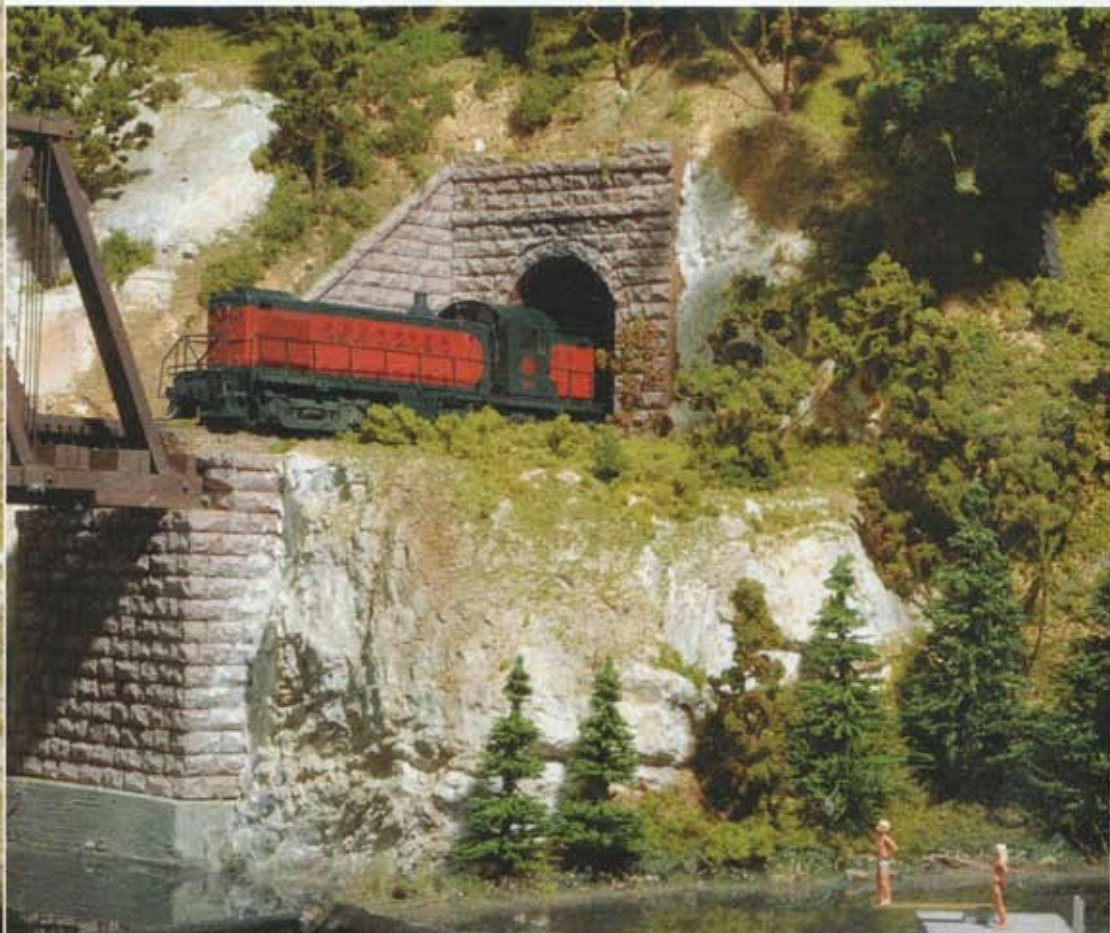


# >> Is this layout complete, for now?

An up-to-date look at the HO scale Huntington & Hartford

By **Bob Collett** • Photos by Lou Sassi



**1** Left: Mikado no. 103 is pulling out of White Hills on its way to Huntington on Bob Collett's HO scale Huntington & Hartford RR. Like most of Bob's steam power, this United States Railroad Administration heavy 2-8-2 is a brass import. The Sunset model was detailed and painted by the late Bob Evans.

**2** Above: Swimmers pause and look up at a train led by a New York, New Haven & Hartford RS-1 emerging from a tunnel to cross the Housatonic River. Bob's interest in the New Haven has grown since he started the H&H, and the layout now features a lot of New Haven motive power and rolling stock.

