

# A shelf layout in a bedroom



The HO scale Santa Fe 4th Street Spur measures 1'-6" x 8'-0"

By Dean Deis • Photos by the author

Sometimes model railroading is about making the right connections. Through my membership in the Santa Susana Railroad Historical Society in Simi Valley, Calif., I've been able to learn about many aspects of model railroading from longtime hobbyists. I discovered early in my time with the group that I enjoyed operations. I also learned what I wanted my home model railroad to be and the fundamental challenges (namely,

space) that would come with it. Thanks to numerous modelers and resources, I was able to take my HO scale Santa Fe 4th Street Spur from dream to reality.

The members of the operations committee at the Santa Susana Railroad Historical Society proved to be excellent mentors both inside and outside the club. Sensing my youthful enthusiasm, they quickly took me under their wing.

In addition, Gary Siegel and members of his operating crew provided valuable

insights on operation and helped me make many social connections. Gary's HO scale Ashlan Subdivision of the Louisville & Nashville's Eastern Kentucky Division was featured in the April 1996 issue of *Model Railroader*.

I met even more like-minded modelers at various operating events in Southern California. I soon found myself with a council of experienced, top-notch model railroading minds to bounce ideas off of.

1 The HO scale Atchison, Topeka & Santa Fe 4th Street Spur fits neatly in the corner of Dean Deis' bedroom. The high school student based his 1 x 8-foot shelf layout on downtown Los Angeles in the early 1950s.

## Switching on a shelf

Based on my experiences in the operations department at Santa Susana, I knew I wanted an operations-based layout. I spent many hours searching the internet for inspiration.

Through the Wayback Machine internet archive I found the late Stein Rypert's website. His page had dozens of small track plans, any of which would have made excellent switching layouts.

2 The wig-wag signal alerts traffic to stop as an Alco S1 spots a gondola loaded with pipes at the Sinclair Oil dealership. The wood pole street lights are from the Woodland Scenics Just Plug Lighting System product line.

After weeks of deliberation, I settled on my own western railroading-themed version of Stein's Federal Overpass plan. I was drawn to the plan because it had an interchange yard that could be against the wall and a mirror that would reflect the full width of the layout.

## Layout construction

Construction started on the Santa Fe 4th Street Spur in the summer of 2020. My dad and I attached heavy-duty shelf brackets to the wall in my bedroom with screws. The brackets support a 1/2" plywood base topped with 1"-thick extruded-foam insulation board. I brushed the foam with a flat, earth-toned latex paint.

Many photos from "The Patch," Santa Fe's nickname for the maze of rail-served industries in downtown Los Angeles, show a poorly maintained right of way with track often laid near ground level instead of on a ballasted roadbed. To replicate that look, the owner of my local hobby shop recommended using 3/32" basswood for roadbed. The basswood not only proved excellent for simulating the ground-hugging track, but to some degree it helped dampen the vibration from moving equipment.

I used Atlas code 83 No. 4 turnouts throughout the layout. Unfortunately,

my new turnouts all had a slight bend in the stock rail for the non-diverging route. Cars rolled through the turnouts without issue, and for the most part the bend wasn't noticeable.

However, the bend was more pronounced when I built the yard ladder, as the through routes didn't line up properly. On left-hand switches, each turnout in the ladder forced the next to curve slightly to the right, not exactly satisfying from a geometric standpoint.

Internet research revealed this was a fairly common issue with Atlas turnouts, particularly the No. 4. I spliced pieces of flextrack between each turnout in the ladder to minimize the problem.

A fellow club member introduced me to the Caboose Industries line of ground throws. I used the N scale version, attaching them to the turnout's switch rod with a small eyeglass screw.

## Track, structures, and scenery

My father and I hand-painted the rails rust brown after the track had been spiked down — not the best foresight on our part. It turned out to be time well spent, though, as the painted rail is the first thing many people comment on when they see the layout. We used Arizona Rock & Mineral Santa Fe Mauve to ballast the track.





3 Atchison, Topeka & Santa Fe Alco S1 No. 2303 eases a flatcar away from the platform at Gus & Son Manufacturing. The shadow box, awning, and illuminated interior enhance the low-relief building constructed from Design Preservation Models wall panels.

Next, I turned my attention to buildings. I didn't want the layout to consist of the same dozen or so Walthers Cornerstone structures one can find on other layouts. My exception to this rule was the Interstate Fuel & Oil kit, which I used for Sinclair Oil.

A fellow modeler suggested I try the Design Preservation Models (DPM) modular wall system to build the low-relief buildings on my layout. The kits allowed for large, customizable structures without the need for scratchbuilding. I further personalized the structures by adding awnings, docks, rooftop details, and shadow boxes.

The LA Desk Co., a wholesale furniture dealer, is the City Classics Smallman Street Warehouse. I cut the building in half to fit the available space.

Prototype images of similar downtown industrial warehouses show window panes that had been broken and replaced with new panes in different colors. To replicate that look, I glued tissue paper behind the clear acetate. Then I lightly sprayed the clear acetate with Testor's Dullcote. This lets light pass through, but prevents operators from seeing that the interior is unfinished.



4 This view of the right side of the shelf layout shows the Los Angeles Packing Association building and the yard. A mirror at the end of the layout makes the compact model railroad seem much larger.

The need for ground cover on my urban switching layout was minimal. I used a homemade mixture of dirt, ground up leaves, and various colors of Woodland Scenics fine turf.

