Lake, MRVP associate editor, took the drawings of the WSS freight house in the Winston-Salem Southbound book and used them to create Adobe Illustrator drawings to make mock-ups before committing the model to styrene.

The architectural details on the freight house are from Shapeways, an online 3-D printer (www.shapeways.com). Ben created the files to make the prints using Blender (www.blender.org), a free downloadable program. Using the 3-D printed parts allowed Ben to accurately model the doors, windows, and moldings on the building.

The cold storage building next to Ben's freight house was my project, scratchbuilt from a single photo and a

plot plan drawing of the city block it sat in. It's built using traditional techniques with a core of plain .040" sheet styrene sheathed in N Scale Architect embossed concrete block sheet.

When David was preparing the story for *Model Railroad Planning 2017*, he gathered high-resolution photographs, including reprints of those in the Southbound book. The high-resolution photo of the cold storage building revealed it was built of brick, not concrete block. Maybe next time I'll get it right. We'll have more in the March issue.

The last structure on the layout is a contractors supply warehouse. David never found a clear photo of the building from our 1957 time frame, so what had started as a stand-in during the mock-up process became a permanent resident. The styrene structure is a kitbashed corrugated metal building David found under the Milwaukee, Racine & Troy.

We believe it was built by Gordon Odegard, as it's similar to other buildings we have that he built. David freshened the building with some new paint and removed a damaged lean-to from one end. If anyone recognizes where this building is from, please let us know!

Railway equipment

A railroad, whether a model or full-sized, needs rolling stock to do its job. The Tar Branch is set in 1957 near the end of the transition era, and it's not the final layout we've built in this time period.

The 2017 project layout, an addition to the Beer Line, was set in 1947, a



6 A boxcar full of building supplies is the last car spotted today on the WSS. Once its work is done, GP9 no. 1501 will couple on to its outbound train on the passing track, then exit the Tar Branch. A new day will bring a new train and more action on the Southbound.

decade earlier, but still reasonably close rolling-stock-wise. The Virginian layout is also from a similar era, so we scavenged some freight cars from both layouts. Reefers that serve the breweries in Milwaukee can also appear in Winston-Salem. Coal hoppers from The Virginian can be used for deliveries to the team track in North Carolina (see the March 2017 Step by Step column).

We also added some specific rolling stock for the layout, such as gondolas loaded with pipe for Atlas Supply (see Step by Step in the April 2017 issue) or materials for the highway project, and a unique covered hopper made from a wooden boxcar to deliver cement to the highway project.

But the signature pieces are the Winston-Salem Southbound GP9 and the wood-sheathed WSS caboose. These were both Cody's projects, and there are a series of videos about both of them.

The GP9 was an Athearn Genesis model decorated for the Burlington Northern. Cody chose this model because it had a number of details that were appropriate for the WSS locomotive he wanted to model. Stripping the Cascade Green and Black from the body shell wasn't one of Cody's favorite things to do, though, as he's a BN fan.

The Southbound book had a few color photos in it, and they included two photos of the road's GP9s in their as-delivered paint schemes. This helped Cody determine the proper gray for the body.

Cody found decals for the locomotive at www.maskislanddecals.com. He combined those decals with stripes he pieced together from a Microscale Erie Lackawanna set.

The caboose is an American Model Builders kit of a Norfolk & Western car. The Southbound was jointly owned by N&W and Atlantic Coast Line, so equipment came from both parents at different times. Construction of this laser-cut wood kit was covered in another series of videos on MRVP.

Operation!

Now that the layout was finished, what do you do with it? Operate it!

David invited Tony back to help set up a car-card-and-waybill system. The cards add a bit of realism to the layout by providing a purpose for all that rolling stock.

It's not just a boxcar, it's Wabash 75693 with a load of plumbing castings for Atlas Supply Co. from the Detroit Casting Corp. by way of Wabash, Detroit & Toledo Shore Line, Chesapeake & Ohio, Norfolk & Western, and Winston-Salem Southbound. When it's empty, it goes back to the Wabash in Detroit.



7 The 1501 pulls a reefer from the WSS cold storage building. You can read about how Cody Grivno painted and detailed the GP9 in the February Step by Step column. In April, you can learn more about how we built the structures on the Southbound.

With a small layout like this, it doesn't take too much time to fill out the waybills, and they help make sense of the layout's roster. There's no need for 50-foot covered hoppers in grain service, for example. However, you might find you need to add a few more reefers to serve the cold storage warehouse, Hormel, and H.G. Wright's beer distributing business.

With a switching layout, the sequence is simple and easily operated by one person. After a train arrives from staging, a look at the waybills will tell you where each car needs to go. Before you do anything else, though, you want to check the car card boxes on the front of the layout to see if there are any empties that need to be pulled.

A little planning at this point will make things go more smoothly during the session. In addition to empties leaving the Tar Branch, there may be cars in the midst of unloading that either need to stay where they are or be returned to their spots. There could also be off-spot cars. These are cars that were brought by a previous train but had nowhere to go, and were left in an out-of-the-way position until their assigned spots opened up.

A great way to introduce folks to operation is to work as a team. The more experienced operator takes the part of the conductor and plans all of



8 Associate editor Eric White uses a switch list as he places a load of coal on the team track with the Southbound's GP9. A small layout like this offers a couple hours of relaxing operation for one or two people.

the moves. The newcomer gets the fun of running the locomotive, and learns why certain things are done a particular way.

With the inbound cars delivered and the outbound cars assembled into a train, it's time to return to staging. Since the staging tracks have room for just seven

40-foot cars, David used wooden boxes to store the cars when they're off the layout. David and MRVP assistant editor Jenny Maaske starred in a video that shows just how much fun this little layout is.

Build your own Southbound



▶ **Not a subscriber yet?**
Click on the free videos page at MRVideoPlus.com to view free episodes of the Winston-Salem Southbound series.

Now that we've whetted your appetite for switching in the South, keep an eye out for more about the Southbound in coming issues. Next month, we'll show you how to build the benchwork, then we'll follow up with more construction stories.

If you can't wait, sign up for Model Railroader Video Plus to see the dozens of videos we made while we built the Tar Branch. Then you can hear those cicadas and feel that Southern humidity as you switch your own layout. See you next month! **MR**

Minnesota's OTTER TAIL VALLEY RR



This 10 x 10 foot N scale track plan features coal, grain, and rural scenery

By Nathan Brett with Cody Grivno

Sometimes we stumble across a modeling subject by accident. While researching another of my interests, conservation of the North American river otter, I learned about the Otter Tail Valley RR (OTVR), a 71-mile short line that operates between Fergus Falls and Moorhead in west-central Minnesota. At the time, I felt nothing more than a slight interest in the OTVR.

A couple months ago, I got the urge to design a new railroad using the skills I acquired building my current one. I wanted my new layout to be set in the modern era. With limited space, I was concerned about the length of modern trains and rolling stock.

Then I remembered the OTVR. The short line had everything I wished for, including a manageable size, coal trains, and interesting scenery, along with a cool name.

From a goat to an otter

The Otter Tail Valley operates on former Burlington Northern (ex-Great Northern) track. At one time this line carried GN's *Empire Builder* passenger train.

Since it started operations in 1986, the Otter Tail Valley has been owned by three companies. Each era provides its own personality. Though the track plan is set between 2008 and 2012, it can be easily be backdated or moved into the present day with slight modifications.

Anacostia & Pacific operated the OTVR from 1986 to 1996. During that time, the railroad had four ex-Norfolk Southern (the pre-1982 company) Electro-Motive Division GP18 diesel locomotives, nos. 181, 189, 192, and 194. The Geeps were originally painted maroon with orange ends. In 1994 the units were painted black and white with the OTVR's sunburst herald.

During the Anacostia & Pacific era, the OTVR operated Monday through Friday between Fergus Falls and Dilworth, and twice weekly from Fergus Falls to Avon. Cars were supplied by Burlington Northern (BN), and OTVR leased three-bay covered hoppers. The railroad also had hand-me-down cabooses from BN and Chicago, South Shore & South Bend.

Coal and grain were the principal commodities during the early days of the OTVR. In addition to freight service, a



Otter Tail Valley GP18s pull hoppers from the Hoot Lake Power Plant. Nathan Brett's N scale track plan depicts the short line in 10 x 10 feet. Steve Glischinski photo



Minnesota Northern GP9 no. 1484 is on the point of a solid train of Trinity 4,323-cubic-foot-capacity aluminum longitudinal discharge hoppers at Barnesville Junction. The track at right extends for another 5 miles. On Nathan's track plan, it's used for staging. Jeremiah Rindahl photo



A pair of GP18s in OTVR's original maroon-and-orange scheme bookend cars that were part a short-lived dinner train service that operated on the OTVR. This train, photographed in October 1988, is stopped in front of the ex-Great Northern depot in Alexandria, Minn. Robert Ball photo

short-lived two-car dinner train ran on the line in the late 1980s. The train operated push-pull style with a GP18 on each end.

Approximately 90 percent of OTVR's traffic was between Moorhead and Fergus Falls. In 1991, the railroad abandoned its line from east of Fergus Falls to Avon.

In September 1996 RailAmerica, a shortline conglomerate, purchased the OTVR. The railroad continued its Monday-to-Friday service between Fergus Falls and Moorhead, with additional operations as needed based on customer demand.

The three remaining GP18s (no. 194 was used for parts after its diesel engine froze while on the Minnesota Northern in 1997) traded in their black-and-white paint for RailAmerica's red, silver, and blue scheme in 1998. Numbers 181 and 192 returned to the OTVR, while no. 189 was shipped to another RailAmerica property, the St. Croix Valley RR. Down two locomotives, the OTVR used GP9s from then-sister RailAmerica line Minnesota Northern. In 2011 and 2012,

units from other RailAmerica properties arrived on the OTVR, including a GP35 from Kiamichi; GP40s from Central Oregon & Pacific and Dallas, Garland & Northeastern; and a GP9 from Mid-Michigan RR.

Freight cars were supplied by BNSF Ry. Otter Tail Valley also leased a fleet of covered hoppers exclusively for grain service.

During the RailAmerica era, OTVR handled roughly 10,000 cars per year. Coal for Otter Tail Power Co.'s Hoot Lake Power Plant remained king, but grain was a strong second. Online elevators included Barnesville Farmers Elevator, CHS Inc. in French, Fergus Falls Farmers Elevator, Kragens Elevator at Sabin, and Rothsay Farmers Elevator. The railroad also served Drywall Supply in South Moorhead.

Two new shippers came online during the RailAmerica era. Agassiz Valley Grain opened in 2006, and Green Plains Renewable Energy came online in 2008.

Genesee & Wyoming, a short line holding company, acquired the OTVR in

The railroad at a glance

Name: Otter Tail Valley RR

Owners: Genesee & Wyoming (Oct. 2012 to present), RailAmerica (Sept. 1996 to Sept. 2012), and Anacostia & Pacific (Oct. 1986 to Aug. 1996)

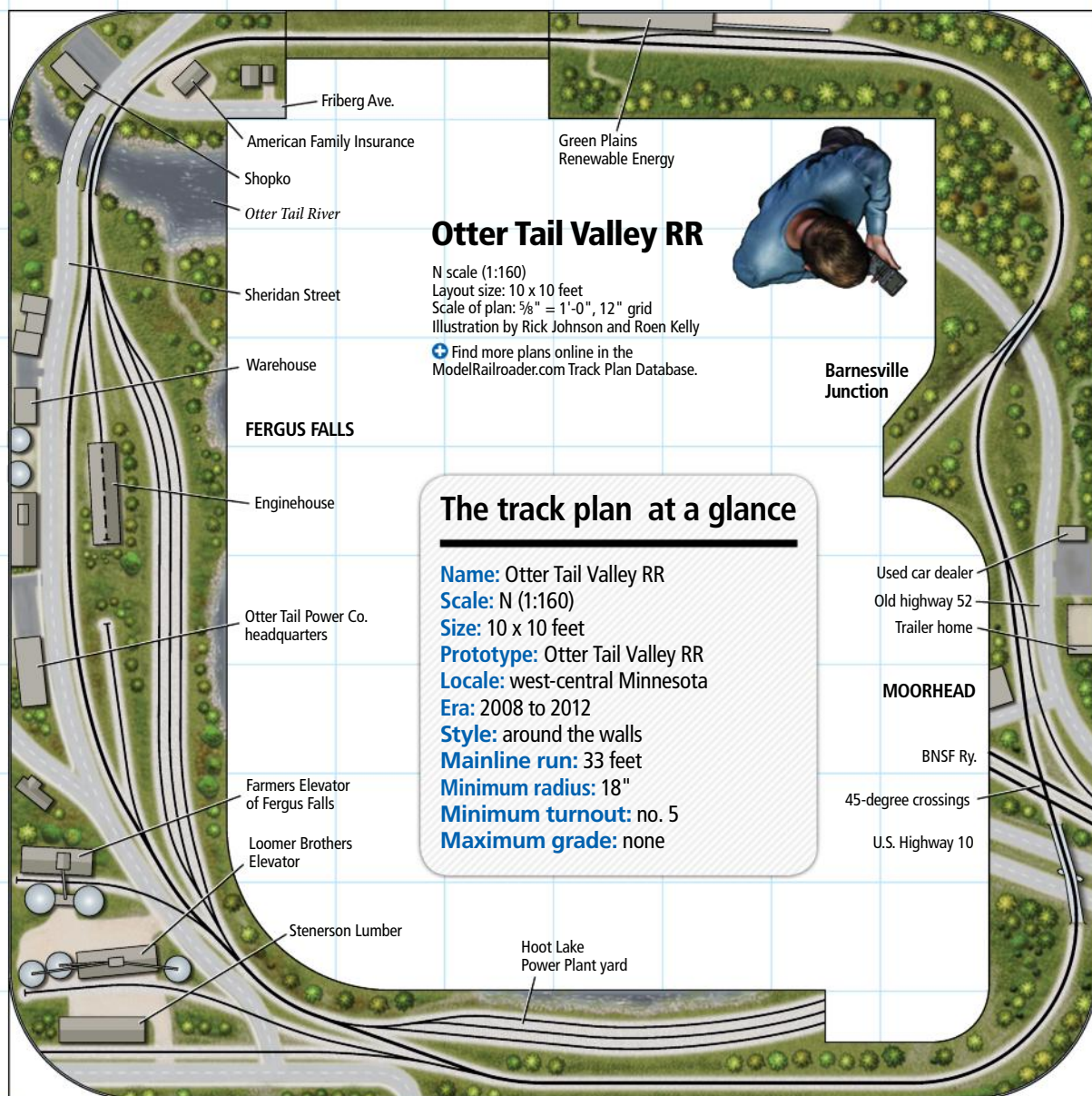
Location: west-central Minnesota, from Moorhead to Fergus Falls (segment east of Fergus Falls to Avon abandoned in 1991)

Length (overall): 71 miles (current), 176 miles (1986)

Length (modeled portion): 54 miles

Profile: single-track short line

Prominent modeled locations: Moorhead, Barnesville, Fergus Falls



October 2012 when it purchased RailAmerica. Initially, OTVR's locomotive fleet carried over from the RailAmerica era. Some of the older units were later shipped to other G&W properties, including the last original OTVR unit, GP18 no. 192, which left in July 2013.

In August 2013, GP40-2WB no. 3034 arrived in Fergus Falls, the first locomotive in G&W orange, black, and yellow paint. In October 2014 it was reassigned to Michigan.

Today, the OTVR operates GP9 1484 and two GP40s, 4016 and 4021. Freight cars are still supplied by BNSF Ry. Other equipment is leased or owned by online customers.

Coal, grain, corn, soybeans, and ethanol are the principal commodities on the OTVR today. Modern BNSF Ry. power can be seen on the point of unit coal trains bound for the Hoot Lake Power Plant and grain shuttles for CHS Inc. in French and Agassiz Valley Grain in Barnesville.

Modeling Minnesota from Florida

Living in Florida, I obviously didn't have easy access to the OTVR. Thanks to

the internet, I was able to research the railroad. One tool that proved invaluable was Google Maps, specifically its Satellite and Street Views. I could virtually follow the OTVR and see the tracks and industries in amazing detail.

When designing the model railroad, I tried to keep the track arrangements and surrounding scenery as faithful to the prototype as possible within the confines of a 10 x 10-foot space. The Fergus Falls section of the layout came together quite naturally, as I didn't have to bend the yard or surrounding industry tracks from their actual arrangement. At the bottom of the plan is the receiving yard for the Otter Tail Power Co.'s Hoot Lake Power Plant.

From Fergus Falls, the main line continues north over the Otter Tail River, heading to the outskirts of Fergus Falls before crossing the doorway on a removable section. The next industry is Green Plains Renewable Energy, a large ethanol plant that's represented with a building flat.

On the prototype, the line heads approximately 30 miles northwest, passing through





Modeling the wide-open farm country OTVR runs through would be easy in N scale. Here, two GP18s and two GP9s lead a loaded coal train at Rothsay, Minn. Andy Cummings photo

small settlements and farm country. I replicated the open-country running with trees and a farm field.

The next stop is Barnesville. I wasn't able to model the yard, but I did include Barnesville Junction. This is where a 5-mile stretch of track splits from the main line and heads north to serve Agassiz Valley Grain and an ammonia plant.

The scenery here is faithful to the prototype, with highway 52 passing under the track at the junction. A small peninsula allows the junction to appear on the proper side of the main.

After passing through Barnesville, the tracks reach Moorhead. The OTVR serves the Moorhead Clay County Area Redevelopment Association Industrial Park.

Moorhead is also where the OTVR enters BNSF Ry. track. The yard where the interchange takes place is in Dilworth, just east of Moorhead.

On my plan, the OTVR crosses U.S. Highway 10 and curves back to make a connection to allow for continuous running. This feature wouldn't be used during operating sessions.

I decided early on that I didn't have room for a separate staging yard. Instead, I use sidings for staging. The siding at Barnesville Junction is used to represent cars destined for the industries on the 5-mile line north of Barnesville. Cars from BNSF Ry. are staged on the interchange track in Moorhead.

