

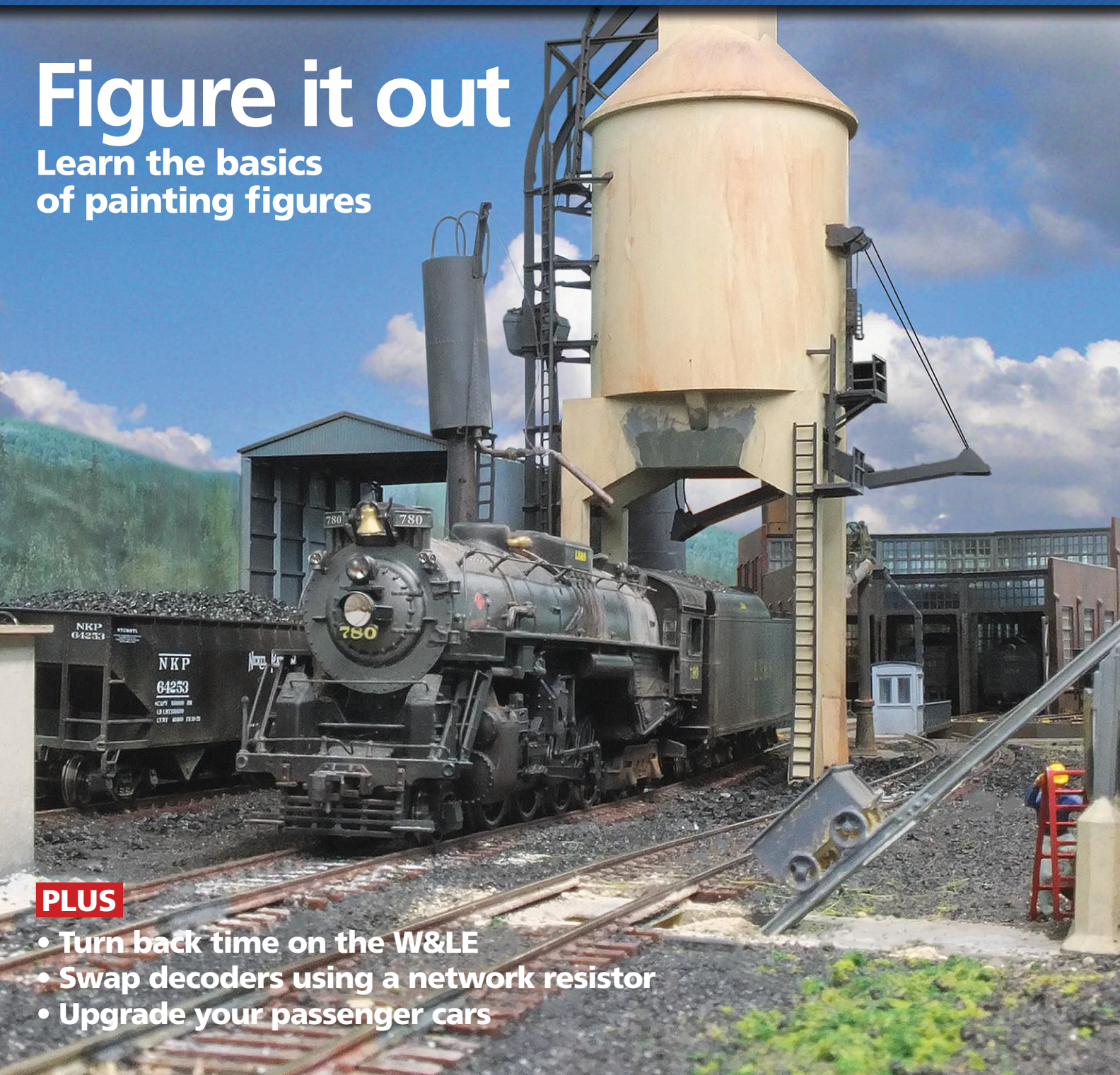
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April 2025

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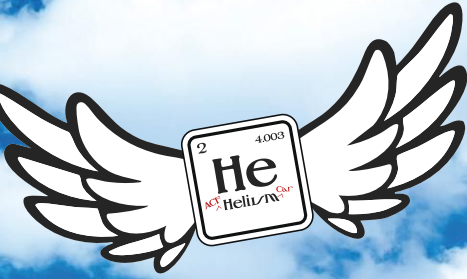
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Features



26 Painting figures made easy

Stretch your budget by painting figures yourself

by V.S. Roseman



30 Turning back time on the W&LE

This 27 x 44 foot HO scale model railroad changed from 2007 to 1957

by Jim Talbott Sr.



38 The Green Bay Area Model Railroad Club

A club serving the community

by Dave Rickaby

45 How to model realistic streets

Use scribing tools, paint, and washes to enhance plaster pavement

by Pelle K. Søbørg

49 Install a Tsunami2 into a GP 30

A network resistor allows for full light control

by Dave Fowler

In every issue

6 On Trains.com

The latest features on our website

8 From the Editor

What about all of the people?



10 News & Reviews

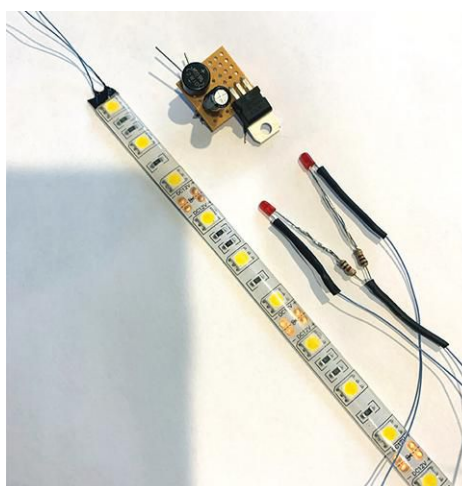
Hobby industry news

16 Ask MR

Tips for modeling station signs

21 Railway Post Office

Letters from our readers



23 Step by Step

Upgrade a modern passenger car

52 Prototype to Model

54 On Operation

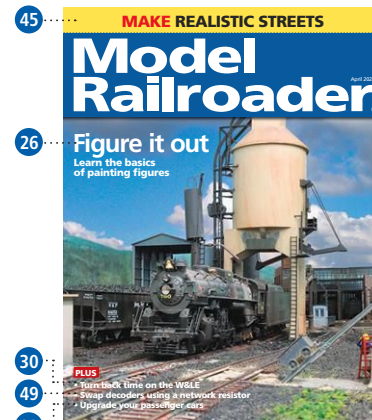
Watch your speed

56 Trackside Photos

65 Index of Advertisers and Cartoon

66 Trains of Thought

What don't you see?



On the cover: A leased LE&S 2-8-4 is serviced at Brewster Yard on Jim Talbot's HO scale Wheeling & Lake Erie.
Craig Wilson photo



Next issue

In May, we visit two N scale layouts that are part of convention tours, learn how to build a ballasted deck trestle, make car card racks for operations, and more!

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Farewell to the Milwaukee, Racine & Troy

Hosted by Senior Editor Cody Grivno, this salute *Model Railroader's* renowned 28 x 54-foot HO scale Milwaukee, Racine & Troy features interviews with several influential modelers who worked on the well-known layout during its 35-year run. Enjoy exclusive clips of the MR&T from the early stages of construction in the 1990s to the final days of operation under Kalmbach Media ownership. Then watch footage from July 26, 2024, of contractors demolishing the Myrt. Find this exclusive video only on Trains.com.



EnterTRAINment Junction: Remembering a legendary layout

For many model railroaders and garden railway enthusiasts, a trip to the greater Cincinnati Tri-State area was on the bucket list. Why? To see EnterTRAINment Junction, home to a massive indoor large-scale (1:24) model train layout.

Firecrown Media Inc. acquired most of EnterTRAINment Junction's assets in December 2024, with plans to relocate the sprawling model railroad to Chattanooga, Tenn., as a signature exhibit for a proposed transportation museum.

Take a tour of the original layout in this Trains.com article.



Model Railroader's favorite products of 2024

2024 saw some great model railroad product releases. As 2025 begins, Eric White, Cody Grivno, Mitch Horner, and Bryson Sleppy take a look back at some *Model Railroader's* favorite products of 2024.

Four diesel locomotives made the list, including the InterMountain HO scale Seaboard Coast Line GP16 shown above and Bachmann's N scale ALC-42 Charger. Learn more about what earned these models high marks, and find out if any of your favorite products made the list.

Visit Trains.com each week for the latest new product announcements.



Model Railroad Clubs' Next Generation

Arguably one of the greatest struggles facing the hobby today is model railroad clubs' ability to recruit and retain the next generation of members.

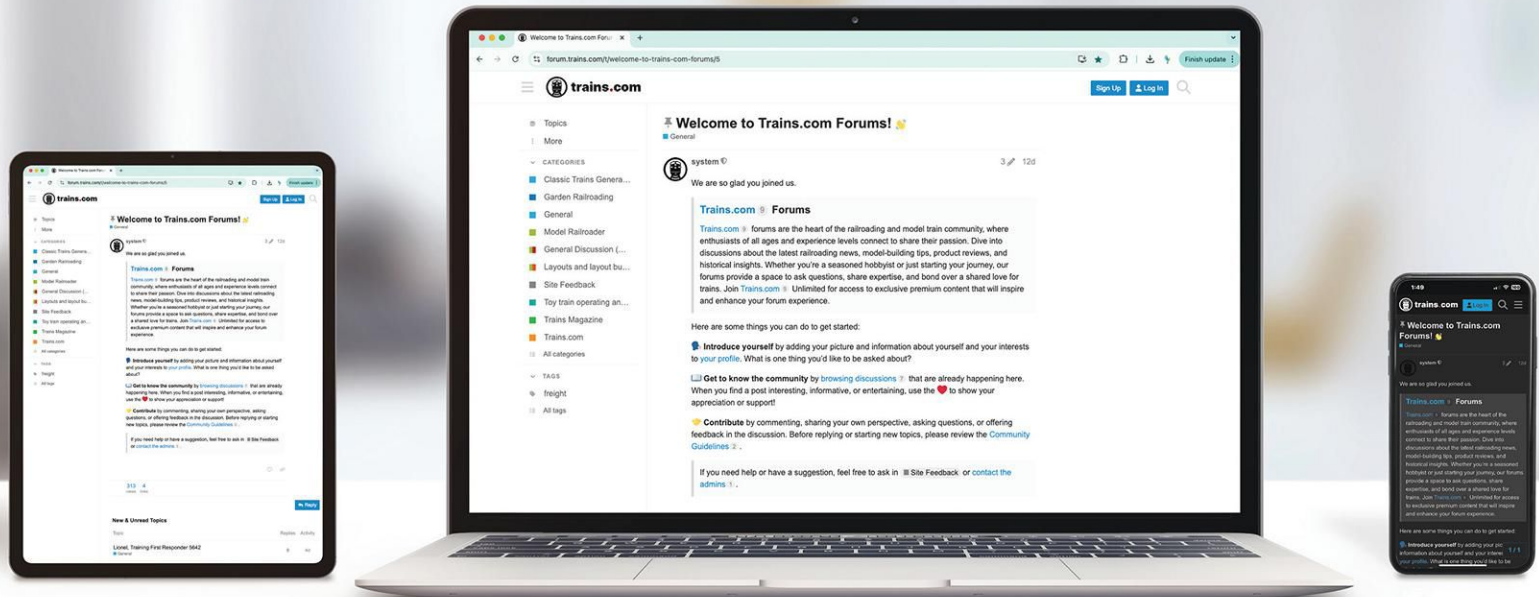
Trains.com staff writer Lucas Iverson explores the challenges, changes, and chances to thrive for clubs. Whether you're an operator or not, this discussion has something for everyone.



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What about all of the people?

When you're building a model railroad, your first thought is likely of the trains, then the track, then, possibly mixed together a bit, the landscape and structures. Many of us also focus on the vehicles that will populate our roads.

But what about the people? Without people, railroads would have no reason to exist. Of course, with freight trains, that's a little more abstract. We know the goods on the train are going to be used by people, but we don't actually see them.

Passenger trains are a whole 'nother situation. Empty passenger trains don't make railroads any money, unless they have lots of mail and baggage, and we don't often model that.

But even that's not what I'm talking about. I'm thinking of the people on the street, on the station

platform, in the cabs of our locomotives or in the cabooses, vans, and cabin cars of our trains.

People are an important part of setting a scene. Everyone can relate to figures on a layout. It's easy to see the stories they tell because we're used to seeing people in real life and trying to decipher what they're doing.

Putting people on the layout can get pricey, though. All of those painted figures add up quickly, and they seem to disappear when we put them on the layout.

A good way to deal with this is to buy unpainted figures and paint them ourselves. This can be a daunting prospect, but in one of his last stories, V.S. Roseman has a solution. Check out page 26 to learn how he prepares model figures for his scenes.

Creating scenes with figures can be like building a

forest in that we need lots of people sometimes just as we need lots of trees.

In cases like this, we can use the Hollywood example of "hero" elements. Just like with trees, we want the people in the foreground to be well-detailed.

Once we've honed our skills a bit, we can create scenes with our most successful efforts. As V.S. says in his story, the less-successful attempts can go farther back in a scene, or inside of passenger cars.

Once we have a selection of figures to choose from, we can start putting together scenes on our layouts. One thing to consider is that scenes with figures that are relatively static are going to look more realistic.

Take a look at Tracksides Photos for inspiration. People standing and having conversations, sitting on benches or



chairs, waiting to cross the street are all simple scenes we can include. If you want to add something out of the ordinary, think of the pauses that occur during sporting events, or during work. A farmer pausing to wipe a sweaty brow, a distance runner catching her breath.

Whatever you do, remember model railroading is fun!

Model Railroader

Model railroading is fun!

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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.

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HO scale



Electro-Motive Division SD70ACe diesel locomotive. The first run of this modern six-axle road unit from Broadway Limited Imports is decorated for BNSF Ry., Canadian National, CSX, Kansas City Southern, Montana Rail Link, Norfolk Southern, and Union Pacific. Multiple road numbers are available per scheme, and select road names include commemorative schemes. The HO scale model features road-specific details, including bell and brake wheel type, dynamic brake door

arrangement, headlight location, inverter blower arrangement, jack pads, and sand fill hatches. Light-emitting diode lighting features on the SD70ACe include headlight, rear light, number boxes, cab light, and ditch lights (as applicable). The die-cast metal locomotive is available in the Stealth Series (direct current) for \$349.99 or the Paragon4 range with a dual-mode sound decoder for \$449.99. Broadway Limited Imports, 386-673-8900, broadway-limited.com

HO scale locomotives

• **Electro-Motive Division SW1001 diesel locomotive.** American Rolling Mill Co.; Chicago Short Line; Conrail ("can opener" and Philadelphia Division logo); Corinth & Counce; CSX; Elgin, Joliet & Eastern; Galveston Wharves; Long Island Rail Road; Newburgh & South Shore (dark green and yellow and American Revolution Bicentennial schemes); Norfolk Southern; Reading Co.; and Union RR. Multiple road numbers

per scheme. Also available undecorated with Reading Co. details. Light-emitting diode lighting including front and rear headlights, inspection lights, number boxes, class lights, beacons, ditch lights, and cab light as applicable. Factory-applied uncoupling levers, m.u. hoses, cab interior, windshield wipers, grab irons, and lift rings. Direct-current model with 21-pin socket, \$239.95; with ESU LokSound V5 sound decoder, \$339.95. Bowser Manufacturing Co. Inc., 570-368-2379, bowser-trains.com



• **General Electric 44-ton diesel locomotive.** Strasburg RR; Burlington Northern; Chicago, Burlington & Quincy; Claremont & Concord; Delaware, Lackawanna & Western; Erie; Great Northern; Greater Winnipeg Water District; Illinois Central; Lehigh Valley; Middletown & New Jersey; New York, New Haven & Hartford; New York, Ontario & Western; Pacific Electric; Penn Central; and Western Maryland. One or two road numbers per scheme; also available painted blue, red, and yellow but unlettered. Multiple body styles. Die-cast metal chassis and fuel tanks, fuel tank skirting in three styles, and separately applied door latches. Full cab interior and photo-etched steps. MoPower capacitor system. Direct-current model with factory-installed speaker, \$199.95; with DCC and sound, \$309.95. Rapido Trains Inc., 905-474-3314, rapidotrains.com



• **General Electric AC4400CW diesel locomotive.** Norfolk Southern, BNSF

HO scale



National Steel Car Co. 52-foot single hood cushion coil car.

