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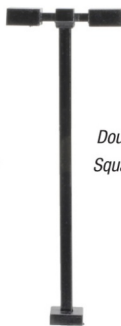
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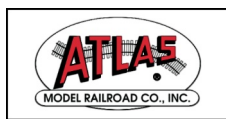


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Building a signature grain elevator
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RICHARD BALE and JEFF SHULTZ

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PUBLISHER'S MUSINGS



Model Railroad Hobbyist | July 2026

JOE FUGATE ON FINISHING WHAT WE
STARTED – AND WHAT'S NEXT ...



THE *RUN LIKE A DREAM: LOCOMOTIVES* BOOK IS FINALLY DONE.

If you've been waiting for this, you know the story. We started taking preorders in 2016 – originally as part of a three-book series, then as a standalone title. Some of you have been waiting ten years. Let's acknowledge it directly: that's a long time to wait for a book.

The world went sideways in 2020. The pandemic forced us to make hard decisions about the business. We relocated to a part of the country with much lower operating costs just to stay viable. The book project went on hold while we stabilized everything else.

In 2024, we restarted the Loco book project in earnest. It finally wrapped in late June 2026.

The downloadable PDF version is available now. If you preordered, you'll get an immediate download link once we process your notification.

Paperback shipments start in September. The proofing process adds 6-8 weeks, so we can't ship physical books until

then. If you ordered a paperback, expect it in September or later. We will primarily be shipping by order date.

You can order now on the MRH Store. Both the series and the *Run Like a Dream: Locomotives* book are currently on special. Amazon availability comes this fall.

About email notifications: We're working through ten years of preorders manually. We've sent bulk notifications for 2016-2024 orders so far. The problem? More than a few email addresses from 2016 don't work anymore. Some folks marked our marketing emails as spam over the years, so our email provider won't let us send to those addresses in bulk any longer. Once we finish the bulk notifications, we'll start building individual emails by hand for bounced and unsubscribed addresses. This takes time.

If you haven't heard from us by the end of August, email us directly. Don't wait. Just ask.

About postage: Shipping costs have doubled since 2016. If you're outside the US, your original preorder doesn't cover current postage rates. We need an additional \$10 for overseas orders (\$5 for Canada), or we can process a refund if you prefer. We'll work with you on this.

I appreciate your patience. Ten years is a long time. The first two books of the series came out in 2016 and 2018, with the third book targeted for 2020-2021.

But the third book is finally done, and we're working as fast as we can to get it into your hands.

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Do ALL your model railroading friends know about MRH?

WE CONTINUE TO BE SURPRISED BY HOW MANY MODELERS STILL HAVE NEVER HEARD OF US - SO SPREAD THE GOOD WORD ABOUT MRH!

PUBLISHER'S MUSINGS | 3

Everyone cares about getting locomotives to run well. You'll find many forum threads, YouTube videos, and operating session war stories about what works and what doesn't. The problem is the knowledge to get them to run like a dream is scattered everywhere.

Most of us pick up tips ad-hoc. A trick from a clinic here, something that worked for a friend there, a YouTube video that solved another specific problem. We accumulate experience, but it's not as systematic as we would like.

Run like a Dream: Locomotives is the definitive guide that takes what experienced modelers already know and pulls all that knowledge together and puts it at your fingertips.

This collection forms what I call the “Run-Like-A-Dream Standard” – and it can change how you think about locomotive setup, maintenance, and operation.

Prevention over repair

In this book, I introduce what I call the “Chester Principle” – a redundancy approach that prevents failures before they happen. It’s about building quality into your fleet from day one, not chasing problems after they develop.

Single-sourcing. Standardization. Preventive maintenance protocols. These aren't just buzzwords – they're the foundation of loco fleet that consistently performs well.

And if you think you already know this stuff, the book goes deeper than you might expect. In the other two books I've had modelers who have been in the hobby for decades tell me,

“I thought I knew everything about trackwork or rolling stock, but your books gave me several new things to consider I had never thought about before.”

Eight chapters of documented solutions

Chapter 1 establishes the standard itself – the benchmark that ensures every locomotive in your fleet performs consistently. No more “this one’s finicky” or “that one needs special handling.”

Chapter 2 covers preventive maintenance fundamentals that many modelers rush through in order to get the new loco on the layout. There’s a right way to break in locomotives, a right way to lubricate them, and a right way to “burn them in” so they will run reliably right out of the box and then stay that way for years of operation.



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Chapter 3 tackles the number one cause of locomotive failures: poor electrical pickup. The guide presents a multi-layered redundancy approach that goes beyond "clean your track and wheels." Wheel wipers, all-wheel pickup systems, stay-alive capacitors, even battery power solutions that eliminate track power dependency entirely.

Chapter 4 demystifies DCC decoder programming in ways that actually matter for operations. Critical CVs, the CV29 master control register, consisting techniques that actually work – this is practical configuration that changes how your DCC locomotives respond.

Chapter 5 covers LED lighting installation with the technical depth you need to get color temperature, brightness, and long term performance right the first time.

There's a reason some installations look



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prototypical and others look like toy trains – and it's not the LEDs themselves.

Chapter 6 addresses the sound decoder standardization problem that's quietly sabotaging operations on layouts everywhere. Five major vendors, wildly inconsistent function key assignments, consisting nightmares – this book provides a documented path through the chaos.

Chapter 7 dives into mechanical tuning and repair with systematic diagnostic workflows. Frame alignment verification, component failure identification, grade bucking solutions, flywheel balancing – the mechanical foundation that makes everything else run like the proverbial swiss watch.

Chapter 8 brings it all together with operational realism: speed curves, momentum, braking, Proto-Throttle integration, and the kind of immersive operation that makes locomotives feel like the real thing.

What you're actually getting

This isn't a book that just tells you to "clean your wheels more often." It's a complete system for building and maintaining a reliable locomotive fleet.

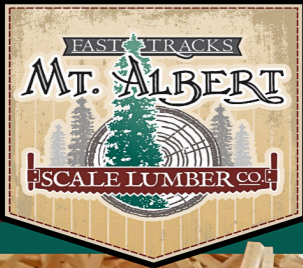
The Chester Principle. The Run-Like-A-Dream Standard. Multi-layered electrical redundancy. Systematic mechanical diagnosis. All documented to help you improve locomotive reliability.

Why you might want this book

How many operating sessions have been disrupted by stalls, hesitations, or outright failures of your locomotives?

That's what this guide addresses. A systematic approach that makes consistently reliable locomotive performance into a routine experience.



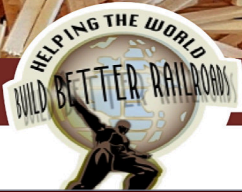
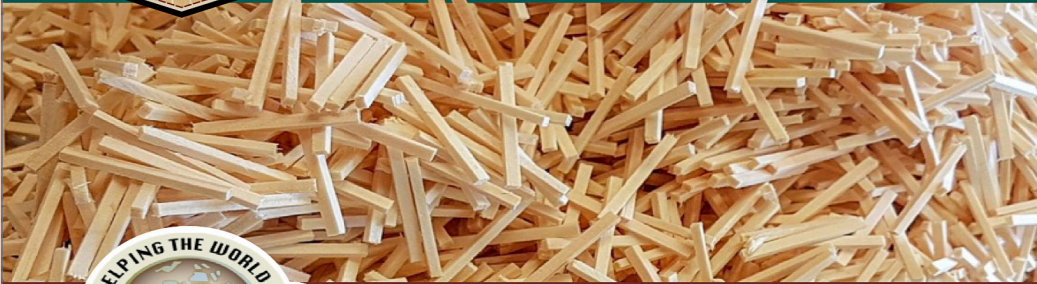


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Collinsville and Chattanooga

We will be at the Collinsville RPM meet in late July, so if you're there, come say hi! If you're there by Thursday evening, drop by Zapata's Mexican Restaurant across the parking lot at 6 pm and join the rest of the MRH clan who will be having dinner together.

As for Chattanooga, I am giving several clinics, and of course we will have a booth at the train show – loaded with Loco books, among other MRH Store goodies. ☑




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LAST ISSUE LIKES

Most liked articles in [June 2026 issue](#) of *MRH* are:

- 1st** Upgrade older cheap model railcars
- 2nd** Let's talk ops: Start realistic ops the easy way
- 3rd** Publisher's Musings: Finishing what we started, ...

Most liked articles in [June 2026 issue](#) of *Running Extra* ...

- 1st** Publisher's Welcome: Perfect micro drill cross-slide vise
- 2nd** Ah-Hah moment: LED headlight lenses from Bondic
- 3rd** Justin Jankauskas' Delaware and Hudson

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In



RUNNING EXTRA

July issue ...



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JIM SIX



Getting Real: Scratchbuilding a signature structure

JEFF JOHNSTON



MRH Workbench thread project ideas

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The Vine Street branch build, part 1

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Best of the

MRH FORUM



Model Railroad Hobbyist | July 2026

Compiled by **JOE FUGATE**



GP9 conversion to dynamic brakes

MRH forum member **Jimu62** (James H.) bought an Athearn Genesis GP9 without dynamic brakes. He asked the forum to help him locate some dynamic brake castings for this loco.

Scott Chatfield (**blindog10**) suggested he locate a cheap Atlas GP7 shell (easily available) and use its dynamic brake blister. Jim later replied: "Scott, You're a genius ... some sanding, and voila. It worked!"

To see the full conversation, visit the thread!



[View the full thread on the MRH website](#)



MRH'S MONTHLY GREAT MODELER POSTS



1. *MRH* forum member **kirkifer** (Kirk W.) acquired this railcar with abrasive track cleaning scrubbers on its underside. Replace, or use?

Is abrasive track cleaner ever advised?

MRH forum member **kirkifer** (Kirk W.) asked the *MRH* forum members if it's ever a good idea to use abrasive track cleaners on your layout's track?

The general answer was not really except in special cases, and even then take care. Member dperry (David P.) gave a particularly concise and pointed answer:

“Very fine abrasives have their place – if you have corrosion, for instance – but I see them as special use. I am comfortable with using 600-grit paper on my rails for occasional cleaning, followed by graphite of some kind.”

That's a great answer we totally agree with. For the full discussion, visit this thread on the *MRH* forum.

[View the full thread on the *MRH* website](#)



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2. *MRH* forum member **danielb** is starting an *MRH* journal/blog about his new Interstate Railroad layout build.

Interstate Railroad blog

MRH forum member **danielb** recently started a new blog about his Interstate Railroad layout build. He says,

“I’ve had a long planned layout project for the past few years that is finally starting to come to fruition. Updates will be sporadic as my time isn’t always available to work on the project, but I’m at the stage where the benchwork is finished enough that I can lay track along two walls of my spare room.”

Follow Daniel’s progress on his interesting layout concept.

[View the full thread on the *MRH* website](#)



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Recent photo fun thread

These images posted on recent *MRH* forum Photo Fun threads call back to the fun of the hobby and telling a story with our models.

View list of recent Photo Fun threads



3. In this Gorre & Daphetid throwback, **jlwitt** (Jeffrey W.) says, “Leased Gorre & Daphetid power slogs past Whitby Tower on the Taggart Transcontinental. G&D president Mark Harrison Vanderlip and his daughter Annabelle (lower left) are touring the TT.

4. MRH forum member **Corkscrew Division** posted this photo without comment. However, we do know he’s modeling in O scale on three rail track. That doesn’t take away from his modeling skill, making for some superb photos like this one.



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Model Railroad Hobbyist | July 2026

Getting started with car cards ...

WHEN WE TALK ABOUT REALISTIC MODEL RAILROAD OPERATION, there are two distinct types of routing: strategic and tactical.

Strategic routing determines which trains run on which routes, when they depart, and where they start and end.

Tactical routing handles individual cars. Which car goes to which industry? This is where operation transforms from running trains for fun to moving freight with purpose.

Many modelers hit a wall when it comes to car routing. Should you use car cards, switch lists, or something else? Without a clear starting point, many modelers never move into serious operations.

Here's my recommendation: **Start with car cards.**

They're the simplest system to learn, the easiest to implement, and they've proven themselves across sixty years of model railroad operations.

Doug Smith introduced the car card and waybill system in Model Railroader magazine in December 1961, and it remains the gold standard today. It scales from a small shelf layout to a large empire.

The concept is elegantly simple: each freight car gets a card that travels with it. The card holds a waybill – a small slip that tells the operator where that car goes. When the car reaches its destination, you cycle the waybill to send it elsewhere.

That's it. No computer required. No complex paperwork. Just a card, a waybill, and a car. You can start today with index cards and a pen.



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1. I prefer car cards, here are a couple of my cars and their cards. Note I keep maintenance dates on the back as well.

So why car cards? First, they're beginner-friendly. You can build a basic set in an afternoon with index cards and a spreadsheet.

Second, they keep your consist automatically current. Drop cars at an industry, drop their cards in a fascia holder. Pick up cars, add their cards to your train packet. Your consist is always accurate. Switch lists become outdated the moment you drop or pick up cars.

Third, car cards become your planning tool at town locations. Spread them out on a fascia shelf, visualize your switching sequence, and work out the best moves before you make them.

Finally, real railroads track cars, not trains, and the waybill traveling with each car echoes that nearly two century-old approach.

Run a session and watch what works. Too many cars at the lumber mill? Not enough at the freight warehouse? Swap out the waybills and run again.

The system self-corrects easily. You don't need perfect waybills or complete traffic patterns before you begin. Start simple and add complexity as you discover what your railroad needs.

Next month: the practical side. I'll show how to build your own car cards and waybills – using some easily available tools. ☑

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WHAT'S NEAT

column



Model Railroad Hobbyist | July 2026

KEN PATTERSON COVERS THIS MONTH:



- BROADWAY LIMITED'S NEW CHALLENGER LOCOMOTIVE
- BACHMANN'S NEW PRODUCTS REVIEW
- USING AI TO IMPROVE YOUR MODEL PHOTOS
- LAYOUT CONSTRUCTION – USING AI FOR LAYOUT VISUALIZATION AND PLANNING
- THE BACHMANN DRAWING FOR THE NYC HUDSON

BEFORE

AFTER

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JULY 2026

WHAT'S NEAT with Ken Patterson
Using AI for layout planning

click to play video

PHOTOS AND VIDEO OF SUPERB MODELS

KEN STARTS THIS EPISODE OF “WHAT’S NEAT” IN THE BACKYARD, where he shows us the new BLI Challenger and Bachmann’s prototypical US Savings Bonds boxcars. Going inside, Ken explains how he’s been using the Copilot AI on his computer to manipulate model photos into actual locations and to visualize what a section of his rebuilt layout could eventually look like. At the end of the video Matt and Tyler from Bachmann Trains draw the winner of the Dreyfuss Hudson, and Ken shows us the photos submitted to Bachmann.

BLI’s new Challenger Locomotive



1. Ken took this new Broadway Limited 4-6-6-4 Challenger locomotive out in his backyard to take photos in natural sunlight.
Info: broadway-limited.com

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Bachmann's new products review



2. Bachmann recently sent Ken five new HO scale boxcar models decorated for a US Savings Bond campaign in the late 1960s and early 970s. This Northern Pacific car has an eye-catching red, white, and blue paint scheme. The doors on the cars slide open, and the interior replicates the wood flooring.



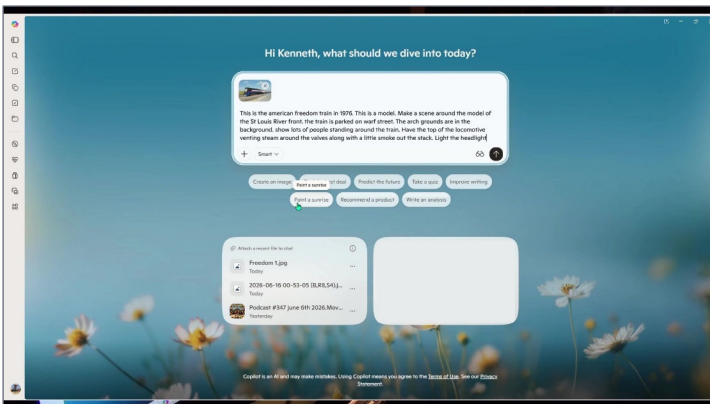
3. The Reading Railroad's boxcar combines its normal paint scheme with the Savings Bond graphics. The other cars in the series are from Louisville & Nashville, Conrail, and Richmond Fredericksburg & Potomac.

Info: shop.bachmanntrains.com

Using AI to improve your model photos



4. Ken discovered the Microsoft Copilot icon on his desktop one day, and decided to see what it could do. He started with a photo of Bachmann's Freedom Train train set taken in his backyard.



5. Ken saw the original Freedom Train in 1976 when it visited St. Louis, and was interested in creating a picture that matched his memory of the event. Here he types in the specifications of what he wants the AI to produce.

the event. Here he types in the specifications of what he wants the AI to produce.



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This is the American Freedom Train in 1976. This is a model. Make a scene around the model of the St Louis River front. the train is parked on wharf street. The arch grounds are in the background. show lots of people standing around the train. Have the top of the locomotive venting steam around the valves along with a little smoke out the stack. Light the headlight



Your St. Louis riverfront model scene is complete, Kenneth — the American Freedom Train sits proudly on Wharf Street with the Gateway Arch rising behind it, steam venting from the valves, a faint plume from the stack, and the headlight glowing warmly. Crowds in 1970s attire gather around, cameras in hand, flags waving, and the Mississippi glimmers beyond the tracks.

Would you like me to add evening lighting next, with the Arch illuminated and reflections on the river for a dusk atmosphere?

6. While Copilot does put the train down on the Mississippi River, it has problems with where things are. Here it has the train correctly on the west bank of the river, but it put the Arch on the east bank in the background, instead of on the west bank to the right of the photo, where it really is.

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This is the american freedom train in 1976. This is a model. Make a scene around the model of the St Louis River front. the train is parked on warf street. The arch grounds are in the background. show lots of people standing around the train. Have the top of the locomotive venting steam around the valves along with a little smoke out the stack. Light the headlight



Your St. Louis riverfront scene is ready, Kenneth — the American Freedom Train model is now parked right on Wharf Street with the Arch grounds rising behind it, crowds gathered around, the headlight glowing, steam drifting from the valves, and a light plume from the stack. If you want to tweak the era, the density of the crowd, or add riverboats along the Mississippi, I can shape it exactly the way you picture it.

7. In this photo, the Arch is correctly on the west bank with the St. Louis skyline behind it, but the Freedom Train is on the east bank of the river, when actually it was on the west bank in front of the Arch in 1976.



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Remove Gateway Arch from riverfront train scene

All set, Kenneth — the updated photo with the Arch removed is ready for you now. If you want the background to feel more like the 1976 riverfront — maybe add warehouses, cobblestone textures, or even a riverboat drifting by — just tell me and I'll shape it exactly how you want it.



Edit in a page

8. Working with the picture created in [6], Ken has the program delete the Arch from the background, creating a picture that matches well with his memories of 1976.

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9. This is the final version of this picture. Ken was particularly impressed with the 1970s clothing being worn by the people the AI created.



10. Ken took a photo of one of Roka Models' new spiral tank cars to use in a night shot.



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11. Ken told the AI to create a refinery scene behind the tank car model, and it nailed the task on the first try.

Info: roka-models.com

Layout Construction – Using AI for layout visualization and planning



Ken took this photo of the incomplete city scene in the corner of his layout, then asked the AI to show what it could look like when it is completed.



13. The AI misunderstood the assignment, filling in the aisle with layout.



14. After Ken stressed that he wanted to retain his benchwork in the picture, the AI came up with this one.



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15. Ken continued to play with the AI, generating night scenes and different trains on the track. This was one of the most successful ones, creating a credible Union Pacific train.

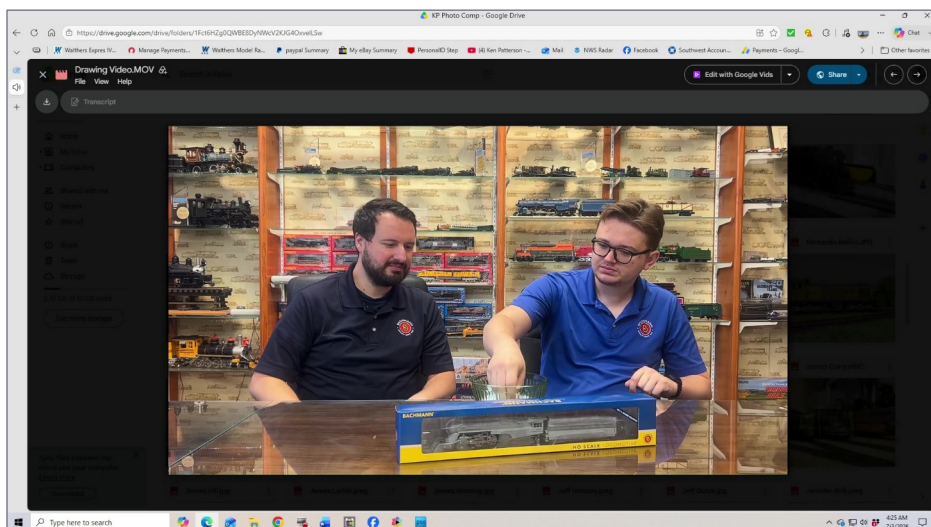
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The Bachmann Drawing for the NYC Dreyfuss Hudson



16. Bachmann's Matt Stern and Tyler Haney draw the winner of the new HO scale New York Central Dreyfuss Hudson model. There were over 100 entries in the contest, which required a photo of the entrant's Bachmann equipment being used – the quality of the photo was irrelevant to the completely random drawing.

