

CHOOSING THE RIGHT SIZE WIRE

Model Railroader[®]

May 2025

Spotlight on N scale

Build tank cars, check out two layouts you can visit this summer!



PLUS

- Visit Big Sky Country in N scale
- Make car card racks from PVC trim
- Build a town at your workbench

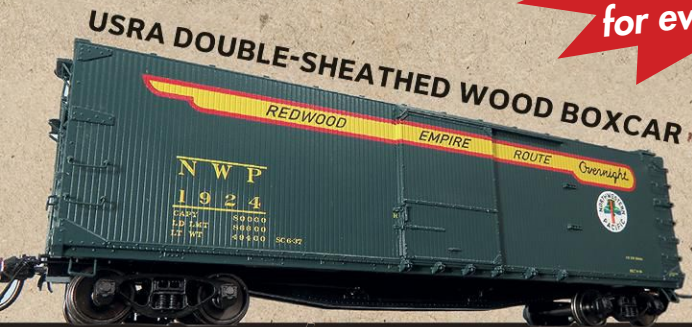
YOU HAVE TO SEE IT TO BELIEVE IT!

A CENTURY OF FREIGHT CARS

1918

HO
SCALE
Freight cars
for every era!

1920



X-3 TANK CAR



- Perfect for any 1920s through 1960s layout
- Accurate detailing and razor sharp printing
- Over 20 railroads bought the USRA D-S cars
- **11 SCHEMES AVAILABLE NOW!**

- Traveled all across North America
- Two insulated versions including the unique transformer oil cars
- Versions for all service eras, from the 1920s into the 1970s

- Got wood? These cars carried all sorts of wood and lumber products across North America
- Three excellent CN schemes plus unlettered with data
- A CN plate C-style 60' boxcar, complete with plug and sliding doors

- Coal is KING! Add more hoppers to your modern coal fleet
- Seven **NEW** schemes plus our popular Railroad of Lies
- Superb removable coal load with easy magnetic lift-off

CN TRENTON WORKS 6348 CU.FT. BOXCAR



1993

CONTACT YOUR RETAILER
OR ORDER DIRECT AT
RAPIDOTRAINS.COM



AUTOFLOOD III RAPID DISCHARGE HOPPER



2004



Quality. Style. Spirit.™
rapidotrains.com •
youtube.com/RapidoTrains
facebook.com/RapidoTrains

SHOP THE SCENE

UNMATCHED QUALITY, ENDLESS POSSIBILITIES

Walthers SceneMaster™
949-4870 LED Dome Building Light
949-4802 LED Wall-Mount Light

ALL NEW TOOLING!

WalthersMainline™ 910-56700 Series
70-Ton AAR 3-Bay Open Hopper
Chooch™ 214-8710 Flexible Coal Load

Walthers Cornerstone™
933-4094 Vintage Coal Dealer

ALL NEW TOOLING!

WalthersMainline 910-46500 Series
50' AAR Single Door Boxcar

NEW PAINT SCHEMES!

WalthersMainline
EMD F7 Locomotive
910-11400 Series Standard DC
910-21400 Series ESU® Sound & DCC

WalthersTrack™
948-9010 Double Roadbed
948-70001 Code 70 Nickel Silver
Flex Track with Wood Ties

From meticulously designed locomotives and rolling stock to authentic structures and scenic elements, every Walthers product is made to bring your railroad to life with unparalleled realism. With exciting releases that include new tooling and new roadnames, you're sure to enjoy recreating this scene, or constructing one of your own design.

Shop this scene and more at www.walthers.com

WALTHERS®

Support your local hobby shop • visit walthers.com • call 1-800-487-2467

©2025 Wm. K. Walther, Inc.

Features



26 Modeling signature tank cars in N scale

Kitbashing, scratchbuilding, and resin casting were just some of the techniques used by *Steve Holzheimer*



32 Big Sky Country in N scale

You can visit this 38 x 52 layout during the 2025 NMRA National Convention by *Ken Chick*



40 Evolution on the mighty MKT

How this N scale layout evolved from 1990 to today by *Bret Overholtzer*



49 Building downtown Silverton, Colo.

This 24 x 30-inch module was designed for drop-in installation on an HO scale layout by *John Vavra*

In every issue

6 On Trains.com

The latest features on our website

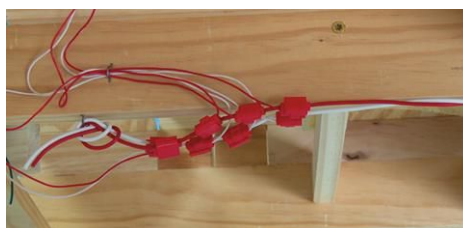
8 From the Editor

What's your scale?



10 News & Reviews

Hobby industry news and reviews



17 Ask MR

Selecting the right wire size



24 Step by Step

Quick and easy car card racks

53 On Operation

Checkbox train orders

56 Trackside Photos

65 Index of Advertisers and Cartoon

66 Trains of Thought

When the day comes



On the cover: A Danforth, Hadley & Northern GP7 hustles a short freight on Ken Chick's N scale model railroad. Craig Wilson photo



Next issue

In **June**, build your own modern, HO scale switching critter; visit two more convention layouts; scratchbuild a downtown structure and a coupler rack; and more!

Model Railroader (ISSN 0026-7341, USPS 529-810) is published monthly by Firecrown Media Inc., 405 Cherry Street, Chattanooga, TN 37402. Periodicals postage paid at Chattanooga, TN and additional mailing offices. POSTMASTER: Send address changes to *Model Railroader*, PO Box 850, Lincolnshire, IL 60069.

Now Available from



ATLAS MASTER® HO RS-11 LOCOMOTIVES



BN/Northern Pacific patch



Genesee Valley



Ferrocarril del Pacifico



Sonora Baja California



Lehigh Valley



L&N*

Additional road names available: Norfolk and Western, Conrail, Penn Central
Visit <https://shop.atlasrr.com/c-545-h83.aspx> for details.



For more information on these and other high quality Atlas products,
visit your local hobby shop or www.atlasrr.com!

*CSX Licensed Product



ATLAS MODEL RAILROAD CO., INC. • 378 Florence Ave., Hillside, NJ 07205 • shop.atlasrr.com



Episode 1: Introducing the East Troy Industrial Park

Introducing an all-new HO scale project layout

Trains.com Director David Popp invites you along for this initial overview of MR's latest HO scale project layout, the East Troy Industrial Park! Throughout the build, David and members of the MR staff will demonstrate a variety of old and new tips, tricks, and techniques to bring this project to fruition. Scan the QR code to keep up with the latest videos in the new project layout series.



Decade-plus of technological advancements in model locomotives

Technological strides in command-control systems, sound effects, lighting, and smoke units have transformed these features from primitive novelties into sophisticated staples of the hobby in just a matter of years.

Trains.com staff writer Lucas Iverson shares some of the exciting technological advancements surrounding model train locomotives in recent history.

TRAINZ

- New & Collectible Model Trains in Every Scale
- Over 30,000 Train Parts
- Exploded View Diagrams & Online Train Repair Classes
- We Buy Collections!



DWARVIN

LIGHTING WITHOUT WIRING®

BY TRAINZ

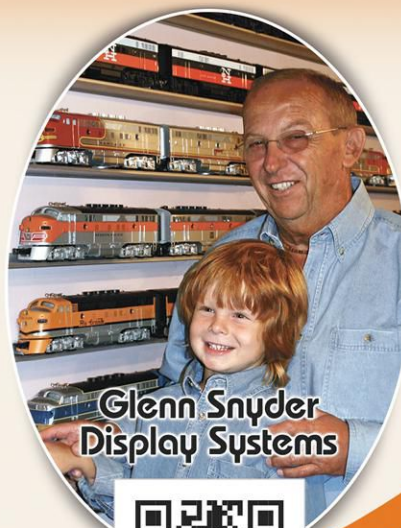


Fiber Optic lighting system for cost-effective, easy to install illumination for multiple scales.



Railrax

BY TRAINZ



Glenn Snyder
Display Systems



You're the kid.



**Welcome to the
candy store.**

**July 19-20, 2025
Suburban Collection
Showplace
46100 Grand River Ave.
Novi, MI 48374
NationalTrainShow.org**

Sponsored by  The National
Model
Railroad
Association

**Don't Miss
Your Train!**



Shop hard-to-find items
online. 10% off 1st order
with code **MTMR10**

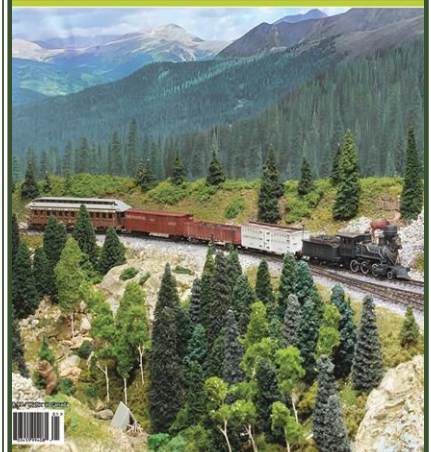


ModelTrainMarket.com

Satisfaction Guarantee • Free Shipping

N-Scale

MAY / JUNE 2025



N-Scale Magazine is a bi-monthly publication devoted exclusively to N scale, featuring Layouts, Dioramas, Nn3, DCC, Electronics, Painting & Weathering, 3D Printing, Scratch-building, Reviews, New Products and more. Both Print & Digital Subscriptions Available.

www.nscalemagazine.com

CD Volume 7 Now Available
(Jan/Feb 2020 – Nov/Dec2024)



PLATINUM RAIL
PUBLICATIONS

5811 75th Avenue NE Marysville, WA 98270
360-658-2485



Introducing the UT6 & UT6D Utility Throttles for Digitrax Complete Train Control!



- Compact size for easy one-handed operation
- Color 1.5" LCD Screen
- Full numeric keys for easy Locomotive selection
- Fine speed control with a large encoder knob
- Removeable LocoNet® cord
- Forward/Reverse toggle switch with Braking
- Off/On switch, uses AA or BP600MH batteries

UT6

Utility Throttle

\$105.00 MSRP

UT6D

Duplex Utility Throttle

\$170.00 MSRP

View all features and *more*
on our website!

Find out more @ www.digitrax.com/throttles/

What's your scale?

Scale preference can be one of *those* topics. Something you only talk about with like-minded people. But not all of us feel that way. Some of us model in multiple scales, others would like to model in a scale different than what we do, but for practical reasons, we don't.

This month, you might notice there are a few more N scale stories than usual. It's the second-most popular scale after HO, taking up somewhere around 20-25% of the total when people are asked to list their favorite modeling scale.

At one time, N scale could be a source of frustration. Smaller models require tighter tolerances. It doesn't take as much dirt, or as great a misalignment of track, to stop or derail a train in N scale. The models themselves in the early days generally weren't as reliable as today's offerings.

But that's been changing for several years now, and it's not unusual to find good-looking N scale railroads that also operate well.

That means it's easier to enjoy one of the most obvious benefits of smaller scales — the ability to make the railroad fit into the landscape more realistically. If you've ever wanted to re-create the look of trains winding around the foot of mountains, or to model truly scale-sized modern freights, N can be a great choice.

I'm one of those people who's modeling in a scale that perhaps might not be best for me. At one time, I wanted to build a Lehigh Valley RR layout that would feature trains passing through Lehigh Gap. I like the railroad of the 1970s, so that would mean a wide river, steep mountain-sides, and long trains made up of 85-foot or longer

trailer-on-flatcar specials. I already had, and still have, a decent amount of HO rolling stock for an LV layout, but I don't have the basement to build what I'd like.

Switching to N scale would solve that problem, but I like the HO models. Instead, my plans have changed to focus on a branch line, with a few trains passing on the main line that would circle the basement and return to staging.

I've found I really enjoy switching operations, and I want to be able to do that easily. While I've operated on N scale layouts that involved switching cars, it requires a steady hand to uncouple smaller cars, as well as sharp eyesight to read road numbers at 1:160 scale.

Of course, if I wanted to really enjoy switching cars, I might want to look at O scale. The rolling stock is heavy



enough that it starts acting more like the prototype in terms of mass.

A compromise might be S scale. There's more mass, less space required, and it offers lots of opportunities for the model builder.

And I haven't even touched on Z or T, or TT scales. Let us know about your ideal scale!

Model Railroader

Model railroading is fun!

Founder A.C. Kalmbach 1910-1981
 Editor Eric White
 Senior Editor Cody Grivno
 Senior Production Editor Rene Schweitzer
 Associate Editor Bryson Sleppy
 Assistant Digital Editor Mitch Horner
 Contributing Editors Tony Koester, Pelle Søeborg, Larry Puckett, Lou Sassi

Email editor@modelrailroader.com
 Address 18650 W. Corporate Dr., Suite 103
 Brookfield WI 53045

Model Railroader Art Team

Design Director Thomas G. Danneman
 Assistant Design Director Scott Krall
 Illustrators Kellie Jaeger, Roen Kelly
 Production Director Kelly Kramer Weekley
 Operations Specialist Melissa Valuch
 Production Specialist Jodi Jeranek

Contributing to Model Railroader

We welcome contributions from readers, including articles, photographs, and drawings. For more information on submitting material, email Editor Eric White at eric.white@firecrown.com. Model Railroader assumes no responsibility for the safe return of unsolicited material. We assume unsolicited material is intended for publication by Firecrown Media unless otherwise noted. We assume letters, questions, news releases, and club news items are contributed gratis.

Trains.com

Director
 Executive Producer
 Producer
 Assistant Editors
 Staff Writer

A. David Popp
 Kent Johnson
 Ben Lake
 Jenny Freeland, Sean Kirby
 Lucas Iverson

Advertising Department

Email martha.stanczak@firecrown.com
 Phone 414-246-7081

Martha Stanczak

Retail Orders & Inquiries

Selling Model Railroader magazine or products in your store:
 Email terri.meunier@firecrown.com

Customer Sales and Service

Phone 877-246-4879
 Outside U.S. and Canada 847-313-3921
 Customer Service
ModelRailroader@Omeda.com

Firecrown

Chief Executive Officer
 President
 Chief Strategy Officer
 Chief Commercial Officer
 Chief Operations Officer
 Chief Financial Officer
 Vice President, Finance/Controller
 Vice President, Creative
 Group President, Hobby Division
 Group President, Aviation Division
 Group President, Marine Division
 Editorial Director
 Vice President, General Counsel
 Human Resources Director

Craig Fuller
 David Bradford
 Keith Beckman
 Preston Brown
 Nicole McGuire
 Lan Phan
 Amanda Joyce
 Barry Carpenter
 David Carr
 Lisa DeFrees
 Glenn Sandridge
 Meg Scarbrough
 Darren Caputo
 Suzie Matoh

SUBSCRIPTION RATE: Single copy: \$7.99 (U.S.). Print + digital subscription rate: U.S.: 1 year \$58.95. Canadian: Add \$13.00 postage. Canadian price includes GST, payable in U.S. funds. All other international: Add \$24.00 postage, payable in U.S. funds, drawn on a U.S. bank. ©2025, Firecrown Media Inc., all rights reserved. Title registered as trademark. This publication may not be reproduced in any form without permission.

Written communication regarding your Model Railroader magazine subscription will arrive from Lincolnshire, IL. Renewals and invoices received with a Lincolnshire, IL, return address are legitimate notices about your subscription. We thank you for your continued interest in Model Railroader!



LGB® Garden Railroading

Get on board and join the fun!



20494 Amtrak AMD 103 "Genesis" Diesel Locomotive; Road No. 108 (left)

20493 Amtrak AMD 103 "Genesis" Diesel Locomotive; Road No. 160 (right)



LGB Amtrak cars have interior lighting and metal wheelsets. Passenger cars have interior details and stickers for creating different road numbers.



31201 Amtrak Baggage Car (Streamliner)



31202 Amfleet® Passenger Car – Business Class



31203 Amfleet® Passenger Car – Coach Class



31204 Amfleet® Split Club Car



31205 Amfleet® Café Passenger Car



Join the LGB Club – Enjoy the Benefits

- Four issues of LGB Depesche magazine
- Annual LGB Full Line Catalog
- Annual Gift

- Access to Exclusive Club Model
- New Items Brochures
- LGB Club Card

Join the North American LGB Club on our web page: marklin.com/clubs/uscanada-registration

Purchase from your favorite LGB dealer. For a FREE LGB New Items brochure and to learn more about the LGB Club, email customerservice@marklin.com. Visit LGB.com to see our complete line of products.



HO scale



Lima Locomotive Works 2-6-6-6 Allegheny steam locomotive.

This large, articulated steam locomotive is available from Hornby Hobbies USA decorated for Chesapeake & Ohio in three road numbers. The HO scale model features light-emitting-diode lighting, including headlight and flickering firebox effect. Other features include positionable cab windows, firebox door, cab vent, and tender water hatches.

Separately applied details on the model include handrails, piping, whistle, and more. A wired tether connects the locomotive and tender. An extra cab is included for navigating tight-radius curves down to 16". The locomotive is available as a direct-current model for **\$469.49** and with an ESU LokSound V5 sound decoder for **\$649.99**. Rivarossi line. Hornby Hobbies USA, 877-358-6405, hornbyhobbies.com

Berkshires big at Railroad Hobby Show

27,535. That's how many people

walked through the doors of The Big E in West Springfield, Mass., the last weekend of January for the Amherst Railway Society Railroad Hobby Show. This set a new all-time record attendance for the annual two-day event. But that major milestone was only part of the news from this year's show.

The buzz, as it is annually, was all about the various new product announcements. Two companies rolled out different variations of the Lima-built 2-8-4 Berkshire steam locomotive in HO scale. Broadway Limited Imports shared information about its Boston & Albany class A-1a Berkshire, while Lionel introduced a 2-8-4 decorated for the Chesapeake & Ohio, Nickel Plate Road, and Pere Marquette. The new Lionel locomotive will be offered with an ESU Lok Sound V5 sound decoder in Digital Command Control.

Speaking of Lionel, the company had a lot to celebrate as part of its 125th anniversary. Visitors to the booth could see new announcements and samples, historical milestone products, operate an O gauge train, and even take a picture with Lenny the Lion.

Elsewhere at the show, Rapido was showcasing its latest projects, including 3-D printed samples of its all-new HO



Atlas Model Railroad Co. displayed 3-D printed samples of its HO scale CF7 diesel locomotive at the Amherst Railway Society Railroad Hobby Show in late January. The Master Line model will be offered with round and angled cabs. Bryson Sleppy photo

scale Budd M3 railcar, an American Car & Foundry helium car in HO, and a yet-to-be-announced Chicago Transit Authority car.

Atlas showed 3-D printed samples of its HO scale CF7 diesel locomotive, first announced at Trainfest in late 2024. Walthers displayed a variety of EMD NW2 switchers, as well as the upcoming ACF 5,250-cubic-foot-capacity Center Flow covered hopper, both in HO scale.

Otter Valley had plenty of new N scale National Steel Car 6,000- and 6,400-cubic-foot capacity gondolas on hand, as seen on page 12.

ScaleTrains announced a pair of new Electro-Motive Division locomotives in HO scale, the SD7 and SD9. Samples of both six-axle units were on display.

The Bachmann booth featured a variety of new products, including N scale Siemens Chargers lettered for VIA Rail Canada, HO scale Strasburg RR coaches, and the HO scale McKinley Explorer set in new paint.

This was a fantastic year for the Amherst show, and I'm already looking forward to 2026. Visit [Trains.com](https://www.Trains.com) for the latest news and product coverage. — Bryson Sleppy, associate editor

HO scale



Electro-Motive Division GP40 diesel locomotive. The newest four-axle diesel locomotive from ScaleTrains is decorated for Denver & Rio Grande Western, Chicago & North Western, Milwaukee Road, Penn Central, and Western Pacific in one to six road numbers per paint scheme. The HO scale EMD GP40 features a light-emitting-diode light package, including front and rear headlights, ground lights, walkway lights, number box lights, classification lights, and Mars light as appropriate. Among the separate, factory-applied details on the Rivet Counter line model are positionable cab side windows, wire grab irons, plastic handrails and stanchions, etched-metal windshield wipers, plastic trainline hoses, and sand hatch covers. Direct-current models are priced at **\$199.99**. Models with Digital Command Control and sound list for **\$299.99**. ScaleTrains, 844-987-2467, scaletrains.com

In Memoriam

Morgan Turney, 1947 - 2025

Morgan Turney, founder and editor of *Canadian Railway Modeller* magazine, died Feb. 6, 2025. He was 78 years old.

Morgan founded the magazine in 1990. John Longhurst, former CRM associate editor, said in an email to *Model Railroader*, "Thirty-five years ago, you could hardly buy anything for your model railroad in Canadian railway schemes. And there wasn't much of a Canadian model railroad manufacturing community, either. Today that all is different, and much of it can be attributed to Morgan Turney and the magazine he founded."

Morgan is survived by his wife, Carol, and two children.

HO scale locomotives



• **Electro-Motive Division SD7 and SD9 diesel locomotives.** SD7: Chicago, Burlington & Quincy; Great Northern; Southern Pacific; and Union Pacific. SD9: Conrail and Norfolk Southern. Multiple road numbers per scheme. Multiple cab, dynamic brake, hood, and fuel tank variations. Light-emitting-diode lighting, including front, rear, and side walkway lights; ground lights; number box lights; classification lights; Mars or Pyle signal light packages; and ditch lights as applicable. Direct-current model, \$204.99; with DCC and sound, \$304.99. Rivet Counter line. ScaleTrains, 844-987-2467, scaletrains.com



• **General Electric P32AC-DM diesel locomotive.** Amtrak Phase 3 ("Fade" and Empire Service schemes). Three road

numbers per scheme. New tooling. Road-specific details, including antenna array, original or retrofitted nose, short air tanks, and disengaged/lifted third rail shoes. Light-emitting-diode lighting, including headlights, ditch lights, marker lights, and step lights. Factory-applied wire grab irons. Semi-scale metal couplers. MoPower capacitor system. Direct-current model, \$239.95; with DCC and sound, \$359.95. Rapido Trains, 905-474-3314, rapidotrains.com



• **Lima Locomotive Works Boston & Albany class A-1a 2-8-4 Berkshire steam locomotive.** Lima Locomotive Works, Boston & Albany, and Illinois Central. One to six numbers per scheme. Brass boiler, cab, and tender body. Die-cast metal locomotive and tender chassis. Four- or six-axle tender as appropriate. Factory applied handrails, grab irons, ladders, piping, whistle, and brass bell. Synchronized puffing smoke with chuff sound, and variable smoke intensity and timing. Direct-current model, \$699.99; with DCC and sound, \$799.99. Broadway Limited Imports, 386-673-8900, broadway-limited.com



• **Lima Locomotive Works 2-8-4 Berkshire steam locomotive.** Pere Marquette, Chesapeake & Ohio, and Nickel Plate Road. Multiple road numbers per scheme. All-new tooling. Die-cast metal boiler and frame. Fan-driven smoke unit. Direct-current model, \$649.99; with ESU LokSound V5 sound decoder and PowerPack, \$749.99. Lionel Trains, 800-454-6635, lionel.com

HO scale rolling stock

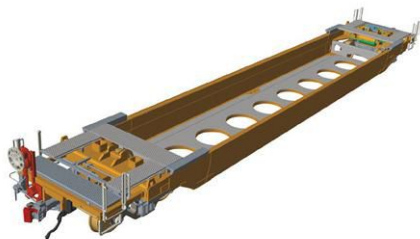


• **American Car & Foundry helium gas tank car.** MHAX and ATMX. Available as single car and six-pack. Also offered painted silver but unlettered. Detailed underbody and piping. Separate wire grab irons. Stainless steel running board. Solid- or roller-bearing trucks as appropriate. Single car, \$59.95; six-pack, \$359.70. Rapido Trains, 905-474-3314, rapidotrains.com

N scale



National Steel Car 6,000-cubic-foot capacity gondola. Midwest Railcar Corp., American Iron & Metal, Triple M Metals, and IZZY are the paint schemes offered on this modern scrap hauler from Otter Valley Models. The all-new N scale car features prototype-specific ends and slotting, different offset slots for 7- and 8-rung ladders, and a detailed underbody with an air reservoir and near-scale-size draft-gear boxes with specialized cushion detail. Factory-applied details include ladders, brake levers, uncoupling levers, and air hoses. Single cars are priced at **\$43.99**. A six-pack retails for **\$259.99**. Otter Valley Railroad, 877-885-7245, ovrtrains.com



• **Gunderson 40-foot rebuilt all-purpose well car.** Newly tooled model with detailed, die-cast metal body. Separately applied ladders, handrails, grab irons, walkways, uncoupling levers, and air hoses. With or without trailer hitches as appropriate. Full air brake system. Vertical wheel handbrake with chain and pulley system. Detailed interior floor, sides, and ends. 70-ton Barber S-2 roller-bearing trucks with brake beams and bolster and center plate detail. AuroraJanney scale head couplers. Road names and road numbers to be announced. Aurora Miniatures North America Inc., na.auroraminatures.com



• **Pennsylvania RR Shops X58 class boxcar.** Penn Central, Conrail, Lehigh Valley, Norfolk Southern, and Pennsylvania RR. Multiple road numbers per scheme. Roof, brake appliance, side and end ladder, and center door arm variations correct for era and paint scheme. Hydra-cushion or Keystone underframe as appropriate. All-new Stanray 50-foot

diagonal-panel roof. Separate door rods and door roller detail. See-through running board and crossover platforms. Full AB brake detail and train air line. Wire grab irons and trombone-style uncoupling levers. Separate air hoses. Metal wheels in ASF 70-ton Ride Control roller-bearing trucks with CNC-machined 33" metal wheelsets. \$48.95. Tangent Scale Models, 828-412-3886, tangentscalemodels.com



• **Pennsylvania RR G38 and G38B ore hoppers.** Conrail, Pennsylvania RR, and Penn Central. Also available painted brown or black but unlettered. Detailed plastic body with hidden weight. Various separately applied details. Road-number-specific weight and paint data markings. PRR 2E-F8 70-ton trucks or 77-ton trucks as appropriate. Operating metal couplers on end cars, scale dummy couplers on intermediate cars in four-packs. Metal wheels. Single car, \$49.99; four-pack, \$199.99. Lionel Trains, 800-454-6635, lionel.com

• **Trinity 3,601- and 3,621-cubic-foot two-bay salt covered hopper.** CLSX and OFOX. Multiple road numbers per scheme. Injection-molded plastic body. Separate, factory-applied wire grab irons and uncoupling levers. Photo-etched

running boards. Working shelf-type knuckle couplers without trip pins. Roller-bearing trucks with rotating bearing caps. \$54.99. Otter Valley Railroad, 877-885-7245, ovrtrains.com

N scale locomotives

• Baldwin Locomotive Works RF16 Sharknose diesel locomotive.