**They say things get better** with age. After 19 years of fun, I know that's true of my HO scale Huntington & Hartford RR.

A lot has happened to the H&H since *Model Railroader* featured the railroad in its December 1996 issue. Structures and scenery are completed on the railroad, with the last bit of bare Homasote covered in 2004.

At least it's finished for the time being. I have no thoughts of starting a new layout, but would like to do some controlled expansion of the railroad to improve operation.

The Huntington & Hartford is a re-released Connecticut short line that interchanges with the New York, New Haven & Hartford. The H&H is in part

owned by the New Haven, and as such, the NYNH&H has trackage rights on my railroad. The New Haven exercises its rights to operate both local and through trains. The time is the magic mid-1950s, when both steam and first-generation diesels could be seen running side by side. The locale is from the lower Naugatuck Valley up to Waterbury, and then on to Hartford, paralleling the New Haven's "Naugy" Line and High Line.

### Layout design

When I decided to build the H&H, I was traveling a lot for work. I spent a year designing my layout on airplanes before I was sure it would meet my objectives. I designed the H&H for operation, and wanted to create the impression that

trains were going somewhere "beyond the basement walls."

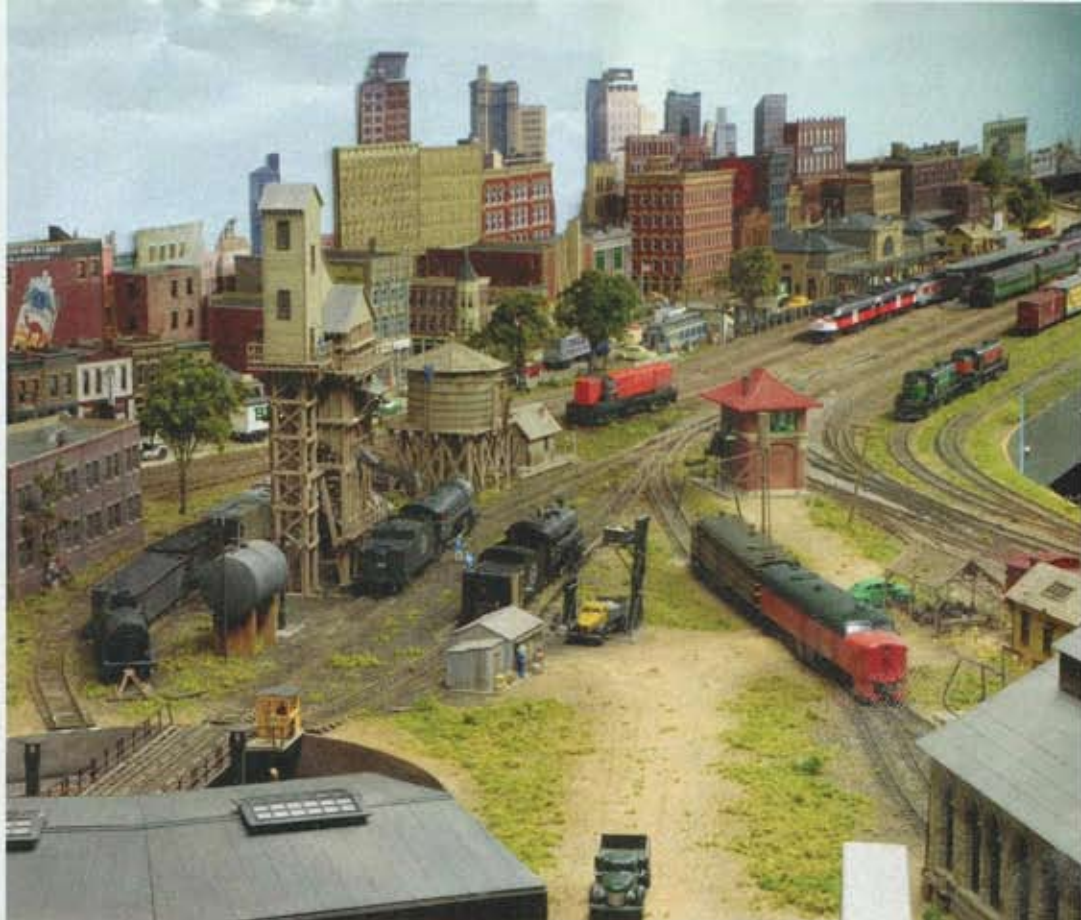
The layout includes a large city, Hartford, which has many industries and a classification yard. There's also a medium-sized town, Huntington, with a number of rail-served customers, and two small towns. Evansville has three industries, including the White Hills Logging Co., the operator of a logging railroad. The other is White Hills, a resort town that generates railroad traffic. There's also a double-ended hidden staging yard that represents the off-layout destinations of New Haven, Springfield, and Waterbury.

