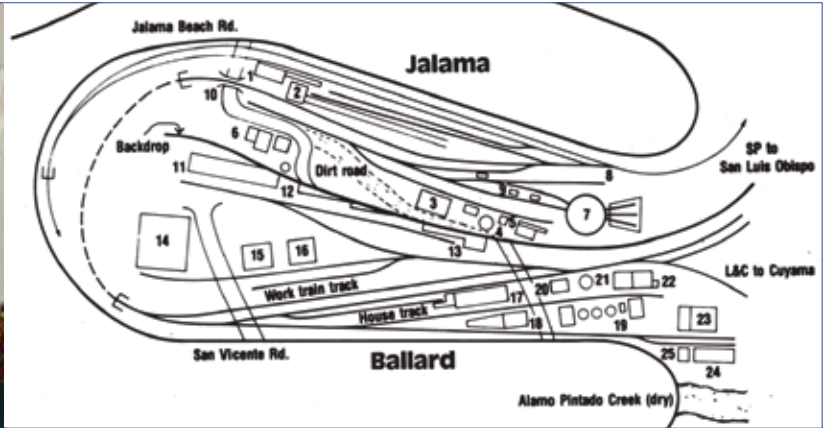
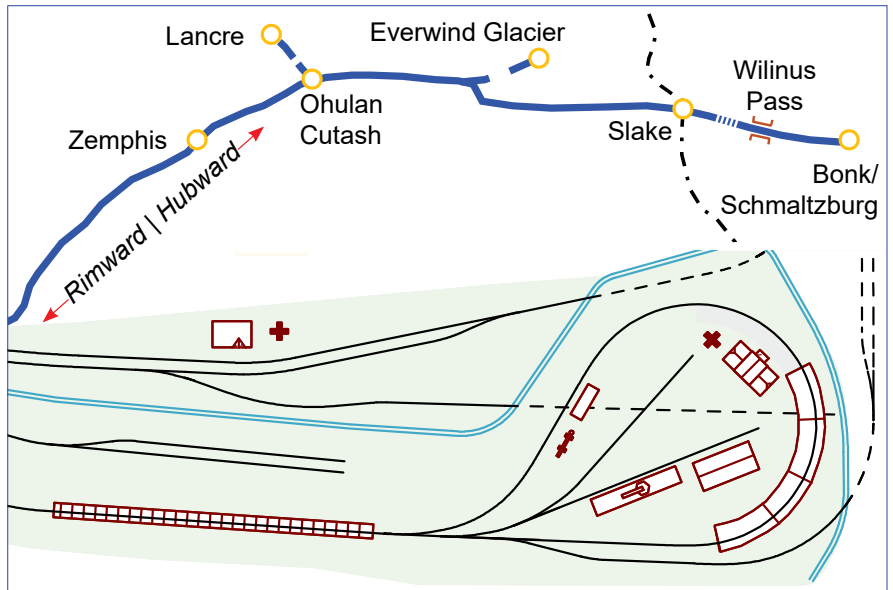


LAYOUT DESIGN

JOURNAL 75



A Layout Tale in Two Parts
Canadian Prairie Towns
Around the HVAC "Farm"
Fiction & Fantasy Challenge
Discworld Railway in OO