To see video and more photos of the BLI Challenger, the other three Savings Bonds cars from Bachmann, several more AI photo manipulations by Ken, and who won the Dreyfuss Hudson, click on the video link at the beginning of the article. The video also contains many of the photos submitted to Bachmann. ☒

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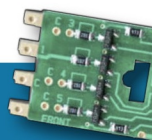
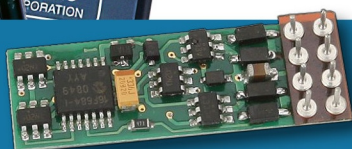
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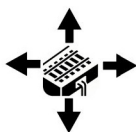
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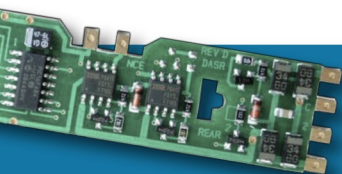
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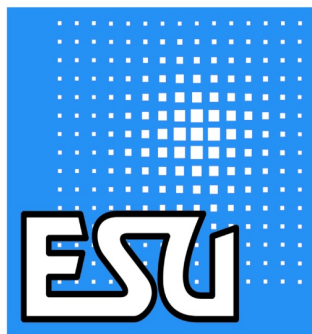


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Electrical impulses: Troubleshooting your layout wiring Part 4



Electrical
Impulses

Model Railroad Hobbyist | July 2026

JOE FUGATE FINAL THOUGHTS ON
THE LAYOUT WIRING
TROUBLESHOOTING PROCESS ...



**THIS FINAL INSTALLMENT IS ABOUT
RECOGNIZING WHEN YOU'RE CHASING SYMPTOMS**
instead of solving root causes. Know when to put down the
multimeter and pick up the magnifier. Use your documentation
as a decision-making tool to save hours on future faults.

Let's review some common systemic causes of layout electrical faults:

1. Shifting insulation gaps
2. Poor solder joints
3. Using rail joiners for electrical continuity
4. Stressed feeders and dead sections

SYSTEMIC CAUSE #1: SHIFTING INSULATION GAPS

A hard short trips the booster on a layout that ran perfectly weeks ago. The track looks completely straight, flat, and flawless. You haven't changed locomotives or modified any wiring, and the fault persists even when you clear all rolling stock.

The short correlates loosely with seasonal weather changes – appearing in winter or summer, but not spring or fall.

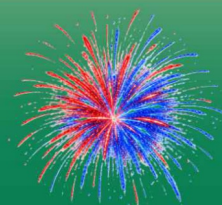
Root cause: The humidity trap

Rail expands and contracts with temperature, but the real problem is humidity. In a typical climate-controlled space, humidity can swing from 15% in winter to 70% in summer – a massive range. Solid wood benchwork absorbs that moisture, expanding and contracting with the seasons, even at constant temperature.



1. One method of insulating gaps uses insulated rail joiners, as shown here. However, they're bulky and unsightly.





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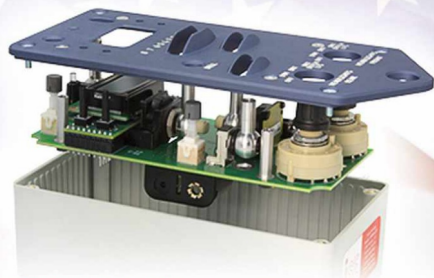
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2. Using black styrene to fill the gaps works well, and the gaps all but disappear when the styrene is trimmed flush with the rail profile. You can buy black styrene sheet for this, or you may have black styrene sprues and scraps left over from various modeling projects.

If you don't have climate control and your layout room experiences temperature and humidity swings, both become your enemy. But for most modelers in a controlled space, humidity is the sneaky variable that catches you off-guard.

How benchwork responds to humidity

When ambient humidity climbs, solid wood lumber expands. Plywood is far more dimensionally stable than dimensional lumber. The real troublemakers are the 2x4s, 1x6s, and 1x8s – they're what swell and shift. The benchwork swells – not dramatically, but measurably.

Even if the track doesn't visibly buckle or warp, the expanding sub-roadbed slowly slides the rails forward by just a fraction of a millimeter. If you left an insulating gap (cut to isolate a reverse

loop, wye, or power district) as raw, open air, this tiny structural shift is all it takes to close it.

Once the gap closes, conflicting electrical phases collide. You get a hard short across the system, and you have no idea why—nothing looks wrong.

Prevention strategy: Physically fill insulation gaps

Never leave an insulating gap empty. Superglue a small piece of styrene directly into each insulation the gap to permanently block it, then file the styrene flush to the rail profile. This physical spacer makes it mechanically impossible for the shifting wood to force the rail tips into contact.

Cut non-insulating expansion relief gaps

Don't make your isolation gaps do double duty as expansion joints. Leave separate, open mechanical expansion gaps every few feet on straight runs using a business card as a spacer. This gives the expanding benchwork a safe place to push the rails together without causing a fault.

Climate baseline timing

Lay track and cut electrical blocks during a season that represents your room's average baseline humidity. Avoid precision track laying on the driest day of winter or the most-humid day of summer – this maximizes the distance the benchwork eventually will travel from where it was when you laid the track.

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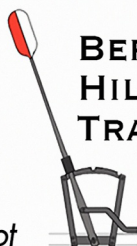


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Dimensional lumber expansion from humidity

15% relative humidity
(Winter dry)

Actual size 3.500" wide

Flat-sawn

1x4

70% relative humidity
(Summer humid)

Actual size 3.579" wide

Flat-sawn

1x4

+0.079"
expansion

This is drawn to scale (not exaggerated)

Effects of grain on stability ...

Flat-sawn* (curved grain)

- Severe width expansion (+0.079")
- Highly prone to cupping / twisting
- Avoid for most stable benchwork



* Most inexpensive lumber is flat-sawn

Quarter-sawn (vertical grain)

- Extremely stable width
- Negligible height shift
- Stays dead flat without warping
- Much better for stable benchwork



(Note: Plywood is even more stable for benchwork)

3. Dimensional lumber expansion due to humidity.





J. Regier

HUMIDITY CONTROL CAN MAKE A DIFFERENCE

A couple of years ago, we bought a piano, and we have had it tuned biannually ever since. It is astounding just how out of tune that thing can get by mid-winter or by mid-summer. While we tend to allow our house to run about 78 in the summer and 68 in the winter, the real factor is again humidity, which distorts the wood of a piano's sound board just as it does that of your layout.

St. Louis winters can be bone-dry, but the summers have often been described as swampy and soupy. We already had a dehumidifier for those soggy summer months to keep things down to about 60%, but our piano tuner recommended a whole home humidifier to help stabilize things for the winter. Initial tests show that it can maintain 30-40% humidity in the home, even when the ambient humidity drops to the single digits.

Through it all, the piano seems to be much happier year-round, the basement less musty in summer, and our throats less dry and scratchy in the winter. In other words, the piano or your layout might be the trigger for the investment, but it can make life easier on many fronts. ■

SYSTEMIC CAUSE #2: POOR SOLDER JOINTS

Your DCC system keeps throwing fault alarms – the booster shuts down, you reset it, run trains for thirty seconds, and it trips again. To make it more frustrating, these faults follow no pattern. The problem occurs with different locomotives and at different locations, sometimes on curved, sometimes on straight track.

So you try Method B, start isolating sections, and can't find anything. Your multimeter shows perfect continuity everywhere, and you find no visible shorts or debris.





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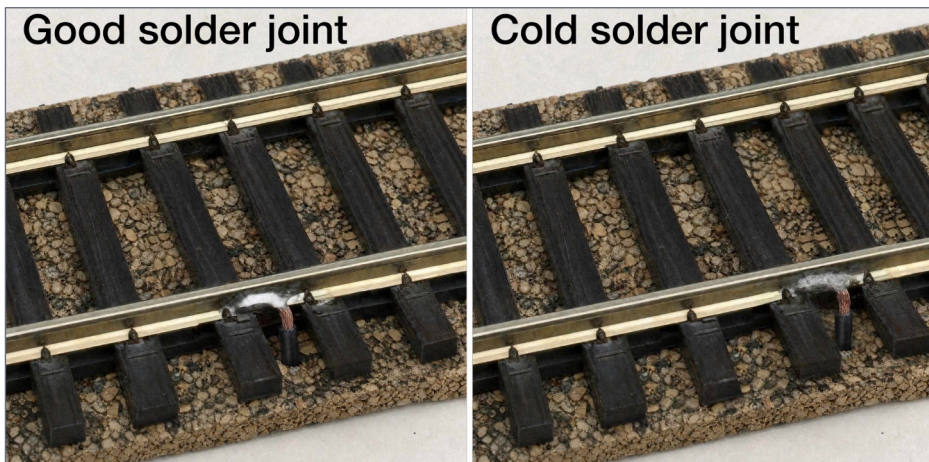
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Most likely, it's a bad solder joint [4]. Solder joints can fail in two completely different ways, and if you don't recognize both patterns, you'll misdiagnose the problem.

The first failure mode, chemical oxidation, kills the joint slowly and silently. You come out to run trains one day, and a section of track is dead. No power, no flickering, no intermittent behavior. Your locomotive just stops.

You test with a multimeter, and get infinite resistance across what should be a solid feeder connection. The joint looks fine visually, but electrically it's an open circuit.

In a poor solder joint, air and moisture trapped between the joint and the base metal causes progressive oxidation buildup. That oxide layer acts as an insulator. Over the months, resistance climbs until the connection is completely open – no drama, no arcing, no warning. Just a dead rail.



4. A good solder joint (left) is shiny and just covers the wire without being an excessive blob. A cold solder joint (right) looks grainy and darker, and it may be subject to unexpected electrical failure at some point in the future.

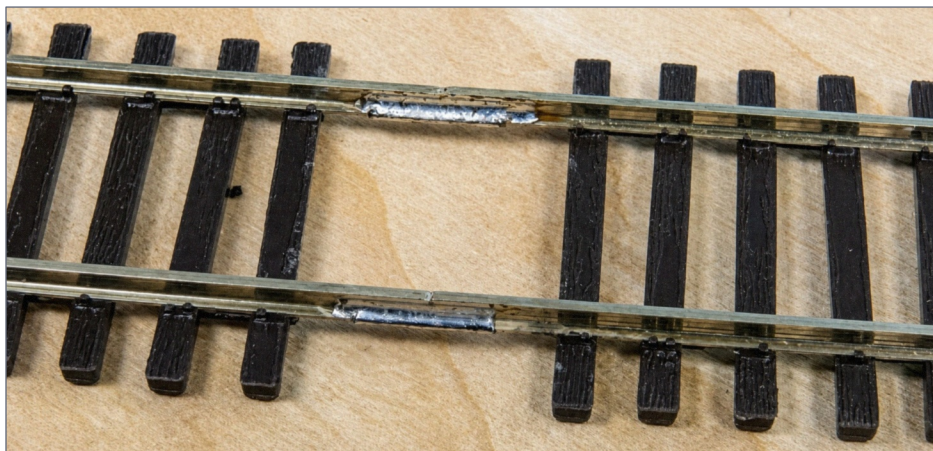
The second failure mode is mechanical with micro-arcing. This is the one that makes you question your sanity. Your DCC system throws short-circuit alarms even though you can't find an actual short.

The fault is intermittent, often triggered by vibration, train movement, or track flexing. It might be impossible to reproduce during static testing, but it shows up reliably when running a train.

Sometimes you might hear faint crackling. Sometimes you might see brief flickering in locomotive headlights.

Your booster keeps tripping, you keep resetting it, and start wondering if your DCC system is defective. More likely, it's a micro-fractured solder joint that's arcing under load. Layout vibrations from trains running, people walking past, even your HVAC cycling can cause a brittle, poorly soldered joint to physically crack at a microscopic level, opening up a tiny gap.

When a locomotive tries to draw current across that gap, the DCC voltage (typically 14V-18V) ionizes the air in that tiny space, creating an electrical arc. That arc generates current



5. This is a good rail joiner soldering joint. Smooth and flowing without being excessive or constraining wheel flanges. Both sides of the rails look like this.





6. The lower rail joiner solder joint is good, but the upper one is a cold solder joint and needs to be redone.

spikes and electrical noise, which your DCC system detects. The system interprets them as a short-circuit, and shuts down to protect itself.

Both failure modes are preventable with good soldering technique. Reflow the joint with proper heat and rosin-core flux to create a true metallurgical bond. This will provide the proper mechanical support to eliminate vibration stress.

Clamp (with rail joiners) *and* solder the joints. Solder alone isn't enough if the wire vibrates, and clamping alone isn't enough if the joint is cold.

SYSTEMIC CAUSE #3: JOINER CONTINUITY PROBLEMS

Joiner continuity problems will drive you crazy. They manifest as a locomotive stalling at random joints, sometimes the same joint, sometimes at different joints.

Clean the rail, burnish the joiner with a Bright Boy, verify continuity with a multimeter, and it works perfectly for months or even more. Meanwhile, a different joint starts acting up.

Rail joiners were never designed to conduct electricity. They are *mechanical* fasteners intended to hold two pieces of rail in alignment so your trains don't derail.

The fact that they're made of metal and sometimes conduct electricity is *incidental* to their actual purpose. When you rely on that incidental metal-to-metal contact for your electrical path, you're building failure into your layout from day-one.

Does your locomotive stall or hesitate at specific rail joints? Do you get intermittent power loss or false short-circuit alarms that move from joint to joint? Does cleaning or wiggling the track temporarily fix the problem, only to have it return weeks or months later?

These are all signs of joiners being asked to do a job they weren't designed for.

Root cause: Contact mechanics

Even a brand-new rail joiner contacts the rail at only a few tiny points – maybe three or four spots where the spring tension presses against the rail web. That's your entire electrical path: A few microscopic contact points trying to carry all the current your locomotives need.

Add vibration from passing trains, thermal expansion and contraction, and oxidation from humidity. Also consider that rail joiners are stamped from thin metal sheet, which work-hardens and loses spring tension over time.

The degradation process

The contact points degrade over time, and the joiner loosens or oxidizes slightly. It's not enough to see, but enough that electrical contact becomes intermittent.

When a locomotive tries to draw current across that degraded connection, you get the same micro-arcing problem I described with fractured solder joints: A microscopic gap



opens, DCC voltage ionizes the air, an arc forms, and your booster interprets it as a short-circuit and shuts down.

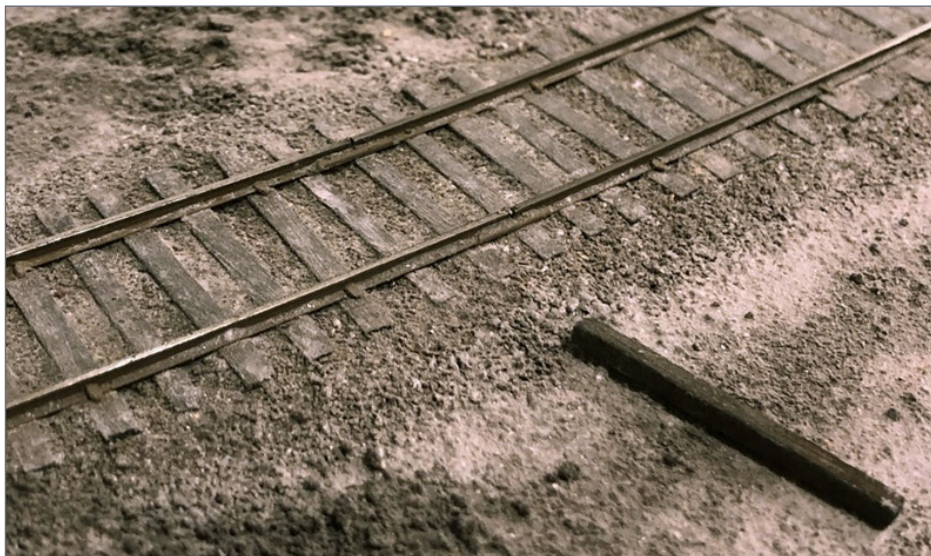
Or worse: Intermittent stalling

Rather than a dramatic short, you just get intermittent stalling. Your locomotive slows down at that joint, the decoder resets, and the headlight flickers, so you blame the locomotive.

Cleaning the wheels and adjusting the decoder don't make the problem go away. The real problem is six inches away at a rail joiner that looks perfectly fine, but is electrically failing.

Why tightening doesn't work long-term

Many modelers try fixing rail joiner issues by tightening the joiner or swapping-in a fresh one. That works – temporarily. The new joiner has good spring tension, and makes solid



7. Soldered rail joints don't have to be ugly. In this photo from my Siskiyou Line 1 layout, I used enough solder to saturate the rail joint, but not so much that it blobbed up outside the rail joiner. Once painted, the joints virtually disappear. The single tie is pointing at such a rail joint.

contact for now. Give it a few months, and you're right back where you started.

You can't maintain reliable electrical contact through a mechanical friction connection that's constantly vibrating and oxidizing. It's not a question of *if*, but when it will fail.

A belt-and-suspenders prevention strategy

A belt-and-suspenders approach works for this: Solder your rail joints and make sure each piece of rail has its own feeder. Stop asking bare rail joiners to conduct electricity, and treat them as mechanical-only connections.

Solder your joints

For insurance, solder every rail joint except expansion joints where you need the gap for thermal movement.

When soldering joiners, I'm not talking about a tiny tack of solder on top of the joiner – I mean a proper soldered bond between the rail ends, with the joiner acting only as mechanical alignment. Heat both rails until they're hot enough to melt solder on contact, apply flux, and let the solder flow into a smooth fillet that bridges both rail ends.

Now your electrical continuity doesn't depend on spring tension or contact patches. It's a solid metallurgical bond.

Feed every rail

Second, place feeder wires on every single piece of rail 12" or longer so each rail section has its own direct connection to your bus line. If it's under 12", I solder the rail joiner and that's how it gets its power; it doesn't need its own feeder.

This way current flows through solder *and* wire – never through the joiner alone.

The return-on-investment question

Although this belt-and-suspenders approach requires a lot of soldering and feeders, the investment is recovered in time

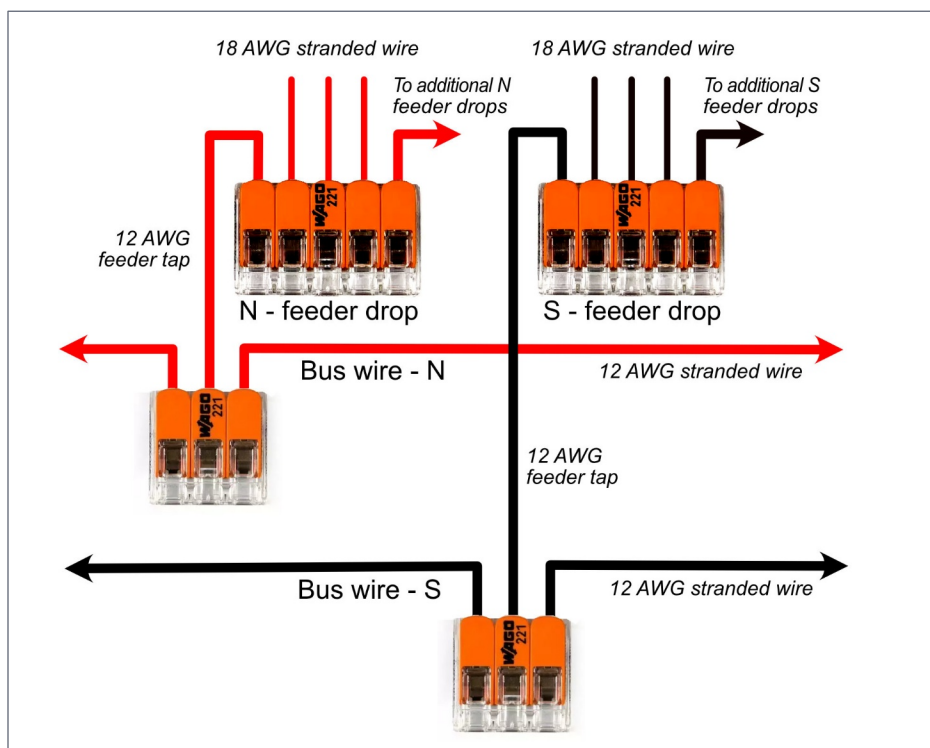


saved. You won't have to spend time chasing intermittent stalling at rail joints, and you won't have to clean or replace the joints only to have the problem resurface. You won't have mysterious shorts that vanish when you wiggle the track disrupting your operating sessions.

SYSTEMIC CAUSE #4: STRESSED FEEDERS AND DEAD TRACK

Recognition pattern

A section of track that worked perfectly last month suddenly has no power. Locomotives stop dead when they enter it, but run fine everywhere else.



8. I now recommend using WAGOs for layout wiring. Their nature encourages leaving wires loose enough that feeders don't get stressed from benchwork seasonal changes.

Your booster isn't tripping – no short alarm, no fault indication. The rails look clean.

You test with a multimeter and get nothing – zero voltage at the rails. It's not a short but an open circuit.

And it often shows up after seasonal humidity changes or after you've modified your benchwork.

Root cause – the time bomb

This is the failure mode most modelers never see coming because it's invisible until it strikes catastrophically. When you route feeder wires under tension – stretched tight from the bus to the rail with no slack – you've created a time bomb.

Wood benchwork expands and contracts with humidity changes, and sometimes will even twist. Not much – maybe a sixteenth of an inch – but enough that the benchwork's movement pulls on that taut feeder wire. The wire flexes, stresses, and eventually fractures internally or snaps completely at the solder joint.

You now have an open circuit, and no power reaches that section of rail. The wire looks fine from the outside, but inside the solder joint, it may be broken.

What catches modelers off-guard

Many think about preventing shorts (Cause #1), but not opens. A closed gap creates a short that trips your booster immediately – loud, obvious, impossible to miss. A snapped feeder creates dead track that you might not discover until you run a train into that section weeks later, and it fails silently.

Prevention strategy overview

You can't stop benchwork made from dimensional lumber from moving with humidity. Fighting it is futile. *(There are answers, however, more on that in this column in August – ed.)* Ideally, build your wiring so it absorbs any benchwork movement without transmitting stress to the connections.



