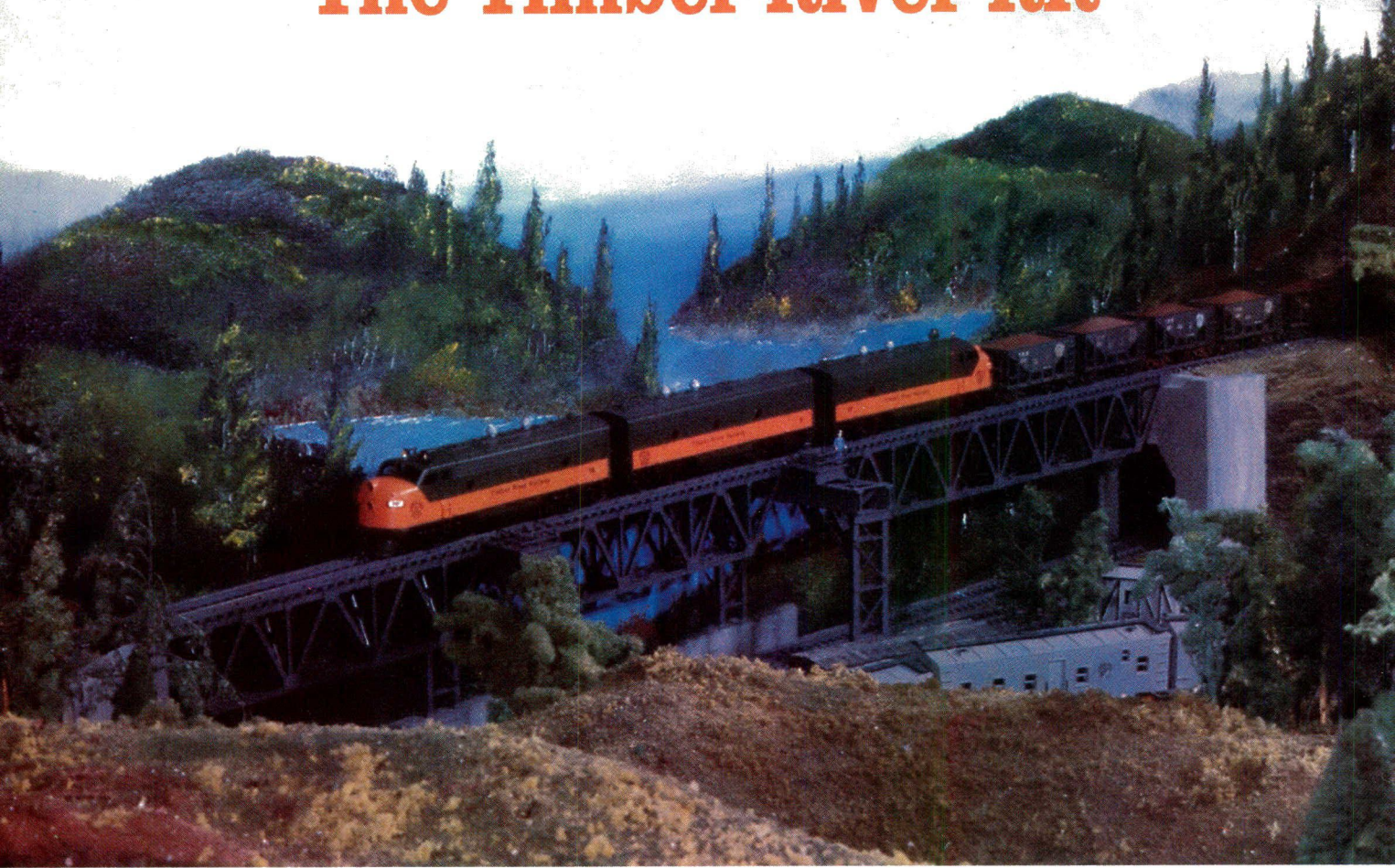


The Timber River RR



A modern ore-hauling railroad in a moderate-size railroad room



2. A whole series of small but interesting scenes make the layout seem larger than it really is. This ore loading pit at Kelly Lake Mine occupies an area that isn't much larger than an open copy of MR.