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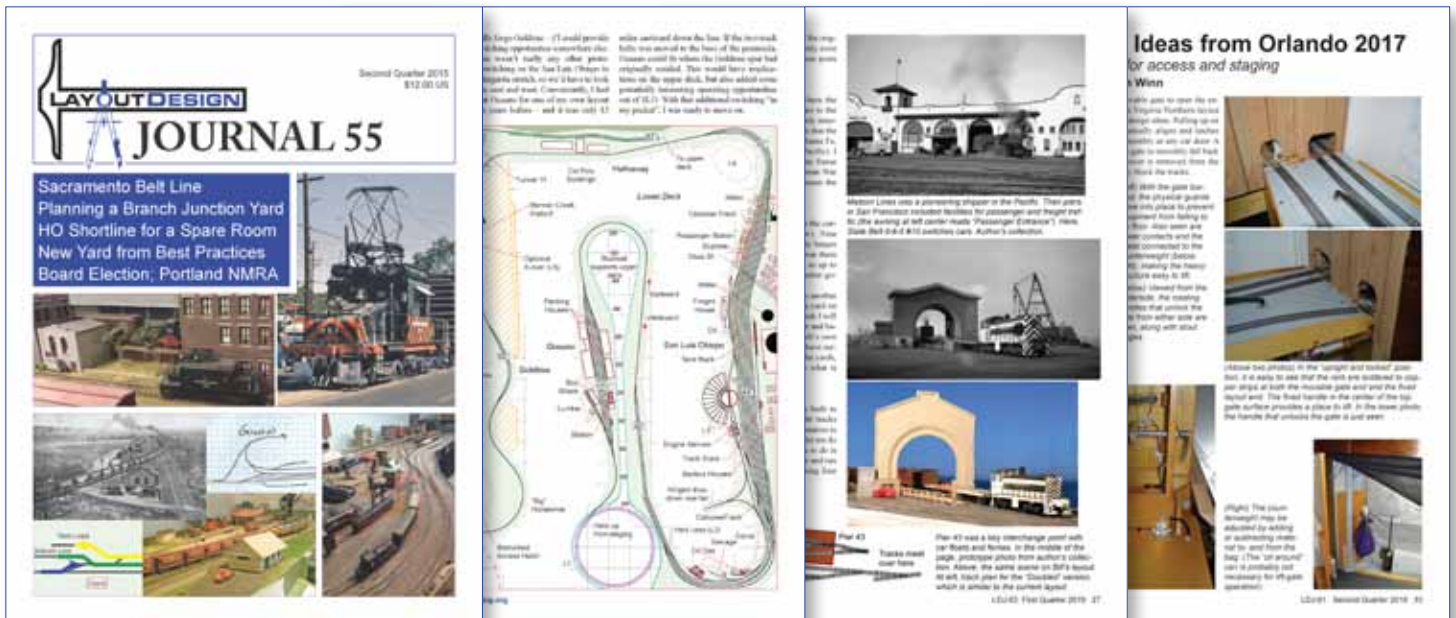
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New layout in Berkeley

When the layout was dismantled prior to our move out of Pittsburgh in 1994, I saved a lot of lumber and wiring, some of the track, and the entire peninsula. I basically divided the peninsula (the only scenicked part) into its three benchwork sections so it could be moved, and this did work moderately well.

When we moved to our present house in 2005, I finally had the opportunity to reassemble the peninsula and use it as the centerpiece of a new layout (photo below right). I decided to raise it a little bit — the level of the track is now at 46 inches instead of 43 inches as it was before — and also to make the narrow end of the peninsula less narrow. The goal was to insert a continuous-running turnback connection at the old narrow end, linking the mainline tracks on either side of the peninsula.

Where to stage?

Now without the possibility of recreating all that staging (and not wanting to have nearly so much running out of sight anyway), I searched for a way to stage trains without lots of hill climbing, and in fact my goal was for the new SP main line to be perfectly level. The solution turned out to be simple.

I designed the main line of the new layout as an oval, level; see Figure 5 at right. On

Tips ...

- Proto-freelancing a branch or connecting shortline can be an effective way of including a Class 1 in a smaller scope.
- Selecting names for locations and lines using the specific prototype practice increases realism, as does modeling typical scenery and plant communities.
- Staging with a slide-out drawer offers benefits worth the construction and maintenance complexity.

... and Trade-offs

- Long hidden runs may be less engaging and realistic.
- Re-using sections of a previous layout saves time and preserves modeling, but may compromise adherence to a real or imagined prototype.
- Mainline grades might limit train length for mainline modeling, but may fit better with a branch line. — BH

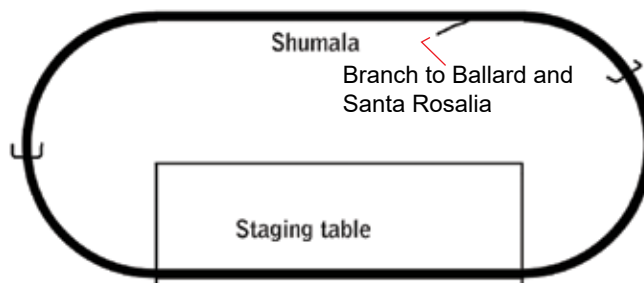


Figure 5. New SP main track arrangement on the Berkeley layout with no grade. Shumala is the new name for the previous layout's Jalama.