This arrangement will require handling of the cars before operating sessions, but on a layout of this size, such a task won't be a burden.

Operations for two

The layout is designed to accommodate two operators. A typical day starts with a pair of Electro-Motive Division GP18s running light to pick up loaded coal hoppers from the BNSF Ry. interchange in Moorhead. A third GP18 works the local industries and yard in Fergus Falls.

After the coal train returns from Moorhead, the two Geeps set out the hoppers in the yard. The four-axle units then couple on to a string of covered hoppers and empty tank cars destined for industries and interchange. The Fergus Falls switcher takes the loaded coal hoppers to the Hoot Lake Power Plant yard.

The Moorhead-bound freight switches Green Plains on its way north. After working the BNSF Ry. interchange, the GP18s return with empty hoppers and tank cars. These cars are set



Having just dropped off cars for the BNSF Ry. at Dilworth, OTVR GP40s 4016 and 4021 return light to Fergus Falls. The units are seen crossing the South Branch of the Buffalo River near Sabin, Minn., on Feb. 26, 2015. Robert Ball photo


out in the Fergus Falls Yard and later distributed to the appropriate industries.

The southbound train also picks up loaded covered hoppers at Barnesville Junction. The loads are shipped out on the next day's train to Moorhead.

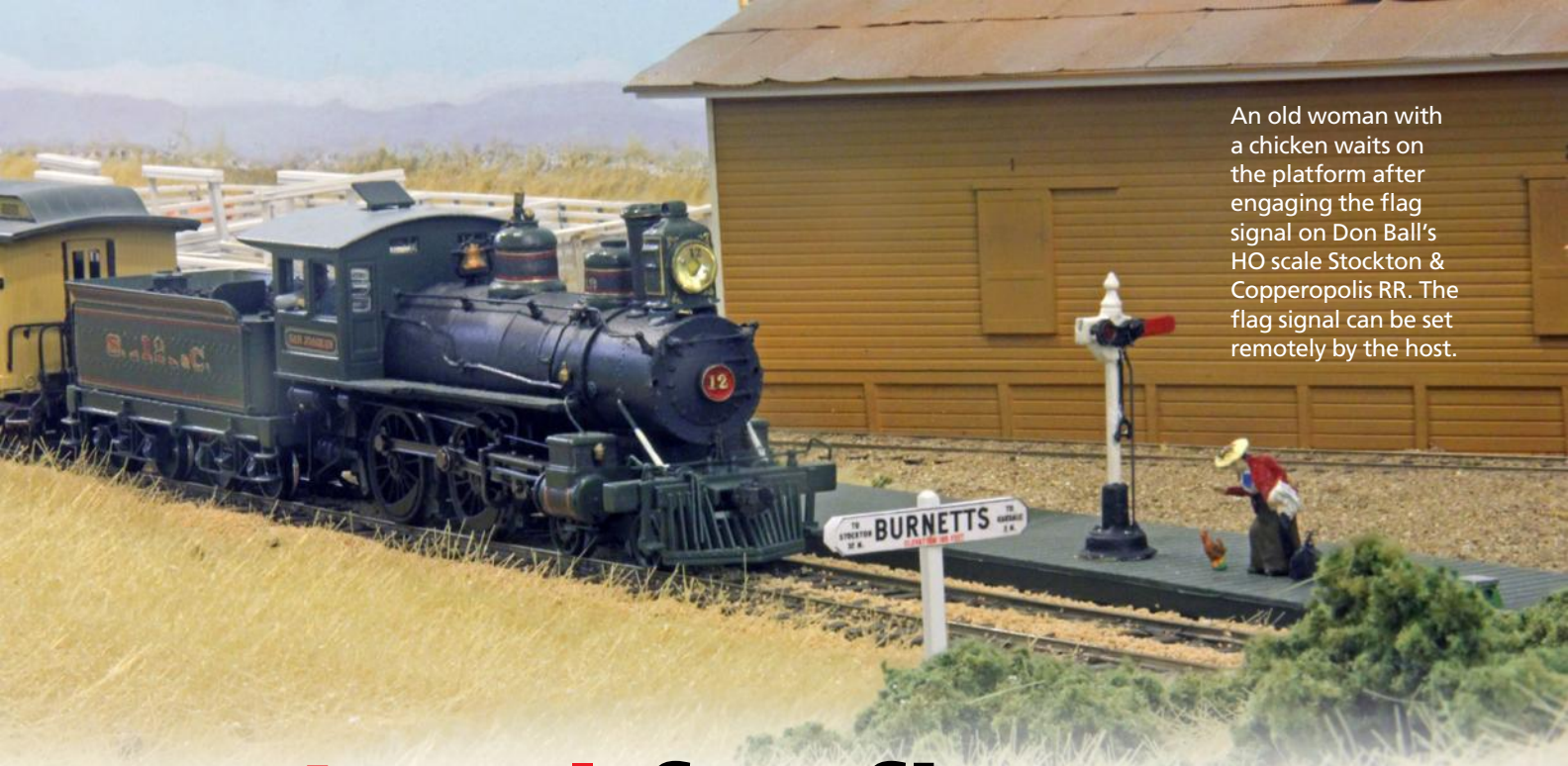
To add variety to the sea of coal hoppers and covered hoppers, I included Stenerson Lumber as an on-line customer in Fergus Falls. The real business is a block away from where it is on the plan, but I've seen photos of center-beam bulkhead flatcars and boxcars on the OTVR, so this isn't too much of a stretch.

Not now, but someday

While I designed this layout with the intent to one day build it, that day will not be soon. I still have to finish high school, college, and graduate school. It will perhaps be years before I actually have the time, space, and finances to create the Otter Tail Valley RR in N scale.

However, I still have my current layout to entertain me, and I can do projects for the OTVR, such as assembling buildings and collecting rolling stock. 

Nathan Brett is a senior in high school. In addition to model railroading, he enjoys flying radio-control aircraft and building model cars. His other interests include basketball and playing violin and guitar. After high school, he plans on pursuing a degree in aerospace engineering.

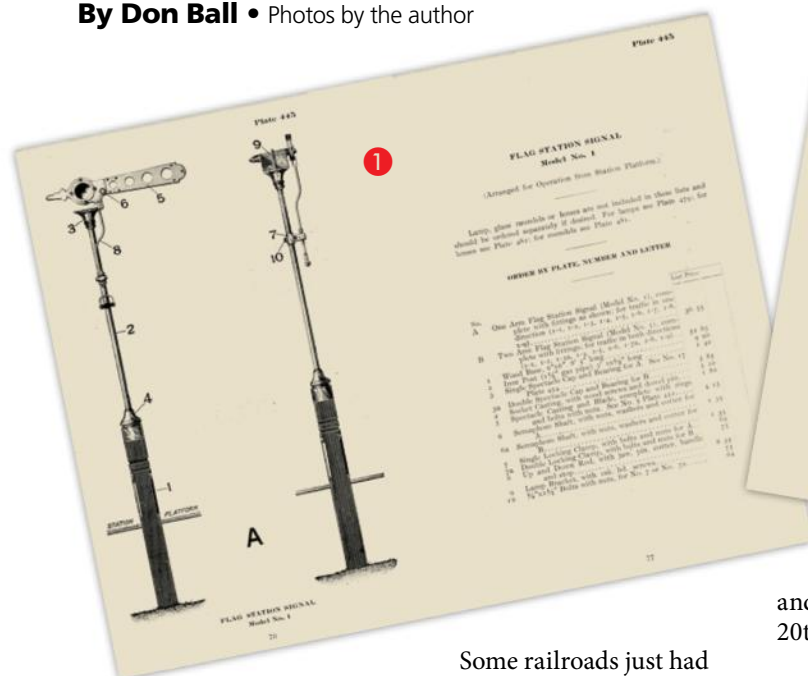


An old woman with a chicken waits on the platform after engaging the flag signal on Don Ball's HO scale Stockton & Copperopolis RR. The flag signal can be set remotely by the host.

A signal for flag stops

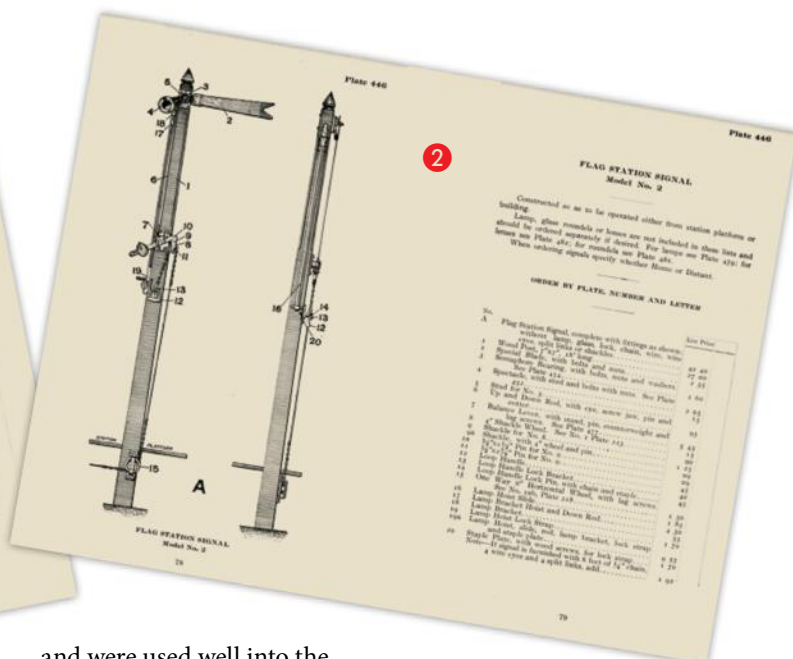
Add interest to operating sessions for passenger crews with this working detail

By Don Ball • Photos by the author



Everyone knows what a flag stop is: a place where trains have no scheduled stops but passengers can board if they “flag” the train. The question is, how did they actually signal the train to stop?

Some railroads just had the engineers check for people on the platform, while the more affluent lines used a flag station signal. These small, manually operated signals were sold by United Switch & Signal, General Railway Supply, and others, ① and ②,



and were used well into the 20th century.

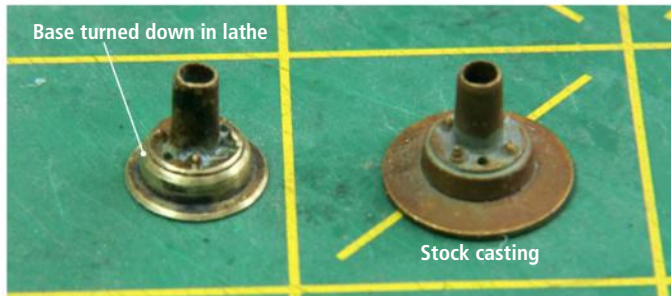
My HO scale Stockton & Copperopolis RR has several flag stops, and I thought these signals would add operating interest and give the crews something to watch for when running passenger trains.

I wanted several of these signals and didn't want a

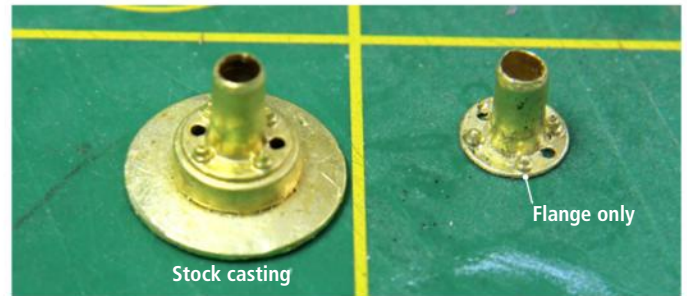
major scratchbuilding project, so parts needed to be readily available. Another need was the signal should be able to be cleared by the train crew but set from a remote location.

Fortunately, Tomar had the signal hardware, and Tortoise by Circuitron switch motors provided the motion.

Basic parts

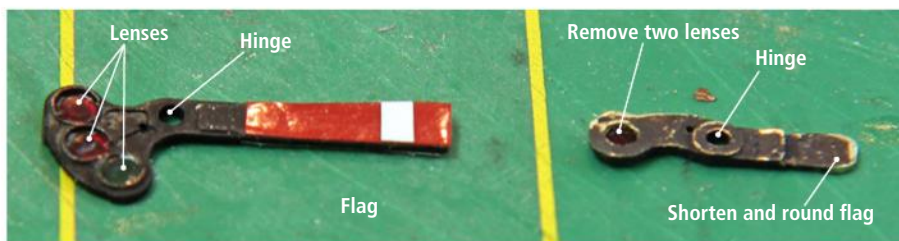
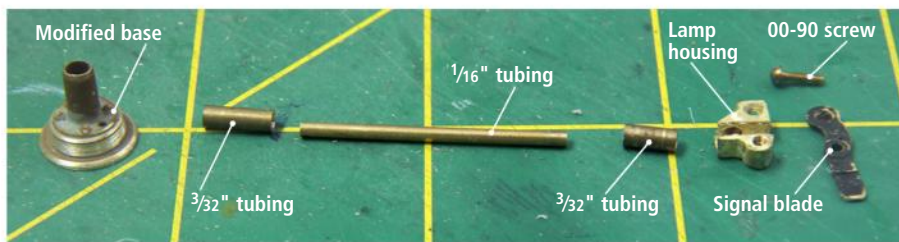


From the Tomar Industries catalog (www.tomarindustries.com), I used the train order signal base, lamp housing, blade, and finial. Brass tubing and wire rounded out the parts to build the signals.

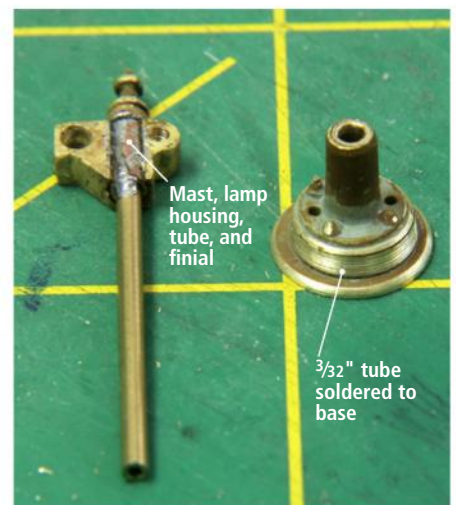


The Tomar base seemed a bit heavy to me, so I used my lathe to turn it down to a lighter-weight part. With a little more effort, I could make an even smaller base. An electric drill and a file will work just as well if you don't have a lathe.

Assembling the mast

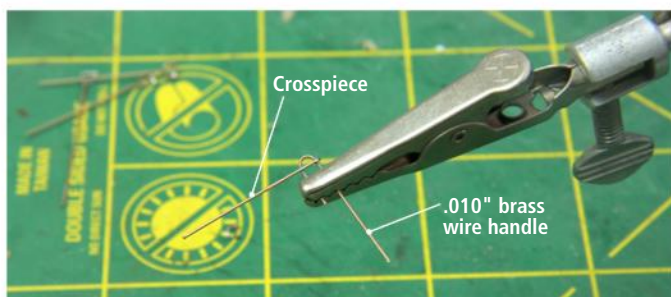


I used 1/16" diameter brass tubing for the mast with some short pieces of 3/32" tube to adapt it to the Tomar parts. I modified the blade by removing all of the lenses except one, and then shortened it and rounded the end to more closely resemble the prototype.



I soldered the 3/32" tubing to the 1/16" tubing, then soldered the assembly into the lamp housing and attached the finial at the top. I soldered the other 3/32" tube into the base. I attached the blade to the lamp housing with a 00-90 screw.

Adding detail



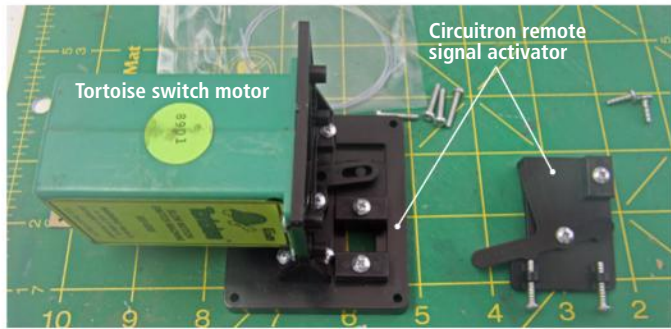
On the prototype, the signal is activated by the passenger pulling down on a manually latched handle. When the train arrives, the conductor releases the pull to return the blade to the normal position. I simulated the handle with some .010" brass wire soldered together.



The handle is formed by soldering a crosspiece to a looped piece of rod, then a rod is soldered onto the loop. The excess loop wire under the crosspiece is then trimmed off.

Once the parts were assembled, the completed handle was soldered to the mast.

Making it move



I used a Tortoise by Circuitron switch motor and a remote signal activator to move the signal. The remote signal activator is specifically designed for use with a semaphore and was easy to install and adjust to get the blade travel I wanted.

I glued the base to the station platform after drilling a hole through the benchwork to allow for the actuating wire. The Tortoise and actuator were assembled according to the instructions, and the signal dutifully went up and down.