BY JIM HEDIGER
PHOTOS BY THE AUTHOR

JOHN TEWS' HO scale Timber River Ry. is a 1970s free-lanced ore-hauling railroad set in the Mesabi iron ore region of northern Minnesota. The layout combines elements of the former Great Northern (now Burlington Northern) and Duluth, Missabe & Iron Range operations with additional interchange traffic from the Soo Line and the Duluth, Winnipeg & Pacific (Grand Trunk/Canadian National System).

The Timber River Ry. main line occupies a 14 x 20-foot room in the Tews basement. The main engine terminal, a yard, and the four-track ore dock spill over into about a fourth of John's 10 x 14-foot workshop. The main line simulates heavy railroad standards with commercial Code 100 track, nos. 6 and 8 turnouts, and a 26" minimum radius (most of the visible curves are in the 30" to 36" range). The maximum mainline grade is 2¼ percent, although there is one mining branch line with switchbacks that reach 8 percent.

In a number of the mine locations John



GOIN' HOME '85

1. John's skillful blending of the foreground scenery and the backdrop turned this highly congested area into an interesting scene. The deck bridge is built from a combination of Atlas deck truss bridges and Plastruct shapes. At this point the backdrop is only an inch behind the diesels.

has cleverly hidden extra car capacity in tunnels. The portals are small (just large enough to allow the ore cars to pass through), and the cars are concealed in the shadows under buildings or conveyor lines so they do not attract attention.

The railroad room has coved corners and a nearly continuous backdrop that John hand-painted to match the three-dimensional foreground scenery. John taught himself how to do oil painting with the help of a taped TV show on the subject. His finished background extends around the room, enlarging the apparent layout size with suitable forests, meadows, small lakes, and even Lake Superior in the distance.

To maintain a pleasing environment for the railroad, John has installed a finished ceiling, incandescent lighting with dimmers, and valances to keep the light out of the train operators' eyes. Carpeted aisles are a recent addition that makes an evening of operation easy on the operating crew.

The present version of the Timber River Ry. is John's third layout project. It is also the most operation-oriented railroad he has built. It is a loop type of track plan, but operation is point-to-point. All of the connecting railroads share the TRR main line, just as the prototypes do in iron ore country.

Each railroad's trains follow a set main-line route, and all of these routings use a different combination of track, work locations, direction of travel, and destination. John supplies small schematic route maps as part of the train orders to help the operators follow the correct route for their train. At times there may be as many as 5 or 6 trains en route between the various hidden holding tracks and the main yards. It's hard to believe how many different routings are built into the TRR track plan.

The majority of the traffic comes from TRR trains which run with a variety of "second-hand" units purchased from the TRR's larger neighbors (in typical small railroad fashion). It's not at all unusual to find a TRR freight rolling behind a pair of GE U30B diesels (one TRR and the other a dirty red and gray ex-



3. A loaded ore train behind a pair of the TRR's big F-M units rumbles out of the tunnel near Taconite Junction as it heads for the ore docks. A minimum of two units are necessary to make it up the long grade to State Line siding. From there it's easy running for the remainder of the trip into Allouez.

Burlington unit which has its cab side painted over and relettered).

The Burlington Northern serves as the TRR's major interchange connection. A substantial amount of iron ore and general merchandise is delivered daily to the TRR, with a variety of second-generation diesel locomotives (some with sound systems). Additional iron ore and taconite (pelletized iron ore) traffic comes from the DM&IR via interchange runs which appear from time to time. Run-through trains from the Soo Line and DW&P bring traffic to the railroad from northern Wisconsin, the Dakotas, and Canada.