This newly tooled model is the latest addition to the WalthersProto freight car lineup. The HO scale car is decorated for Canadian Pacific; BNSF Ry.; Elgin, Joliet & Eastern; Northwestern Oklahoma RR; Mexican Ry. Transportation; and Wisconsin Central in three road numbers per scheme. An undecorated model is also available. The HO scale model (\$54.98) features a heavy, die-cast metal chassis; wire parts; a removable hood; and modeler-positioned coil braces. In addition, the coil car has a detailed brake system, 36" turned-metal wheelsets, and body-mounted Proto-Max metal couplers. Wm. K. Walthers Inc., 414-527-0770, walthers.com

Ry., Central Maine & Quebec, CSX, General Electric demonstrator, Ferromex, and Western New York & Pennsylvania. One to three road numbers per scheme; also available in Athearn fantasy scheme. Light-emitting-diode lighting including headlights and ditch lights. Three cab variations. Hi-ad or steerable trucks with separate shock struts and brake cylinders. Direct-current model with 21-pin NEM connector, \$169.99. Athearn Trains, 800-338-4639, athearn.com

HO scale rolling stock



• **30-foot Grand Trunk Western-style caboose.** Grand Trunk Western, Burlington Northern, Canadian National, Denver & Rio Grande Western, and Western Pacific. Also available undecorated. Factory-applied running board, grab irons, brake wheels, smokejack, and other details. Minimum radius: 24". \$59.95. Walther's Proto series. Wm. K. Walther's Inc., 414-527-0770, walther's.com



• **American Car & Foundry 50-foot hi-cube double-plug-door boxcar.** Burlington Northern; Atchison, Topeka & Santa Fe; and BNSF Ry. Multiple road numbers per scheme; also available undecorated. Road-number-specific lettering placement and handbrake. Multiple door stops versions. Rubber air hoses and metal corner stirrups. Stanray T-3-3-3 ends. 70-ton trucks with metal wheels and axles. \$66.99. Moloco Trains, molocotrains.com



• **Greenbrier 7,780-cubic-foot capacity refrigerator car.** Lineage, Arkansas-Oklahoma RR, Cryo-Trans, Ontario Northland, and Union Pacific. Also

available undecorated. Road-specific roof style, carbody, end cages, and walkways. Era-specific reefer units. Detailed underframe. Metal grab irons and railings. Without sound: Single car, \$69.95; three-pack, \$209.85; and six-pack, \$419.95. With sound: Single car, \$89.95; three-pack, \$269.85; and six-pack, \$539.95. Rapido Trains Inc., 905-474-3314, rapidotrains.com



• **Trinity 7,500-cubic-foot capacity high-cube boxcar.** With 12-foot plug door: Atlantic & Western and BNSF Ry. With 8-foot double-plug-doors: Canadian National; GATX (with Laurinburg & Southern reporting marks); TTX; and Union Pacific. Multiple road numbers per scheme. Railroad, road number, and era-specific details, including five side post variations, two horizontal stiffener types, seven different doors, five end styles, five underframe variations, 10 roof patterns, and two truck options. \$52.99. Rivet Counter series. ScaleTrains, 844-987-2467, scaletrains.com

HO scale passenger equipment



• **Union Pacific power car No. 2066.** Union Pacific and undecorated. Offered with or without roof antenna. Separately applied details including handrails and grab irons. Also features detailed underbody and interior. Illuminated interior with finger-touch control. Compatible with codes 70, 83, and 100 track. Minimum radius: 18". Without sound, \$119.99; with sound decoder, \$149.99. Broadway Limited Imports, 386-673-8900, broadway-limited.com

N scale rolling stock



• **Trinity 4,750-cubic-foot capacity covered hopper.** CSX, BNSF Ry., Burlington Northern, GATX Capital, General American Transportation Corp., Interstate Commodities Inc.,

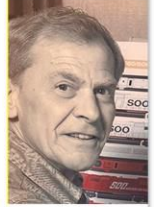
In Memoriam

Bob Wegner, 1941 - 2025

Bob Wegner, 83, died on Jan. 6 2025.

Bob put in more than 40 years at Kalmbach Publishing Co., turning out hundreds of beautiful track plans for *Model Railroader* and maps for *Trains* and *Classic Trains*. He was a versatile illustrator and railroad mapmaker.

Bob's work was emblematic of the classic era of Kalmbach's Art Department. He was part of a cadre of Kalmbach designers who knew how to interpret a railroad on paper. They were all good at it, and Bob was probably the best. — Kevin P. Keefe



Nancy L. Bartol, 1941-2024

Nancy Bartol, 83, died on Dec. 29, 2024.

Nancy was a long-time member of the *Trains* magazine editorial staff and later served as Kalmbach Publishing Co.'s librarian.

With 43 years at Kalmbach, she was one of the longest-tenured employees in the company's history, most of her career reporting directly to *Trains* Editor David P. Morgan. She was a colleague of other fondly remembered *Trains* staff members, among them Managing Editor Rosemary Entringer, Art Director George A. Gloff, and Editor J. David Ingles. — Kevin P. Keefe



North American Chemical, and Union Pacific. Multiple road numbers per scheme. Road-specific details including multiple brake system configurations, outlet gate options, and roof hatches. Etched metal running boards and crossing platforms. Wire grab irons on longitudinal running boards and separate uncoupling levers. 100-Ton Barber S-2 trucks. \$42.95. Tangent Scale Models, 828-412-3886, tangentscalemodels.com

Walthers HO scale EMD SD75M



The Electro-Motive Division SD75M diesel locomotive has joined the WalthersMainline HO scale product range. The newly tooled model features an injection-molded plastic body; heavy, die-cast metal chassis; and all-wheel drive and electrical pickup.

Electro-Motive Division produced the SD75M from February 1995 through February 1996. A total of 76 units rolled off the production line during that time. The 4,300 horsepower locomotive rides HTCR-1a trucks and has a 5,000-gallon fuel tank.

The sample we received is decorated as BNSF Ry. 8252. The full-size unit was built in December 1995 under order number 956608. It was repainted in Heritage II colors on May 6, 2002. In 2014 the road locomotive was renumbered 252, as the 8200 series was reassigned to an incoming order of General Electric ES44C4 diesel locomotives. The 252 was overhauled and repainted in Heritage IV colors in 2017. The unit is still in service today.

The plastic body on the SD75M consists of the long hood, cab, nose, and sill unit. The front pilot has a factory-applied snow plow, and the rear pilot has molded spare knuckles. Both pilots have molded m.u. hose connections and m.u. sockets.

Drill-starter points are located on the nose, cab, and long hood. Walthers offers an EMD SD70-series diesel detail kit that includes formed stainless steel wire grab irons as item No. 910-261 (\$19.98, sold separately).

Long-hood details, such as the dynamic brake fan, radiator cooling fans, inertial filter inlets, cooling air inlets, and engine access doors are molded. The plastic SD75 body bulge and brake wheel on the engineer's side, as well as the cast brass Nathan K5 air horn on top of the long hood, are free-standing parts.

To separate the shell from the chassis, I removed the front and rear draft-gear boxes plus two additional screws (one on each end of the fuel tank). A five-pole, skew-wound motor framed by machined brass flywheels is centered in the chassis.

Much of the space around the motor is filled by the top weight. A 21-pin motherboard is secured to the top of the weight with screws. The ESU decoder sits atop the motherboard. A 28mm round speaker is housed in an enclosure above the rear truck.

Our review model is neatly painted in BNSF Heritage II paint scheme. The lettering placement follows prototype images, though the sill stripe arrangement is a bit different.

There were a few minor paint discrepancies. The nose headlight housing and walkway guard on the engineer's side should be orange, and the ditch light housings should be yellow.

Prototype drawings of the EMD SD75M appeared in the November 1995 *Model Railroader* (with corrections in the March 1996 issue), as well as *BNSF Railway Company 2006 Locomotive Review and Locomotive Diagrams* by Robert C. Del Grosso. The dimensions

on the Walthers HO EMD SD75M closely follow published data.

I tested the model with an NCE Power Cab. At step 1, the unit moved smoothly at 1 scale mph. At step 28, the locomotive achieved a top speed of 70 scale mph, an exact match for the prototype.

Walthers also offers the SD70M and SD75I in its Mainline series. The HO scale models look good right out of the box, but can also serve as the starting point for a fun detailing and weathering project. — *Cody Grivno, senior editor*

Facts & features

Price: Direct-current model with 21-pin DCC plug and factory-installed speaker, \$169.98; with dual-mode ESU sound decoder, \$229.98

Manufacturer

Wm. K. Walthers Inc.
5601 W. Florist Ave.
Milwaukee, WI 53218
walthers.com

Era: 2002 to 2017 (as decorated)

Road names: BNSF Ry. and Atchison, Topeka & Santa Fe. Four road numbers per scheme. Also available undecorated.

Features

- Body-mounted Proto-Max couplers, at correct height
- Metal wheel stubs mounted on plastic drive axle gears, correctly gauged
- Minimum radius, 18"; recommended radius, 22" or larger
- Weight: 1 pound, 6.5 ounces

Atlas N scale Alco RSD5 diesel locomotive



The Alco RSD5 diesel locomotive is back for another run in the N scale Atlas Classic line. The six-axle road switcher is now offered with a factory-installed speaker (Silver Series), an ESU LokSound V5 Digital Command Control and sound decoder (Gold Series), and a revised chassis.

Alco produced the RSD5 from March 1952 to March 1956. During the course of the production run, 167 units were built for railroads in the United States and 37 for carriers in Mexico.

The sample we received is decorated as Santa Fe No. 2155, part of the railroad's 2110 through 2162 series. The full-size locomotive was built in August 1953. It was delivered in the railroad's aluminum-and-black "zebra stripes" scheme. The diesel was later repainted in the 1960 blue-and-yellow pinstripe scheme. The 2155 was retired on June 28, 1968.

The RSD5 uses plastic and die-cast metal construction. The plastic shell consists of the body (long and short hoods), cab, and sill unit.

The body features a mix of molded and separate, factory-applied details. Freestanding parts on the short hood include a brake wheel and air horn; the grab irons, sand filler hatch, and access doors are molded. The long hood also has a separate air horn. Molded parts include the exhaust stack, round radiator fan housing, and radiator shutters.

The mechanism consists of two metal pieces, secured with screws, split in half horizontally. The Scale Speed motor, framed by brass flywheels, is located in the center. The motherboard is fastened to the top half of the chassis with two screws. The ESU LokSound V5 decoder is attached to the end of the board above the rear truck. A rectangular speaker, concealed in the short hood, is located at the opposite end of the motherboard.

Our sample is decorated in Santa Fe's pinstripe scheme. The paint is smooth and evenly applied, with crisp separation lines between colors.

The full-size 2155 was used in passenger service, so it should have a steam generator exhaust stack on top of the short hood. Santa Fe's RSD5 diesels had a mix of tall and short doors on the long hood (without louvers) and square vents.

I found prototype drawings in the 1956 *Locomotive Cyclopedia of American Practice* (Simmons-Boardman Publishing Corp.) The model closely follows the printed data.

I first tested our review model, which has an ESU LokSound V5 sound decoder, with an NCE Power Cab. At speed step 1, the model moved at less than 1 scale mph. At step 28, the road switcher topped out at 80 scale mph. That's 15 mph faster than the prototype.

Then I took the locomotive over to the Milwaukee, Racine & Troy State Line Route, which has a Digitrax DCS

210+ DCC system. The RSD5 powered a freight train across the layout, which features 18" minimum radius curves and No. 6 turnouts, without issue.

The RSD5 is a veteran in the Atlas Classic lineup. Though the shell remains largely unchanged, the revised mechanism accommodates features that today's modelers have come to expect. — *Cody Grivno, senior editor*

Facts & features

Price: Direct current with factory-installed speaker, \$139.95; with ESU LokSound V5 sound decoder, \$239.95. Subtract \$10 for undecorated models.

Manufacturer

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

Era: Early 1960s to June 28, 1968 (as decorated)

Road names: Atchison, Topeka & Santa Fe (blue and yellow pinstripe scheme); Chicago & North Western (yellow and green); and Central RR of New Jersey (RSD4, green and yellow). Two road numbers per scheme. Also available undecorated.

Features

- Body-mounted Accumate couplers, at correct height
- Metal wheel stubs mounted on plastic drive axle gears, correctly gauged
- Weight: 2.3 ounces



Trains.com members can see the Atlas N scale RSD5 in action with this QR code.

Rapido HO mechanical refrigerator car



A National Steel Car Corp. Ltd. (NSC)

3,294-cubic-foot capacity mechanical refrigerator car is now available from Rapido Trains. The new model features injection-molded plastic construction, metal wheels mounted on plastic axles, and body-mounted metal couplers.

In the late 1960s, NSC built a group of mechanical refrigerator cars exclusively for Canadian Pacific (CP). The cars, which stayed in service through 2002, were equipped with aluminum floor racks, stainless steel lining, and a trolley meat rail system. The full-size refrigerator cars were used to transport fresh produce, frozen foods, and meats.

The sample we received is decorated as CP 286280, the class car of the railroad's 286280 through 286413 series. The prototype car was built in 1968 in Hamilton, Ontario, Canada.

The Rapido reefer car features a one-piece plastic body with separate, factory-applied plug doors. The model has numerous freestanding parts, including metal stirrup steps, grab irons, and uncoupling levers; plastic door rods, four-rung ladders, and lower door tracks with stand-off detail; and a fuel filler neck on the sill on both sides.

The A end is where the diesel engine and refrigeration equipment was located on the prototype cars. The left side of the model has three sets of vertical louvers. There are also door tracks for the access door for the diesel engine. The right side of the car has a single square grill for the cooling equipment.

Features on the B end of the car include a factory-applied hand brake

with plastic chain and clevis detail and a freestanding brake wheel. Both ends of the model have a see-through, etched-metal crossover platform; a wire crossover handrail; and a placard board.

The Rapido HO mechanical refrigerator car has plenty of underbody detail. The air reservoir, brake cylinder, control valve, cylinder lever, and dead lever are freestanding plastic parts. Formed wire lever support brackets are attached to the center sills.

The car rides on screw-mounted Barber S-2 roller-bearing trucks with 33" metal wheel stubs mounted on plastic axles. Metal wipers with wire leads are concealed behind the truck sideframes. The wires pass through bean-shaped openings in the underbody. Rapido offers a reefer sound board with speaker as item No. 102135.

The draft-gear boxes are attached with Phillips-head screws. A plastic train line air hose, with the glad hand picked in silver, is attached to the side of both boxes. The plastic draft-gear box covers are also secured with screws. The car uses Kadee No. 5-style metal couplers with No. 634-style centering springs.

Our review model has smooth and evenly applied paint with crisp separation lines. The lettering placement matches prototype images that I found online and in books.

Prototype drawings of the NSC 70-ton mechanical refrigerator car were published in the 1970 *Car and Locomotive Cyclopedia of American Practice* (Simmons-Boardman Publishing Corp.) Rapido's model

matches or is within scale inches of published data.

The Rapido HO scale reefer is the latest addition to the manufacturer's freight car range. The model faithfully captures the lines of the prototype. Whether you use the reefer straight from the box or upgrade it with sound, the model will certainly be a standout in your rolling stock fleet. — *Cody Grivno, senior editor*

Facts & features

Price: Single car, \$54.95; six-pack, \$329.70. Plug-and-play sound board, \$19.95.

Manufacturer

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

rapidotrains.com

Era: 1968 to 2002 (varies based on scheme)

Road names: Canadian Pacific (script lettering [as delivered and late] and Multimark repaint). Six road numbers per scheme; also available painted silver but unlettered.

Features

- 33" metal wheel stubs mounted on plastic axles, correctly gauged
- Metal couplers, at correct height
- Recommended minimum radius, 18"
- Weight: 4.9 ounces, .4 ounce too heavy per National Model Railroad Association Recommended Practice 20.1

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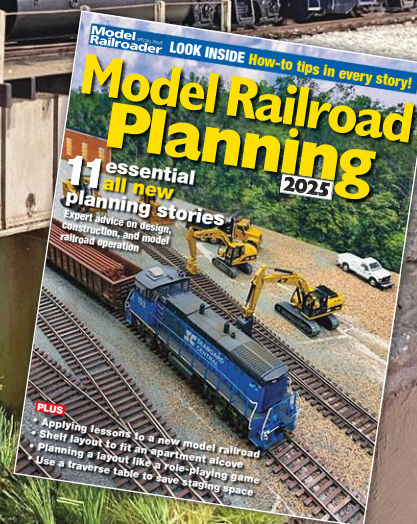
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Station signs are attached to the gable ends of the Union Pacific depot at Jefferson Junction, Wis. The signs were installed by Chicago & North Western, the former operator of the line. Cody Grivno photo

Tips for modeling station signs

Q I'm working on adding lineside details to my freelance model railroad. I'd like to add station signs to help my operators identify various locations on the layout. Though I'm not modeling a specific prototype, I want the signs to look realistic. Where can I find information on prototype station signs?

Bobby T.

A For those not familiar, station signs are one of many signs found near the tracks. In his book *Modeler's Guide to the Right of Way* (Kalmbach Books, 2022), Jeff Wilson explained, "Station signs are important in that they define specific locations as called out in timetables. The 'station' does not mean an actual physical depot (although through the 1960s there often was indeed a structure at that location), but the location at the specified milepost location in the timetable. This can be a town, railroad junction, passing siding, or other landmark. Station names are critical in railroad operations, where train orders and permission to occupy track are defined by station locations.

"Where there's a depot, the sign is generally mounted on the depot itself [See the prototype photo above. — Ed.] However, for places where the depot is gone (or there never was one), the same style of sign will be found, but mounted on one or two posts. The style and size of these vary among railroads, but they are generally larger than most other lineside signs. Wood panels were common, although most modern signs are sheet metal, with black lettering on a reflective white background."

As Jeff noted, the style and size varies between railroads. Most large railroads have a standard plans book. I have a copy of Burlington Northern's *Roadway Standard Plans* from March 1974. Plan C-3082.1 covers station signs. In the specifications, it notes the sign was made from .081"-thick sheet aluminum, and both faces were covered with No. 600 white Scotchcal. The 12" Series "D" U.S. Bureau of Public Roads Administration standard letters were No. 605 black Scotchcal. The signs were to be no shorter than 6 feet long and attached to 6 x 6 creosote-treated posts.

Standard plans books like this can be found at model railroad swap meets, online auction websites, and used book retailers. Original copies can demand premium prices, depending on the railroad and era. Some railroad historical societies offer reproductions of standard plans books at much more reasonable prices.

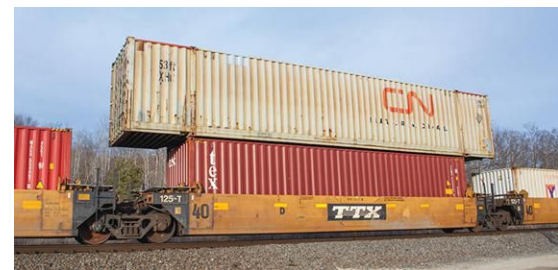
The Santa Fe Railway Historical and Modeling Society sells HO scale stations signs and HO scale standard lettering for right-of-way signs, making it easier than ever to add station signs to your model railroad.

Q I've noticed 53-foot intermodal containers on top of what I believe are 40-foot containers. What I'm not sure about is whether the smaller container is in a 40-foot well car or a 53-foot car?

David Bellamy

A The 40-foot intermodal container in the bottom position can be in a 40- or 53-foot well car. A 40-foot car can accommodate two 20-foot containers or a single 40-foot container in the well. A 53-foot car can hold two 20-foot containers or a single 40-, 45-, 48-, or 53-foot container in the well. If you look along the top edge of some well cars you will find the various container lengths that can be accommodated.

One consideration that has to be taken into account when putting a 53-foot container in the top position, especially in 40-foot articulated well cars, is the overhang. I've seen this handled a couple of ways. If one unit has a 53-foot container on top, the adjacent units have a single container in the well, as shown in the photo below. Another solution is to have the containers on top in an alternating 40- and 53-foot pattern.



Here's an example of a 40-foot articulated well car with a 40-foot intermodal container in the well and a 53-foot container on top. To provide adequate clearance, the adjacent units only have one container. Cody Grivno photo

Q I have two oval tracks, one inside the other, on a piece of 4 x 8 plywood. Just running a train around each track is boring. My funds are very limited. Do you have any suggestions as to how to make this more fun?