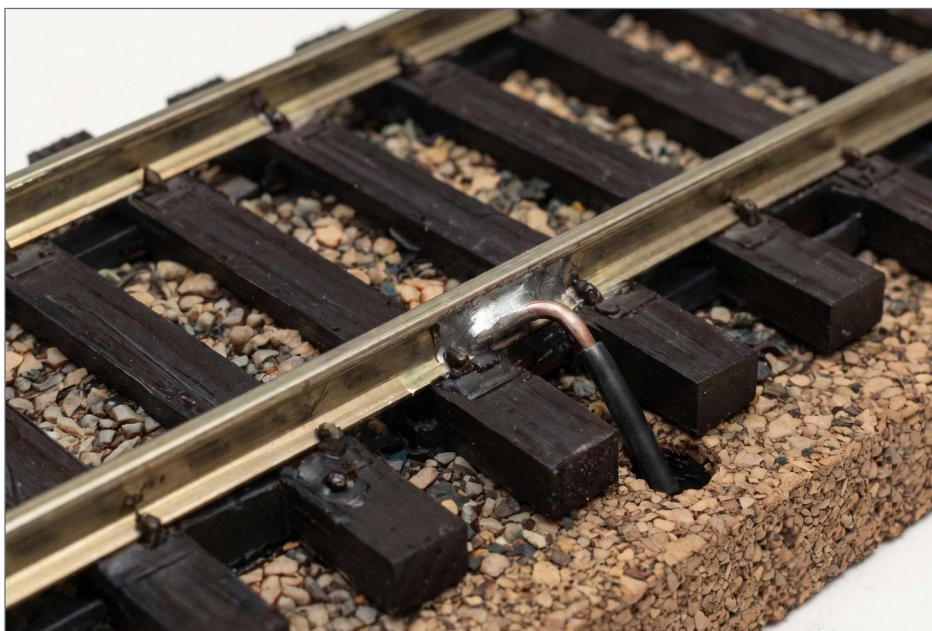
The slack-and-curves principle

Route all feeder wires with intentional slack using gentle curves and loops. Prefer stranded wire so you don't get unexpected metal fatigue breaks.

When you run a feeder from your bus wire up to the rail, don't pull it tight. Make sure it has some slack. Leave a visible droop or curve in the wire – enough slack so the benchwork can shift a quarter-inch in any direction without putting tension on the wire. Think of a strain relief on a power cord.

WAGO connectors and stranded wire

I recommend using WAGO push-to-connect lever connectors with stranded wire, never solid wire for your layout. WAGOs



9. You can use solid wire for feeders, but I don't recommend it. Solid wire is susceptible to breakage from metal fatigue; prefer stranded wire instead. The price difference is not that great when you consider the durability benefits.

naturally encourage proper wiring technique. Strip the wire, push it in, flip the lever – done.

Since you're not holding wires together while soldering, you naturally leave slack in the wire routing. The connector sits on your bus, and the feeder wire curves up to the rail in a gentle arc. That arc is your strain relief.

Loose clamping, not rigid anchoring

Use cable clamps or wire guides that hold wires loosely. Don't use hot glue or adhesive that locks the wire in place. The wire needs to slide slightly within its routing path when the benchwork shifts. Think "guided" rather than "glued."

Overall philosophy – give wiring room to breathe

The pattern is consistent – humidity-driven benchwork movement is inevitable. Your wiring needs to accommodate it, not fight it.

Slack, curves, and flexible materials absorb movement. Tension, sharp bends, and rigid anchoring concentrate stress until something breaks.

Belt-and-suspenders implementation

If you're doing new construction or rewiring a section, you can implement all these strategies together. Each one reduces risk. Combined, they make stressed-feeder failures virtually impossible.

Connection to Cause #1

This is a different failure mode from Cause #1 (shifting insulation gaps), a different symptom, with a different prevention – but same root cause – benchwork movement from humidity.

The difference is whether that movement closes a gap (creating a short) or stresses a wire (creating an open). Both are preventable if you understand the mechanism and build accordingly.





10. Using an Optivisor and the light on your phone (left hand) can help you find the root cause for pesky shorts in your trackwork.

THE STRATEGIC HAND-OFF

Your multimeter can tell you *where* the problem is, but not *what* the problem is. That's a different skill entirely.

Methods A, B, and C are powerful tools for narrowing-down a fault. They'll take you from "somewhere on my 200-square-foot layout" to "this specific six-inch section of track between the turnout and that rail joint."

That's tactical precision – and it's essential. But once you've isolated the location electronically, the multimeter's job is done. Now you need to find the actual physical cause – the solder whisker, the metal filing, the wire strand, the closed gap, the piece of ballast wedged where it shouldn't be.

This is where most troubleshooting guides stop. They teach you how to zero-in on the location, then leave you to figure out what's actually causing the short.

That's like teaching someone to use a metal detector but not how to dig. You know where to look – now you need to know how to look.

Here's the approach I recommend.

Visual diagnosis

You already know how to use a flashlight and magnifier – Parts 1, 2, and 3 covered that.

Now I want to focus on **what visual clues immediately tell you the likely causes you're dealing with.** This isn't about technique but about pattern-recognition. Learn to recognize these patterns, and you'll know not just where the fault is, but why it happened and *how to prevent it from coming back.*

Closed gaps from benchwork movement

Look at your insulation gaps first. Are the rail ends visibly touching or nearly touching – close enough that you can't see daylight between them? Is there a gap on one side of the rail but not the other, suggesting the rails have shifted laterally? If you press down gently on the rail, does the gap close completely?

These are signs of **humidity-driven benchwork expansion.** The rails themselves look fine – no visible debris, no obvious problems – but the gap has closed mechanically.

You'll often see this paired with slight rail misalignment or a subtle kink in the track that wasn't there before.

Solder joint failures

A **good joint** is smooth, shiny, and slightly concave where the solder flowed into the connection.

A **failed joint** is dull, grainy, or blobby – solder sitting on top of the surfaces instead of bonding to them.

Look for visible cracks radiating from the joint, or tiny wire whiskers radiating out of the joint that potentially create a power route that should not be there. Sometimes a joint looks fine from one angle but shows a hairline fracture from another.



Oxidized joints often look dark and tarnished, instead of the bright silver of fresh solder. If you spot any of these signs, you're dealing with cold solder joints.

Rail joiner problems

A **healthy joiner** sits tight against the rail, with no visible gap between the joiner and rail base. A **failing joiner** shows visible space – you can see daylight between the metal surfaces.

Discolored joiners (dark brown, black, or green instead of bright metal) signal oxidation blocking electrical continuity. Loose joiners wiggle when touched. Properly installed joiners stay snug and don't move. If you're seeing these signs, you might be using your joiners for electrical continuity – and they're failing.

Stressed feeders

Follow every feeder wire from the bus connection to the rail.

Does the wire run in a gentle curve with visible slack, or is it pulled tight and straight?

Look for sharp bends or kinks near connection points. Is the wire anchored rigidly to the benchwork with hot glue or adhesive (not ideal), or does it have freedom to move (ideal)?

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Check where the wire connects to the rail – is there mechanical stress at the solder joint, or does the wire approach the rail with a relaxed curve?

Stressed feeders often show:

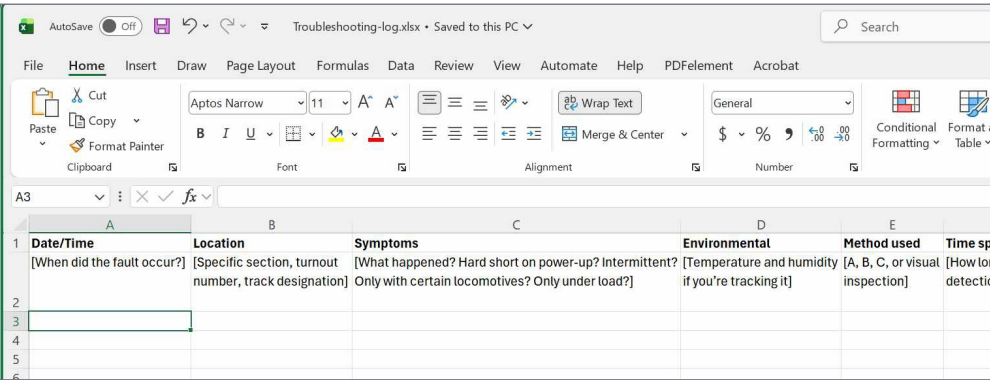
- Kinked wire
- Tight routing with no slack
- Rigid anchoring that prevents the wire from absorbing benchwork movement

Sometimes the wire has already fractured, but is still making intermittent contact, which explains why the fault comes and goes.

But here’s where some modelers stop – they find the problem, fix it, and move on. They don’t write it down. Six months later when the same fault returns – or a similar fault pops up somewhere else – they’re starting from scratch again. That’s where strategic documentation changes everything.

STRATEGIC DOCUMENTATION: BEYOND RECORD-KEEPING

It’s tempting to think documentation is busywork – just scribble the date, location, and what you found, then move on. But vague



A3					
1	Date/Time	Location	Symptoms	Environmental	Method used
	[When did the fault occur?]	[Specific section, turnout number, track designation]	[What happened? Hard short on power-up? Intermittent? Only with certain locomotives? Only under load?]	[Temperature and humidity if you're tracking it]	[A, B, C, or visual inspection]
2					
3					
4					
5					
6					

11. In [this month’s bonus extras](#), we provide this Excel spreadsheet for documenting your troubleshooting efforts. Building a database of issues is working smarter, not harder.



notes like “Short in yard – fixed” are worthless when the same problem returns three months later.

You need detailed records that tell you exactly what happened, where, and how you solved it, so next time you’re not starting from scratch. Documentation isn’t about recording what happened. It’s about building a decision-making tool that makes you faster and smarter.

Method efficiency by location

When you encounter a new fault, check your records. Have you solved this exact problem before – same location, same symptoms? Which method found it fastest?

This is where documentation pays off. When you track which method worked and how long it took, patterns emerge.

You might discover that **Method B** consistently finds faults in your yard throat in 15-20 minutes, while **Method A** takes 45+ minutes and often fails to isolate the problem. Or that **Method C** is your fastest tool for hidden staging areas because the progressive isolation approach works perfectly when you can’t see the track.

NormalBadGood NeutralCalculationCheck Cell Styles InsertDeleteFormat Cells Σ AutoSum FillClear Editing Sort & FilterFind & Select Editing Add-ins Add-ins Create and Share Adobe PDF Adobe Acrobat CommentsShare				
F	G	H	I	J
ent	Cause found	Fix applied	Prevention	Other notes
g from	[Specific physical problem – be detailed]	[Exactly what you did to repair it]	[Any systemic fix implemented?	[Anything unusual, lessons learned,
on to fix?]			If so, add to watch list]	things to remember]

Or that turnout faults respond best to **Method A's** static testing because the geometry makes rolling shorts unreliable.

Your layout likely has its own mix of the best troubleshooting methods. Your most-efficient methods may be specific to your track plan, your wiring approach, and your benchwork construction.

After logging faults with method-selection and time-to-resolution, your documentation offers a troubleshooting database – telling you not just what worked, but what worked fastest and where.

The same tracking validates your prevention strategies. When you implement a fix – widening a gap, re-flowing solder joints, adding mechanical support – note the date and what you expect to change. Then recheck that location over the next few months.

If the recurring fault stops, you've validated the strategy and can confidently apply it elsewhere. If the fault returns, you know your fix didn't address the actual root cause. This long-term documentation is the only way to know whether you're solving problems or just treating symptoms.

FINDING HIDDEN ENVIRONMENTAL PATTERNS

Individual troubleshooting sessions are snapshots. Documentation over time reveals the entire movie. If you're fighting recurring faults in the same section – different specific causes each time, but always the same general area – there's likely a systemic factor at work.

Faults might occur months apart, so the pattern won't be visible from any single session. This is where tracking environmental conditions alongside your fault data becomes valuable. Mount an inexpensive indoor thermometer/hygrometer near your layout, and add those readings to your log.



After several months, patterns might emerge that could otherwise remain invisible.

You might discover that:

- A problem section only acts up when humidity climbs above 60% – suggesting benchwork expansion is closing gaps or shifting components
- Certain faults correlate with rapid temperature swings when your HVAC cycles on and off
- Winter months with forced-air heat and 25% humidity produce zero faults in areas that are troublesome during humid summer months

These correlations only become visible with long-term data.

Once you spot the pattern, you can implement targeted environmental controls – a small dehumidifier, better HVAC management, strategic placement of additional expansion gaps – that prevent entire categories of faults, rather than treating symptoms one at a time.

Here's the key insight: If you're repeatedly fixing the same general location but the specific cause varies each time, you're probably dealing with environmental movement in the benchwork.

STOP GOING IN CIRCLES

Difficult faults are prone to circular troubleshooting – you check something, rule it out, move on, then an hour later you've forgotten what you already tested.

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When you're working on a stubborn fault, document everything you try – even the things that don't work.

Write entries like:

- “Checked all feeders in section 3 – all secure and properly soldered.”
- “Inspected turnout #7 frog under magnification – no debris, no solder bridges.”
- “Tested all rail joiners for looseness – all tight.”

This running log prevents you from going in circles. For difficult faults that span multiple sessions over several days, documentation is essential. Without the written record, you're starting over every time you pick up the investigation.

The documentation format

Here's a template I recommend:

Date/Time (When did the fault occur?)

Location (Specific section, turnout number, track designation)

Symptoms (What happened? Hard short on power-up?
Intermittent? Only with certain locomotives? Only under load?)

Environmental (Temperature and humidity if you're tracking it)

Method Used (A, B, C, or visual inspection)

Time Spent (How long from detection to fix?)

Cause Found (Specific physical problem – be detailed)

Fix Applied (Exactly what you did to repair it)

Prevention (Any systemic fix implemented? If so, add to watch list)

Notes (Anything unusual, lessons learned, things to remember)

Keep these records in a simple spiral notebook at your workbench. Some prefer spreadsheets (that's me). Others use a



note-taking app on their phone. The format matters less than building the habit of doing it consistently.

Your documentation is building a smarter version of yourself – one that learns from every problem instead of solving the same ones over and over.

CONCLUSION

You started trying to find one stubborn ghost short. You're finishing with a complete troubleshooting system that gets smarter every time you use it. That's not a small shift.

The next short you encounter isn't an annoyance. It's an opportunity to apply what you've learned, add to your troubleshooting database, and make your layout more reliable. Now you're ready for whatever your layout throws at you. ☑

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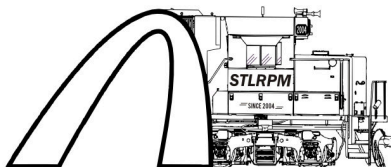
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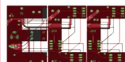
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Jerry Holmes' 1952 Chesapeake & Ohio



JOE FUGATE TOURS THIS SCENIC S SCALE
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1. A C&O H8 2-6-6-6 Allegheny pulls a coal drag through Covington, VA on Jerry Holmes S scale layout. The C&O specifically engineered this loco to haul massive, heavy coal trains over the punishing grades of the Allegheny Mountains.

Model Railroad Hobbyist | July 2026



STEP INTO JERRY HOLMES' LAYOUT ROOM ON ELDER MOUNTAIN, west of Chattanooga, Tennessee [2], and you're transported to the rugged Appalachian landscape of the early 1950s.

Rolling mountains draped in hardwood forests rise above coal towns and industrial sidings. Massive articulated steam locomotives – Alleghenys / H8s – labor upgrade with strings of hoppers, their sound systems echoing through valleys carved in plaster and foam.

In S-scale, with its 1:64 proportion, every detail commands attention. The scenery isn't just backdrop; it's a character, and Jerry has given it the stage it deserves.



2. Jerry's home is located at the top of Elder Mountain, west of Chattanooga, Tennessee and has this amazing view. The arrow points to downtown Chattanooga.



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Jerry Holmes

Jerry might not sweat the small daily details at 93, but his engineering mind remains perfectly dialed in when it comes to what matters most: the crisp, unwavering accuracy and majesty of Chesapeake & Ohio steam power.



Mark McAllister

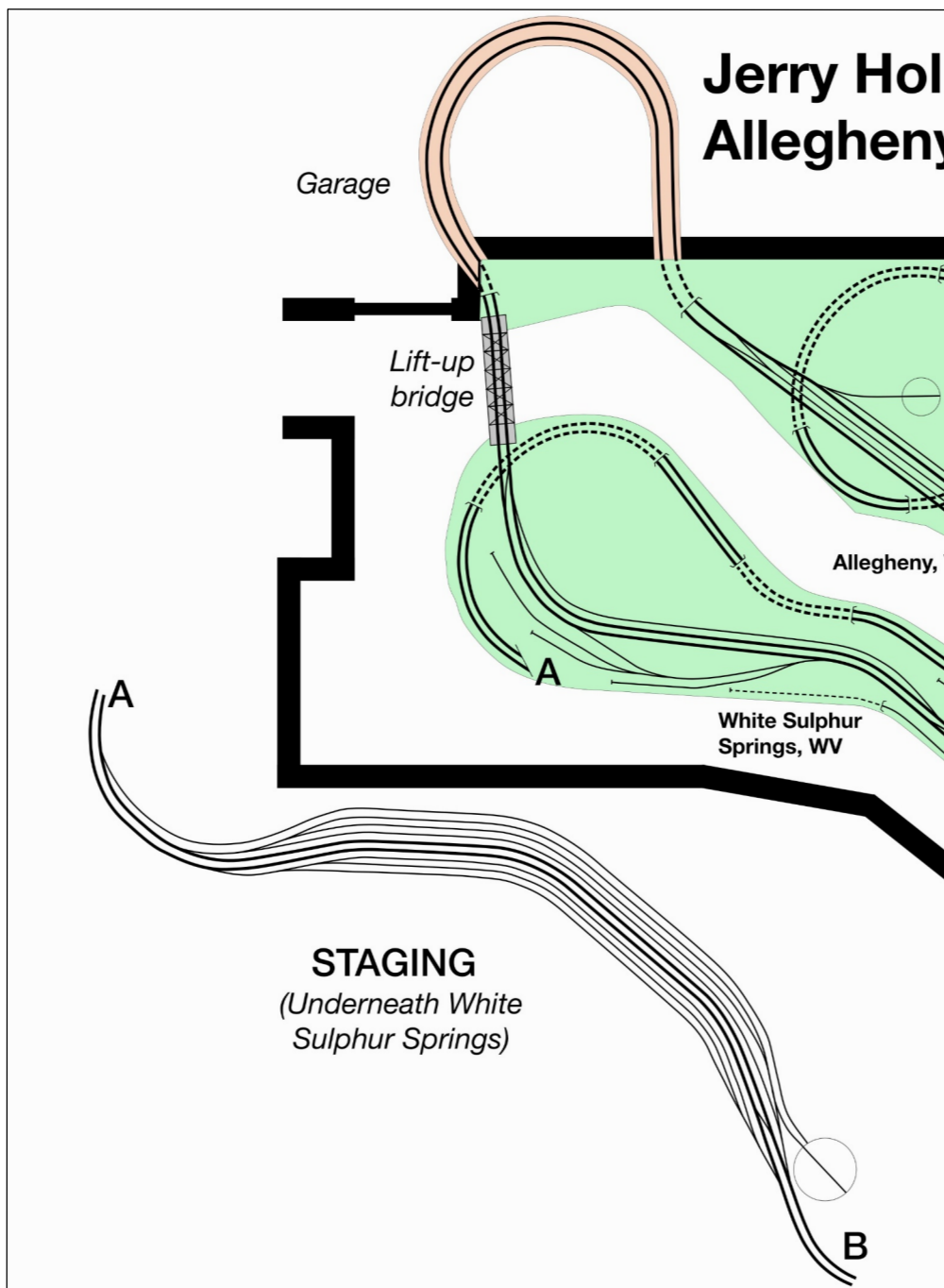
His longtime collaborator Mark McAllister, who has worked alongside him for 26 years, fills in the construction details and technical specifics. Mark, now product support manager for Scale Trains Inc. of Cleveland, Tennessee, has been instrumental in bringing Jerry's vision to life – building benchwork, crafting scenery, scratchbuilding structures, and maintaining the fleet of locomotives and rolling stock.

But make no mistake: this is Jerry's railroad, born from his structural engineering mind and his passion for recreating an 80-mile section of the C&O as it appeared in 1952.

Together, their voices tell the story of a layout that took over a quarter-century to build – a model railroad that stands as both technical achievement and loving tribute to a vanished era of American railroading.

THE ENGINEER'S MIND

Jerry isn't just a model railroader – he's an engineer by profession, a pilot, and a former business owner.

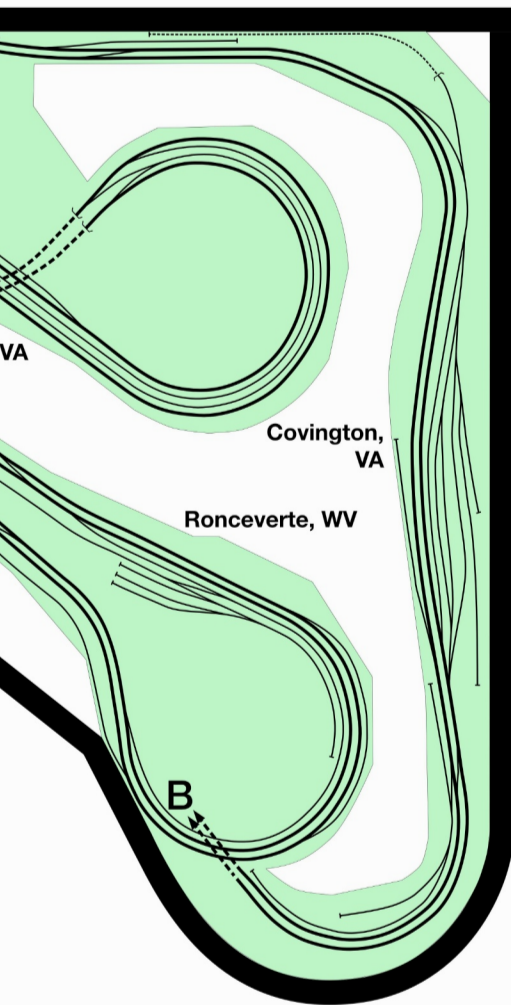


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mes' 1952 C&O y Division



3. This is the track plan for Jerry Holmes' layout. Note the loop at the upper left that goes through the garage at the top. The staging section shown on the left fits under White Sulphur Springs.



That combination of technical precision, spatial thinking, and entrepreneurial vision shaped every aspect of his layout, from initial planning to the final details of track alignment and scenery placement.

MRH Staff (Joe Fugate): Jerry, tell me about your background and how it influenced your approach to building this layout.

Jerry: As an engineer, I wanted everything accurate and realistic. I approached the layout the same way I approached any engineering project – with careful planning and attention to detail. Everything had to make sense and work right. That's just how my mind works.



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MRH: You had trains as a kid, right? How did your hobby journey progress from there?