Most of the on-line traffic is iron ore, and the TRR maintains a fleet of more than 500 ore cars for this purpose. The majority of these cars are Model Die Casting cars lettered for DM&IR, BN, GN, and TRR. Some of them are set up in four-car "Mini-quad" sets that have permanent drawbar couplings following DM&IR practice. Others have extended sides and ends for use in taconite pellet service. All of the ore cars are weathered to reflect their years of hard service.

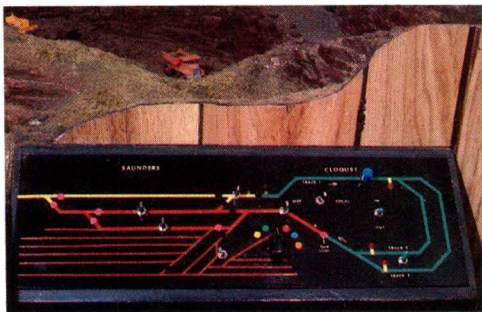
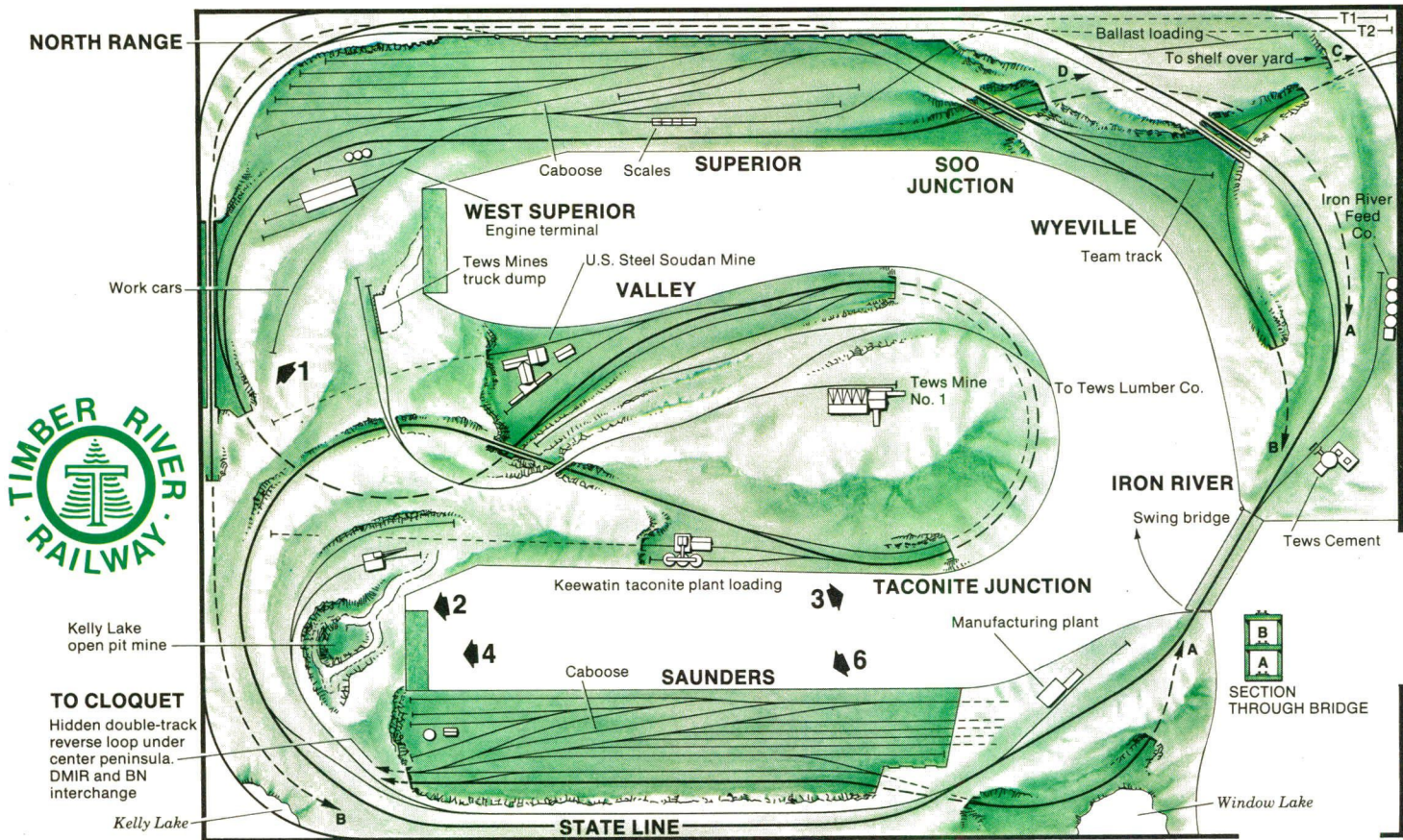
Trains of ore originate at the mines and interchanges, and then they run over the main line to the yards at Saunders or Superior. Since all of the origination points supply different types of ore or taconite

