



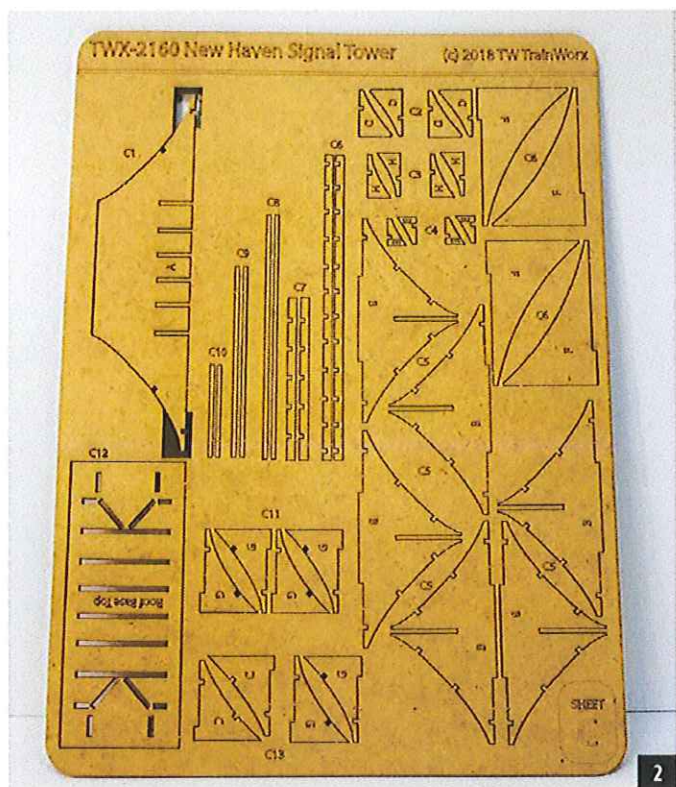
Building New Haven Tower

Article and Photos by Mel Garelick

My latest model railroad (see my article “The NYT&B Railroad” in *OGR* Run 304, February/March 2019) represents a single-track New England branch line. As a fan of the New Haven Railroad, I own and run mostly model locomotives and rolling stock of the types operated by the New Haven, which once was the most important railroad in Southern New England. Even now, more than fifty years after the railroad’s demise, many structures and facilities built by the New Haven are still evident as one travels by rail through New York, Connecticut, Rhode Island, and Massachusetts. Among them are numerous bridges and several control towers of distinctive design constructed at the beginning of the twentieth century during the electrification of the main line between New York City, Stamford, and New Haven. One such

tower—New Haven Signal Station 71—still stands at Devon Junction in Milford, Connecticut (Photo 1).

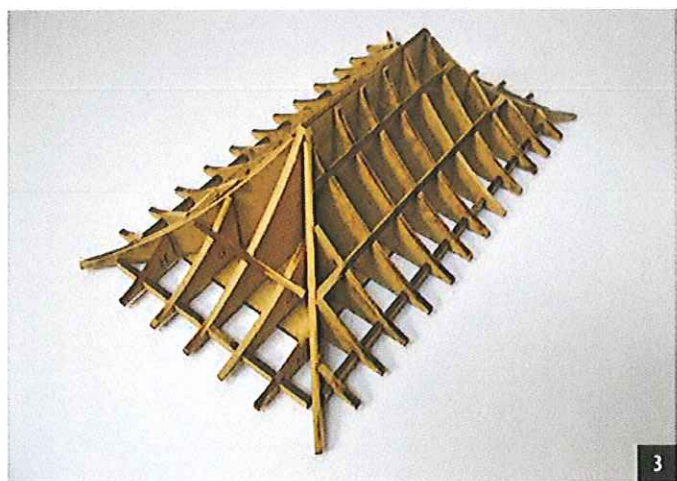
While working on my layout over a period of almost five years, I thought about building a model of a New Haven “signal station,” as control towers were known on the New Haven. Many of these were of a unique design, with foot-thick walls of reinforced concrete; a curved “pagoda” roof covered with terra cotta tiles; and other difficult-to-model features such as rounded corners, arched doors, arched lower floor windows, an ornate trim strip between the first and second floors, and shields showing the station number at each of the four rounded corners. I would not have been able to duplicate these features in a scratch-built model using the simple building methods and materials that I typically