Delaware & Hudson, Baltimore & Ohio, New York Central, and Pennsylvania RR. Multiple road numbers per scheme. New tooling. Die-cast metal chassis. Road-specific details. Separately applied handrails, grab irons, horn, bell, wipers, etched-metal grills, and more. Direct-current A- or B- unit, \$159.99; A- or B-unit with DCC and sound, \$249.99; direct-current A-unit and unpowered B-unit set, \$239.99; A-unit with DCC and sound and unpowered B-unit, \$329.99. Broadway Limited Imports, 386-673-8900, broadway-limited.com

N scale rolling stock

• Greenbrier/Gunderson 6,276-cubic-foot capacity 50-foot Plate F boxcar.

All-new model. Detailed injection-molded plastic body. Separately applied door rods, handbrake wheel, uncoupling levers, and air hoses. Detailed underbody including main air line, control valve, air reservoir, empty/load equipment, brake cylinder, low-mounted brake rods, and full piping details. 100-ton roller-bearing trucks with 36" metal wheelsets. AuroraJanney couplers. Road names and price to be announced. Aurora Miniatures North America Inc., na.auroraminatures.com

Electronics/controls

• **Power Pro PH5 and PH5r.** All-new circuitry. Four times the memory and four times the speed of previous systems. Improved program track circuit. Able to be updated from the internet via included USB. Support for all 69 NMRA functions. Single-point update — updating the main box will automatically update all ProCabs. All connecting cables and accessories included. With 90W international power supply approved for use in U.S., Canada, Australia, U.K., E.U., Mexico, and Argentina. PH5 system, \$799.95; PH5r wireless system, \$999.95. NCE Corp., 585-265-0230, ncedcc.com

Sooty's COAL COLLECTION

ROTATING
SHEAVE
WHEEL!



NEW!

Sooty's COAL TIPPLE

H0 Scale (275-9272) | O Scale (275-9271)

Prelit, preassembled and ready to go

Realistically weathered coal tipple with
“Sooty’s” logo on the roof

Includes four figures, pile of coal pile,
dog house, and Jack the German Shepherd

2-1/4” wide opening to run trains through
(3-1/4” clearance)

Sooty's MINE SHAFT #12

H0 Scale (275-9406) | O Scale (275-9405)

Prelit, preassembled and ready to go

Authentic parts including a headframe,
shaft station, sheer, and sheave wheel
that actually turns!

Lighting above the entry door and
under the sheave wheel

Realistically weathered, complete with
piles of coal and covered in soot

Includes four miners, two oil drums,
and Jack the German Shepherd

Rapido Trains HO scale EMD GP38



An Electro-Motive Division GP38 diesel locomotive is now available in HO scale from Rapido Trains. The four-axle road switcher features plastic and die-cast metal construction and body-mounted metal couplers.

Electro-Motive Division produced the GP38 from January 1966 through December 1971. During the course of the production run 733 units were built. The four-axle road switcher was rated at 2,000 horsepower and equipped with a 16 cylinder, 645 diesel engine.

The sample we received is decorated as BNSF Ry. 2157, part of the railroad's 2155 through 2189 series. The 2157 was built in May 1970 as Penn Central 7827. The locomotive was acquired by Burlington Northern on May 15, 1985, becoming the railroad's 2157.

Following the merger between BN and Atchison, Topeka & Santa Fe in 1995, the GP38 joined the BNSF Ry. fleet. It was repainted in BNSF's Heritage I scheme on March 4, 1998.

The Rapido GP38 features a multi-piece plastic body with many factory-applied parts. Among the universal details are metal side handrails with plastic stanchions; see-through, etched-metal steps; and roof-top fans with plastic housings, etched-metal grills, and separate fan blades. Underframe details include air filters, traction motor cables, and

working ground lights above the front truck on both sides.

Railroad-specific features on units decorated for BNSF Ry. include a 2,600-gallon fuel tank, modified m.u. receptacles, front and rear ditch lights, and a blanked out headlight between the number boards (the headlight is accurately relocated on the low short hood).

Our sample is neatly decorated in BNSF Ry.'s Heritage I paint scheme. For the most part, the lettering, paint, and detail placement match prototype images. The BNSF lettering on the conductor's side of the long hood should be moved forward by two engine compartment doors. The grab irons on the short hood are painted white, but should match the body color.

Drawings of the EMD GP38 were published in the 1970 *Car and Locomotive Cyclopedia of American Practices*. The dimensions of the Rapido model match published data.

The sample we received has an ESU LokSound V5 sound decoder. I first tested the GP38 at the workbench using an NCE Power Cab. At step 1, the model moved at 0.6 scale mph. At step 28 the four-axle road unit achieved a top speed of 64 scale mph. The top speed on full-size GP38 diesels ranged from 71 to 83 mph.

Then I took the HO GP38 over to our Winston-Salem

Southbound for further testing. The model navigated the No. 4 turnouts and 30-degree crossing without issue.

If your model railroad needs a four-axle road switcher, check out the HO scale EMD GP38 from Rapido Trains. Though it's sold out at the manufacturer, you can still find models at hobby shops.

— Cody Grivno, senior editor

Facts & features

Price: Direct current, \$239.95; with ESU LokSound V5 sound decoder, \$349.95

Manufacturer

Rapido Trains Inc.
500 Alden Rd., Unit 21
Markham, Ontario, Canada
L3R 5H5
rapidotrains.com

Era: January 1966 to present (varies depending on paint scheme)

Road names: BNSF Ry.; Atchison, Topeka & Santa Fe; Baltimore & Ohio; Burlington Northern; Conrail; CSX; Norfolk Southern (high short hood); Penn Central; and Southern Ry. (high short hood). Low short hood unless noted. One to four road numbers per scheme.

Features

- Body-mounted metal couplers, .020" high on both ends
- Metal wheel stubs mounted on plastic drive axle gears, correctly gauged
- Minimum radius: 18"
- Weight: 1 pound, 0.3 ounces



Trains.com members can see the Rapido HO scale GP38 in action with this QR code.

Aurora Miniatures N Greenbrier 7550 boxcar



A Greenbrier 7,550-cubic-foot capacity double-plug-door boxcar is the first N scale freight car from Aurora Miniatures North America Inc. The injection-molded plastic model features many separate, factory-applied parts; metal wheelsets; and body-mounted plastic AuroraJanney plastic knuckle couplers.

The Aurora Miniatures boxcar is based on the 2016 to present version of the Greenbrier prototype with grid-shaped sides, Titan-series plug doors, and a combined diagonal- and X-panel roof. Approximately 20,000 of the cars are in service throughout North America.

The sample we received is decorated as TTX (TBOX) 644496, part of the freight car leasing company's 644461 through 644999 series built by Greenbrier between December 2021 and March 2022. The full-size cars transport a variety of products, including appliances, beer, canned goods, lumber, steel, and wine, among other items.

The N scale model features a one-piece plastic body. Molded parts on the sides and ends include the ladders, crossover handrails, route card holders, and hand brake. Factory-applied plastic parts include the door rods, brake wheel, uncoupling levers, and train line hoses. The crossover platforms are see-through, etched-metal parts.

Like its HO scale offerings, the underbody on the Aurora Miniatures N scale boxcar is loaded with details. The draft-gear boxes are two-piece, screw-mounted plastic castings. The stringers and nailable steel floor detail are molded. The center sills, cross bearers, crossties, and bolsters are a separate, plastic casting. The air reservoir, brake cylinder, control

valve, empty/load equipment, and piping are also part of the casting, but have a freestanding appearance. The brake rods and brake pipe are formed wire.

The screw-mounted, 100-ton trucks have separate brake beam detail and feature raised foundry data. All four of the 36" metal wheelsets were tight when checked against a National Model Railroad Association standards gauge. A gentle twist of the wheels on the axle brought them into gauge.

The roof is a separate plastic part. It's painted to look like fresh galvanized steel. Like the full-size cars, it has three X-panels on each end and seven diagonal panels in the middle.

Our review sample is painted TTX Co. yellow with black doors. Placement of the heralds, assorted data, and FRA-224 yellow stripes matches full-size cars from the same series. Most of the data on the side is on the upper half of the carbody. This is done on prototype cars to prevent it from being covered with graffiti.

There were a few minor paint discrepancies. The Automatic Equipment Identification tags should be gray, the handbrake should be black, and the uncoupling lever handles should be white. The train line hoses are molded in yellow, but should be rubber black with silver glad hands.

General dimensions for the 7550 boxcar are listed on The Greenbrier Companies' website. The Aurora model closely follows the prototype.

I tested the compatibility of the AuroraJanney couplers with freight cars from Atlas, Broadway Limited, Micro-Trains, and Rapido. I was able to couple the cars in one or two attempts. Since the

AuroraJanney couplers lack trip pins, I was unable to use a between-the-rail magnet to separate cars. Instead, I used a Rix Pick uncoupling tool, which worked well in all instances. The manufacturer notes that the draft-gear boxes on the Greenbrier 7550 boxcar will accept after-market couplers.

Congratulations to Aurora Miniatures North America on entering the N scale marketplace. If this car is any indicator, we have a lot to look forward to in 1:160.
— *Cody Grivno, senior editor*

Facts & features

Price: \$39.99

Manufacturer

Aurora Miniatures North America Inc.
1122 Brimley Rd.
Scarborough, Ontario, Canada
M1P 3G3
na.auroraminatures.com

Era: 2016 to present (varies based on paint scheme)

Road names: TTX Co. (standard and high reporting markings), Ferromex (six road numbers), GATX (BKTY [six numbers] and Laurinburg & Southern marks), Utah Central Ry. (six numbers), and Union Pacific (BKTY reporting marks). Twelve numbers per scheme unless noted.

Features

- 36" metal wheelsets, out of gauge
- Body-mounted plastic AuroraJanney couplers, at correct height
- Weight: 1.4 ounces, .2 ounce too heavy per National Model Railroad Association Recommended Practice 20.1



COMING SOON

LANDMARK STRUCTURES®

Interlocking Tower

This Built-&-Ready® tower ensures safe & smooth operation of railroad junctions and is perfect for overlooking your railways!

- Authentically weathered & hand-painted
- Compatible with the Just Plug® Lighting System
- 360° printed interior

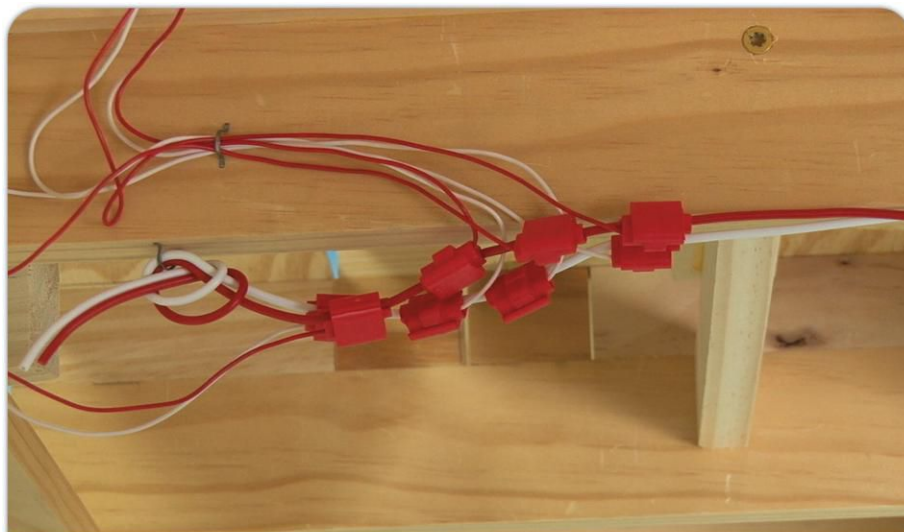


**WOODLAND
SCENICS®**

woodlandscenics.com



Purchase from your local hobby store.



This below-the-benchwork view of the N scale Milwaukee, Racine & Troy State Line Route shows the 22AWG solid feeder wires and 16AWG stranded bus wires. Trains.com Director David Popp used a ScotchLok Insulation Displacement Connectors to attach the feeder wires to the bus line. *Model Railroader photo*

Selecting the right wire size

Q I'm setting up a model railroad on a 6 x 12-foot table. The layout will use Digital Command Control. What would be the best wire size(s) to use on the layout?

Greg Kurtz

A Two considerations, Greg: First, that doesn't involve long bus-wire lengths, so No. 14 wire will be fine for an HO scale layout. I use red-insulated wire for one bus wire, black for the other. But don't make a continuous loop of the bus wires; run them from the command station, keeping them separated by at least 6 inches or very loosely twisted, and terminate them before they come back to the command station.

And be sure to connect No. 18 or even short No. 22 feeder wires between each rail and the corresponding bus wires. (David Popp used smaller wire for an N scale layout.) Color-code them black or red to match the bus wires to avoid mistakes. Never depend on rail joiners to carry current.

If you solder the feeder wires to the rails, be sure the rails are sparkling clean where the joint will be made. The type of solder you use is a matter of personal choice. I use a silver-bearing solder (not pure silver solder) for greater strength — same for the feeder-to-bus wire connection. However, I normally use 3M-brand ScotchLok Insulation Displacement Connectors (IDCs) for this connection and have never had a failure when properly installed. I put one IDC on the bus wire every 6 feet or so and run a short No. 18 pigtail from it. I then use a large wire nut to connect several feeders to the pig tail, thus saving on expensive IDCs.

Digital Command Control expert Mark Schutzer usually reserves silver-bearing solder for attaching points and frogs to printed-circuit-board ties where the extra strength is needed. For power drops on layouts he uses tin-lead solder.

Mark further notes that 63/43 tin-lead solder has the lowest melting point of any regular solder: 63/43 melts at 173 degrees Celsius (343 degrees Fahrenheit). Silver-bearing, non-lead solders melt in the 210 to 230 degree Celsius range (410 to 450 degrees Fahrenheit). Since you don't have to get the rails as hot with tin-lead solder, you aren't as likely to melt the plastic ties. — *Tony Koester, contributing editor*

WESTWARD										EASTWARD									
THIRD CLASS										FIRST CLASS									
553										136									
Time Table No. 84										Effective January 1, 1950									
STATIONS										STATIONS									
TILDEN JCT.										TILDEN JCT.									
Y 17										DNJR									
6:00am										11:30am									
8:40am										1:10pm									
11:30am										3:00pm									
1:10pm										5:50pm									
3:00pm										5:50pm									
5:50pm										7:10pm									
7:10pm										9:00pm									
9:00pm										11:01pm									
11:01pm										1:01am									

This Great Northern Dakota Division employee timetable from Jan. 1, 1950, indicates that trains operating between Tilden Junction and Red Lake Falls Junction in the northwest corner of Minnesota were governed by Northern Pacific's timetable.

Q I'm planning a layout that features several railroads, including a mythical short line that has to use running rights with the larger railroads. How would these running rights work in regards to timetables and train orders? And how would clearance cards be issued? Would there be a clearance card issued by each road, or would one suffice?

Ethan Amstutz

A Running rights are called trackage rights. The rules and timetables of the larger railroads govern the employees of the mythical short line when they're operating over that trackage. Employee timetables state this explicitly, for example: "Conductors and Enginemen when operating over foreign roads will be governed by the rules and regulations and provide themselves with timetables and books of rules of such roads." Mythical's crews would also have to pass Lagers' rules examinations and qualify on Lagers' physical characteristics.

Similarly, Lagers issues train orders and clearances. This doesn't mean that orders and clearances are always received at Lagers' locations. My October 2023 On Operation column "Hat Tricks" describes how different railroads cooperated on this. — *Jerry Dziedzic*

Q I recently acquired a WalthersProto HO scale Electro-Motive Division FP7 and F7B set, both with ESU LokSound V5 sound decoders. The speed range on the locomotives isn't what I expected. Using an NCE Pro Cab, the units crawl at speed step 30. At max speed (128) they move along; however, they don't match any of my other locomotives at the same high speed. I tried

Send questions on model, prototype, and toy trains to AskTrains@Trains.com.

HALFPRICEHOBBY.COM

100's of HO and N Scale specials
at 50% off of M.S.R.P. at
www.halfpricehobby.com

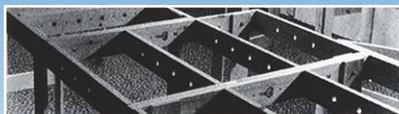
Regular Stock items always discounted
from 20 to 50% off with low flat rate
shipping of \$8.99

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.

BENCHWORK in a HURRY



Use Our Simple Modular System

You Design Any Size Layout
For Any Gauge Track
Easy to Assemble

Sievers BENCHWORK

Washington Island, WI 54246
920-847-2264

www.sieversbenchwork.com

Check out *Model Railroader*
on Facebook!

Go to [Facebook.com/ModelRailroader](https://www.facebook.com/ModelRailroader)

YankeeDabbler.com

Thank you for making YankeeDabbler your favorite hobby store!

Check out our complete train store!

Repairs and decoders installed.
N, HO, S, O, G

Authorized Dealer:

Digitrax, ESU-LokSound,
NCE, Soundtraxx, TCS



OPEN
Tue-Sat
Web(24x7)

(856) 312-8084 101 W. Kings Hwy.,
Bellmawr, NJ 08031

www.yankeedabbler.com

TRAINSHOW.COM

The best place to find Great
Train Shows in America

Greenberg's Train & Toy Show
America's Train & Toy Show since 1976

Great American Train Shows
Quality Train Shows from coast to coast

Great Midwest Train Show
The best place to buy & sell trains since 1971

SCHEDULE:

Mar 15-16 Rochester, NY - The Dome Arena
Mar 22-23 Des Moines, IA - Iowa Events Center
Mar 22-23 Wilmington, MA - Shriner's Auditorium
Mar 29-30 East Moline, IL - Bend Expo
Mar 29-30 Edison, NJ - New Jersey Expo Center
Apr 6 Wheaton, IL - DuPage County Fairgrounds
May 4 Wheaton, IL - DuPage County Fairgrounds
Jun 1 Wheaton, IL - DuPage County Fairgrounds
Jul 26-27 Oaks, PA - Greater Philadelphia Expo Ctr
Aug 2-3 Monroeville, PA - Convention Center
Aug 3 Wheaton, IL - DuPage County Fairgrounds
Aug 9-10 Edison, NJ - New Jersey Expo Center
Aug 16-17 Chantilly, VA - Dulles Expo Center
Sep 7 Wheaton, IL - DuPage County Fairgrounds
Oct 5 Wheaton, IL - DuPage County Fairgrounds

Exhibit space is still available for
some of the Summer shows, sign up
today at Trainshow.com

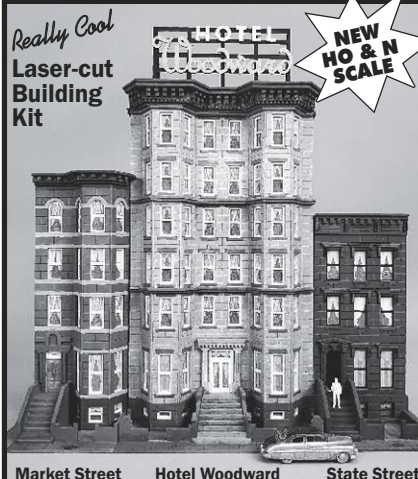
For Information & Discount Tickets:
TRAINSHOW.COM

CMR KITS

New City Buildings

Really Cool
Laser-cut
Building
Kit

NEW
HO & N
SCALE



Market Street Hotel Woodward State Street

Santa Fe Depot



www.custommodelrailroads.com

SHOP ON-LINE 24/7

WE SUPPLY THE WORLD



AMERICA'S LARGEST
INTERNATIONAL MAIL ORDER
DISCOUNT TRAIN STORE

SIGN-UP FOR OUR E-MAIL SALES 1-800-541-7010 e-mail: ORDERS@TRAINWORLD.COM
HUGE INVENTORY • GREAT SELECTION • FAST SHIPPING 725 McDONALD AVE., BROOKLYN, NY 11218

TRAINWORLD.COM

N, HO, ON30 SUPER SAVINGS SALE

10% OFF

\$100.00
and OVER
BEFORE TAXES &
SHIPPING CHARGES

@ TRAINWORLD.COM
On-line Orders Only

Use CODE Word **MRAM25** In Discount Code Box
SALE ENDS MAY 15, 2025
MODEL RAILROADER

THIS MONTH'S SPECIAL

G81317 HO P42
AMTRAK
PHASE V



Limited
Quantities

SUPER SALE \$169.99
MORE SALE ITEMS @ trainworld.com

DCC &
SOUND

- CODE WORD MUST BE APPLIED AT TIME OF ORDER
- IN STOCK ITEMS ONLY
- NO NEW ARRIVALS; NO BACK ORDERS
- NO PRE-ORDERS
- NOT REDEEMABLE FOR CASH OR GIFT CARDS

- LIMITED QUANTITIES ON CERTAIN ITEMS
- DISCOUNT DOES NOT APPLY TO SALES TAX OR SHIPPING & HANDLING
- NO REBATES, NO REFUNDS, NO STORE CREDIT ON PREVIOUSLY SOLD ITEMS
- CANNOT BE COMBINED WITH OTHER OFFERS OR OTHER DISCOUNTS
- NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS

The Products We Sell Are Not Toys and Are Not Intended For Use By Children Under The Age Of 14.

Building High Quality Systems Since 1995



**Suspended
Railway
Systems**
for
**Businesses
and
Residences**

Loco-Boose Hobbies

Sales and Mfg. • 6637 76th Lane SW, Olympia, WA 98512 • (360) 522-1729
Sales • 6831 County Rd. 136 Hesperus, CO 81326 • (970) 577-0583
website: www.LocoBoose.com • email: lbhddm@gmail.com

Please see web site
for details.



adjusting several Configuration Variable settings without any speed change success. Do you have any suggestions to get the new locomotives to match the 0 to 128 speed range?

Dean, via e-mail

A It sounds as though you have done essentially what we might have in this situation. The NCE Digital Command Control system has a robust service and ops mode programming capability. The fact you can't reprogram the speed control CVs suggests a deeper issue.

I spoke with the technical support staff at Walthers and they indicated that they've had some issues with motor failures in the FP7, which could account for the speed range issue you described. Whether or not this could also interfere with programming is debatable, but it's also possible it might have led to other problems with the LokSound decoder.

At any rate, I suggest you contact the Walthers technical support staff by phone at 414-527-0770 and describe your problem. They likely will ask you if you



A Digital Command Control system and scale speedometer, like those shown here, are needed to speed match locomotives. Contributing Editor Larry Puckett helps a reader diagnose speed issues with HO diesels. Bill Zuback photo

have measured the stall current of the motor, so you might do that in advance of the call if you have the equipment and know how. A relatively high stall current (greater than 1 amp) apparently is one sign of a failed or failing motor. I explained the process for measuring stall current on page 99 of my book *Wiring Your Model Railroad*, available at Shop.Trains.com or your local hobby retailer.

— Larry Puckett, contributing editor

Q The historic cars for the Milwaukee, Racine & Troy featured in the January

2025 episode of Ask Trains were very interesting. What steam and early diesel power would have been used with cars from those eras?

Alfred Mullett

A Regarding steam and early diesel power, the Milwaukee, Racine & Troy would probably follow the lead of larger nearby railroads such as the Chicago & North Western, Milwaukee Road, and Soo Line.

Let's start with diesels. For end-cab switchers, units like the Alco S1 through S4 and Electro-Motive Division (EMD) NW2, SW1, and SW7 would be reasonable. For road power, the MR&T would most likely turn to four-axle units, such as the Alco RS1 through RS3 and EMD GP7 and GP9. It's possible the MR&T could have had a few EMD SD7 and SD9 diesels for branch line duty.