SP Santa Rosalia Branch

HO scale, ~15' X 15'

SP main radii 36" visible, 32"

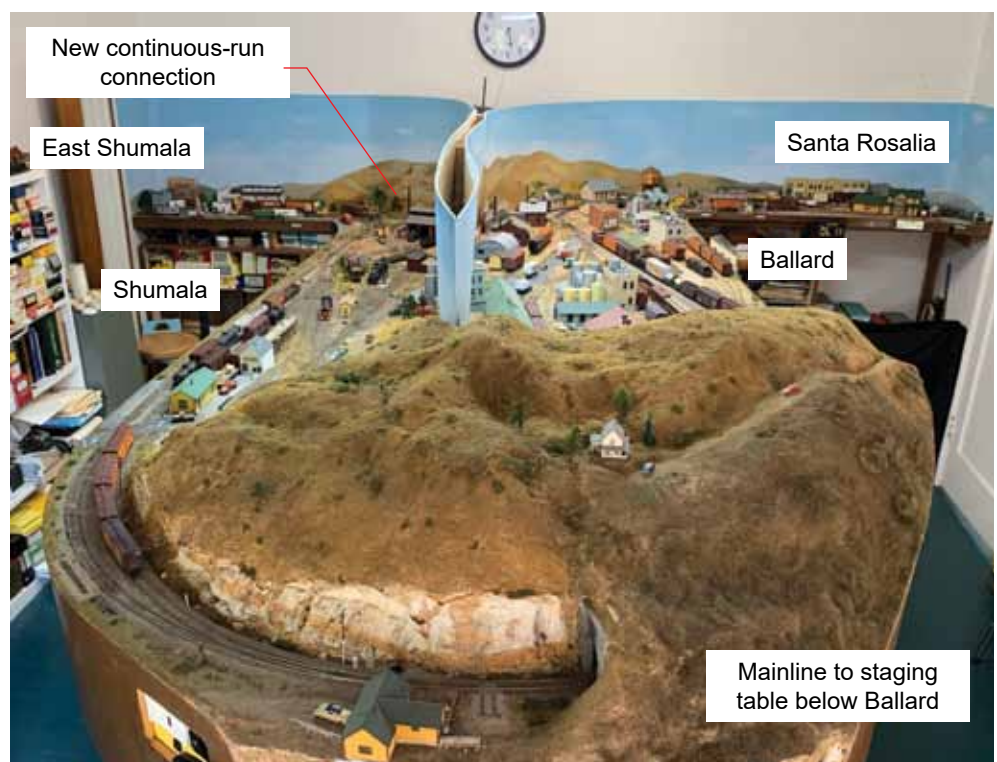
hidden track

Branch min. radius 27"

#5 turnouts

No grade on main, 2% on branch

This overall view of the Berkeley layout allows us to locate all the key towns in the absence of a formal overall track plan. The SP mainline is now level, with the branch climbing to Ballard above the slide-out staging table. Tony rebuilt the layout with Shumala at a higher elevation (46" vs. 43"). Scenery and backdrops suggest typical California plant communities and terrain.



Modeling Canadian Prairie Towns

Typical railroad-town track arrangements on CP, CN & GTP

Text and images by Cal Sexsmith, except as noted

The Canadian Pacific (CPR), Canadian Northern (CN), and Grand Trunk Pacific (GTP) railways created a vast majority of the towns and cities in western Canada. They quickly developed standard track and town designs as they built their lines across the country. The GTP even went as far as naming their towns in alphabetical order!

Although there were variations, most prairie towns followed the same basic pattern. Typically there was a main track, a double-ended siding, and a double-ended business track, also called the elevator track or the back track. The station and tool houses were located along the main track and the rail-served industries were located along the business track. The siding, if there was one, was located between the main track and the business track.