I tried to keep trains from passing through the same scene more than once as much as I could. The line climbs from



## >>The layout at a glance

**Name:** Huntington & Hartford RR  
**Scale:** HO (1:87.1)  
**Size:** 16 x 24 feet  
**Prototype:** freelanced and New York, New Haven & Hartford  
**Locale:** central Connecticut's Naugatuck Valley  
**Era:** mid-1950s  
**Style:** walk-in  
**Mainline run:** 230 feet  
**Minimum radius:** 30" (main), 20" (sidings)  
**Minimum turnout:** no. 6 (main), no. 4 (some sidings)  
**Maximum grade:** 1.5 percent  
**Benchwork:** L-girder  
**Height:** 45" to 56"  
**Roadbed:** 1/2" Homasote on 1/2" plywood  
**Track:** code 100 flextrack (main), codes 83 and 70 (sidings)  
**Scenery:** plaster over cardboard webbing, foam insulation board, and Sculptamold  
**Backdrop:** concrete wall, tempered hardboard, and sheet styrene  
**Control:** NCE Corp. Digital Command Control



Hartford, through Huntington and Evansville, with a maximum grade of 1.5 percent. Passing the summit in Evansville, trains enter a rock tunnel leading to a three-turn helix that connects to a staging yard. There's also a connection allowing trains to reappear on the main line 11" lower than where they disappeared and return to Hartford through White Hills.

Having learned my lesson from a previous layout, I wanted all the railroad's trackwork to be easily accessible. The main line and most other tracks are reachable from the edge of layout, making for easier operation and track maintenance. I also wanted to make the aisles as wide as possible to accommodate multiple crews working on the same part of the railroad. Space constraints forced me to compromise on this objective, but I've found that by carefully planning operating schedules I can limit the number of people who need to be in a given area at the same time.

I wanted my track plan to provide as many switching opportunities as possible. I've put in both trailing- and facing-point sidings, which at times can be a challenge to switch. The railroad is designed so that operating sessions can

include local freights, through freights, and passenger trains scheduled against a fast clock. The railroad runs point-to-point for operating sessions and can also run in a continuous loop to entertain guests during open houses.

### Structures and scenery

Building craftsman kits, such as those from Fine Scale Miniatures, South River Model Works, and others, is still my favorite part of the hobby. I've found the experience gained from building craftsman kits has also made it a pleasure to scratchbuild and kitbash structures to meet a particular need. There are 75 structures on the layout, with 33 of them providing switching opportunities. That doesn't include several background flats in Hartford.

The major reason it took 17 years to finish the railroad was the time it took to build highly detailed structures. To me, the effort was well worth the time, as the finished product adds much realism to the H&H.

Making credible, realistic scenery is my second-favorite part of model railroading. Since the railroad is in a corner of my basement, I first finished the wall behind Hartford by filling all the air

**3**This overview at Hartford shows how Bob has concentrated a lot of rail action and urban scenery in a relatively small area. Behind the freight yard and passenger station, building flats add to the impression created by the 3-dimensional city buildings.