For steam power, I took a look at the C&NW, Milwaukee Road, and Soo Line rosters published in the *Guide to North American Steam Locomotives, Revised Edition* (Kalmbach Books, 2015) and

**SPRING CREEK
MODEL TRAINS**

DESHLER ★ NEBRASKA

One of the largest
HO & N-Scale
Inventories
Around!

Scenery, Details, Books, Tools & More

SpringCreekModelTrains.com

402-365-7628



**EVERGREEN TRANSPARENT
COLOR SHEETS**



- Available in Transparent Blue, Red, Yellow and Green
- Made from Oriented Polystyrene
- Available in Single Color Packs and Assorted (includes opaque black)
- .010" X 6" X 12" Sheet Size

evergreen scale models

visit us at www.evergreenscalemodels.com

Toll Free (877) 376-9099

[f/EvergreenScaleModels](https://www.facebook.com/EvergreenScaleModels)

All the Bells and Whistles - Made Simple for DC!

Get the power of DCC without upgrading your DC layout. The BLU-4408 delivers realistic features, top-notch sound, and smooth operation. With optional battery power, forget track interruptions and enjoy endless fun. Run in DC, DCC, or wirelessly with the Blunami App. Upgrade today: soundtraxx.com/blunami



SHOWCASE-EXPRESS

Wall to Wall Expandable Display Case

Case Size Available: Z, N, HO, S, O, NEW Background Themes



Lighting Kits and Backgrounds Available

Join Top to Bottom
or End to End

714-842-0672

www.SHOWCASE-EXPRESS.COM

It's Boxy! It's Detailed. It's the 1937 AAR Boxcar!

"Not your average transition era freight car."

**HO
SCALE**

Champion



Ajax



Universal



Equipco



Here's The 1937 AAR Boxcar Check List!

- ✓ All-new, state-of-the-art tooling
- ✓ Full underbody detail
- ✓ Separate grab irons
- ✓ Suggested min. radius: 18"
- ✓ Correct running boards
- ✓ Multiple end, roof and doors
- ✓ Four ladder varieties
- ✓ Seven different brake wheels

Chesapeake & Ohio • Canadian National • Canadian Pacific
 Erie • Florida East Coast • Lackawanna • Lancaster & Chester
 Minneapolis & St. Louis • Monon • New Haven
 New York Central • Nickel Plate • Northern Pacific
 Ontario Northland • Seaboard Air Line • Soo Line
 Southern • Southern Pacific • Western Pacific

Undecorateds also available!

The 1937 AAR standard boxcar was one of the most widely produced freight cars ever. From the start of production in 1936 nearly 94,000 cars were built for 64 railroads to variations of this design. Through various secondhand owners, rebuilds and upgrades they continued in service well into the 1980s.

Rapido's HO model includes numerous parts to model most possible combinations. Our cars include square and round corner post ends (with correct sides) as well as Canadian NSC-2 and welded 5/5 rib ends. We've made Murphy rectangular panel, flat panel and Viking roofs with either wood or photo-etched steel running boards in multiple patterns. Equipped with correct seven or eight rung ladders, with integral sill steps for Canadian prototypes. Youngstown and Superior 6 foot doors are available, as are multiple styles of brake wheels and housings. AAR Double Truss or National B-1 trucks compliment this model nicely.

CONTACT YOUR RETAILER OR ORDER DIRECT AT RAPIDOTRAINS.COM

Quality. Style. Spirit.™



**RAPIDO
TRAINS INC.®**



rapidotrains.com

youtube.com/RapidoTrains

facebook.com/RapidoTrains

wrote down some of the locomotives that all three railroads had in common when developing a hypothetical MR&T fleet. For yard duty 0-6-0 and 0-8-0 switchers would make sense. I could see the MR&T turning to 2-6-0 Moguls, 2-6-2 Prairies, 2-8-0 Consolidations, and possibly 2-8-2 Mikados. The Mikes would probably be the biggest steam the MR&T would have rostered.

Q In *Model Railroader* product reviews, locomotive speed is often measured and compared with the prototype. I was wondering how this is done so I can run my trains at prototypical speeds.

George Smitton

A When we test locomotives at the workbench, we use the Model Railroad Technologies Accutrak II train speedometer. An earlier variation of the speedometer is shown in the image on the next page. Before testing, we set our NCE Power Cab throttle to 28 speed steps. Then we test the locomotive at step



What would the Milwaukee, Racine & Troy locomotive fleet look like if we modeled the steam era? You'd probably find 0-8-0 switchers similar to this Walther's Proto HO scale model working the Port Marquette Yard. Bill Zuback photo

1 (or 2 if it doesn't run smooth at step 1) and step 28.

Our go-to references for prototype speed information are the *Locomotive Cyclopaedia of American Practice* and the *Car and Locomotive Cyclopaedia of American Practices*, both from Simmons-Boardman Publishing Corp. Many of the locomotives in these references have a chart of general characteristics, which often includes the maximum speed. Sometimes there is only one top speed. If there are multiple gear ratios, several maximum speeds will be indicated.

Q I have some questions about streamlined observation cars with rounded ends. What was the purpose/ use of the large light located at the end of the roofline of these cars? Is it a white light for reverse moves, or is it a red light similar to a modern day Flashing Rear End Device? Could the color of the light be changed depending on the situation? Of course there are the two classification lights on the sides of the end, which I believe would have been red.

Mark J. Bushnell

BROADWAY LIMITED Imports

PREORDER NOW!
WHILE SUPPLIES LAST

EMD F3/F7, HO scale

- Accurate NS, ACWR and R&N versions
- Accurate CNW Executive units
- Other road names and paint schemes included

Lead your railroad executives with style! Order today!
FACTORYDIRECTHOBBIES.COM

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

Storage Boxes

Foam Lined
Self Closing
Fully Assembled

AXIAN TECHNOLOGY

623-580-0800

18000 N. Black Canyon Hwy. • Phoenix, AZ 85053

www.axiantech.com



HO Scale
Holds 20 Cars - \$31.95
N Scale
Holds 36 Cars - \$31.95
Tote Bags
\$36.95
VISA Plus S&H

Patented U.S.A.

NICHOLAS SMITH TRAINS

Model Railroading For All Seasons®

VISIT OUR WEBSITE, OR GIVE US A CALL

Orders/Info (610) 353-8585

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

PA Residents Add 6% Sales Tax

ATLAS HO BLOWOUT SALE!

10003805 CSX U36B #5764 DCC/Sound.....	\$179.99
10003853 NS MP15DC #2380 DCC Ready.....	\$110.39
10003897 PRR U30C #6536 DCC Ready.....	\$103.99
1000398X 7/8 CNJ HH600/660 DCC/Sound.....	\$179.99
10004021 UP GP40 #503.....	\$115.99
10004023 NYS&W GP40 #503.....	\$115.99
10004046 UP EMD GP40 #503 DCC/Sound.....	\$175.99
10004063 RI GP38 #4310 DCC Ready.....	\$111.99
10004118 SP TM H-24-66 Phase 1B DCC Ready.....	\$110.79
20006431 CP Auto Carrier.....	\$45.98
2000644X 2/3 TTX Yellow Auto Carrier.....	\$45.98
20006446 TTX Bulkhead Flatcar.....	\$17.99

Athearn HO

G01111 UP SD70ACe #1111 DCC/Sound.....	\$274.99
G12321 MR F7A/F7B DCC Ready.....	\$250.00
G19355 EL F7 A/B Set DCC Ready.....	\$159.99
G19557 EL F7 A/B Set DCC/Sound.....	\$419.99
G65639 CSX GP39-2 #4317 DCC/Sound.....	\$203.98
G7055X 3/4 PRLX SD75M DCC Ready.....	\$164.98
G7061X 1/2 NS SD70 DCC/Sound.....	\$219.99
G7572X 3/4 CN SD70 DCC Ready.....	\$184.99
G7572X 6/7/8 NS SD70 DCC Ready.....	\$184.99
G7582X 7/8 NS SD70 DCC/Sound.....	\$284.99
G8523 UP SD60M #2457 DCC/Sound.....	\$218.99
7438 BNSF 48' Husky Stack Well w/extra.....	\$37.99
93456 GTW Covered Hopper 3 Pack.....	\$119.97

Rapido HO

1280XX 49-51 AMT PH6 Coach.....	\$101.99
128056 AMT PH3 Dinette.....	\$101.99
12805X 7/8 AMT PH4 Dinette.....	\$101.99
1280XX 60-61 AMT PH6 Dinette.....	\$101.99
14400X 4/5/6 CNJ Northeast Cab. (Coast Guard).....	\$79.99
14400X 7/8/9 L&NE Northeast Caboose (Red).....	\$79.99
14401X 0/2 LV Northeast Caboose (Tuscan).....	\$79.99
25004 AMT Turbotrain 5 Pack DC.....	\$629.99
25006 AMT Turbotrain 2 Pack DC.....	\$379.99
25106 AMT Turbotrain Coach #186.....	\$119.99
25506 AMT Turbotrain 2 Pack DCC/Sound.....	\$549.99

Bowser HO

12923 Septa Trolley #2245 KC Body DCC/Sound.....	\$199.99
25126 GN U25B #54014 DCC/Snd.....	\$230.99
25127 C&O U25B #8106 DCC Ready.....	\$152.99
25157 PC U25B Phase III #2647 DCC Ready.....	\$229.99
25158 PC U25B Phase III #2647 DCC/Sound.....	\$152.99

Bachmann HO

50615 PRR 0-6-0 w/ Slope Back Ten Smoke.....	\$84.99
51506 B&O 2-6-2 Prairie Smoke.....	\$99.99
53801 B&O 0-6-0 #354 DCC/Snd.....	\$229.98
53802 NYC 0-6-0 #232 DCC/Snd.....	\$229.98
53803 PRR 0-6-0 #8168 DCC/Snd.....	\$229.98
67404 Amtrak ACS-64 Flag Demo DCC/Snd.....	\$244.99
68304 AMT ACL-42 PH VII #309 DCC/WOW Snd.....	\$269.99
68305 AMT ACL-42 PH VII #311 DCC/WOW Snd.....	\$269.99
69101 Amtrak GP7 DCC Ready MOW Scheme.....	\$119.99
84407 PRR K4 #612 Post War WOW/Sound/DCC.....	\$319.99

Bachmann N

53253 N&W 4-8-4 J Class #611 DCC/Snd Value.....	\$270.99
53451 SRR 4-8-2 Light Mtn #1489 DCC/Snd.....	\$229.99
5395X 1/2/3/4 PRR K4 4-6-2 DCC/Snd.....	\$282.97
66357 UP EMD GP40 #678 DCC/Snd Value.....	\$164.99
66358 BNSF EMD GP40 #3013 DCC/Snd Value.....	\$164.99
66359 CSX EMD GP40 #6007 DCC/Snd Value.....	\$164.99
6795X 1/2/3 AMT SC-44 DCC/Sound.....	\$219.99
8085X 3/4/5/6 B&O EM-1 2-8-8-4 DCC/Snd.....	\$309.99

Hours: M - TH 12-5 • Friday 12-7 • Sat 12-5 •
Sun 11-5 (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 May 2025

Ask MR



Scale speedometers, such as the Accutrack by Model Railroad Technologies, will let you know how fast your model locomotives are running in scale miles per hour. This N scale General Electric U23C diesel locomotive is going much faster than its prototype counterpart. Bill Zuback photo

A On Operation columnist Jerry Dziedzic found the following information in the May 1, 1950 edition of the *Uniform Code of Operating Rules*:

18. Oscillating Red Rear End Lights.

An oscillating red light displayed on rear of train is a signal for following trains on the same track to stop and for trains moving in same direction on adjacent track to move at restricted speed.

It must be displayed when train is stopped on or fouling main track, or when train is moving under circumstances in which it may be overtaken.

Display of this signal does not relieve flagman from performing as prescribed by Rule 99.

Jerry noted that Rule 19 follows and concerns markers. This makes a clear distinction between the oscillating red rear end lights and markers.

The type of light, placement, and arrangement varied from railroad to railroad. We don't have room to get into every single variation in this column. In the photo below, Great Northern 2 roomette-buffet-lounge-observation car *Appekunny Mountain* features a red light and clear backup light inside a large glass housing. The two lights were controlled independently.

On Milwaukee Road's *Rapids-series* Skytop observation cars, a reversible Mars light was located below the windows on the end. Under regular operating conditions it was red. For backup moves the light was clear (white).

The lights on the sides of the car, often teardrop shaped, weren't classification lights. Instead, they were marker lights, and would be red.

Q I'm looking for the issue of *Model Railroader* that features a small point-to-point layout based on the Twin Cities & Western. One of the towns modeled on the layout is Glencoe, Minn.

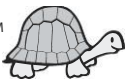
Jason G.

A That sounds like "A modern Minnesota short line" in the June 2019 issue (pp. 26-32). The story featured Alan Saatkamp's 11'-6" x 21'-0" HO scale layout. The model railroad, like its prototype counterpart, had many industries revolving around agriculture. Towns modeled on the layout included Buffalo Lake, Glencoe, Granite Falls, Hector, Ruebel, and Montevideo. **MR**



A red light and clear backup light are enclosed in a glass housing at the rounded end of Great Northern 2 roomette-buffet-lounge-observation car *Appekunny Mountain*. One of the marker lights is visible above the two men standing next to the side of the car. Wallace W. Abbey photo

Tortoise™



For 35+ Years, Simply...

The BEST!

Slow Motion Switch Machine



MADE IN THE USA

800-6000 \$24.95

6006 6-PACK \$146.00
6012 12-PACK \$285.00

- 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 \$10.00 FOR SHIPPING & HANDLING

Send SASE for more info or \$10.00 for complete
60 page Catalog & Application Book to:

CIRCUITRON

211 RocBaar Dr., Romeoville, IL 60446-1163

PROXXON
MICROMOT
System

PRECISION POWER TOOLS FOR YOUR INTRICATE PROJECTS

MICRO Mill MF 70. With continuously variable spindle speeds from 5,000 – 20,000rpm. Small and beautiful!

With special, balanced motor for vibration-free work at high speeds and thus perfect for even the smallest milling cutter. Size 340 (13 25/64") x 225 (8 55/64") x 130mm (5 7/64"). Weight 7kg (15.5lbs). Comes with six steel collets to cover 1.0 (1/32") – 3.2mm (1/8") and step clamp set.

The PROXXON MICROMOT system features more than 50 high-quality power tools and a huge selection of matching accessories.

Please contact us for a free catalog.

PROXXON

www.proxxon.com/us

PROXXON Inc. – Hickory, NC/USA – Email: sales.us@proxxon.com



Build Your Best!

Subscribe to *Model Railroader* today.

Trains.com/MRR



For *Model Railroader* advertising information, please call
Martha Stanczak
at 414-246-7081.

PECO

STREAMLINE



HO SCALE TRACK

- Accurately scaled from A.R.E.A drawings
- NMRA compliant
- Highest quality & availability

Using our Curved Switches is a great way to save space on your railroad!



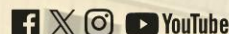
#7 Curved Switches

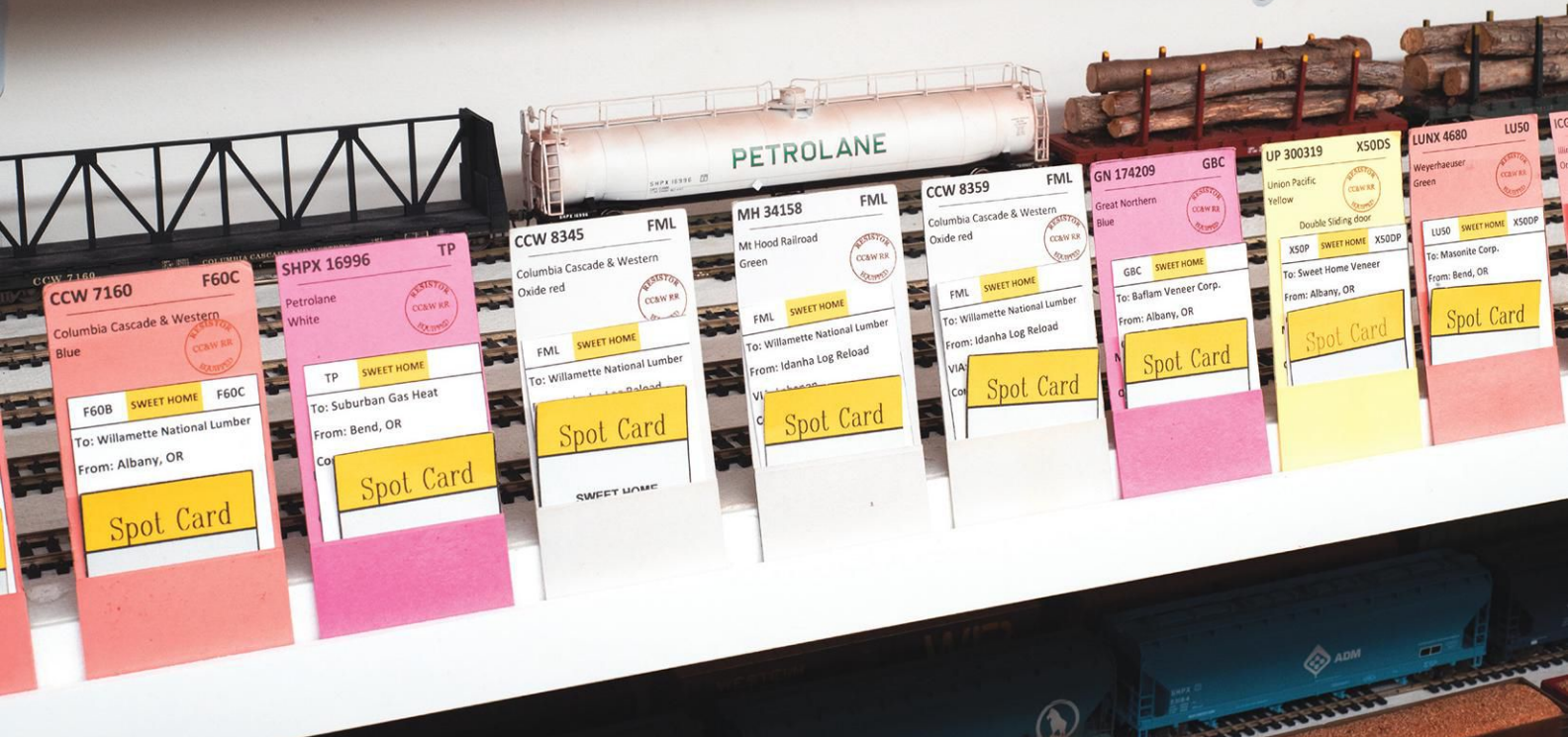
Electrofrog
SLE8376 Right Hand
SLE8377 Left Hand
Insulfrog
SL8376 Right Hand
SL8377 Left Hand

Photo: *Rock Springs* makes the most out of the extensive line of PECO Code 83 switches. Modelled by the Rock Springs Group.

See the latest PECO Catalog for further details, pick up your FREE copy from your PECO stockist.

Made in the UK by PECO • For stockists call +44 (0)1297 626204 or visit www.peco-uk.com





Car cards need a place to go when operating, and leaning them up against the train is not ideal. Josef Brugger shows how Mike Baynes of the Willamette Model Railroad Club constructed simple PVC racks for just this purpose. Photos by the author

Quick and easy car card racks

Train crews operating with car cards and waybills have one nagging problem. How do they handle the cards?

Some people lean the cards up against the train while they figure out which car should go to what spot. The cards scrape

at the scenery, fall on the floor, and if a train moves, both the rolling stock and cards get tangled.

Simple card racks mounted on the fascia solve the problem. Mike Baynes of the Willamette Model Railroad Club in

Oregon used 1 x 2 PVC trim board from a big-box home center to make racks with only two cuts on a table saw.

This is Josef Brugger's first feature in Model Railroader.

STEP 1 CUTS



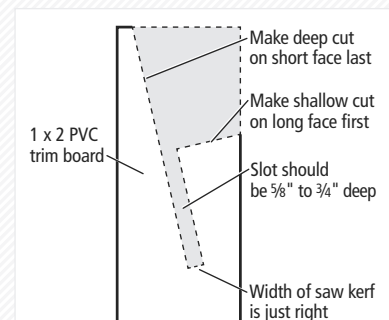
The first step is to tilt the table saw blade to the desired angle, approximately 5 to 8 degrees. Then use a two-step process to make the cuts. First, make the shallow cut on the long face of the 1 x 2 PVC board. This avoids trapping the waste piece next to the rip fence.

Then make the deep cut on the short face. Be sure to use a feather board to hold the material firmly against the rip fence. The slot made should be deep enough to grasp the car card firmly — approximately $\frac{5}{8}$ " to $\frac{3}{4}$ ". The width of the saw kerf is just right to hold the cards.

STEP 2 INSTALLATION

Mount the racks on the layout fascia with a PVC-compatible adhesive. Mike has used Loctite PL Premium and PL Premium Max, both sold at home-improvement stores, to secure the boards to the fascia. Apply the adhesive to the back side, place the board on the fascia where desired, and secure it with a pin or brad nailer. Give the adhesive at least 24 hours to fully cure.

The racks work best if the car card protrudes about an inch above the benchwork. PVC is easy to paint, and the racks are easy to see if left in their natural white. Congratulations, now you have car card racks. **MR**



Let's Go Run Some Trains!



Join some of the best people in the hobby each week on the What's Neat video podcast for modeling tips, product demos, and of course, running trains!



whatsneat.com

 @Kensart55

Check Out New Episodes of the
What's Neat Show Each Week on  YouTube



Add an Official *What's Neat* Boxcar to Your Railroad's Roster
Available in HO and N Scale from Value Trains USA



value-trains-usa.square.site

MODELING SIGNATURE TANK CARS IN N SCALE

Kitbashing, scratchbuilding, and resin casting were just some of the techniques used

By Steve Holzheimer

Photos by the author

Mention Akron, Ohio, to someone more than 50 years old and the slogan “Rubber Capital of the Word” will likely come to mind. Economic, civic, and social life in Akron revolved around the many tire production factories and smaller rubber shops that called the city home. I model the Akron, Canton & Youngstown RR circa 1960 in N scale, when Goodyear Tire & Rubber was the engine that drove the fortunes of Akron and the AC&Y.

In the mid-20th century industrial entities would occasionally decorate leased freight cars with their corporate

identity. Tank cars often received such treatment. Goodyear leased cars from General American Transportation Co. (GATX), Shippers Car Line (SHPX), and Union Tank Car Co. (UTLX) and applied its trademark blue and gold wing foot logo to some. Since Goodyear played a prominent role in the Akron area, I worked some Goodyear tank cars into my operating scheme to help establish a sense of place and time on the layout.

RESEARCH AND PLANNING

In addition to tire production, Goodyear had a large chemical





1 The prototype. Steve reports that images of the prototype Goodyear tank cars in synthetic latex service are fairly elusive. This car, leased from Shippers Car Line, is shown in a train at Cambridge, Mass., on July 26, 1966. Image courtesy Bob's Photo

manufacturing operation that used a lot of tank cars. Not all of them had the Goodyear logo, but a few that did were dedicated to synthetic latex service.

These cars were rather camera shy, but I managed to find a quality color photo of a SHPX car taken in the mid-1960s **1**.