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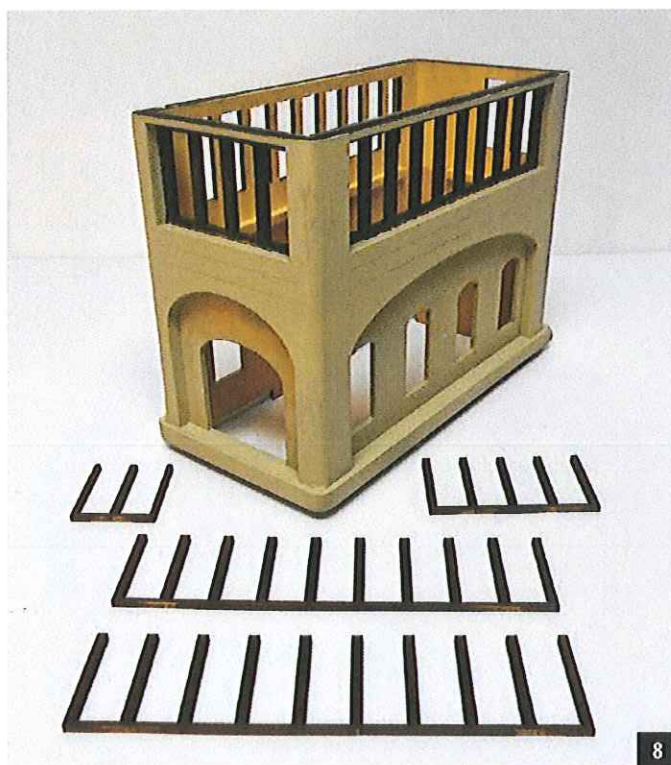
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employ. And, to the best of my knowledge, no O scale kits were available. So, I placed the project on a back burner until only one corner of my layout remained unfinished, and then I decided to forego a New Haven tower model.

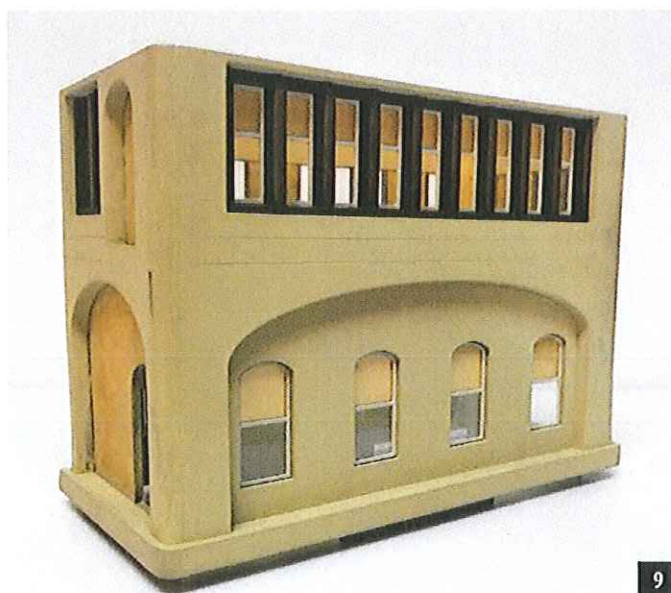
I was already working on a structure to fill that last corner when TW Trainworx of Dallas, Texas, posted on the OGR Forum in September, 2018, about a New Haven-themed layout they had built for a customer. And it included a beautiful New Haven tower model inspired by Signal Station 22 at New Rochelle, New