Jerry: When I was a kid, I got my first Lionel set with pretty realistic steam engines. After I got back into the hobby years later, O gauge was too large for my room. I didn't like H0 because it was too small to handle comfortably. So I went with S gauge.

THE H8 CATALYST

Choosing S scale was one thing; finding quality steam locomotives in that scale was another.



Jerry's discovery of a limited production run of Chesapeake & Ohio H8 locomotives became the turning point – the moment that committed him to S scale and determined which prototype railroad his layout would represent.

4. Pere Marquette Berkshire 1225 leads a westward freight out of a hillside tunnel, passing two workers and their blue pickup at the Greenbrier River bridge. Jerry has nicely captured the look of early autumn in this West Virginia scene.

MRH: When you decided on S scale, how did you find equipment? There's not much available in S.

Jerry: At that time, you couldn't buy an off-the-shelf steam locomotive because everything was shifting to plastic diesel locos and hobby shops were following suit. When I found out this company was running a limited number of H8 locomotives, I put in a deposit for one. Then when I learned they were only manufacturing 50, I ordered two more. So I already had quite an investment in that scale.

MRH: So the locomotives drove the decision about which railroad to model?

Jerry: Absolutely. Once I had those three H8s on order, I was committed to the C&O.



5. This heavy articulated locomotive H8 2-6-6-6 is a brass model from River Raisin Models. The scene is set in the operational hub of Alleghany, Virginia, in the autumn of 1952. The scene includes a number of handbuilt structures, a red CB&O boxcar, and active cattle pens right beside the servicing tracks.





6. The H-8 Allegheny leads a coal drag along the tracks at White Sulphur Springs, West Virginia. The scene, dominated by a timber coal trestle, captures the heavy traffic characteristic of the Chesapeake & Ohio Railway's Alleghany Subdivision.

PLANNING THE DREAM

With Jerry's vision established and his locomotives on order, the real work began.

This is where Mark's story intersects with Jerry's – a collaboration that would span more than a quarter-century. Mark provides the details of how Jerry's carefully engineered plans became three-dimensional reality.

MRH: Mark, when did you and Jerry start working together on this layout?

Mark: I came up since we were already friends. I did a few things here and there, and 20 years later we had a railroad built.

MRH: You mentioned everything was planned out beforehand. Walk us through that process.

Mark: It went smoothly because Jerry spent so much time planning the railroad. Every aspect – the wiring, the benchwork, the scenery, what goes where. Everything was drawn to scale, so we knew exactly where it would all go.

The track plan is basically folded dog bones stacked over each other.

Jerry went through multiple iterations, drawing and redrawing, before settling on the final design. That's the engineer in him – nothing left to chance.

When we started building, we had a roadmap for everything.

THE SPACE CHALLENGE

Even with meticulous planning, Jerry faced a fundamental constraint: the physical boundaries of his property on Elder Mountain.



7. A pair of brand new blue, gray, and yellow EMD F7 passenger units idle at the Covington, Virginia yard. This yard scene also shows a couple of newly delivered C&O EMD GP7 road switchers waiting near the scratch-built brick freight house and coaling tower.



The layout room was built to maximize square footage, but representing 80 miles of mountainous C&O mainline in S-scale demands more space than even a purpose-built room could provide.

That's when Jerry's engineering mind produced one of the layout's most innovative features.

MRH: Mark, tell me about the space you had to work with. What were the limitations?

Mark: The room itself was built as a custom piece. Where the railroad room is now, there used to be a cabana for the outdoor pool. The cabana was razed, and the room was built to take up every bit of additional real estate they could. There's only space for a walkway between the room and the property line.

MRH: So you were basically maxed out on space?

Mark: Even so, we ran out of real estate. That's when Jerry came up with the idea of extending into the garage, which created its own challenges.

MRH: How did you solve the problem of running track into a garage where vehicles need to park?

Mark: We ended up with a fairly large loop out in the garage that's cantilevered and supported over the vehicles parked below. That has worked very well, and over the railroad's 26 years of existence, there's been zero trouble with it.

BUILDING TO PROTOTYPE STANDARDS

Jerry's commitment to authenticity didn't stop with choosing the right locomotives or recreating specific locations.

It extended to the fundamental engineering of the railroad itself – the grades, the curves, the control systems.

Everything had to reflect the prototype as closely as possible within the constraints of a model railroad. These technical specifications reveal how seriously Jerry took the challenge of miniaturizing 80 miles of mountainous C&O mainline.

MRH: Mark, what's the ruling grade on the layout? In those mountains, I imagine you're dealing with some significant elevation changes.

Mark: The ruling grade? About a quarter of a percent.

It looks steeper than it is, but from the low point to the high point, the railroad winds around considerably. So the ruling grade is pretty light.

The prototype C&O line through this section had about a 0.6 percent grade, so we're actually pretty close to scale.

MRH: What about minimum radius? With S-scale equipment, especially those big articulated locomotives, you need some generous curves.

Mark: Jerry says the minimum radius is 42 inches.

That gives us the room we need for those Allegheny H8s to look right going through the curves. Nothing looks toy-like or compressed. It all flows naturally, the way the prototype would.

8. H-8 Allegheny No. 1659 rounds the bend on a four-track mainline, hauling an heavy coal train through rugged Virginia landscape. The train passes under a hillside water tank, giving you a sense of just how large and heavy these trains were on the real Alleghany Subdivision.



MRH: The layout uses DCC for control, correct?

Mark: It does.

This railroad uses the NCE Powerhouse system and has run quite well since the very beginning. Jerry's son Mike, who's also a structural engineer, handled most of the wiring and designed the control panel.

It's a sophisticated setup, but it's also reliable – which was non-negotiable for Jerry.

MRH: What about sound? Are the locomotives equipped with sound decoders?



Mark: All the locomotives have DCC and sound, with a variety of decoders – Tsunami, TCS, and ESU.

A few from the early days still run QSI decoders that'll likely fail eventually, but if it ain't broke, we don't fix it.

When you hear those Alleghenies laboring upgrade with a full consist of hoppers, the sound fills the room. It's one of those things that brings the layout to life – you're not just watching trains, you're experiencing them.

Keeping the fleet running

With sophisticated DCC control and sound systems in place, the layout's technical infrastructure was solid.

9. H-8 Allegheny 1659 continues pulling its heavy coal drag forward as it approaches the dual portals of Lewis Tunnel. This scene faithfully replicates the prototype's signature twin bores through this rugged Virginia mountainside.



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But running heavy S-scale steam locomotives and long passenger consists day after day presents challenges – challenges that require patience, mechanical skill, and a willingness to get your hands dirty.

Mark has spent countless hours keeping Jerry's fleet in top operating condition, and the work is never finished.

MRH: Mark, what have been the biggest maintenance challenges with the locomotives and rolling stock over the years?

Mark: We've spent quite a bit of time getting some of the passenger cars to run properly because they're so lightweight. It wasn't just adding weight – we had to tweak the truck structure and all that. Everything has to move just right.



If it doesn't, you'll find every imperfection in the track.

Same thing goes for the Alleghenys, as nice as those locomotives are. We've had them apart stem to stern because of drivetrain issues, and each one weighs about five and a half pounds.

Even though they're well-lubricated and well-built, they're still steam locomotives – there's a lot of maintenance to them.

Scenery and backdrop: Bringing history to life

While Jerry's engineering mind shaped the track plan and infrastructure, the visual artistry that brings the Appalachian landscape to life required a different skill set – one that Mark developed and refined over more than two decades of scenic construction.

From hand-crafted trees to custom-painted backdrops, the scenery work transformed Jerry's precisely engineered railroad into a convincing recreation of 1952 West Virginia coal country.

MRH: Mark, you've been heavily involved in the scenery work on the layout. Tell me about your role in creating these mountain landscapes.

Mark: I helped with the scenery quite a bit. I've built over a thousand trees and done a lot of the rockwork. I built some of the mountain ranges and the supporting structure underneath them, especially above the town of Allegheny.

Jerry had a friend paint the custom backdrop – an artist who was also a modeler. He came down from up north and spent about a week on it. The backdrop matches the scenery perfectly.

MRH: When you're building scenery for a specific prototype location like this – the C&O through the Appalachians – how do you approach matching the real landscape? What references did you use?



Mark: Jerry was particular about authenticity, so we studied photographs of the actual locations. We looked at the types of trees and rock formations native to that part of West Virginia.

We focused on:

- The hardwood forests
- The way the mountains roll
- The coal tipples and industrial structures

Everything had to look right for that specific place and time.

It wasn't just about making pretty scenery; it was about making accurate scenery. That's what Jerry demanded, and that's what we worked toward.

The scenery work continued throughout the entire 26 years of construction, always refining and trying to get closer to the prototype.



10. An eastbound passenger train passes the freight house, pulled by a classic Chesapeake & Ohio 2-8-2 light Mikado, heading toward the lift-bridge at the entrance to Jerry Holmes' layout room. This bridge lifts to allow walk-in access to the center of the S-scale model railroad.

White Sulphur Springs: Where history stopped

Not all locations on the C&O mainline were created equal. Some were simply coal towns or water stops, functional places where trains paused briefly before continuing through the mountains.

But certain locations held special historical significance.

Jerry chose to feature one of these locations prominently on his layout, recreating it with particular care.

MRH: Mark, I noticed the White Sulphur Springs section seems to have received special attention. Tell me about this area and why it was important to Jerry.

11. A loaded coal train rounds a multi-track turnback curve suspended near the ceiling in Jerry's garage. Leveraging his design engineering background, Jerry solved this space limitation by cantilevering the loop out over the family automobiles.



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Mark: White Sulphur Springs, West Virginia, was a very special place. If you've been there, you know about The Greenbrier Resort, the famous hotel perched on the hill behind the depot. Countless trains stopped here. More dignitaries than I can name passed through. Several US presidents made this a favorite stop. This wasn't just another depot on the line – this was where history happened, where important people came and went. Jerry wanted to capture that significance.

MRH: What specific features did you include to represent this location accurately?





12. A classic Chesapeake & Ohio passenger train emerges from a concrete tunnel portal as it rolls into Ronceverte, VA, just ahead of a string of distinctive blue, yellow, and gray passenger cars.



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Mark: Behind the depot, we've represented a private car parking track. You see one car there now, but the actual facility was much larger than what we could fit on the railroad. It could accommodate about 12 or 15 private cars.

Behind that facility sits a powerhouse. That building provided steam for the passenger cars stored on these tracks behind the depot.

The other small structure is the freight station for the White Sulphur Springs area.

All these elements were essential to making the scene authentic – not just a depot, but the entire infrastructure that supported this important stop on the C&O.

MRH: Why do you think Jerry chose this particular location for such detailed treatment?

Mark: I think it represented everything Jerry loved about the C&O – heavy freight operations through the mountains with elegant passenger service to a world-class resort. It was the railroad at its finest, serving both industry and society.

The historical connection sealed it. Presidents and dignitaries passed through here, adding a layer of significance that appealed to his sense of authenticity.

This wasn't just modeling a railroad; it was preserving a piece of American history.

The staging yard: Form meets function

Behind every successful model railroad operation lies a well-designed staging yard. Jerry's staging area balances operational efficiency with visual accessibility, letting operators work the yard while maintaining sight lines to the action.

True to his engineering philosophy, Jerry designed the control system to reflect careful thought and elegant design – courtesy of his son Mike, who brought his own engineering expertise to the project.

THE STAGING YARD DESIGN

MRH: Mark, tell me about the staging yard. How is it laid out, and what was Jerry's thinking behind the design?

Mark: The staging yard has four eastbound tracks and four westbound tracks, giving you plenty of capacity to stage multiple trains in each direction.

The yard was built to be both workable and visible. You can see what you're doing when you're building consists or getting ready to send a train out onto the main. It's not buried under the layout or hidden behind a wall – it's accessible and visible, which makes operations much smoother.

THE CUSTOM CONTROL PANEL

MRH: I noticed the control panel in front of the staging area. That looks like a custom piece of work.



13. The Chesapeake & Ohio passenger train rolls past the bustling freight terminal and yard at Covington, Virginia. The consist includes a dedicated United States Mail Railway Post Office car just behind the locomotive.





14. The staging yard uses a control panel built by his son Mike, also a structural engineer, who designed it with a particular eye to easy operator use. The control panel allows you to align all turnouts for a particular track by simply pressing the green buttons at both ends, making it super simple to route trains in and out of the yard.

Mark: Jerry's son built that control panel – he's also an engineer. When you line up the green buttons on either end of the panel, it aligns all the turnouts for that specific track.

So if you want to send a train out on track three eastbound, you just line up the green buttons for track three, and every turnout routes automatically. It's brilliantly simple and incredibly efficient.

Mike really thought through the operator's perspective when he designed it. Like father, like son – both engineers, both focused on making things work smoothly and logically.

MRH: That's a really elegant solution. How does that design enhance the operating experience?

Mark: It makes staging almost foolproof. You don't have to think about which turnouts need to be thrown or worry about



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routing conflicts. You just select your track, press the buttons, and the system does the rest.

The panel itself is clean and uncluttered, so form and function blend seamlessly. It looks good, and it works even better.

Jerry's philosophy: What matters most

After 26 years of building, maintaining, and operating his layout, Jerry has a clear sense of what makes the railroad successful – and what compromises he's willing to tolerate in pursuit of authenticity.

MRH: Jerry, when you look at this layout now, what are you most proud of? What matters most to you about what you've built?

Jerry: Authenticity. That's what matters.



15. (Top left) As you exit Mud Tunnel, the imposing brick front of the New York and West Virginia Pulp & Paper Company looms large on the mainline. The industry has its own siding, where we see a couple of nicely detailed boxcars spotted for loading – reflecting the industrial nature of the Chesapeake & Ohio transition era.

16. (Bottom left) Pere Marquette 1225 Berkshire (2-8-4) leads a westbound freight train out of Ronceverte, West Virginia. Passing a classic-looking trackside freight house and a black pickup truck in the foreground, the steam locomotive is framed by a scene of industrial concrete structures and trees in early autumn, nicely illustrating the transition era operations of the C&O.

I wanted to recreate this section of the C&O as it actually was in 1952 – the terrain, the towns, the way the railroad fit into the landscape.

Not a fantasy railroad, not something that looks good but doesn't make sense. When you walk around this layout, you should feel like you're looking at a piece of West Virginia that actually existed.

That's what I set out to do, and that's what I'm proud of.

MRH: You've mentioned there's one thing on the layout that bothers you – something that doesn't quite fit your vision of authenticity.

Jerry: The liftout bridge at the entrance.

We had to raise it to save space, and it's never sat right with me. On the prototype, that bridge sits much lower in the landscape.

But we needed the clearance underneath for operational reasons, so we compromised. It's the one thing I look at and think, "That's not quite right."

But you can't have everything perfect. You do the best you can with what you've got.

MRH: Even with that compromise, you've achieved something remarkable – a layout that feels authentic and real.

Jerry: That's the goal.

When people come through here and see those Alleghenys working upgrade with a full consist, when they hear the sound and see the scenery, I want them to understand what it was like.

That's what it's all about.

A quarter-century of partnership

Mark's role has evolved dramatically over the 26 years he's worked alongside Jerry. What began as occasional help has grown into a comprehensive partnership that touches nearly every aspect of the railroad's operation and maintenance.





17. The heavy brass H-8 Allegheny articulated loco pulls a long string of loaded coal hoppers past the station platform at Ronceverte, WV. In real life, Ronceverte sat at the base of stiff mountain grades where these 7,500-horsepower mammoths moved coal from West Virginia mines eastward on the C&O.

MRH: Mark, you've been here since the beginning. How has your role changed over these 26 years?

Mark: It's evolved quite a bit.

Early on, I helped Jerry with specific projects – building benchwork, laying track, that sort of thing.

As the railroad grew and became more complex, my responsibilities expanded. I got involved with the DCC system, troubleshooting decoder issues, maintaining the locomotives.

I've built a lot of the scenery – trees, rockwork, structures. I've scratchbuilt some buildings.

Over time, you become the person who knows where everything is, how everything works, what needs attention.

MRH: That's a significant commitment. What's kept you engaged for a quarter-century?

Mark: Jerry's passion, honestly. He never stopped caring about getting it right. Even after 20 years, if something wasn't working properly, he wanted to fix it. That dedication is contagious.

And the railroad itself – it's beautiful. Every time I come up here, I notice something new, some detail that Jerry or I added to make the scene more authentic. It's not just a hobby project; it's a work of art that runs on rails.

MRH: What's the scope of work you've accomplished together? If you had to quantify it, what does 26 years of collaboration look like?

Mark: We've built a complete railroad from the ground up. That includes:

- Substantial benchwork, engineered to last
- Miles of track
- A sophisticated DCC system

We've maintained and repaired dozens of locomotives and hundreds of pieces of rolling stock. The locomotives alone represent a significant investment and commitment to keeping them running.

We've hand-crafted scenery covering thousands of square feet. We've scratchbuilt structures, painted backdrops, and detailed every inch of this layout to match the prototype.

If you added it all up, we're talking thousands of hours. But it never felt like work, if that makes sense. It felt like we were building something that mattered.

MRH: What do you think Jerry's legacy is, from your perspective?

Mark: He showed that you can achieve the highest level of craftsmanship and authenticity, even in a hobby. He didn't cut corners. He didn't settle for "good enough."

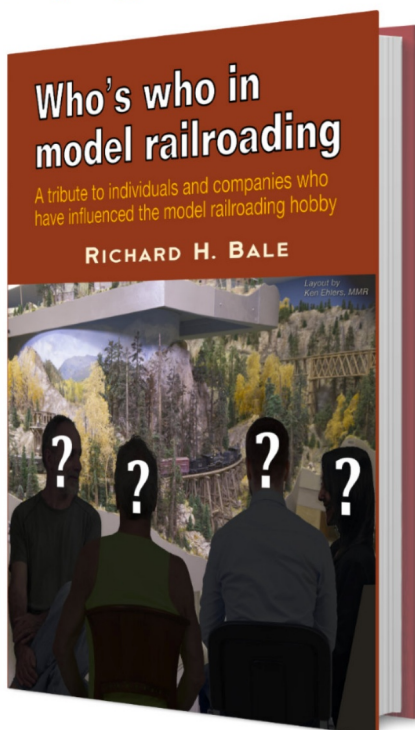
He engineered this railroad the way he'd engineer a bridge or a building – with precision, with care, with an eye toward making it last.



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He did it because he loved the subject matter, respected the prototype, and wanted to preserve a piece of railroad history. That's a legacy worth having.

THE LEGACY

Standing in Jerry Holmes' layout room on Elder Mountain, it's easy to lose track of time.

The articulated locomotives labor upgrade through the Appalachian landscape, their sound systems filling the space with the authentic voice of steam power.

The mountains rise and fall in carefully crafted plaster and foam, painted in the greens and grays of hardwood forest.

18. Heavy 2-8-2 Mikados, like #1251 here, were essential to the C&O's flatter divisions. They often pulled heavy manifest freight trains and long lines of coal hoppers from the flatlands and marshalling yards.



Coal tipples and water towers dot the scene. The White Sulphur Springs depot, with its private car tracks and powerhouse, speaks to a vanished era of American elegance and industrial might.

Everything is rendered in S-scale, where 1:64 proportion means every detail commands attention, where authenticity isn't optional – it's essential.

At 93, Jerry Holmes represents something increasingly rare in our hobby: a modeler who refused to compromise and proved that age is no barrier to excellence.

His layout stands as proof that the highest levels of craftsmanship are achievable when passion meets discipline – when an engineer's precision serves the pursuit of historical authenticity.



EXPERIENCE IT FIRSTHAND

Soon, more people will experience Jerry's achievement firsthand. His layout will be open for tours during the NMRA National Convention in Chattanooga at the end of July.

For those who journey to Elder Mountain, they won't just see a model railroad – they'll witness what's possible when engineering brilliance meets historical passion, when a lifetime of skill is devoted to preserving American railroad heritage.



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The locomotives still run. The scenery still captivates. And Jerry Holmes, at 93, still shows us what model railroading can be. ☑

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19. As we watch the caboose at the end of a long coal train disappear around the corner at Ronceverte, West Virginia, we say goodbye to a delightful tour of Jerry Holmes' wonderful C&O Allegheny Division.

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Building a signature grain elevator



1. The finished grain elevator complex after three years of scratchbuilding and continuous refinement. This started as a single elevator structure in 2013, and has been expanded with additional grain bins, an enclosed annex, and weathering that suggests decades of wear.



Model Railroad Hobbyist | July 2026

KURT MATTHEY SCRATCHBUILDS A GRAIN ELEVATOR ...

A FEW YEARS AGO WHEN I WAS PLANNING TO BUILD a new small switching layout I decided that its signature structure should be a grain elevator. I knew it would take some time before I could start building this new layout and so I came up with the idea to put the elevator on a diorama until then. The elevator underwent several changes, some inspired by the helpful *MRH* community, and for three years it was a work in progress.

FINDING INSPIRATION

I didn't wake up one morning with a burning desire to build a grain elevator. The inspiration came from the *MRH* forum.

I'd been following Tom Johnson's layout progress, admiring how his grain elevator became one of the railroad's defining features. Something about an elevator's vertical presence appeals to me. It dominates the landscape, and immediately tells you what kind of railroad you're looking at.

I started thinking about my own layout, and realized I needed a signature structure to anchor the scene and give operations purpose. A grain elevator fit perfectly with the rural Midwestern feel I was going for.



2. The Eyota, Minnesota grain elevator, captured here in the 1960s, inspired Kurt's model. The clean lines, the corrugated panel details, and the solid utilitarian design all appealed to him as a modeling subject.





3. The Eyota elevator today has been downsized and reduced from its 1960s configuration. The grain bins to the left of the main structure have been razed, and most of the business has gone to larger terminal and shuttle elevators. Kurt's version captures the structure in a bygone era.

CHOOSING A PROTOTYPE

I settled on the grain elevator in Eyota, Minnesota as my prototype. I'm not a rivet counter; I wanted to capture the essence and general appearance of the Eyota elevator; that was good enough for me. The goal was to build something that looked right, felt right, and would be recognizable as a grain elevator to anyone who saw it – not to create an exact scale replica down to the last bolt.

THE SCRATCHBUILDING DECISION

Even before I settled on the Eyota prototype, I knew that I would scratchbuild the structure. There are some commercial kits available, but I prefer scratchbuilding over building kits.