Since tank cars come in a wide range of sizes and are equipped with what seems like an endless variety of appliances, the chances of finding an exact model of a specific prototype are slim. This is particularly true in N scale. After surveying my options, it quickly became apparent this project was going

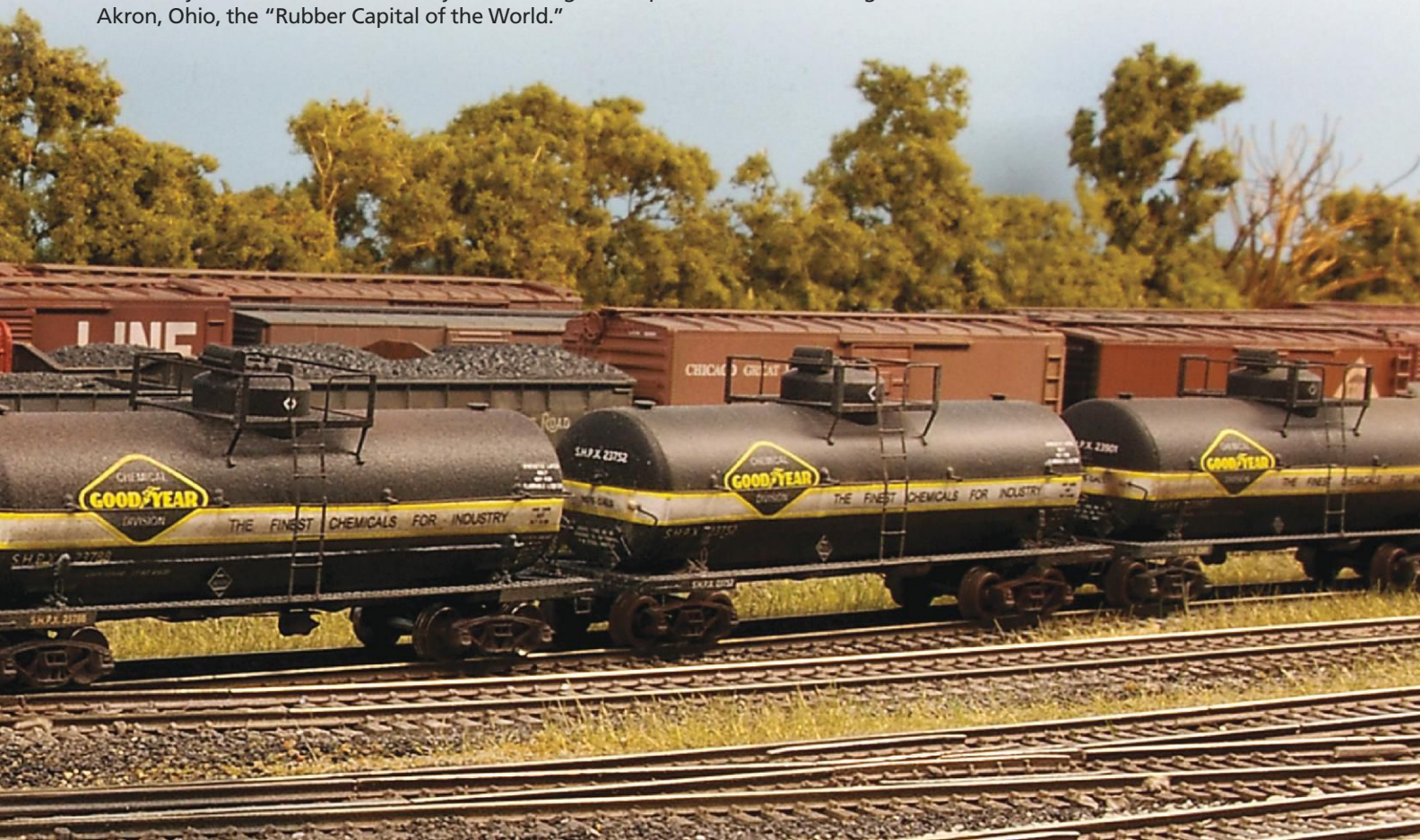


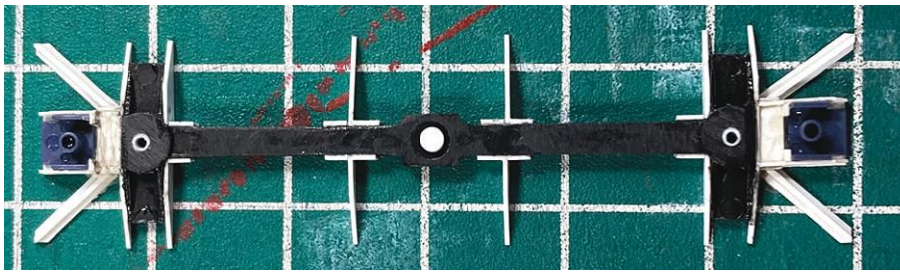
2 Once is enough. After cutting the dome from a Micro-Trains tank car, Steve sanded the base to match the diameter of the Bachmann tank (top). Though he was able to get an acceptable match (bottom), he knew this was a process he didn't want to repeat five more times. Steve turned to resin casting for the other cars.

to require kitbashing or scratchbuilding. Since there aren't many kits available in N scale, I treat ready-to-run models as kits, albeit ones that may require a bit of surgery to extract the desired parts.

At first, you may think kitbashing and scratchbuilding in N scale is difficult. But the more you work in the scale, the larger it becomes. Over time you'll develop the techniques necessary to

Akron, Canton & Youngstown S2 No. 101 switches three Goodyear tank cars carrying synthetic latex on Steve Holzheimer's N scale layout. He turned to a variety of modeling techniques to construct the signature cars that could be seen in and around Akron, Ohio, the "Rubber Capital of the World."





3 Body-mounted couplers. The Bachmann chemical tank car uses truck-mounted couplers. Steve added draft-gear boxes to the tank car frame he used as a master for making copies in resin. He also filed the bolster blocks.



4 Test time. Steve turned to etched-metal parts for the walkways and dome platforms. He printed the artwork and placed it on the model to make sure everything would fit before sending the files off for production.



5 Finished product. With the artwork completed, Steve sent the electronic files to PPD Ltd. in England, where the parts were etched from .125mm stainless steel sheet (top). He reports a huge sigh of relief was audible throughout the house when it was confirmed the parts fit as intended (bottom).

build good looking models in 1:160. And it's not necessary to model every nut, rivet, rod, and plate found on the prototype. Instead, focus on the things easily observed. Suggesting the presence of the rest will do the trick.

At the end of the day, my intent is to construct reasonably detailed models that further my goal of presenting my N scale AC&Y as part of a transportation system, not build freight cars to enter in modeling contests.

MAKING MULTIPLES

I used a Bachmann chemical tank car as the starting point for this project, modifying the tank and frame. I harvested the expansion dome from a Micro-Trains tank car ②, previous page. I quickly realized creating a single model from these parts would be time consuming. I wanted six cars, so some means of making duplicates was necessary.

Resin casting and 3-D printing are the two methods readily accessible to amateur builders like myself. I have a few resin casting projects under my belt, and casting a tank car body seemed like the next step in the scale of difficulty, so I decided to give it a try.

Fortunately, there's a large body of knowledge about resin casting available on the internet. I won't detail the casting process here, except to say that model railroad forums can be a valuable means of connecting with folks who know quite a bit about resin casting and are willing to share what they've learned.

Since I body-mount couplers on my rolling stock, I had to make some modifications to the tank frame master to get the couplers to the proper height. First, I added draft-gear boxes to both ends of the master. Then I filed the bolster blocks to get the car height correct ③.

The tank still rode a bit high relative to the other freight cars in my fleet. To remedy this, I sanded the bottom in a longitudinal motion to lower it.

MAKE IT IN METAL

In ④ you can see mocked up paper parts resting on the model. I was checking to see how the walkway and dome platform looked before finalizing the dimensions of these parts. I'd successfully produced artwork for an etched-metal sheet project in the past. This project represented the next level of difficulty, and I felt I could pull it off.

Designing etched-metal parts opens up another level of modeling possibilities. Unlike resin casting, it's best to let professionals do the actual etching. I used PPD Ltd. in England. Its guideline sheet is clear, and once you get your mind wrapped around thinking in three dimensions, the design falls together quickly. You need the ability to draw with a 2-D computer-aided design (CAD) program to make the process work. The good news is the learning curve isn't that steep and the skills gained are transferable to other model building tasks.

I was happy all of the etched-metal parts fit as intended **5**, opposite. On the other hand, the assembly steps for a few of the parts didn't work out as easily as I'd imagined. Lesson learned.

DETAILS THAT STAND OUT

In the research and planning section I stressed focusing on easily observed details over those difficult to see. What counts toward the former category? Here are my preferences, with a brief description of each build, in no particular order.

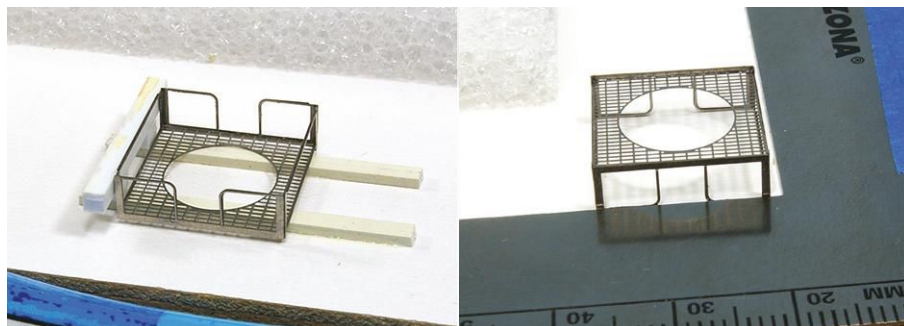
Expansion dome platform and rail-ings. Etched-metal parts work best here. While the assembly is made of five separate parts, the build process wasn't as difficult as I thought it would be. I used a styrene jig to align the parts. Then I used 2 Way Glue, a scrapbooking adhesive, to tack the parts together. Once I was satisfied all of the parts were square, I ran a dab of cyanoacrylate adhesive (CA) along the joints where the handrails met the dome platform. I flipped the assembly over and did the same where the handrail parts meet at the corners **6**.

Tank walkway. Plano Model Products makes beautiful N scale etched-metal boxcar running boards. I figured it would be possible to achieve the same level of detail for my tank car. Following the etching guidelines from PPD Ltd. yielded great looking parts **7**.

Frame enhancements. On the prototype the walkway corner bracing that wraps around the frame provides a surface to mount appliances (stirrup steps and grab irons) and stiffens the walkway itself. I didn't make an effort to detail these parts, but had I left them off the model the viewer would notice the omission. Designing the steps as part of the etched part and including holes for the grabs eased the construction process.

Brake hardware. I rarely bother with brake hardware and piping on house cars. Such an omission on a tank car would be noticeable. I went halfway here: I etched a plate with platforms on which the hardware could be mounted, along with a representation of piping and hangers **7**. I scavenged brake components from my parts box and added them to the plate after it was mounted to the frame. Given the size of these parts, once I'd installed them and painted the entire assembly black, it was difficult to tell nothing was connected.

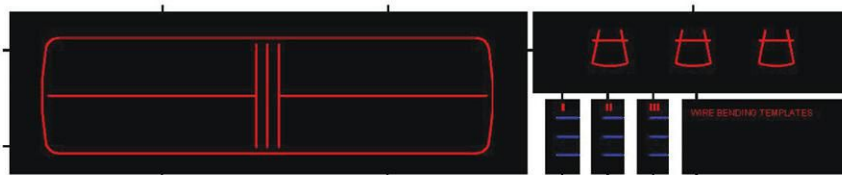
Tank handrail. The handrail running around the tank is a make-or-break detail in my opinion. If the part is done



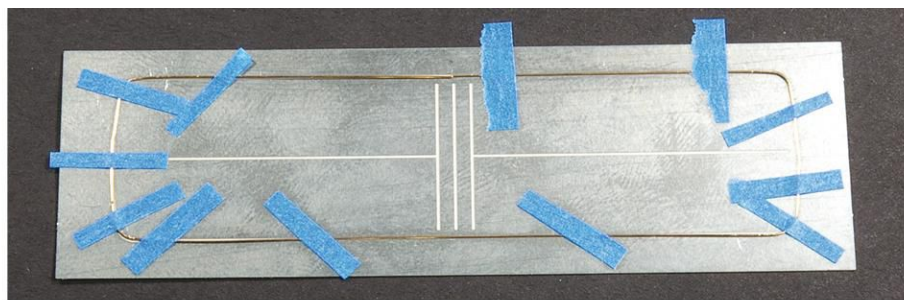
6 Putting it together. Steve made a homemade jig from styrene to hold the etched-metal dome parts square and tacked the joints with scrapbooking glue (left). Then he applied cyanoacrylate adhesive (CA) to the joints (right).



7 See-through platforms. Inspired by etched-metal boxcar running boards from Plano, Steve made see-through tank walkways for his models. The hazmat placards on the sides and ends, part of each etching, were folded up at a right angle.



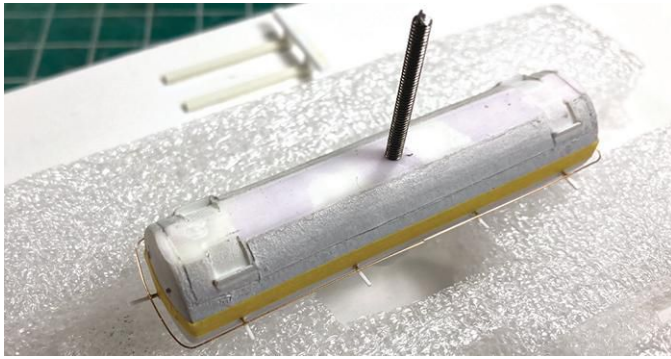
8 A new approach. Here's the artwork Steve made for the wire bending template. Though the execution didn't work exactly as Steve planned, he said the concept is sound and he'll take what he learned and make improvements next time.



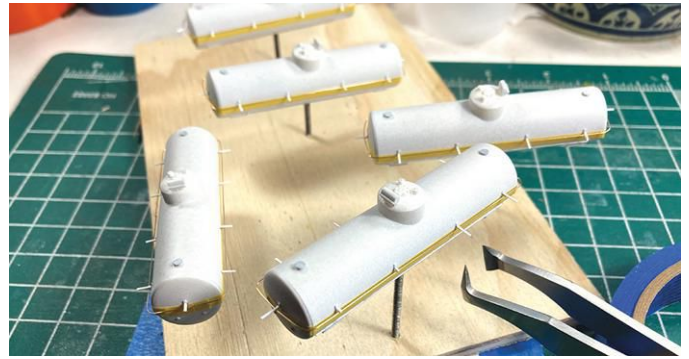
9 Taking shape. Steve placed .008" phosphor bronze wire in the etched slot and guided it through the curves with a small-diameter rod (wood and metal both work), taping it down as he went. He notes that it sounds harder than it actually is.

well, the model has a special wow factor even casual modelers notice. I used .008" phosphor bronze wire for the grab irons and handrail. Though not exactly to N scale, it was close enough to my eye. The challenge was bending the wire to a consistent profile.

My typical method is to use a drawing program to create a template, print it out, and use it as a bending guide. For this project I tried a different approach and etched bending templates for the handrail and grab irons. The artwork for the etchings is shown in **8**.



10 Assembly time. Here's the tank car after Steve installed the mounting pins and handrail straps and glued the handrail into place. A homemade foam cradle and a 2-56 threaded stud handle protected the model during construction.



11 A quick trim. Steve used tweezer-style sprue cutters to carefully cut off the excess styrene handrail straps. The result is a decent representation of the straps folded over handrails on full-size tank cars.



12 The reveal. Here are five of the six tank cars after they were sprayed with Vallejo Model Air paints. Steve said he was pleased with the edge seal of the 6mm Tamiya masking tape and noted it was easy to remove.



13 All dressed up. Steve designed the decal artwork for his N scale Goodyear tank cars and had the set printed by Circus City Decals in Baraboo, Wis. After the decals were in place, he sprayed each car with Vallejo Matte Varnish.

I laid the wire into the etched groove, held in place at the starting point with a piece of tape, and formed it using the groove as a guide (9, previous page). When I started, I figured my chance of success was 50/50. I did slightly better and learned quite a bit. Both grab iron templates worked well once I figured out where the final bend in the z direction needed to be (for the grabs on the ends of the car) and which grab iron spacing was correct (marked I in 8).

The handrail template worked to a point. I made a nice looking railing but it was too wide for the tank. At that point I went into hybrid mode, using the etched guide for the cross width. By the third iteration I had the procedure down and a handrail that worked.

Tank handrail stanchions.

Re-creating the right-angle strap that attaches the handrail to the tank was a challenge I couldn't pass up. The usual method for N scale is to cast a cradle into the tank body for the wire at each handrail attachment point. It works, but I wanted to try an alternative.

I included the section of the strap attached to the tank as part of the tank

casting, as well as a small pilot hole just above the strap. I inserted a short piece of .012" brass wire into the pilot holes. The stand-off height was determined by a simple styrene gauge.

Then I attached a piece of .010" x .020" styrene strip to the top of the stand-off with CA. I flipped the tank body over and laid the handrail in place so it touched the bottom of the stand-off and the styrene strip. I put dab of CA where the three parts met, which formed a solid joint 10. I clipped off the excess styrene with tweezer-style sprue cutters 11.

TO THE PAINT SHOP

The usual course for a tank car project is to affix all of the details and paint the entire car black. Of course, I didn't consider the complications a white band would present when I selected the prototype. I started by priming the tank. Then I sprayed the band through the middle of the car white. After that, I applied the handrail, stanchions, and a few other details with the masking tape in place.

Finally, I sprayed the car black. The last step was to remove the masking tape. For the most part the separation

lines were crisp 12. I painted the expansion dome platform, tank end grab irons, and tank saddles separately.

I drew the artwork for the decals and sent the files to Circus City Decals for printing. It's a good idea to pick a vendor and work with them to make sure you're using their preferred artwork software, or something compatible. After a few e-mails with owner Matt Welke I came up with something he could work with.

READY FOR SERVICE

I'm pleased with how the finished Goodyear tank cars turned out 13. The half-dozen cars are far from perfect, but good enough to blend in with the rest of the freight cars on my N scale Akron, Canton & Youngstown layout. These tank cars, like the rest of my rolling stock, are busy supporting operations in the "Rubber Capital of the World." **MR**

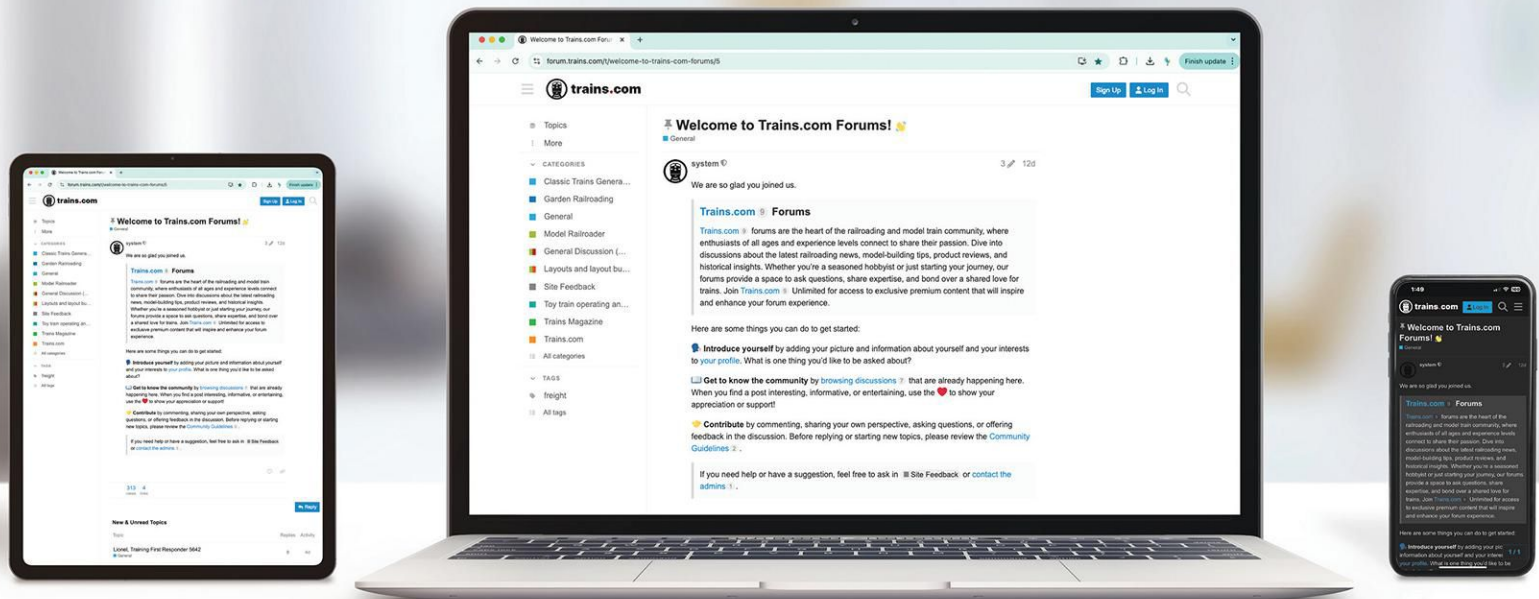
Steve Holzheimer received an Atlas N scale train set for Christmas in 1969 and never looked back. More than 50 years later, he still enjoys the advantages, opportunities, and challenges modeling in 1:160 offers.



trains.com

ALL-NEW

TRAINS.COM FORUMS



We're please to announce we've launched a brand-new forum platform. Connect with a community of modeling and trains enthusiasts on a variety of topics and enjoy enhanced features including:

- Improved login capabilities, including Google Sign-In
- Dramatic speed improvements
- Improved stability and reliability
- Easily and quickly upload large images and videos
- Bookmark posts that are most relevant to you

JOIN THE CONVERSATION FORUM.TRAINS.COM



THE BEST IN MODELING & RAILROADS • ALL IN ONE STOP!

Trains

**Model
Railroader**

**CLASSIC TOY
TRAINS**

Classic Trains
MAGAZINE

**Garden
RAILWAYS**

**trains.com
VIDEO**

BIG SKY COUNTRY IN N SCALE

You can visit this 38 x 52-foot layout during the
2025 NMRA National Convention

By Ken Chick

Photos by Craig Wilson



① Northern Pacific's *North Coast Limited* passes over a steel trestle near Columbus on Ken Chick's N scale Danforth, Hadley & Northern. The freelance 38 x 52-foot model railroad is set in central Montana in 1955.

The fictional history of my N scale Danforth, Hadley & Northern (DH&N) dates back to the late 1880s. James Douglas III of Danforth, Mont., became fascinated with trains and decided to invest the fortune he had made raising cattle in railroads. Building a railroad would be tough, but he needed a new challenge and was young and eager to do something different. In March 1888 his railroad's tracks crossed the Hadley River and headed west toward the Pacific Ocean.

By 1913, James' fortune was gone and the DH&N fell into receivership. It remained there for four years until the Northern Pacific (NP) recognized the line's worth and purchased it to complement its existing lines.

The DH&N used the nickname "The Way West." The NP pushed the line farther west until it reached Garrison, Mont. This became the westernmost interchange between NP and its subsidiary, the DH&N.

The Danforth, Hadley & Northern and Northern Pacific both merged into

the Burlington Northern in March 1970. My model railroad depicts the two lines circa 1955.

Getting hooked on N scale

Like many hobbyists, my journey in model railroading started with Lionel when I was around 5 years old. My fascination with trains eventually gave way to a number of other teenage interests.

After being discharged from the Army, I ran into Rick Strong, an old high school buddy, who had just



Danforth, Hadley & Northern RR

N scale (1:160)

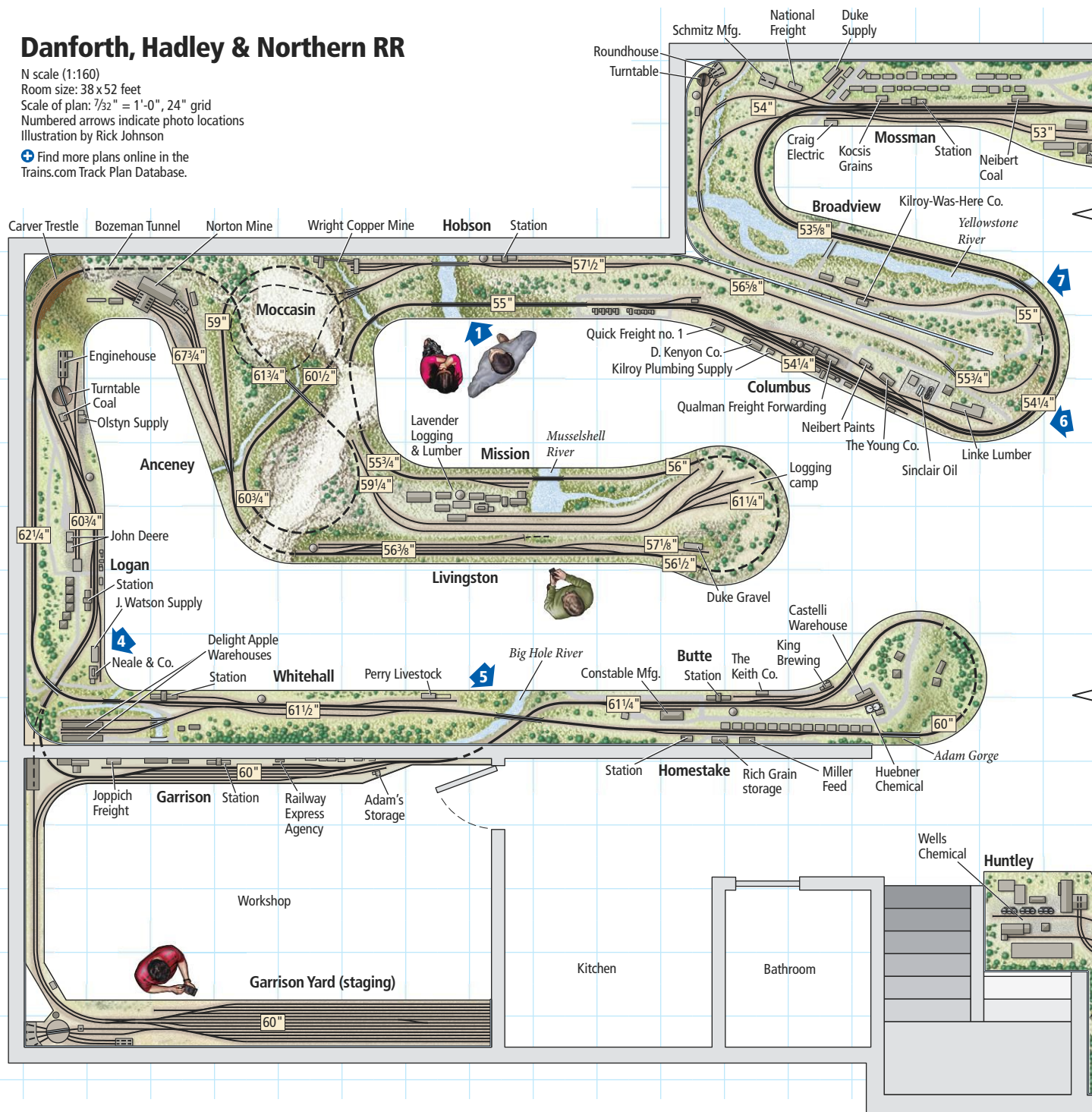
Room size: 38 x 52 feet

Scale of plan: $\frac{7}{32}$ " = 1'-0", 24" grid

Numbered arrows indicate photo locations

Illustration by Rick Johnson

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



The layout at a glance

Name: Danforth, Hadley & Northern

Scale: N (1:160)