Sometimes there would be a storage track between the siding and the business track and/or a house track on the station side of the main track. In earlier years, roughly before World War I, the siding and business track were on the opposite side of the main track from the

town. In later years, after World War I, the siding and business track would be on the same side of the main track as the town.

Truly railroad towns — solar powered!

The railways also developed the town site and sold lots to prospective businesses and residents. This meant that the railways also laid out the streets and lots in the town site. Again there were typical designs. Town sites were normally located on only one side of the tracks and ideally located on the north side. This would allow the low winter sun to help melt snow from the station platform.

There would be a street parallel to the tracks on both the north and south sides. It was common to name these streets Railway Avenue North and Railway Avenue South. Front Street and Elevator Road were also common names. Main Street would run north from the station building and would be intended to be the major commercial street, although sometimes Railway Avenue or another street would become the major commercial street. Other

“... most prairie towns followed the same basic pattern.”



This atmospheric 2017 photo of Mossleigh, Alberta by Bernard Spragg highlights three remaining wooden grain elevators. Mossleigh was built later, around 1930, when a Canadian Pacific branch reached the area. Though the CP branch was abandoned, a tourist railroad (www.aspencrossing.com) now operates a portion of the line, including to Mossleigh. Public Domain photo via flickr.

Maybe too compact

Per the book narrative, the original shop that built engines and railcars is in Sto Lat. To save space, I included a relatively small engine-service area. The builder worried that there might not be enough trackage for his entire engine collection, so (Note B) I included a slightly awkwardly connected ready track for more storage. Across the paired running tracks is Brock Ironmongery, destination for loads of coal and iron ore generated in Bonk/Schmaltzburg.

The (now single-track) main ducks into a tunnel that helps in two ways: It provides some visual separation between Sto Lat and Ohulan Cutash; and it allows Bonk/Schmaltzburg to have a deeper mountain scene.

The branch to the Lancre treacle and copper mine springs from the passing siding at Ohulan Cutash, a key reason for selecting this location for one of the passing sidings. The track enters the mine tunnel below Bonk/Schmaltzburg. The mainline begins climbing beyond here (note the transition area allowed for the easement from level-to-grade).