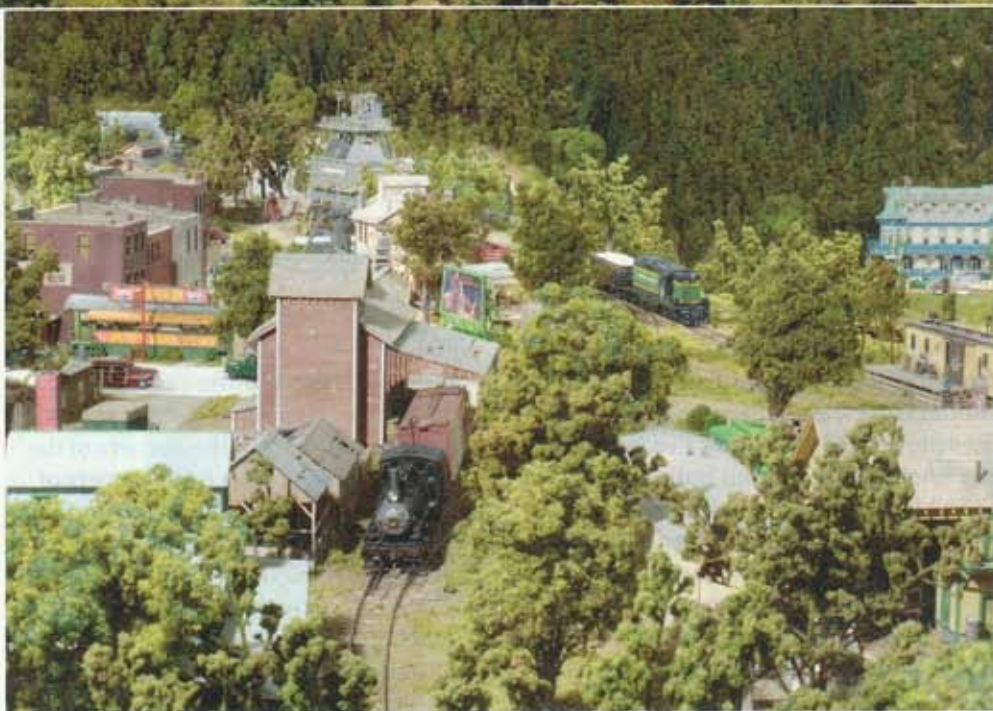
bubbles in the concrete with spackling compound. On the other side of the layout, I used tempered hardboard for the backdrop. I covered the corners of the basement wall with 4 x 6-foot sheets of .040" styrene. I also used this material for a tight-radius backdrop at the helix, in the center of which is a support column. I painted all of the backdrops Sears Federal Slate Blue. I regret not using wallboard and recessed lighting to have a more finished layout.

The scenery base is plaster over cardboard webbing. I paint the shell with an earth-colored latex paint, and then cover it with real dirt that's been finely sifted. For dirt roads I've found a light tan soil around construction sites that looks natural without being painted.

New England is heavily forested, with heavy ground cover in undeveloped areas. This means lots of trees! I've made about 2,300 trees for the H&H, using



**4** Above: An H&H GP9 has just delivered a load to Delabarre Tap & Die, the major employer in the small town of Evansville. Bob says that building structures is his favorite part of the hobby, and this South River Model Works kit is a good example of the kind of model he enjoys making.



**5** Bob estimates he's planted more than 2,000 trees on the H&H, and a good number of them are visible in this view of Huntington. On the railroad, an 0-6-0 switcher pulls a car from the feed mill and a GP9 spots a gravel load at the rock bunker. Bob built these and some of the other structures in this scene from Fine Scale Miniatures kits.

meadowsweet and steeplebush (both perennials). Dipping tree armatures cut from these plants into a bucket of white glue diluted 50:50 with water, then covering them with Woodland Scenics Green Grass, is a quick way to make about 150 trees in an hour. The time-consuming part is drilling all the holes to plant them. I insert a round toothpick

into each tree trunk and put the lower ends of the picks into the holes. Not gluing my trees to the layout makes it easy to change their locations later.

For more detailed foreground trees, I use slender-leaf goldenrod, picked in late October or early November. I wrap multiple sprigs of goldenrod with floral wire, then spray them with Model Mast Dark Green paint. When the paint dries I spray on an inexpensive, unscented, firm-hold hair spray – Aqua Net works great – and then sprinkle on Woodland Scenics coarse turf.