To make things a little easier I thought of using kits for the elevator legs. I had a look at the elevator legs from Rix and Walthers Cornerstone, but the one from Rix did not look right, one of the Walthers legs was too short and the other one is way too expensive. Two of them would have cost much more than my entire diorama. The decision was made to build the elevator legs from 1/4" x 1/8" styrene tubes and U-shaped profiles.

From the community: The value of scratchbuilding

Greg Baker (MRH Columnist): "I really think the elevator legs are impressive and look much better than a lot of the commercial operations."

This validation from an experienced modeler reinforced that Kurt's decision to scratchbuild instead of relying on commercial kits was the right call. The results would speak for themselves.

The Rix kits didn't have the right look for Eyota. The proportions were off, and the style was different enough that it would've bothered me every time I looked at it.

The Walthers offering was closer, but here's where things got interesting from a cost perspective – to build something approaching the size and complexity I wanted using Walthers kits, I'd need to spend at least \$200-\$300 on kits.

Some folks scratchbuild to save money – I estimated I could build what I wanted for maybe \$50-\$75 in materials – but the real appeal was having complete control over the design. I could match my prototype more closely, and have a lot more fun doing it.

There's something deeply satisfying about scratchbuilding that you just don't get from assembling a kit. Every cut piece, glued joint, or added detail is your decision. The structure becomes uniquely yours in a way that a kit-built model never can.

Plus, I genuinely enjoy figuring out how to translate a prototype structure into styrene and glue.





4. The structure takes shape. This view shows the unpainted styrene framework and leg assembly mid-construction.

Finding reference materials was easier than expected. A Google search for “Eyota Minnesota grain elevator” turned up plenty of photos from different angles. I studied these, took measurements from the photos (using known dimensions like door heights to establish scale), and started sketching out my approach.

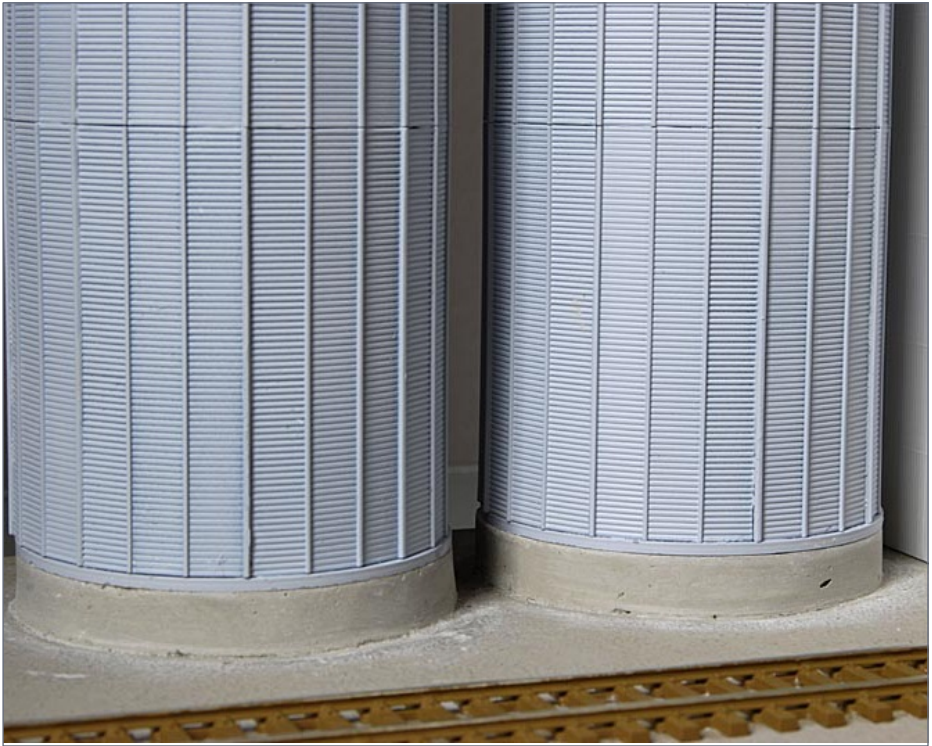
MATERIALS AND BASIC STRUCTURE

The core of the elevator is built from 0.060” plain styrene sheet – thick enough to be sturdy, but thin enough to work with easily. This became my base layer for all the major walls.

Grain elevators are typically clad in corrugated metal panels, and plain styrene just doesn’t capture that texture. Overlaying

the plain styrene base with corrugated sheet styrene gave me the structural strength of the thicker material with the visual texture of corrugated metal.

Real corrugated metal panels aren't continuous sheets running the full height of a building, but individual panels with seams between them. To simulate this, I used a sharp scalpel to scribe horizontal lines across the corrugated surface at regular intervals. These scribed lines created the visual impression of separate panels and added a lot of realism to the finished walls.



5. The bases of the corrugated grain bins show how Kurt models the transition to the poured concrete foundation pads. The clean vertical seams represent the external reinforcements that support the grain inside.



THE STILTS

The stilts under the grain dryer center bin required a different approach. I built these from 1/8" brass tubes [6], which gave me the right proportions. I glued the tubes in place with CA.

From the community: On the leg assembly design

Tom Patterson: "The details are impressive. Did you scratch-build the distributor system? The scribe marks on the corrugated siding are extremely effective."

Liquid styrene cement created strong styrene joints, and I made sure everything was square and plumb as I went.



6. Kurt used 1/8" brass tubing to model the stilts of a grain dryer. Vertical styrene strips simulate the welded gussets that anchor the smooth-walled tank body to its columns. A scratchbuilt bucket elevator leg stands to the left.

There's no fixing a crooked wall once you've attached three more walls to it.

ENGINEERING THE ELEVATOR LEG HEADS

The elevator leg heads (the distinctive structures at the top of each elevator leg where grain is distributed) presented the biggest engineering challenge [8].

They needed to be accurate in shape, properly proportioned, and sturdy enough to handle being picked up and moved around.

I started by creating a cad drawing of the head profile. I printed it on paper and used non-permanent spray adhesive,



7. An overall view of the unpainted styrene structure. Dual bucket elevator legs rise vertically between the buildings, capped by a distributor head that feeds down into the bins via gravity spouts. A brass overhead conveyor gallery spans the gap to the storage annex on the right.



allowing me to stick the template directly onto my styrene sheet for cutting [9].

To get the right dimension for the heads, I built them from four pieces of 1/16" styrene

The template approach was a game-changer for accuracy. By printing the drawing and using spray-adhesive, I could stick it directly to the styrene and cut right through the paper and plastic in one operation – no measuring, no guessing, just follow the lines. This meant all four pieces came out consistent, and matched my reference photos perfectly, which



8. A closeup view highlights the twin leg heads before Kurt added the service platforms and safety railings. The rounded hoods enclose the main drive pulleys, discharging grain directly down into the angled gravity spouts. A scratchbuilt utility ladder with a safety cage climbs the adjacent headhouse tower.

would have been nearly impossible to achieve by hand-measuring and cutting freehand.

Here's where the process got tedious but rewarding:

1. I cut each piece slightly oversize from the template
2. I assembled the four pieces into the basic head structure
3. Once the cement had fully cured, I used progressively finer sandpaper to shape the assembly to its final dimensions

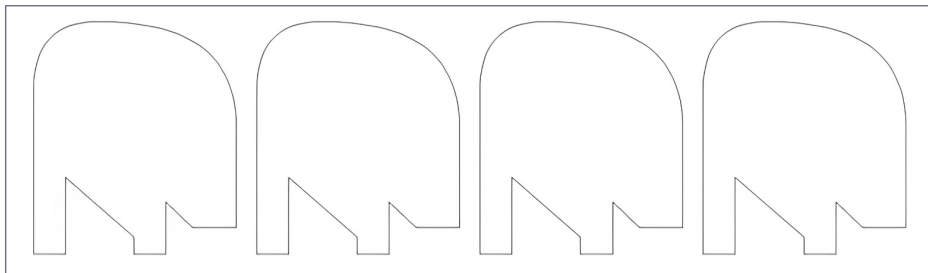
This cut-and-sand approach gave me much more control than trying to cut everything perfectly the first time. I could sneak up on the final shape, constantly checking proportions against reference photos.

I made the grain distribution tubes (the pipes carrying grain from the head down into the storage bins by gravity) from 1/8" solid styrene rod.

Real grain elevators have tubes running at various angles, and I wanted to capture that complexity.

REFINEMENTS AND COMMUNITY FEEDBACK

One of the best things about sharing your work-in-progress on the *MRH* forum is the feedback.



9. Kurt's head profile template, printed on adhesive-backed paper.



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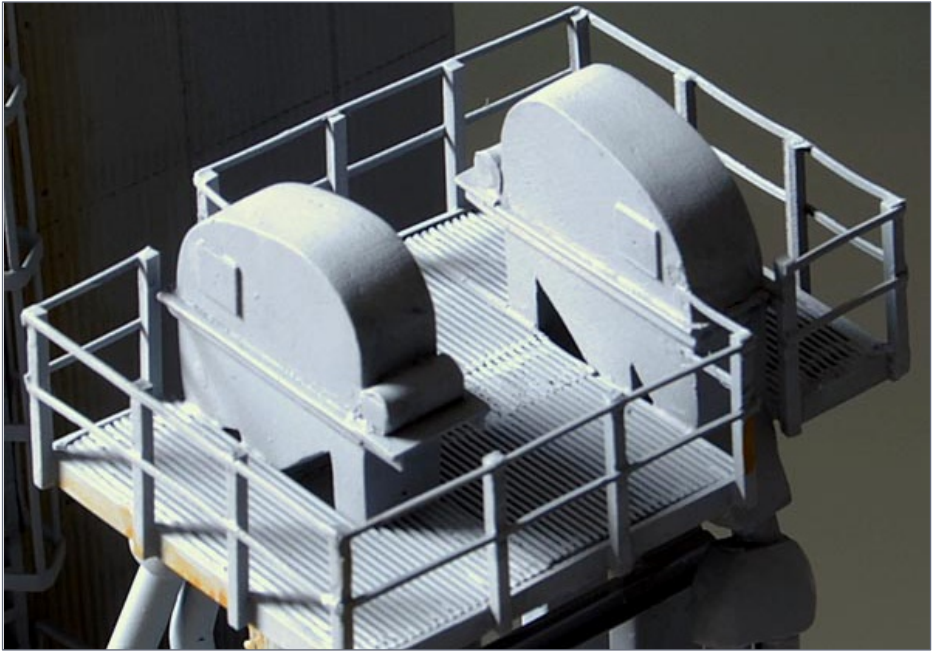


10. Progress continues on the upper levels with Kurt's installation of brass wire catwalk guardrails and a styrene leg-maintenance deck. Fabricating these open-air safety elements from fine styrene and brass captures the skeletal, airy feel of this grain elevator.

Sometimes it's encouraging, sometimes it's challenging, and sometimes – like with my ladder design – it sends you back to the drawing board in the best possible way.

I'd initially planned to add guard rails around the top platform, and was working on a safety cage for the ladder. Then Alan Rice chimed in with what he called "nit-picking" about OSHA requirements and prototype accuracy. The real Eyota elevator didn't have guard rails on the roof, and my ladder cage design wasn't quite right.

Alan's comments made me look more carefully at my reference photos, and he was right. The prototype didn't have those rails, and my ladder design was more generic than accurate.



11. A close-up view shows Kurt's progress on the service platform, with handrails of styrene strip and rod added to the maintenance deck. The grate texture of the service platform deck captures the feel of the prototype.

This is where the “close enough” philosophy gets interesting. I’m not trying to match every rivet, but when someone points out a significant detail I’ve gotten wrong – especially one that affects the overall appearance – I want to get it right.

The ladder redesign took an extra evening, but the final result looks much more like the prototype.

For the railings I included (on the lower platforms where they actually existed on the prototype), I debated between styrene and brass wire.

Styrene is easier to work with and paint, but brass wire looks more delicate and scale-appropriate.





12. The painted and weathered middle section of the completed facility. Kurt opted to remove the grain dryer, replacing it with an enclosed dump shed to better protect the grain receiving area from the elements, a common modification seen on real-world trackside elevators.



13. A closeup view of the painted and weathered head area highlights the spectacular realism Kurt has achieved with subtle paint effects. Rust streaking along the joints of the head service platform mirrors real-world moisture damage.

I went with styrene for most railings. Practical considerations won out. I used brass wire for a few key details where the finer appearance really mattered.

From the community: When expert feedback changes everything

Alan Rice (AlanR): “OSHA is going to cite you for the ladder and cage at the end of the conveyor walkway. The ladder needs to extend down to the catwalk and the cage has to extend 3’-6” (minimum) above the roof – if that’s where the ladder is leading... The top of the cage should



have a safety gate, too, but that's somewhat era-dependent. You might even need guard rails around the perimeter of the roof to protect anyone working up there."

Kurt's response: "Thank you for your nitpicking. I'm not really satisfied with the safety cage ladder myself. Your comment gave me the nudge I needed to try to come up with something better."



14. A sweeping view of the finished grain elevator complex. Thanks to the variation in the weathered metal panels, Kurt has captured the look of a real-world agricultural facility that has expanded over decades of service.

FINISHING TOUCHES: PAINT, WEATHER, AND GRASS

With the structure complete, it was time for finishing work.

I started with the foam foundation piece of the diorama. Next I painted the main elevator and grain bins, giving them a base coat using an airbrush. Then I used a paintbrush to paint individual panels with lighter shades of the base color.

Weathering was crucial. Brand-new grain elevators are rare, and the Eyota prototype showed decades of weathering, rust streaks, and general wear. The first step was to apply a wash with a heavily diluted mix of brown and black acrylic paint. I did the rust streaks with a thin paintbrush, and diluted acrylic paint. Throughout, I used subtle color variation to suggest different ages of paint and repair.

The landscaping phase brought its own challenges. I wanted static grass for realistic ground cover, but applying it by hand using grass mats and glue was tedious. Every square inch required careful attention, and the results were... okay, but not great.

I researched static grass applicators. The Noch applicator was the gold standard, but at \$200+ for a tool I'd use occasionally, I couldn't justify it.

I seriously considered building a DIY version. There are plenty of plans online using old electric bug zapping racket and similar components.

I also looked at the Grass Tech applicator as a middle-ground option.

From the community: Grassroots landscaping solutions

Pablo Moya (*mrtrenes*): "Impressive!!! You don't need to spend that much on a grass applicator. I got one from Grass Tech and I love how it works – it wasn't even \$40.





15. The completed diorama captures the classic multi-era look of a modern agricultural cooperative. By grouping together towering headhouses, overhead catwalks, and multiple styles of corrugated bins, Kurt created a highly realistic trackside scene that requires little layout depth.

Anyway, your grass looks great. You can always mix grass mats and static grass for a more natural look.”

Brian (santa fe 1958): “And by the way, the grass looks just as good, if not better, than using a static applicator.”

In the end, I decided to live with hand-applied grass tufts for this project.

Sometimes “good enough” really is good enough, and I had other aspects demanding attention.

THREE YEARS LATER: EVOLUTION AND INTEGRATION

Fast-forward to September 2016.

The grain elevator had been sitting on a narrow shelf diorama for nearly three years. It took me so long to start building that

new layout I had started planning three years before. The elevator was a completed project, nicely detailed, but not part of an operating layout yet.

The new layout featured a modern rural scene with the grain elevator as its centerpiece. The elevator became the perfect signature structure. It provided a vertical element visible from anywhere in the room. And it created interesting operational possibilities with grain car switching.

Unfortunately I do not have any pictures of this layout. Because I can only build small switching layouts and my main interest in model railroading is building things, none of my layouts exist for long.



But that's the beauty of model railroading – projects are never really finished. They evolve, they grow, they are re-imagined as our layouts and skills develop.

LESSONS LEARNED

Looking back over three years of work, a few key lessons stand out:

Scratchbuilding is about the journey. I saved money compared to commercial kits, but the real value was in the process. Every problem I solved, every technique I learned, every detail I figured out, made me a better modeler.

Community feedback is invaluable. Alan's "nitpicking" about the ladder made the model better. Other members' questions pushed me to think more carefully about my techniques. Sharing work-in-progress is about learning, not showing off.



16. A higher angle underscores the modified architectural relationship between the two main elevator structures. Eliminating the elevated steel bin on legs in favor of an enclosed receiving shed yields a robust, interconnected complex that mirrors real-world plant modernization.

Perfect is the enemy of done. My “close enough” philosophy kept the project moving forward. If I’d insisted on 100% accuracy, I’d probably still be researching rivet patterns, instead of enjoying a completed model on an operating layout.

Projects evolve. What started as a diorama became the signature structure of a layout. Being flexible about how a model gets used opens up possibilities you might not have imagined at the start.

The grain elevator anchored my HO switching layout, giving operations a focal point and visitors something to remember. Every time I ran a switching session, moving grain cars in and out of the elevator siding, I was reminded of why I love this hobby.

It’s not just about the trains – it’s about creating a miniature world that tells a story, even if that story takes three years and a lot of styrene to tell properly.

From the community: On the final design

“I really like the looks of this complex, Kurt. It’s simple yet has a lot of visual interest.”

– Rob Spangler

Simple, visually interesting, and authentic. That was the goal, and that’s what the *MRH* community told me they saw.

POSTSCRIPT: THE MODEL CONTINUES TO EVOLVE

True to the philosophy of continuous refinement, the grain elevator complex didn’t stay static.

I added three larger grain bins to one end, replaced the grain dryer in the middle with an enclosed building addition, and added another single bin to the other end. These modifications dramatically changed the overall mass and visual presence – it went from impressive to downright commanding.



The expanded complex is currently in storage as I work on a new layout, but it's a perfect example of how a model project never really ends. What you build today becomes the foundation for what you'll build tomorrow.

The elevator drove that lesson home, and now I'm already looking ahead to what's next. ☑

KURT MATTHEY



Kurt lives in the western part of Germany. His foray in model railroading started as a kid. After being away from the hobby for a few decades, his interest got kindled again about 25 years ago.

Having built several small switching layouts in HO and O scale, he is now working on a New England-themed layout using the TOMA approach. His main interest in the hobby is scratchbuilding structures and rolling stock, with all the research and planning required on these projects.

He spent his working life as a self-employed graphic designer, but is now winding down to a relaxed part-time job. Apart from model railroading he is an avid cyclist, and enjoys traveling with his wife. ■

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Model Railroad Hobbyist | July 2026



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Five minute model trees

We model railroaders can often learn useful modeling techniques by looking at other hobbies besides our own – in this case tabletop wargaming.

Youtuber **The Distant Veil** shows how he quickly makes some quite decent looking trees in just a few minutes using Woodland Scenics clump foliage/lichen, ground foam, and tree armatures. Not only do these trees come together in record time, but they look surprisingly good for such simple techniques. ✓



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JULY NEWS

column



Model Railroad Hobbyist | July 2026

JEFF SHULTZ AND RICHARD BALE
REPORT THE LATEST HOBBY
INDUSTRY NEWS ...



INDUSTRY NEWS

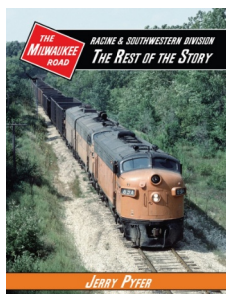


It is reported that **Jim Kellow** passed away on June 26, 2026, just 4 days short of his 87th birthday. Jim was a well-known and very active member of the model railroad community and a lifetime member of the Mid-Eastern Region of the NMRA. Jim earned MMR #202 and then earned the additional four Achievement Program Certificates he didn't earn for the MMR, only the seventh person to accomplish that. He founded the New Tracks Modeling Group, dedicated to training new model railroaders in the skills needed to become better model railroaders with an emphasis on mentoring. An O scale traction modeler, he scratchbuilt in brass and basswood.

NEW PRODUCTS FOR ALL SCALES

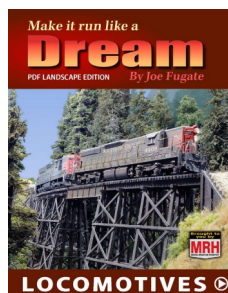
New from **Garbely Publishing Company** is *The Milwaukee Road Racine & Southwestern Division: The Rest of the Story* by Jerry Pyfer. A continuation of a previous book by Jerry Pyfer,

THE LATEST MODEL RAILROAD PRODUCTS, NEWS & EVENTS



Tales from the Racine & Southwestern it is a firsthand account of the everyday reality of working on the Milwaukee Road in southeastern Wisconsin and northwestern Illinois during its final years. It includes personal stories and many photographs. 8.5" x 11" softcover, 80 pages. \$60.00.

Info: store.garbelypublishing.com



New in the **MRH Store** is *Make it Run Like a Dream: Locomotives*. The final book in the Make it run like a Dream series, author Joe Fugate shares many preventative tricks you should apply, plus debugging tips for getting to the bottom of locomotive issues quickly. The book also covers the regular maintenance needed to keep your locomotives running well.

Note: If you have pre-ordered this book as part of the set or on its own and have not received the download link yet, please contact MRH at [mrhmag.com/contact us](http://mrhmag.com/contact-us) to make sure we have your current email address. The print edition is expected to be available in late August, as tweaks are usually required to convert it from the eBook to print version. Normally \$19.99, the eBook is currently on sale for \$14.99.

Info: store.mrhmag.com

G SCALE PRODUCT NEWS



Piko-America has announced that two G-scale tank car models will be arriving in October, one decorated for



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Texaco/T.C.X. and the other for Sinclair/SDRX. MSRP for the models is \$169.99.



Also expected in October are two Pennsylvania RR wood coaches in G scale, road numbers 23016 and 24821. They are ready for lighting and have detailed interiors. MSRP for each is \$184.99.



The last item on the announcements for Autumn is a 2-pack of G-scale White Pass & Yukon Railway ore cars. MSRP for the 2-pack is \$169.99. All of the Piko cars in the announcement are equipped with hook and loop type couplers and plastic wheels.

Info: www.piko-america.com

O SCALE PRODUCT NEWS



Industrious Models has released models of four types of vertical storage tanks. The Welded Seam Tank has horizontal and vertical weld lines, the Carbon Steel Plate Tank has overlapping steel

plates that are riveted or bolted, the Ribbed Tank (Style A) replicates insulated or structurally reinforced tanks used for temperature-sensitive liquids, and the Ribbed Tank (Style B) features external structural stiffening rings to withstand high pressure or vacuum conditions. Price for the tanks is \$26.00 each.