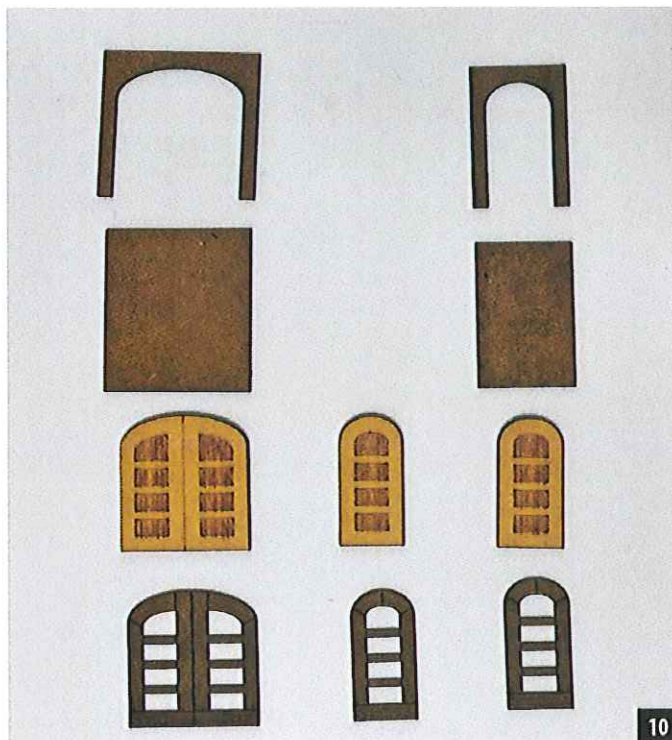
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York. I immediately contacted TW Trainworx and offered to buy a kit (at any price) if they produced it. A few weeks later, a New Haven tower kit arrived at my house in a rather large box.

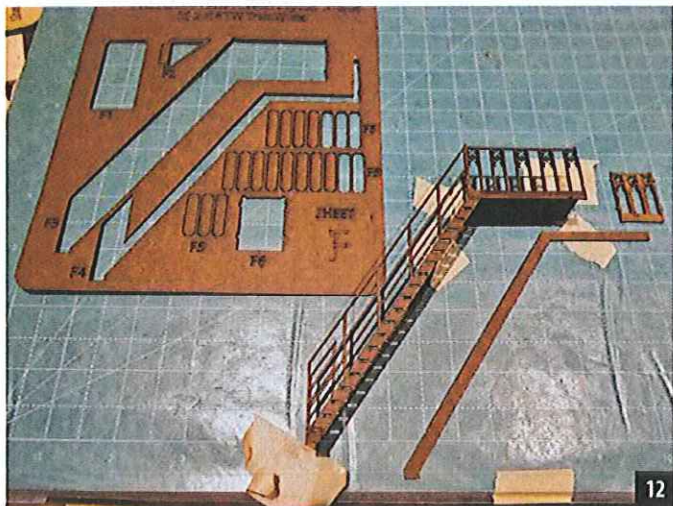
Opening the box, I found five large pieces of one-quarter and one-eighth-inch thick fiberboard with laser-cut structural parts for the curved roof, walls, and foundation; in addition to several thinner pieces for window frames, doors, trim, and staircase. There was also translucent glazing for windows, and plastic material for the terra cotta tile roofing. All materials in the kit were of very high quality, as was the precision cutting of the parts, especially the numerous curved frames that support the roof (Photo 2).

Following the online instructions, I began by assembling the curved roof frames. It was readily apparent from the exact alignment of the assembled roof structure that the supplied parts were correctly designed and accurately cut (Photo 3). Next, the roof frames were covered with a thin, flexible, fiberboard material to which the precut plastic tile roofing was to be attached (Photo 4). At this point, I decided to complete the rest of the model and leave the tile roofing for later, since I was unsure of how to install it.

I began to assemble the main structure by placing the inner walls into slots in the base and gluing the walls together at the corners, without attaching them to the base (Photo 5). I applied strips inside the mid-level of the four inner walls to support a second floor that would serve as a view-block between the two floors and because I also intended to install interiors on both floors. I next attached the four quarter-inch-thick outer walls, which modeled the exterior arches, to the inner walls. At this juncture, I also checked the fit of the roof structure atop the walls (Photo 6). The exterior corners of the tower walls were rounded, rather than square. A curved tool (Photo 7) was supplied in the kit to verify the quarter-inch radius to be applied to the corners by sandpapering. While this sounds difficult, the soft exterior wall material was easily shaped with a sanding block. After rounding the corners, I