pellets, these two classification yards are kept busy sorting and building new consists. Once the classification switching is done, road trains are made up and dispatched to the big Lake Superior ore dock at Allouez.

The TRR ore dock at Allouez simulates the Lake Superior transfer point between railroad and lake ore carriers. This dock is actually built on a plain shelf over the back of the workbench, so it has no scenery. Even so, it functions quite well as a destination for the ore traffic, and it gives the local yard operator plenty of action. The four dock tracks hold about 20 ore cars each, so the Allouez operator is kept busy pulling the empties off the dock, positioning fresh cuts of ore over the unloading pockets, and making up outbound empty trains. These empty ore trains return by simply reversing their loaded routes.

To run all of this traffic, John developed a multioperator conventional DC train control system which allows each road engineer to control his train for the complete trip. Rotary selector switches on the dispatcher's panel connect the appropriate transistor throttle to each track block.

The TRR dispatcher's panel is built into a sheet-metal chassis. It is movable so it can be shifted into the adjacent recreation



4. The TRR control panels are built with color coding to make train control as easy as possible. This panel controls the semiautomatic operation of the hidden reverse loop and storage sidings at Cloquet, which simulate the TRR's Burlington Northern interchange.

room during operating sessions. The dispatcher keeps track of the trains by manually shifting magnetic markers on the schematic diagram according to his telephone reports. These markers are color-coded and include small written identification tags with train data on them.

John also likes to work with electronic control circuitry, and this interest turns up in several practical applications. All of the single-ended interchange tracks have photocells and stopping relays to prevent accidents. As the backing train reaches the end of the track, it breaks a light beam to trigger a relay. The relay in turn cuts power to the track, stopping the train movement. A diode connected around the relay contacts passes current only to pull away from the end of track.

A similar photocell system controls

movements in the hidden double-track reverse loop which represents "everywhere west" on the TRR. John located photocells to protect the turnout clearance points and detect train positions in the hidden trackage. Two trains may be held on the loop track, with an additional train in the entrance track. The photocell interlocking system prevents entry of a fourth train until there is a place for it to go. When a train moves out and clears either loop track, the interlocking system automatically routes the following train from the entrance track into the empty loop track.

A full operating crew consists of three yard engineers, two or three road engineers, and a train dispatcher. A telephone system is built into the layout so all of these people can communicate easily to keep the railroad functioning smoothly.

Much of the railroad's effectiveness as an ore hauler can be traced to the scenery which divides the railroad into many smaller scenes. John uses the rugged hills and ridges of ore country terrain to advantage as a realistic means of controlling the viewer's field of vision. Upon entering the room, a visitor's first impression is one of looking out across a range of rolling hills — there are no sky backdrops in the middle of the room to limit this effect. As one moves about the room, the view changes and new small scenes appear. Each of these scenes is detailed to show some typical aspect of ore-country activity.