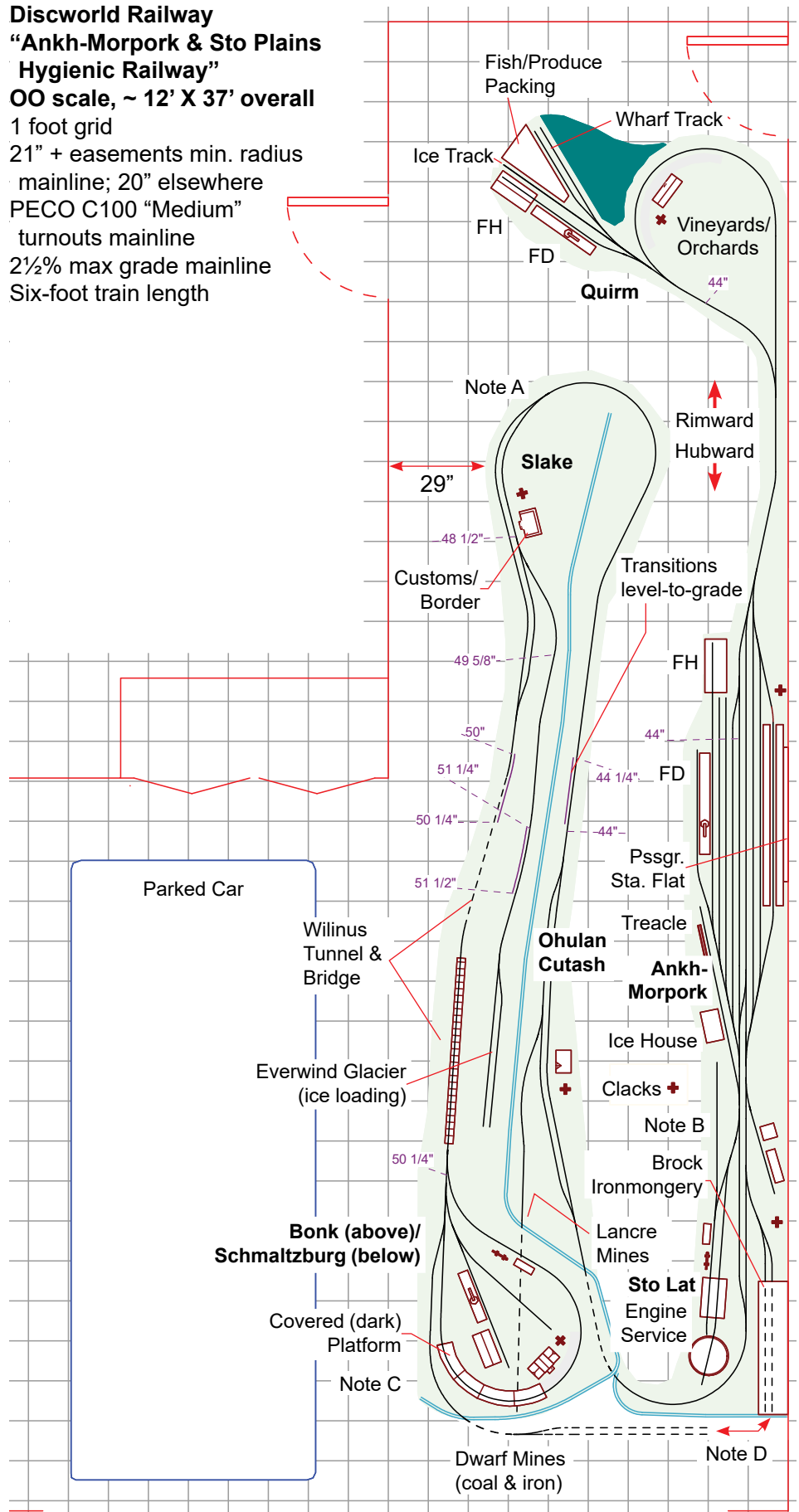
Armstrong to the rescue

We have now reached what became somewhat the crux of the track plan. Because of its critical role in the

The final design differentiated the appearance of the two towns at the end points of the railway by placing most of the Quirm trackage outside the end loop. This also took advantage of some additional floor space.

Many of the industrial tracks are inspired by English railway practices of Freight Houses (FH) and Freight Docks (FD), rather than spurs to specific industries (Although they would more properly be referred to as "Goods Sheds" and "Freight Platforms"). Scenery would shift to a darker and mountainous forested region from Slake to Bonk/Schmaltzburg. Notes A-D are described in the text.

Discworld Railway
"Ankh-Morpork & Sto Plains Hygienic Railway"
OO scale, ~ 12' X 37' overall
 1 foot grid
 21" + easements min. radius
 mainline; 20" elsewhere
 PECO C100 "Medium" turnouts mainline
 2½% max grade mainline
 Six-foot train length



us are getting any younger,” one modeler in the Atlanta Intown Model Railroaders Group cautioned. Since he was a retired surgeon, I listened. A dozen years later, I’m glad I did.

As I continued planning, the HVAC farm remained a stubborn obstacle as I doodled in XTrkCad. I tried to work around its immutable mass by routing track in front of the household machinery. I fretted about how to create lift-out sections for HVAC maintenance along the 12’ length without comprising either trackwork reliability or benchwork integrity. Worse, this scenario squeezed out aisle space for planned branch lines on the two main decks along the opposite side of the room. I concluded this scheme was unworkable.