Size: 38 x 52 feet

Prototype: freelanced, based on Northern Pacific

L locale: central Montana

Era: 1955

Style: walkaround

Mainline run: 400 feet

Minimum radius: 24" (main), 20" (branch)

Minimum turnout: No. 5 (main), No. 4 (industrial spurs)

Maximum grade: 1.5% (main), 2.25% (branch), and 3%

(logging)

Benchwork: L-girder, with Homasote and spline roadbed

Height: 52" to 62"

Roadbed: cork over $\frac{1}{2}$ " Homasote

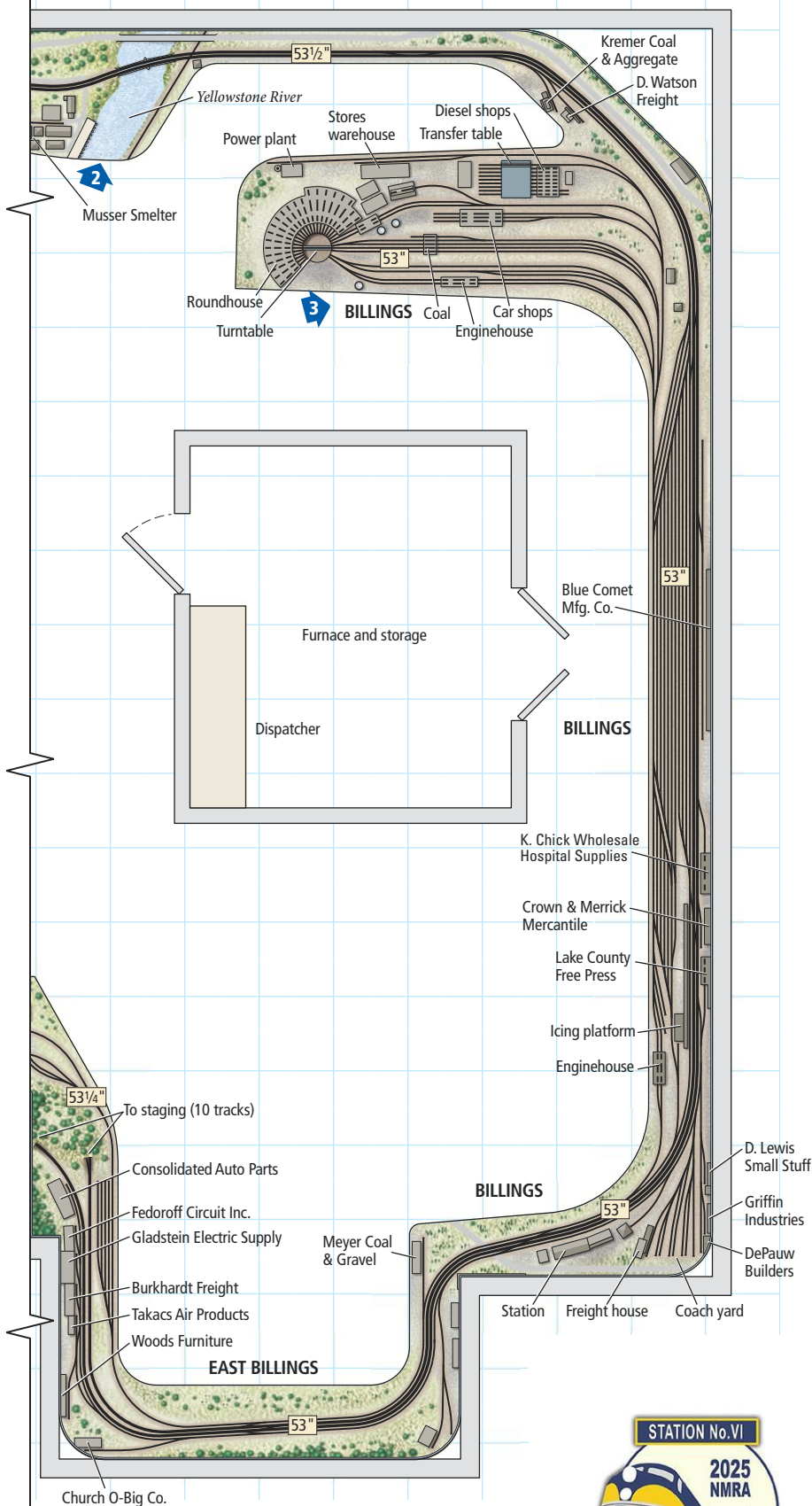
Track: code 55 (main) and code 40 (logging) flextrack, with

handbuilt turnouts and crossings

Scenery: extruded-foam insulation board and Bragdon Enterprises Geodesic Scenery

Backdrop: painted walls and aluminum sheet

Control: NCE Digital Command Control



returned from a visit to Germany. He brought back some beautiful N scale steam engines that ran like Swiss watches. I decided it was time to get back into model railroading.

Rick and two of his friends had just started an N scale mail order business around that time. He offered me a 20% discount on anything I purchased, so N scale seemed the way to go. Rick's business grew and soon moved to a store, and then a larger building selling all scales. Eventually, The Train Center became one of the premier hobby shops in the Detroit metropolitan area.

Finding the perfect space

I owned a ranch house with a large basement when I returned to the hobby. I walled off one end of it and began building an experimental model railroad. I started developing a variety of new model railroading skills. It was fun and I learned a lot, especially what worked and what didn't.

We then moved to a bigger house but with a smaller basement. I built another learning railroad at this location.

In 1996 my wife, Beverlee, and I moved into our present home where all of that learning was put into practice. Around the same time I also became a member of the Midnight Pocatello Yardmasters, a round-robin club with several fine modelers.

My wife loved our house because the master bedroom and laundry room were all on the first floor. I loved it because the only things in the 1,800 square foot basement were the furnace and water heater.

The floor was a concrete slab, the walls were poured concrete without any seams or concrete form tie holes, and there was no ceiling — a perfect blank canvas. I soon replaced the traditional water heater with a tankless version that required less space.

Before starting on the layout, I had the basement finished. The walls were insulated and drywalled, a tile floor was installed, and a drop ceiling was added.

I selected fluorescent tubes to illuminate the space, as they were the most efficient at the time. If I were starting today, I would use light-emitting diodes. There are 52 single-fixture tubes hung end to end above the outer edge of the benchwork. This setup eliminated side-to-side shadows and dark spots. The lights are hidden behind an aluminum valance curved to match the benchwork.

The rest of the room features traditional florescent fixtures in the drop



② An A-B-B-A set of Electro-Motive Division FT diesel locomotives in Northern Pacific's Pine Tree scheme leads a freight train over the Yellowstone River at Mossman. Ken used Rail Craft (now Micro Engineering) code 55 flextrack for the main line.

that I built from kits and Linn Westcott articles in *Model Railroader*.

There were no code 55 switches when I started work on the layout, only switch kits. They consisted of rails, points, and frogs but no ties. I purchased a large supply of flextrack and about 150 switch kits in four sizes.

I built jigs for the switch ties. Though others don't notice, the ties under the frog are prototypically closer together than the others.

When I ran out of switch kits, I started using Fast Tracks jigs. Eventually, I made more than 250 turnouts, as well

ceiling. This produces plenty of light when we're working on the railroad. However, when we run trains, we only use the layout lighting.

A separate panel with eight new circuit breakers was installed for everything on the layout. In addition, a wall was built to section off the workshop, kitchenette, and bathroom. A separate room for the furnace, water heater, and dispatcher's desk was also constructed.

Getting started

Before work started on the layout, standards were developed for the DH&N that were reviewed by members of my operating crew. Key elements included 3-foot minimum aisles, 24" minimum radius curves, 1.5% maximum grade, and 52" minimum track height.

It was about this time that there were some major changes in the hobby. Digital Command Control was in its early stages, and Rail Craft began offering N scale code 55 track with proper-sized ties and extremely small spikes (eight per tie) that allowed locomotives and freight cars with "pizza cutter" flanges to operate smoothly. Rail Craft was later sold to Micro Engineering.

Because of these changes, I sold all my Peco track and switches and boxed up my old True Action Throttles (TAT 4)

③ Danforth, Hadley & Northern steam and diesel locomotives are serviced between runs at Billings. The railroad's large car shops building can be seen in the background.



④ A well-traveled Danforth, Hadley & Northern offset-cupola caboose marks the end of a freight train near Whitehall. The train is passing over the line between Garrison and Logan.

as three double-slip switches. Even after building hundreds of switches, the double slips proved considerably more difficult. The first “keeper” took three tries.

Benchwork and scenery

I constructed the model railroad using L-girder benchwork. This proved beneficial, as there were many times when I was installing turnouts for the yard throat that I had to move supports to accommodate switch machines. I mounted all of the switch machines on Rix Rax under-layout mounting brackets, which allowed for easy adjustment of the point throw.



I placed Homasote over the plywood in towns and switching areas. I used Homasote on spline roadbed between locations. The spline roadbed allowed for beautiful easements on all of the curves.

The mainline track was laid on cork roadbed. I installed thinner cork for the passing sidings and laid the yard tracks directly on the Homasote.

I used many techniques to scenic the layout. In some areas I used extruded-foam insulation board, which I carved with knives and a hot wire cutter. I covered the foam with what members of my operating crew called “oatmeal” scenery. When mixed properly, this is what the Celluclay, Zonolite, water, white glue, and coloring has the consistency of. It kind of looks like it, too.

The oatmeal was then spread in various thicknesses to achieve the desired look. While it was still wet, I covered the mixture with real dirt that was sifted to get it as fine as possible. Then it was topped with traditional scenery materials. I used diluted white glue to hold the scenery in place.

Another benefit of the oatmeal scenery was that it took a few days to dry, so it stayed workable longer than regular materials. Trees were easy to plant whether the material is wet or dry.

In other areas I used Geodesic Foam Scenery from Bragdon Enterprises. I found this to be my favorite method for making mountains as they’re hollow, which lets me reach hidden tracks.

Over the years I made molds from rocks and pieces of coal that I’ve found during my travels. Some of the molds are



5 Ken's model railroad is set in 1955, near the end of the steam-to-diesel transition era. A Danforth, Hadley & Northern 2-8-2 is still earning its keep on the point of a freight train passing over the Big Hole River between Butte and Whitehall.

Meet Ken Chick

Ken Chick lives in Northville, Mich. He's a longtime member of the Midnight Pocatello Yardmasters and is active in Division 6 of the National Model Railroad Association's (NMRA) North Central Region. Ken, a Master Model Railroader, also serves as an NMRA Achievement Program assistant, helping other model railroaders work toward and receive their various Achievement Program awards.



more than a foot square. When the castings were stitched together, they looked very realistic.

Locomotives and rolling stock

Many of my engines have sound. I've added decoders to most of my older locomotives. For steam engines, I put the decoder in the tender. On older diesels I milled away part of the frame.

Over the years I've upgraded my rolling stock. All of the cars have body-mounted couplers and metal wheelsets with low-profile flanges. The cars are weathered based on age and service.

Uncoupling N scale equipment can be challenging. I installed track magnets in hard-to-reach places, but members of my operating crew prefer to use uncoupling tools. Our tool of choice was designed by fellow N scale modeler Gary Miller. It consists of a paintbrush handle cut off at the ferrule with a long, thin piece of brass inserted into it; the tip of the brass is filed to a point.

An operating layout

The DH&N was designed to be an operating railroad with multiple

switching areas, long runs, and a high ratio of scenery to track. The main line is more than 400 feet long. About a third of that is double track; the rest is single track. This was done to enhance operating interest and introduce some challenges. The engineer/conductor needs to work closely with the dispatcher to keep trains moving.

There are approximately 15 modeled towns on the railroad. Almost all of them have one or more passing sidings. The DH&N is a point-to-point railroad with a major yard and engine facilities at Billings and staging yards at Garrison and East Billings.

Somewhere along the way I developed an interest in the NP. Consequently, there's a lot of NP motive power and rolling stock, including two *North Coast Limited* train sets (Nos. 25 and 26). My layout is set in 1955, so I can run the trains with dome cars.

All of the towns, modeled in name only, are from the Northern Pacific's Rocky Mountain Division. The DH&N runs from Huntley, Mont., to Garrison, Mont. There are also two branch lines, one from Mossman to Hobson and another connecting Livingston with Garrison via Logan, Mont.

6 This Danforth, Hadley & Northern Alco PA and PB set, normally found on the point of passenger trains, has been pressed into freight service. The locomotives are rolling under a wood bridge on the outskirts of Columbus.

Running trains

There are more than 20 trains on the DH&N schedule, though we rarely run all of them during an operating session. A fast clock, set at 8:1, allows us to cover a full day in three hours.

The switch lists are computer generated. I once looked at some commercial switch list programs, but none seemed to be a good fit. Consequently, I generate new switch lists for each operating session. Nothing really changes for the passenger trains except for occasionally switching Railway Express Agency cars. I decide which freight cars get set out or picked up at industries and yards.

There's a sign-up board for scheduled and extra trains. These jobs are called by the dispatcher, who also controls train movements. When an engineer is ready to depart a town, he must call the dispatcher to report how many cars are in the train and get permission to leave. This helps the dispatcher, who has a track diagram panel with the capacity of the passing tracks, determine where trains may pass or overtake each other.

Engineers waiting for a train can relax in the crew lounge. It has a television, a kitchenette with snacks, and a refrigerator with beverages.



Just getting started

My N scale Danforth, Hadley & Northern is more than 30 years old. I've never been in a hurry to finish the model railroad, and it probably never will be completed. I've always believed that the journey is the reward, and I get great pleasure in the work.

There are areas on the DH&N that are yet to be completed. The smelter at Mossman needs to be built, which will require about 20 small structures. The smelter will be modeled after a prototype in Hancock, Mich. I was fortunate to receive a special tour of the facility several years after it closed and took many photos. I also obtained a blueprint of the facility's layout.

I plan to expand the yard in Livingston to improve operations. East Billings also needs some more buildings, better roads, and scenery.

Why did I choose to model in N scale? Initially because of Rick Strong, but also because I liked the scenery-to-track ratio. If I were starting today, would I do things differently? Certainly! I'd probably still choose N, but switch from freelance to prototype modeling.

The DH&N has, and continues to be, a great source of fun. Along the way I earned my NMRA Master Model Railroader certificate and plaque. Now I spend time helping others in the area work toward theirs. Model railroading is fun, and the friendships are really special. [MR](#)

7 Danforth, Hadley & Northern Electro-Motive Division GP7 No. 2388, a model from the Atlas Classic line, hustles a short freight over the Yellowstone River at Broadview. The backdrops depicting Big Sky Country are painted on the walls and aluminum sheet.



Evolution on the mighty

How this N scale layout evolved from 1990 to today

By **Bret Overholtzer** • Photos by Dan Munson

M



KT

① The engineer on the 301 Pig Train works a trio of Electro-Motive Division GP40 diesel locomotives, led by Missouri-Kansas-Texas No. 245, west from St. Louis along the north bank of the Missouri River at Rhineland, Mo. The scene takes place on Bret Overholtzer's N scale MKT St. Louis Subdivision.





Change is inevitable on layouts that have been around for a long time. My layout, the Missouri-Kansas-Texas RR St. Louis Subdivision, has been a work in progress since 1990. During that time, many changes have occurred due to advancing technology, changes in priorities, and refinements in the way I like to do things. All of these have resulted in an improved and more satisfying layout.

The St. Louis Subdivision, or as my operating friends ironically like to call it, "The Mighty MKT," is located in a portion of my home's basement in Lenexa, Kan., a suburb of Kansas City. I say ironically because the layout is relatively small compared to some of the mega-layouts that have been built in the Kansas City area.

② Train 102, a general freight from Parsons, Kan., passes the Westinghouse Facility at North Jefferson, Mo. The Missouri State Capitol, located across the Missouri River in Jefferson City, Mo., is seen in the background.

The operations-oriented layout models the northern portion of the Missouri-Kansas-Texas route across central Missouri. I model 1984, which allows me to run a variety of modern diesel locomotives, such as EMD SD40-2s, and some of the more colorful paint schemes that were present on the MKT. In 1984, a locomotive consist could comprise a non-repainted Conrail GP40, old Illinois Central Gulf (ICG) rust buckets, a faded former Penn Central locomotive, and an oddball high nose GP39-2 in rusted yellow Kennecott Copper paint, with not a

Katy green locomotive in sight. Those were the days!

Though I try to adhere to prototype practices, I describe my sessions as "proto-enhanced" since the MKT ran only two trains a day (mostly trailer-on-flatcar, or TOFC) on the St. Louis Sub in 1984. My operating scheme has evolved over time, but now includes trains based on earlier eras mapped over to my 1984 baseline. Some of the industries on the layout are based on prototypes, but extra businesses have been added to generate more traffic and operational interest for the crews.

The layout

The St. Louis Sub is a single level, point-to-point railroad with staging in an adjacent portion of the basement. A dispatcher's desk in the basement is used during operating sessions. Staging on the east end represents Baden Yard in St. Louis (the northernmost point on the railroad). Staging on the west end represents Sedalia, Mo., and destinations south and west on the railroad. The staging yard has 17 staging tracks, including both single-ended and double-ended tracks, all controlled by the dispatcher during operating sessions. A balloon loop connects the two staging yards and is used between session to help re-stage the trains.

All of the cities on the layout exist in the real world and are placed in the correct geographical order. My goal was for a local visitor to come down to the basement and have a sense of familiarity with the layout, based on visual (scenery) and geographical cues.

Out of Sedalia staging, eastbound trains first encounter the town of Boonville. Here, the MKT interchanges with Union Pacific. The UP has a job at Boonville that works the local industries. This is a popular job during operating sessions, keeping a crew busy during the session working and railfanning the MKT main line.

North of Boonville, just as on the prototype, the MKT track crosses over the Missouri River and UP's former Missouri Pacific track. This bridge is a hinged, lift-up section that allows access to the layout from the crew lounge.

Just past the bridge we enter New Franklin, Mo. Franklin Yard is the largest on the layout. Here I've taken a little bit of modeler's license and built the yard larger than the prototype as it existed in 1984, along with additional industries to increase operational interest. I added the

The layout at a glance

Name: Missouri-Kansas-Texas RR St. Louis Subdivision

Scale: N (1:160)

Size: 15 x 25 feet with 19 foot extension

Prototype: Missouri-Kansas-Texas RR

Locale: central Missouri

Era: 1984

Style: walk-in

Mainline run: 135 feet

Minimum radius: 24"

Minimum turnout: No. 6

Maximum grade: 3% on Columbia Branch

Benchwork: L-girder with 1 x 4 box modules on perimeter

Height: 53" to 60"

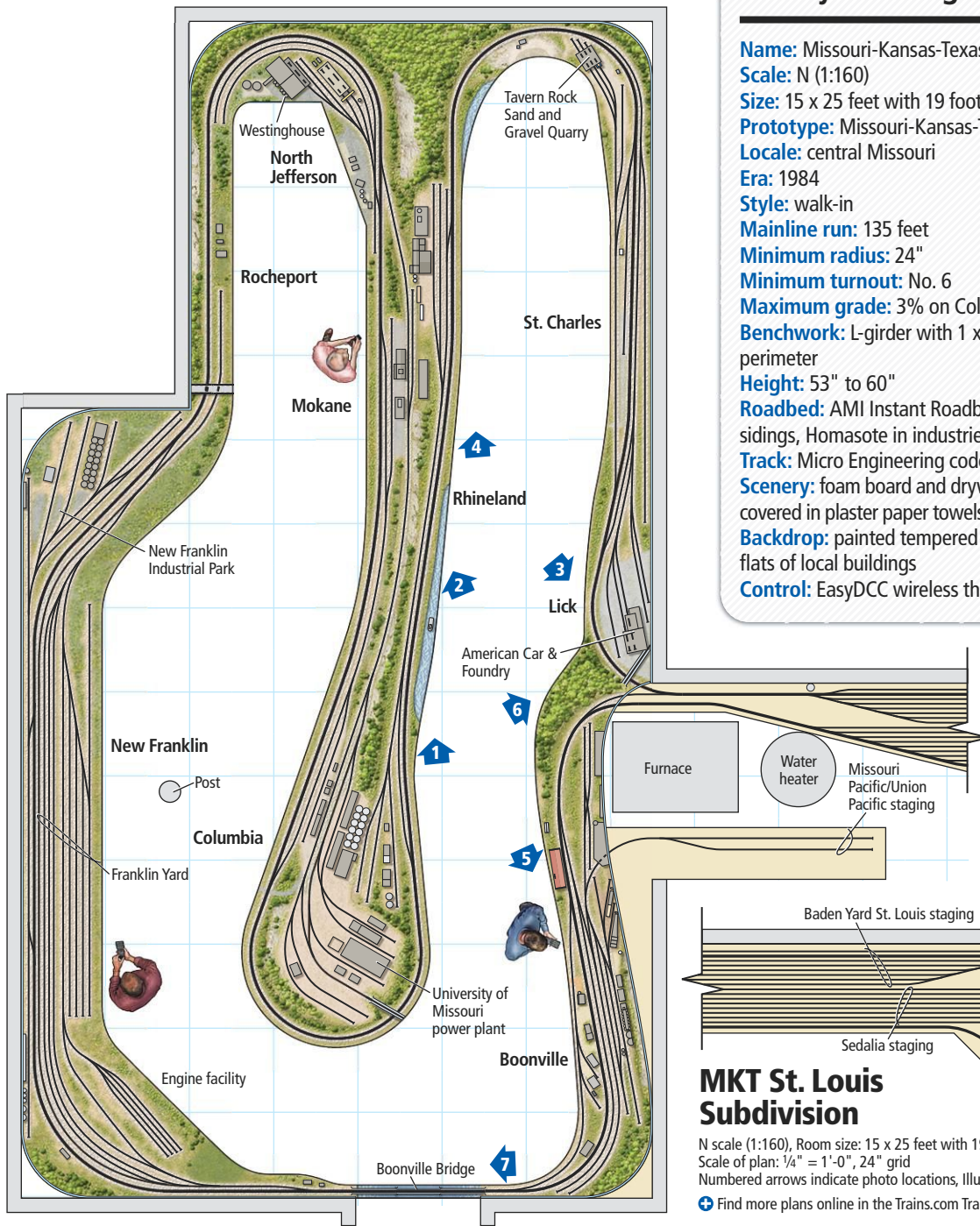
Roadbed: AMI Instant Roadbed on main line and sidings, Homasote in industries, yard, and staging

Track: Micro Engineering code 55 flextrack

Scenery: foam board and drywall shim strip lattice covered in plaster paper towels

Backdrop: painted tempered hardboard with photo flats of local buildings

Control: EasyDCC wireless throttles



MKT St. Louis Subdivision

N scale (1:160), Room size: 15 x 25 feet with 19-foot extension

Scale of plan: 1/4" = 1'-0", 24" grid

Numbered arrows indicate photo locations, Illustration by Kellie Jaeger

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

New Franklin Industrial Park that doesn't exist in the real world. The yardmaster here needs the extra space to build locals, serve local industries, and work the main line through trains during an operating session. Indeed, many yardmasters suggest that additional tracks are needed!

Eastbound out of New Franklin, the railroad travels past tall limestone cliffs near the town of Rochepoint. You can see these cliffs while driving along Interstate 70 as you cross over the Missouri River.

At North Jefferson, the next town east on the layout, the biggest industry is a large Westinghouse plant. On the prototype, this industry was the largest on the St. Louis Sub and received raw materials to manufacture large transformers. A local dedicated to the Westinghouse plant works this industry as a turn job out of Franklin Yard.

A branch line takes off from North Jefferson to serve Columbia, Mo. The trackage travels the center of the peninsula to form a stub-ended branch. Here,

several customers (some prototypical, some not) keep the local crew busy as they make the round trip from Franklin Yard to Columbia during a normal session. The prototype abandoned the branch in 1978, but I wanted to keep it operational to provide extra work for my operating crews.

Mokane and Rhineland are next as the track winds its way around the peninsula of the layout. Both towns have long passing sidings and serve small agricultural communities.



③ A Katy EMD GP40 switches cars at the ACF car repair facility at St. Charles, Mo. The industry is worked as part of the Rhineland Local, a turn job that originates at Franklin Yard.

Rounding the curve past the peninsula, you enter St. Charles, a suburb of St. Louis on the prototype, and a large industrial area on the layout. At St. Charles, we have the Tavern Rock Sand and Gravel Co. (a prototype industry that was served by the MKT), an auto rack facility, Safety-Kleen, a TOFC ramp, and an American Car & Foundry railcar repair facility. The MKT interchanges with the Norfolk & Western at this location, another concession to add operational interest.

Past St. Charles, the track punches through the wall behind the furnace and enters Baden Yard. This prototype location was the end of the line for the Katy, where it interchanged with many other St. Louis railroads and the St. Louis Terminal Railway Association.

Evolving construction methods

My introduction into the model railroading hobby was through a local Ntrak modular club. My father and I built several modules and traveled the

Midwest attending train shows and running on the club layouts. What really appealed to me about this aspect of the hobby was the socialization that goes along with running trains during the weekends at the various shows.