Elaine King

A Since space is at a premium on a 4 x 8 sheet of plywood, I would consider going down to a single oval. This will free up space to add turnouts, sidings, and

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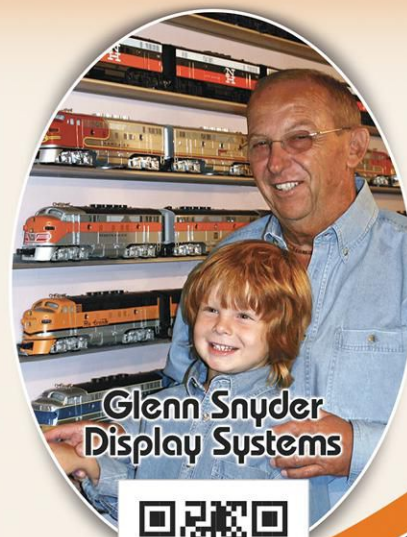


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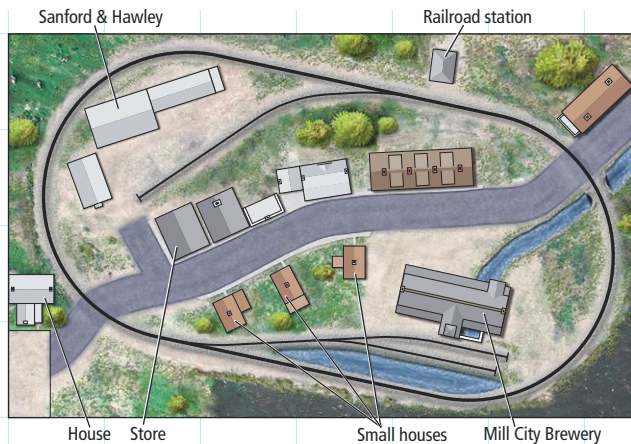
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George Sebastian-Coleman's \$500 layout

HO scale (1:87.1), Size: 4 x 6½ feet, Scale of plan: ½" = 1'-0", 12" grid
18" minimum radius, Atlas True-Track sectional track. Illustration by Kellie Jaeger

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

rail-served industries. If the track salvaged from the second oval is in good shape, you can use it for the sidings, which will help save money.

I found a few ideas for 4 x 8 track plans in *Starter Track Plans for Model Railroaders* (Kalmbach Books, 2011). In George Sebastian-Coleman's HO scale

\$500 layout, also featured in the January and February 2004 issues of *Model Railroader*, he turned the oval slightly so the track isn't parallel to the edges of the extruded-foam insulation board table, which gives the layout some visual interest. Then he added two turnouts off the main line to serve a pair of industries.

George Sebastian-Coleman's HO scale \$500 layout features two rail-served industries. He turned the oval slightly so the track isn't parallel to the layout edges, adding visual interest to the model railroad. Kellie Jaeger illustration

On a compact layout like this, I would consider switching one industry then run the train for a few laps to give a feeling of time and distance. Then come back and serve the second industry.

If you're looking for a plan with a bit more action, consider the Spokane Valley & Northern, which also appeared in the May 2002 MR. The HO scale layout features three rail-served industries, a loading ramp, a downtown scene, and an at-grade crossing. An interchange track connects the fictional Spokane Valley & Northern with the Burlington Northern RR, giving the railroad access to the outside world.

Q I have a number of cardstock buildings on my Z scale layout with impressive detail. However, I'm slightly concerned about their longevity compared to other materials, particularly moisture and humidity exposure over time. Are there any recommendations to help seal and preserve such models?

Michael Hommer



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Metcalfe's N scale Grange House (PN157) is an example of a cardstock structure kit. A video showing how to assemble the building from start to finish can be found on Trains.com.

Model Railroader photo

A I would coat the inside of the cardstock with a wood sealer like those used by wood model airplane or ship builders. But any structure, regardless of scale or the material used in its construction, should be braced internally. I run thick strips of wood or styrene along the base and top of the walls (or insert complete floors and ceilings for smaller structures), then add cross beams to ensure

against the sidewalls warping inward. — *Tony Koester, contributing editor*

Q I've seen a few *Model Railroader* articles on painting and weathering that reference liquid mask. How does it work, and where can I find it?

Michael M.

A Liquid mask is a product that's applied with a brush to keep paint off of areas that would be hard to cover using traditional masking methods such as tape. Contributing Editor Pelle Søborg used liquid mask in his article "How to weather a modern diesel" in the October 2016 issue of MR. He applied it to the headlight lenses on a Kato HO scale AC4400CW diesel locomotive prior to weathering the model.

After Pelle finished weathering the six-axle road unit, he removed the liquid mask with the tip of a hobby knife. He wrote, "Note that it's important not to leave the mask on the model for more than a day, as the mask will dry out and be difficult to remove."



Senior Editor Cody Grivno applied Microscale Micro Mask to the tips of the axles on these metal wheelsets prior to painting and weathering them. When finished, he used a No. 11 blade to pick the liquid mask off the tips of the axles.

Cody Grivno photo

In my September 2022 MR article "Quick and easy gondola weathering", I used liquid mask to cover the axle tips prior to weathering metal wheelsets.

Liquid mask is available from Humbrol (Maskol), Microscale (Micro Mask), and Vallejo (Liquid Mask). You can find it at most well-stocked hobby shops. **MR**



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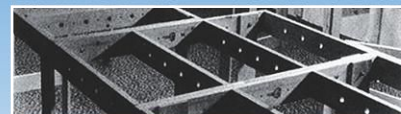
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The Northern Virginia Model Railroaders celebrated its 75th anniversary in 2024, and offered congratulations to another septuagenarian club, the Model Railroad Club Inc. of Union, N.J. The Virginia club last appeared in the February 2016 *Model Railroader*. Paul Dolkos photo

Congratulations!

I would like to congratulate the Model Railroad Club Inc. of Union, N.J., on its 75th Anniversary. I would also like to mention the Northern Virginia Model Railroaders also celebrated its 75th Anniversary this past April. The club was featured in the February 2016 issue of MR.

The club started in a member's garage in Arlington, Va. A few years later they reached an agreement to occupy an unused building in the Southern Ry. Yard in Alexandria. In the early '70s the yard was reconfigured and the club had to find a new location.

Eventually the club found a new home in the former Vienna (Va.) Station of the Washington & Old Dominion RR. The structure had been abandoned in 1951 and was in sorry condition. However, the club is thriving with more than 100 dues-paying members. We have 12 open houses a year and a monthly operating session for members. Tuesday is club night and we invite all model railroaders to visit.

*Sandy Robeck, President
Northern Virginia Model Railroaders Inc.
231 Dominion Rd. NE
Vienna, VA 22180*

Blown away

Wow!

I just downloaded the latest issue of *Model Railroader* and was immediately blown away by the cover photo. Of course I turned to the article about Rod Stewart's layout.

My first impression as I feasted my eyes on the stunning photos of this incredible layout was "this is the first layout I've seen that approaches the scenery density of George Sellios' Franklin & South Manchester!" (The F&SM is a layout I am fortunate to live about an hour from and have visited on more than one occasion.)

Imagine my surprise when I began to read the article to learn that George Sellios heavily influenced Rod Stewart! Well, it shows. The layout lives up to its inspiration.

Well done!

Ian Duncan, Rutland, Mass.

Thoughts on grade crossing signals

Some of the history was discussed in your article in the November 2024 *Model Railroader* on pages 18 and 19 in the Ask MR column for the first train whistle signal for the approach to a crossing.

The article stirred up some possible historical thoughts for the development of the long-long-short-long pattern for the crossing warning for a train.

Morris code for the letter Q is long-long-short-long. So obviously the warning to clear the crossing ahead of a train should be "Quick" to get out of harm's way.

Otherwise, the letter Z was originally chosen (long-long-short-short) because it was the last code they could think of. Or, it's the last thing you would see (Zee) if you were in the way of the train at the crossing.

Well, it could have been. It makes as much sense as almost everything else seems to.

Tom Schminke, Punta Gorda, Fla.

That's an idea

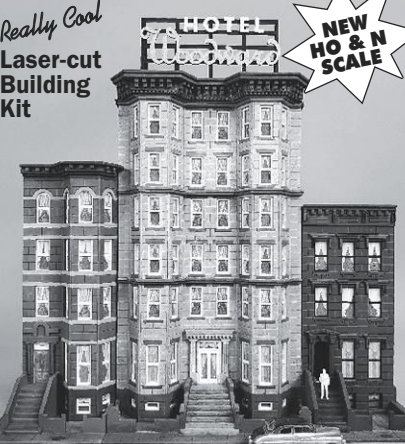
While eating crackers in bed, I realized the little holes could work like perf board. I soaked 'em in matt medium and saved a few bucks!

Hugh M. Ust-Bejoquing, Aprulphools

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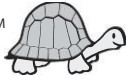


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Upgrade a modern passenger car

The purchase of an HO scale Amtrak locomotive and modern passenger cars inspired George Vesley to upgrade the cars to match the rest of his fleet. Photos by the author

When I attended Trainfest 2022 in Milwaukee, Wis., I saw a Kato HO scale General Electric P42 diesel locomotive in Amtrak's Midnight Blue scheme with the passenger carrier's 50th anniversary herald. It was such a nice looking engine that I purchased one from my favorite hobby shop when I returned home.

Similar to other Kato engines, the P42 ran very smoothly. I discovered the model didn't have a drive system similar to other engines in my collection. Instead, each truck has a coreless motor with a flywheel.

Since I had the engine, I needed some Amtrak passenger cars to go with it. I purchased several Kato Superliner passenger cars in various body styles and a Bachmann Budd 85-foot full dome car to complete my train. Follow along as I share how I upgraded these cars to my railroad's specifications.

George Vesley has been running trains since his grandfather gave him a Lionel train for Christmas in 1940. He is an organic chemist who retired from a career as a college professor and corporate scientist for 3M. This is his first feature in Model Railroader.

STEP 1 NEW COUPLERS



To be consistent with my other rolling stock, I added Kadee couplers to my new passenger cars. Because of the length of the cars, I didn't want to attach the couplers to the body. Therefore, I needed to make a coupler extension bar.

I made the extension bar by cutting a piece of $\frac{3}{64}$ "-thick styrene about $\frac{3}{8}$ " x $1\frac{7}{8}$ ". I then drilled a $\frac{3}{16}$ " hole centered $\frac{3}{16}$ " from the end of the bar.

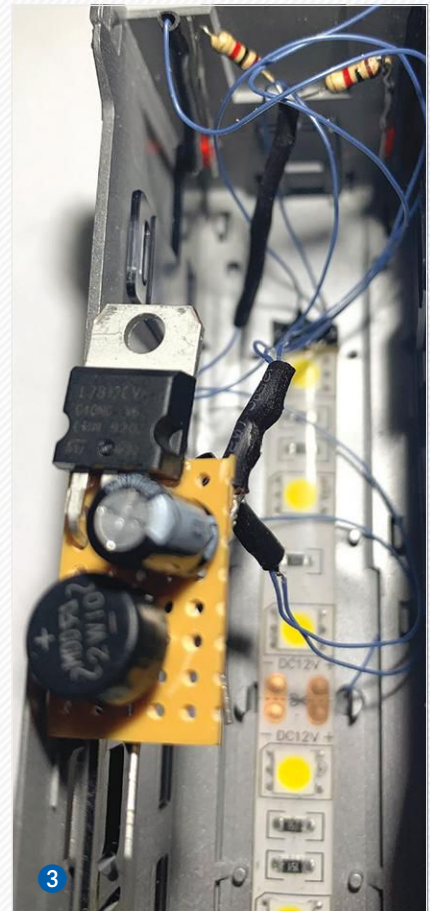
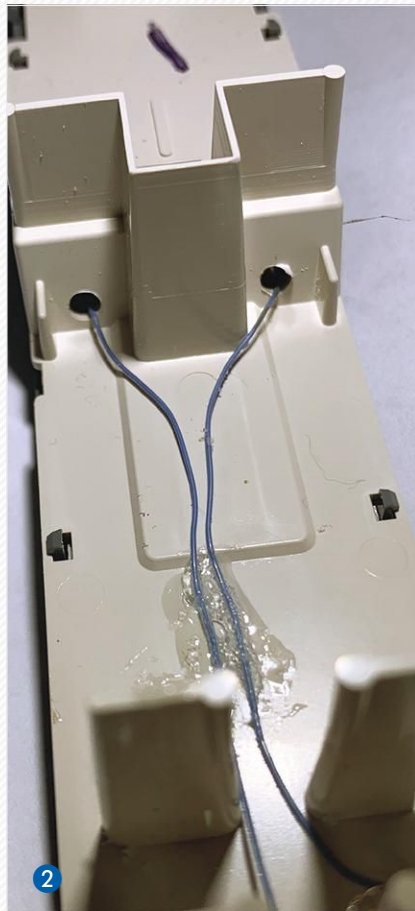
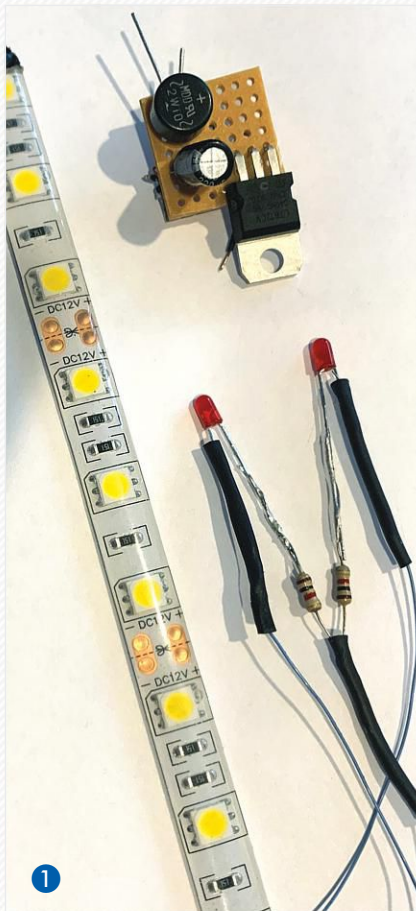
The styrene I had was white, so I spray-painted it black. Then I glued a Kadee draft-gear box on the end opposite the hole. When the glue



dried, I drilled a $\frac{1}{16}$ " hole in the middle of the draft-gear box and tapped it with a 2-56 tap. I completed each installation with a Kadee No. 5 coupler, a draft-gear box cover, and a 2-56 x $\frac{3}{16}$ " machine screw **1**.

I removed the truck from the car and placed the extension bar on the body bolster used to mount the truck with the coupler box on the bottom. If needed, the height of the coupler can be adjusted by adding a washer. The finished installation is shown in **2**. This is a simple and inexpensive way to add Kadee couplers to long passenger cars.

STEP 2 LIGHT IT UP



After upgrading the couplers, I wanted to add interior lighting and end marker lights to the cars. To do this I used light-emitting diode (LED) strips sold for under-the-counter lights. I purchased a 16-foot strip of Velain 12V DC LEDs (300 LEDs SMD 5050) from Amazon. There are enough LEDs to complete several cars.

I cut a strip of LEDs to the length of the car, which worked out to 15 LEDs. I then removed the coating on the end to expose the copper leads and soldered a wire to each copper terminal. Then I applied liquid tape to the soldered wires to insulate and further secure the attachment ①.

Next, I removed the body of the Kato Superliner and the upper floor board containing the passenger seats and the marker light lenses from one end. The LED strips have 3M pressure-sensitive adhesive on the back, so it was easy to attach the strips to the inside top of the car.

I then assembled a small bridge rectifier and voltage regulator (12V DC) circuit to keep the voltage at or below 12V DC. This also ensured the lights would operate regardless of the car's direction.

I assembled the marker light LEDs by connecting the positive leads of two 1/8" red LEDs to a 1K resistor. I lengthened the negative leads with additional wire, covering the connection with heat-shrink tubing to prevent a short circuit ①.

Then I removed the lower floor from the chassis holding the trucks. Since the Kato cars have electrical pickup in the trucks, I was able to tap into that system. I did this by drilling a 1/4" hole in the floor opposite the vertical copper strips connected to the electrical pickups on the trucks. I soldered a wire to each copper strip and threaded them through the holes. I then put the floor board back on the chassis ②.

I drilled two 1/8" holes in the end of the car to add red LED marker lights. The LEDs were secured with a drop of cyanoacrylate adhesive. Make sure the LEDs are even with the outside of the carbody. The LED wires were then bent down at a right angle. I made a notch with a cutoff tool in both corners on one end of the upper floor board to accommodate the wires of the marker light LEDs. Then I reinstalled the upper floor board.

I soldered the wires from the marker light LEDs and the LED strip to the outputs of the bridge rectifier voltage regulator circuit. I insulated the connections with heat-shrink tubing. Make sure you connect the wires with the correct polarity.

Then I soldered the wires from the copper input strip to the input of the bridge rectifier ③. You may have to cut a slit in the vertical support to accommodate wires. Finally, I placed the carbody back on the model. **MR**

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Painting figures made easy



Here's a comparison of hand-painted figures in N (1:160), HO (1:87.1), O (1:48), and large scales (1:35 and 1:32). V.S. Roseman shares his easy-to-follow techniques for working with undecorated figure castings.

Stretch your budget by painting figures yourself

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

When I built my first serious HO train layout at 13 years old, my priority for my limited budget was buying track, locomotives, and rolling stock. Once in a while I would purchase a structure kit or materials to build one. The scenery was mostly made from things I could salvage around the house. Figures weren't even on my list.

One day, my cousin, Florence, came for a visit and surprised me with a bag full of HO scale figures. We set them on my layout, and I was surprised to see how the model railroad came to life. I've never forgotten her kindness or how much of an effect figures can have on a model railroad.

Today, there are thousands of factory-painted figures available in a variety of useful poses in most popular modeling scales. The cost of painted figures mounts up quickly, however. Fortunately, manufacturers such as Preiser and Wm. K. Walther Inc., among others, offer bulk packs of unpainted figures at a far lower price point.

Many modelers are hesitant to paint their own figures. At first glance, the tiny size of the details may seem daunting. In my experience as an instructor of fine arts in the New York City School System for 30 years, I can say that most modelers need only a little practice to develop the necessary skills.

Although I've worked on numerous figures, I often go months between painting sessions. As a result, when I begin, my skills are rusty and the initial figures aren't good enough to use. Fortunately, the quality improves as I continue working.