As a final step, I cover the stems with Durham's Water Putty to form a trunk. The putty coating is the reason I prefer floral wire to floral tape. The latter contains beeswax, which keeps the putty from sticking. When the trunk is dry, I paint the trunk and lower branches with Polly Scale Reefer Gray. I also work

## >>Scheduled passenger service

**Four or five** passenger trains usually run during an H&H operating session. In years past, more often than not these passenger trains had to "go in the hole" and creep through towns on sidings. That was because freight train crews who didn't know when to expect a passenger train blocked the main line with cars they were picking up or setting out.

To resolve the issue, I implemented scheduled passenger service with a fast clock. The local freight crews appreciate it because they now understand when they're supposed to clear the main line for a scheduled passenger train, and for the most part, they do so.

Since I have an NCE Corp. Digital Command Control system I decided to use a Logic Rail Technologies fast clock, since it can be fully integrated with NCE's throttle clock displays. The Logic Rail clock plugs into the cab bus just like any throttle, but uses a separate 12VDC power supply. I mounted the clock display on the sky backdrop where everyone can look up and see it. The clock can be started and stopped using function keys on one of the DCC cabs.

### HUNTINGTON & HARTFORD RR PASSENGER TIMETABLE

Friday, July 29, 2011

	H&H Morning Local	NYC to Springfield	The Lunch Box (RDC)	NH Nutmegger	Springfield to NYC	Afternoon Local
Required Speed Step	SS 10	SS 8	SS8	SS 8	SS 14	SS10
<b>WESTBOUND</b>						
Depart NH/Sprngfld/Waterbury		7:00 AM				
Arrive Hartford		7:15 AM				
Depart Hartford		7:25 AM		12:00 PM		
Arrive Huntington		7:35 AM		12:10 PM		
Depart Huntington		7:40 AM	10:50 AM	12:15 PM		1:40 PM
Arrive Evansville		thru	10:57 AM	thru		1:50 PM
Depart Evansville		thru	11:00 PM	thru		1:53 PM
Arrive New Haven		8:00 AM	11:21 PM	12:40 PM		
Arrive White Hills			11:20 PM			2:20 PM
Depart White Hills						
<b>EASTBOUND</b>						
Depart NH/Sprngfld/Waterbury			10:00 AM		1:00 PM	
Arrive White Hills			10:06 AM			
Depart White Hills	7:00 AM		10:08 AM			
Arrive Evansville	7:20 AM		10:28 AM		thru	
Depart Evansville	7:23 AM		10:31 AM		thru	
Arrive Huntington	7:30AM		10:38 AM		1:25 PM	
Depart Huntington					1:30 PM	
Arrive Hartford					1:45 PM	
Depart Hartford					1:55 PM	
Arrive NH/Sprngfld/Waterbury					2:10 PM	

Since different locomotives run at different speeds, I timed each passenger train consist over the layout from stop to stop. This way, the schedule accurately reflects what each train can do, and I can

also record the DCC speed step appropriate to keep each train on schedule.

Note that even though the freights aren't scheduled, every crew needs a copy of the timetable. — B.C.

some Roof Brown into the gray paint while it's still wet.

Over the last 10 or so years, we model railroaders have been blessed with ever more realistic scenery products from Adventures in Miniature (AIM), Scenic Express, Woodland Scenics, and others. I've used many of the new products for recently finished areas, and I've gone back over some of the older areas as well.

### Benchwork and trackwork

I followed Linn Westcott's *How to Build Model Railroad Benchwork* (Kalmbach Books, out of print) as a guide to building the benchwork for the H&H. I used Linn's L-girder system, and I've been impressed by its flexibility. It's been easy to make changes over the years without major effort.

When I started the layout in 1987, Atlas code 100 flextrack was the easiest

way to go. Code 83, at that time sold by Shinohara, wasn't as widely available. In subsequent years I did switch to mostly code 83 and some code 70 track on sidings and spurs. The main line is 230 feet long, about 4 scale miles, including 67 feet of track in the helix. A train traveling at a scale 30 mph takes about 8 minutes to traverse the entire main line.