My involvement in this portion of the hobby taught me how to build modular framework using 1 x 4 lumber with plywood tops and sturdy legs. When I built my home layout, I initially used these construction techniques. Much of the benchwork along the perimeter of my layout, which is attached to the wall, is constructed using 1 x 4 box modules similar to the Ntrak modules. As time went on and I learned more about layout construction, I moved to the typical L-girder framework. The L-girder technique was used to build the interior peninsula and branch line up to Columbia.

The track is primarily Micro Engineering code 55 flextrack with Atlas flex-track and turnouts in the staging yards. Originally, many of the turnouts were Micro Engineering and Peco code 55 (filed to fit with the Micro Engineering flex track), but now I'm grateful to say that nearly all my turnouts are hand-built by my good friend and electronic mentor, Joe Kasper. I am very fortunate that Joe was willing to help me upgrade

my turnouts — the improvement in operation was a significant evolution on the layout.

Scenery has also evolved. The original scenery was (and still is in many places) Woodland Scenics turf, but I now am experimenting with static grass other new ground cover materials.



Trees are another big evolution on the Mighty MKT. In the 1990s, I built hundreds of trees from Woodland Scenics kits — with plastic armatures and ground foam. All of them are still on the layout and look fine. Then, when I needed to populate the background hills, with their acres and acres of Ozark oak forest, I made hundreds, if not thousands of poly fiber and ground foam trees. These trees are still on the layout and look fine for background scenery.

I'm now building and planting Super Trees using armatures and leaf material from Scenic Express. The SuperTrees are, in a word, amazing! They add a new dimension to the scenery. You can really tell the difference in scenes photographed before and after the placement of the SuperTrees. It's amazing how many trees are required for even a modest-size N scale layout — I've spent weeks building boxes and boxes of trees, only to plant them and have them fill a very small area on the model railroad. But they sure do look good once they are in place.

The backdrops have undergone a significant evolution, from bare blue skies, to painted Ozark hills. A good improvement to the backdrops was the addition of building flats printed from images of local prototype buildings. Many backdrop buildings have been fitted with light-emitting diode security lights, which add to the realism of the scene.

All of these ideas and skills have developed over time. I am fortunate to live in an area with a strong model railroading presence, especially with regard



to operations. And I am fortunate to have model railroad friends in the Kansas City area with skills superior to my own that are willing to teach me.

Chasing the technology

The layout was initially built using direct-current technology, which was all that was available at the time for N scale. The first throttles were handmade devices using parts from a local Radio Shack store and electronic designs from various magazines. The DC phase of the railroad evolved from stationary throttles, to tethered handbuilt throttles using phone parts, to wireless DC control using garage door opener controllers, to EasyCab by CVP Products. The EasyCab system worked well for years, with its handheld wireless controllers.

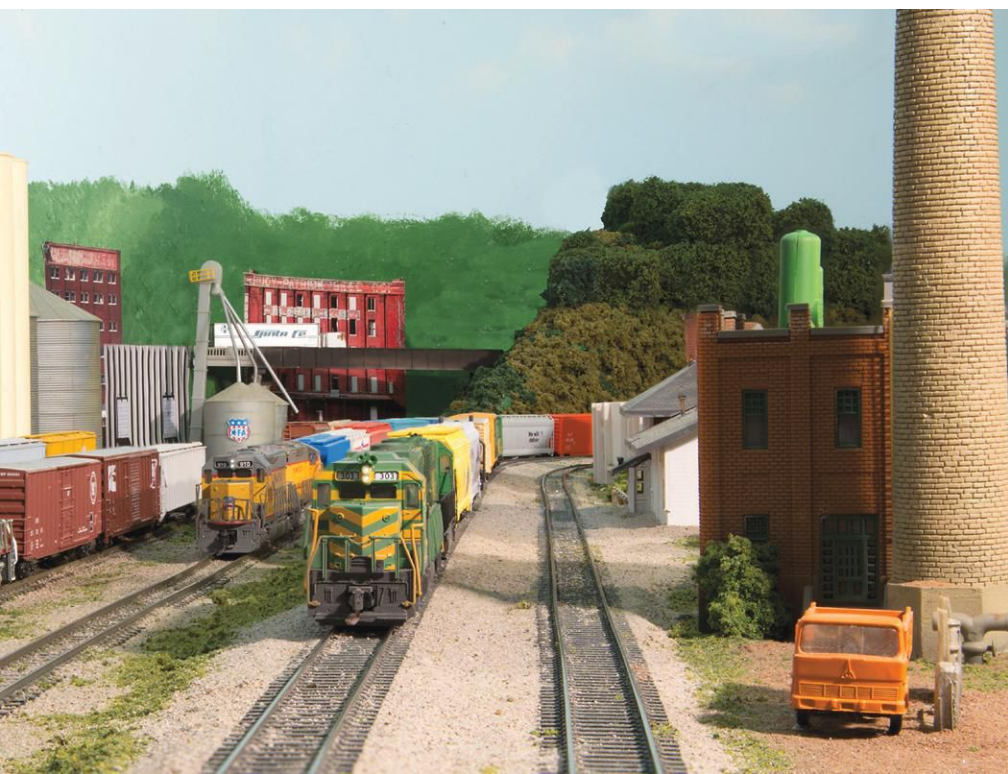
4 Missouri-Kansas-Texas GP40 No. 245 leads trailer-on-flatcar Train 301 past Missouri Equipment at Rhineland, Mo.

In 1993, I attended a clinic on the Computer/Model Railroad Interface (C/MRI), conducted by Bruce Chubb. The C/MRI System is a series of interface boards that allows a computer to control various aspects of layout operation, including power routing, turnout control, signaling, and dispatcher monitoring of the layout.

In the mid-'90s, I implemented C/MRI for DC power routing using a progressive cab control system. The system used power relays for each block on the railroad. At its peak, the layout had 60 power blocks assigned by the computer and controlled by the operator. We also had computer-controlled throttles that allowed for automated and unattended display operation using the logic contained in the computer to route power to the individual track blocks.

C/MRI used the BASIC computer programming language to run the logic, which allowed for flexibility in making changes in operation. I also implemented signals on the layout, using the computer and C/MRI input and output boards to provide the logic for the ABS signaling system. A graphic dispatching panel, using ASCII characters, was used by the dispatcher during operating sessions on the layout. The dispatcher panel displayed a layout schematic and tracked the progress of various trains.

5 Train 101, a southbound freight led by MKT GP38 No. 303, passes the Union Pacific local working the interchange track at Boonville, Mo. At left, a Union Pacific end-cab switcher works the local industries served by the UP on former Missouri Pacific track.





This period of the layout's life was a lot of fun for me as I was able to implement many unique, if not particularly practical, concepts on the layout, such as automated operations using Chubb-designed computer-controlled throttles, and automatic handoff between operator and computer for automated re-staging of the railroad. The automated operation was fun as it was entertaining to watch up to four trains meet and pass each other on the layout without any human intervention. These aspects of C/MRI were eventually abandoned as my interests turned toward prototype operations.

As technology evolved, I converted my fleet of more than 100 N scale locomotives to Digital Command Control operation. The C/MRI system was converted to DCC compatibility and is still used today, with the programming now handled through the Java Model Railroad Interface. JMRI handles the signaling logic, and a new dispatcher's panel was developed through JMRI. The graphics are nicer on the JMRI panel, but I sometimes miss the elegance of the BASIC programming and its ability to make quick logic changes. Change is sometimes bittersweet.

Also today with advancing technology, many of the mighty MKT N scale locomotives are equipped with sound, an innovation once thought impractical for N scale in the '90s. In this instance, the evolution is rapid — I'm eager to see what the future holds for the hobby!

Optimizing operations

The layout was designed from the beginning to be an operating layout. Initially, some concessions were made in track design to accommodate the Computer-Cab-Control DC system.

6 The Rhineland Local switches spent oil tank cars at the Safety-Kleen yard in St. Charles, Mo.

These restraints were lifted when the model railroad was converted to DCC and the track plan was revised, primarily at the industrial/switching locations to embrace the freedom in simultaneous independent locomotive control that DCC provides.

Initially, operating sessions on the Mighty MKT were free-flowing, with a small group of friends running random trains without much adherence to prototype practices. Operating sessions today have a more prototypical flavor, running trains that ran on the St. Louis Sub. A typical operating session now includes eight operators with three fixed jobs: a dispatcher, the Franklin yardmaster, and the UP job at Booneville. The rest of the crew handles the road and local freights. Several locals are built at Franklin Yard and keep the crews busy during a typically three-hour operating session.

Through experience gained participating in other operating sessions, and involvement in the NMRA Operations Special Interest Group and Layout Design SIG, I have attempted to distill the operating scheme, removing superfluous "non-railroady" activities to provide an optimal experience for the operating crew. I talk a lot about "flow" during my sessions, which is a state of heightened focus and immersion in activities such as art, play, and work... and model railroad operations.

Beyond DCC and JMRI, technology has evolved in other ways on the layout. Recently, we held an operating session where the dispatcher was located across the country. The remote dispatcher had access to the MKT dispatcher screen via a screen sharing program, allowing him

to line switches in and out of staging, and control turnouts on the layout. Communication between the dispatcher and the operators in the layout room was achieved using a FRS radio connected to the local computer through a USB device. Using Zoom online meeting software, the dispatcher was able to talk to the crews on the FRS radios. Our ultimate goal is to have an Australian friend of mine dispatch the layout.

The next generation

The Mighty MKT continues to evolve. The layout has reached a state of completeness, with the trackwork, scenery, electronics, signaling, and dispatcher panel nearly all fully implemented and complete. What is the next step? Why, tear it all down and rebuild it, of course. And so it is with the Mighty MKT. Following the 2025 National N Scale Convention, to be held in Kansas City June 24-29, the Mighty MKT will be dismantled as our family will be moving to a new house in the Kansas City area.

I'm working with my train friends to design the new layout design, with plans to fill a 25 x 40-foot layout room with a new and improved MKT St. Louis Sub. You can follow along with the fun, as I plan to document the design and construction process on the layout's website (mktrr.com). As Heraclitus once said, "The only constant is change". And so it is on the Mighty MKT. **MR**



Meet Bret Overholtzer

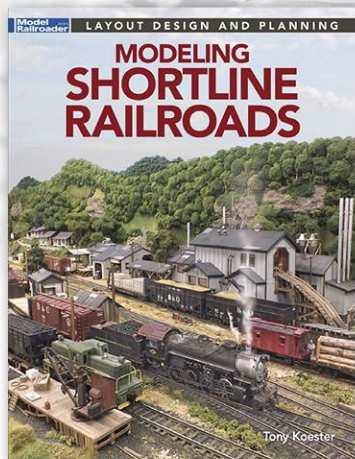
Bret Overholtzer is currently attempting to be retired from a long career in the environmental consulting industry. He is a registered professional civil engineer, and designs groundwater and soil remediation systems for a variety of industrial clients. Bret is also an avid sports car enthusiast and spends his summer weekends driving twisty roads in the Missouri Ozarks and other Midwestern locales.

⑦ Empty coal train 401, pulled by a pair of EMD SD40-2 diesels, crosses the bridge across the Missouri River from Franklin Yard to Boonville, Mo.



NEW

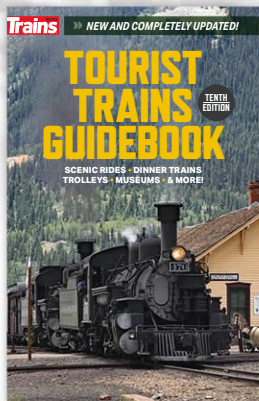
MODEL RAILROADING BOOKS!



MODELING SHORTLINE RAILROADS

#12853

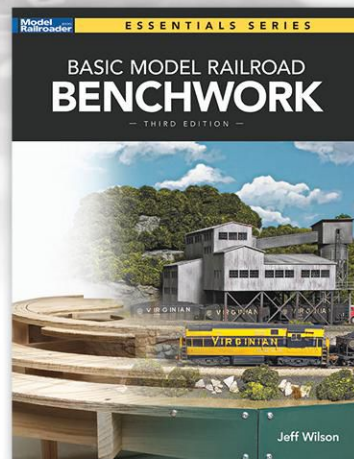
Go off the beaten path and learn how to model shortline railroads. Perfect for modelers with limited space or for those who like highly detailed scenes, you'll want to check out this new book by Tony Koester!



TOURIST TRAINS GUIDEBOOK

#01216

New and completely updated, the *Tourist Trains Guidebook* features more than 500 fascinating train rides, museums, trolleys, dinner trains, and historic depots across the United States and Canada. Start planning your next rail vacation today!



BASIC MODEL RAILROAD BENCHWORK

#12852

Learn how to build a detailed, smooth-running layout with the proper foundation. This updated edition of *Basic Model Railroad Benchwork* by Jeff Wilson shows you how to design, build, and maintain all types of benchwork.

ORDER NOW AT

SHOP.TRAINS.COM/MRBOOKS

BUILDING DOWNTOWN SILVERTON, COLO.

This 24 x 30-inch module was designed for drop-in installation on an HO scale layout

By John Vavra

Photos by the author

Maybe it's human nature, or maybe I'm just lazy. Either way, I saved two of the most difficult projects on my model railroad for last. My 20 x 22-foot Santa Fe Lines, featured in the December 2021 *Model Railroader*, depicts the Atchison, Topeka & Santa Fe in northern Arizona (HO scale) and the Durango & Silverton (HOn3) circa 1994. In the article, I mentioned that I had two major projects left, Canyon Diablo and the bridge that spans it on the Santa Fe and the town of Silverton on the narrow gauge. A few months ago, I decided to stop procrastinating and tackle one of the projects. I chose to build the town of Silverton, Colo., located in the southwest corner of the Centennial State.

What made this project difficult was accessibility. The town site sits at a height of nearly 60" and is a long reach from the aisle. Proper planning may have mitigated this problem, but that's a story for another day. Compounding the issue is my new lack of mobility. An illness a few years ago (sepsis) left me as a double leg amputee and in a wheelchair. Building a town in an inaccessible area was going to require a new plan.

Earlier, when constructing the town of Durango, I experimented with a different technique. I built each block of the town on a thin piece of plywood at my workbench. The blocks featured sidewalks, streetlights, figures, and structures. Working at my bench, I could easily put all the detail I wanted into each

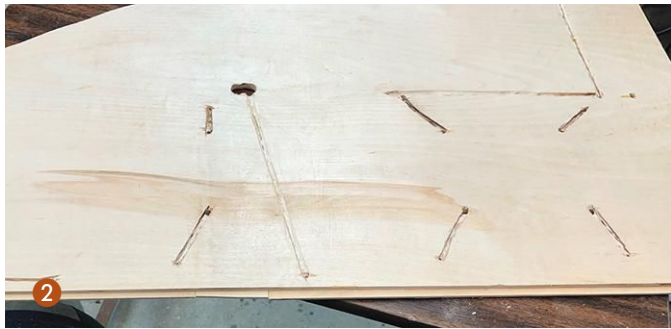
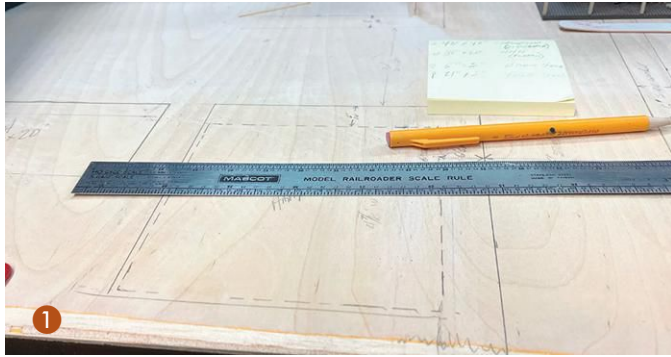
block. I added interior lighting to all structures and put a plug on the bottom for power. All I had to do was set each block in place, drop the plug through a hole in the layout, and plug it in. It worked like a charm, but those blocks were an average size of 10 or 12 inches square. Could I adapt this proven method to an entire town that would be roughly 24" x 30"? Yes! **MR**

John Vavra lives in Escondido, Calif., with his wife, Vickie. The couple has two grown daughters who live in the San Diego area. John was a supermarket manager for 40 years, retiring in 2012. In addition to model railroading, he enjoys playing computer games and watching old movies.

John Vavra built the downtown Silverton, Colo., scene for his HO and HOn3 Santa Fe Lines layout at the workbench. With help from a friend, the 24 x 30-inch scene was then set in the model railroad and blended into the existing scenery.



GETTING STARTED



First, I traced the footprint for Silverton on a piece of construction paper. I used this as a guide when cutting a 1/4"-thick piece of birch plywood for the module base to size.

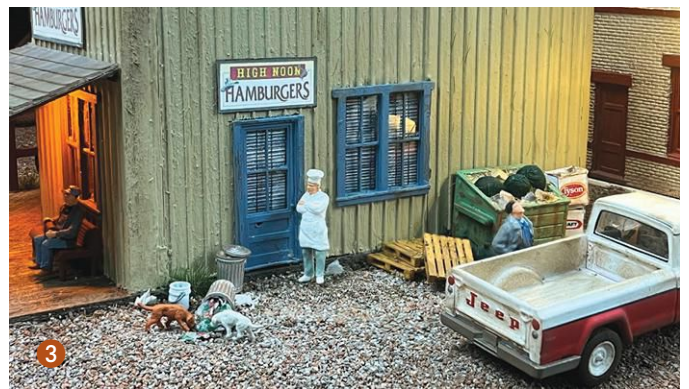
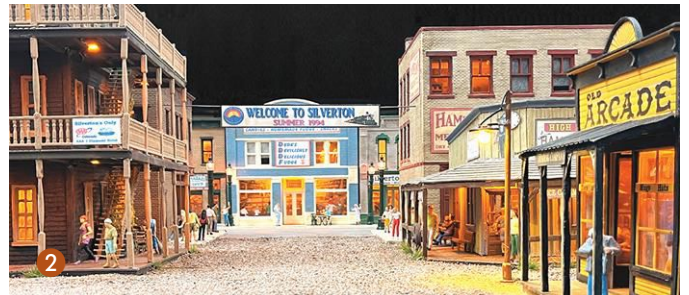
Then I laid out the town in pencil on the plywood ①. I had most of the structure kits on hand, so I knew the dimensions of each building. I also laid out the streets and marked the locations for the streetlights.

I wanted the Silverton module to be completely self contained, with only two wires out the bottom to power the lights. To conceal the wires used to illuminate the structures, I had to run them under the plywood base. I accomplished this by cutting grooves in the plywood using a motor tool ②.

The grooves let me keep the wires hidden as they ran from each structure and streetlight location to a central point in the middle of the plywood. I connected all of the wires to a terminal strip, which you can see along the left edge of photo ③.

At this point it was necessary to install the streetlights and pole lights. I covered all the wiring channels on the bottom with duct tape. It wasn't the most glamorous way to cover the channels, but it worked well and would never be seen once the module was set in place. I tested the lighting connections and streetlights to confirm everything worked before proceeding ③.

STRUCTURES, STREETS, AND DETAILS



Downtown Silverton is made up of several buildings from Design Preservation Models and Wm. K. Walthers Inc., all of which had to be modified in some way. There's also a modified Berkshire Valley kit, two assembled buildings that I picked up at a train show, a pair of structures built by my friend John Thompson, and one that I scratchbuilt.

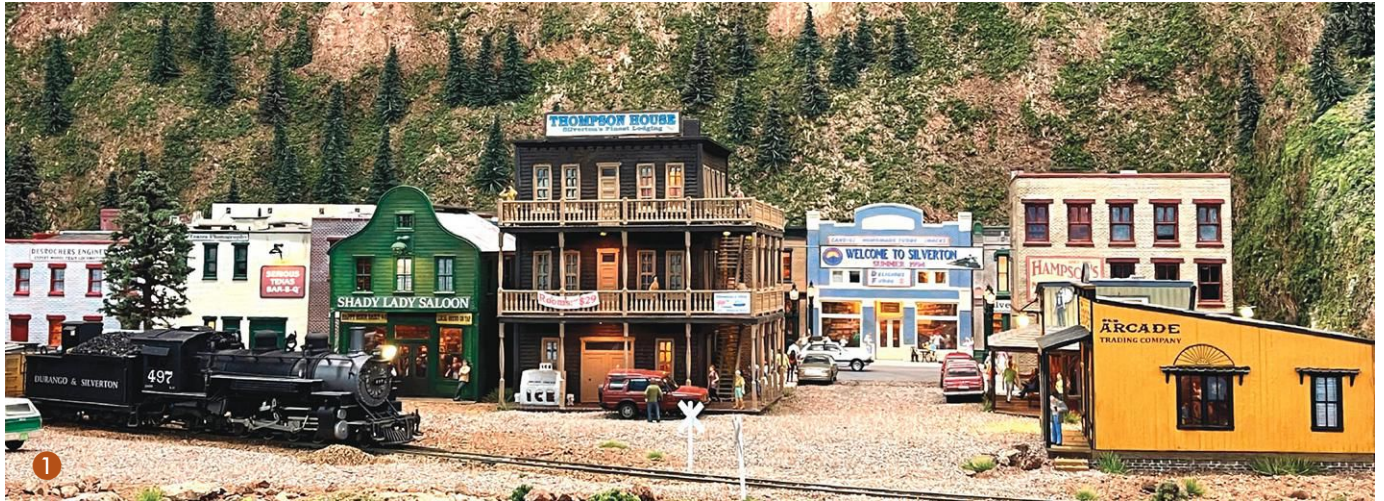
I put the structures that line both sides of Main Street on 1/8" plywood bases. This raised the buildings above street level and also formed sidewalks. ①.

I added detailed, illuminated interiors to all of the structures. After I glued the buildings in place, I began installing the roads and ground cover. Main Street is cardstock that I painted grimy black and weathered. I used Woodland Scenics dry transfers for the pavement markings.

The side streets are gravel, which I replicated by mixing gray ballast with real dirt from Colorado ②. I supplemented that with Woodland Scenics blended turf and static grass. I painted all areas that received ground cover first to prevent the plywood from warping.

I used a lot of Preiser figures, along with detail parts from Miniprints and other sources, to bring the downtown Silverton scene to life ③. Visitors to the layout love these detailed scenes, especially ones they discover behind a building or around a corner.

FROM WORKBENCH TO LAYOUT



With the scenery and detail work finished, the entire module was lifted up and set in place on the layout. When the wires were connected, I essentially had an instant city. Since the scene was beyond my reach, friend and outstanding model railroader Steve Bradley filled in the ground cover around the module and beautifully blended the town of Silverton into the surrounding scenery ①.

The downtown Silverton scene looks good under normal layout lighting, but it takes on a different feel during night-time operations ②. The detailed building interiors stand out even more, and the lights add a realistic glow.

Silverton is best known to model railroaders and railfans as home to the Durango & Silverton narrow gauge railroad. To complete the town, I added a model of the Silverton station and a water tank ③. Though it's true the full-size railroad never put a water tank in Silverton, I wanted one in my version of the town.

The station is a modified Banta Modelworks kit, and the water tank is from Durango Press. These two structures, located on the opposite side of the tracks, aren't part the downtown Silverton module. Friend Jerry DesRochers remodeled, painted, and lettered Westside Model Co. class K-37 2-8-2 No. 497, shown in the top photo on this page, to power the trains that call on the Silverton station. He upgraded the



imported brass 2-8-2 steam locomotive with a SoundTraxx Tsunami decoder.

I'm very pleased with my finished town of Silverton. The process of building a large module at the workbench and installing it on the layout was a necessity for me, but this approach would be helpful for any modeler looking to put a lot of detail into an area that might be difficult to access. It's much easier to work at the bench with proper lighting and all tools easily accessible than on location where the conditions typically aren't as favorable.



trains.com
UNLIMITED

30 DAYS FREE

WONDERING IF TRAINS.COM UNLIMITED IS RIGHT FOR YOU?

Check out our 30-day free trial
and enjoy unrestricted access
to content including:

- + FULL MAGAZINE & SPECIAL ISSUE ARCHIVES
- + TRAINS.COM VIDEO STREAMING
- + DIGITAL BOOKS LIBRARY
- + PHOTO GALLERIES
- + LAYOUT VISITS
- + NEWS WIRE
- + PRODUCT REVIEWS
- + LIVE WEBCAMS

AND MORE!



VISIT US ONLINE
TRAINS.COM/UNLIMITED



THE BEST IN MODELING & RAILROADS • ALL IN ONE STOP!

Trains

**Model
Railroader**

**CLASSIC TOY
TRAINS**

Classic Trains
MAGAZINE

**Garden
RAILWAYS**

**trains.com
VIDEO**

Checkbox train orders

My visit to the Illinois Railway Museum last

August was an eye-opener in many respects, as I described in my December column. The pace of IRM operations is dizzying. Peak weekends see five trains boarding and deboarding passengers at East Union Depot every hour. Safe operation demands clear, reliable communication between dispatcher and train crews, and the methods devised by IRM inspired this special, two-page installment of On Operation.