Materials list

Circuitron

800-6000 Tortoise switch motor
800-8100 remote signal activator

Mouser

655-RTE24012 Schrack double-pole double-throw 12V relay

RadioShack

275-1547 normally open push buttons
275-1548 normally closed push buttons
276-1101 1N4001 diode

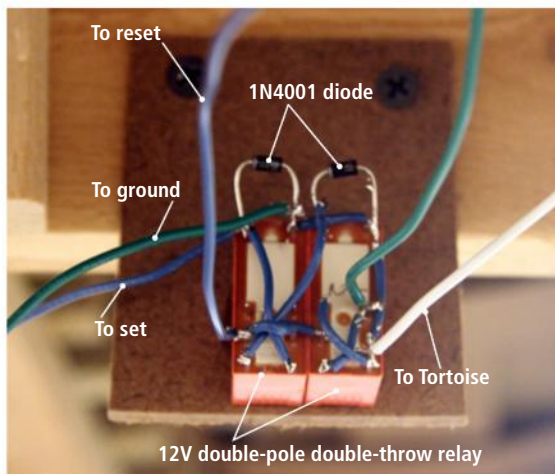
Tomar Industries

6048 lower quadrant semaphore head
6054 finial
6063 round train order base
6070 lower quadrant semaphore arm

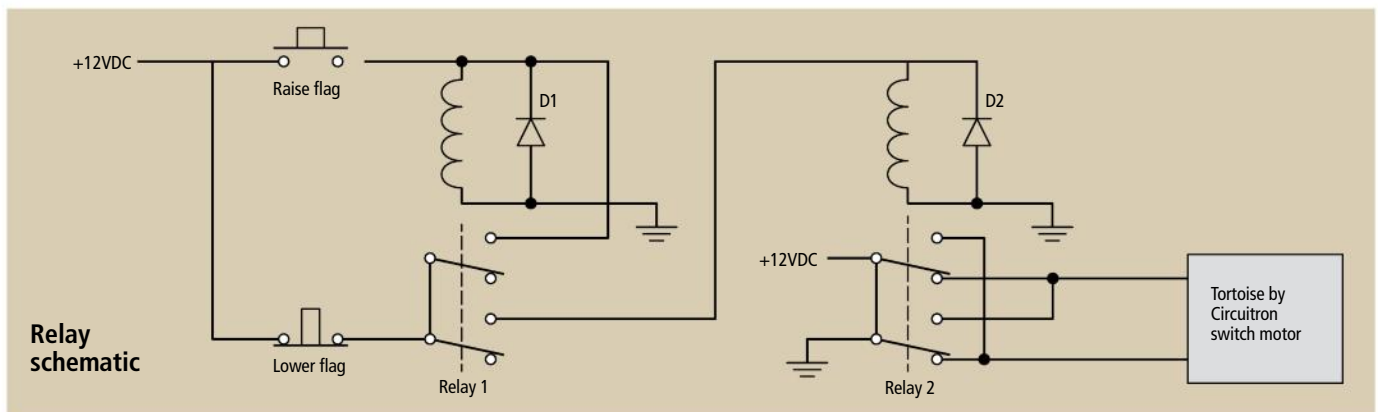
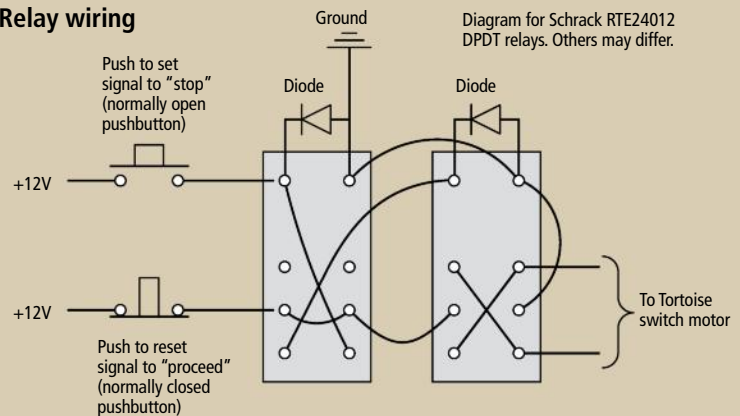
Miscellaneous

$\frac{3}{32}$ " brass tube
 $\frac{1}{16}$ " brass tube
.010" music wire

Electrical circuit




Relay wiring



The electrical circuit uses two non-latching relays. One push of the stop button raises the signal while a push of the release button lowers it.

I glued two double-pole double-throw (DPDT) relays together and mounted them on a piece of tempered hardboard. Then I mounted the board to the benchwork below

the layout and wired the switches to the Tortoise machine and the pushbuttons. I mounted my stop buttons in a semi-concealed location so the flag signals could be surreptitiously operated as I wander around the railroad during an operating session. The signals now provide added interest for the crews running the passenger trains. 

From first train set to railroad empire...



PHOTO COURTESY RON STACY'S RONDEMONT & WEST SHORE

You're in control with an NCE Pro Cab!

*Our complete line of DCC products
grows with you. Rediscover the fun!*

- Designed and manufactured in the U.S.A.
- Preferred for ease of use and ergonomic design
- Unlimited scalability for any size model railroad
- Plug-and-play means more time running trains
- Great customer service and excellent support



**NCE PRO CAB
#5240010**

Rediscover the fun with a Pro Cab from NCE! 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.



See your dealer or visit ncedcc.com

NCE CORPORATION • 82 EAST MAIN ST. • WEBSTER, NY 14580 • 585.265.0230



To more accurately model the prototype, Kim Nipkow added overgrown vegetation, junk, and other details to his HO_{N3} Chama Yard module. Kim models the yard as it looks today on the Cumbres & Toltec Scenic RR.

WEEDS AND JUNK

Enhance a yard or engine terminal scene with static grass and scrap box parts

By Kim Nipkow

Photos by the author

RARELY IS A RAILROAD YARD, engine terminal, or any industrial lot, a pristinely landscaped piece of real estate. When I visited the Cumbres & Toltec Scenic RR's yard in Chama, N.M., I wondered if I could find the railroad between all the metal parts scattered around the engine terminal. This tourist railroad runs steam locomotives and other vintage equipment between Chama and Antonito, Colo., along a stretch of the former Denver & Rio Grande Western Ry.'s narrow gauge San Juan Extension. The present-day Chama Yard is also the prototype for my HO_{N3} (HO scale, 3 foot gauge) modular layout.

To make the modeled scene look like the real thing, I couldn't have a carefully manicured green lawn surrounding the tracks and structures. Often the land around a yard that's not being used for some other purpose is overgrown. It's also a dumping ground for all sorts of junk, including freight car parts, leftover building materials, and old timbers.

Successfully modeling industrial scenery is the same as modeling any landscape. I looked to prototype photos for inspiration.

Follow along as I show you how I used static grass and scrap box parts to scenic and detail my railroad yard.

Kim Nipkow wrote about modeling cinder and dirt ballast in the July 2017 Model Railroader. He lives in Switzerland.

GROUND COVER



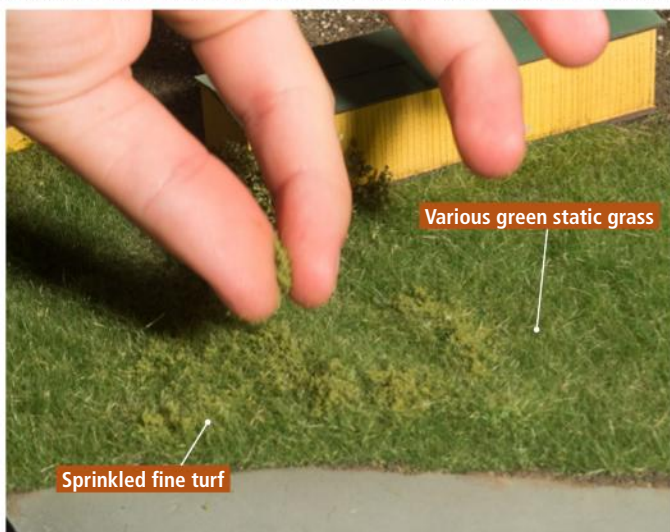
LAYERS OF GROUND COVER. I built up the ground cover at Chama in layers. First I sprinkled finely sifted dirt over the scenery base. To affix the dirt, I used a pipette to saturate the area with wet water (water mixed with a few drops of dish soap) and then applied thinned white glue. Applying the wet water first ensures the glue penetrates the entire layer of dirt. After the dirt layer dried, I brushed thinned white glue (1 part glue, 2 parts water) in a random pattern over it.



THATCH LAYER. Using my homemade battery-powered applicator, I added the first layer of static grass. I stuck the metal grounding pin into the wet scenery, then loaded the tool's screen with flocking and shook it over the wet glue.

[Static grass applicators apply an electrical charge to the flocking, so that the fibers stand on end like real blades of grass. Firms including GrassTech USA, Noch, and Peco make commercially available static grass applicators. – Ed.]

I used Heki 3363 Wintergras, which consists of short brown grass fibers. This material does a good job simulating the dead thatch layer of an overgrown lot.



THICK GRASS AND WEEDS. After allowing the first layer to dry for about an hour, I again applied thinned glue and added a layer of green static grass. For this scene I used Silflor MiniNatur 423 4.5mm Autumn Grass.

This process can be repeated several times, depending upon the desired thickness of the vegetation. I used several different colors and lengths of flocking in the photo above. I also sprinkled on some Woodland Scenics T44 Burnt Grass Fine Turf for added color and texture.



REUSE LOOSE FLOCK. After each application of static grass, I used a shop vacuum to remove any loose flocking. The cloth over the vacuum nozzle caught the loose fibers so that I could reuse them.

ADDING JUNK



RUSTY WHEELSETS. Who doesn't have extra wheelsets in their scrap box? These make great additions to a railroad yard scene. For each wheelset, I first used a grinding stone in a motor tool to flatten the pointed axle ends for a more realistic appearance. Then I painted the wheelset with rusty-brown paint and finished it off with an application of rust-colored powdered pastels.



OLD TRUCKS AND CABLE REELS. I also weathered some spare trucks, using the same painting and powdered pastel techniques that I used with the wheelsets. Empty wood cable reels are also common around railroad and industrial sites. The cable reel in the scene above is a laser-cut wood kit from GCLaser (www.gclaser.com). After assembly, I weathered the reel with a wash of thinned brown-gray colored paint.



SPARE PARTS. I prepared the wheelsets the same as with the rusty versions. However, I painted them gray and applied bright orange pastel powders to simulate fresh surface rust.

Other details include a spare steam dome from Keystone Locomotive Works, rail sections, and wheels removed from axles. I painted the rails and wheels brown and weathered them with rusty-brown powdered pastels.

I cut the cross-ties from a $\frac{1}{16}$ " thick wood sheet from Northeastern Scale Lumber. Then I weathered the ties with a brown-gray paint wash and painted the tie ends gray to simulate the look of a wood preservative used by the prototype railroad.



EASY TARPS. Used to protect building materials and other equipment from the elements, tarps are also an easy detail to add to a railroad yard scene. Into the 1970s, most tarps would have been made out of heavy canvas. Today, heavy-duty plastic tarps, often colored blue, are common.

To model tarp-covered materials, I first cut a piece of aluminum foil to size. Then I formed the foil around a small block of wood. Once I was satisfied with the shape I airbrushed the tarps white or blue, then weathered them with a gray paint wash. With the block of wood removed, the foil held its shape as I attached it to the scenery base with white glue. **MR**

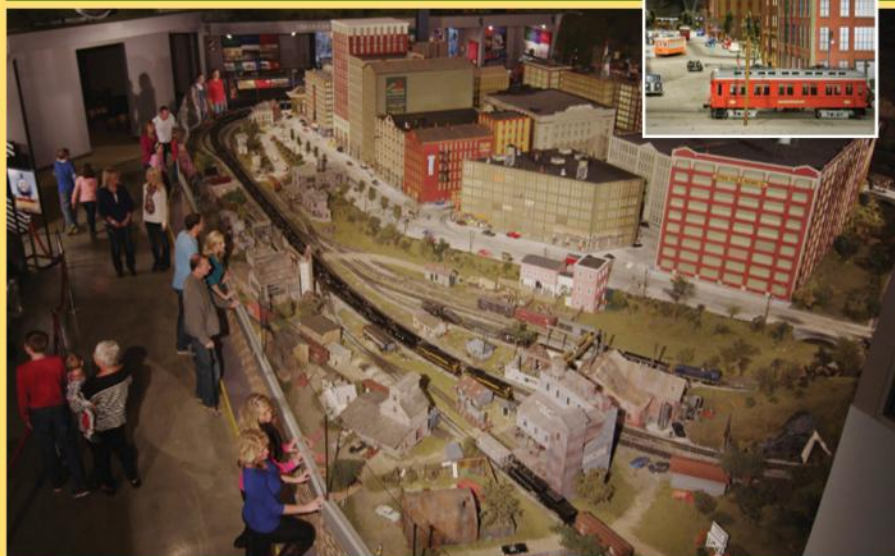
WORLD'S LARGEST MODEL TRAIN DISPLAY

25,000 SQ. FT.

- Train Journey
- Imagination Junction
- American Railroad Museum
- Expo Center
- A-Maze-N Funhouse
- Coney Island Replica
- Hobby/Toy Shop
- Gift Shop

AMERICA'S MOST AMAZING FAMILY ATTRACTION!

- "Certificate of Excellence" - *Trip Advisor*
- "Travel Gem" - *AAA*
- "Standout in Ohio Tourism" - *Ohio Traveler*
- "Best Family Fun Day" - *Best of Ohio*



ENTERTRAINMENT JUNCTION

www.EnterTrainmentJunction.com

7379 Squire Court
West Chester, OH 45069
(513) 898-8000



Model MAGAZINE Railroader

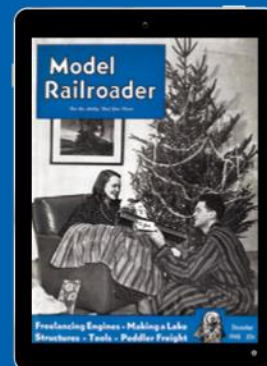


YESTERDAY • TODAY • TOMORROW

Times Change but the *Fun* Remains

Discover how fun it
is with the All-Time
Digital Archive!

As a subscriber to *Model Railroader*, all you need is a connection to the internet and a subscription to the **All-Time Digital Archive**. Access thousands of tips and techniques, layout stories, product reviews, and how-to projects on your laptop, phone, and tablet.



This holiday season, subscribe to *Model Railroader's* All-Time Digital Archive and get every issue ever published since 1934.

Order today at
ModelRailroader.com/Archive

Replacing a factory-installed sound decoder



Large articulated locomotives like Larry Puckett's Clinchfield Challenger 4-6-6-4 make an impressive presence, and their sounds overwhelm other locomotives. But this model from 2004 didn't have all the features available today. See how Larry replaced the factory sound decoder with a recent unit in this month's column.

One of the realities of Digital Command Control (DCC) decoders is that as technology advances, manufacturers keep updating decoders, adding new features, functions, and sounds. Consequently, even an expensive model that was at the cutting edge when it was released may be out of date in a few years.

I ran into that problem with my Athearn Genesis Challenger 4-6-6-4 lettered for the Clinchfield. These models were first released around 2004, with an early decoder that lacked a lot of features we've come to expect today in our sound-equipped locomotives.

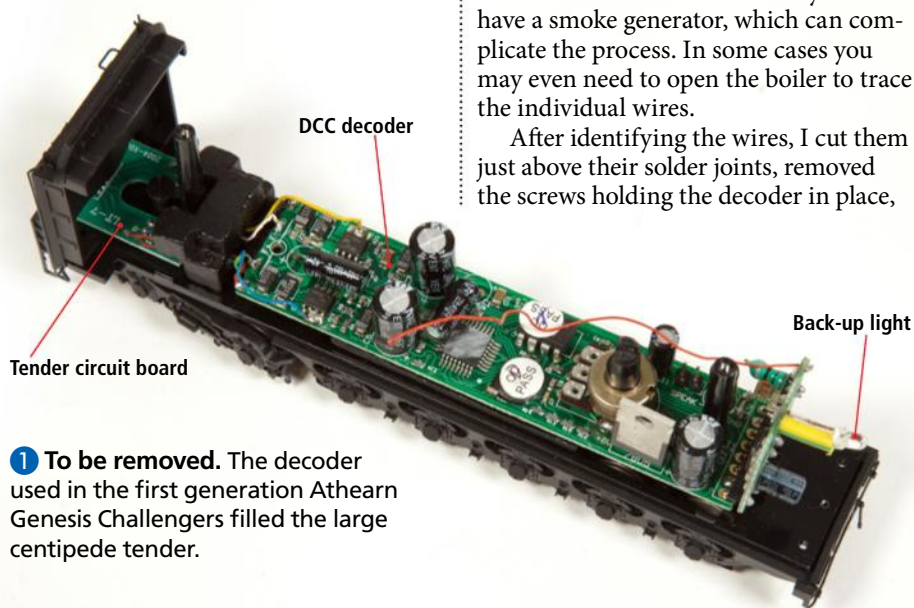
My model appears to be pretty much the same externally as the most recent releases, so replacing the whole model seemed a waste of money. Instead, I tackled the job of pulling out the old decoder and replacing it with a new one. Although my model is likely different from those you might have, the steps in replacing a decoder should be similar.

Right off I ran into the problem of getting to the decoder inside the tender. There are screws under the coal bunker and under hatches on the tender deck. The rear of the tender has to be removed after taking out two screws on either side of the coupler and one behind it. Finally

I was able to slide the tender body off the chassis, revealing the decoder **1**.

The decoder is shaped specifically to fit this tender, even serving as a base for the light-emitting diode (LED) that illuminates the locomotive's rear light. The decoder is held in with two screws.

Another problem you may run into is that factory-installed decoders may not follow the National Model Railroad Association wiring standard. Therefore, the first task is to figure out what each wire is connected to.



1 To be removed. The decoder used in the first generation Athearn Genesis Challengers filled the large centipede tender.

Before jumping into a lengthy diagnosis of the wire connections, do an internet search to see if anyone has worked on the same locomotive model and posted the wiring information. I got lucky and found a detailed description of all the wire connections for this decoder, saving me some time.

However, it's still a good idea to verify these connections. After checking the wire connections, I discovered some were reversed, including those for the power pickup and the LED headlight.

If you can't find the wiring information for your specific model, here are a few tips for tracing wires. The easiest to trace are the wires going to the right and left track power pickups – just follow the wires up from the trucks to their solder points on the decoder and mark them with little strips of tape.