The trackwork in the city of Hartford is a large balloon track or reversing loop. Trains entering from either the main line or the staging yard can return on the same track they arrived from. This is particularly effective for interchange traffic in Hartford.

The three-turn helix always draws a lot of attention from visitors. Again following Linn Westcott's instructions, I found it easy to build. After I had all the sections cut, I invited a group of friends over and we had it installed and working

in less than an hour. The helix is built on a 36" radius and has 3½" plywood spacers between each turn. The grade is only 1.37 percent, and trains of up to 25 cars trains can climb the slope.

### Control

I replaced the layout's DC (direct-current) cab control with NCE Corp. Digital Command Control (DCC) in 1999. Initially I installed decoders in locomotives that I used the most in operating sessions. With the advent of sound decoders, I installed sound in the same engines I initially chose for DCC operation and moved their original non-sound decoders to unequipped locomotives, expanding my DCC roster. Today almost all of my locomotives have DCC sound.

I added PSX Power Shields/Auto Reversers from Tony's Train Exchange to change polarity automatically in the

## >>Locator maps

**On our layouts,** operators don't do their jobs every day like railroaders on the big roads, so they can't be expected to know the territory as well. Recently, several friends and I discussed how to make our sessions easier for people who only operate on a railroad once or twice a year, and therefore aren't familiar with the various towns and industries. To help with this, we now give every crew a clipboard laminated with the H&H track plan.

The train paperwork also includes diagrams showing the names and locations of every industry in the towns that train will switch. [Prototype railroads have issued similar diagram books. On the Santa Fe, these were called Car Location Inventory Control or "CLIC" books; on the Southern Pacific, they were Southern Pacific Industrial Numbering System or "SPINS" diagrams. – Ed.] Together these have made operation easier for all of us. – B.C.



reversing loop and to establish circuit breaker protection, dividing the railroad into four power districts. I still have two cabs with DC power packs so I can make sure a new DC engine works OK before I install a decoder.

Additionally, I've replaced most of my solenoid switch machines with Circuitron's Tortoise motors. These have Hare or Wabbit accessory decoders so operators can control turnouts from their throttles as well as from control panels with momentary buttons. Routes entering and leaving the yards have multiple turnouts programmed with DCC macro command sequences for automatic routing. Many who have operated on the H&H say the auto-routing capability makes it much easier for them. I can certainly say that DCC has generally made operating the railroad easier both for train crews and the dispatcher (who is usually me).

### Equipment and operation

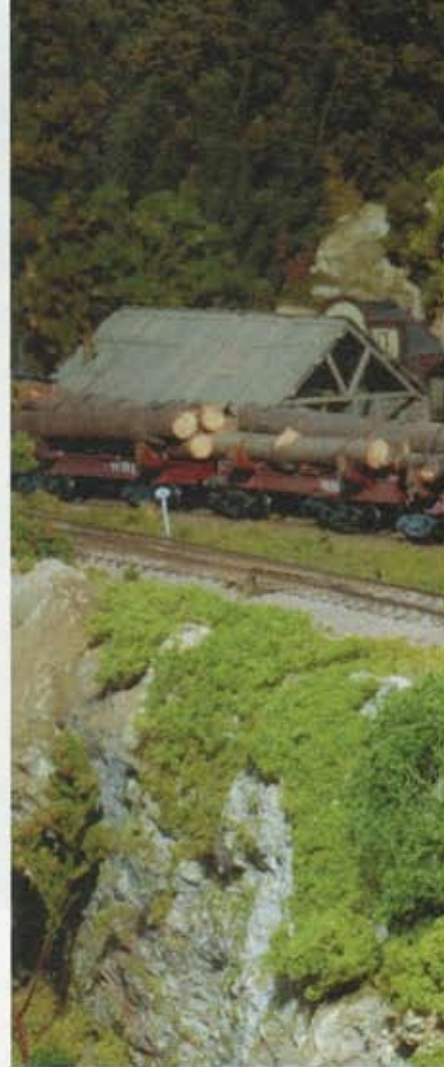
Over the years I've become more interested in modeling the prototype New York, New Haven & Hartford, and have joined the New Haven Railroad Historical & Technical Association (NHRHTA). Power on the H&H is a mix of steam and first-generation diesels carrying both New Haven and H&H road names. My steam power is mostly brass, supplemented with some Bachmann and Life-Like Heritage locomotives. The diesel roster includes Alco and Electro-Motive Division locomotive models from Atlas, Kato, and Walther's Proto.