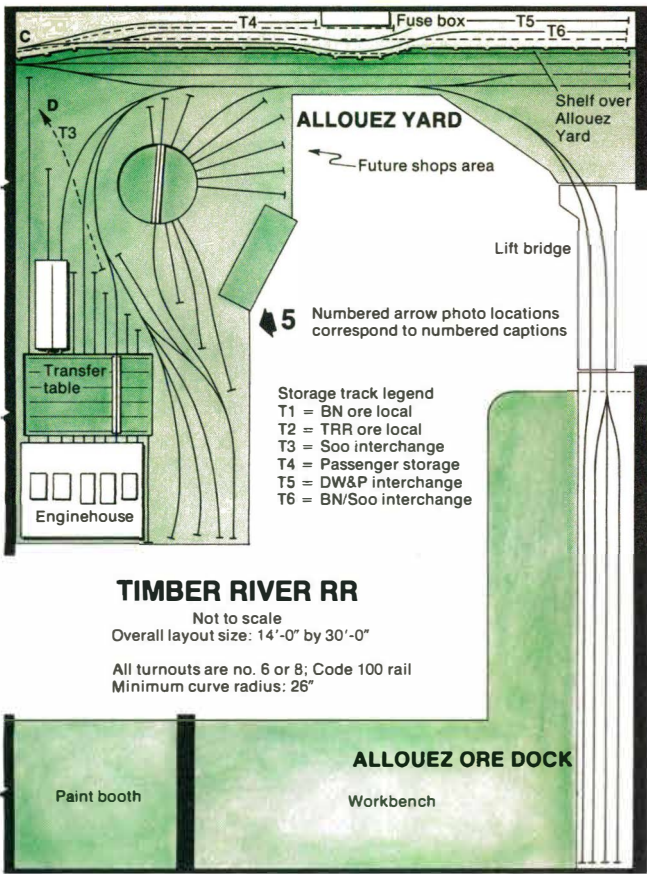
John has used quite a few different scenery techniques in building the railroad. He is not afraid to try out new

ideas, and his artistic talents allow him to blend all of the techniques so that the overlap points disappear. His most common landform construction is sanded plaster over screen wire. When this dries he hand-carves details into molding plaster. He textures this surface with a combination of real gravel and iron ore, ground foam, trees made from commercial kits, local weeds (gathered along the Soo right-of-way behind the house), lichen, sawdust, and a coarsely ground foam.

Most of the buildings on the TRR began as commercial kits, but John's enjoyment of kitbashing has changed most of them to fit their locations. The major locomotive service shop in the workshop is constructed using a Plexiglas sandwich technique John developed. This huge facility has a removable roof and supporting steel truss system for easy access. A scratch-built scale 110-foot transfer table delivers the units to any of the shop tracks.

With all of this construction behind him, John still says he would build the same type of railroad again if the need were ever to arise. He enjoys the fun of model railroading and shares it with his sons and friends as well. The layout is filled with all sorts of interesting ideas, and it is in a constant state of change as he tries out different projects. An operating session on the Timber River Ry. is never dull, as there is always something new to discover. ☐

John's Timber River Ry. will be one of the layouts visitors will be able to see during the NMRA's 50th Anniversary National Convention in Milwaukee from July 29 to August 4, 1985.



5. This rare scratchbuilt transfer table serves the locomotive and car shops of the Timber River. The table is powered by a motor hidden in the control house, and it operates from power collected from the overhead trolley wires.

6. The arrival of loaded ore trains from both the BN and the DM&IR creates a busy time for the yardmaster at Saunders Yard. As soon as the road engines are moved out of the way, the yard crew will have to sort out the proper combination of loads for each road train to the docks. In the meantime one of the TRR's manifest trains passes high above the yard en route to Superior.