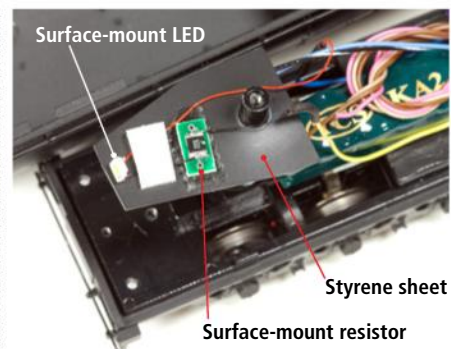
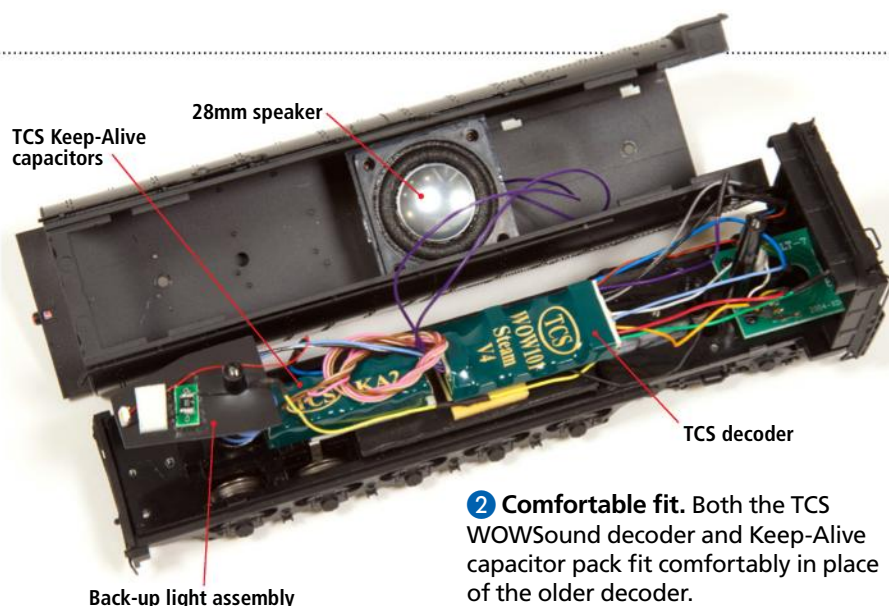
If yours are hidden, you can set a multimeter for resistance and check for continuity between each wire and the wheels on each side of the tender until you find the ones that match.

Next, look for the headlight wires. If it's a white LED, it's probably safe to assume it operates at about 3VDC. However you may want to start with 1.5VDC and use a single AA battery to test pairs of wires and see if the headlight comes on.

If that doesn't work, try two AA batteries, giving you 3VDC to work with. If during the process the drivers start to turn, you've found the motor leads.

Some steam locomotives may also have a smoke generator, which can complicate the process. In some cases you may even need to open the boiler to trace the individual wires.

After identifying the wires, I cut them just above their solder joints, removed the screws holding the decoder in place,



2 Comfortable fit. Both the TCS WOWSound decoder and Keep-Alive capacitor pack fit comfortably in place of the older decoder.

3 Lighting platform. A styrene shelf holds the light-emitting diode (LED) at the right level to illuminate the backup light. A 1,000Ω resistor protects the LED.

then lifted the decoder out. This left a small circuit board that connects to the electrical socket at the front of the tender.

I chose to install a TCS WOWSound Version 4 decoder with a Keep-Alive capacitor system. The WOWSound decoder offers excellent sound and motor control, a large selection of whistles (61) and bells (47), and a wide variety of other steam sounds.

In addition, the prototype throttle mode adds realism to the engineer's job. The standard format decoder and Keep-Alive fit neatly on the narrow frame.

To prevent any chance of damage to the decoder, I soldered the wires from the decoder's harness to their respective wires on the remaining small circuit board before connecting the harness to the decoder.

I prefer to do this because it's recently come to light that some soldering irons can leak current through their tips and damage sensitive parts on decoders during the soldering process (for more on this, see my website, www.dccguy.com). Once the connections were all made, I attached the decoder to the frame using double-sided foam tape **2**.

Because the old decoder apparently had a resistor to drop the current for the LEDs, I needed to install replacements. I soldered a 1000Ω, ½W surface-mount resistor on the negative wire to the headlight LED. Since the back-up light LED was mounted on the old decoder, I had to come up with a replacement.

I cut a piece of styrene, made a small hole in it, and slid it down on the rear screw post. The taper of the post combined with the size of the hole allowed me to control the position of the styrene.

After soldering wires to an Ngeineering incandescent LED, I attached it to this styrene platform using a small rectangle of double-sided foam tape. The platform also provided a convenient place for a 1,000Ω surface-mount resistor **3**.

The final step was installing a new speaker. Two flat 32mm diameter speakers mounted in plastic baffles and suspended from the top of the tender comprised the factory installation.

I knew from the outset that I wanted to replace them with a 28mm high bass speaker like the one I used in the brass Norfolk & Western Class J decoder installation in the January 2017 DCC Corner. The speaker is from Streamlined Backshop (www.sbs4dcc.com) and the enclosure from Micro-Mark, which also sells high bass speakers in a variety of sizes.

I drilled a small hole in the side of the enclosure near the bottom and inserted the two purple speaker wires from the decoder. After soldering the wires to the solder pads on the speaker, I ran a bead of cyanoacrylate adhesive (CA) along the lip inside the enclosure and seated the speaker. Remember to test the speaker before gluing it in place!

I considered gluing the enclosure to the top of the tender, then realized

I could use the old mounting screw to do the job. I test-fit the enclosure and made a mark on it from the outside, then drilled a 5/64" hole in the enclosure, being careful not to drill into the speaker.

Because the location of the speaker interfered with the mounting clips for the coal bunker insert, I added a couple strips of double-sided foam tape as spacers, creating just enough room for the clips. I then ran the screw into the back of the enclosure from the outside of the tender, and covered it again with the hatch casting.

After reassembling the tender,

I plugged in the harness from the locomotive and placed it on the programming track. I created a new DecoderPro roster entry and changed the address, then moved the Challenger back to the main track and proceeded to program the decoder on the main.

After setting the locomotive for heavy steam with articulation, I ran through the available whistles – all 61 of them. Since there were no Clinchfield whistles or bells to choose from, and no one was able to suggest a similar selection, I assumed that a Union Pacific three-chime whistle would be a reasonable alternative. I also selected a Chesapeake & Ohio bell.

The improvement in the bass frequencies because of the high bass speaker is amazing, especially with the heavy steam chuffs and a steamboat whistle like the Union Pacific prototype I selected.

To hear the sounds of this updated Challenger, visit my website. I'll also have a description of the process I went through to replace the orange headlight LED with a golden white one. [MR](#)



IT'S RECENTLY COME TO LIGHT THAT SOME SOLDERING IRONS CAN LEAK CURRENT THROUGH THEIR TIPS AND DAMAGE SENSITIVE PARTS ON DECODERS DURING THE SOLDERING PROCESS. - LARRY



ScaleTrains.com HO scale GEVO Tier 4 diesel

One of the latest locomotives to debut on North American rails, the General Electric ET44, joins the ScaleTrains.com HO scale roster. I reviewed a top-of-the-line Rivet Counter GE ET44AH that includes roadname and number-specific detailing and a factory-installed dual-mode ESU LokSound decoder. Like other ScaleTrains.com models, a value-priced, Digital Command Control (DCC)-ready Operator version with simplified detailing is also available.

The prototype. Part of GE's Evolution-series (or GEVO), the ET44 was designed to meet the Environmental Protection Agency's strict Tier 4 emissions standards. Like its predecessor, the ES44 introduced in 2004, the ET44 has a 4,400-hp, 12-cylinder GEVO diesel engine, Hi-Adhesion trucks, and a wide-nosed "Safety" cab. The ET44 has a longer frame and larger radiator section than the ES44. The GEVO Tier 4's

advanced emissions treatment equipment also requires a boxy enclosure that surrounds its exhaust stack. On early production units, this enclosure stretched over the engine compartment.

To date General Electric has built 899 of the Tier 4 GEVOs, most classed ET44AC. The BNSF GEVOs ride on A1A trucks (two powered outside axles and an unpowered center axle) and are classed ET44C4. Both CSX and Union Pacific have "heavy" versions, classed ET44AH and C45AH, respectively.

The model. The model's dimensions match a prototype drawing in *Locomotive 2017* (Kalmbach Publishing Co.) All the well-defined molded detail matches prototype photos, including engine access doors and panel seams. There's tread detail along the walkways and see-through tread on the pilot steps.

The Rivet Counter model features accurately placed separate detail parts,

including m.u. hoses and cables, and uncoupling levers. There's even a tow chain along the sill and rotating bearing caps on the trucks. The air intake and dynamic brake intake grills are see-through, with radiator and blower motors visible inside, respectively. Correct per the prototype, there's a separate antenna dome on the cab roof.

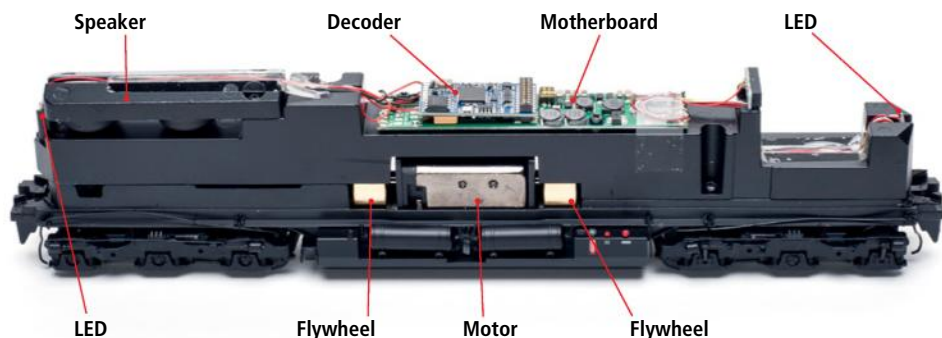
Although there aren't any crew figures, the cab interior is fully detailed with seats, a control stand, tinted windows, and separate windshield wipers.

The model is smoothly painted in the correct shades of CSX blue and yellow. The placement of the lettering, CSX logo, and every stencil matches prototype photos of no. 3250. The ET44AH classification is correctly placed on both sides of the cab in front of the lightning bolts.

Mechanism. After removing the front and rear couplers, I carefully lifted off the plastic body shell. A dual-flywheel-equipped motor rests in the center of the die-cast metal chassis and powers the truck-mounted gear boxes. Another die-cast metal weight runs the length of the locomotive.

The motherboard is screwed to the top of the weight, while the ESU LokSound 4.0 decoder is plugged into the board's 21-pin socket. Leads run from the motherboard to surface-mount light-emitting diodes (LEDs) that illuminate the headlights and ditch lights.

Two cube-type speakers are housed inside a die-cast metal enclosure screwed to the weight above the rear truck.



A heavy die-cast metal frame and all-wheel drive give the GEVO its pulling power.

Speed and pull tests. On both our direct-current (DC) and DCC test tracks, the GEVO held a steady 1 scale mph crawl without any jerkiness. The locomotive also steadily held 1 scale mph up and down a 3 percent grade, thanks to the decoder's excellent back-electromotive-force control. As shown in the charts at right, the locomotive accelerated to a prototypical 75 scale mph top speed during both DC and DCC tests.

Also shown in the chart is the model's impressive drawbar pull. The HO Tier 4 also hauled 17 HO freight cars up a 3 percent grade without slipping.

To test its minimum radius, I ran the Tier 4 around a circle of 18" radius set track without any difficulty. However, the model looks much more realistic rounding 22" radius or greater curves.

The decoder also includes the ESU PowerPack capacitor system to keep the sounds, lights, and operation steady over short stretches of dirty or uneven track. The PowerPack allows about 4 seconds of operation without track power.

DCC performance. The LokSound decoder's Full Throttle effects package provides a hands-on operating experience. I could simulate the sounds and motion of a locomotive drifting light through a yard, hauling a loaded train upgrade, or anything in between.

A button-controlled, BRAKE function allowed for realistic stops without having to use the throttle knob.

The DRIVE/HOLD feature let me manually notch the engine sound using the throttle knob, while keeping the speed at its current setting. I find this arrangement more reliable to use than the button-controlled manual notching of earlier LokSound decoders. There's also a separate RUN 8 feature that sets the sound to maximum rpm, or notch 8, when the locomotive starts out.

Opposite of the DRIVE/HOLD function is the COAST function, where the engine sound stays at idle and the knob controls the speed. This is useful for simulating a locomotive drifting downgrade. Also useful for going downhill is a separate dynamic brake effect that includes the engine dropping in rpm and the whirling sound of the cooling fans.

When I pressed function 2, the air horn and E bell sounded while the ditch lights alternately flashed, which is correct for the CSX prototype. Other

PERFORMANCE TESTS	
DRAWBAR PULL	5 ounces 69 HO scale freight cars
SCALE SPEED (DC)	
VOLTS	SCALE MPH
7.5 (start)	1
9	18
10	36
12	75
SCALE SPEED (DCC)	
SPEED STEP	SCALE MPH
1	1
7	15
14	35
28	75

user-triggered sound effects include radiator fans, engine start up, and coupler crash. The ditch lights and headlight are independently controlled.

Pressing function 5 sets the locomotive headlight in the opposite direction of travel to dim, while turning off the other headlight. This feature is used when the locomotive is at the end of the train as part of a Distributed Power Unit (DPU) consist.

Every lighting, sound, and performance aspect of the decoder can be adjusted via configuration variables (CVs). Using an ESU LokProgrammer computer interface (sold separately), I changed the locomotive address, added acceleration and deceleration momentum, advance consisted two Tier 4 locomotives, and set up consist functions.

Even without the LokProgrammer hardware, using the free downloadable LokProgrammer software is the easiest way to program the indexed CVs used by ESU decoders. Simply make the programming changes on the computer screen, click the SHOW CHANGED CVs option, then manually enter the CVs into the DCC system.

DC performance. When run with a DC power pack, most of the locomotive's sound effects are automatic. The headlights and ditch lights operate according to the locomotive's direction of travel, and the engine rpm sounds go up and down with the throttle setting. The built-in momentum added realism. As long as I kept the throttle at 6V, the sounds remained steady, even when I brought the locomotive to a stop.

Museum-quality modeling and a mechanism that runs like a Swiss watch make the ScaleTrains.com GEVO Tier 4 a worthy HO model of its present-day prototype. — Dana Kawala, senior editor

Facts & features

Prices: Rivet Counter version: first run, \$224.99, second run, \$229.99 (DCC sound); \$149.99 (DC, no sound)
Operator version: \$99.99 (DC, no sound)

Manufacturer

ScaleTrains.com Inc.
7598 Highway 411
Benton, TN 37307
www.scaletrains.com

Era: 2012 to present

Road names (multiple road numbers and paint schemes available): CSX, BNSF, Canadian National, General Electric demonstrator, Norfolk Southern, ScaleTrains.com, and Union Pacific

Features

- 21-pin DCC plug
- All-wheel-drive and electrical pickup
- Blackened metal wheels in gauge
- Drill starter points for grab irons, m.u. hoses, and other not-included detail parts (Operator version)
- Dual-mode ESU LokSound 4.0 decoder with Full Throttle effects package (DCC version)
- ESU PowerPack capacitor (DCC version)
- Five-pole, skew-wound motor with dual brass flywheels
- Light-emitting diode headlights
- Minimum radius: 18" (22" recommended by manufacturer)
- Operates on codes 70, 83, and 100 rail
- ScaleTrains.com metal semi-scale Type E knuckle couplers, mounted at correct height (Operator version has plastic knuckle couplers)
- Weight: 1 pound, 10.3 ounces

The Rivet Counter model features many separate detail parts.





Bachmann Sound Value N&W Class J 4-8-4

The Norfolk & Western Ry. Class J

4-8-4 was the last new steam locomotive built for passenger service in the United States. And the third-to-last passenger steam locomotive, no. 611, is still running, wowing steam fans old and young in excursion service.

Bachmann's model of the 611 has been around for a while too, but like its prototype that was restored to steam in 2015, it's back with a new SoundTraxx Sound Value dual-mode sound decoder.

The prototype. Norfolk & Western was well known for its loyalty to steam power long after other roads had converted to diesels. When the N&W needed new passenger power after World War II, it turned to its Roanoke Shops for three more Class J 4-8-4 locomotives.

The first Js were built in 1941, numbered 600 to 604. A second group, nos. 605 to 610, was built during the war but left unstreamlined, as they were designated as freight locomotives. They

received streamlining after the war. The final three, 611 to 613, were built in 1950.

All of the locomotives were equipped with Baker valve gear, and the second two batches had alligator crossheads instead of the multiple-bearing crossheads of the first five locomotives.

Norfolk & Western specified 70-inch drivers for its passenger locomotives, somewhat smaller than typical. But the N&W had a curving, hilly main line, so it needed a locomotive that could start a heavy passenger train on a grade, a curve, or both, and do so quickly. The smaller drivers worked well for N&W's situation.

The Js soldiered on until the end of 1958, spending their last months pulling secondary passenger trains or freights. Graham Claytor, the president of the Appalachian Coal Co. and a friend of N&W President Stuart Saunders, convinced Saunders to donate the locomotive to a new railroad museum in Roanoke.

Claytor's son Bob, who worked for N&W, eventually became CEO of N&W

successor Norfolk Southern, and arranged the restoration of no. 611 to steam in 1982. The locomotive was an excursion star for 12 years, then went back into storage. In 2015, no. 611 was again making steam, and is now pulling excursion trains across the East.