Info: industriousmodels.com

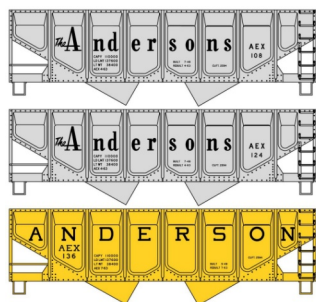
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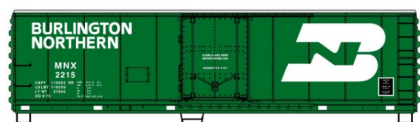
plates that are riveted or bolted, the Ribbed Tank (Style A) replicates insulated or structurally reinforced tanks used for temperature-sensitive liquids, and the Ribbed Tank (Style B) features external structural stiffening rings to withstand high pressure or vacuum conditions. Price for the tanks is \$24.00 each. Info: industriousmodels.com

HO SCALE PRODUCT NEWS



The June announcement for **Accurail** includes a 3-car set of panel side 2594 cu. ft. twin hoppers decorated for The Andersons, a car leasing company with the reporting mark AEX. Two of the cars are light gray with the third painted yellow. Build dates on the cars are mid-late 1948 with rebuild dates in 1963. The MSRP for the 3-car set is \$64.98 with

single cars available for \$21.98.



A second car type is a 40' plug door steel reefer decorated for Burlington Northern with reporting mark MNX. Built in Sep-

tember 1954 and 2403 cu. ft. in volume according to the data on the car, several other markings include a date of June 1973. MSRP for this car is \$23.98.



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boxcar's builders' data includes the date 9-14. The MSRP is \$22.98.



The last car in the June announcement is a 2980 cu. ft. 2-bay ACF Centerflow Covered Hopper decorated for Missouri Kansas Texas/MKT. Its markings indicate it was built in November 1979. The MSRP for this car is \$23.98. All cars in this announcement are scheduled for production around October 2026.

Info: accurailinc.com



Now available from **Bachmann Trains** is a new run of HO scale EMD BL2 locomotives. Intended as a "Branch Line" locomotive with better

visibility for switching than the F-units with their full height and width hoods, the BL2 featured a narrowed hood and nose, but not as narrow as the GP7 that soon followed. Road names in this release are Chesapeake & Ohio, Monon, Rock Island, and Western Maryland. Equipped with a non-sound DCC decoder, the MSRP for the BL2 is \$289.00.



Also now available are HO scale models of a 70-ton, 52'

flatcar. Equipped with metal RP-25 contour wheels on brass needlepoint axles and E-Z Mate couplers, the Silver Series flatcars are available decorated for Chessie System/B&O, Chesapeake & Ohio, Erie Lackawanna, Northern Pacific, Pennsylvania, Santa Fe, and Union Pacific. The MSRP is \$35.00

Info: shop.bachmanntrains.com



Recently announced by **Bowser** is a custom run of 200 Alco RS-3s decorated for America's Semiqucentennial. The model includes a whip antenna, Leslie

RS5T horn, corner numberboards, rotary beacon, and flashing ditchlights. Only 50 DC/DCC-ready and 150 DCC/Sound equipped models will be available direct from Bowser. The DC/DCC-ready version is priced at \$249.95 and Sound/DCC is \$349.95.



Also announced by Bowser are the N9 and N9E Transfer cabooses in HO scale. With a preorder due date of August 15, 2026, the N9 Transfer Cabooses are expected to arrive in July 2027. All paint schemes have four road numbers

except for IHB with two for each paint scheme. The paint schemes in the first run of N9s are Penn Central Early, Penn Central Late, Conrail w/flashing FRA light, Pittsburgh & Lake Erie, Indiana Harbor Belt 1970s, Indiana Harbor Belt 1980s, and Indiana Harbor Belt 1990s. The N9E will be available in Penn Central Early, Penn Central Late, and Conrail w/flashing FRA light. The N9 will also be available in Generic Green, Generic Yellow, and Generic Red, all with flashing FRA lights. MSRP for the N9/N9E is \$129.95.

Info: bowser-trains.com



Broadway Limited is taking pre-orders for an HO scale Pennsylvania Railroad G5 4-6-0 Ten-Wheeler. With an order deadline of December 17, 2026, the models are expected to arrive in the



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summer of 2027. Available in both Stealth (\$449.99) and DCC/Sound (\$549.99) versions, the model will be produced in three PRR road numbers in its pre-1940 appearance, three PRR road numbers in its post-1940 appearance, as #5741 as it is today, and two Long Island Railroad post-1940 road numbers.



Pre-orders are being accepted for new run of HO scale Union Pacific 4-8-8-4 Big Boy locomotives. Three

versions of the #4014 are part of this run – configured with smoke lifters for a 2025 excursion from Cheyenne to Denver, detailed for the West Coast 2026 tour and detailed for the East Coast 2026 tour. Additionally, two road numbers are offered in the 1941 as-delivered appearance and two different road numbers in the 1944 appearance after the addition of Wilson aftercoolers. The pre-order deadline for the 4-8-8-4 is September 17th, 2026, with delivery in early 2027. Models equipped with Paragon4 sound have an MSRP of \$899.99 and Stealth DC/DCC-Ready models have an MSRP of \$799.99.



Additional paint schemes have been added to the run of Conrail and CSX theater cars in HO scale. One is a late-period appearance of Conrail #9 (1997-1999) that BLI was previously unaware of, the

other three being similar cars on other railroads: Grand Trunk Western in blue & white, KCS “Arthur E. Stillwell” in Southern Belle, and Wisconsin Southern in red & gray. Due to the new paint schemes the pre-order period for this model has been extended to August 27, 2026, with the arrival of the models in Spring 2027. MSRP is \$129.99.

Info: [broadway-limited.com](https://www.broadway-limited.com)



English's Model Railroad has introduced several new products in their line of hopper and gondola loads. Real wood woodchip loads are available in 2-

packs for the Walthers 61' woodchip gondola, the InterMountain FMC welded woodchip gondola, the InterMountain FMC exterior braced woodchip gondola, and the InterMountain FMC external post rotary chip gondola. MSRP is \$19.95 for each 2-pack.



Ballast loads made with real stone are available in 2-packs for the Bowser 100-ton hopper and the Walthers 41' ballast hopper. MSRP is \$19.95 for each 2-pack.



New Real Coal loads are now available in 2-packs for the Accurail 50-ton offset twin hopper, the Athearn 34' 2-bay ribbed hopper, and the Atlas 2-bay offset side hopper. MSRP is \$19.95 for each 2-pack.

Info: www.bowser-trains.com



Gotham Rail & Marine has recently added three new horns to its inventory of HO scale locomotive horns. The first is the Hancock 4700 air whistle, introduced in the 1950s and used by New Haven, Seaboard, and MN&S. The price is \$7.00 for a two-horn package.



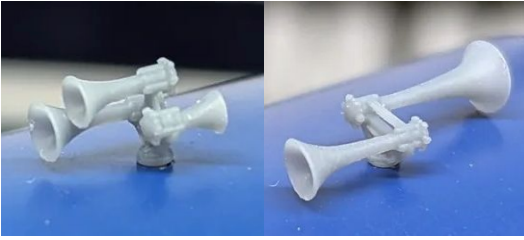
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The second horn is the Nathan Airchime MS1, a single chime horn used by the Santa Fe and Reading railroads as well as on many industrial locomotives. It is \$6.00 for a two-horn package.



The last horn is the Leslie S-5T, a split manifold horn combining an S-3B-JR 3-bell horn with an S-2A-R 2-bell horn. Norfolk & Western used them on

the GP30. Each package contains two of each horn for \$10.

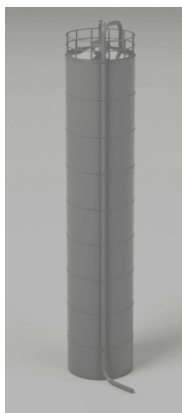
Info: gothamrailmarine.com



Industrious Models has released models of four types of vertical storage tanks. The Welded Seam Tank has horizontal and vertical weld lines, the Carbon Steel Plate Tank has overlapping steel

plates that are riveted or bolted, the Ribbed Tank (Style A) replicates insulated or structurally reinforced tanks used for temperature-sensitive liquids, and the Ribbed Tank (Style B) features external structural stiffening rings to withstand high pressure or vacuum conditions. Price for the tanks is \$18.00 each.

Also new is a Plastic Pellet Silo. They are a common sight at industries that utilize injection molding and due to requirements to keep pellets of different colors and composition separate there are often several of them together. The silo is 3D-printed in high-detail resin and is ready for



assembly and painting. They are priced at \$35.00 each.

Info: industriousmodels.com



Kadee's June 2026 release is an HO scale Louisville & Nashville 50' PS-1 boxcar with road number 97286 and a built date of 1959. The

model is equipped with a roofwalk, high mounted brake wheel, and a 9' Youngstown sliding door. MSRP is \$45.99.

Info: www.kadee.com



New from **Micro-Trains by Atlas** are a series of HO scale Accurail kits that are factory decorated by Micro-Trains in Oregon using state-of-the-art

printing technology to apply weathering and graffiti. The first scheduled for Summer 2026 is a Conrail ex-Pennsylvania 3-bay covered hopper kit with an MSRP of \$49.95.



Also due this summer is a Burlington Northern ex-SLSF 2-bay covered hopper kit with an MSRP of \$49.95.



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A 50' exterior post boxcar kit is decorated for Union Pacific/ex-Railbox and Santa Fe/ex-Railbox. The MSRP for each is \$59.95.

Info: shop.atlasrr.com



Otter Valley Railroad is accepting pre-orders for HO scale TrinityRail 3601/3621 cu. ft. 2-bay covered hoppers used for salt and sodium

chlorate service. Road names available are GATX/CGLX, OFOX, and Cargill/CLSX. MSRP for single cars is CA\$72.99 and CA\$399.99 for 6-packs.

Info: ovrtrains.com



Rapido Trains has several announcements and some upcoming conditional order or pre-order deadlines. The HO scale Roger Williams replicates a unique RDC based train run by New Haven and

inherited by Penn Central and Amtrak in turn. It featured a streamlined cab on the end cars and other unique modifications. Rapido is offering this in New Haven as a three-car set with two powered cab cars and one unpowered intermediate car for US\$699.95 without sound and US\$899.95 with ESU LokSound/DCC. Two powered cab car sets are listed decorated for Amtrak (Early Version), Amtrak Phase I and Amtrak Phase III for US\$519.90 without sound and US\$729.90 with ESU LokSound/DCC. Single powered cab cars are listed for US\$259.95 without sound and US\$369.95 with ESU

LokSound/DCC. Unpowered intermediate cars for New Haven, Penn Central, and Amtrak are listed for US\$189.95. This is a conditional order that expires on September 15, 2026.



In late June Metra introduced Metra 525, a red,

white, and blue, locomotive with the America 250 logo on the long hood and nose. On July 4th, Rapido announced it in HO scale as an addition to its America 250 collection. An SD70MACH, the model is packed with details from the PTC antennas on the roof to the correct HTCR truck type. The DC/Silent version is US\$249.95 and the DCC/Sound equipped version is US\$359.95.



A pre-order deadline for the Southern Pacific B-100-32 and B-100-34 boxcars has been set as

August 17, 2026. These 40' 100-ton boxcars will be produced with three different door styles and 11 different paint schemes, from the as-built Southern Pacific brown to multiple Golden West Service schemes and reporting marks and NOKL and AZER patch schemes. Single cars are \$59.95 and 3-packs are \$179.85.



Pre-orders are open for a new Rapido car, the Great Northern 40' double-sheathed boxcar. Based on

the 1937 AAR 40' boxcar, the GN car had different sides, ends and underframes. The 50-ton cars were built by ACF and Pullman-Standard with handbrake gear from multiple manufacturers, lasting into the 1970s. Rapido is offering three brown and one vermilion Great Northern schemes and the Great Northern Historical Society is offering two unique paint schemes in several road numbers that are suitable for 1956 and beyond. Rapido's price is \$59.95 for a single car and \$359.70



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for a 6-pack. There was no pre-order close date announced. Info: www.gnrhs.org



Also new from Rapido is the Trenton Works 5277 cu. ft. boxcar. Designed for paper service with

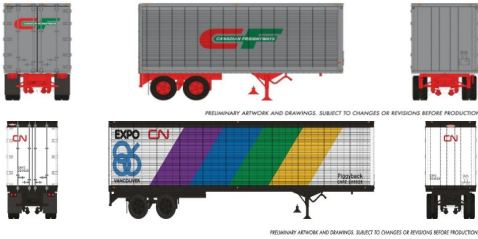
Canadian National, the cars were repurposed for pulp service in the late 1990s, with vents later added to prevent the wet pulp from causing the cars to rot. 500 of these cars were built in the 1980s and they served throughout Canada and parts of the United States. Paint schemes to be produced are CN (4 Schemes), Ontario Northland, Atlantic & Western/ATW patch, Tomahawk Railway/TR patch, and a brown unlettered car. Price for a single car is US\$54.95, a 3-pack of Ontario Northland, Atlantic & Western, or Tomahawk is US\$164.85, and a 6-pack of CN cars is \$329.70. The order deadline for these cars is October 15, 2026.



A new run of HO scale Canadian Piggyback Flatcars is scheduled, with a pre-order deadline of September 15, 2026. Two versions

of the cars are available, the CN version that was built by Vancouver Iron Works and the CP version that was built by Marine Industries. Both versions are available decorated for their respective railroads and are also available in black or brown, painted but unlettered. The decorated cars are also available with either two 26' trailers or one 45' trailer with the appropriate paint scheme. A single car w/o trailer is US\$54.95, a 6-pack w/o trailers is US\$329.70, a single car with a 45' trailer is US\$84.95 and a single car with two 26' trailers is US\$109.95. A 6-pack with 45' trailer is US\$509.70 and a 6-pack with two 26' trailers is US\$659.70.

The 26' Can-Car dry van trailers, 45' Trailmobile dry van trailers and a 40' Fruehauf Fluted Side Volume Van are also



available for purchase separately. The 26' trailers are available decorated for Becker's Fresh & Ready Foods, Canadian Freightways, Canadian Great Western Express, CN

Piggyback, CN Express/Messageries, CP Rail, CP Express/Transport, Dominion Grocers, Eaton's, Imperial Roadways, and silver unlettered w/side door. The 40' Fruehauf Fluted Side Volume Van is available decorated for British Columbia Railway, Canadian Freightways, Canadian Pacific Express, Overnite, and Silver unlettered with a side door. The 45' Trailmobile dry van trailers are available decorated for CN Expo '86, CN Route, Consumers Distributing, Laidlaw, Home Hardware, Maritime-Ontario, Northern Alberta Railway, Ontario Northland, Reimer, Schneiders Meats, Transport Intl Pool, and Trans-Canada Hwy Express. All trailers are US\$30.95 with a pre-order deadline of September 15, 2026.



Keeping things intermodal, a new run of HO scale Gunderson 53' Husky Stack well cars is also planned. With a pre-

order deadline of October 15, 2026, the cars will be available in TTX/On Track For A Cure, RPDx/Prostate Cancer Awareness, Arkansas-Oklahoma/AOK, Canadian Pacific/CP, Ferromex, TTX/As Delivered, TTX/Patched logo, and "Railroad of Lies"/ROlX. 10% of the sales from the freelance RPDx Prostate Cancer Awareness cars will be donated to The Princess Margaret Cancer Foundation in support of the Prostate Centre. Single cars with two containers are US\$89.95, a 3-pack with containers is \$269.85, and a 2-pack without containers is \$119.95. See the Rapido website for which containers are included with which cars – there is some randomness involved.



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Rapido is also releasing a new 53' corrugated container with a heavy-top rail design. This style of container debuted in 2019 and the models feature multiple nose



panel designs. Rapido has a mix of container designs with 53' smoothside containers, 53' corrugated containers with thin-top rails, and the new 53' corrugated container with the heavy-top rail. Thin-top rail corrugated containers are available for CP, Ferromex (2 schemes), and STG Logistics. Heavy-top rail corrugated containers are available for Amazon Prime, EMP, J.B. Hunt Intermodal, and UMAX.



The older 53' smoothside High-Cube containers are available for Alaska

Marine Lines, APC, ATSF, CN-We Deliver, CN-Tri-Modal, Conrail-Mercury, CP-Grey, CP-Grey-Data, Maritime-Ontario-Econoline, FastFrate, JB Hunt-Early, Oceanex, ROLX (ex-CN patch), and NFI RoadRail. All containers are available in 2-packs for US\$32.95. Pre-orders are due by October 15, 2026.



Three new paint schemes are available for the HO scale Drop Bottom Gondola. Originally built by the Pressed Steel Car Company in 1940 for the

Northern Pacific, the 41'-6" cars had many near duplicates on the Great Northern, Canadian National, and Western Pacific, which Rapido is producing. The CN cars are available through Rapido with the Great Northern and Western Pacific cars exclusively available through HobbyTyme, a model railroad distributor. Go to www.hobbytyme.com/dealer-locator.cfm or check with your local dealer to see if they can order from

HobbyTyme. Rapido's price is \$US54.95 for a single car and US\$329.70 for a 6-pack. A pre-order due date was not set. Info: www.hobbytyme.com



PRELIMINARY ARTWORK AND DRAWINGS. SUBJECT TO CH

available on Halliburton Pneumatic Railcars. Featuring three vertically mounted tanks, they hauled dry bulk materials for use in the oilfields. Freelance roadnames available in this run are Home Shops Leasing/HSLX, Salt City/STCY, and the Splitrock Mining Company/SRMX. The Halliburton cars are US\$64.95 per car or US\$259.80 in a six-pack.

As part of Rapido Train's partnership with Home Shops, three new freelance paint schemes are



PRELIMINARY ARTWORK AND DRAWINGS. SUBJECT TO CHANGES OR REVISIONS BEFORE PRODUCTION.



More Home Shops cars are part of the America 250 schemes from Rapido, with three

different schemes on the Greenbrier Coil Car. The Home Shops Leasing car features the American Flag and "America 250" on its hood. The Texas and Great Northern cars feature the slogan "American Steel • Strength for Liberty • 250 Years" on a bold red, white, and blue paint scheme. The Virginian & Ohio coil car features the V&O logo on a blue field inside of a circle of 13 stars, with more stars along the top and bottom of the red hood.

Info: homeshops.net

Info: www.rapidotrains.com

All artwork and graphics are courtesy of Rapido Trains



500 of the prototype cars were built in

A new mini-kit from **Resin Car Works** is available to build an HO scale Santa Fe Fe-26 class automobile boxcar from a CB&T Shops 40' steel-sheathed boxcar kit.



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1945 and feature a fishbelly side sill and double doors for a 14' wide door opening. The kit includes resin detail parts and custom decals. Mini-Kit 9.0 is \$30.00 plus shipping, and the required C&BT Shops kit is also available for \$10.00.

Info: blog.resincarworks.com

Note: Pre-orders for all **Scale Trains** products in the June announcement were due June 29, 2026. Although preorders have closed, Scale Trains routinely manufactures additional models beyond the preorder numbers, so check with them for availability.



First up from Scale Trains is a new run of Rivet Counter line GP30 locomotives. Equipped with road number specific

details and available in either DC/DCC Ready or with LokSound DCC/Sound, road names in this run are Burlington Northern, Chicago & Eastern Illinois, Missouri Pacific/ex-C&EI, Family Lines System/L&N, Louisville & Nashville/ex-C&EI, Norfolk Southern/SOU, Norfolk Southern/CNO&TP, Southern Pacific, and Union Pacific. Burlington Northern, Family Lines, and Union Pacific are available in several variations each. Current prices are \$314.99 for DCC/Sound and \$204.99 for DC/DCC Ready.



The newest HO scale Rivet Counter car is the Trinity 60' 6886 cu. ft. 12' plug-door high-cube insulated EcoBox boxcar.

Designed to replace the assorted insulated "beer cars" that have been used for several decades, instead of being a reefer without the refrigerator gear, it's a lightweight EcoBox boxcar with additional insulation. Owned by Trinity Leasing/TILX, Scale Trains will produce the car in two paint schemes, a white one and the black and yellow one seen here. The current price is \$54.99 per car. Ordering six or more cars lowers the price to \$49.99.

The HO scale Trinity 60' 7500 cu. ft. high-cube boxcar is also part of Scale Trains Rivet Counter Line. The second run of these cars



schemes include four different BNSF schemes, Mississippi Tennessee Railroad/MTNR, four TTX/TBOX variations, and the GATX "Save the Monarch" paint scheme. Current price is \$54.99 per car.



New in the Fox Valley Models line is a former ExactRail Evolution model, the HO scale Thrall 52'-6" 2244 cu. ft.

gondola. Introduced in the 1970s, the model depicts a 15-panel, heavy top chord version of the prototype. It includes ScaleTrains ASF Motion Control 100-ton trucks and plastic Type E knuckle couplers. Road names in this run are Chicago & North Western (ex-Rock Island), Denver & Rio Grande Western, Detroit, Toledo & Ironton; Richmond, Fredericksburg & Potomac; Rock Island, and Union Pacific/CNW. The current price is \$39.99 per car.

Info: scaletrains.com



Speedwitch Media has released kits for the Pennsylvania RR X43A welded boxcar in both Shadow Keystone 1954+ and As Delivered Circle Keystone. The kits contain one-piece cast resin bodies, resin, styrene, wire, and etched metal details, Kadec couplers, Etched Apex Tri-Lok

running boards, near scale-size draft gear, Plate C National C-1 trucks with semi-scale wheelsets, and accurate decals. The kits are priced at \$88.00.

Info: speedwitchmedia.com

Trix has released an HO scale model of a 2-8-4 Berkshire steam locomotive decorated as Southern Pacific #3505. Featuring



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primarily metal construction, the locomotive is DCC, mfx, and RailCom

compatible. All four driver axles are driven, three through the siderods. The model is also equipped with traction tires. It is equipped with a smoke insert that is digitally switchable, as is the lighting. It appears to be equipped with a capacitor energy storage system. The coupler pocket on the tender is NEM standard with kinesmatically guided close coupling.