Regular readers may remember that IRM's system rests on prototypical electric railway practice, so-called "booth orders" by which crews received verbal instructions from a dispatcher over the phone. Conventional timetable-and-train-order rules use an intermediary, the operator/agent, who receives a dispatcher's instructions, makes a hard copy, and physically delivers it to the train crew(s) affected. Booth orders are a form of the single-order system and train orders, the duplicate-order system. The difference between the two is significant: duplicate orders in the same words issue to all who will act on them.

Arranging a meet shows how they differ. A duplicate order would read "NO. 1 MEET NO. 2 AT SECOND PLACE." Sent to operators at First Place and Third Place to deliver the order, both crews know what is expected of one another. The same meet requires two single orders to:

No. 1, "MEET NO. 2 AT SECOND PLACE" and to No. 2, "MEET NO. 1 AT SECOND PLACE." The risk of collision is apparent, if inadvertently one of the orders makes First Place the meet. Historically, single was the original train-order form, whether by Charles Minot in 1851 or perhaps earlier, by Louis McLane in 1844. The duplicate-order system prevailed and the officials attending the General Time Convention chose it for the first Standard Code which appeared in 1887. Even so, many types of train orders follow single-order form. The very common "ENG 99 RUN EXTRA FROM FIRST PLACE TO SECOND PLACE" is a good example. Nevertheless, the single-order system found wide use on electric traction systems.

J. A. Anderson, a Pennsylvania RR official, wrote *The Train Wire* in 1883 and his second edition came in 1891. Chapter 1 compares single- and duplicate-order systems in more detail. The remainder discusses the operating rules and roles of the timetable-and-train-order

system. Though written in the stilted style of the time, it's an interesting read. Surprisingly, reprints of the second edition are readily available, but I prefer the original printing which I located on several archival websites.

Let's get back to booth orders. The term probably sprung from the installation of shelters housing



ALL PRODUCE
EFFICIENT, SAFE
OPERATION
BASED ON
RELIABLE
COMMUNICATION
BETWEEN
DISPATCHER
AND CREW IN
PRESCRIBED
MANNER
— JERRY

LEHIGH VALLEY TRANSIT CO.

Date 2-5 1948

TRAIN ORDER 116

To Operator: _____

Train No. Ex Car No. 430 At Emaus Jct

A Train Order _____ is Annulled.

Meet Train No. Ex Car No. 218-016-1007 At Emaus Jct

Meet Train No. 327 Car No. 702 At Quakertown

B Meet Train No. 327 Car No. 710 At Yace

Meet Train No. _____ Car No. _____ At _____

Meet Train No. _____ Car No. _____ At _____

C Run Schedule as Train No. _____

I Report at _____

O Run as _____ Sec. Train No. _____ From _____ to _____

U Train No. _____ is annulled between _____ and _____

X Run Extra from Emaus Jct. to Car Barn Y

Complete at 9:42 P.M.

W. Wisner
DISPATCHER

C. Houser
OPERATOR

THE GARY REGISTER CO. BAYTON, O.

Lehigh Valley Transit's high-speed, interurban *Liberty Bell Limited* service connected Allentown, Pa. with Philadelphia. This order has an extra car meeting two *Limiteds*. "Operator" means the motorman, Charles Houser Sr., who copied the order. He was also a noted photographer who documented railroading in the Lehigh Valley region. Jerry Dziedzic collection

telephones at strategic points along a line, such as passing siding switches and junctions where branches joined mains. The shelters ranged from simple cabinets with an extended roof to protect a railroader from the elements to small, fully enclosed structures. Here's a cost advantage which may explain why traction systems relied on them: booth orders didn't need a station building staffed by an agent or operator.

Consider the simplicity of the fill-in-the-blank Lehigh Valley Transit single order pictured above. Only one train can be addressed. Officials designing the form provided for movements very common on the road. Lines B give three meets and their locations. Line X authorizes the car to run extra. Line O, not used, makes a section of a regular train. Note the similarity to today's current track

warrant (TWC), direct traffic control (DTC) and Form D (DCS) forms, too. It's not curious that these are single-order systems, is it? All produce efficient, safe operation based on reliable communication between dispatcher and crew in prescribed manner. This is fertile ground for operating sessions. Let's take a closer look at IRM's system.

On the next page we see Superintendent Harold Krewer at the dispatcher's desk, inking an entry on his train sheet. Typically, prototype train sheets are arranged to have records of movements made in columns, one direction on the left and its opposite on the right, divided by a column of stations. The IRM sheet has stations arranged in a row across the top, west to east, with a column at the left to list trains designated by engine or motor number. Their entries are made in the

rows below the stations. Harold and Assistant Superintendent Jeff Fryman developed the checkbox-type train order shown at right. It's an improvement they plan, giving crews pads of forms. Crews use it to record instructions the dispatcher radios and repeat them. His "that is correct" response makes them effective.

Here's an example: follow Frisco 2-10-0 No. 1630 on an 11:30 a.m. departure from East Union Depot. DS radios the crew and authorizes movement from the depot east to Johnson Siding for a meet with 151 West, on to Kishwaukee Grove, return west and call for orders at Johnson Siding. There's no runaround at Kishwaukee Grove, so the train shoves west with the conductor controlling the move from the rear car, now the leading end.

DS now dictates additional instructions: "Meet 749 East at Johnson Siding, proceed to Signal 91, and call for orders." Finally, DS authorizes the remainder of the run by ordering 1630 to West Switch for a meet with 4410 East and a short turn back to the East Union, arriving on Station 2. The crew may not act on any of these three sets of instructions before repeating them and receiving DS's "That is correct" response making them effective.

Examine 1, the checkbox train order that governed the run. Harold and Jeff designed the form to cover all the variations in typical IRM operation. However, boxes are checked only where action must take place. For example, 1630 East's meet with 309 West requires two boxes. Meet states the action and East Switch designates the location. The boxes at Karstens and

ILLINOIS RAILWAY MUSEUM TRAIN ORDER
 Order Number: 8 Date: 8/4/2024
 Train: 1630 Departure Time: 1130
 From: ☐ 50th Ave. ☒ East Union Depot ☐ Depot St. Platform

WESTBOUND: (Read down)

KISHWAUKEE GROVE
 Proceed west to:
☐ FOUR MILE SIDING
☐ Meet:

☒ JOHNSON SIDING
☐ Call for orders
☒ Meet: 749E

☐ SIGNAL 251 and Call
☐ SIGNAL 201 and Call

☐ KARSTENS (Sig 151)
☐ Call for orders

☐ EAST SWITCH (Sig 121)
☐ Call for orders
☐ Enter Station ☐ 1 ☐ 2

☒ SIGNAL 91 and Call

☐ DEPART EAST UNION
 West via Station Lead

☒ WEST SWITCH (Sig 81)
☒ Meet: 4410E
☒ Proceed Signal Indication
☐ Short turn

☐ SCHMIDT SIDING
☐ Take Siding
☐ Meet:
☐ Short turn

☐ JEFFERSON STREET
☐ Call for orders

EASTBOUND: (Read up)

KISHWAUKEE GROVE
☐ Call for orders
☐ FOUR MILE SIDING
☐ Meet:
☐ Take siding on signal

☐ SEEMANN ROAD
☐ Short turn

☒ JOHNSON SIDING
☐ Call for orders
☒ Meet: 151W

☐ SIGNAL 252 and Call
☐ Short turn
☐ SIGNAL 202 and Call
☐ Short turn

☐ KARSTENS (Sig 151)
☐ Short turn

☒ EAST SWITCH
☒ Meet: 309W
☐ Short turn

ARRIVE EAST UNION:
☐ Station 1 ☐ E ☐ C ☐ W
☒ Station 2 ☐ To Overlap
☐ 50th Ave. ☐ E ☐ W

☐ WEST SWITCH (Sig 72)
☐ East via Main Line

☐ SCHMIDT SIDING
☐ Take Siding
☐ Meet:
☐ Call for orders

☐ JEFFERSON STREET
 Proceed east to:

East Union to Johnson Siding
 "That is correct,"
 11:25 a.m.

Meet 749E to Signal 91
 "That is correct,"
 11:43 a.m.

Signal 91 to East Union Station 2
 "That is correct,"
 12:08 p.m.

1 Follow 1630's 11:30 a.m. trip around the checkbox form, traced by color-coded callouts. First, light orange, east from East Union to Kishwaukee Grove with two meets, change ends and west back to Johnson Siding. Next, light blue, another meet then west to Signal 91. Last, a final meet at West Switch, change ends and arrive on Station 2. Illustration by Kellie Jaeger

many other locations are blank because no actions are ordered there. Note how the form's track schematic helps visualize instructions and carry them out faithfully.

Rare would be the rule-book which didn't begin with this general notice: "Safety is of the first importance in the discharge of duty. Obedience to the rules is essential to safety... service demands the faithful, intelligent and courteous discharge of duty."

Lehigh Valley Transit suffered a tragic accident in 1942 when a Limited overlooked a meet order, ran a stop signal, and collided with a freight motor near Norristown, Pa. It's imperative to understand orders and follow them without fail, whether operation depends on a single- or duplicate-order system.

Automatic block signals protect IRM's trackage, another layer of safety that's important because trains often operate on 12- and 15-minute headways. Signaling isn't a necessity for layouts, and embarrassment is the only possible injury. However, the IRM system can help modelers keep up with fast clocks and frequent train movements. Might some model railroad operating schemes find a place for checkbox train orders?

I'd like to thank Conn McCarthy and his 1630 steam crew, who hosted me on a trip like the one described. And special thanks to Harold Krewer, a trusted advisor ever since he walked me through dispatching John Swanson's Dixon, Wyandot & Lake Superior 30 years ago. **MR**



We're looking over Dispatcher Harold Krewer's shoulder while he's inking an order he's preparing to dictate. Orange highlighting indicates orders made effective with his "that is correct" response after crews repeated them correctly. Chris Fussell photo



the space store®

Explore the Universe

The Space Store offers an extensive selection of space mission patches, rocket and airplane models, meteorites, toys, books, and unique items from NASA, SpaceX, Boeing, and the U.S. Space Force.

Come and check out the largest retailer of NASA and space-themed collectibles, apparel, and gifts, serving enthusiasts of all ages!

Shop now at: [TheSpaceStore.com/Shop](https://www.TheSpaceStore.com/Shop)





Western & Atlantic RR locomotive *New Jersey*, a Rogers engine built in 1852, arrives late at Chattanooga yards on Thom Radice's W&A HO scale model-railroad. The summer of 1863 witnessed an overload of military and civilian trains. Schedules became obsolete given the increase of breakdowns. The locomotive is a modified Mantua *General*. Lookout Mountain's silhouette rises in the distance. Andy Salcius photo





It's early afternoon as the Milwaukee Road's *Hiawatha* eases to a stop at the Tower Jct. depot above the town of Cayuga on Ralph Wehlitz's HO scale Penokee, Grandview & Winnipeg RR. A PG&W Doodlebug sitting at the depot waits to exchange passengers with the *Hiawatha*. A gallery of Ralph's photography appeared in the Winter 2024 issue of *Classic Trains*. Dave Rickaby photo

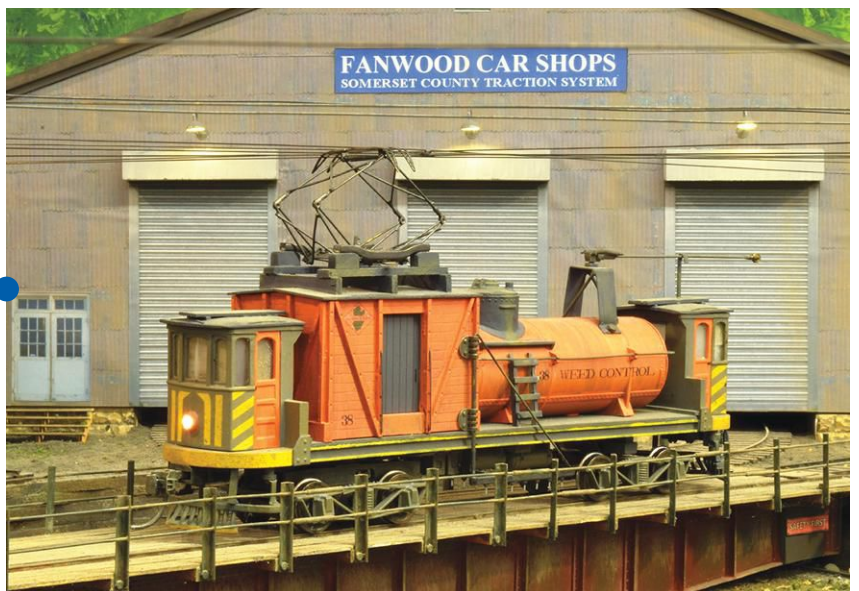
Send us your photos

Trackside Photos is a showcase for the work of *Model Railroader* readers. Send your photos (digital images 5 megapixels or larger) on a flash drive to: *Model Railroader*, Trackside Photos, 18650 W. Corporate Dr., Suite 103, Brookfield, WI 53045; or email them to us at editor@modelrailroader.com.



Norfolk Southern SD70M-2 2666

leads manifest train 38G east to Enola Yard on Jimmy Fueedale's HO scale Pittsburgh & Conemaugh Lines in western Pennsylvania. On the other track, a string of empties leaves Hillville Yard headed west to Rosehill Mine. The motive power in the consist are Athearn Genesis locomotives. The NS Top Gons are Atlas models. Jimmy Fueedale photo



The shop crews of the Somerset County Traction System are quite adept at re-purposing outdated equipment into useful new machinery, such as this weed control car. The frame and cabs are from a Franklin Models differential dump car. The shed is from Banta Modelworks. The tank is from an American Flyer tank car. Tom Piccirillo built the O scale model and took the photo.

>N-HO-S-O
How long a backdrop do you need?
Sceniking®.com
Now enjoying our 20th year! ...nothing compares

Conowingo Models
There is no substitute for real wood
Wood craftsman structures and rolling stock
CONOWINGOMODELS.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

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!
AffordableModelRailroads@gmail.com
(800) 216-9202

www.scale-structures.com
Over 150 Craftsman Building Kits with fine power detail castings! (Plus 1000+ more detail castings available separately!)
800-352-1554
620-585-2131
General Store Kit SS1114

Touch Toggles Brilliant
Lots of new additions to our system
Check the website for new controls
Route Controls
DCC & LCC options
High Rail
Made in the USA
www.berrethhillshop.com

After You've Looked at the Others...
Progressive pmd Model Design
MUSEUM QUALITY - CUSTOM LAYOUT MODELING SERVICE
WHAT CAN WE BUILD FOR YOU?
www.PROGRESSIVEMODELDESIGN.COM
211 RocBaar Drive, Romeoville, IL 60446
(815) 886-9010 FAX: (815) 886-9076
ULTIMATE MODEL MAGIC™

Train Installations LLC
MODEL RAILROADS FOR HOME OR BUSINESS
HELP WANTED See Our New Online Store!
(770) 597-0038 ~ Since 2001~
dave@traininstallations.com
www.traininstallations.com

American Limited
N Scale Core kits and Sand Tower Back in Stock
HO, N scale Passenger car Diaphragms and other details
www.Americanlimitedmodels.com
Phone 303-284-5072 Tuesday - Thursday 11:00-2:30 mst

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

IHOP in HO!
(337) 436-8481
www.summit-customcuts.com

CENTRAL & WESTERN
WE CAN MEET ALL YOUR HOMASOTE ROADBED NEEDS
PH#: (210)-519-0186
EMAIL: CWHOMAROAD@GMAIL.COM
WWW.CWHOMAROAD.COM

TamValleyDepot.com
Since 2008
Frog Juicers automatically reverse DCC polarity for turnouts, crossings, wyes, turntables, loops.
BlueRail DCC Control any DCC decoder from your phone with battery or track power.
1.72" .57"
Servo Switch Machines Small, powerful and versatile. Easy to install with many control options.

HO and N Gauge
Loads, Cars and Materials
(541) 784-5771
Siskiyou Line
Professional Grade Railroad Materials
SiskiyouLine.com

Train Sets Only
• Competitive Pricing • N, HO, O, and G Scales
• Quick Shipping • 1000's of Items In-Stock
• Great Service • Loyalty Reward Program
Locos • Rolling Stock • Track • Power • Structures • Scenery
All at TrainSetsOnly.com!

Tahoe Model Works
HO scale freight car and caboose trucks
Now with metal wheelsets from Tangent Scale Models
TEL: 775-600-9992 Send SASE for flyers
PO Box 3935 • Carson City, NV 89702
www.resincarworks.com/tahoe.htm

Rail Scale Models
Your Source For:
• Craftsman Kits
• Laser-Cut Detail Items
• Custom Scale Structures
• Laser-Cutting Services
Items in All Scales
www.Rail-Scale-Models.com

TK TRAIN 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

S Scale Trains
Building S scale trains for 40 years.
Check out our line of quality Steam & Diesel engines, numerous freight cars, cabooses and passenger cars.
The most realistic track made.
www.americanmodels.com
Phone 734-449-1100
AMERICAN MODELS, LLC
11770 Green Oak Industrial Dr.
Whitmore Lake, MI 48189

Ron's Books
The largest railroad book seller with over 6,000 titles and over 1,000 DVDs!
Free shipping on orders over \$35 in the U.S. Add \$6 if under minimum.
Send \$5 for a catalog.
P.O. Box 714
Harrison, NY 10528
914-967-7541
ronsbooks@aol.com
Online catalog at ronsbooks.com

GOODDEALSdcc

www.gooddealsdcc.com

HOME OF THE PROGRAMMER TEST TRACK SYSTEMS

All Scales Available
Custom Orders
Clear Acrylic Inspection Cars
224-703-0111

Gary Cohn
106 Center Street
Fox River Grove, IL 60021
gary@gooddealsdcc.com

BACKDROPS

HO, O, N Scales
WWW.TRAINJUNKIES.COM
-----Up to 100 Feet Long-----

Grade Crossing Pro/2

Photocell, IR or current sensing detection
Optional on-board bell modules
Timing options for flashers, gates, and bell
Gates driven by slow motion motors or servos

LOGIC RAIL™ TECHNOLOGIES <https://www.logicrailtech.com>
info@logicrailtech.com

GRANDT LINE PRODUCTS

Are now online as San Juan Details.

Same great products as always
N,HO,S and Large Scale Part and Kits

WWW.SANJUANDetails.COM

303-284-5072 TUE-THUR 11-2:30 MST

SERVING THE RAILROAD INDUSTRY AND RAILFAN SINCE 1985

Railroad Caps, Jackets Shirts and More...

Jackets starting at \$79.95

904-716-0436 • Jacksonville FL

Jelsma www.jelsma.com

Pursuing Excellence

THE TRAINMASTER, LLC

Detailed Craftsman Kits

www.TheTrainMaster.com

Classified Advertising

Schedule of Events Rate: \$45 per issue (55 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. 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. \$40.00 MINIMUM per ad. To receive the discount you must order and prepay for all ads at one time. Count all initials, single numbers, groups of numbers (i.e. 4-6-0 or K-27), names, address number, street number, street name, city, state, zip, phone numbers each as one word. Example: John A. Jones, 2102 South Post St., Waukesha, WI 53187 would count as 10 words. For MR's private records, please furnish: a telephone number and, when using a P.O. Box in your ad, a street address. **Model Railroader** reserves the right to refuse listing. **All Copy:** Set in standard 6 point type. First several words only set in bold face. If possible, ads should be sent typewritten and categorized to ensure accuracy.

Send your submissions to: Model Railroader — Classifieds, 18650 W. Corporate Dr., Ste. 103, Brookfield, WI 53045. Phone: 414-600-9285, E-mail: classads@firecrown.com
All ads must be prepaid and pertain to the subject of model railroading.

Schedule of Events

CA, SAN PEDRO: Belmont Shore Model Railroad Club Open House. June 21 & 22, 2025, 10am-4pm. Free Swap Meet Saturday 8am-10am. Come see our 2000+ sq.ft. N scale layout. Angels Gate Park, 3601 South Gaffey St., Building 824, San Pedro, CA 90731. Free Entry. www.belmontshorerr.com

FL, BROOKSVILLE: Regal Railways presents Toy Trains & Hobby Show. Hernando County Fairgrounds, 6436 Broad St., Brooksville, FL 34601. Saturday, May 17, 2025. 9:00am-2:00pm. Admission: \$6.00 adults, children under 12 free. Vendors and model train layout. Lunch available. Contact: Joe at 727-244-1341 or visit: www.regalrailways.com for more information.

IL, COLLINSVILLE: 18th Annual St. Louis Railroad Prototype Modelers Meet. Gateway Convention Center, 1 Gateway Dr., Collinsville, IL 62234. July 25 & 26, 2025. Friday 9:00am-9:00pm and Saturday 9:00am-5:00pm. Admission: \$35.00 for both days; \$25.00 for Saturday only. Thursday, July 24th, 6:00pm-10:00pm Layout Tours and Operating Sessions. For information, www.stlrpm.com or Contact: Lonnie Bathurst, bathurst@litchfieldil.com or 217-556-0314

MN, WOODBURY: Newport Model RR Club Train Flea Market. Woodbury High School, 2665 Woodlane Drive, Woodbury, MN 55125. Saturday, April 26, 2025, 9:00am-2:00pm. Admission \$5.00. Club Address: Newport Train Club, PO Box 0061, St. Paul Park, MN 55071. Contact: Don, 763-257-5443

NC, RALEIGH: Neuse River Valley Model RR Club 8th annual SPRING INTO TRAINS Show; NC State Fairgrounds, Exposition Center, 4825 Trinity Road; May 3-4, Sat 9-5; Sun 9-4. Admission: \$10 covers both days, children 12 and under free w/adult. 300 tables of model railroading, 9 operating layouts. Contact Bob Witwer, bobwitwer@gmail.com, 919-632-0785; Visit www.nrvclub.net. Follow us on Facebook.

WI, MARINETTE: Trains, Games, and Automobiles Show. Community Rec Center. 2501 Pierce Ave. 24,000 sq.ft. Saturday June 28, 2025, 9am - 5pm. Sunday June 29, 2025, 9am - 4pm. Free Admission. 100 vendor tables. Operating layouts. Table Top board games. (Classic Car Show Saturday only!) Contact: Dave Rickaby, 715-584-9310, wmwestdiv@yahoo.com

WY, CHEYENNE: Sherman Hill Annual Train Show. Event Center at Archer. (I-80 East, exit 370) 3801 Archer Pkwy. Cheyenne, WY 82009. June 28 & 29, 2025. Saturday 9am-5pm; Sunday 10am-3pm. Admission: Adults \$10.00, Children under 12 free. All Scales, model train vendors, operating layouts, door prizes. For info call: Rick Caldwell, 307-321-3644 or email: shmrctts@gmail.com

All listed events were confirmed as active at the time of press. Please contact event sponsor for current status of the event.

Classifieds

For Sale - N Scale

LARGE N SCALE COLLECTION FOR SALE. Too many items to list. Approximately 100 diesels, all in good working order. Over 200 passenger and freight cars, track, buildings, vehicles and figures - all in good shape. Best offer, must see. Further information, 772-336-0317

For Sale - Miscellaneous

EMBROIDERED RAILROAD PATCHES, 1,000 designs. Catalog \$5.00. The Patch King, PO Box 145, York Harbor, ME 03911.

Wanted - HO Scale

\$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: collections@brasstrains.com

ALL TRAIN COLLECTORS & MODELERS- Trainz is the largest buyer of model train collections in North America. We purchase Atlas, Broadway Limited, Marklin, Rivarossi, Kato, Lionel, MTH, and more in every scale. No collection is too big - we even purchase store inventories! You don't need to be an expert - Trainz makes selling your collection easy. Please visit www.Sellmytrain.com or call 1-866-285-5840 to learn more. 2740 Faith Industrial Dr., Buford GA 30518.

CASH PAID FOR HO AND N SCALE TRAINS. No collection is too big or too small. 414-377-1255

Wanted - Miscellaneous

ALL SLOT CARS WANTED. Any kind, any condition. Top dollar paid. PAUL at 248-760-6960. E-mail: slotcarguy@slotcarguy.com

LOOKING TO ACQUIRE N and/or HO scale train collections. No collection too big or too small. Please call or text Tim @ 817-991-5420 or email karrstrains@aol.com. Located in the Dallas-Fort Worth area.

MODEL AUTOMOBILE AND TRUCK KITS WANTED- unbuild or built, any size collection. Fred Sterns, 48 Standish, Buffalo, NY 14216. 716-838-6797. Email: fsterns@aol.com

WANTED: BUYING PRR LW PULLMAN CAR Cast-iron door nameplates, 1938-1950. J.H. STEVENSON, Rocky River, OH 440-333-1092 jhstevenson8445@gmail.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

Subscribe to
Model Railroader!
Go to Trains.com

CLOSING DATES:

June 2025 closes March 25 • July closes April 22 • August closes May 20 • September closes June 25

October closes July 23 • November closes August 20 • December closes September 24

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 "Classifieds" section. For more information email: classads@firecrown.com.