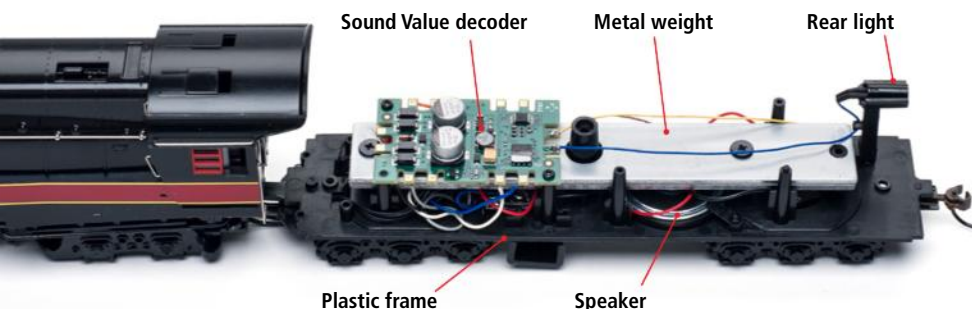
The model. Bachmann has offered N&W Class Js before. This model appears to be a re-release of the 2002 Spectrum model, reviewed in the April 2002 *Model Railroader*. The major upgrade is the SoundTraxx Sound Value dual-mode decoder mounted in the tender.

The boiler is a plastic casting mounted on a die-cast metal chassis. The pilot and trailing trucks are also die-cast metal. Separately applied details include the handrails along the locomotive's running boards and grab irons on the locomotive and tender. All dimensions were within scale inches of drawings published in the *Model Railroader Cyclopaedia: Vol. 1, Steam Locomotives* (Kalmbach Publishing, 1960).

The glossy black finish is smoothly applied, and the Tuscan Red striping with gold borders matches published drawings for width and placement.

Current photos of no. 611 show builder's plates on the sides of the smokebox that are missing from the model, but in-service photos of Class Js in the 1950s show the locomotives didn't have them then. Microscale's HO Norfolk & Western steam locomotive decals, set 87-106, includes builder's plates.

A die-cast metal weight, which cradles the can motor and its flywheel, is attached



The SoundTraxx Sound Value decoder and its speaker are housed in the tender. All 12 of the tender's wheels pick up current.



to the die-cast metal frame. The motor drives the second driver through a worm gear and gear tower. The other drivers are powered by the side rods. All drivers and tender wheels pick up current.

The metal running gear accurately models the prototype, including the alligator crossheads and tandem main rods.

On the test track. I tested the model on DCC using an NCE PowerCab. There is considerable lateral motion in the drivers to allow the locomotive to negotiate 22" radius curves. There is also a corresponding looseness to the side rods, which on our model seemed to cause intermittent binding, especially when going around left-hand curves. Careful observation narrowed the problem down to the second driver on the fireman's side.

By carefully re-positioning the rods, we fixed the issue. Although it still jerked slightly in speed step 1, the motion smoothed out by speed step 3. At speed step 1, the Class J moved at 3 scale mph. It reached a top speed of 71 scale mph at speed step 28.

On our DC test track, sound, lights, and motion started at 7.5 scale mph with 6.5V applied to the track. With practice I could throttle back the locomotive and bring it to a stop without losing sound. The top speed was 81 scale mph at 12V.

The Class J developed 3.68 ounces of drawbar pull, equivalent to 51 freight cars on straight and level track, or 17 passenger cars. During our hill climb test, the locomotive slipped a bit while it pulled a four-car passenger train up a 3 percent grade that includes a 36" radius curve.

Sound and lights. User-triggered effects in DCC include long and short whistle

Facts & features

Manufacturer

Bachmann Industries Inc.
1400 E. Erie Ave.
Philadelphia, PA 19124
www.bachmanntrains.com

Price: \$429

Road numbers: no. 611 railfan, no. 613

Era: 1950 to present

Features

- 22" minimum radius curves
- Can motor with flywheel
- Dual-mode sound decoder
- E-Z Mate Mark II couplers at correct height
- Operating headlight and backup light
- RP-25 contour metal wheels, in gauge
- Separately applied metal railings
- Weight: 1 pound, 9.8 ounces

PERFORMANCE TESTS

DRAWBAR PULL	3.68 ounces
	17 HO scale passenger cars

SCALE SPEED (DC)

VOLTS	SCALE MPH
6.25 (start)	7.5
8	36
10	63
12	81

SCALE SPEED (DCC)

SPEED STEP	SCALE MPH
1	3
7	20
14	40
28	71

blasts, a bell, and the headlight. The decoder was easy to program using configuration variables (CVs). I changed the locomotive address, added momentum, and adjusted the volume levels of individual sound effects. I could use CV116 to fine-tune the exhaust sound synchronization to four chuffs per wheel revolution. A full list of the programmable CVs supported by the Sound Value decoder is available on the Bachmann website.

On DC the exhaust sounds chuffed in synchronization with the drivers as I increased and decreased the throttle. When I quickly increased the voltage a grade-crossing whistle signal (two long blasts, a short blast, and a long blast) sounded. The headlight operated according to the direction of travel.

Updated with Sound Value effects, the latest Bachmann class J remains an accurate model of its famous prototype.
— Eric White, associate editor



Build Your Best!

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



Walther's Mainline HO scale insulated boxcar

Walther's continues to expand its Mainline series of HO scale freight cars with the addition of a 50-foot insulated boxcar based on a Pacific Car & Foundry prototype. The injection-molded plastic model features a one-piece body and underframe casting and a separate roof with six tabs that hold it to the carbody.

Our sample is decorated as Southern Pacific no. 671184, part of the railroad's B-70-5-R class of insulated boxcars numbered 671170 through 671279. The 250-car lot (originally numbered 672950 through 673199) was built by Pacific Car & Foundry in March and April 1960. The cars were reconditioned and renumbered at SP's Sacramento shops in 1978. The cars were no longer listed in the April 1984 *Official Railway Equipment Register*.

The stencil to the right of the reporting marks reads "DF Loader Insulated." On the prototype, that indicated the insulated car was equipped with Evans Damage Free load-restraining equipment, including belt rails, crossbars, deck boards, and gates.

In Association of American Railroads code, an insulated boxcar is designated RBL (bunklerless refrigerator car with load-restraining devices). The cars are used to haul canned goods, perishables, and temperature-sensitive materials.

The Walther's Mainline car has a plastic see-through running board with molded corner grab irons. Underneath, the center sills, crossties, crossbearers, bolsters, draft-gear boxes, and Hydra-Cushion are molded as a single piece. The underframe is secured by screws from the inside (the ones that hold the

steel weight in place) and outside (the ones that hold the trucks in place). The air reservoir, control valve, and brake cylinder are separate parts tethered by molded piping.

The insulated boxcar's dimensions closely follow prototype drawings in Anthony W. Thompson's *Southern Pacific Freight Cars, Volume 4: Boxcars* (Signature Press, 2006). The lettering placement matches prototype photos of a B-70-5-R insulated boxcar in James Kinkaid's *Southern Pacific Color Guide to Freight and Passenger Equipment, Volume 2* (Morning Sun Books Inc., 2005). There's one minor error in the Clean, Oil, Test & Stencil panel. The built date is listed as 3-75. It should be 3- or 4-60, depending on the road number.

Since the model is lettered to match a reconditioned RBL, it shouldn't have a running board. Instead, there should be an L-shaped grab iron on the corner of the roof closest to the brake wheel.

To the test track. The model weighs 4.5 ounces, which is the correct weight per National Model Railroad Association Recommended Practice 20.1. The 33" metal wheels are mounted on plastic axles and correctly gauged. The Proto-Max couplers are body mounted at the correct height.

The car ran without incident while being pulled and pushed around 18" radius curves and comfortably navigated no. 5 turnouts.

The Walther's Mainline Pacific Car & Foundry 50-foot insulated boxcar has a good mix of molded and separately

Facts & features

Price: \$27.98

Manufacturer

Wm. K. Walther's Inc.

5601 W. Florist Ave.

Milwaukee, WI 53218

www.walther's.com

Era: 1978 to 1983 (as decorated)

Road names: Southern Pacific; Atchison, Topeka & Santa Fe; Baltimore & Ohio; Bangor & Aroostook; Chicago, Burlington & Quincy; Chicago & North Western; Denver & Rio Grande Western; Erie Lackawanna; Great Northern; Penn Central; Pennsylvania RR; Southern Ry.; and Union Pacific. Two road numbers per scheme; also available undecorated.

Features

- 9-foot Youngstown plug doors
- 33" metal wheels on plastic axles, correctly gauged
- 70-ton roller-bearing trucks
- Diagonal-panel roof
- Hydra-Cushion cylinder detail and extended draft-gear boxes
- Late improved Dreadnaught ends
- Weight: 4.5 ounces, correct per National Model Railroad Association Recommended Practice 20.1

applied details, the latter strong enough to withstand normal handling. With the variety of commodities RBLs handled, this boxcar would look appropriate spotted in front of a brewery, cannery, or any other business that shipped temperature-sensitive materials. — *Cody Grivno, associate editor*

More Features

FOR THE SERIOUS MODELER

Tsunami2™

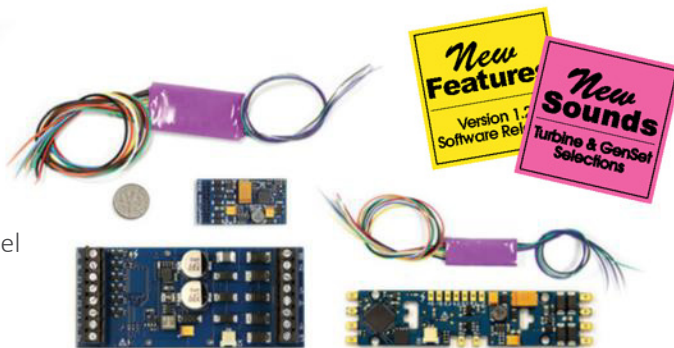
Be the talk of the club with our newly expanded diesel sound library! We have more prototypically accurate sounds than ever before, including:

- Prime Electronic Bell
- Leslie S3LR and RS3K Airhorns
- Electronic Air Dryer
- Updated GE Dynamic Braking Effects



Hear the difference now!

Scan the code or visit
soundtraxx.com/v1-2.php



But wait, there's more! We also added new, customer-requested features such as prime mover pitch shift, auxiliary HEP generator, straight-to-idle, and more!

**All updated decoder packages feature a brightly colored sticker.*

SOUNDTRAXX™

TORY HILL LUMBER & SUPPLY

"HO" SCALE
LIMITED RUN

\$179.95

+ SHIPPING

COMPLETE 14"X16" DIORAMA
SEE OUR WEBSITE FOR MORE DETAILS!
SCENERY & FIGURES NOT INCLUDED

ALSO AVAILABLE IN "HO"!

NEW IN N-SCALE!

CELEBRATING 18 YEARS OF FINE CRAFTSMAN STRUCTURES!

"SHAW'S RIDGE EQUIPMENT & SUPPLY"

"SHIPYARD BREWING CO."

Bar Mills
WWW.BARMILLSMODELS.COM

Questions About Your Account?



It's so easy to manage your subscription online!

- Pay your bill.
- Change your address.
- Renew your subscription.
- And much more!

Visit subscribe.modelrailroader.com/help

QUICKLOOK

Atlas N scale PS 4000 covered hopper

Price: \$29.95 (undecorated, \$24.95)

Manufacturer

Atlas Model Railroad Co.
378 Florence Ave.
Hillside, NJ 07205
www.atlasrr.com

Era: 1962 to 1986 (as decorated)

Road names: Minneapolis, Northfield & Southern (two road numbers); Baltimore & Ohio; Illinois Central Gulf; Norfolk & Western; and undecorated. New road numbers: Chessie System and Southern Pacific. (Three numbers each unless noted)

Comments: Created to speed unloading grain at breweries, the Pullman-Standard 4,000-cubic-foot capacity PS-2CD covered hopper is being brought to N scale as a highly detailed Master Line model by Atlas. The model uses tooling acquired from BLMA after Atlas purchased that company. For a

review of the BLMA release, see the August 2010 *Model Railroader*.

Atlas' model is finely detailed, with an injection-molded plastic body; separately applied loading and unloading hatches; detailed brake equipment; and see-through, etched-metal brake platform and roof walks.

The 100-ton BLMA roller-bearing trucks have 36" blackened metal wheels, which were in gauge. The body-mounted plastic knuckle couplers were mounted at the correct height. The model's major dimensions matched those listed for the car in the 1963 *Official Railway Equipment Register*.

Our sample was decorated for the Minneapolis, Northfield & Southern Ry., a Minnesota short line that was bought by Soo Line in 1982. Hoppers no. 600 and 601 were on the railroad's register until the Soo merged the MNS in 1986.



The paint scheme matches a prototype photo I found online, though it lacks items applied later, such as the Automatic Car Identification (ACI) barcode and Clean, Oil, Test & Stencil (COTS) panel. All lettering is clear and sharp, with even the tiniest lettering legible under magnification.

The car ran flawlessly through the no. 6 turnouts and 10" curves of our Salt Lake Route project layout, and coupled easily to other cars.

Pullman-Standard built about 2,000 of these cars between 1962 and 1964 to carry grain, flour, fertilizer, and chemicals. Dozens of railroads owned them. Any N scale model railroad set in the 1960s or later could use one or more of Atlas' new offerings. — Steven Otte, associate editor



LOCOMOTIVES

(Actual SD40-2 Model Shown)

STARTING AT
\$79⁹⁹



Order Now at www.ScaleTrains.com and Select Retailers™



Scene and photography by Ken J. Johnson
First test model shown

© 2018 ScaleTrains.com, Inc. ScaleTrains.com, Operator and respective logos are trademarks of ScaleTrains.com, Inc.
ScaleTrains.com, Inc. 7598 Highway 411 Benton, TN 37307 844-9TRAIN 844-987-2467 International 423-299-3689



www.scalettrains.com

QUICKLOOK

The TrainMaster HO scale yard bunkhouse kit

Price: \$25

Manufacturer

The TrainMaster LLC
2830 Fort Island Dr.
Fairlawn, OH 44333
www.thetrainmaster.com

Era: 1900 to 1960

Comments: A yard bunkhouse is the latest addition to The TrainMaster HO scale QuickKit line. The kit features laser-cut wood clapboard walls; a one-piece porch railing and roof support assembly; three sizes of stripwood; cardstock roof panels, doors, and windows; paper roofing material; and clear window glazing.

Bunkhouses were often found in or close to yards. The rooms in the railroad-owned structures were small and sparse, but they provided a place for train crews to rest between assignments. Today, train crews are either

driven back to their home terminal or put up at a nearby hotel.

The TrainMaster yard bunkhouse has a footprint of 2½" x 5". The parts fit together well and required minimal sanding. Per the instructions, I assembled the kit with wood glue, though you could also use cyanoacrylate adhesive. I secured the window glazing with clear parts cement.

Once the building was assembled, I primed the model with Rust-Oleum Painter's Touch 2X gray primer, inside and out, to seal the wood. This reduces the chances of the wood warping from changes in humidity. I stained the scribed wood for the porch with an India ink wash. I airbrushed the building and brush-painted the paper roofing material with acrylic craft paint.

Even though the building is sold as a yard bunkhouse, it could be used for other purposes. The structure would look at home as part of a lakeside resort or housing for farm laborers.

If you've never built a wood kit before, The TrainMaster yard bunkhouse is a good entry-level model. The detailed, well-illustrated instructions are easy to follow, and there are more than 40 process photos on the manufacturer's website. In an evening or two you'll be rewarded with a good-looking structure. – *Cody Grivno*



4 NEW MR Video Plus DVDs!

The MR Video Plus crew has put together new DVDs for you to watch!

Whether at your layout, kitchen table, or the comfort of your living room, these DVDs cover topics and techniques you're sure to appreciate and enjoy!



Buy Now at KalmbachHobbyStore.com/MRVPDVD

Price does not include shipping. Sales tax where applicable.

Superiority isn't complicated

Regular readers have seen me spout off more rules than a cop on a traffic stop: Rule 70 this, Rule 93 that, don't ever forget Rule 99! It's enough to have many defy Rule G as heartily as some railroaders once did. Can't we make things less bewildering?

Mark Amfahr, who once dispatched in former Rock Island timetable-and-train-order territory, did so. He made operation easy for newcomers and not-so-newcomers with a checklist that simplifies basic TT&TO decision-making.

Imagine an operating session where you're a newcomer and you're marked up for train No. 206. A quick sideways glance detects steady eyes bearing down on you expectantly. It's the same look they give people who volunteer to sweep a minefield. The host tells you to relax because there's time to get acquainted with the model railroad before departure. Shuffling through the job's paperwork doesn't chase away the butterflies.

Train No. 206 is an east-bound hotshot, a through train from West Yard to Eastport with no pickups or setouts to be concerned with. The paperwork includes a timetable, a clearance card, a bundle of waybills, and the checklist.

"You must have a clearance card." Check. "Has a train order been issued for your train?" Um, no, the clearance card shows none. "Is your train listed in the timetable?" Gulp. Thumb,

thumb, thumb through the pages. By golly, there's No. 206. "What class is your train?" Second class. Next: "Is your train moving in the superior direction?"

Superiority determines the natural order of trains and deserves some discussion. Trains in the superior direction have the right over trains of the same class in the opposite direction. First-class trains are superior to second-class trains, second-class are superior to third, and so forth. A timetable statement that eastward is the superior direction puts a first-class eastbound train on the top of the heap.

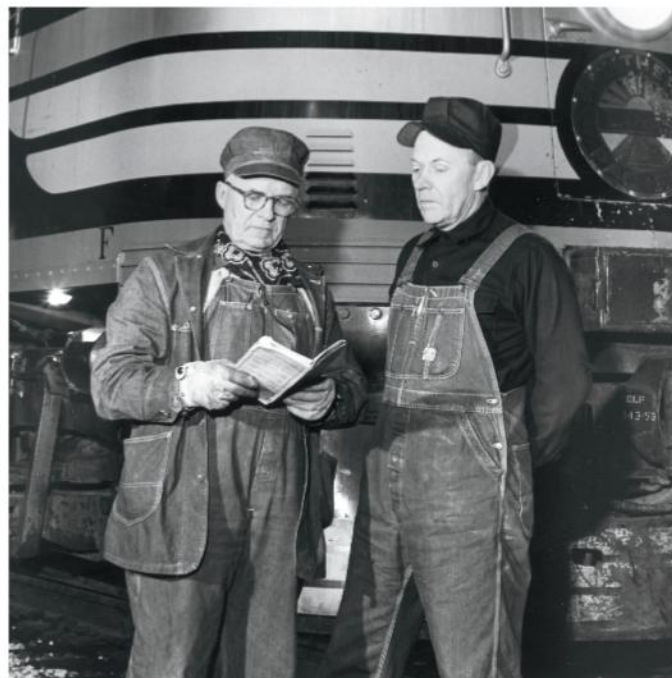
However, a train order can give a train right over any other. An order including the phrase "EXTRA 2268 WEST HAS RIGHT OVER NO. 2 ENG 261L" can make a lowly peddler freight superior to the *Super Chief*.