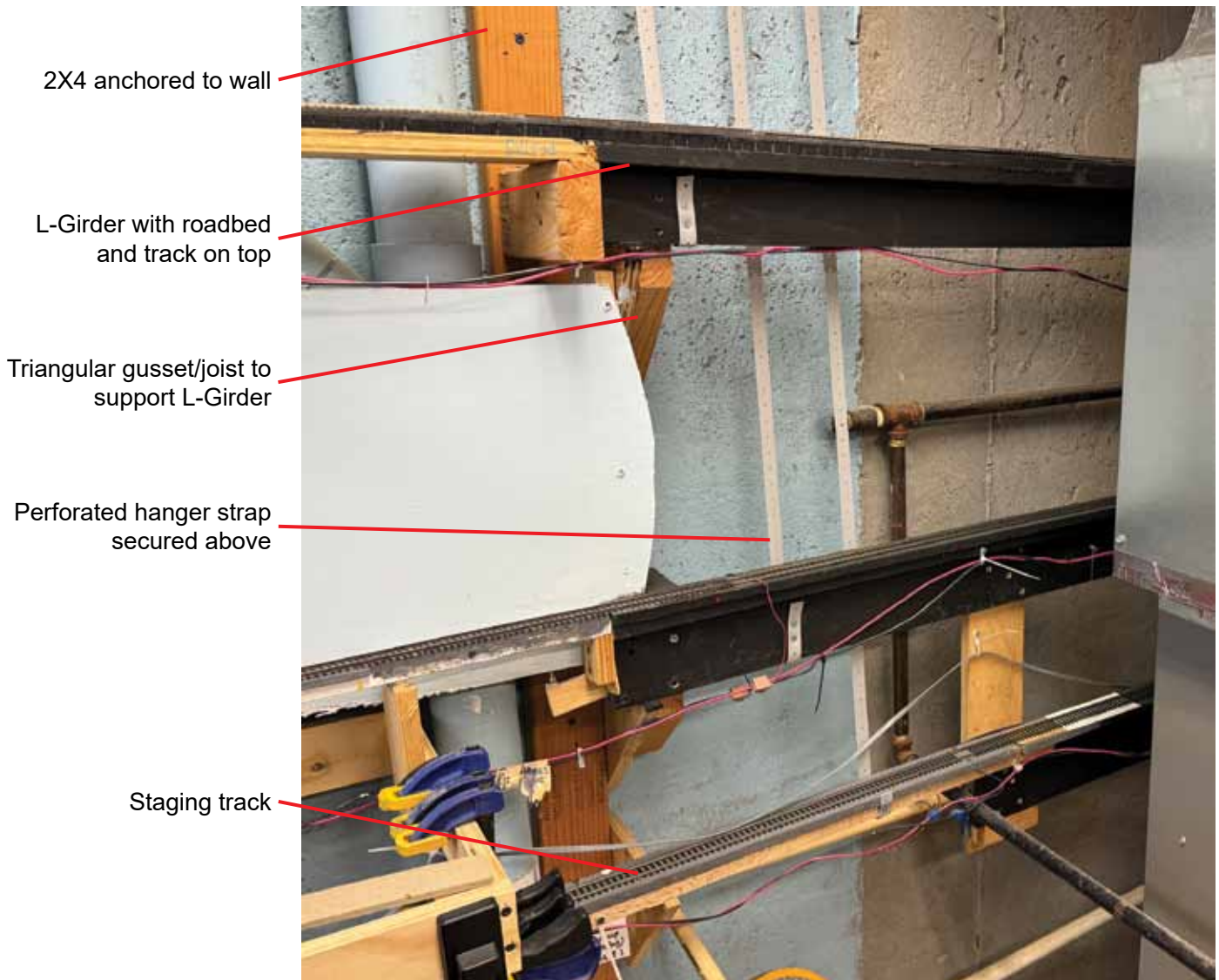
That left me with the unpleasant option of losing nearly half the available layout space by stopping the layout at the farm. There had to be a better way.

There was.

“Back”ing into a solution

Luckily, after moving to Georgia, I befriended skilled track planner Nate Stone. Conversations with him revealed that it was feasible to instead run track *behind* the HVAC farm, rather than in *front* of it. The idea seemed radically counterintuitive at first, but the more I thought about it while staring at the space, the more it seemed the most-feasible solution.

The main disadvantage was that the “Utility District” portion of track, as Nate dubbed



Andre’s solution included long and narrow L-Girders to span the distance behind HVAC and water heater in minimum depth. [For any construction near mechanicals and within limited clearances, it’s important to know and adhere to applicable local fire and safety codes. – BH]