Info: www.trix.de



Tangent Scale Models has released an HO scale model of the Union Pacific Bicentennial-painted

Pullman-Standard 4750 covered hopper, lot CH-100-28. Painted in 1974, the car kept its red, white, and blue paint scheme into the 1980s. It includes all the usual Tangent details and features. It is priced at \$69.95.

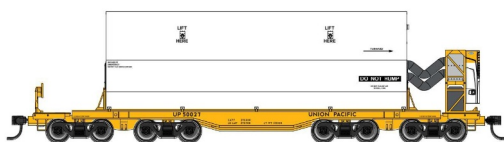
Info: www.tangentscalemodels.com



Walthers' new products announcement for June includes HO scale Amfleet passenger cars with new and improved trucks and a

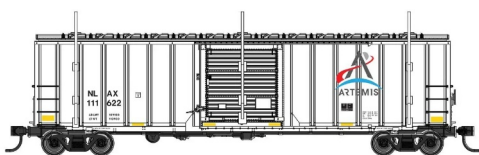
more realistic wheel profile. Each 85' car will be available in Phase III, Phase VI, and Phase VII and will be optionally lighted. Car types available in this run are the Amfleet I Amcafe, Amfleet II Lounge, and Amfleet I Club Dinette. MSRP for the lighted cars is \$134.98 and the standard cars is \$119.98 each. Delivery is expected in Fall 2026.

Walthers is introducing a unique train, the NASA Rocket Booster Train. Used between 1981 and 2011 for Space Shuttle



solid rocket booster sections, it was reintroduced in 2020 for use with the Artemis lunar

program. Cars in the train include 66' rocket booster cars, some with reefer units. The prototypical rocket booster cars are decorated for Union Pacific, with NASA and Artemis commemorative and undecorated cars available. They have a minimum radius of 24". MSRP for the rocket booster cars is currently \$54.98. Delivery of the Rocket Booster cars is anticipated for Fall 2026.



The 50' Rocket Train spacer and clearance cars are plate B cars with factory installed clearance rings on the

clearance cars. The buffer/spacer cars do not have the ring. Prototypical cars are decorated for Missouri Pacific, with NASA and Artemis commemorative cars also available. MSRP for the clearance and spacer cars is currently \$44.98. Delivery of the spacer and clearance cars is expected in Winter 2027.



A new run of HO scale 50' 2-bay Airslide hoppers is expected in Fall 2026.

Roadnames in the run are

Archer Daniels Midland/ADM, BNSF, Chessie/C&O, CPC International/CCLX, CSX, Denver & Rio Grande Western, Rock Island, Union Pacific, Data Only, and undecorated. MSRP is currently \$39.98.

Info: www.walthers.com

N SCALE PRODUCT NEWS

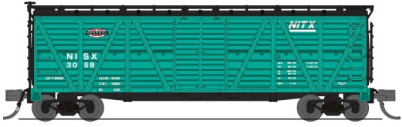
Broadway Limited is taking pre-orders for an N scale stock car based on the Pennsylvania K7A. Available with either hog or



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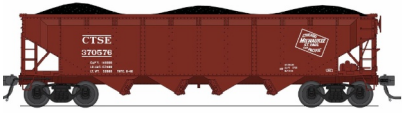
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cattle sounds, the model will be available painted for Santa Fe, Denver Rio Grande Western, Great Northern/BSB, Great Northern/

red-white, Missouri-Kansas-Texas, New York Central, Union Pacific/Yellow-Brown, Union Pacific/Red-Silver, an Independence Day fantasy scheme with patriotic songs, and a Merry Christmas fantasy scheme with holiday songs and sounds. The pre-order deadline is September 3, 2026 for December 2026 delivery. The MSRP is \$59.99.



Another N scale car from Broadway Limited is a new run of ARA 4-bay 70-ton hopper cars. A steam-era car with a build date in

the late 1920s, the model will be available in 6-packs with uniquely numbered cars. Road names in this run are B&O, C&O, Milwaukee, ATSF, and Union Pacific. A mixed variety 6-pack of B&O, C&O, and Milwaukee and a 6-pack of undecorated cars are also available. The pre-order deadline is July 16, 2026, with a delivery date of Fall 2026. MSRP is \$129.99 per 6-pack.

Info: www.broadway-limited.com

Micro-Trains by Atlas has begun announcing new cars in N scale.



New releases that were expected in late June are Grit N' Grime series 52'-6" Greenville 2494 cu. ft. mill gondolas in

Railgon/GONX, CSX ex-Railgon, and Wisconsin Central. MSRP is \$36.95.



Also expected in late June is a 2-pack of weathered 50' single door boxcars without running boards. The ex-Northern Pacific cars are painted in a special

“Share in Freedom; US Savings Bonds” red, white, and blue scheme from 1968. MSRP for the 2-pack is \$59.95.



The last of the new arrivals expected in late June is a 3-pack of N scale 50' single door rib side boxcars painted in a highly weathered Montana Rail Link blue scheme. MSRP is \$97.95.



Preorders are open for the Summer 2026 delivery of weathered 50' single door standard boxcars without a running board. Paint schemes are Pittsburgh & Lake Erie and Burlington Northern. MSRP is \$31.95.



A weathered 40' single sliding door boxcar without roofwalk is available with a Youngstown door in Great Northern and a Superior door in Pennsylvania RR. MSRP is \$31.95.



A weathered TTX 89' TOFC flat car will be available in Summer 2026 with a wrecked tank car load. MSRP is \$79.95.



A weathered 50' single sliding door rib side boxcar equipped with a Superior door is painted in both Railbox/RBOX and Burlington Northern/ex-RBOX patch. MSRP for each car is \$30.95.



A 2-pack of weathered N scale ATSF 57' converted TOFC flat cars include M1 Abrams tanks as loads. MSRP is \$73.95 for the 2-pack.



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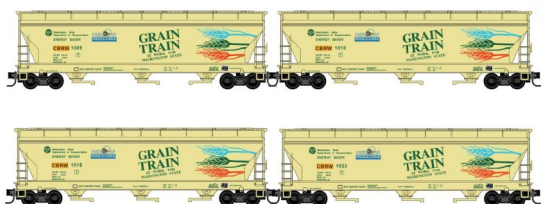
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The last N scale weathered cars with an anticipated Summer 2026 arrival date are a 2-pack of CSXT and Norfolk Southern 50' 15-panel fixed end gondolas with fishbelly sides. MSRP for the 2-pack is \$63.95.



Two Micro-Trains from Atlas announcements came with a due date of July 15, 2026. The first is a 57' converted TOFC flatcar 2-pack with the bodies of two UH-1 Huey helicopters on one car and the tails of the helicopters on the other. MSRP for the 2-pack is \$89.95.

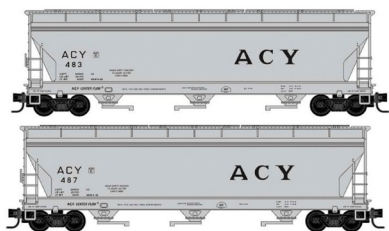


The second announcement with a due date of July 15, 2026 is a 4-pack of Columbia Basin Railroad 3-bay covered hoppers decorated for the Washington State Grain Train. MSRP for the 4-pack is \$149.95.



Pre-orders for August 15, 2026 include N scale 56' General Service Tank Cars. They are available in 2-packs in two road names, Abengoa Bioenergy/TILX and Marquis Energy/TILX. Each two pack has an MSRP of \$79.95.

A 3-pack of BNSF Runner tank cars has an MSRP of \$119.95.



Also part of the August pre-order is a 2-pack of Akron Canton & Youngstown 3-bay ACF Centerflow covered hoppers with elongated hatches. The 2-pack includes ACY 483 and ACY 487 and retails for \$69.95.



The last item in the August 15, 2026, pre-order announcement is a 4-pack of N scale 61' bulkhead flat cars decorated for Montana Rail Link. Car numbers 62009, 62201, 62204, and 62217 are painted in

multiple colors and are patched from their previous owners. MSRP for the 4-pack is \$129.95.

Info: shop.atlasrr.com



Railsmith has announced several new baggage cars available for

pre-order. The first is Santa Fe Bicentennial red, white, and blue baggage car 133, which wore this scheme as a steam generator car from 1972 through late 1976. Its introductory price is \$76.



An ex-Santa Fe car acquired by Amtrak was decorated with the US Savings bond logo. Its price is \$68.00.



Two ex-SP 72' baggage express cars were purchased by the Alaska

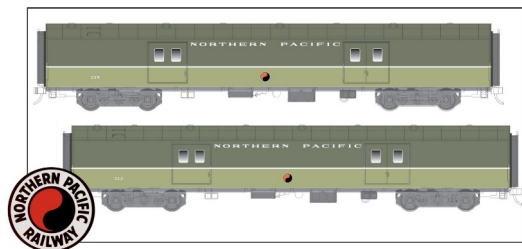
Railroad in 1997. Railsmith is producing baggage 110 and 111, which are normally placed at each end of an ARR passenger train to prevent needing to turn the train. Baggage 110 includes the ARRC centennial logo per the prototype. Each car is priced at \$63.00.



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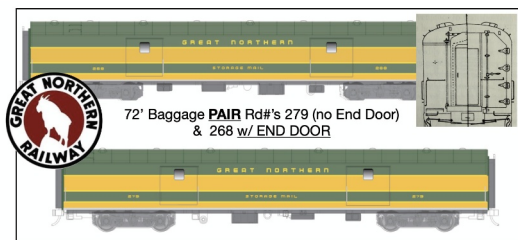


Two Northern Pacific cars, Baggage 212 and 215, are decorated in the 1954 paint scheme and sold as a 2-pack. The 2-pack is priced at \$122.00. Baggage 212 is available separately for \$65.



an end door. It is priced at \$65.00.

Railsmith is offering GN baggage car 269 in Big Sky Blue, which includes



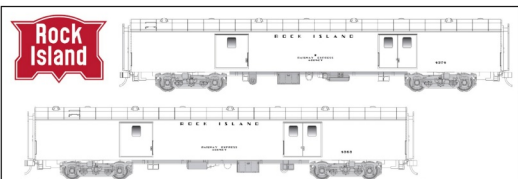
\$126.00 or the 268 separately is \$66.00.

In the Empire Builder paint scheme Railsmith is producing two 72' baggage cars, road numbers 268 and 279. Like the BSB 269 above, 268 includes an end door. The pair is priced at



Burlington Havelock Shops and were referred to as Havelock Economy Baggage Cars. The price for the pair is \$121.00 with 1036 available separately for \$63.00.

Two CB&Q 72' baggage cars with Burlington Route accurate windows are available for pre-order. Baggage 1036 and 1045 were built by the



Rock Island Baggage 4374 and 4363 were two of 25 72' baggage cars produced by St. Louis Car for the CRIP. Railsmith is producing

both cars in silver with both cars priced at \$121.00 with 4363 available separately for \$63.00.



Finally, Railsmith is offering a 72' baggage car with the correct windows for a Kansas City Southern car. The 10 cars of this style that KCS owned were numbered 20-29, and this car is numbered 27. It is priced at \$65.00.

Info: lowellsmith.net



In late June Metra introduced Metra 525, a red, white, and blue locomotive

with the America 250 logo on the long hood and nose. On July 4th, **Rapido** announced an N scale version as an addition to its America 250 collection. An SD70MACH, the model is packed with details from the PTC antennas on the roof to the working ditchlights. The DC/Silent version is US\$189.95, and the DCC/Sound equipped version is US\$299.95.

Info: rapidotrains.com



ScaleTrains is taking pre-orders for GE ES44 locomotive models in N scale. Produced with all new tooling that is capable of producing over 60 body variations,

the Rivet Counter models will include road specific tooling and advanced lighting configurations. Roadnames in the initial release are BNSF, Florida East Coast, Norfolk Southern, and Union Pacific. CSX will be available in five Heritage schemes and YN3 with the boxcar logo and Iowa Interstate will be



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available in standard black and red and the Heritage Rock Island red. Preorder price with DCC/Sound is \$254.99 and DC/DCC ready is \$149.99. Preorders are due on August 3, 2026 with an expected delivery date of February 2027.

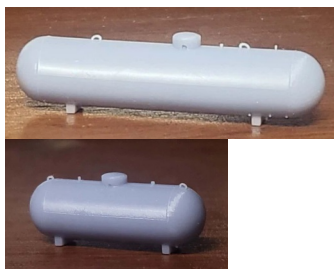
Info: scaletrains.com

STRUCTURES & SCENIC SUPPLIES



From **3D Resin Prints** comes a kit for an HO scale 1920's Packard Tanker Truck kit. Printed in 3D resin, the kit consists of 9 parts including a driver. Most of the parts are also available separately. The price of the Truck kit is \$13.75.

Info: 3gresinprints.com



New from **ABR Model Works** in N and HO scale are 3D printed propane tanks in three sizes: 250 gallons, 500 gallons, and 1000 gallons. Available in sets of two, they are \$9.99/HO \$7.99/N for the 1000-gallon tank, \$7.99/HO \$5.99/N for the 500-gallon tank, and \$6.99/HO \$4.99/N for the 250-gallon tank.



Also new in N scale are two 3D printed detail packs.

The Workshop Details are 38

items varying from a small workbench and bookshelves to gas bottles and an air compressor. The Garage Details pack is 30 items including many of the items in the Workshop Details, and some that aren't, such as a residential oil heating tank and two

truck and two car tires. The Workshop Details is \$29.99, and the Garage Details is \$24.99.

Info: abrmodelworks.com



Ammo by Mig has released several new Oilbrusher colors in the RailCenter line. The paints, which come with their own applicator brush in the bottle, include Black, White, Deep Green, Dark Earth, Rust,

Sleeper Brown, Dry Earth, Deep Blue, Grease Black, and Bare Metal. MSRP for the Oilbrusher paints is \$3.86 each.

Info: migjimenez.com



Two new releases from **Berkshire Valley Models** are former American Model Builders kits. The first is the HO scale Loft Barn, a two-story structure made of laser-cut wood and peel & stick roofing paper. It measures 3" x 2-1/2" x 3-1/4" high and is priced at \$22.00.



The second kit is the Gandy Dancer's Shack in HO scale. Measuring 3-1/2" x 1-1/2" x 1-1/2" high and constructed of laser cut wood and peel & stick roofing paper, the kit is priced at \$16.00.

Info: berkshirevalleymodels.com



DigCom Designs has released Mechanic Shop Details #2 in HO and N scales. The printable paper model kit includes King Car Lift elevators in red, blue, and black; wheel alignment ramps with a simulated service pit and safety



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striping, and medium rolling tool cabinets in red, black, white, and green. Mechanic Shop Details #2 was designed to be part of the DigCom Designs Midas/Speedee Garage structure and accompany Mechanic Shop Details #1. The MSRP for Mechanic Shop Details #2 is \$5.95.

Info: www.digcomdesigns.net



FOS Scale Models continues to expand its Humanity to Scale figures line, with two of the latest releases being “Hero Salute” and

Boy Scout Salute. The Hero Salute is a group of HO figures that are sold individually for \$4.99 each. Available figures are State Trooper, Police Officer, Navy Sailor, Vintage Army GI, Modern Army/National Guard Service Member, Female Service Member, and Royal Canadian Mounted Police Officer.



The Boy Scout Salute features four unique boy scout figures in HO scale for \$10.99. All figures are unpainted, 3D printed resin.



Also new in HO scale are resin 3D-printed vintage playground equipment pieces. Three climbers are available, a UFO

Spinner, a Rocket Climber, and a Turtle Climber. They are \$6.95 each.



Finally, a set of three resin 3D-printed HO spring-based animal riders has been released. The duck, bunny, and turtle spring riders set sells for \$6.95.

Info: fosscalemodels.com



Frenchman River Model Works has begun pre-orders for the 1:48 scale Hamilton Broom Company. A derelict wooden structure patched with corrugated metal, the structure was rail served, but probably a long time ago. Preorder price until August 15, 2026 is \$179.95 with the model scheduled to begin shipping on that date.

Info: www.frenchmanriver.com



New from **Jason Jensen Trains** is Wentworth New & Used Appliance store in HO scale. The craftsman kit includes 3D resin printed detail parts, including but not limited to 2 washers, 2 stoves, and 2 refrigerators. Priced at \$81.95 the kit will begin shipping on July 16, 2026.

Info: jasonjensentrains.com



New from **igMakes** is an N scale Service Building Type A. Printed in PLA, the building requires assembly. Its dimensions are approximately 7" x 2.5". Price is \$18.00.



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Also from igMakes is a 40-foot open top grain trailer. Printed in a new impact resistant resin, it is printed with raised landing gear and with the wheels as a separate piece to simplify painting. Its price is \$8.99.

Info: igmakes.com



Jackson Railcar has released several new N scale scenery and railcar loads in N scale. The Vintage General Store Interior Set includes two shelf units, one front counter, and two produce bins.

The unpainted pieces are pre-primed and ready for paint.



Another new release is 2-Packs of generic F1 racing cars in N scale. These are not intended to replicate any specific F1 car, just the general shape. They are not painted but are pre-primed.



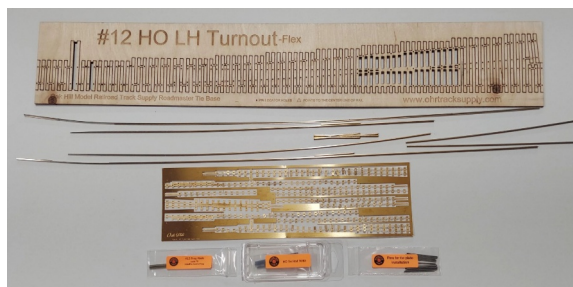
Two railcar loads are a 12-pack of four types of banded steel rolls and a 17-pack of lumber bundles in assorted sizes. Wraps for the lumber bundles are included.

Info: www.jacksonrail.com



Micro-Trains by Atlas has announced a modern single-post billboard kit in N scale. It includes four advertising signs to choose from. MSRP is \$20.95.

Info: shop.atlasrr.com



Oak Hill Model Railroad Track Supply has introduced Roadmaster Flex Turnouts, a combination of flexible tie bases with tie plates, allowing the

modeler to create curved and custom turnouts without metal templates or assembly fixtures. The Flex turnouts are available for Code 70 and 83 track with #6, #8, and #12 frogs. The kits include laser-cut tie bases, etched tie plates, cast frog, tie rods, pre-filled and hinged point rails, pre-filled stock rails, cut-to-length guard rails, and installation pins. Price is determined by what type of product (DIY or completed turnout), turnout size, and the track size being used. A DIY #6 turnout with Code 83 track is \$57.99. A DIY #12 turnout kit with Code 70 track is \$81.99.

Info: ohrtracksupply.com



RailroadKits & Microlumina is selling Add-a-Shop, three unpainted HO scale cast resin

interior wall sections that can quickly create the interior for a shop building. Additional FSM (Fine Scale Miniatures) detail castings are also included. The approximate size is 5" W x 2.3" D x 1.8" H. It is priced at \$18.00.

Info: railroadkits.com



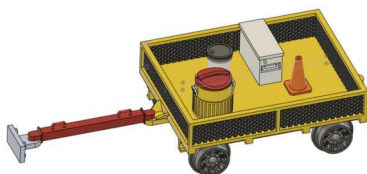
New from **Rusty Rails** is a copper moonshine still. A single piece 3D-print, the still comes unpainted and is priced at \$8.00.

Info: www.rustyrail.com



portable gang boxes. The set is priced at US\$12.50.

Silver Spike Designs has released several new HO scale products in the past month, including a Machine Detail Accessory Pack that includes four 10-gallon water coolers, five lidded 5-gallon buckets, five fire extinguishers, ten safety cones, two open five-gallon buckets, and two



A kit for a pair of MoW mesh side flat carts including a tool box, water cooler and safety cones is available for US\$21.95.



An essential part of any modern MoW work gang is the Toilet Wagon/porta-potty carts. Silver Spike Designs has a pair of them for \$24.95. The kit also includes water jugs, porta-potties, and safety cones.



A two-piece kit for a Light Tower and Tie Plate cart set includes two carts, drawbars and hitches, light towers and generators, and other accessories. It is priced at US\$24.95.

Info: silverspikedesigns.com



New from **Sylvan Scale Models** are a series of HO scale 32' Fruehauf tandem axle trailer resin kits. Delaware



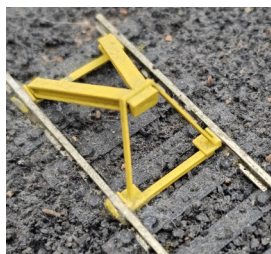
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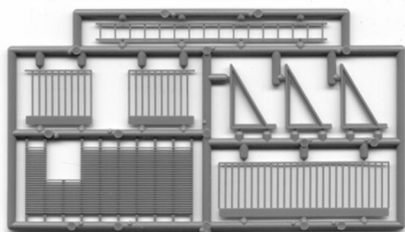
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Lackawanna & Western decals come with a side door trailer and one with a canvas top, while Nickel Plate decals come with a canvas top trailer and one without a side door. A single no-side door trailer kit comes with Western Maryland decals. All three trailer kits are available without decals. MSRP is \$27.95 per kit.

Info: www.sylvanscalemodels.com



Tichy Train Group has released two new bulk packs. The first is the #8165 Track Stop Bulk Pack which includes 20 track stops per box. The Track Stop kit is molded in gray styrene and includes the reinforcing plates placed on the outside of the rails. MSRP is \$50.



The #8060 Fire Escapes Bulk Pack includes twelve fire escape platforms with railings and vertical ladders. Molded in gray styrene, the platform grate is see-thru. MSRP is \$20.

Info: www.tichytraingroup.com



In N scale **Walthers** has announced a Cornerstone Oil Loading Platform kit which includes a two-track platform, piping, nozzles, stairway, and safety sign decals. MSRP is currently \$15.98. Delivery is expected Summer 2026.