Having become a member of NHRHTA, I've become much more focused on New Haven passenger operations of the mid-50s. During operating sessions I schedule local and through passenger service, which keeps the crews on their toes. I use a Logic Rail Technologies fast clock made specifically for use with NCE Corp. DCC, so operating crews know when the main line must be clear for passenger trains. The freight trains are unscheduled. See "Scheduled passenger service" on page 13.

Huntington & Hartford operations include local turns, point-to-point through freights, and passenger trains. Our Friday night round-robin group has elected to use switch lists instead of a card system. Each crew consists of an engineer and a conductor/brakeman. Typically we have two or three local crews and a crew assigned to through trains. One of the local crews can be assigned to the White Hills logging line, with double-headed Bachmann Shays for power. With the slow speed of the Shays, a couple of moves can take a good part of the session.

Through passenger trains set out and pick up "head-end" (mail and express) cars and sleepers. In Hartford, heavy-weight passenger cars must have their air conditioners re-iced before proceeding. Through freight trains may set out or pick up blocks of cars at Huntington on their way to or from Hartford.

All of the switching work can be puzzling to operators who may not be



**6** A White Hills Logging Co. train crew has spotted engine no. 5 for water at Evansville before delivering a flat of rough-cut lumber to the H&H. The 3-truck Shay is a Bachmann model with added details by Bob, who has plans to extend this logging line for longer run and more interesting operation.

familiar with the locations of towns and industries. "Locator maps" at the top left explains what we've done to make the H&H friendlier in that regard.

### A look back

Overall I think the Huntington & Hartford has been successful in several ways, based on the enjoyment it's given to me and my friends. There are a few things I wish I'd done differently, as I mentioned earlier. Nevertheless there are a number of things I think I did right, some of which may be of use to those of you just starting to plan a layout.

- I fully planned the railroad before driving the first nail in the benchwork,



and planned the track and structure locations to support operations.

- I included a double-ended hidden staging yard that's been particularly useful for through freight and passenger service. City yards have a tendency to fill up as you acquire rolling stock, and may even restrict train movements. The staging yard lets me move cars off the modeled portion of the railroad.

- I decided ahead of time on the length of both freight and passenger trains. This was important in planning straight track, yards, passing sidings, and most importantly the maximum grade and minimum curve radius.

- I wanted the railroad to go somewhere instead of just doubling back on itself. The helix accomplishes that. Trains are out of sight for a while as they either head for hidden staging, or emerge a minute or so later on the main line 12" below where they entered. This separates the scenes sufficiently to keep trains from appearing to pass through the same scene twice.

- Thanks to a suggestion by my friend John Adriani, I've kept a complete, documented schematic of all the layout's wiring. These schematics have saved me time and frustration over the years when making wiring changes.

Speaking of suggestions, I owe special thanks to our round-robin model railroading group, the Friday Knights of the Road, for their many ideas as well as their camaraderie. John Elwood helped me decide where to place new industries, and John Grosner was a big help with ideas and kitbashing help as I finished building Hartford. Model railroaders are great friends.

### A look to the future

Though the railroad is more or less complete, I have many projects to take up my modeling time, including signaling and building New Haven head-end equipment for passenger trains. On the layout I'd like to expand the White Hills Logging operation, including a detailed log-loading scene and several trestles. I'd

also like to have more hidden staging for greater operating flexibility, and I plan to make a 12-foot-long portable section with four to six tracks on a Gator Board base.

Since I retired eight years ago, I've continued adding to the H&H and making new friends. I'm sure I'm enjoying the hobby more than ever. GMR

### >>Meet Bob Collett

**Bob has been** model railroading for more than 40 years. Like so many others, he started young with American Flyer and Lionel trains. He and his wife, Jackie, are retired and enjoy traveling and tennis. They have a grown son and daughter, along with three grandchildren.