After I've painted a batch of figures, I use a compatible thinner to clean off any that didn't turn out like I'd hoped. Then I repaint them. My results are usually better the second time.

Getting started

The injection-molding process used on plastic figures leaves a mold release residue. Paint will not adhere well to the plastic until it's removed. Before painting, dip figures into warm water

with few drops of Ivory liquid dish soap added and gently scrub them with a soft toothbrush [Avoid soaps with moisturizers. — Ed.] Then rinse and dry the castings.

When painting figures, I like to start with the skin. Complexions can range from pale peach to dark mahogany or anywhere in between.

Unlike blending colors to accurately match your favorite railroad's paint scheme, creating skin colors for figures doesn't have to be an exact science. I begin with light colors and work toward darker tones a few drops at a time. I use an artist's compartment tray, which I line with aluminum foil as shown at middle right, for mixing colors.

Light skin is variations of a pale peach color (orange and white). The flesh color offered by most hobby paint manufacturers is a reasonable starting point. Apply the paint over the face, neck, hands, and any other areas skin would show. Then add a few drops of brown to the color in the mixing tray and paint a few more figures. If the color is too dark, add white or flesh color to lighten it. Continue painting, darkening the skin color after every few figures. When I complete a batch, I set the figures aside to dry.

I leave figures on their sprues for painting and cut them off after the last paint is dry. If you cut them off to paint them, hold the figures with tweezers to avoid getting skin oils on their surfaces.

Colors for clothing

Clothing will usually cover the upper body or torso and most or all of the legs, unless a figure is wearing shorts, a skirt, or a bathing suit.

I like to refer to color photos showing people in the area and time period I'm modeling, but you can pick any colors you like. If you are modeling an era before color photography was developed, you could refer to paintings to help you choose colors. Begin with pants and skirts or start with shirts, blouses, and jackets, as you prefer.

I start with white clothing, then I mix in a little color to make tints such as sky blue, cream (using yellow), pink (mix in red), or tan (mix in brown). For most figures, use contrasting colors such as dark blue pants and a pale yellow jacket or a red skirt with a pink blouse, until all the figures are clothed.

If you're modeling spring or summer on your model railroad, people usually wear brighter colors than in winter. During the cold months, the clothing color palette often includes more muted colors, earth tones, gray, and black.

Add shoes carefully with a small brush or applicator. Men's dress shoes are usually black or brown, while ladies shoes can be any color that goes with their outfit. Sneakers or tennis shoes can be white or any color you like. Check photos from your era for what colors were popular at the time.

Painting hair requires a bit more care, and can be done to finish off the figures. Blonde hair varies from platinum blonde (yellow with white added) to dirty blonde (yellow with a drop of brown) or ash blonde (yellow with a drop of gray.) Red hair isn't actually red, but brown with red mixed into it. For dark brown hair, start with brown and mix in dark gray or black. Painting hair solid black may look too dark, so add a drop of brown to lighten it slightly. Gray hair can be made by adding white to black, depending on how light you choose to make it. Of course, white hair is white.

Once the paint is thoroughly dry (24 hours, or until there is no discernible paint odor), I carefully snip the figures off their sprues with tweezer-style cutters. Then I line up all the figures



Don't worry about a lack of figure-painting experience. Under magnification, even factory-painted premium figures like these HO scale ones may have imperfections. But at a normal model railroad viewing distance of a few feet, minor paint and molding defects are hard to detect.



A metal or plastic compartment tray is a convenient way to mix a wide variety of colors from a small number of basic colors. V.S. Roseman covers his tray with aluminum foil that can be discarded at the end of the painting session.



Adding white to a color makes a lighter pastel tint suitable for shirts, blouses, and summer clothing. Add black, dark gray, or dark brown to make muted tones for pants, skirts, suits, and winter clothes.



All skin tones are a mix of different proportions of peach and brown. When you paint skin tones, start with the basic peach color. Add a few drops of brown to the mix between figures to darken the paint for subsequent ones.



After painting the skin and clothing, V.S. removes the figures from the sprue and handles them with tweezers or a small clamp. Fine details like hair can then be painted with a toothpick, brush, or other fine-tipped applicator.

in order of success, beginning with the best ones. Any that don't meet expectations are cleaned and repainted.

Imperfect, but still usable

What do you do if none of your figures turned out all that great? Set them aside at least overnight. They may look better to you after you've given your eyes some time to rest.

Also, consider that the figures on a model railroad don't all need to have factory perfect paint jobs. Any less-than-perfect figures can be placed farther from the viewing edge of the layout, in shady doorways, under platform canopies, or other locations where they are harder to see. Passenger car and building interiors are also good places to put figures with sub-par paint jobs.

When placing people in large groups, such as waiting for a train on the station platform, set the ones with the best paint jobs around the edge of the crowd where they'll be easier for



To avoid handling figures when the paint is wet, V.S. likes to keep them on the sprue during work sessions. This approach also keeps skin oils off the castings, which can prevent paint from adhering properly.

Paints, brushes, and tools

Most model paints are suitable for coloring figures. I typically use Tamiya acrylics, but other brands will work. I like to use regular and superfine Microbrush applicators when painting figures. I supplement the disposable applicators with size 0 and 1 detail brushes and a budget-friendly spotting brush. You can find these brushes at well-stocked hobby shops and art supply stores.

Detail brushes range from moderately priced to very expensive, but high-priced brushes aren't necessary for painting figures. A good quality sable detail brush will get the job done. Detail brushes have shorter bristles to permit greater control. They're sold for use with watercolors, but are compatible with model paints. Clean your brushes right after you finish painting, as solidified paint in the bristles will ruin them.

Even if you have excellent vision, I recommend using a magnifier, especially with smaller scales. In addition, be sure you have good lighting where you do your painting.
— V.S. Roseman

visitors and operators to appreciate. Any figures with minor paint imperfections can be placed inside of the group where they won't stand out as much.

In addition, you could mix in some factory-painted figures around the perimeter of the group. Careful placement of figures will let you use even those whose paint isn't up to the standards of your most successful examples.

If you want to improve your figure painting, make a point of attending a National Model Railroad Association national, regional, or divisional meet — or any other model railroad event, such as those offered by local hobby shops — where they have a figure painting clinic. There you can get the one-on-one assistance you need to improve your techniques. But in the meantime, you'll probably be able to use most or all of the figures you have painted. [MR](#)

V.S. (Victor) Roseman of Brooklyn, N.Y., was a frequent contributor to Model Railroader. He passed away in January 2024.

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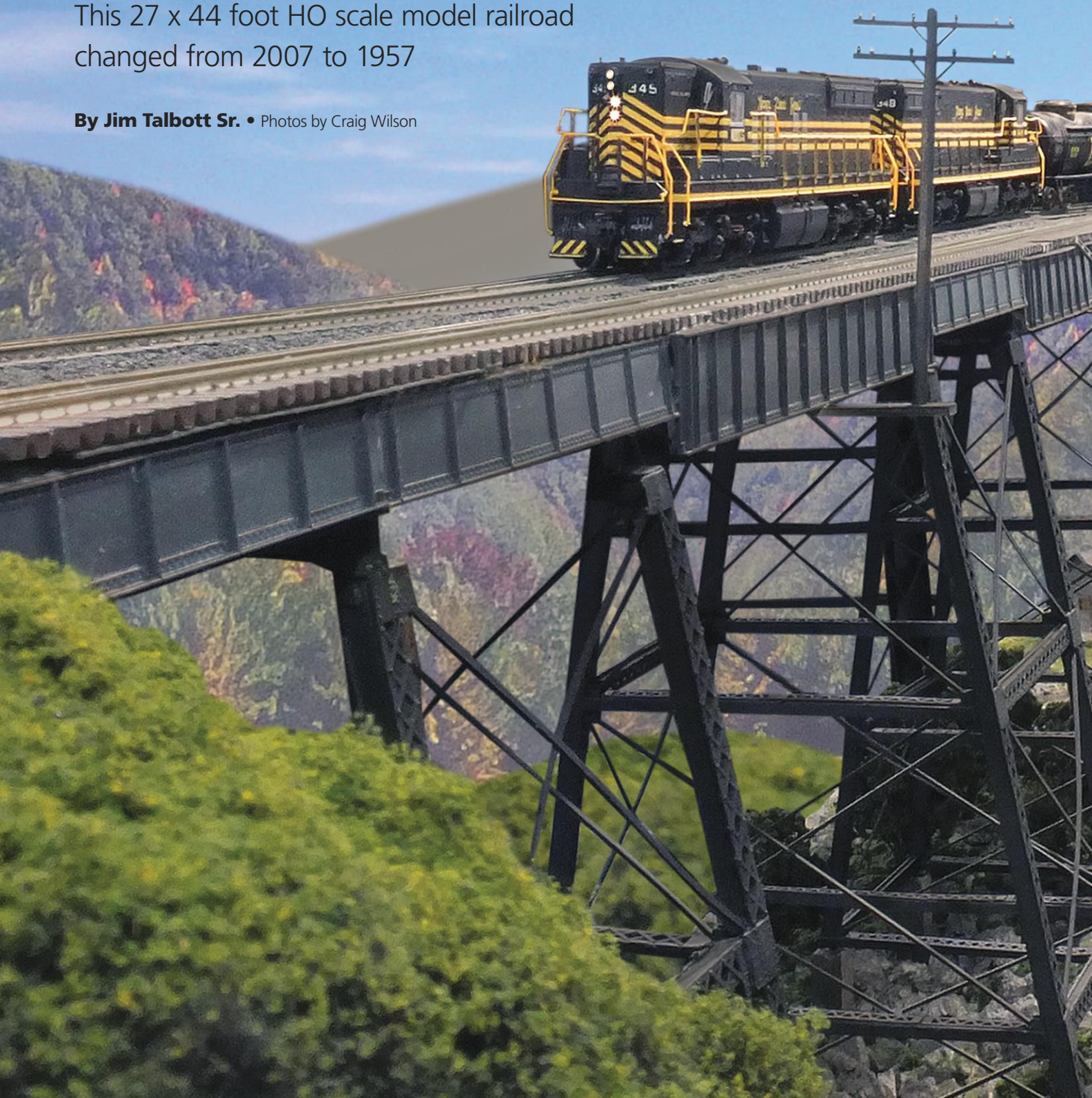
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Turning back on the W&LE

This 27 x 44 foot HO scale model railroad
changed from 2007 to 1957

By **Jim Talbott Sr.** • Photos by Craig Wilson



time



① Nickel Plate Road Electro-Motive Division SD9 No. 345 leads WLE 213 westbound over the steel trestle at Fellows Creek on Jim Talbott's HO scale Wheeling & Lake Erie Ohio River Division. He backdated the 27 x 44-foot model railroad from 2007 to 1957, when steam and diesel locomotives operated side-by-side



On a humid, sultry late August morning in 1957, the communities of Steubenville and Mingo, Ohio, are about to be greeted by a familiar and comforting sound at 6 a.m. The high, shrieking, and piercing Klaxon siren wailing at Wheeling-Pitt Steel. Blast Furnace No. 5 is “tapping.” It’s the sound of prosperity, and times are good. The steel mills of the Ohio River Valley employ thousands of locals, many of whom are the latest generation of their family to be employed in this vibrant industry.

Times are good for the railroads, too. The rails of the Wheeling & Lake Erie (Nickel Plate Road since 1949) are polished from numerous trains bringing tons of raw materials to, and finished products from, these industrial giants.

A desire to replicate these exciting days beckoned me to backdate my HO scale W&LE Ohio River Division from 2007 (featured in *Great Model Railroads* 2015) to 1957. This also allowed me to model the final summer of steam. To be exact, the simultaneous delivery of a group of Alco DL702 (RSD12) and Electro-Motive Division SD9 road units cleared the air over the valley of Short Creek once and for all.

The full-size W&LE

The Wheeling & Lake Erie RR (later Ry.) traces its beginning back to the early 1870s. Nicknamed the “Iron Cross,” it was incorporated on March 10, 1871. The W&LE was constructed to gain access to the vast deposits of rich bituminous coal located in the famed Pittsburgh No. 8 coal district of southeast Ohio and then to transport it north from Wheeling, W.Va., to ports on the Great Lakes.

The original 160-mile route was surveyed between Wheeling and Sandusky, Ohio, located on Lake Erie, approximately halfway between Toledo and Cleveland. The thrust of this article isn’t about the most interesting nuances that make up the Wheeling’s storied past. But suffice it to say that intriguing circumstances and illustrious — or notorious — characters (Jay Gould being but one example) are all interwoven into making the W&LE a colorful and exciting railroad worthy of one’s further study. I would personally recommend John B. Corn’s two-volume work *The W&LE Railway* as a great read.

The W&LE traffic base was evenly balanced with a mix of general

② 1957 was the final summer steam locomotives were in service on the Nickel Plate Road/Wheeling & Lake Erie. Aging 2-8-0 No. 254, leased from the Lake Erie & Southern, works the AM Mill Job at Apac Paper & Packaging in East Brewster, Ohio.

merchandise; steel; and various minerals such as coal, coke, limestone, and iron ore. Steel traffic was shuttled between the mill districts in Cleveland, Canton, Mingo Jct., and Wheeling.

For example, inbound shipments of iron ore and limestone were received from docks at Huron and Cleveland for movement to Republic Steel and Wheeling-Pitt Steel in various locations. Finished products were moved from these mills to multiple sites on the W&LE system. Coal in immense quantities was mined and transported from the Wheeling and Adena coal districts northward to mills, power plants, and docks all over the Great Lakes region.

It’s no surprise that Nickel Plate Road merged the Wheeling & Lake Erie into its system on Dec. 1, 1949. The railroad continued its profitable ways leading to the inclusion of the NKP into the Norfolk & Western on Oct. 16, 1964.

Wheeling & Lake Erie Ry., Ohio River Division

HO scale (1:87.1)

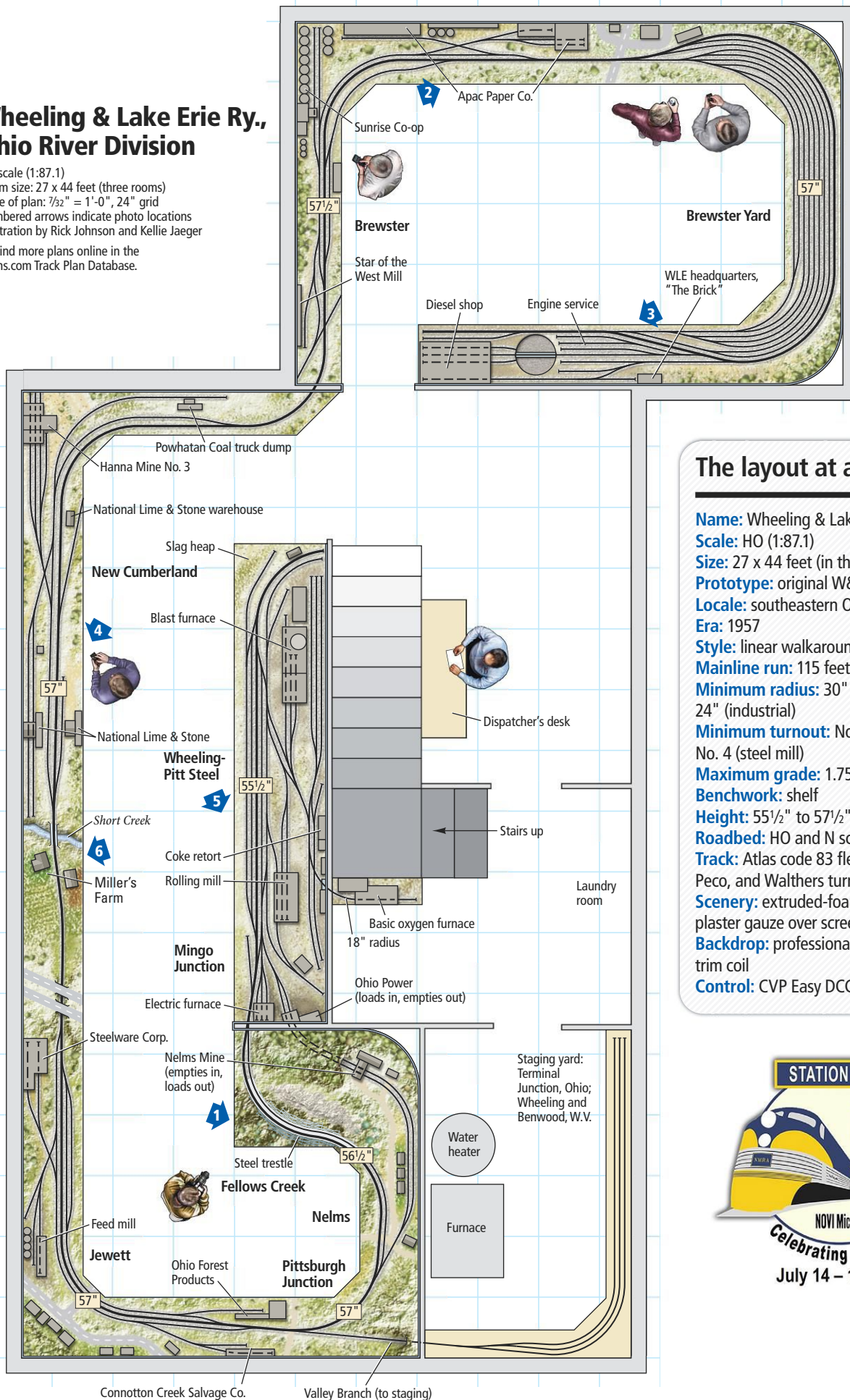
Room size: 27 x 44 feet (three rooms)

Scale of plan: 7/32" = 1'-0", 24" grid

Numbered arrows indicate photo locations

Illustration by Rick Johnson and Kellie Jaeger

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



The layout at a glance

Name: Wheeling & Lake Erie Ry.

Scale: HO (1:87.1)

Size: 27 x 44 feet (in three rooms)

Prototype: original W&LE Ry.