In HO scale Walthers Cornerstone has announced a Pedestrian Bridge kit. Replicating a steel truss design that extends over three track widths, it includes a decal sheet for height and

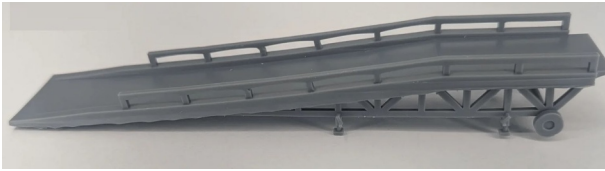


warning signs. With an expected delivery of Summer 2026 the MSRP is \$34.98.

Info: www.walthers.com



Whistle Stop Models is offering a 60' grain auger model in HO scale. The model is unpainted and 3D-printed in resin. It is priced at \$14.95.



In N scale they have a portable loading ramp that is priced at \$12.95.

Info: whistlestopmodels.com



New from **Yelton Models** are five sets of HO scale Steel Mill Workers in full "silver suit" heat resistant outfits. Each set includes three suited workers

engaged in some task. The sets are priced at \$10.57 each.

Info: www.yeltonmodels.com

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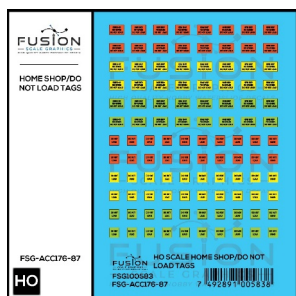
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NEW DECALS, SIGNS, AND FINISHING PRODUCTS

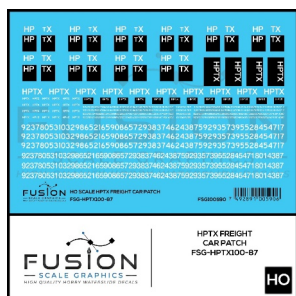


Black Cat Decals has a Dulux Gold modern Canadian Pacific Railway lettering in N scale for \$9.00.

Info: www.blackcatdecals.com



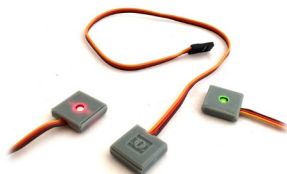
Fusion Scale Graphics has several new sets of decals available in multiple scales. An HO scale set of Home Shop/Do Not Load tags in red, yellow, and green is available for \$8.00.



Also in HO scale is a set of HPTX freight car patch decals. See the Fusion Scale Graphics website for prototype photos of a gondola and hopper that have been patched. The decal sheet is available for \$9.00.

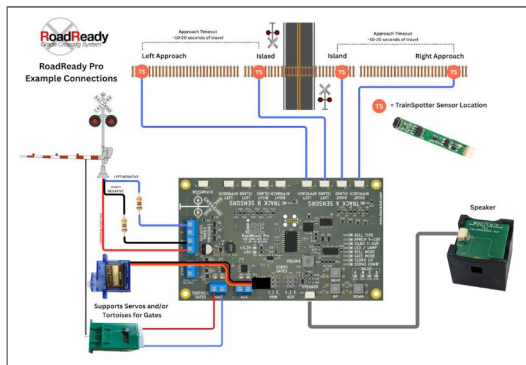
Info: fsdecals.com

ELECTRONICS



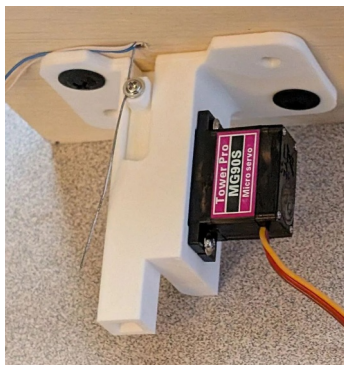
Barrett Hill Shop anticipates shipping the Touch Trigger Versa for Digitrax 70 series by August 2026. The Versa reversed indication touch triggers are direct replacements for the Digitrax DSXCP1 fascia controls for the DS74 and DS78V series stationary decoders. They are also available in

the Mini-Cup fascia mount. Touch Triggers are currently priced at \$11.90 each, \$15.90 with the Mini-Cup mount. Info: www.berretthillshop.com



Iowa Scaled Engineering has announced the RoadReady Pro, an advanced grade crossing controller. It includes TrainSpotter sensors, a speaker module with seven different prototype bells, programmable timeouts, common anode

signal drivers, full approach and island detection on up to two tracks, support for no gates, two gates, or four quadrant gates, stall motor and servo support, and an additional output for triggering an additional item, such as a road sign, while the crossing is in operation. It is priced at \$120.00.



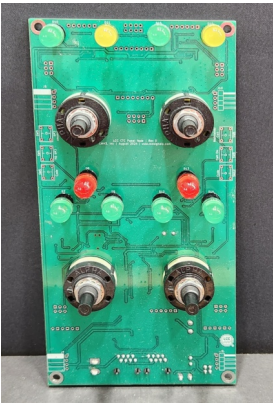
STL and F3D files are available on Thingiverse (www.thingiverse.com/thing:7340212) for a rack and pinion drive that can be mounted to the bottom of the layout to use a servo for vertical motion – crossing gates, semaphores, train order boards, or other animations. It may become a product in the future, but for now they are free to download and print.

The SoundBytes Custom is a programmable sound player based on the Squealer. Using files loaded on a microSD card, sounds can be triggered by up to four events or sensors, play



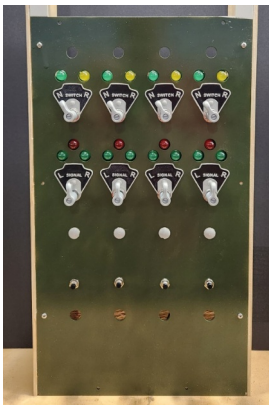
as ambient background sound, and even repeat multiple sound clips in order. It can be powered by 5V to 24V DC through either a two-wire connection or via 5V USB using a mini plug. A power adapter to use the DCC bus is available. The price of the Soundbytes Custom is \$79.00.

Info: www.iascaled.com



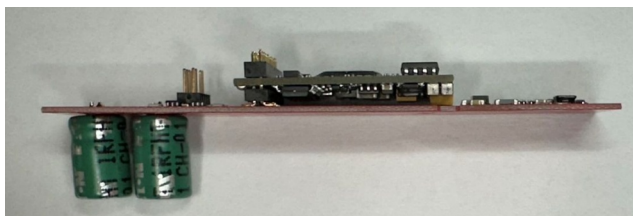
LCCSignals has announced the release of the first dedicated Layout Command Control (LCC) enabled Centralized Traffic Control (CTC) node. Representing two columns of a Union Switch & Signal Model 500 series CTC machine, each node includes prototypically spaced levers and external screw terminal block inputs for code button, call on and maintainer call, for a total of six inputs per node. Also on screw terminal blocks are fourteen external outputs with resistors installed to

drive LEDs for occupancy displays. Sound outputs are also included. Signal logic can be programmed in the Cue Logic Language. Price per node is \$179.00.



Pre-cut and painted front panels in 4, 6, 8, or 15 column sizes are available, along with other accessories and components to complete a CTC panel installation. The product manual is available on the LCCSignals website. Prices vary by size and accessories.

Info: www.lccsignals.com



NixTrainz has introduced the DecoderBuddy V8. The features of the DecoderBuddy V8

allow for using all lighting options, including those currently unavailable to some decoders. V8 addresses the trends toward PCB-mounted LEDs that are attached to the frame of the locomotive, pogo-pin electrical contacts, and JST-type connectors by repeating lighting outputs on each end of the motherboard as well as on the daughterboard, which replaces the pogo-pins and JST connectors. Both series and parallel speaker wiring, as well as speaker placement, are accommodated on the motherboard. A Power Bridge stay alive is included on the motherboard and should work with all manufacturers decoders that use the 21-pin standard. Optional capacitor placements are available.

Info: nixtrainz.com

Manifest
Oakville Sub
Manifest - Model Railroad Collection

COLLECTION
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Books 1
Locomotives 58
Passenger cars 9
Rolling stock 3
Structures 2
Track 2
Vehicles 3
LOST
Favorites
Wishlist
09/04/2006
Car Cards
Operations

Search road name, number, manufacturer...

9 Filter Recently updated Import Export Select Add Item

TYPE	MODEL	BUILDER	ROAD / NUMBER	REPORTING MARK	SCALE *	MANUFACTURER	LOCATION
Locomotive	Royal Hudson	Montreal Locomotive Works	CP 2869 Canadian Pacific	CP	HO		Steam shelf
Locomotive	4-8-4 Northern	Montreal Locomotive Works	CN 6219 acc Canadian National	CN	HO		On layout
Locomotive	H16-44	CLC (Canadian Locomotive Company)	CN 3377 Canadian National	CN	HO		On layout
Locomotive	R5-3	Alco (American Locomotive Company)	CP 4744 Canadian Pacific	CP	HO		Kit box 1
Locomotive	ALC-42 Charger	Siemens	AMTK 42 Amtrak	AMTK	HO		Display case C
Locomotive	P42DC	GE	VIA 6902 VIA Rail Canada	VIA	HO		On layout
Locomotive	GP38-2	GMDD (General Motors Diesel, Canada)	ONT 1733 acc Ontario Northland	ONT	HO		Shelf 2
Locomotive	M420	MLW (Montreal Locomotive Works)	BCOL 721 BC Rail	BCOL	HO		Shelf 2

Maple Leaf Trains has released version 1 of Manifest, a Windows program for organizing your model railroad collection. It is available for download from their website.

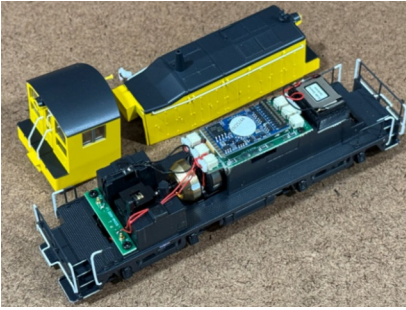
Info: www.mapleleaftrains.com



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Scale Sound Systems has released a new speaker named the WLML-SW1S for the newest sound-equipped and DCC-ready release of the HO scale Walther's Mainline SW1. It is priced at \$17.00.

Info: www.scalesoundsystems.com

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BRIEFLY NOTED AT PRESS TIME ...

The July car from **Kadee** is an HO RTR 50' PS-1 boxcar decorated for the Soo Line. Featuring 9' Youngstown doors it was built in 1961 and is factory new.

Info: kadee.com

Kato USA has announced an N scale version of the New York Central M-497 Black Beetle, the jet-powered RDC. Built for the New York Central in 1966 it set a rail speed record that lasted several years. The base model MSRP is \$130.00 with a combination of interior lights, sound, and DCC that raises the MSRP to a maximum of \$345.00.

Info: www.katousa.com ■

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JULY

Please submit your event information, including website, to [model-railroad-hobbyist.com/contact/News_event - product announcement](https://model-railroad-hobbyist.com/contact/News_event-product_announcement)

Ongoing Online and In-Person

ONLINE, Zoom & YouTube, Wednesdays at 7pm Eastern. New Tracks Modeling Live Weekly

Info: newtracksmodeling.com

YouTube: [www.youtube.com/channel/UCMA](https://www.youtube.com/channel/UCMAVhPb5pjdkAYTdXLceJA)

[VhPb5pjdkAYTdXLceJA](https://www.youtube.com/channel/UCMAVhPb5pjdkAYTdXLceJA)

ONLINE, Zoom, Second Tuesdays, 8pm Eastern. “Off the Beaten Track” featuring Narrow Gauge layouts, clinics, and manufacturers.

Info: groups.io/g/NNG

ILLINOIS, CALEDONIA, Monthly Meetings of the Rock River Valley Division, Midwest Region. Paulson’s Agriculture Museum of Argyle, 6950 Belvidere Rd. See Events page on website for dates.

Info: rrvd-nmra.com

July – August 2026

CANADA, ONTARIO, WATERLOO, August 29-30, 2026.

Waterloo Railway Exposition, Hampton Inn & Suites by Hilton
Waterloo St. Jacobs, 55 Benjamin Rd.

Info: waterloorailexpo.ca

FLORIDA, VERO BEACH, August 1, 2026. Vero Beach Model
Railroader's Family Day Open House. Indian River County
Library, 1600 21st Street.

Info: www.facebook.com/groups/141512989884123

ILLINOIS, COLLINSVILLE, July 23-25, 2026. MCoR 2026
Regional Convention and St. Louis RPM. Gateway Convention
Center, 1 Gateway Dr.

Info: www.mcor-nmra.org/Conventions

Info: stlrpm.com

MISSOURI, ST LOUIS, August 1, 2026. The National Museum
of Transportation Model Train & Diecast Tailgate Swap Meet.
Parking Lot #2, The National Museum of Transportation,
2933 Barrett Station Rd.

Info: tnmot.org/event/model-train-swap-meet

MISSOURI, ST LOUIS, August 29, 2026. Railroad Swap Meet,
sponsored by the Boeing Employees' Railroad Club – St. Louis.
Greensfelder Recreation Complex at Queeny Park, 550
Wiedman Rd.

Info: www.berrc-stl.com/V3.0p/index.html

NEVADA, BOULDER CITY (Las Vegas), August 8-9, 2026.
Friends of the Nevada Southern Railway Big Train Show.
Boulder City Recreation Center, 900 Arizona St.

Info: trainshows.net/event/1894/friends-of-the-nevada-southern-railway-big-train-show

NEW JERSEY, RIO GRANDE (Cape May County), August 15,
2026. Rio Grande Fire Department 5th Annual Toy and Train
Collectable Show. 1120 Route 47 South.

Info: Bob @ 856-296-9423



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PENNSYLVANIA, ALLENWOOD, August 30, 2026. 50th Annual Train Show & Sale, Sponsored by Central PA Chapter, National Railway Historical Society. Warrior Run Fire Department Social Hall, Second St.

Info: www.centralpanrhs.org

PENNSYLVANIA, KUTZTOWN, July 18, September 12, 2026. Flash Train Meets. Renninger's Farmers, Flea, and Antique Market, 740 Noble St.

Info: renningers.net/event-category/kutz-events

TENNESSEE, CHATTANOOGA, July 27-August 2, 2026. 2026 Scenic City Express, NMRA National Convention and National Train Show. Chattanooga Convention Center, 1 Carter St.

Info: www.nmra2026.org

TENNESEE, JONESBOROUGH, July 24-25, 2026. Watauga Valley Railroad HS&M Train Show. Jonesborough Elementary School, 720 N Cherokee St.

Info: www.wataugavalleynrhs.org

TEXAS, AUSTIN, June 18-21, 2026. 2026 Connections, Lone Star Regional Convention. Wyndham Garden Austin, 3401 South IH-35.

Info: 2026-convention.lsrnmra.org

Future 2026 by location

CANADA, ALBERTA, CALGARY, September 19-20, 2026. Heritage Park 40th Anniversary Railway Days. 1900 Heritage Dr. S.W.

Info: heritagepark.ca

CANADA, ALBERTA, EDMONTON, October 3-4, 2026. 2026 Greater Edmonton Model Train Show. Edmonton Expo Centre, 7515 - 118 Avenue.

Info: www.mmrf.ab.ca/greater-edmonton-model-train-show

CANADA, ONTARIO, ST CATHARINES, October 25, 2026. Fall Niagara Model Railway Show. Merritton Community Centre, 7 Park Avenue.

Info: nfrm.ca/events.php

CANADA, SASKATCHEWAN, MOOSE JAW, November 7-8, 2026. Moose Jaw Thunder Creek Model Railroad Show. Moose Jaw Convention Center, 250 Thatcher Dr E.

Info: www.facebook.com/groups/562094199802859

CALIFORNIA, CENTRAL COAST, October 2-4, 2026. 16th Annual Central Coast Railroad Festival. Multiple Locations, San Luis Obispo and Norther Santa Barbara Counties.

Info: www.cccrrf.com

CALIFORNIA, SAN DIEGO, September 9-13, 2026. Pacific Southwest Region "All Aboard for 2026" Model Train Convention. Doubletree by Hilton Hotel San Diego-Mission Valley, 7450 Hazard Center Dr.

Info: www.sandiegodivision.org/index.php/convention-2026

CALIFORNIA, VISALIA, October 7-10, 2026. 2026 Southern Pacific Historical and Technical Society Convention. Wynham Visalia, 9000 W Airport Dr.

Info: sphts.org/convention

COLORADO, GREELEY, October 16-18, 2026. Colorado Rail Proto Meet. Island Grove Event Center, 421 N 15th Ave.

Info: corpm.org

FLORIDA, OCALA, October 15-18, 2026. Iron Horse, the 2026 Sunshine Region Convention. Ocala Hilton, 3600 SW 36th Ave.

Info: www.nmrasunshineregion.org

IDAHO, CALDWELL, September 19-20, 2026. Southwest Idaho Train Show, sponsored by the Caldwell Model Railroad Club & Historical Society. O'Connor Field House, 2207 Blaine Street.

Info: sites.google.com/view/caldwell-model-railroad-club/train-show

IOWA, BOONE, September 19-20, 2026. 2026 Boone Pufferbilly Days Train Show. Boone County Fairgrounds Community Building, 1601 Industrial Park Rd.

Info: boonecountychamber.com/pufferbilly-days



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IOWA, IOWA CITY, October 18, 2026. Iowa City Train Show, sponsored by the Hawkeye Model Railroad Club. Johnson County Fairgrounds, 4261 Oak Crest Hill Rd S (old Hwy 218).

Info: www.hawkeyemodelrrclub.com

MARYLAND, LINTHICUM, October 1-4, 2026. Mid-Atlantic RPM. Doubletree by Hilton at BWI.

Info: www.marpm.org

MARYLAND, TIMONIUM, October 31-November 1, 2026. The Great Scale Model Train Show. Maryland State Fairgrounds, 2200 York Rd.

Info: gsmts.com

MASSACHUSETTS, SOUTHBRIDGE, October 15-18, 2026. Eyes on the NER, Northeastern Regional Convention. Wellsworth Hotel, 14 Mechanic St.

Info: conventions.nernmra.org/home/home-2026

MASSACHUSETTS, TAUNTON, September 20, 2026. 26th Annual Model Train Show, sponsored by the Old Colony Model Railroad Club. Taunton Inn & Conference Center, 700 Myles Standish Blvd, Route 495 Exit 25.

Info: trainshows.net/event/1767/old-colony-railroad-club-annual-model-train-show

MICHIGAN, TAYLOR, October 11, 2026. Taylor Town Train Show and Sale. 22525 Ecorse Rd.

Info: www.facebook.com/james.leland.355111/posts/taylor-town-train-show-and-sale-sunday-february-15th-march-15th-april-12th-octob/841310192235074

MICHIGAN, ZEELAND, October 8-10, 2026. Grand Rails 2026. North Central Regional Convention. Howard Miller Community Center, 14 South Church St.

Info: grandrailsdiv4.com

MISSOURI, INDEPENDENCE, September 17-19, 2026. 2026 Brass Train Show. Missouri Model Railroad Museum, 312 W. Pacific Avenue.

Info: showmerails.org/2026-train-shows/2026-brass-train-show

MISSOURI, KIRKWOOD, October 3, 2026. 35th Annual Greater St. Louis Metro Area Train Show, sponsored by the Mississippi Valley N Scalers. Kirkwood Community Center, 111 S. Geyer Road.
Info: mvns.railfan.net

MISSOURI, SPRINGFIELD, September 11-12, 2026. Ozarks Model Railroad Association Train Show, Ozark Empire Fairgrounds, E-Plex West Hall, 3001 North Grant Ave.
Info: omraspringfield.org/train-show

NEW JERSEY, MAGNOLIA, September 26, 2026. Magnolia Train Show. Magnolia Community Center, 425 W. Brooke Ave.
Info: www.facebook.com/StrasburgModelRailroadNJ

NORTH CAROLINA, CONCORD, October 24, 2026. Carolina Train Shows. Hilton Garden Inn, 7831 Gateway Lane.
Info: carolinatrainshows.com/#shows

OHIO, CAMBRIDGE, October 25, 2026. Eighth Annual NMRA Buckeye Division Train Show. Pritchard Laughlin Center, 7033 Glenn Hwy.
Info: www.nmrabuckeyedivision.org/train-show

OHIO, DAYTON, November 7-8, 2026. 50th Original Dayton Train Show. Montgomery County Fairgrounds and Events Center, 645 Infirmary Road.
Info: www.daytontrainshow.com

OHIO, PLAIN CITY, September 12, 2026. Plain City Train Show, sponsored by the Buckeye TTOS Train Club. Der Dutchman, 445 S Jefferson Ave.
Info: ttos-buckeye.org

OKLAHOMA, OKLAHOMA CITY, November 14-16, 2026. 49th Annual OKC Train Show. Bennett Event Center, Oklahoma State Fairgrounds, 3101 Gordon Cooper Blvd.
Info: okctrainshow.com

PENNSYLVANIA, DUNMORE, October 18, 2026. The Great Northeast Model Train Show. Holiday Inn Scranton East, 200 Tigue St.
Info: bernies-model-railroad-shop.square.site



PENNSYLVANIA, HAMBURG, September 18-20, 2026. Anthracite Railroad Modelers and Model Railroad Meet XIV. Reading Railroad Heritage Museum, 500 South 3rd St.
Info: www.facebook.com/groups/624611144335704

SOUTH CAROLINA, COLUMBIA, October 17, 2026. Carolina Train Shows. Seven Oaks Park, 200 Leisure Lane.
Info: carolinatrainshows.com/#shows

SOUTH CAROLINA, ROCK HILL, September 26, 2026. Carolina Train Shows. Student Activity Center, 611 Myrtle Drive.
Info: carolinatrainshows.com/#shows

VIRGINIA, VIRGINIA BEACH, October 15-18, 2026. Tracks to Tidewater, 2026 Mid-Eastern Regional Convention. Holiday Inn, Virginia Beach, 5655 Greenwich Rd.
Info: mer-nmra.com/savethedate/index.html

WASHINGTON, BATTLE GROUND, September 26, 2026. Southwest Washington Model Railroaders Train Club Swap Meet. Battle Ground High School Gymnasium, 250 N Parkway. Exit 11 Battle Ground Highway/SR502 east 8 miles to BGHS – don't let GPS fool you.
Info: www.facebook.com/groups/346730165469/posts/10164546463490470

WISCONSIN, MILWAUKEE, November 7-8, 2026. Milwaukee Trainfest. Baird Center, 400 W Wisconsin Ave.
Info: www.eventcreate.com/e/trainfest-2026-783052 ■





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