Returning to the checklist, you see that your host's timetable makes eastward the superior direction. Your train therefore has superiority over all except first-class trains. Number 206 is due to depart at 8:45 a.m., about 20 minutes from now, so it's time to figure out where the land mines are.

The timetable shows two opposing trains, both first-class westbounds. Number 11 was due at West Yard at 6:14 a.m. and No. 17 was due at 7:59 a.m. No matter what its schedule allows, 206 can't depart until Nos. 11 and 17 arrive, because they are superior by class. How will you know they have?



A TRAIN ORDER CAN GIVE A TRAIN RIGHT OVER ANY OTHER. AN ORDER ... CAN MAKE A LOWLY PEDDLER FREIGHT SUPERIOR TO THE SUPER CHIEF. — JERRY



Though he probably knows the schedules by heart, Southern Pacific engineer R.R. Ralston, left, checks over the employee timetable with his fireman, R.M. James, before departure in this 1954 photo at Los Angeles Union Station. Dick Turner photo

A train register is a record kept at stations designated in the timetable that shows the actual arrival and departure times of trains. The West Yard register shows that No. 11 arrived on time, but it has no entry for No. 17. The clock winds towards departure time when the operator waves you over for a friendly message that the overdue train is running about an hour late. Finally, train No. 17 rolls by. The switchtender lines you out, and your conductor waves a highball.

Now, consider a variation on the situation. Late connections, engine trouble, and other incidents have piled up hours-long delays to No. 17. The railroad advertises No. 206 with guaranteed freight delivery times. The dispatcher knows that he has to move 206 and issues a train order: "No. 206 ENG 3368 HAS RIGHT OVER NO. 17 ENG 2749

WEST YARD TO EASTPORT." This order makes you superior to No. 17. The yardmaster releases your train at 8:25 a.m. and you're ready to roll, craning your neck watching for your conductor's highball. Why is he strolling over to share some laughs with the yard crew?

A regular train may not leave before its scheduled departure time, 8:45 a.m. for No. 206. Your conductor knows the schedule gives him time to kill. He'll probably wander over to entertain the yard office next.

Mark's checklist makes it easy to apply the rules without being expert in them. I adapted his work and included it in my own Susquehanna employee timetable, making it a ready reference for my crews. As fundamental to timetable-and-train-order operation as it is, the superiority of trains is not complex. **MR**



video PLUS



Give Us 10 Minutes – We'll Make You a Better Modeler.



You can't build your layout in a day, but with more than 1,000 short, high-quality video segments, MR Video Plus helps you make the most of your time. Our experts demonstrate the essential skills you need to build your best layout and improve your skills and enjoyment.

Even if you've got just a few minutes, we've got a tip or technique that's right for you!

Get Started with MR Video Plus for Just \$27 a Year!

MRVideoPlus/intro



MORE ON THE WEB

🔗 This photo of Brian Wolfe's HO scale layout is this month's free desktop wallpaper. Get it at www.ModelRailroader.com.

As a manifest freight barrels through the crossing in York, Pa., a symbol of the railroad's burgeoning competition waits patiently. Brian Wolfe of Blue Ridge Summit, Pa., modeled the scene on his HO scale Western Maryland layout. Paul Dolkos shot the photo.





Exercising trackage rights over the Weston & Matherly RR, a southbound Pennsylvania RR train passes by Port Weston station on its way to the rail-marine terminal. The action takes place on Steve McIver's freelanced HO scale W&M model railroad. The locomotives are Life-Like Proto 1000 models; the station is modified from a Kibri kit. Steve shot the picture.

Send us your photos

Trackside Photos is a showcase for the work of *Model Railroader* readers. Send 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 a copy of our photo submission guidelines, contact associate editor Steven Otte at sotte@mrmag.com.



A two-truck Climax hauling logs passes the engine shed in Chestnut Lake on the way to the sawmill. The Galeton & Chestnut Lake is Jerry Lauchle's freelanced HO scale logging railroad, set in northern Pennsylvania in the early 20th century. The Climax is a brass United import; the engine shed is a Fine Scale Miniatures model. Jerry, from State College, Pa., shot the photo.



100 Pages of Inspiration



Save \$1
+ FREE
SHIPPING*

From the publisher of *Model Railroader* magazine, ***Model Railroad Planning 2018*** returns with 100 pages of fresh ideas and inspiration! Featured stories include:

- Cover story: Doug Tagsold models the narrow gauge lines of the Colorado & Southern with a twist.
- Neil Schofield describes the steps he used to model a sprawling furniture plant in an alcove.
- *Model Railroad Planning* editor Tony Koester shares more than a dozen pitfalls to avoid.
- Paul Dolkos discusses various topics regarding layout height.
- Veteran HO modeler David Barrow builds an O scale switching layout.
- Bryon Henderson is back with a double-deck design.
- And much more!

This popular special issue will inform and inspire you whether you're a beginner or experienced modeler.

Reserve your copy today at
KalmbachHobbyStore.com/MRP2018

Offer expires 12/28/17 at 11:59 p.m. CT. *Free standard shipping to U.S. addresses only. *Model Railroad Planning 2018* will arrive in January 2018.

Need Track? Most Everything over 30% off list price!

Walthers, Digitrax & Cabot Dealer
Full line of On30, HO, N Scale Peco/Atlas track
Micro-Engineering & Caboose Industries.
Handling supplies, ties, rail spikes, etc.
Full line of Kadee couplers, Tortoise and more!

WWW.BILLSTRAINS.COM
For Questions and Non-Computer Users, CALL ME!
phone: (813) 653-3322 • e-mail: billstraintrack@aol.com

INSTANT TRACTION TIRES
Get a Grip! **BULLFROG** Easy Plastic
IT WILL CHANGE THE WAY YOU RUN YOUR TRAINS
SNOT = SAND
WWW.BULLFROGSNOT.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

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!
Enter Code Mr100 For 20% Discount
RailroadBackdrops@Gmail.com

ROBERTS BRICK MORTAR
FOR THE REAL LOOK OF BRICK & STONE
IT'S SO EASY!
robertsbrickmortar.com

MODERN Buildings in HO & N!
(337) 436-8481
www.summit-customcuts.com

BACKDROPS HO, O, N Scales
WWW.TRAINJUNKIES.COM
-----Up to 100 Feet Long-----

CADRAIL
The Railroad Design Program
View from Roundhouse
Cadrail.com

Rix Products **Pikestuff**
Web site: **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

JB WHEELSETS
Same great product, slightly different name!
www.jbwheelsets.com

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

CHOOCH
Great Scenery
www.ChoochEnterprises.com

HO Coming early 2018
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 Walthers

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

HO/N/O signs, billboards, laser-cut structures and much more from:
Blair Line, LLC
PO Box 1136, Carthage, MO 64836
www.blairline.com

ALL ELECTRONICS CORPORATION
Electronic Parts and Supplies for Your Project.
www.allelectronics.com

Litchfield STATION
We Carry A Full Line of Digitrax Products at GREAT Prices!
Lenz is back & we have stock available!
623-298-7355
www.LitchfieldStation.com

EXCELLENT LUBRICANTS
1/2oz OILERS
ULTRA LITE—LIGHT—MEDIUM—HEAVY
GEAR—NLGI 2 /PTFE GREASE
NLGI 1 GREASE
PTFE POWDER—BEARING
RAIL CONDITIONER—2oz OIL—MOTOR CLEANERS—OIL KITS...
ASK FOR IT AT YOUR LOCAL HOBBY SHOP
phoenixul@phoenixul.comcastbiz.net

Custom Layout Building
Layout Design
By Lance Mindheim
www.shelflayouts.com
301-404-8164

GREAT LOOKING ROCKS...
...in less than a million years!
RUBBER ROCKS
www.cripplebush.net

S Scale Trains
22 steam & diesel engines, 25 freight cars, passenger and cabooses. The most realistic track made. 36 year reputation.
Send \$7 for 68 pg catalog.
www.americanmodels.com
Phone 734-449-1100
AMERICAN MODELS
11770 Green Oak Industrial Dr.
Whitmore Lake, MI 48189

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

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

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

WIG-WAG, LLC
 www.wig-wag-trains-cart.com
 Personal service, Great pricing.
 Your N-Scale supplier! Actual cost shipping.
 1-888-298-7177

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
 phone: 908-684-2070 470 Schooley's Mtn. Rd.
 oscale@alleghenyscale.com Suite 8-117
 Hackensack, NJ 07840

GOODDEALSdcc
 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

Roger's Railroad Junction
 Z-N-HO-HOn3-On30-027-G
 www.rogersrailroadjunction.com
 See Website for Virtual Tour
 105 S Sacramento St, Lodi, CA 95240
 209-334-5623 • Toll Free 888-346-9777

SS LTD Over 2000 HO Scale hand cast pewter detail parts!
 Ask at an authorized dealer or order online!
 Check Out Our TrackSide Detailing Kits
 800-352-1554 & 620-585-2131 (cell & Int'l)
 www.scale-structures.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

SPRING MILLS DEPOT
 WWW.SMD.CC
 Affordable storage systems for HO and N scale. High quality extremely limited custom run HO scale cars.

 RESERVE NOW: B&O I-1, I-1A, I-2, I-3, I-5, I-5 C/D!
 ★ ★ ★ COMING 2017!!! ★ ★ ★


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

ECI East Coast Circuits
 Innovating Your Model Railroad Layout
 Lighted Circuits For Your Layout
 Random Lighting Circuit • Burning Fire Circuit
 Crossing Signal Circuit
 Custom Lighted Vehicles • HO & O Scale Emergency Vehicles
 Eastcoastcircuits.com Eastcoastcircuits@gmail.com

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

Metro Trains & Hobbies
 12951 Metro Parkway, Suite 8
 Fort Myers, FL 33966
 (239) 332-0422
 Find Us on Facebook! f




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

IHC Hurricane Harvey CLEARANCE SALE
 Due to the flooding in our area, we are offering **40% off** IHC passenger cars, locomotives, kits & more!
 All items are sold "as is, no returns" 800-875-1600
 www.ihc-hobby.com

After You've Looked at the Others...
Progressive Model Design MUSEUM QUALITY - CUSTOM LAYOUT MODELING SERVICE
WHAT CAN WE BUILD FOR YOU?
 www.PROGRESSIVEMODELDESIGN.COM
 211 RocBaar Drive, Romeoville, IL 60446
 (815) 886-9010 FAX: (815) 886-9076
ULTIMATE MODEL MAGIC™

AffordableModelRailroads.com GETTING YOUR DREAMS ON TRACK
Professional Layout Design & Construction
 We Complete Unfinished And In Progress Layouts.
 Design, Build, Fix And Complete Any Size or Scale!

 We Can Build On Your Site or In Our Shop
 MR@AffordableModelRailroads.com
 (800) 216-9202

Say you saw their ad in
Model Railroader magazine!


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 Railroad* 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: onlineclassifieds@kalmbach.com

All ads must be prepaid and pertain to the subject of model railroading.

CLOSING DATES: Jan 2018 closes Oct. 20, Feb. closes Nov. 13, March closes Dec. 19, April closes Jan. 22, May closes Feb. 19, June closes Mar. 19, July closes Apr. 23, Aug. closes May 18, Sept. closes June 22, Oct. closes July 23, Nov. closes Aug. 17, Dec. closes Sept. 24.

Schedule of Events

CO, DENVER: Rocky Mountain Train Show March 3-4, 2018. Denver Merchandise Mart, 451 East 58th Avenue, Denver, CO 80216. Saturday, 10:00am-5:00pm, Sunday 10:00am-4:00pm. 2-1/2 acres of model trains of all scales, 30 layouts, 600 sales tables, clinics and more. Admission \$10.00 Free Parking. Phone: 303-364-0274 www.RockyMountainTrainShow.com information@RockyMountainTrainShow.com

FL, DELAND: 62nd FLORIDA RAILFAIR, Volusia County Fairgrounds (Tommy Lawrence Arena). Saturday, January 13, 9:00am-4:00pm and Sunday, January 14, 10:00am-3:30pm. Adults: \$9.00, good for both days (under 12 free). Over 300 tables. Large operating layouts. Miller, 3106 N. Rochester St., Arlington, VA 22213. 703-536-2954. E-mail: rrrshows@aol.com

FL, STUART: Martin County Model Railroaders 11th Annual Train Expo. Martin County Fairgrounds, 2616 Old Dixie Hwy. January 20-21, 2018, 9:00am-3:00pm. Admission: Adults \$6.00, Operating layouts, sales tables, displays & NMRA information. Information: Bill Smet, 772-233-0279, mcmr2616@yahoo.com or PO Box 1498, Stuart, FL 34995.

GA, ATLANTA: 54th ATLANTA MODEL TRAIN & RAILROADIANA SHOW. Infinite Energy Center, 6400 Sugarloaf Parkway, Duluth, GA 30097. Saturday, January 20, 2018, 9:00am-4:00pm. Adults \$9.00 (under 12 free). Operating layouts. Miller 3106 N. Rochester St., Arlington, VA 22213, 703-536-2954. E-mail: rrrshows@aol.com

GA, SAVANNAH: Coastal Rail Buffs 29th Annual Model RR Train Show. National Guard Armory, 1248 Eisenhower Drive, Zip: 31406. January 27-28, 2018, Saturday 10:00am-5:00pm, Sunday 10:00am-4:00pm. Adults 2 day \$7.00; Students/Seniors \$5.00, Active Duty Military/under 12 FREE. Dealer tables, operating layouts in O, HO, N. See www.coastalrailbuffs.org

IA, MONTICELLO: M.R.R.C. Train Show and Swap Meet. Bernides Center, Jones County Fairgrounds, 766 N. Maple St. Sunday, January 28, 2018, 9:00am-3:30pm. Admission \$5.00, children under 12 free. Contact Denny Beasley, CircleBarB607@aol.com or phone 319-270-1171 between 6 and 10 PM.

IL, SPRINGFIELD: Springfield Railroad Society Annual Train Fair. Orr Building on the State Fairgrounds. Sunday, March 25, 2018, 10:00am-4:00pm. Early Bird shopping starts at 9:00am. Free parking. Largest show in downstate Illinois! For info call Ray at 217-544-4295 or visit www.springfieldtrainfair.com

IN, GARRETT: Garrett Model Railroad Club Annual Open House, December 10, 2017, Sunday 1:00pm-5:00pm Est. Operating Layout in basement of Museum, 302 N. Randolph St., Garrett, IN 46738. John Mohre 260-908-0754 Lehigman2003@yahoo.com

IN, INDIANAPOLIS: The Indianapolis Model Railroad Show and Open House. Manual High School Gymnasium. Saturday, March 3, 2018, 10:00am-3:00pm. Admission \$5.00, children 12 & under free. Boy Scouts in uniform free. Free parking. Naptown & White River Model Railroad Club. Contact: Steve Handly, 317-786-8627, E-mail: naptownmrr@gmail.com

IN, NOBLESVILLE: Central Indiana Division/NMRA Train Show. Hamilton County 4H Fairgrounds, 2003 Pleasant Street. Noblesville, IN. Sunday 28, 2018, 10:00am-3:00pm. Admission \$3.00 or \$5.00 family. Dealers, Portable Train Layouts, Clinics, Door Prizes. Dealer tables \$12.00. Contact Tom Cain 317-696-2818 or ats93@comcast.net

MN, WOODBURY: Newport Model RR Club Flea Market & Train Show. Woodbury High School, 2665 Woodlane Drive, Zip: 55125. January 20, 2018, 9:00am-2:00pm. Admission \$5.00. Future Show: April 7, 2018. Club Address: Newport Train Club, PO Box 0061, St. Paul Park, MN 55071. Contact: Ed, 651-233-3310

NC, NEW BERN: 23rd Annual Train Show, New Bern Riverfront Convention Center, 203 South Front Street. February 24-25, 2018 Saturday 10:00am-5:00pm; Sunday 10:00am-4:00pm. Admission \$7.00, under 12 free w/adult. Operating layouts, 90 vendor tables, food concession, door prizes. Carolina Coastal Railroaders, George Shalhoub, 252-626-3476

NY, LINDENHURST: Northern Spur Train/Diecast Vehicles/Toy Meet. Firemen's Memorial Park, 555 Heiling Blvd. (north of Hartford St.) January 7, 2018, February 18, 2018, April 8, 2018, September 23, 2018, November 4, 2018. 8:30am-1:00pm. \$5.00 adults, under 16 free w/adult. Handicap accessible. Contact: Carmelo Sancetta. PO Box 1286M. Bay Shore, NY 11706. 631-666-6855

NY, WEST SENECA: TCA Upstate NY Chapter Train Show. Ismailia Shrine Center, 1600 Southwestern Blvd., Zip Code: 14224. Sunday, January 11, 2018, TCA Members: 9:00am. General Public: 9:30am-2:30pm. Admission: Adults \$5.00, under 17 free with paid adult. Contact: Chuck 716-390-8216, E-mail: usnyc2015@gmail.com or www.upstate-ny-tca.com

OH, SPRINGFIELD: Springfield Area Model Railroaders Model Train Show and Flea Market. Clark County Fairgrounds, I-70, Exit 59. December 3, 2017, 11:00am-4:00pm. \$5.00, under 12 free. Robert D. Chaffin, Jr., PO Box 51, Springfield, OH 45501, 937-346-6734

PA, EPHRATA: Short Line Model Railroad Club's Annual Holiday Open House. Every Saturday and Sunday beginning in late November through mid January. Visit www.SLMRC.com for specific dates and times. 11 South State Street in Ephrata, Pennsylvania. Admission: free will donation.