Locale: southeastern Ohio, West Virginia

Era: 1957

Style: linear walkaround

Mainline run: 115 feet

Minimum radius: 30" (main),
24" (industrial)

Minimum turnout: No. 6 (main),
No. 4 (steel mill)

Maximum grade: 1.75%

Benchwork: shelf

Height: 55½" to 57½"

Roadbed: HO and N scale cork

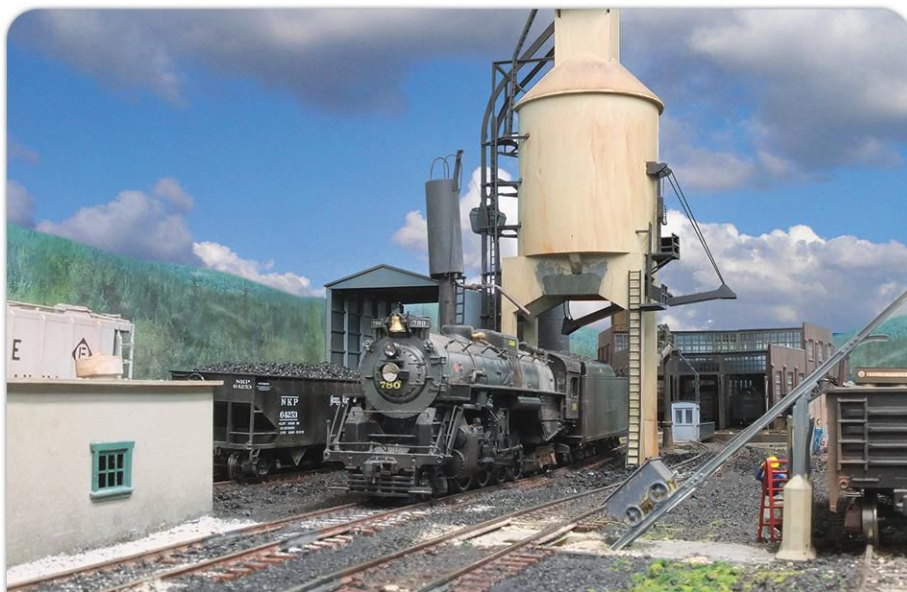
Track: Atlas code 83 flextrack; Atlas,
Peco, and Walthers turnouts

Scenery: extruded-foam insulation board;
plaster gauze over screen wire

Backdrop: professional-grade aluminum
trim coil

Control: CVP Easy DCC





③ When Jim backdated to 1957, he had to add an ash pit and coal and water facilities at Brewster Yard. Here, Lake Erie & Southern 2-8-4 Berkshire No. 780 has just finished getting its tender topped off with coal.

The realities of backdating

In May 2022 I began backdating the layout from 2007 to 1957. The biggest changes and challenges were structures, motive power, and rolling stock.

Structures anachronistic for 1957 were either modified or removed. Fortunately, several of the buildings were appropriate for the earlier era. The greatest structural changes took place at Wheeling-Pitt Steel, the Brewster Yard engine terminal, and Apac Paper & Packaging.

My locomotive fleet had to be entirely revamped. I still had a considerable inventory of steam and first-generation diesels, but they needed sound decoders and stay-alive capacitors, which proved to be a considerable expense.

The steam roster is made up of Nickel Plate Road 2-8-0 Consolidations, 2-8-2 Mikados, and 2-8-4 Berkshires. The diesel fleet consists of Electro-Motive Division SD9 and Alco RSD12 road switchers.

Most, if not all, of the rolling stock from the 2007 iteration of the W&LE wasn't usable for backdating. I managed to retain most of the rolling stock from my first model railroad, which allowed me to at least get started. However, it was necessary to purchase and/or build many freight cars, especially 40-foot boxcars. This has been an ongoing process.

I would advise anyone considering backdating a railroad to carefully count the cost. — *Jim Talbott Sr.*

This introduced another chapter into the history of this proud and productive railroad, which continues to this day. However, I have chosen to concentrate on a small portion of the W&LE, focusing on 1957 in southeastern Ohio.

A representational model

My circa 1957 W&LE Ohio River Division is modeled in the same roughly 600 square foot space as the circa 2007 version. Similar to the previous iteration of the layout, Brewster, Ohio, represents the west end and Mingo Jct., Ohio, depicts the east end.

The River Branch splits off from the mainline at Pittsburgh Jct., Ohio, and leads to staging that represents (1) Terminal Jct. and Wheeling, (2) Adena Coal District, and (3) points east. I consider the layout representational because I made no attempt to model the track arrangements exactly. The town names are prototypical and in the correct order.

Even though I turned the clock back 50 years, the emphasis is still on industrial railroading. The Wheeling-Pitt Steel Co., a totally integrated steel operation, still occupies a 3 x 16 foot area. Though compact in size and design, the industry provides plenty of operation.



A clean slate

In March 2009, I dismantled my previous model railroad to begin building my circa 2007 W&LE layout. This gave me a chance to make some major upgrades to the layout space, including additional electrical outlets, aluminum trim coil backdrops, and indoor-outdoor carpet on the floor.

As you can see in the track plan, the model railroad is located in three rooms: 7 x 11 feet, 12 x 18 feet, and 13 x 32 feet. The larger of the three has a drop ceiling with 20 can lights containing 65 watt light-emitting diodes (LEDs). This



arrangement spreads the light evenly over the layout.

The lighting on the rest of the model railroad is a mix of 2- and 4-foot cool white fluorescent tubes installed behind a valance. I'm in the process of replacing those with LEDs.

The backdrop is professional-grade aluminum trim coil, used for roof flashing [see Lance Mindheim's article "Aluminum trim coil backdrops" in the June 2018 MR for more information. — *Ed.*] The material is sold in 2 x 50-foot rolls and comes painted white, which acted like a primer for the sky blue paint that I applied. Then I attached photo

backdrops and commercial offerings from SceniKing and Realistic Backdrops to the trim coil.

The benchwork is a shelf-like design that lent itself well to open-frame construction utilizing a sandwich of 1/4" lauan plywood and 2"-thick extruded-foam insulation board. More than 15 years have passed since I constructed the benchwork and I've had little or no appreciable problems with expansion and contraction.

To give the model railroad a museum-like appearance, and to keep operators and visitors focused on the layout, I painted the valance and fascia

4 Bowerston, Ohio, on the 2007 version of the W&LE is now New Cumberland, Ohio. A pair of westbound Nickel Plate Road EMD SD9 road units meet the eastbound Adena Coal Turn, powered by Lake Erie & Southern Berkshire No. 787, under the conveyor at National Lime & Stone Co.

black and attached black skirting to the bottom of the fascia.

Track and scenery

As part of the backdating, I made a few minor track changes, mostly in and around the steel mill. To keep things



5 Wheeling-Pitt Steel occupies a 3 x 16 foot section of Jim's model railroad. The industry's switcher, former Chicago, Burlington & Quincy 0-8-0 No. 546, spots a gondola loaded with scrap metal.

consistent between the old and new scenes, I primarily used Atlas code 83 track and turnouts. I turned to Peco Insulfrog and Walther's Track turnouts in situations where the geometry of the Atlas products didn't fit.

To make sure the steam and diesel locomotives would run their best, I wired all of the turnouts for electrical continuity. I also installed 18 and 20AWG track feeders (connected to a pair of 12AWG bus wires) and soldered the rail joiners.

Following the prototype's lead, the track is at different elevations. All main-line track is on HO scale cork roadbed. I used N scale cork for the sidings. The industrial tracks are laid directly on the extruded-foam insulation board.

I ballasted the track with Scenic Express (formerly Smith & Sons) offerings. Once the granules were in place, I wet the ballast with 70% isopropyl alcohol. This helped break the surface tension, allowing the scenery glue to flow through more easily.

I used a 3:1 mix of acrylic matte medium and water to hold the ballast in place. When I made track changes as part of the backdating process, I wet the ballast with isopropyl alcohol and let it soak in for a few minutes. Then I was able to scrape it off with a putty knife and other hand tools.

I used a variety of scenery techniques on the layout, including the tried-and-true plaster-impregnated gauze strips over crumpled newspaper and screen wire. Though this works, it's messy. My preferred technique is to build up the

terrain with extruded-foam insulation board and carve it to shape with a knife.

For ground cover, I applied various shades of ground foam and different lengths and colors of static grass. I modeled Short Creek with Enviro-Tex two-part resin and plaster.

Steam and diesels side-by-side

In August 2022, three months after I began backdating the layout, we conducted our first shakedown operating session. It went well enough to confirm the operational concept.

The model railroad is designed for one to five operators. When available, a full crew includes a dispatcher (train-master), Mingo Junction interchange yardmaster, and three road crews.

Train forwarding during this era was by timetable operation, which we are currently exploring. Car forwarding is done with car cards and waybills along with switch lists.

I host monthly operating sessions. A typical session sees eight to 10 trains dispatched, including interchange and transfer runs, locals, an iron ore and limestone train, and stone and coal turns. The emphasis is on switching. There are no provisions for continuous running — every train has work to do. A session generally lasts three to four hours, including a lunch break.

Though I backdated the model railroad, I stuck with CVP EasyDCC system. I'm now using Version 631 with five T1300 wireless throttles. Any issues I've encountered are usually of human origin



(I'm a "non-techie") and are often quickly resolved.

I retained the small control panels at East Brewster, Jewett, Pittsburgh Jct., and Nelms, and added one at New Cumberland, to operate the signaled mainline turnouts. All other turnouts are manually lined.

A worthwhile switch

Has the trouble and expense of backdating my HO scale Wheeling & Lake Erie from 2007 to 1957 been worth it? Two years into the project I would have to say yes. I'm constantly upgrading



6 It's not all big industries on the Wheeling & Lake Erie Ohio River Division. Lake Erie & Southern steel caboose No. 789, painted in a Nickel Plate Road-inspired scheme, marks the end of a eastbound iron ore and limestone train passing over the private crossing at Miller's Farm.

various aspects of the railroad, both physically and operationally.

I'd like to thank the members of my operating crew for helping me turn back time on my layout, as well as members of the various model railroad and prototype organizations I belong to. Please accept my enduring gratitude. **MR**

Meet Jim Talbott Sr.

Jim Talbott Sr. lives in Canton, Mich. He spent 42 years in public education, serving as a teacher, principal, and school administrator. Jim's lifelong interest in trains can be traced to an American Flyer S gauge layout his parents gave him for Christmas as a child. In addition, he had a great uncle who was a superintendent for the Louisville & Nashville RR.

① The northbound *Peninsula 400* pulls up to the Chicago & North Western depot in Green Bay, Wis. The action takes place on the Green Bay Area Model Railroaders Club's 28 x 68-foot HO scale layout set in Wisconsin's Fox Valley.



THE GREEN BAY AREA MODEL RAILROADERS CLUB

A club serving a community

By Dave Rickaby

Photos by the author

When someone mentions the city of Green Bay, Wis., there's a high percentage of probability that the first thing that comes to mind is the National Football League's esteemed franchise Green Bay Packers and the "Frozen Tundra of Lambeau Field"!

Though this is a notable and current piece of Green Bay history, it's not the complete picture. Green Bay's history goes all the way back to its initial visit in 1634 by French explorer Jean Nicolet. By 1655 a trading post had been established along with a trade route following the Fox, Wisconsin, and finally Mississippi Rivers.

Fast forward 120 years and the area had flourished into a busy Great Lakes port. Eventually railroads would follow, serving the paper mills, canneries, stockyards, and other industries of the Fox Valley.

The one thing about history is that if you don't document it, then it tends to be forgotten. The railroad landscape around Green Bay has changed over the years. Most people associate Titledown with the Chicago & North Western, Green Bay & Western, and Milwaukee



② Canadian National C40-8M No. 2415 and an SD40-2W lead a southbound manifest freight destined for Fond du Lac, Wis., through downtown Green Bay. The city scene creates an impressive urban canyon.

Road. Line sales saw new faces come to town in the late 1980s and early 1990s, such as the Fox River Valley RR and later Wisconsin Central. Today, Canadian National, Escanaba & Lake Superior, and Fox Valley & Lake Superior serve the area.

One of the facets of model railroading is keeping that history alive. This is the call of all model railroaders, and one club has picked up that torch. This is the story of the Green Bay Area Model Railroaders Club (GBAMRC).

The club's journey

The Green Bay Area Model Railroaders Club's

story begins with the establishment of the National Railroad Museum in Green Bay in 1956. In 1958 the museum received Congressional approval as the only National Railroad Museum in the United States.

A small loop of track, maintained to this day for running a full-size train ride, and a small depot were built on the grounds. The depot had offices, bathrooms, exhibits, and a gift shop.

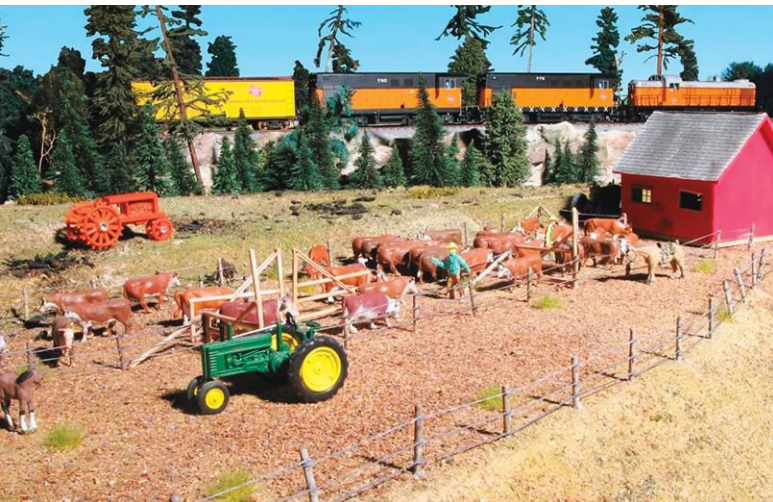
Through further expansion and acquisition of more locomotives and rolling stock, several new buildings were erected on the museum's campus. In the mid-1980s the gift shop was moved to a new

location on the property, which left a large, empty space in the depot.

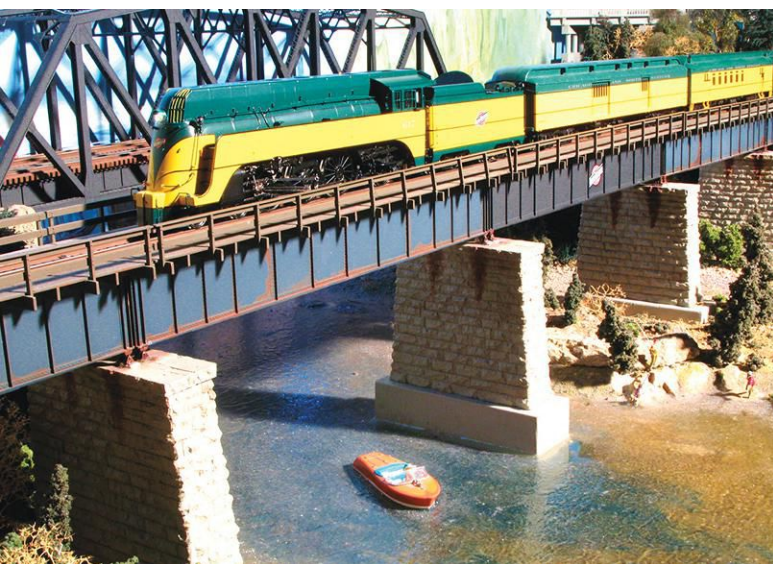
Around the same time a small group of model railroaders had built a layout in an old baggage car that was on the museum grounds. With the thought of melding prototype and model railroading together at the museum, Warren Mott, who was the General Museum Manager, approached local hobby shop owner, Jim Prokash, with the idea of filling the empty space in the depot with a model railroad.

Jim was able to pull a couple dozen model railroaders together, including those from the baggage car layout. In short time formal incorporation documents were drawn up and voted on. In 1987 the Green Bay Area Model Railroaders Club was established, with Jim Prokash as its first president.

The premise of the original HO scale layout was to represent the steam and diesel eras between 1950 and 1980. The model railroad was to act as a display layout and to be interactive for the public. The layout was built in place as a permanent piece with the premise that it would always be there.



3 Milwaukee Road RSC2 No. 989 and two Fairbanks-Morse H10-44 switchers pace their train past a bucolic cattle farm in rural Wisconsin.



4 A Chicago & North Western "Yellow Jacket" 4-6-2 steam locomotive powers a passenger train over the Fox River. The river was poured using Magic Water by Unreal Details.

As with most clubs, however, nothing lasts forever. By 2008 the GBAMRC was looking for a new home.

In 2009, Paul Pasowicz, owner of EngineHouse Services in Green Bay, alerted the club that there was an empty store next to his hobby shop. After approaching the owner, the club moved in with the understanding that they would have to vacate the premises upon request.

Because they understood that this was only temporary, they decided to build the new layout in a modular form. The club developed standards that would make it possible to

take the new layout apart and move it to storage or to a more permanent home. The club proceeded to design and build a small 40" x 48'-0" linear layout.

Dick Foren, another former club president, told the membership of the possibility that a space might be available elsewhere that could make a good home for the club. He reported that there was a large, empty room in the lower level of the Kress Family Library in nearby De Pere, Wis.

Dick reached out to Dr. Watermolen, Brown County Library Board President, to

arrange for the club officers to look at the space and discuss possible lease options. This resulted in the club signing its first 5-year lease agreement beginning on Oct. 15, 2011.

The empty space was approximately 6,000-square feet. As part of the agreement, both the library and the club worked together to create a usable space by adding electrical outlets, lighting, and additional heating. The walls were already drywalled from the floor to about 12 feet high. Shortly after the room was completed, the club members moved the modular layout from the former storefront location to the lower level of the library.

Work on the present model railroad started in 2011/2012.

The layout

The club named its free-lanced line the Wisconsin Northern RR to reflect the region and the railroads that served it. The model railroad is set between 1950 and 1976.

Built as a freestanding island layout with three peninsulas and staging, the model railroad has a footprint of 26 x 68 feet with a ruling grade of 3 percent.

With a base elevation of 42³/₄" at Menasha City, the model railroad rises to a summit of 49¹/₂" at Winnebago. The minimum radius on the mainline is 42" and the minimum mainline turnouts are No. 8. The layout has an approximately 2,000 foot mainline run (almost 33 scale miles) and 5,500 feet of track. A train running at 50 scale miles an hour takes 20 minutes to orbit the layout.

The model railroad is set up for continuous operation, which is handy during open houses. During operating sessions, the layout is run point-to-point to and from the staging yards.

The current layout was built in a modular fashion. The club learned a valuable

lesson when it had to vacate the depot at the National Railroad Museum. That layout was specifically built to fit in that space. It wasn't designed to be relocated.