After I'd applied the base layer of scenery, I added scale rocks, static grass tufts, shrubs, flowers, gravel, and other items. Final scenery touches included signs, figures, track bumpers, vehicles, and a small batch of Scenic Express SuperTrees. The wall behind the layout was painted sky blue with a few other colors added in to simulate clouds.

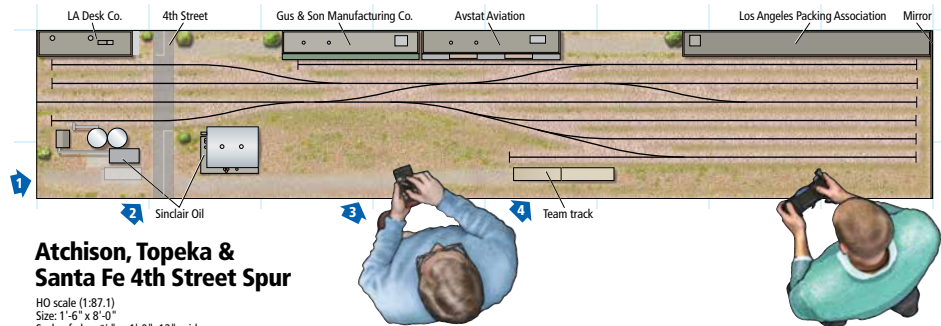
To make the compact layout feel larger, I purchased a mirror from a local

glass company. I attached it to a piece of 1/8"-thick tempered hardboard using RTV silicone. I used small clamps to secure the hardboard to the fascia. This allows the mirror to be removed for cleaning and layout maintenance.

### Running trains

The focus of the Santa Fe 4th Street Spur is operation. An operating session on my layout provides for a two-person crew — a conductor and engineer.

A stool is provided for the engineer, who sits at the far end of the layout next to the Digitrax Zephyr DSC52 Digital



## Atchison, Topeka & Santa Fe 4th Street Spur

HO scale (1:87.1)  
Size: 1'-6" x 8'-0"  
Scale of plan: 7/8" = 1'-0", 12" grid  
Numbered arrows indicate photo locations  
Illustration by Kellie Jaeger

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

Command Control system. The Zephyr also connects to a standard UP5 for traditional wired throttles via a LocoNet cable graciously provided by the Santa Susana club's DCC chair.

The conductor remains standing, with paperwork and an uncoupling pick in hand. Extra points are awarded to conductors who use hand signals.

I selected a variety of industries, many of which were inspired by prototypes in and around downtown Los Angeles. These include a packing house, commercial aircraft parts distributor, manufacturing company, furniture wholesaler, and an oil dealer. I also have a team track, which can receive virtually any type of car.

The six customers total around 12 car spots during an operating session. A standard session features a mix of rolling stock carrying a wide variety of commodities. With the exception of the packing house, loads are brought in and empties are shipped out.

I spent many hours deliberating what would be the most prototypically accurate, yet easily understandable, operating paperwork to use. Following research and testing various options, I settled on a car forwarding system similar to one Tony Thompson uses.

Each car has a laminated waybill to direct movements. White is for most freight shipments, pink is for perishable shipments, and yellow is for empty car movements. Some waybills are further customized with stamps, usually denoting a hazardous load, weight inspection, or customs border crossing.

Additional paperwork can be found in the form of handwritten agent's messages. These are typed instructions dictating the exact destination of certain

### The layout at a glance

**Name:** Atchison, Topeka & Santa Fe 4th Street Spur  
**Scale:** HO (1:87.1)  
**Size:** 1'-6" x 8'-0"  
**Prototype:** Atchison, Topeka & Santa Fe  
**Locale:** downtown Los Angeles  
**Era:** 1950-1953  
**Style:** shelf  
**Mainline run:** 8 feet  
**Minimum turnout:** No. 4

**Maximum grade:** none  
**Benchwork:** 1/2" plywood secured to wall with shelf brackets  
**Height:** 48"  
**Roadbed:** 3/32" basswood  
**Track:** Atlas code 83  
**Scenery:** extruded-foam insulation board and homemade ground cover mixture  
**Backdrop:** wall painted sky blue  
**Control:** Digitrax Digital Command Control

cars whose waybills may only be addressed to the local agent, not a specific industry. Other paperwork may include special requests from the packing house foreman for cars to be spotted at certain doors. Finally, a blank switchlist is provided should the crew prefer to fill that out rather than continually consulting the waybills.

### A learning tool

Though the Santa Fe 4th Street Spur is small, I'm still finding ways to enhance the model railroad. Lately I've become interested in building car kits. My primary focus is rolling stock from Western roads, with some Midwest and Eastern prototypes thrown in to enhance the traffic base for my shelf layout.

One media I enjoy working in is resin. The time, effort, and craftsmanship that goes into assembling the kits results in a rewarding experience and outstanding, finely detailed models. As of this writing, I've built more than a dozen car kits.

My pride and joy are a set of six Southern Pacific Harriman head-end cars, built from resin kits produced by Southern Car & Foundry. These six cars, plus a heavily modified Ken Kidder brass rider coach, make up the core consist of

my rendition of SP's "Coast Mail" circa 1950-53. A video of the train can be found on YouTube. Search for "Dean Deis Coast Mail."

I'd like to thank all of those who have helped me in my early journey in model railroading. There are many great people in this hobby who are willing to pass their knowledge on to the next generation. Keep your eyes and ears open. **MIR**



### Meet Dean Deis

Dean Deis is a high school student from Granada Hills, Calif. He enjoys modeling the Atchison, Topeka & Santa Fe and Southern Pacific in the early 1950s. Dean regularly organizes and participates in model railroad operating events in Southern California.