SC, EASLEY: CRMHA MODEL TRAIN EXPO - \$7.00 Adults, Children FREE. Friday February 9th 1:00pm-7:00pm. Saturday, February 10th, 10:00am-4:00pm. Rock Spring Church - Impact Center, 207 Rock Springs Road, Easley, SC 29642. www.CRMHA.org 864-719-0096 or trainshow@crmha.org

SC, LAKE CITY: Ragsdale Building, 245 S. Church Street. Saturday, January 13, 2018, 9:00am-3:00pm. Admission \$5.00, under 10 FREE. Over 200 vendor tables, Thomas the Train & Friends, Railroad collectibles. Contact Todd at 843-307-8674, southcarolinatradeshow@gmail.com or www.SouthCarolinaTradeShows.com

TX, PLANO: NTC 3rd Annual Fall Plano Train Show. Plano Centre, 2000 E. Spring Creek Parkway. January 20-21, 2018, Saturday 10:00am-5:00pm; Sunday 10:00am-4:00pm. Adults \$10.00, 12 and under free w/adult. All scales & Tin Plate. Dealer tables, How-To Clinics. Information: Chris Atkins, chris@railroadmodeler.com 469-438-0741. Visit www.dfwtrainshow.com

WI, LA CROSSE: The 27th Annual Great Tri-State Rail Sale. La Crosse Center, 2nd & Pearl Streets. January 27, 2018 9:00am-3:00pm. Admission \$5.00, under 12 free. 300 Tables; All Scales; Model, Toy & Antique Trains & Memorabilia. Information: 4000 Foundation, PO Box 3411, La Crosse, WI 54602, 608-781-9383.

Classifieds

Wanted-N Scale

#1 ESTATE BUYER OF N SCALE COLLECTIONS! We buy all makes and types - including Brass & European! Even Nn3! Call us TOLL FREE: 1-866-462-7277. Don Black 119 Bernhurst Road, New Bern, NC 28560. E-mail: 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 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

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 403-585-2772. E-mail: modeltrains@shaw.ca

For Sale-HO Scale

1200 HO STEAM ERA FREIGHT CARS: Personal collection. Detailed list: johnpegwharton@aol.com

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

\$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

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 or write to 120 East FM 544, Suite 72 #328, Murphy, TX 75094.

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

BUYING HO train collections, large or small. Also brass. 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 403-585-2772. E-mail: modeltrains@shaw.ca

Wanted-O Tinplate

BUYING O and Standard gauge collections. Lionel, Flyer and all others. Call Tom 630-443-9137

For Sale - Miscellaneous

PRR 2018: All Pennsy Calendar \$18.50. Real photo railroad Christmas and Birthday cards, box of 10 with envelopes \$18.00. Prices are postpaid. Visit www.audiovisualdesigns.com for details.

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 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

CUSTOM LAYOUT BUILDING & LAYOUT DESIGN. Specializing in fine scale and prototype based projects. The Shelf Layouts Company, Inc. www.shelflayouts.com 301-404-8164

Business Opportunities

HELP WANTED: Hiring experienced model railroad builder for contract work. Must be willing to travel out of state 3-4 times per year for 10-17 days per trip. Compensation is allowance for travel expenses plus \$15-\$25 per hour based on skill and EFFICIENCY. No professional experience needed, personal or club experience acceptable. Must have a passion for building model railroads, honest, ethical and hard working. Send contact info and skill level to MikeShampine@gmail.com

Don't wait any longer!

Place your classified ad today!

888-558-1544 x815

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. CLOSING DATES are listed in the "Schedule of Events" section. For more information call 1-888-558-1544, ext. 815.

ALABAMA • Anniston
 Northeast Alabama's Largest!
 All Scales - All Major Brands
 Tues - Fri 10-6; Sat 9-3
 E-mail: modelcitymodels@nti.net
 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
 www.highcountryhobbies.com
HIGH COUNTRY HOBBIES
 206 South Main St. 334-489-4558

ALASKA • Anchorage
 www.anchoragelighthousehobbies.com
 Alaska's best hobby supplier since 1964.
 Two stories, 6,300sq, 1st floor all R/C,
 2nd floor general hobbies, plastics, trains,
 slot cars, telescopes & more!
ANCHORAGE HOUSE OF HOBBIES
 2803 Spenard 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
 E-mail: 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
AN AFFAIR WITH TRAINS
 18440 North 7th St., #12 623-434-6778

ARIZONA • Phoenix
 Narrow gauge almost exclusively.
 On3 - On3 - 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, 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.railandspruehobbies.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: cctrains@hotmail.com
 Web site: www.centralcoasttrains.com
CENTRAL COAST TRAINS
 7600 El Camino Real # 3 805-466-1391

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
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
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
 1113 Baker Street, Ste. F 714-549-1596

CALIFORNIA • Hemet
 We carry Lionel, MTH, HO, N, Atlas, Walthers,
 Ross switches, Gargraves & Peco.
 45' long in-store layout. Open 7 days.
 www.dynamicmodelhobbies.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 • 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.rhobbies.com
RAILROAD HOBBIES
 119 Vernon St. 916-782-6067

CALIFORNIA • San Diego (La Mesa)
 Exclusively trains. Craft kits,
 detail parts, scratch supplies, books.
 Ride the trolley to Reed's.
 Open Mon through Sat 10-6; Sun 12-4
 reeds@abac.com 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.talbottoyland.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: dcoled449@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 707-974-9042

CALIFORNIA • Westminster (Orange Co.)
 World Famous
 Model/Toy Trains Only
 7,000 sq. ft. Super Center
 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 & Z. Template.
 Books, videos, collector & gift items.
 Repair service. We buy old toy trains.
 www.westerndepot.com
THE WESTERN DEPOT
 1650 Sierra Ave. #203 530-673-6776

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
 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-27, G, #1, MTH,
 Lionel, Märklin, LGB, Walthers, Aristo, Trix, etc.
 Digital Sales - install. Large operating layouts.
 Mon-Wed 10-6 Th-Fri 10-9 Sat-Sun 10-6
 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
RR MODEL & HOBBY SUPPLY
 100 Whiting Street 860-379-3383

CONNECTICUT • Wolcott
 Exclusively brass models. One of the
 largest selections in the country. All scales.
 Buy, consign, trade - entire collections bought.
 Mon - Fri 10-6, Sat 10-4
 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
 www.choochooactions.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
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.depotshobbyshop.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 & Walthers Dealer.
 Atlas, IM, BWW, Piko, LGB & Rokuhan.
 Mon-Sat 10am-5pm Email: 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, Walthers 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 10-5:30, 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.trainspvjohnson.com
 Old Palafax St. at 10 Mile Rd.
TRAINS BY JOHNSON
 10412 N. Palafax Hwy. 850-478-8584

FLORIDA • Port Charlotte
 Full line hobby shop specializing in trains of all
 scales new and used. Also large selection of
 model kits, paints, diorama, R/C's and more. We
 buy trains. Open Mon - Sat
 Email: kandktrainllc@gmail.com
K & K TRAINS
 3835 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
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
 Open Mon - Fri 10-6; Sat 10-5
GULF COAST MODEL RAILROAD, INC.
 3222 Clark Rd. 941-923-9303

FLORIDA • Tampa Bay - Pinellas Park
 2800 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.zitniktrains.com
ZITNIK TRAINS
 5193 73rd Ave. N. 727-201-9668

FLORIDA • Tampa/St. Pete/Clearwater/PP
 New Owners! Huge inventory! Running
 Layouts! Same great store! Come check out
 our model railroad's paradise. Daily 10-6, Sat
 10-6, Sun 11-5 www.hrtrains.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 800-964-6724
LEGACY STATION TRAINS
 4153 Lawrenceville Hwy., #12 770-339-7780

GEORGIA • Braselton
 Bargains Galore!
 Located 1/2 mile off I-85 exit 129.
 Featuring HO, O, toys and die cast items from
 Lionel, MTH, Franklin, and more.
 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
TRAINMASTER MODELS
 601 East Main St. 678-546-3600

ILLINOIS • Des Plaines
 N, HO, S, O, G Std. & Narrow gauge too.
 Lots of scratchbuilding parts and 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.desplainshobbies.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
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
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
 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, R/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
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
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

IOWA • Urbandale
 N, HO, & O
 Lionel, MTH, Atlas
 Exit #129 - 801/35, 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, Märklin, LGB & more!
 New, Used & Vintage. Extensive scenery line.
 Repair, custom work & layouts.
 www.fredstrains.com
FRED'S TRAIN SHOP
 9322 W. 87th 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 9-5
 (Call ahead Mon) www.mainemodelworks.com
MAINE MODELWORKS
 374 US Route One, Unit 1 207-781-8300

MAINE • York
 Model trains & slot cars. Most scales available.
 Accessories & services. New, pre-owned &
 vintage. Working layout! Open 7 days 10-5
 www.yorkvillagegametplace.com
YORK VILLAGE MARKETPLACE
 891 U.S. Route 1 207-363-4830

MARYLAND • Baltimore/Cockeysville
 Model RR headquarters since 1913.
 Huge selection HO & N Trains & accessories;
 Lionel & MTH O Gauge. All at discount prices.
 Mon - Fri 9-5; Sat 9-5
 www.modeltrainstf.com
M.B. KLEIN
 243 Cockeysville Rd., Ste. A 410-229-9995

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 service@halfpricehobby.com

SHEPAUG RAILROAD COMPANY
23 Westminster St. 978-537-2277

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 810-270-2500

MICHIGAN • Fraser
Full line hobby shop.
Open Mon - Fri 10-8, Sat 10-6, Sun 12-5
www.pdohobbyshop.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.gtrains.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

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 MERRI-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
www.bransonhobbycenter.com

BRANSON HOBBY CENTER
251 Saint James St. 417-335-6624

MONTANA • Billings
Model railroading headquarters for the
Northern Rockies. HO, HO30 & N scale. Kits,
parts, tools, books. Tues-Fri 10-5:30, Sat 10-3.
Closed Sun & Mon. trains28@bresnan.net
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 10-8, Weekend hours vary - call ahead!
www.springcreekmodeltrains.com

SPRING CREEK MODEL TRAINS, LLC
304 E. Bryson Ave. 402-365-7628

NEBRASKA • Omaha
Trains & supplies for all scales Z-G. We are
DCC ready & installation service available.
Family owned since 1936. Mon-Fri 8:00-6:00;
and Sat 10:00-5:00 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: Sat - 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.westsidetrainstv.com

WESTSIDE TRAINS
2960 S. Durango #117 702-254-9475

NEW HAMPSHIRE • Hampton Falls
HO, N - O & accessories
Carrying Atlas, Athearn,
MTH-RailKing, Lionel, Williams
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-details-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

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 • HO • O DCC/DCS/TMCC
Authorized MTH & LIONEL Dealer, Walther's •
Atlas • Atlas O. Sun - Thur 10-6, Fri - Sat 10-8
www.thetrainroomnj.com

THE TRAIN ROOM
715 Arnold Ave. 732-892-5145

NEW JERSEY • Somerville
Full line all scales 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 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 & working layouts. Repairs,
buy/sell. Open 7 days. An old fashioned
general store. 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

WILLIS HOBBIES INC
300 Willis Ave. 516-746-3944

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

CENTRAL HOBBY SUPPLY
102 Walter Dr. 315-437-6630

NEW YORK • Wellsville
HO, N & O Accurail, Bowser, Atlas, Walther's,
Williams & Kadee. Scenery & modeling
supplies. Plastrics, magazines & building kits.
Old local lines like WAG, Erie & EL.
Tues. - Fri. 12-5, Sat. 10-3

EAST DYKE DEPOT
332 E. Dyke St. (Rt. 417E) 585-593-0005

NORTH CAROLINA • Arden
HO, N. Model Trains and accessories.
Broadway Limited, Kato, Walther's,
Digitrax, Atlas, Athearn, and more.
Mon - Fri 9:00am-5:00pm Order by phone 24
hours. www.factorydirecttrains.com

FACTORY DIRECT TRAINS
7 Glenn Bridge Rd., Ste. B 800-990-3381

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.littlechoochooshop.com
or info@littlechoochooshop.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 right light.
Tues. - Sat. 10 a.m. - 6 p.m.

THE ANTIQUE BARN TRAIN SHOP
2810 Forest Hills Rd. SW 252-237-6778

OHIO • Alliance
HO & N scale trains. Athearn, Walther's,
& Kadee. Accessories, detail parts, scratch-
building supplies. Digitrax, TCS, & SoundTraxx
dealer. Tue, Thur, Fri: 12-8pm; Sat: 10-3pm.
www.robstains.com

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

THE TRAIN STATION
4430 Indianola Ave. 614-262-9056

OREGON • Portland
HO, N, Z, Lionel, DCC, brass
Reservation discounts, new, used,
Consignments, 18 minutes from Airport
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

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

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.trainpops.com
trainpopsattic@gmail.com

TRAINPOPS ATTIC
400 Mill St. 215-788-2014

PENNSYLVANIA • Broomall
Lionel, American Flyer, LGB, O, 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

NICHOLAS SMITH TRAINS
2343 West Chester Pike 610-353-8585

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

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

COOLTRAINS HOBBIES
106 W. Main Street 717-898-7119

PENNSYLVANIA • Montoursville
Mon - Fri 9-5:30, Sat 9-5
Extended weekday & Sun hours in Nov. & Dec.
E-mail: emrns@chilitech.net
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

JOE'S TRAIN STATION
21 East Street Rd. 215-322-5182

PENNSYLVANIA • Strasburg
From trains to decast 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

STRASBURG TRAIN SHOP
226 Gap Road 717-687-0464

RHODE ISLAND • Warwick
HO trains & acces., detail parts, plastic &
craftsperson kits. Hobby supplies, tools.
Tue - Fri 12-5, Sat 10-6, Sun (Nov - Dec) 12-4
1/2 mile west of airport
E-mail: aahobbies@gmail.com

A. A. HOBBIES, INC.
655 Jefferson Blvd. 401-737-7111

SOUTH CAROLINA • Greenville
Model Trains Only - ALL AT DISCOUNT
PRICES! 130,000+ items in all scales available
online 24/7 at: www.BlueRidgeHobbies.com
Retail Store features HO Scale. Open 1 W F
9am-1pm, Sat 9am-12pm, Closed S M TH.

BLUE RIDGE HOBBIES
2327 N. Pleasantburg Dr., 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

HUDSON CLASSIC HOBBIES
15119 Old Hickory Blvd. 615-833-8337

TEXAS • Athens
Specializing in HO, HO30 & Brass
Blackstone • Tsunami • InterMountain • Kadee
Digitrax Dealer • Walther's • Coach Yard
Decoder installs & custom painting.
jack@harrishobbies.com www.harrishobbies.com

HARRIS HOBBIES
9323 County Rd 1127 903-489-2646

TEXAS • Corpus Christi/Portland
HO, N, O & G scale. New and used trains.
Radio control planes, boats and cars.
Plastic kits, rockets - all at discount prices.
Thur & Fri 3pm-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
Traingeiner shop/showroom includes:
Custom Layouts, Modulars, Model Stations,
Bridge Kits...come see...there's always
something new!!! www.TrainWorxStore.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.gandgmodelshop.com

G & G MODEL SHOP
2029 Southwest Fwy 713-529-7752

TEXAS • Houston
All trains, all scales. Magazines, Books, Vid-
eos, Repairs, Brass, Consignments. Discount
program, will ship. papaberstrains@gmail.com
M,Tu,Th & F 10-6; W 10-7; Sat 10-5; Sun 12-5
Major Credit Cards. www.papabens.com

PAPA BEN'S TRAIN PLACE
4007-E Bellaire Blvd. 713-523-5600

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

UTAH • OREM
Where it's always cheaper than therapy. Trains
all scales, LGB, Broadway Limited, Atlas,
Lionel, Micro-Trains, Athearn. Behind Arby's
across from the University Mall.

HOBBY STOP, LLC
327 East 1200 South, #10 801-226-7947

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)
On CSX tracks, Open 7 Days. All Gauges, Spec
Orders & Repairs. I-95, exit 92, west 1.2 miles.

TINY TIM'S TRAINS & TOYS
104 S. Railroad Ave. 804-368-0063

VIRGINIA • Midlothian (Richmond)
HO, N, Atlas & Walther's Trains
Brass, DCC, Repairs & Installations
Digitrax Dealer
Open Mon - Fri 10-6, Sat 10-4
www.ToddHobbies.com

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.traindepot.biz
Authorized Lionel Service Station & Digitrax
dealer. Online Sales Visit 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.electrictainshop.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.eastsidetrains.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

WEST VIRGINIA • Inwood Berkeley

One Stop Shop. In Tri-State Area. Trains-R/C - Models. Competitive Pricing.

LOCO JOE'S HOBBIES

357 Middleway Pike 304-229-8226

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

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

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.
800-487-2487 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)

Märklin • Lionel • MTH • AF • LGB • Z to G • buildings • scenery • detail parts • books • scratchbuilding supplies • special orders • NMFA discounts • Mon - Fri 11-8 • Sat 10-5
Sun 12-5. www.hiawathahobbies.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

KELLY'S KABOOSE, THE RAILWAY STORE

6648 Savona Access Rd. 250-377-8510

CANADA-BC • Summerland

Specializing in European Model Trains, Märklin, Trix, Roco, LGB, Brawa, Fleischmann & many more. Huge selection of trains, kits, & access. HO-N-Z-1-O-G Scales.
www.EuroRailHobbies.com

EURO RAIL HOBBIES & MORE INC

9901 Main St. 866-799-6098

CANADA-BC • Vancouver

Large selection of model RR supplies including Min. by Eric, Athearn/MDC, Atlas, Peco, Shinohara, Rapido, Soundtraxx, brass, etc. Special orders. www.central-hobbies.com
Open 11-6, Friday til 9. Closed Sundays.