ARIZONA • Kingman
Mohave County's only model railroad hobby shop. Specializing in HO and N scale model trains and accessories. We are an authorized Walther's dealer.
www.66trains.com Email: info@66trains.com

66 TRAINS
303 Metcalfe Road 928-254-7005

ARIZONA • Phoenix
Narrow gauge almost exclusively.
SR3 - 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

CALIFORNIA • Atascadero
All scales G to Z. Special orders welcome.
Midway LA & SF. US 101-US 41, easy access.
Open Tue - Sat: 10-5, Sun - Mon: By Appt.
E-mail Anita at: anita@ccrtrains.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 • Hemet
We carry Lionel, MTH, HO, N, Atlas, Walther's, Ross switches, Gargraves & Peco.
45' long in-store layout. Open 7 days.
www.dynamicmodeltrains.com

DYNAMIC HOBBIES
811 East Florida Avenue 951-925-9331

CALIFORNIA • Pasadena
Model rail specialists since 1951.
LGB, Lionel, O, S, On3, HO, Hon3, N, Z. Complete stock of brass imports, new & used. Books, tools, structures, detail parts.
Open 7 days. www.thewhistlestop.com

THE ORIGINAL WHISTLE STOP INC.
2490 E. Colorado Blvd. 626-796-7791

CALIFORNIA • Rohnert Park
HO and N Scale is our specialty. We sell new and vintage, Factory-trained DCC installation. Model trains is all we do.
Tues - Sat 10-6, Sun 12-4
Email: poggiesrains@yahoo.com

POGGIES TRAINS
505 Martin Ave. 707-974-9042

CALIFORNIA • Roseville (Sacramento)
Exclusively model trains since 1980.
Athena, Kato, MTH, 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 supply, 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 • Santa Clara
100% trains. Discount prices. Super selection.
Tuesday - Saturday 10:00am-5:00pm
Closed Sunday & Monday
Dennis Cole Email: thetrainshop@att.net

THE TRAIN SHOP, LLC
1829 Pruneridge Ave. 95050 408-296-1050

CALIFORNIA • Ventura
Wide selection of domestic & import plastic aircraft, armor, ships, cars, Gundam & rare kits.
HO, N, Z, O, G scale trains. Track, structures, scenery & supplies. Also carry Estes rockets.
Open 7 days. www.venturahobbies.com

VENTURA HOBBIES
2950 Johnson Dr., #128 805-658-8138

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 & O27 Tinsplate. 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

CONNECTICUT • Winsted
A hobby shop for modelers by modelers. From hard to find to latest & greatest. Large store of quality products @ fair prices. Friendly service.
www.whittingmills.com
sales@whittingmills.com

RR MODEL & HOBBY SUPPLY
100 Whiting Street 860-379-3383

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 10-4:30, Closed Sun & Mon

SEASIDE HOBBIES
15 Daisey Ave. 302-539-1601

FLORIDA • Melbourne
The Space Coast's Model Train Shop.
Z thru G scales. N scale our specialty!
Digitrax, Kato, Lionel & Walther's Dealer.
Atlas, IM, BWL, Piko, LGB & Rokuhan.
Mon-Sat 10am-5pm Email: trlrains@clfl.r.com

TRF TRAINS & MNT HOBBIES
2715 N. Harbor City Blvd., #101/11321-241-4997

FLORIDA • Miami
Shop "Warehouse Style" for N to G.
MTH, Lionel, Kato, LGB, Broadway Ltd., Atlas, Walther's at discount prices. Open Mon-Sat 10am-5pm, Open Sunday Nov-Jan 10am-1pm.
Email us at trlrains@aol.com

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
Pensacola's Premier Model Train Store.
All scales available.
Repair service on N-G Scales.
Mon.-Sat. 10am-5pm except Tues. 2-5pm
www.fuckersTrainSupply.com

TUCKER'S TRAIN SUPPLY
1435 Harold Avenue 850-723-5390

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 • Tampa Bay - Pinellas Park
2600 sq. ft. Showroom. Lionel & MTH Dealer
NEW LGB, BUY-SELL - All Gauges Z thru G
Over 6,000 Parts. Repair Services. Trains, Track, Sets, Scenic Supplies. Mon 1-5, Tue-Sat 10-6
www.zitniktrains.com

ZITNIK TRAINS
5193 73rd Ave. N. 727-201-9668

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

LEGACY STATION TRAINS
4153 Lawrenceville Hwy., #12 770-339-7780

ILLINOIS • Des Plaines
N, HO, S, O, G Std. & Narrow gauge too.
Lots of scratchbuilding supplies and other neat stuff. Brass, books & DVDs.
Close to O'Hare. Open seven days a week!
Web Store: www.desplains-hobbies.com

DES PLAINES HOBBIES
1524 Lee St. (Mannheim Rd.) 847-297-2118

ILLINOIS • Geneseo
Trains, Scale Models & Hobby Supplies.
Specializing in Midwest Roads. Scout says wide selection to scratch your HO/Hy Itch.
Visit our website at GRHobbies.com or call for directions & hours.

GREEN RIVER HOBBIES
119 W. Exchange St. 309-944-2620

ILLINOIS • Mundelein
Specializing in trains, HO, N, O, G, Lionel. Books and videos. Northern IL railfan headquarters. Open 7 days a week!
Please call for 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

ILLINOIS • Springfield
Easy access from I-55 / Exit 100B
Open Wed to SUN Hours 12pm to 6pm
BUY-SELL-TRADE Scale Model Trains
mainline2006@gmail.com Member NMRA

MAINLINE MODEL RAILROAD PRODUCTS
2436 Denver Drive 217-679-1945

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.fredtrainshop.com

FRED'S TRAIN SHOP
8909 Santa Fe Dr. 913-383-3500

KENTUCKY • Louisville
We offer 13 rooms filled exclusively with items for modeling scales N - G. Repairs and installations welcome. We buy and sell.
Mon-Fri 11-7 & Sat 10-5:30. Webstore now included at: www.roundhouseky.com

ROUNDHOUSE ELECTRIC TRAINS INC
4870 Brownsboro Rd 502-895-2466

MASSACHUSETTS • Ashburnham
Specializing in New England road names.
HO/N Scale. Micro-Trains, Walther's, Horizon.
Special orders discounted.
Thurs-Fri-Sat 10am-6pm
service@halfpricehobby.com

SHEPAW 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 810-720-2500

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 • 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

MINNESOTA • Burnsville
Premier model train store committed to being a one-stop shop for model train enthusiasts.
johnsmodeltrains@gmail.com
Store Hours: Th & Fri 3-7, Sa 11-7, Su 1-5
www.bigjohnmodeltrains.com

BIG JOHN'S MODEL TRAINS
1178 Burnsville Ctr, Ste 1032 508-918-8188

MONTANA • Hamilton
Model railroading headquarters for the Northern Rockies. Your one-stop shop for model trains, kits, books, and much more!
customerservice@rimrockhobbies.com
Visit: rimrockhobbies.com

RIMROCK HOBBIES
305 W Main St 406-361-8065

NEBRASKA • Deshler
One of the largest HO/N scale inventories.
Come check us out! All major brands plus books, videos, tools & scenery.
Mon-Fri 9-5:30, Sat 9-3.
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.
Service work, repairs, technical support.
Family owned since 1936.
www.houseoftrains.com

HOUSE OF TRAINS
8106 Maple St. 402-934-RAIL (7245)

NEVADA • Las Vegas
From Z Scale to G Scale We Got You Covered
Open Mon-Sat 11 AM to 5 PM
Buy Online at: www.westsidettrains.com
Nevadas ONLY Remaining Train Store

WESTSIDE TRAINS
2960 S. Durango #117 702-254-9475

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
Direct dealer for LIONEL and MTH. The largest train store in Northern NJ since 1974!
4 showrooms plus Operating Layout. WE BUY OLD TRAINS - Lionel Service Station #556
www.TRAIN-STATION.COM

THE TRAIN STATION
12 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 YORK • Troy (Brunswick)
Complete hobby and model railroad shop.
HO, N, Lionel, paint tools, scratch building supplies.
Located in Tamarac Plaza.

JP'S TRAINZ AND HOBBIES
3991 NY Rt 2 518-203-7141

NEW YORK • Wellsville
HO, N & O Accurail, Bowser, Atlas, Walther's, Williams & Kadee. Scenery & modeling supplies. Plastruc's, magazines & building kits.
Old local lines like WAG, Erie & EL.
Call for hours.

EAST DYKE DEPOT
332 E. Dyke St. (Rt. 417E) 585-593-0005

OREGON • Beaverton
Complete full line hobby shop.
Z, N, HO, O, Lionel, and LGB.
Open Mon - Fri 10-6, Sat 10-5, Sun 12-5.

TAMMIES HOBBIES
12024 SW Canyon Rd. 503-644-4535

OREGON • Portland
HO, N, Z, Lionel, DCC, brass
Reservation discounts, new, used.
Consignments, 16 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-Sat 10am-4pm, 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.com

MAINLINE HOBBY SUPPLY
15066 Buchanan Trail E. 717-794-2860

PENNSYLVANIA • Broomall
Lionel, American Flyer, LGB, Atlas & MTH
HO, N, ON30, Standard, O & S gauges
bought, sold & traded. Auth. service station.
www.nstrains.com

NICHOLAS SMITH TRAINS
2343 West Chester Pike 610-353-8585

PENNSYLVANIA • Hatboro
Lionel, American Flyer, LGB, MTH, Märklin, Bachmann, Williams, HO, N & Z. We buy, sell & repair. Mon-Fri 10-6; Sat & Sun 10-4
www.JoesTrainStation.com

JOE'S TRAIN STATION
283 E. County Line Rd. 215-322-5182

PENNSYLVANIA • Jeannette
Trains exclusively. Lionel, MTH, HO & N. Supplies and accessories at discount prices.
Mon-Wed-Thurs 10-5, Fri 10-6:30, Sat 10-4.
Closed Tue & Sun. Expanded hours Nov & Dec.
www.needztrains.com

NIEDZALKOSKI'S TRAIN SHOP
214 South 4th Street 724-523-8035

PENNSYLVANIA • Strasburg
From trains to diacast 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 & apces., detail parts, plastic & crapsenrland. Lionel, MTH, HO & N. Supplies and accessories at discount prices.
Mon-Wed-Thurs 10-5, Fri 10-6:30, Sat 10am-5pm
1/2 mile west of airport
E-mail: aahobbies@gmail.com

A. A. HOBBIES, INC.
655 Jefferson Blvd. 407-737-7111

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
404 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

TEXAS • Athens
Specializing in HO, HO3 & Digitrax Dealer
Soundtraxx • InterMountain • Kadee
Micro Engineering • Rapido • Atlas • Walther's
-----WE BUY HO3-----
jack@harrishobbies.com www.harrishobbies.com

HARRIS HOBBIES
9323 County Rd 1127 903-489-2646

TEXAS • Dallas
Official Lionel Layout Builder Since 2001
Trainingshop.com includes:
Custom Layouts, Modulars, Model Stations,
Bridge Kits...come see...there's always something new!!
www.TWTrainWorxStore.com

TW TRAINWORX
2808 McGowan St. 877-881-4997

TEXAS • Houston
All trains, all scales, Magazines, Books, Videos, Repairs, Brass, Consignments. Discount program, will ship. papabensrains@gmail.com Mon-Fri 10-5; Sat 10-3; Closed Sun. Open Sunday's Nov-Dec.
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.
Märklin, G, HO, N, O, Z.
Superdetailing parts galore.
Books, structures, figures and tools.
Tue-Sat 10am-4pm www.dibbles-hobbies.com

DIBBLE'S HOBBIES
1029 Donaldson Ave. 210-735-7271

UTAH • Orem
It's cheaper than therapy.
Trains all scales, LGB, Broadway Limited,
Atlas, Lionel, Micro-Trains, Athearn.
Visit us on Facebook:
Hobby Stop Utah/itscheaperthantherapy
HOBBY STOP
537 North 1200 West 801-226-7947

VIRGINIA • Ashland (Richmond)
OPEN 7 DAYS: Mon-Sat 10-6; Sun 11-4
Personal service/repairs/layout ideas. We ship.
Gauge G, O, HO, N, Thomas Brio, & more.
I-95, EXIT 92, ONLY 1.2 Miles West to tracks.
www.trainandtoystore.com
TINY TIM'S TOYS & TRAINS
104 S. Railroad Ave. 804-368-0063

VIRGINIA/MARYLAND • Manassas, VA
Full service storefront & online store. All makes
& scales. New/used trains sales, service, repair
& upgrades. All scales & Digitrax dealer.
Online Sales Visit www.traindepot.biz
TRAIN DEPOT
7249 Gabe Ct. 703-953-3767

WASHINGTON • Burien (Seattle)
Close to SEA-TAC airport - short drive from
downtown Seattle. New & vintage electric
trains in all scales. Tues - Sat 11-6
www.electrictrainshop.com

THE ELECTRIC TRAIN SHOP
625 SW 152nd St. 206-244-7077

WASHINGTON • Kirkland
Lionel, American Flyer, LGB, HO, N.
Buy, sell, and repair.
Supplying all your railroading needs.
Open Mon-Sat.
www.eastsidetains.com
EASTSIDE TRAINS, INC.
217 Central Way 425-828-4098

WASHINGTON • Renton
N & HO model trains & accessories.
New, used, and we buy collections.
www.pnptrains.com
Wed-Fri 1-6pm, Sat 12-6pm
PNP TRAINS
334 Wells Ave S, B-2 425-496-8844

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.
800-487-2467 walthers.com
WALTHERS SHOWROOM
5619 W. Florist Avenue 414-461-1050

WISCONSIN • Waukesha (Pewaukee)
Märklin • Lionel • MTH • AF • LGB • Z to G
• buildings • scenery • detail parts • books
• scratchbuilding supplies • special orders.
Mon-Fri 11-6 • Sat 10-5 • Sun 12-5
www.hiawathahobbies.com
JETCO'S HIAWATHA HOBBIES
2026 Silvernail 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 • Vancouver (Langley)
North American & European Trains.
HO, N, O, G and DCC
All scales. Atlas, Rapido, Märklin,
Walthers, Roco & many more. New/used.
We buy estates and collections.
Shop online at: lctrainsandhobbies.com
INTERCITY TRAINS AND HOBBIES
19965 96 Ave., Langley 778-705-2131

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.
650 Alden Rd., Unit 101 905-470-6200

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!

Email: classads@firecrown.com
for more information.

**Model
Railroader**

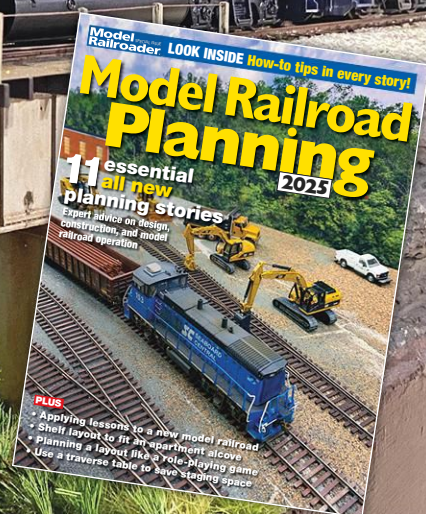
Model Railroad Planning 2025 is Here!

Model Railroad Planning 2025
includes 11 all-new stories packed
with tips for planning your model
railroad, plus several track plans. This
essential guide mixes track planning,
operating, construction, and scenery
into one outstanding publication.

Take your layout to the next
level with projects from top
modelers!

ORDER NOW AT
Shop.Trains.com/MRP25

 **trains.com**
STORE



Model MAGAZINE Railroader

SAVE UP TO 59%

GET 1 YEAR OF MODEL RAILROADER FOR AS LOW AS \$39.95



Subscribe to Model Railroader magazine and you'll get:

- Model railroading tips & how-tos
- Expert product reviews
- Layout visits & track plan inspiration
- Project photos

PLUS, get our weekly e-newsletter, early access to digital issues, live workshop webcam, and Track Plan Database on Trains.com!



VISIT US ONLINE:
TRAINS.COM/MRR/SUBSCRIBE

THE BEST IN MODELING & RAILROADS • ALL IN ONE STOP!

Trains

**Model
Railroader**

**CLASSIC TOY
TRAINS**

Classic Trains
MAGAZINE

**Garden
RAILWAYS**

**trains.com
VIDEO**

www.bytheyardcomics.com

A PESSIMIST SEES HIS LAYOUT AS UNFINISHED. AN OPTIMIST SEES HIS LAYOUT AS A WORK IN PROGRESS!

WHAT'S IT CALLED WHEN IT TAKES UP THE ENTIRE LIVING ROOM?



Coming up

An O gauge tribute to the Pennsylvania RR

Norm Charbonneau's Northbrook layout showcases PRR steam and diesel throughout the Northeast and Midwestern United States.

Buffalo & Pittsburgh in the 1980s

The colorful trains on Jon Percy's double-deck N scale layout haul a variety of tonnage between western New York and Pennsylvania.

Plus more:

- How to wire a double slip switch
- Scratchbuild a prototype structure using photo-lamination
- Scratchbash a Tractive Power Corp. TP56 switcher
- Model Mississippi car ferry operations
- And more!

Subscribe today!

1-877-246-4879

www.Trains.com

Display Ad Index

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, 18650 W. Corporate Dr., Ste. 103, Brookfield, WI 53045.

Atlas Model Railroad Co., Inc.	5	National Train Show	7
Axian Technology	22	Nicholas Smith Trains	22
Bachmann Industries, Inc.	68	N Scale Magazine	7
Broadway Limited Imports	21	PECO Products	23
Circuitron	23	Rapido	2, 20
Custom Model Railroads	18	Proxxon	23
Digitrax	7	Showcase Express	19
Evergreen Scale Models	19	Sievers Benchwork	18
Great Midwest Train Show	18	SoundTraxx	19
Great Train Expo	18	Spring Creek	19
Greenburg Shows	18	Subscribe to Model Railroader	64
Halfpricehobby.com	18	The Space Store	55
Kato USA Inc.	67	Train World	18
Ken Patterson	25	Trains.com Forums	31
Loco-Boose Hobbies	18	Trains.com	52
Märklin, Inc/LGB	9	Trainz.com	6
Menard, Inc.	13	Wm. K. Walther's Inc.	3
Model Train Market	7	Woodland Scenics	16
Modelers Marketplace	60-61	Yankee Dabbler	18

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.

When the day comes



Jim Homoki, foster son Shawn Leichter, Tom Schmieder, and Rich Wisneski dismantle the late Harold Werthwein's large-basement-filling Erie Railroad. Jerry Dziedzic photo

When we had all four kids and two dogs at home, the very last concern I had was to check the “use by” date on the various food products, even those lurking in the dark recesses of a cupboard. But with just me nibbling away at the food, and often as not eating something I picked up at the take-out window of a local restaurant, I have to check products carefully to be sure they’re not well past the expiration dates.

That prompted me to give myself a good once-over, but so far I’ve found no sign of an expiration date printed on my hide. I guess the actuarial tables will suffice, and they tell me not to worry any time soon. I like good news, so I’ll take that as gospel.

Model railroads can also have quite lengthy lifespans. My Allegheny Midland made it to the quarter-century mark before the siren call of modeling a favorite prototype led to its dismantling. I haven’t regretted that decision, which is not to say I

don’t miss the AM. Modeling central Appalachia continues to appeal strongly to me, just not strongly enough to occasion a reboot of my modeling priorities before my own “use by” date comes.

But that prompts a question about the lifespan of my current model railroad, which depicts one of four subdivisions of the former Nickel Plate Road’s Clover Leaf District. What happens to it when it reaches its expiration date? The accompanying photo from Jerry Dziedzic shows one scenario. Layout owner Harold Werthwein had passed away, and a group of his crew members and foster son Shawn were busily dismantling the enormous tribute to the Erie RR that occupied his basement and entertained a large group of crew members for decades.

When George Berisso died much too young, his wife, Jane, hosted his regular crew for quite some time before his Spokane, Portland & Seattle followed its prototype into fallen flag status. The same

thing is happening with the late Jim Richard’s Athabaska RR as Jean hosts the regular crew on occasion.

Ideally, one of Harold’s crew would have bought the house and railroad and lived happily ever after, or at least until a new expiration date loomed. Or maybe a group of them could have purchased it and made it a club house. But that didn’t happen. Nor was Allen McClelland able to sell either of his homes with the first or second editions of the world-famous Virginian & Ohio layouts still in them. Would a full-page ad in MR have attracted a buyer? We’ll never know.

But maybe we can be a bit more proactive in our efforts to find buyers for homes-with-railroads. Instead of waiting until we’re forced to make a hasty decision, or we’re

gone and someone else simply wants to get the “train set” out of the basement so they can put the house on the market, perhaps we can put out some feelers in advance.

A classified or small display ad won’t break the bank. Creatively worded, it might smoke out a few potential buyers. I’m not ready to start thinking seriously about fully retiring, but if I were, I could mention that we live in four-bedroom home with two fireplaces in a small lake community in the New Jersey Highlands near a state park within an hour of three major airports and are only a mile or two from the Appalachian Trail. And, hey, you get an 800-foot-long HO railroad main line with two division-point yards in a finished basement to boot!

More often, I suspect, a railroad is torn down to make way for a new railroad or because the owner is relocating and looking forward to building a new layout in his or her new house, apartment, or condo. Jerry recalls that being the case for him and for our mutual friend Walt Appel when he relocated from New Jersey to the state of Washington. Jim Homoki just lost his home in a fire and was

actually relieved when the remains were condemned so he could buy a home with a better footprint for his New & Improved RR.

No matter how or why a model railroad meets its demise, the better we plan for its expiration date, the less painful will be the outcome. **MR**



**MAYBE WE CAN
BE A BIT MORE
PROACTIVE IN
OUR EFFORTS
TO FIND
BUYERS FOR
HOMES-WITH-
RAILROADS
— TONY**



THE “PROBLEM CHILD” LOCOMOTIVE IS BACK! THE SD80MAC IN N-SCALE!

KATO USA is thrilled to announce the return of the SD80MAC in N-Scale for 2025! The EMD SD80MAC was a powerful diesel that didn't find a place on mainstream railroads. The engine was built in 1995 for the privatized Conrail Railroad. It boasted 5,000 horsepower and measured 80 feet in length. While the engine held impressive power, most railroads didn't see the benefit of purchasing the SD80MAC. Orders from railroads such as Union Pacific and Canadian Pacific for the SD80MAC halted in favor of different locomotives.

At launch, the diesels were unreliable and difficult to fix. The 20-cylinder engine and 5,000 horsepower were considered overkill when most railroads would rather operate a SD70MAC with a 16-cylinder engine with a range of 4,000 to 4,500 horsepower. Conrail would officially split between Norfolk Southern and CSX in 1999. NS received 17 units and CSX received the remaining 13. The last of these engines were retired after the COVID pandemic, and many of them have been scrapped or used as donor parts since then.

Some of the model features include:

- Powerful five-pole KATO motor
- Directional Headlight
- Illuminated numberboards
- KATO Magnetic Coupler
- Drop-In DCC Friendly

176-5515	N EMD SD80MAC Conrail Rd. #4114	MSRP \$155*
176-5516	N EMD SD80MAC Conrail Rd. #4126	MSRP \$155*
176-5517	N EMD SD80MAC Norfolk Southern Rd. #7218	MSRP \$155*
176-5518	N EMD SD80MAC Norfolk Southern Rd. #7227	MSRP \$155*

*Also Available with DCC and DCC/Sound!



BACHMANN®

HO
SCALE

A NEW ERA IN HIGH-SPEED MODELING

THE AMTRAK® ACELA® II FROM BACHMANN

Launched in 2000, Amtrak's Acela® service made history as the first high-speed electric rail operation in North America, moving passengers efficiently between Washington D.C., New York City, and Boston. Today, Acela® service continues to push the envelope for speed and modernity with a new generation of hi-tech trains from Alstom, capable of reaching speeds upwards of 150 MPH on the Northeast Corridor. Much like when the original Acela® debuted, Bachmann is once again delivering this symbol of modernity to HO Scale. Designed using official blueprints and prototype references, the Amtrak® Acela® II high speed trainset arrives with two power cars, DCC-and-sound-ready for the installation of your choice of decoder, three intermediate passenger cars with interior lighting, and an oval of broad, 22" radius Concrete Tie E-Z Track®. Prepare for the future of American high-speed rail on your layout, and experience the thrill of the Amtrak® Acela® II in scale Spectrum® quality.

Locomotive Features:

- Motorized sound-and-DCC-ready power car
- Non-motorized power car with functioning lights
- Working directional LED headlights and marker lights
- Operating ditch lights and number board lights
- Selector switch on both locomotives for track or pantograph operation

Passenger Car Features:

- First Class car, Cafe car, and Business Class - Quiet Car included
- Fully furnished interiors with authentic seating configurations
- LED interior lighting
- Authentic details per car
- Prototypical articulated coupling system

81" x 45"
Oval of Snap-Fit
E-Z Track®

Spectrum

OFFICIAL
LICENSEE
of
AMTRAK

acela

Concrete Tie E-Z Track®



Item No: 01206

Expand your Amtrak® Acela® II to the Full Prototypical Consist with These Separate-Sale Cars:



Business Class #3902
Item No. 89925



Business Class #3610
Item No. 89926



Business Class #3611
Item No. 89927



Business Class #3612
Item No. 89928



Business Class #3613
Item No. 89929



Business Class #3614
Item No. 89930



Scan the QR Code with
your mobile Device to
find out more

Amtrak, Acela, and the respective logos are registered service marks of the National Railroad Passenger Corporation.

Arriving Spring 2025



BACHMANN INDUSTRIES, INC.
1400 East Erie Avenue, Philadelphia, PA 19124 USA
www.bachmanntrains.com