The modular sections are built as 2 x 4-foot open-grid boxes from 1 x 4s; the legs supporting the boxes are constructed with 2 x 2s. The entire model railroad is braced from section to section and is quite solid.

The trackwork is Atlas code 100 flextrack with Peco code 100 turnouts. All of the track is laid on Midwest Products cork roadbed and weathered. Tortoise by Circuitron switch machines control most of the turnouts, which are lined using toggle switches on the fascia. The rest of the turnouts are manually lined with Caboose Industries ground throws.

Although the club owns approximately 500 pieces of rolling stock and close to 50 locomotives, members are encouraged to run their own equipment as long as they are equipped with Kadee couplers and metal wheelsets.

The layout is controlled by Digitrax Digital Command Control (DCC). The club has several throttles at its disposal; a few members prefer to use an app on their Smartphones to operate trains. Some club members have direct-current locomotives, so the layout is wired to accept one DC train at a time.

Scenery

The landforms around the layout were created by carving extruded-foam insulation board and covering it with a layer of plaster.

Most of the ground cover is from Woodland Scenics. However, over the years the club has received donations of scenery materials, including trees and ground cover. These generously donated materials are put to good use.

The rock work is made using rubber molds and a

The layout at a glance

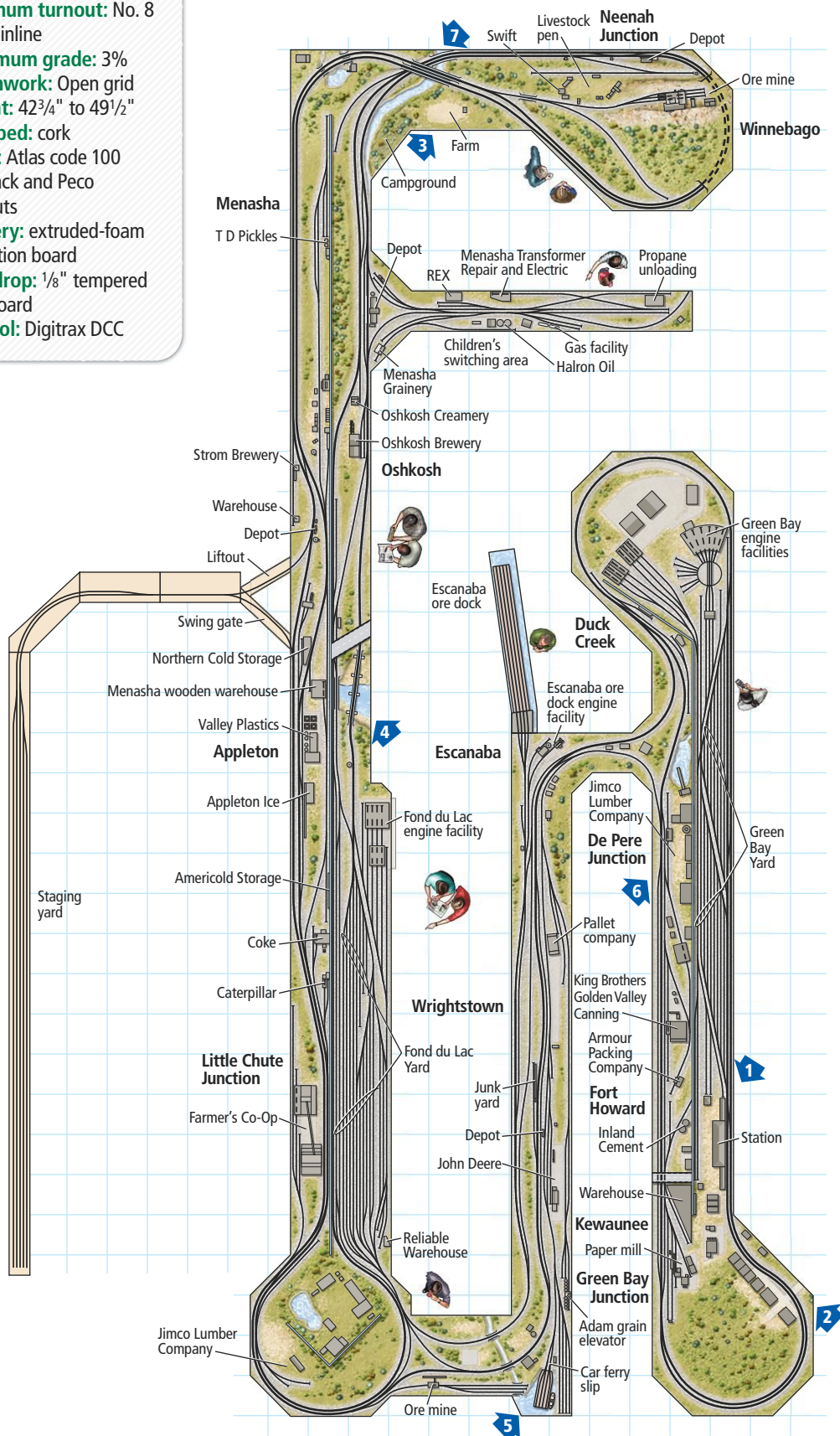
Name: Green Bay Area Model Railroaders Club
Scale: HO (1:87.1)
Size: 26 x 68 feet
Prototype: Green Bay Western, Chicago & North Western, and Milwaukee Road
Locale: Fox Valley, northeast Wisconsin
Era: 1950 to 1976
Style: walkaround
Mainline run: 2,000 feet
Minimum radius: 42"

Minimum turnout: No. 8 on mainline
Maximum grade: 3%
Benchwork: Open grid
Height: 42³/₄" to 49¹/₂"
Roadbed: cork
Track: Atlas code 100 flextrack and Peco turnouts
Scenery: extruded-foam insulation board
Backdrop: 1/8" tempered hardboard
Control: Digitrax DCC

Green Bay Model Railroaders Club

HO scale (1:87.1)
 Size: 26 x 68 feet
 Scale of plan: 1/8" = 1'-0", 24" grid
 Numbered arrows indicate photo locations
 Illustration by Kellie Jaeger

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





5 A diminutive Milwaukee Road Electro-Motive Division SW1 switcher, using a couple of idler flats as a handle, shoves cars onto a rail barge. Once loaded, the tug docked next to the barge will pull it to its next destination along the shores of Lake Michigan.

soupy plaster mix. The finished castings are painted with various earth-tone acrylic paints.

The water areas were created by first painting the bottoms for depth. After the paint had dried, the perimeter of each area was sealed in preparation for pouring two-part resin. The club used Magic Water by Unreal Details for its water features.

The deciduous trees come from a variety of sources,

such as sedum and other weeds. Some of the conifers were handmade using the bottlebrush method; others were purchased.

Some of the structures on the layout were scratchbuilt, including the Green Bay depot, the Escanaba ore dock, a Red Owl grocery store, a machine shop, and all of the Jimco Lumber Co. buildings. The depot was built by a college student who was studying architectural industrial

modeling. He used Plexiglas as the form for the structure and added brick paper and plastic windows and doors. The depot first appeared on the original club layout at the National Railroad Museum.

The ore dock was built by Elmer D. Johnson in 1980. He visited the prototype dock in Escanaba, Mich., and took a lot of measurements. This model was also on the original layout and is a compressed version of the prototype. The boat sitting next to the dock was donated to the club and then finished by club member, Greg Amato.

The backdrop is 1/8" tempered hardboard. The area behind the Green Bay depot and yard has photo backdrops. All of the other backdrops were hand-painted.

The fascia is also 1/8" tempered hardboard. Black skirting hangs from bottom edge to hide the benchwork.

The layout is divided into two boosters and a Digitrax DCS240 command station. Each of those three layout sections are run by Digitrax PM42 quad power managers. The mainline, yards, and

sidings are separated from each other. This way if a locomotive derails and the wheels cause a short, the whole layout doesn't shut down.

The layout room is illuminated with 15 4-foot fluorescent fixtures. As part of the agreement with the Kress Family Library, the library installed the lighting fixtures and supplied a furnace to heat the basement.

Operations

The GBAMRC loves to operate its layout. Each session typically hosts between eight and 10 operators. In the event that there is a new member who wants to learn about model railroad operations, he or she is paired with an experienced operator.

A normal operating session can last from two to three hours. During a session, the club runs up to 15 trains, though only nine jobs are scheduled.

Each of these jobs have specific switching duties in certain towns and industries. These are each given an Alpha Code designation, such as FTHO, which stands for Ft. Howard Switching and deals only with the Ft. Howard Paper Mill facility. During communications between the crews and the dispatcher, the trains are referred to by their lead unit number. Passenger trains and ore movements have priority over other trains on the main line.

There are usually two yardmasters and a dispatcher. Dispatching is primarily done giving virtual mainline authority, which is communicated to the crews via a phone intercom system. The crews call the dispatcher when they are ready to depart their respective yard. Once granted authority, they will proceed to their destination.

After they have arrived at their work location and have exited the mainline, they are responsible for calling the dispatcher to clear their



Meet the club

Members of the Green Bay Area Model Railroaders Club include (from left to right): Dave Miller, Larry Haworth (treasurer), Jeff Henslee (president and secretary), John Grom (former president (seated)), Dave Fischer, Carl Jacobsen (vice president (seated)), Greg Amato, Tom Noth, and Gary Glatfelter.



6 Milwaukee Road Fairbanks-Morse H10-44 No. 778 picks up wood-chip hoppers at Jimco Lumber Co. in Wrightstown.

authority. The same happens in reverse. Once a train approaches its home yard, the operator calls the yardmaster to find out which track to arrive on.

All of the car forwarding is done using computer-generated switch lists. The wheel report includes the car type and location where it is to be spotted.

The club uses visual guides for operators. These include small tags with the appropriate siding or spur number on them. The small, color-coded tags are placed between the ties with numbers that correspond to red numbers on the switch lists.

At each town and/or industry there's also a schematic showing the track plan of each industry. These guides help make the flow of operations easier to understand for new and experienced club members alike.

The operating sessions are also open to the public. If

someone expresses interest in participating in an operating session, they can contact any member of the club to be signed up. When they arrive at the club, they will be paired with an experienced operator.

Operating sessions are held on the first Sunday of the month unless it falls on a holiday. Operating sessions are put on hiatus during the summer months (June, July, and August).

Into the future

A future goal is to add another peninsula in a semi-finished state to demonstrate the STEM (science, technology, engineering, and mathematics) aspects of the hobby to kids that come through during the library's story-time. This way people can see not only the difference between a finished and a semi-finished layout, but what it takes to build it and bring it to a finished state. This

includes things such as carpentry, wiring, modeling, research, and all the rest of the hidden aspects of the layout building process.

One of the visions of former club President (and current member) John Grom was to elevate the look and operation of the layout to the point where it could be published

in a model railroad magazine. That tradition has been carried forth, and his vision has been accomplished.

To learn more about the Green Bay Area Model Railroaders Club, visit the group's Facebook page (facebook.com/GBAMRC/) or send an e-mail to gbamrc@gmail.com. **MR**



7 A pair of Chicago & North Western GP7s leads a freight along the Menasha Channel away from the channel's namesake city.



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How to model realistic streets



Contributing Editor Pelle Søbørg used Woodland Scenics Smooth-It, along with scribing tools, paint, and washes, to model realistic streets for his HO scale Free-Mo module. Follow along as he shares his easy-to-follow techniques.

Use scribing tools, paint, and washes to enhance plaster pavement

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

Ever since I built my first layout back in the 1990s, I've been struggling with making my streets and roads look realistic. Every time I start a new layout, I've tried to improve my methods. They definitely started to look better on my last model railroad, but I still wasn't fully pleased with the results. When I started on two Free-Mo modules I set a goal to make the streets look better than my prior efforts.

As before, I used Woodland Scenics Smooth-It. I've always

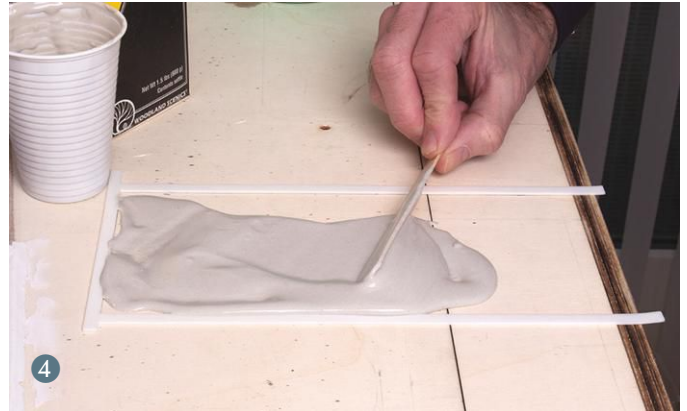
preferred to make my streets and roads from plaster. Plaster has a realistic concrete or asphalt feel to it. I assume other types of plaster will work, but I've always used Smooth-It and saw no reason not to use it again here. The material is easy to work with and easy to sand, too.

The big difference this time around is how I finished the roads. On previous layouts, I primarily used paint and saved the washes as a final touch to bring out recessed details. This time around,

I used paint sparingly and let washes do the heavy lifting. This gave the road surface the uneven, random gray look I'd hoped for.

If you need to add streets to your model railroad, I hope you give these easy-to-follow techniques a try. All of the materials are readily available at well-stocked brick-and-mortar and online hobby shops. Though you can model the streets to look newly poured, I find adding grooves, cracks, and washes really brings them to life. [MR](#)

STEP 1 Pouring and spreading



I started by applying Woodland Scenics Paving Tape, an approximately .060" thick foam tape, along the outside edge of the street I was working on ①.

Then I mixed the same company's Smooth-It with water. The thinner the mix, the greater the risk of air bubbles. If the mix is too thick the material is difficult to spread evenly as it has a tendency to stick to the screed ②.

I then poured the plaster on the street ③. Do this carefully to avoid creating air bubbles. I distributed the Smooth-It inside the Paving Tape form with a wood craft stick ④. Try not to apply more plaster than needed to fill the area.

Finally, I spread the plaster evenly with a styrene screed. Apply just enough pressure to the screed so it barely stays on the top of the Paving Tape. If the plaster sticks to the screed, dip it in water before spreading the plaster ⑤.

If you discover too many dips or holes in the surface after you have spread the plaster, apply a little more plaster to those spots and spread it with the screed again. The plaster



has a working time of approximately 15 minutes before it begins to set.

After the plaster had cured, I sanded the surface with fine sandpaper wrapped around a wood block. Remove any dust residue in preparation for the next step.

STEP 2 Curb appeal

To model curbs, I applied another layer of Woodland Scenics Paving Tape on top of the existing tape. Then I ran a second course of foam tape inside (and parallel to) the new tape. I left a .100" gap between the tape strips. This groove formed the curbs ①.

Next, using a pipette, I applied water in the groove to moisten the dry plaster. If you don't wet the existing plaster before you apply a new layer, it will absorb the moisture from the wet plaster and shorten the working time of the new plaster. Additionally, the new layer of plaster will not adhere well to the first layer.



STEP 2 Curb appeal (cont'd)



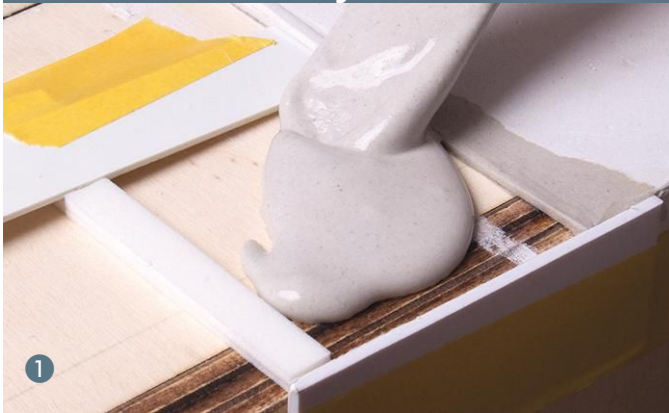
I filled the groove with plaster and pressed the material down with a wood craft stick to eliminate any air bubbles **2**. Then I smoothed the plaster with a styrene screed and let it set **3**.

When the plaster had cured completely (no cool, damp spots) I removed the Paving Tape. I then sanded the edge of the curb round using a homemade sanding tool that I fashioned from a wood craft stick, double-sided tape, and sandpaper **4**.

For information on using Paving Tape and Smooth-It to model city streets, sidewalks, alleys, and highways, as well as some additional painting and weathering techniques, check out my article "Modeling streets and highway" in the August 2015 issue of *Model Railroader* magazine.



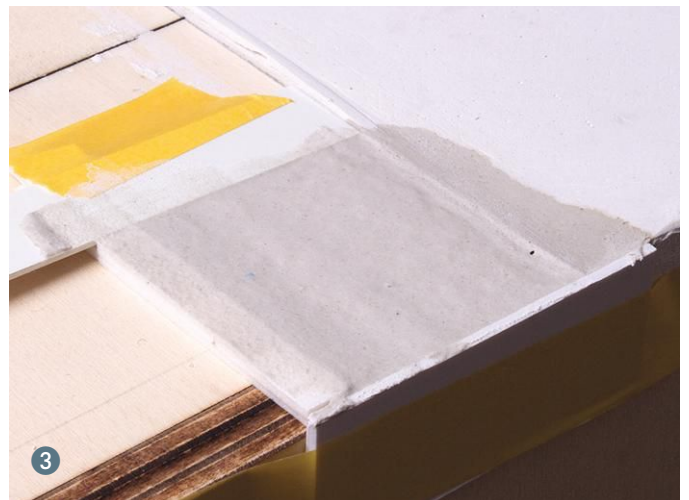
STEP 3 An easy transition



Next, I turned my attention to the driveways. I outlined a slightly sloped driveway with bits of styrene and filled the area with plaster. As before, I wet the existing plaster where the driveway joined the street **1**.

I spread the plaster evenly with a screed, starting at the street and moving away **2**. I didn't remove the styrene frame until the plaster was dry. Even though plaster doesn't stick very well to styrene, use caution when removing the frame so you don't chip or break the material **3**. You may also consider applying mold release to the styrene prior to pouring the Smooth-It.

When the plaster had cured, I sanded the driveway with fine sandpaper. The sanding sometimes reveals small holes caused by air bubbles. To repair them, I wet the area and carefully filled the holes with more Smooth-It plaster. After the patches had dried, I lightly sanded the street surface one more time.