CENTRAL HOBBIES

2825 Grandview Hwy. 604-431-0771

CANADA-ON • Dundas

Your full line hobby shop. Open 7 days a week. N, HO, AF, Lionel, LGB. Scenery and scratchbuilding supplies. Walthers dealer, Kato products. Special orders welcome!
E-mail us at: 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/O27, S, G.
Come See Our Trains.
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, Walthers. Special orders, plastics, parts, supplies, books, DVD's.
Mon - Fri 10-6, Sat 9-5. sales@rrhobby.ca
www.rrhobby.ca

BROUGHDALE HOBBY

1444 Glenora Drive 519-434-0600

CANADA-ON • Mississauga

6,000 sq. ft. All Trains!
Premier Selection & Service!
In store clinics and layouts!
Railfan Headquarters! Quick special orders!
www.cvrco.com

CREDIT VALLEY RAILWAY COMPANY, LTD

2900 Argentea Rd. Unit #24 1-800-464-1730

CANADA-ON • Mount Forest

45 Min North of Guelph. Fax# 519-323-3809.
Authorized Lionel value added dealer.
One of Canada's largest Lionel retailers
MTH, K-Line & more. Full line HO dealer.
www.tctrainscanada.com Closed Monday.

THE TRAIN CELLAR

130 Main Street North 519-323-3935

CANADA-ON • Ottawa (Vanier)

One of Canada's leading model shops.
Complete selection of HO & N gauge.
Friendly knowledgeable staff.
Free Parking. On parle Français.

HOBBY HOUSE, LTD.

80 Montreal Road 613-749-5245

CANADA-ON • Paris

Full line hobby shop. Large stock N, HO. Special orders weekly, all scales.
All accessories, scenery and supplies.
www.parisjunctionhobbies.com

PARIS JUNCTION HOBBIES

300 Grand River St. N. 519-442-5800

CANADA-ON • Toronto (Markham)

North American Train Specialists since 1962
HO, N, O, G and DCC
Railfanning beside CNR Mainline
Closed Mondays www.georgestrains.com

GEORGE'S TRAINS LTD.

550 Alden Rd., Unit 101 905-470-6200

CANADA-ON • Windsor

Model Railroading since 1970.
Operational in-store layout.
HO & N trains, bits & pieces.
"Simplified Wiring & Trackwork"
by Fred Stainer.

WINDSOR HOBBIES LTD.

3895 Tecumseh Rd. East 519-945-5471

GERMANY • Kaarst

Europe's best known address for US Railroads.
We carry N, HO & G scale for all road names.
Atlas to Walthers.
Mon - Fri 10-6:30, Sat 10-2
Overseas orders with VS & MC

ALL AMERICAN TRAINS

www.aat-net.de E-mail: info@aat-net.de

Run your Retail Directory
ad in the next issue of
Model Railroader!

Call 888-558-1544, ext. 815
for more information.



84 Pages. 18 Videos. TONS OF MODELING FUN!

You'll find all of the action and fun of MR Video Plus in this 84-page special issue, *Model Railroading: The Ultimate Guide*. This complete resource combines all-new stories with free, companion videos to show modelers of all skill levels:

- » Tips for detailing scenes, weathering locomotives, and building great structures.
- » How to build a display-style layout along with detailed illustrations.
- » Track plans for three different layouts in O, HO, and N scale.
- » Helpful tips for railfan trips to amazing and inspiring locations.
- » Behind-the-scenes back stories and insights about our popular series and video hosts.
- » And much more!



Reserve Your Copy Today! KalmbachHobbyStore.com/MRVPSpecial

*Free standard shipping to U.S. addresses only. Canadian and foreign addresses add \$3.95 for shipping and handling. Sales tax where applicable.

Model Railroading: The Ultimate Guide will arrive in March 2018.



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

Amherst Railway Society	23	Model Railroader Video Plus	77
Atlas Model Railroad Co., Inc.	5	Model Rectifier Corp.	2
Axian Technology.	9	Modelers Marketplace	83-84
Bachmann Industries, Inc.	7	Modellbahn Shop	21
Bar Mills Scale Model Works	73	MRVP DVDs	75
CTI	21	NCE Corp.	61
Caboose Ltd	9	Nicholas Smith Trains	23
Circuitron	22	PECO Products	25
Custom Model Railroads	9	Plastruct, Inc.	23
CVP Products	19	Presbyterian Senior Living	17
Digitrax	19	Railroadbooks.biz	33
Entertainment, Inc.	65	Ready to Roll, Inc.	19
Evan Designs	19	ScaleTrains.com	15, 74
Evergreen Scale Models	21	Showcase Express	21
Great Midwest Train Show	9	Sievers Benchwork	22
Great Train Expo	9	SoundTraxx	73
Greenberg Shows	9	Sprog DCC	33
Halfpricehobby.com	21	Tam Valley Depot	33
Kato USA, Inc.	91	Tichy Train Group	33
MB Klein	33	Trains & Travel	33
Menard, Inc.	27	Trains Toys & Hobbies	33
Micro Engineering	21	TrainWorld	11
Micro-Mark Tools	92	Value Trains USA	22
Model Railroad Planning 2018	82	WifiTrax Model Science	33
Model Railroader-All-Time Digital Archive ..	65	Wm. K. Walther, Inc.	3
Model Railroader Books	24, 26	Woodland Scenics	29
Model Railroader Special Issue	88	Z-Stuff for Trains	9

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.

Model MAGAZINE
Railroader

Next Issue

A big splash of California sunshine

Visit a two-level HO scale layout that features a mix of locomotives, plastic and craftsman-style structure kits, and an operating signal system.

Subscribe today!

1-877-246-4879

www.ModelRailroader.com

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION

1. Publication title: *Model Railroader*
2. Publication No.: 529-810
3. Filing date: October 1, 2017
4. Issue frequency: monthly
5. Number of issues published annually: 12
6. Annual subscription price: \$42.95
7. Complete mailing address of known office of publication: 21027 Crossroads Circle, Waukesha, WI 53186
8. Complete mailing address of general bus. office of publisher: same
9. Publisher: Brian Schmidt, 21027 Crossroads Circle, Waukesha, WI 53186. Editor: Hal Miller, same. Managing Editor: Jeff Reich, same.
10. Owner: Kalmbach Publishing Co., 21027 Crossroads Circle, Waukesha, WI 53186; stockholders owning or holding 1 percent or more of total amount of stock are: Deborah H.D. Bercot, 22012 Indian Springs Tr., Amberson, PA 17210; Gerald & Patricia Boettcher Trust, 8041 Warren Ave., Wauwatosa, WI 53213; Alexander & Sally Darragh, 145 Prospect Ave., Waterloo, IA 50703; Melanie J. Kirrene Trust, 9705 Royston Ct., Granite Bay, CA 95746; Harold Edmonson, 6021 N. Marmora Ave., Chicago, IL 60646; Laura & Gregory Felzer, 3328 S. Honey Creek Dr., Milwaukee, WI 53219; Susan E. Fisher Trust, 3430 E. Sunrise Dr., Ste. 200, Tucson, AZ 85718; Bruce H. Grunden, 255 Vista Del Lago Dr., Huffman, TX 77336; Linda H. Hanson Trust, P.O. Box 19, Arcadia, MI 49613; Mary Kay Herrman, 1530 Tallgrass Cir., Waukesha, WI 53188; George F. Hirschmann Trusts, P.O. Box 19, Arcadia, MI 49613; James and Carol Ingles, 1907 Sunnyside Dr., Waukesha, WI 53186; Charles & Lois Kalmbach, 7435 N. Braeburn Ln., Glendale, WI 53209; Kalmbach Profit Sharing/401k Savings Plan and Trust, P.O. Box 1612, Waukesha, WI 53187; James & Elizabeth King, 2505 E. Bradford Ave., #1305, Milwaukee, WI 53211; Mahnke Family Trust, 4756 Marlborough Way, Carmichael, CA 95608; Milwaukee Art Museum, Inc., 700 N. Art Museum Dr., Milwaukee, WI 53202; James W. Mundscha, N24 W30420 Crystal Springs Dr., Pewaukee, WI, 53072; Lois E. Stuart Trust, 1320 Pantops Cottage Ct. #1, Charlottesville, VA 22911; David M. Thornburgh Trust, 8855 Collins Ave., Apt. 3A, Surfside, FL 33154.
11. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities: N/A
12. Tax status (for completion by nonprofit organizations authorized to mail at special rates): N/A
13. Publication title: *Model Railroader*
14. Issue date for circulation data below: September 2017
15. Extent and nature of circulation:

	Average no. copies each issue during preceding 12 months	Actual no. copies of single issue published nearest to filing date
a. Total number of copies (net press run)	136,530	134,468
b. Paid and/or requested circulation		
1. Paid or requested mail subscriptions	84,061	81,645
2. Paid in-county subscriptions stated on Form 3541	0	0
3. Sales through dealers and carriers, street vendors, counter sales, et al.	15,910	15,170
4. Other classes mailed through the USPS	0	0
c. Total paid and/or requested circulation (sum of 15b1-15b4)	99,971	96,815
d1-3. Free distribution by mail (samples, compliments, or other free)	334	421
d4. Free or nominal rate distribution outside the mail	8	0
e. Total free distribution (sum of 15d1-15d4)	342	421
f. Total distribution (sum of 15c and 15e)	100,313	97,236
g. Copies not distributed	36,217	37,232
h. Total (sum of 15f and 15g)	136,530	134,468
i. Percent paid and/or requested circulation:	99.66%	99.57%
16. Paid Electronic Copies		
a. Paid electronic copies	7,842	4,143
b. Total paid print copies + paid electronic copies (sum of 15c and 16a)	107,814	100,958
c. Total print distribution + paid electronic copies (sum of 15f and 16a)	108,156	101,379
d. Percent paid (both print and electronic copies; 16b divided by 16c times 100)	99.68%	99.58%
17. This statement of ownership will be printed in the January 2018 issue of this publication.
18. I certify that the information above is true and complete. Nicole McGuire, Vice President, Consumer Marketing. Date: September 29, 2017

Both ends of the spectrum

As some of us in the hobby age, we need to consider the possible infirmities many of us will face. Our hands may tremble; our eyes may fail to see fine detail; our ears may betray years of listening to loud music or power tools; and our knees, feet, and backs may insist on more frequent breaks from standing.

If that's what's troubling you, step right this way to the land of Larger Scales. It's a land of milk and honey, where both ends of the modeling spectrum – fidelity to scale (or the lack thereof) and/or realistic operations – are right at hand.

That larger scale models offer the opportunity to add more visible detail is obvious. Even if N, HO, and O scale models are detailed to precisely the same degree, it will be easier to see the details in 1:48 than in 1:160 or 1:87.1. I'm sure that accounts for some of the migration to the larger scales I've noticed in recent years.

In other cases, modelers who have pretty much done their thing in N or HO are trying S or O scale to see what those modeling proportions offer. They quickly discover a solid base of manufacturers and importers catering to their needs, especially in the narrow gauges – Sn3, On3, and On30. They also discover that a lot of the stuff we take for granted in the smaller scales is a bit more difficult to find. And it usually costs more, often a lot more.

Cost is usually not the factor it first seems, however, as we typically need much less of this and that in the larger scales. Had I modeled the same section of the Nickel Plate Road in my basement in O instead of HO, I would



Big-time railroading on the Pennsylvania RR's multi-track main line is the theme of Neal Schorr's O scale empire. That he happens to use three-rail track is beside the point. Neal Schorr photo

have had to reduce the scope of the railroad by half or more. Half as many towns and staging tracks means greatly reduced expenditures for everything from structures to rolling stock.

To a lot of us old-timers, Lionel and American Flyer meant toy trains. Indeed, many small-train hobbyists still enjoy them today, as is evident from any issue of *Model Railroader's* sister magazine, *Classic Toy Trains*. Lionel and AF are rugged semi-scale trains that are easy and forgiving to use. But – and this is a key point to ponder – they can offer 100 percent realistic operations.

So, as long as we have track and rolling stock with flanged wheels, we can go railroading. There's nothing intrinsically mandatory about small trains being accurate scale models that applies to realistic operation beyond sheer appearance. We can build a train in a yard and send it out on the main line under timetable and train-order or centralized traffic control rules, whether we're


using superbly crafted scale models or toy trains.


I still have some of the Lionel O and O-27 equipment I got as a kid, and I suspect it will run just fine. That said, I doubt I will ever be tempted to build a model railroad for it. Too long ago, I discovered the merits of accurate scale models and would not easily ignore the compromises built into toy trains.

But that has almost nothing to do with whether we build two- or three-rail railroads. Neal Schorr, whose work is featured in *Model Railroad Planning 2017*, uses three-rail track but in all other ways is a very fastidious scale modeler. He built the railroad while he worked as a family doctor, and his son now enjoys the railroad with him, but he's also well positioned to enjoy the fruits of his labors into his retirement years.

So it appears that the two ends of the modeling spectrum may have moved closer than they once were. What we may have started out with as kids has matured into an alternative form of scale model railroading.

The variety of locomotives and rolling stock available as either two- or three-rail O scale models is astonishing. I recently discovered that even O fine-scale modeling, usually called Proto:48, has reasonably wide and diverse support by manufacturers and importers, yet demands more homework on the part of the participant – which can be seen as a benefit.

What yesterday may have seemed a bit off-putting may tomorrow look like a grand opportunity to continue your active involvement in the hobby. 



HALF AS MANY TOWNS AND STAGING TRACKS MEANS GREATLY REDUCED EXPENDITURES FOR EVERYTHING FROM STRUCTURES TO ROLLING STOCK. - TONY

N Scale

THE MILWAUKEE ROAD *Olympian Hiawatha*



The "OLYMPIAN HIAWATHA," One of the most Unique Transcontinental Trains in American Railroad History Comes to Life in N Scale!

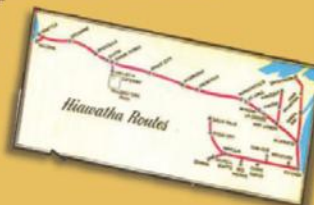
This year, Kato USA is bringing out the latest addition to its line of classic named trains - the Milwaukee Road **Olympian Hiawatha** as it appeared in the 1950s. Packaged as a 9 car set and including the classic Super Dome and Lounge Observation cars, this set is an eye-catching and elegant tribute to the real life train that modelers will be able to enjoy on their N Gauge layouts!

Available to pull this set will be a new release of FP7A and F7B locomotives, designed to replicate the prototypical appearance of this cross-country train!

The Luxurious "OLYMPIAN HIAWATHA"

1947 - The Debut of the "Olympian Hiawatha"

Due to strong competition in the Pacific West Coast and Atlantic Coast region, the Milwaukee Railroad (today a part of the Union Pacific) introduced a brand new streamlined train - the "Olympian Hiawatha" - stretching from Chicago, IL to Tacoma and Seattle, WA. This train, thanks to its sophisticated lounge car which offered an expansive view of the scenery, was renowned for its luxury.



1953 - The First Full Dome car in the USA



In order to enhance the attractive nature of the train, the Milwaukee Road added the first-ever "Super Dome" car to the train - this car allowed passengers to marvel at the American landscape from the comfort of this specialized lounge car, and was a big part of how this train became an icon of American Railroad history. Other railroads would later adopt the Super Dome idea, but the Milwaukee Road truly made it famous.

1961 - Decommissioned

But still fondly remembered

While popular, the Hiawatha was eventually unable to compete with the prevalence of airline travel and, like the other transcontinental trains of its era, it was forced to retire. Nonetheless the "Olympian Hiawatha" remains a beloved piece of railroad history and some cars have been preserved for use with charter trains and other events.



Available in Hobby Stores Now!

106-082	N Milwaukee Road "Olympian Hiawatha" 9-Car Set w/ Display UNITRACK	- \$280
106-0430	N EMD FP7A + F7B Locomotive two pack - Milwaukee Road #95A & #95B	- \$190
176-2301	N EMD FP7A Milwaukee Road #95C	- \$110
11-650	Alternate Number boards for FP7A Milwaukee Road, #90A & #90C	- \$3

KATO
PRECISION RAILROAD MODELS

100 Remington Road
Schaumburg, IL 60173
www.katousa.com

Make your own structures, parts and more with the Silhouette Cameo® 3 –
The Ultimate DIY Cutting Machine ... List \$299.99 ... Our Price **\$249.95**



Computer not
included



*Free Shipping offer applies to standard shipping to the 48 contiguous United States ONLY. Cannot be combined. Offer is guaranteed through 1/31/18.

Over 3000 Tools, Trains, Supplies and More in Our Catalog and Website, Including...

Bachmann Spectrum 1:48 Scale On30 Narrow Gauge
Yuletide Special Delivery Electric Train Set



#86428

List \$439.00 ... Super Buy **\$219.95**



#81501

Railroad Modeler's Tool Chest
List \$96.55 ... Our Price **\$74.95**



#83201

Switch Tender Switch Machine
As low as **\$13.95 each**

See Over 125 Pre-Order Trains at micromark.com!

#86728

H0 Scale
Camera Car
captures the
action on your
layout



Value \$249.95
Our Price **\$199.95**



#84519

2-in-1 Miniature Digital Level for track work
Our Price **\$43.95**



#86461

Rail Nipper Track Cutter
As low as **\$15.95 each**



#60514

MicroLux®
Multi-Saw is like
three saws
in one!

List \$219.95
Our Price **\$189.95**



#84708

Digital Pull Meter measures pulling power
List \$23.65 ... Our Price **\$20.95**



#84366

3-Piece Tracklaying Tool Set with Pouch
List \$75.50 ... Our Price **\$66.95**



#83876

Topside Creeper Step Ladder System
List \$332.35 ... Our Price **\$259.95**

Request a **FREE Catalog** at www.micromark.com/catalog-request