STEP 4 Adding details



With the plaster work completed, I started detailing the streets. First, I used a scribing tool to add grooves along the curb. I used styrene strip to keep the lines as straight as possible ①.

Next, I used the scribing tool to add cracks in the asphalt ②. A little of this goes a long way, so add the cracks sparingly. When in doubt, use prototype photos as a guide. Notice how the primary crack in the street I modeled runs down the centerline, parallel to the curbs. The other cracks spider out from there, perpendicular to (and terminating at) the curbs.

Finally, I added a storm drain made from styrene sheet and strip. The manhole cover is an injection-molded plastic casting from Wm. K. Walther's Inc. ③.



STEP 5 A realistic finish



I turned to a multi-step process to finish the streets. First, I used an airbrush to apply a base coat of light sand-beige that I mixed using 1 part Model Master Sand (No. 1706) and 2 parts White (No. 1768) ①. Both of these enamel colors have been discontinued by the Testor Corp. Hornby, Revell, and Tamiya are three firms that offer enamel hobby paint.

After the paint dried, I lightly sanded it with fine-grit sandpaper. Then I applied a wash, which I made with Vallejo Black (No. 71.057), Camouflage Black Brown (No. 71.042), and plenty of the same company's Airbrush Thinner (71.161) ②. Notice how I kept the brush parallel to the curbs.

I applied one coat of the wash to the curb and driveway. Since asphalt is darker than concrete, the paved areas received three coats. I let each dry between applications.

The wash brought out the grooves and cracks in the surface and dried to a non-uniform gray. I finished the project by adding scenery and details to the adjacent terrain ③.





Dave Fowler's ScaleTrains Electro-Motive Division GP30 comes out of a tunnel with its headlights, Mars lights, class lights, ground lights, and walkway lights illuminated. A network resistor allowed him to control the effects on the HO scale model.

Install a Tsunami2 in a GP30

A network resistor allows for full light control

By Dave Fowler • Photos by the author

When I received my ScaleTrains Rivet Counter line Electro-Motive Division GP30, I wanted to install a SoundTraxx decoder in the HO scale model, as that's my preferred brand. I selected the manufacturer's Tsunami2 TSU-PNP8 (No. 885813). I paired the sound decoder with a TCS Keep-Alive KA2 and a Railmaster DS1425-8 speaker. But I wondered how I was going to fit six extra resistors for the ground and walkway lights under the shell.

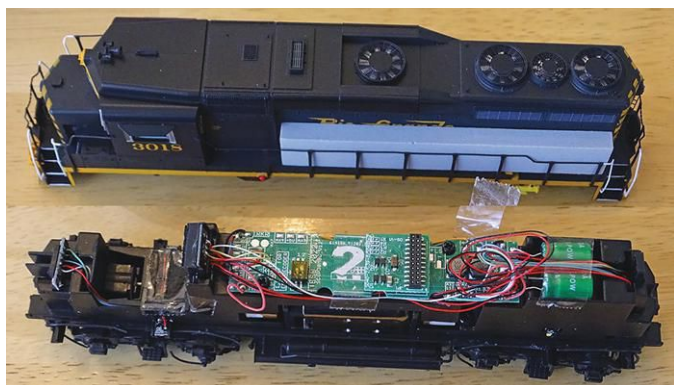
Then I remembered using network resistors on circuit pack designs early in my career. This let me illuminate and control the ground and walkway lights with the help of a space-saving network resistor component. The bussed-type network resistor component that I used for this project has a row of internal

resistors with one end shared with one common pin. This proved a real game changer. Turn the page to see how much space this saved compared to using six resistors.

Removing the decoder and frame

First, I carefully loosened and removed the two truck lights and four walkway lights from the upper frame. Use a light touch as the wires are delicate. The mini light-emitting-diode (LED) boards are secured with sticky glue at the factory.

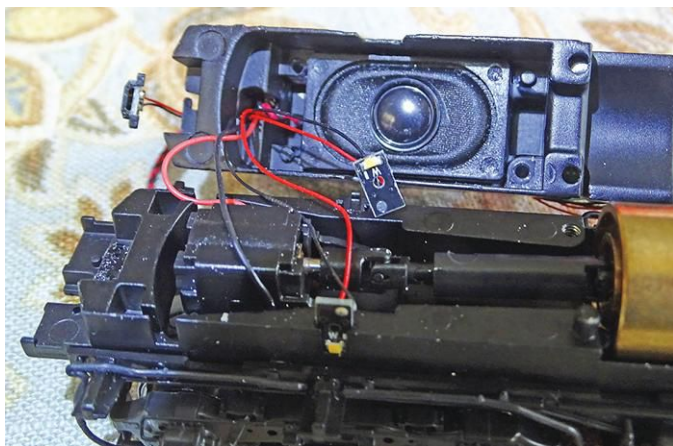
Before I removed the ScaleTrains decoder ❶, I drew a rough wiring diagram of the existing decoder and wires. The wiring diagram on the next page shows the original wire



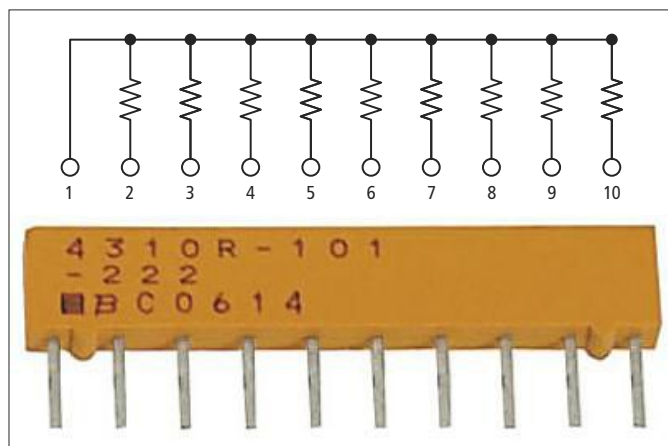
❶ Here's what the ScaleTrains Electro-Motive Division GP30 looked like with the factory-installed motherboard, decoder, and capacitors. Take note of the wire connections and compare them to the wiring diagram on the next page.



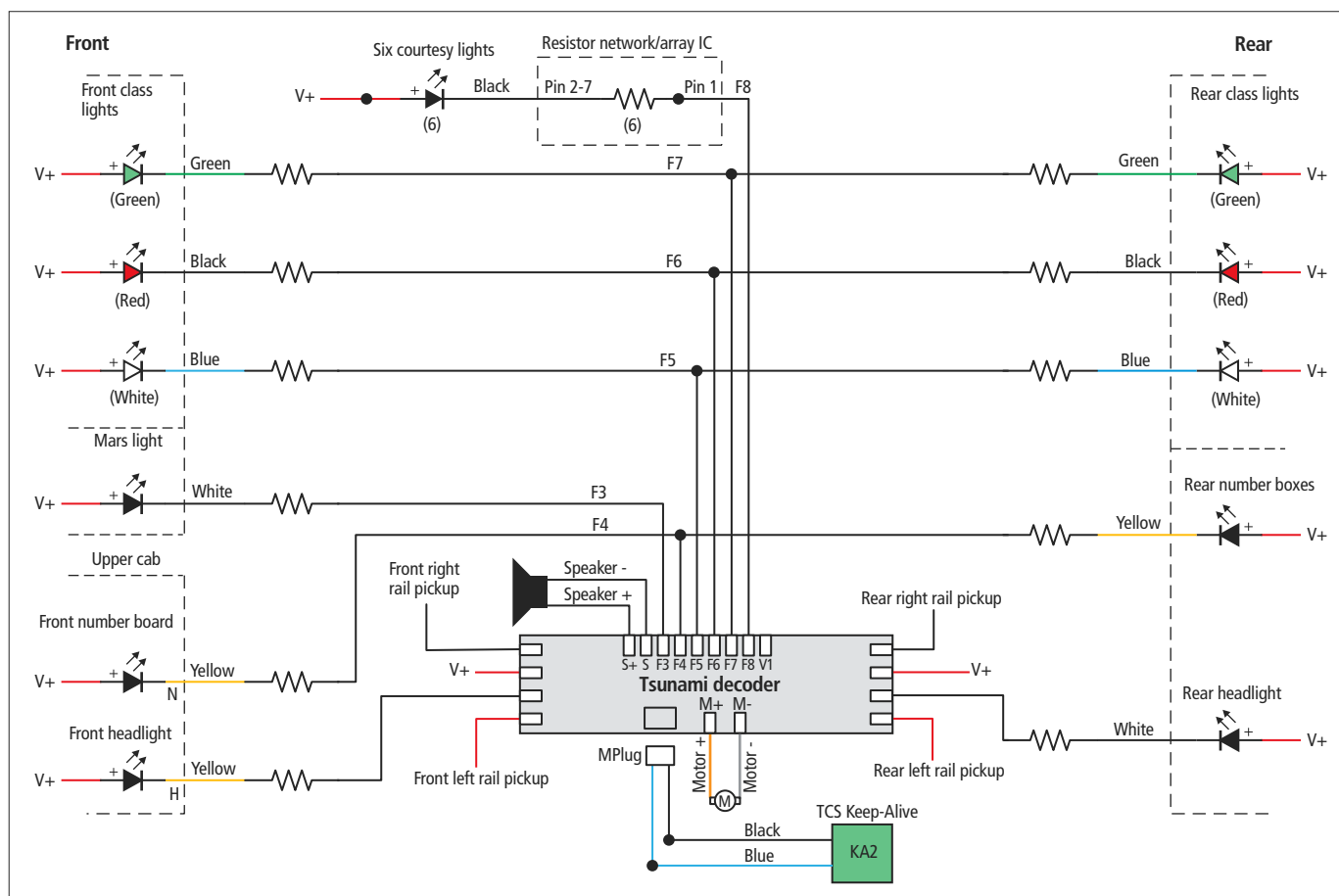
❷ Dave unscrewed the top of the frame and turned it over to remove the plastic sugar cube speaker housing. With the housing out of the way, he used a small steel cutting bit in a motor tool to remove metal from the screw mounts.



③ The modifications Dave made to the screw mounts in the previous step paid off. The Railmaster DS1425-8 speaker fit neatly in the top half of the metal frame. Dave then threaded the leads through the wire channel.



④ Here's the schematic of the network resistor component (Bourns 4310R-101-102) Dave used for the ground and walkway lights. It has a row of internal resistors ("bussed") with one end shared with one common pin. The network resistor common pin 1 is marked with a square dot.



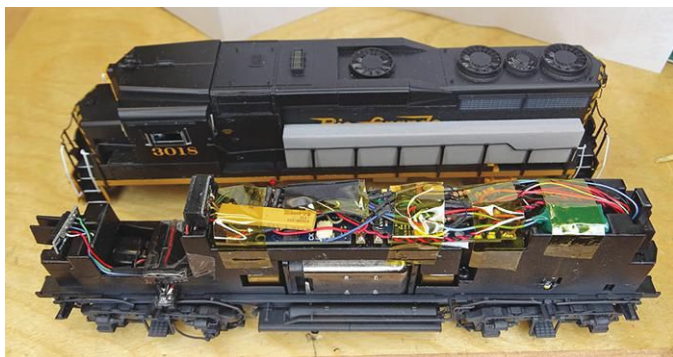
For the network resistor, pin 1 is wired to the decoder's Function F8. Six of the other nine pins are wired to the individual ground and walkway lights. For the resistors of the two ground lights and four walkway lights, Dave used a network resistor component to save space and simplify some of the soldering.

colors. Then I cut the wires on the factory-installed decoder, leaving short pigtailed. This gave me a reference to see where the wires came from. These colors are labeled on the wiring diagram above.

I removed the factory-installed decoder by releasing the two screws holding it to the weight. Then I loosened the wires so I could flip over the upper frame. I carefully removed the upper frame by removing two screws ②.

Adding the speaker

A plastic mount for two sugar cube speakers is located in the upper half of the frame. To make space for the Railmaster DS1425-8 speaker, I removed the plastic mount. Then I used a motor tool with a small steel cutter to grind the edges of the screw mounts to accommodate the speaker ②. I did a little extra grinding where the porthole of the speaker would be.



5 Here the GP30 after Dave installed the new decoder and wires. The yellow component is the network resistor.

I covered the motor and drive components so metal shavings wouldn't get into those areas.

I then attached the speaker with canopy glue and ran the wires through the channel at the rear of the speaker housing

3. Finally, I reattached the frame, along with the ground and walkway lights.

Reassembling the locomotive

Next, I re-installed the upper frame and walkway lights. I used double-sided foam tape to hold the SoundTraxx decoder in place.

Where the two large capacitors existed, I attached a Keep-Alive (KA2) with canopy glue. I used a SoundTraxx wiring harness with the Keep-Alive. I shortened and spliced the stiff

Materials list

SoundTraxx

810158 CurrentKeeper 2-pin harness

885813 Tsunami2 TSU-PNP8

Bourns

4310R-101-102 10-pin, 125 mWatt, 1k Ohm 2% bussed network resistor

Railmaster

DS1425-8 8 ohm speaker with 16mm x 27mm x 9mm enclosure

TCS

KA2 Keep-Alive

harness wires with the TCS Keep-Alive wires, making sure the connections were blue to blue and black to black. Incorrect wiring could damage the decoder.

The schematic for the resistor network component is shown in 4. It replaces six resistors in this application, saving quite a bit of space, as you can see in 5.

I used Kapton tape to hold the wires in place, and a short piece of electrical tape to cover the decoder's status LED so the light will not show through the fan housings on the long hood.

With that, my fully illuminated ScaleTrains EMD GP30 was ready to earn its keep pulling freight. **MR**



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Electric action at Danbury



Grand Central Terminal to Pittsfield, Mass., passenger Train 140, *The Mahaiwe*, has arrived at the northern end of the New York, New Haven & Hartford's electrified zone in Danbury, Conn., at 10:19 a.m. During the scheduled 10-minute power change from electric to diesel, motor No. 352 and a head-end express car are being cut from Train 140 and pulled forward to clear the crossover from station platform track 6 to track 8, as shown in this 1958 photo.

Prototype photo by J.W. Swanberg; model photo by Joe Smith

New York, New Haven & Hartford motor No. 352 is one of 10 (Nos. 351 to 360) built by General Electric in Erie, Pa., during 1931. The railroad designated these 2-C+C-2 motors as EP-3 (Electric Passenger, 3rd design). The EP-3 was geared to pull 15 80-ton Pullman cars at 70 mph, powered from the six axle-mounted GEA-621 AC traction motors that

together produced 3,440 maximum hp and a starting tractive effort of 68,400 pounds.

The EP-3 had the ability to operate from AC or DC power, primarily drawing power from New Haven's expansive 11,000-volt AC overhead catenary transmitted to the traction motors via a pantograph on either of the cab ends, or from third-rail shoes on the pilot trucks deployed when

operating on New York Central's 600-volt DC 11.7-mile trackage between Grand Central Terminal and the NYC/NH junction at Woodland, Bronx, N.Y.

The photos show the action at Danbury, Ct., in 1958. Once clear of the crossover, the motor and express car will be backed through the crossover onto track 8 in the foreground to a location in front of the station for unloading. Motor 352 will cut off from the express car, pull forward on track 8 to the motor service area farther east in Danbury yard for inspection and replenishment of sand, boiler fuel, and water as necessary before next assignment.

Train 140 will depart Danbury at 10:29 a.m. with diesel power for the remaining 89 miles on the New



Haven Berkshire Line to Pittsfield, Mass. Express cars from connecting railroads loaded at the Harlem River Railway Express Agency (REA) terminal in the Bronx, N.Y., were not uncommon on No. 140. In the 1950s, the Boston & Maine had many express cars converted from retired Pullmans and troop sleepers. Capturing one of the two B&M express cars (Nos. 3280 and 3281) adds special interest to this photo. Both cars were originally Chesapeake & Ohio RPO/baggage/36-seat passenger combines built by St. Louis Car Co. in 1930, unusual in

Send us your scenes

Have you modeled a scene based on a prototype photo? Send both the prototype and model photos, along with a brief description of the scene and the modeling techniques shown, to: Prototype to Model, *Model Railroader* magazine, 18650 W. Corporate Drive, Suite 103, Brookfield, WI 53045; or reach out to us via email at editor@modelrailroader.com.



that after their 1950 conversion to an express car, both retained the original functioning vestibule and steps plus one lavatory for messenger service.

When taking this timely image in 1958, photographer J. W. Swanberg may have sensed the approaching end of the heavy electrics and power changes with the pending arrival of dual power Electro-Motive Division FL9s, which had the capability to operate on the NYC third-rail trackage into Grand Central Terminal, thus eliminating power changes. During 1959, heavy electrics continued in

Danbury — GCT commuter service, but through New York — Pittsfield trains were powered by pairs of the new FL9s, ending the need for power change at Danbury. On Feb. 1, 1961, the power to the catenary was cut off, ending all electric service between South Norwalk and Danbury, Conn. The EP-3s were stored out-of-service for a period of time, but motor 352 was condemned and scrapped in November 1963, long before its useful life had expired.

The lack of an available EP-3 and correct B&M express car models in HO scale necessitated some

scratchbuilding and kitbashing to re-create the 1958 scene.

I built the EP-3 on a Bachmann GG1 powered chassis with modified truck sideframes; I also used the pantographs. The cab and pilot “porches” are scratch-built with Evergreen styrene sheets and shapes plus brass wire and headlight and horn castings. Badger Modelflex Pullman Green and Accu-Cals decals finished the EP-3. No. 352 is painted in the third scheme for EP-3s: No. 11 Pullman Green with No. 44 Deluxe Gold striping and lettering, referred to as the “Cat Whiskers” scheme for the

three horizontal stripes near the cab windows.

The B&M express car is scratchbashed using a shortened Branchline Trains coach core, a lengthened Athearn round roof, and scratchbuilt styrene sides and one car end. Badger Modelflex B&M maroon and Accu-Cals decals finished the build.

Re-creating this scene has been rewarding, as the engine change with various express cars adds much interest to replicating passenger train operations at Danbury. [MR](#)

Joe Smith's HO New Haven was featured in MRP 2020.

Watch your speed

So deeply embedded in the American psyche is a lone-some whistle's wistful allure that songwriters and performers have long given rail-roading voice. Arlo Guthrie's *City of New Orleans*, the Andrews Sisters' *Chattanooga Choo-Choo*, and almost any good fiddler playing *Orange Blossom Special* come to mind. However, no lyrics better suit this topic than the Grateful Dead's: "Casey Jones, you better watch your speed." The promised land wasn't the destination Casey marked up for. Recent over-speed tragedies on curves at Frankford Jct. near Philadelphia, Pa., and on the Port Defiance Bypass near Portland, Ore., show why speed demands the attention it sees in railroad rulebooks. It deserves respect on our layouts, too.

Take restricted speed, slow enough to permit stopping within one-half the range of vision. This general definition has survived more than 100 years, from original form in the Standard Code to current Northeast Rules Advisory Committee (NORAC) or General Code of Operating Rules (GCOR) forms. Operating at restricted speed avoids collision with other trains, engines, or rolling stock. It also requires vigilance against broken rails, obstructions, and misaligned switches. You bet this is relevant to model railroad operation! Who hasn't derailed by running through switch points lined against the movement?

Permanent speed limits usually give passenger trains higher speeds than freights are allowed. A lightly used branch might have limits much lower than a busy main line. And prototype employee



This temporary advance speed sign in Lebanon, N.J., frames a westbound New Jersey Transit train approaching in the background on Nov. 15, 2024. The sign warns eastbound engineers to begin braking for a 50 mph slow over track under repair. Jerry Dzedzic photo

timetables devote page after page to permanent speed restrictions in curves, over bridges, and through cross-overs. I allow passenger trains 30 mph and freights 20 mph on my layout. My employee timetable also specifies 10 mph entering and leaving yards, through a crossover, and over several bridges (including all my liftouts.)

Temporary speed limits appear when trackwork or other unusual conditions affect movements.

The Standard Code provided for slow orders and bulletin orders; NORAC continues the use of bulletin orders, and GCOR uses track bulletins. I use bulletin orders for places where I've recently completed trackwork.

Speed signs, rarely modeled, can mark locations with limits. Their appearance

and placement vary. Permanent reductions give both passenger and freight limits. A temporary slow, as for track maintenance, receives a yellow advance sign displaying the limit. It's posted trackside on the engineer's side, sufficiently distant from the slow zone to allow safe braking. A second yellow sign marks where the slow begins, and a green sign indicates where normal speed can resume.

Placing speed signs adds lineside detail and spices up operation. Mark Juett inspired this column when he wrote to me about his own. Moving temporary locations from session to session can keep crews on their toes. Employee timetables and rule-books are good sources of prototype illustrations. Tony Koester gently nudged me once, reminding

me that "the Nickel Plate is the high speed service route," the only time I remember a host urging me to go faster. My railroad is not, and I give my crews a rule of thumb to watch their speed.

Traveling at 30 mph means covering 44 feet per second, roughly the length of a typical steam- or transition-era freight car. Find a distinctive car in the train behind which two other cars are coupled. Pick a point on the layout, as readily as a fingertip placed on the fascia edge. Count three seconds when the leading end of the car passes the point. How many? Three cars, 30 mph; two, 20 mph; and one, 10 mph.

Bob Hanmer gave me another rule of thumb. Count the number of cars which pass in five seconds and multiply by six. 89-foot cars make it easy for modern modelers to adjust these figures.

Wouldn't it be fun to have Jerry Garcia or Casey at an operating session? On the other hand, who's in a hurry to join them in the promised land? Watch your speed. **MR**



TRAVELING AT 30 MPH MEANS COVERING 44 FEET PER SECOND, ROUGHLY THE LENGTH OF A TYPICAL STEAM- OR TRANSITION-ERA FREIGHT CAR. — JERRY

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



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A custom painted Conrail "Patch Job" SD40 and kitbashed SD40-2 are bringing cars through Scott Wahl's incredible N scale Beth Steel T-TRAK modules. Conrail's arrival brought many changes to the Lehigh Valley. The Reading Co. could make a round trip from Harrisburg to Bethlehem with a single crew, but the bigger power wasn't as reliable and breakdowns meant it now took two crews to do what the road's predecessor did with one.



Send us your photos

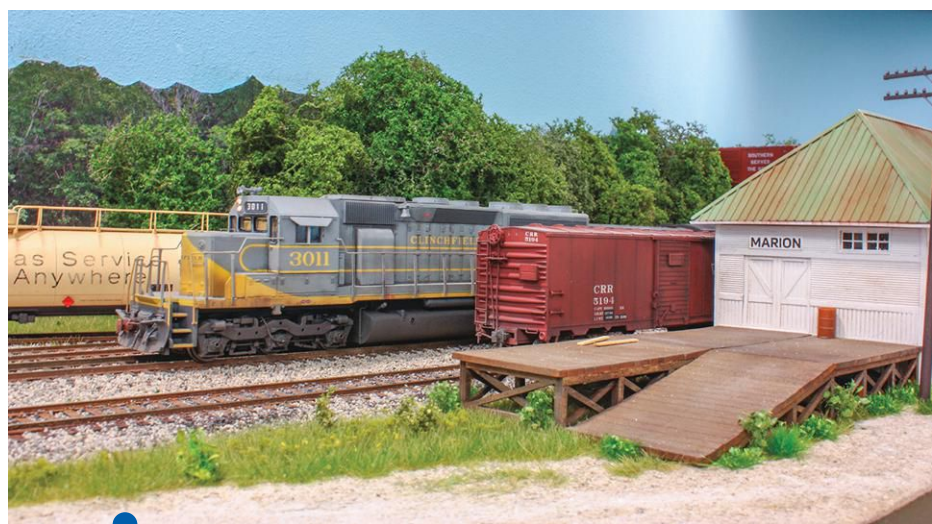
Trackside Photos is a showcase for the work of *Model Railroader* readers. Send your photos (digital images 5 megapixels or larger) on a flash drive to: *Model Railroader*, Trackside Photos, 18650 W. Corporate Dr., Suite 103, Brookfield, WI 53045; or email them to us at editor@modelrailroader.com.



Gaylord Gill, a member of the National Association of S Gaugers (nasg.org), photographed this scene of western New York State on his S scale (1:64) Buffalo & Chautauqua layout. The locomotive is a Baltimore & Ohio E-27 2-8-0 by S Helper Service. The weathered barn to the rear is a board-by-board kit from Finest Kind Models; the foreground barn is scratchbuilt. A Pringles can forms the silo tower. The brick farmhouse was kitbashed from HO scale modular components by DPM. The scene was inspired by the farm Gaylord's grandfather had from the 1940s to '60s.

Western Bay's Heisler No. 66 is ready to work Ute Coke & Coal. The mine run is soon to arrive. The scene was photographed by Chip Pecere on Al Sohl's On30 Western Bay Railroad in Port St. Lucie, Fla.





Clinchfield Electro-Motive Division SD40 No. 3011 leads train No. 95 northbound past the depot in Marion, N.C., in the summer of 1978. Brent Johnson took the photo on his HO scale layout, which depicts the south end of the Clinchfield RR in the late 1970s. The model railroad occupies most of Brent's 35 x 53-foot basement. The SD40 is a factory painted Athearn RTR model that he weathered. Brent scratchbuilt the depot out of wood and styrene, using prototype photos as a guide.

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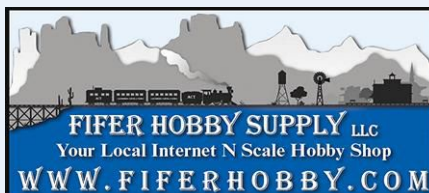
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All ads must be prepaid and pertain to the subject of model railroading.

Schedule of Events

CO, DENVER: Rocky Mountain Train Show. April 5-6, 2025. National Western Complex, 4655 Humboldt St., Denver, CO 80216. Saturday, 9:00am-5:00pm, Sunday 9:00am-4:00pm. 3 acres of model trains, all scales, 30 layouts, 700 sales tables, clinics and more. Admission \$15.00, under 12/scouts in uniform FREE. Discounted tickets available for military/first responders through VetTix.org. Free Parking. 303-364-0274, www.RockyMountainTrainShow.com

FL, CRYSTAL RIVER: Regal Railways presents Toy Trains & Hobby Show. Florida National Guard Armory, 8551 W. Venable St., Crystal River, FL 34429. Saturday, April 12, 2025, 9:00am-2:00pm. Admission: \$6.00 adults, children under 12 free. Vendors and operating layout. Lunch items available. Contact Joe: 727-244-1341 or visit www.regalrailways.com for more information.

FL, PINELLAS PARK: Suncoast Model Railroad Club Train Show/Open House. Saturday, April 5, 2025. SHOW- New venue! Pinellas Performing Arts Center, 4951 78th Avenue N., Zip: 33781. 9am-3pm. Admission: \$8.00, Children \$3.00, under 11-free. Free parking. Tables: Event Planner, smrrclub@gmail.com, 727-523-1860. OPEN CLUBHOUSE- 12355 62nd Street North, Suite A, Largo, FL 33773. Admission: FREE. www.suncoastmrrc.com

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

IL, URBANA: Lincoln Square Train Show, 100 W. High St., Urbana, IL 61801. March 29-30, 2025. Saturday, 8am-5pm, Sunday 11am-4pm. Hosted by Illinois Terminal Division, NMRA. FREE public admission. Railroadiana and historical societies. Freemo set-up and run. Free parking and wheelchair accessible. Vendor table info at: <https://www.illinoisterminaldivision.org/show/show.htm>

MI, KALAMAZOO: Annual Spring Swap Meet. Kalamazoo County Expo Center, 2900 Lake Street. Saturday, April 5, 2025, 10am-3pm. Admission \$5.00; Children 12 and under free (when accompanied by an adult). Operating layouts, vendors, railroad memorabilia, model trains, accessories. Concessions, free parking and more! Presented by Kalamazoo Model Railroad Historical Society. Contact: David Hayes-Moats, 269-344-0906, www.kmrhs.org

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, HICKORY: 23rd Annual Hickory Train Show. Hickory Metro Convention Center. Friday, April 4, 2025, 12:00pm-7:00pm and Saturday, April 5, 2025, 9:00am-3:00pm. Admission \$8.00, children under 12 free with paid adult. Vendors: \$38 per each 8-foot table. Contact: HickoryTrainShow@gmail.com

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.

NE, PAPILLION: NE-IA Railroaders 2025 Train and Toy Show. March 22-23, 2025. Saturday 9am-5pm, Sunday 9am-3pm. Admission: \$8.00, 12 and under FREE. Papillion Landing, 1022 W. Lincoln St., Papillion, NE. 42,000 sq.ft. of train and toy items for sale, plus vendors, layouts and much more! Information: Rick Jones, bedlocker@aol.com or visit: www.NebraskaIowaRailroaders.com

NH, DOVER: The Great Northern New England Spring Train Show. Dover Lodge of Elks #184, 282 Durham Road, Dover, NH 03820. Saturday, April 5, 2025, 10:00am-3:00pm. Admission: \$5 per person, children under 12 free. Exhibitor tables \$35, includes entrance fee. All scales, operating layout, railroadiana items, and food on premises. Contact Ed Martin, efmter@aol.com or 603-362-4300

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Schedule of Events Cont...

NJ, TOMS RIVER: ECTP and Collectibles LLC presents the Toms River Toy & Train Show. Elks Lodge, 600 Washington St., Toms River, NJ 08753. Sunday, April 6, 2025, 9:00am-2:00pm. Admission: \$7.00; under 12 free with adult. John LaLima 732-845-5966. Go to www.eastcoasttrainparts.com and click on Toms River Show.

NJ, WAYNE: ECTP and Collectibles LLC presents The Wayne Train Show. P.A.L. Hall, 1 Pal Drive, Wayne, NJ 07470. Sunday, March 23, 2025, 9:00am-2:00pm. Admission: \$7.00; under 12 free with adult. John LaLima 732-845-5966. Go to www.eastcoasttrainparts.com and click on The Wayne Show.

OK, GREATER TULSA AREA Train Show. April 25-26. Rhema Ninowski Recreation Center, 1367 West Kenosha, Broken Arrow, OK. Friday April 25, 5-7PM; Saturday April 26, 9AM-3PM. Admission \$5, kids under 18 free. Operating Layouts, Door Prizes, Concessions. Over 100 vendors tables. Presented by Heartland Toy Train Association. www.HeartlandToyTrains.org

PA, HAWLEY: Model Train Show & Sale. Hawley Fire Department, 17 Columbus Ave., Hawley, PA 18428. Sunday, April 13, 2025, 9:00am-2:00pm. Admission \$3.00, under 12 free with adult. Bill Delling, 618 Fern St., Hawley, PA 18428, 570-226-3206.

TN, BULLS GAP: 3rd Annual Train Show 2025 sponsored by Bulls Gap Railroad Museum. April 11 & 12 at Bulls Gap Community Center (139 S Main St). Friday, April 11th, 9am-5pm; Saturday, April 12th, 9am-5pm. Admission: \$5. Children under 12 FREE. Table setup: \$20 (April 10th). Food and soft drinks available. Contact: Brittany 423-231-1555.

UT, SPANISH FORK: Annual Ophir, Tintic & Western Model Railroad Show, April 4-5: Friday 3:00pm-9:00pm; Saturday 9:00am-5:00pm. 24,000 sq.ft. of train layouts, exhibits & vendors. Spanish Fork Fairgrounds Tennis Pavilion, 475 S Main, Spanish Fork, UT. Admission: Adults - \$10; Family - \$25; Age 8 & under free. <https://otwtrainclub.org/our-shop-for-tickets/info>. Contact: Mike Lambert, mlambert54@comcast.net

WA, SPOKANE: River City Modelers Spring Model Train Show, Spokane Fairgrounds, 404 N. Havana. Sunday, March 9, 2025, 9:30am-3:30pm. Admission: adults \$8, 12 & under free. 200+ tables of Railroad related items for sale, operating layouts, Free-MO, Operation Lifesaver & more. Free Parking. For table rental or general info, contact: Shirley Sample, 509-991-2317 or shirley@busnws.com

WI, LA CROSSE / ONALASKA: La Crosse & Three Rivers Railroad Club's 44th Annual Model Railroad Show. Omni Center, 255 Riders Club Road, Onalaska, WI 54650. March 15-16, 2025. Saturday 9:00am-5:00pm, Sunday 10:00am-3:00pm. Adults \$8.00, \$7.50 with a non-perishable food item, 2-day pass \$12.00, children 11 and under free w/adult. Info: Belva Thompson, 608-780-7364

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: shmrcts@gmail.com

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

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2B In Trains	15	Model Train Market	17
Atlas Model Railroad Co., Inc.	5	Modelers Marketplace.	60-61
Axian Technology	20	Model Railroad Planning 2025	15
Azatrax	15	Nicholas Smith Trains	20
Bachmann Industries, Inc.	68	PECO Products	22
BPL	15	Rapido	2
Broadway Limited Imports	17	Piko America	25
Cemtral & Western Homaroad Supply	15	Pioneer Trains	15
Circuitron	22	Pre-Size Model Specialties	15
Custom Model Railroads	22	Showcase Express	17
Digitrax	51	Sievers Benchwork	20
EngineHouse Services, LLC.	15	SoundTraxx	20
Great Midwest Train Show	25	Spring Creek	20
Great Train Expo	25	Subscribe to Model Railroader	29
Greenburg Shows	25	The Space Store	44
Halfpricehobby.com	20	Train Sets Only	15
JB Wheelsets	15	Train World	17
Kato USA Inc.	67	Trains.com Forums	7
Ken Patterson	3	Trains.com	64
Loco-Boose Hobbies	20	Trainz.com	17
Märklin, Inc./LGB	19, 55	Woodland Scenics	9
Mianne Benchworks	15	Yankee Dabbler	22

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What don't you see?



This photo of Norfolk Southern Train 25P making its way westbound around Horseshoe Curve in central Pennsylvania has a lot of interesting details to ponder, some of them hardly visible. Doug Watts photo

It's far too easy to base our modeling on assumptions, on things we have seen here and therefore expect to see everywhere. The accompanying photo has myriad examples of something we expect to see and often go to great lengths to model yet seldom shows up in the image. I'll let you ruminate on that while I move on to another topic.

The scene is, of course, world famous Horseshoe Curve in central Pennsylvania. It's a bit off the beaten paths of the Pennsylvania Turnpike and Interstate 80, but it's worth a detour. There is a funicular to get up to track level, or you can do as we then-younger folks once did in the late 1960s and dash up some steps as a train rapidly approached. Well, we started to dash, only to run out of gas about three-quarters of the way up.

You probably spotted the piles of new ties ready to be inserted. But did you notice the shiny metal rectangles on the ends of the replacement ties? Professional railroader Charlie Newton (who was

"lucky" enough to escort what had been Doyle McCormack's "Nickel Plate Road" Alco PA1 from Oregon over to its new GVT Rail home in Scranton, Pa.) tells me that they have largely replaced the S-shaped bands of metal that used to be inserted into the ends of ties to minimize splitting.

They've been around for a while; are those of you modeling more recent times emulating this example? You could probably do it just with paint, at least in N and HO. But be prepared for the "Why are your tie ends silver?" questions. Pioneers are seldom regarded with esteem.

What isn't there? For starters, it's nice to see there's no visible exhaust smoke, even though you know those units — that's Norfolk Southern GE ES44AC 8179 in the lead — are in Run 8. Modeling exhaust smoke on steam or diesel locomotives is possible — you can buy commercially installed smoke units in a few steam and diesel locomotives today — but problematic at best except for

a video sequence. Having several locomotives spewing chemical smoke in a room packed with busy crew members isn't going to win many plaudits. So being able to emulate this example is nice.

But what I'm really focusing on is the trees, or rather the deciduous canopy of greenery. When we talk about covering our railroads with trees, that's exactly what we talk about — individual trees. But that's not what we're seeing here; we're seeing only the tops of the trees. To be sure, a few spindly trunks are visible at the left and a few more if

you look very carefully above the train, but by and large there are no armatures comprising trunks and branches to be found. The poly-fiber "trees" we concocted in the 1970s still have merit.

That said, I can see "layers" or tiers of leaves caused by branches,

even though I can't see the branches. So SuperTree armatures would probably do a better job here than puffballs. Still, the quest for the perfect forest-canopy tree continues.

Speaking of tree trunks — if I asked you to pick one crayon out of the box to color a tree trunk, what basic color would you choose? Many of you might choose brown. However, my observations suggest that gray is more often the correct color. But sycamores and birches would debate those choices, so it's important to pay atten-

tion and not be governed by impressions formed long ago.

Our modeling is governed as much by what we don't see as it is by what we do see. Some things just aren't what we assume they are, or were. And some things have even changed. It pays to be observant. **MR**





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.

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