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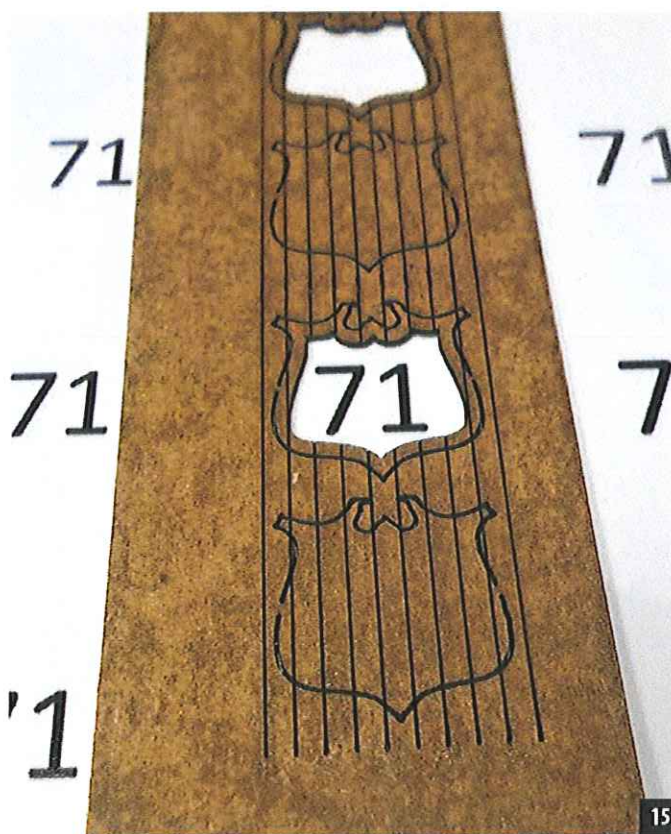


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painted the exteriors and interiors of the walls (concrete and beige) and installed the brown-painted window trims (Photo 8). Next, I painted and installed the white window frames, clear glazing, and paper window shades (Photo 9). The kit was supplied by T'W Trainworx with translucent glazing. Since I planned to install interiors, I substituted clear glazing and attached it to the inner walls with Styrene cement. I then laminated and installed the



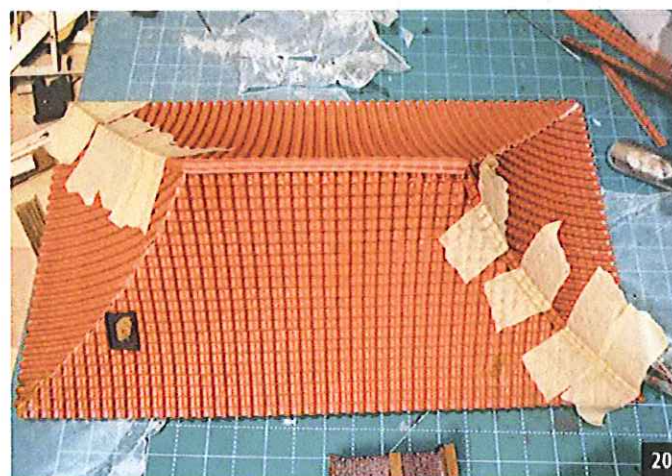
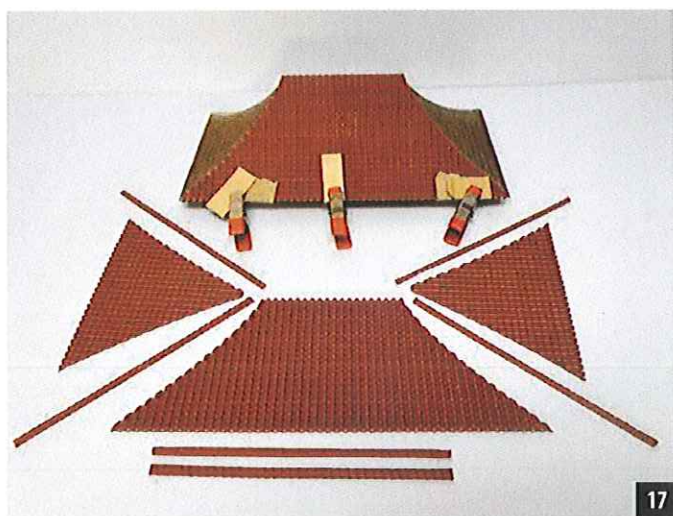
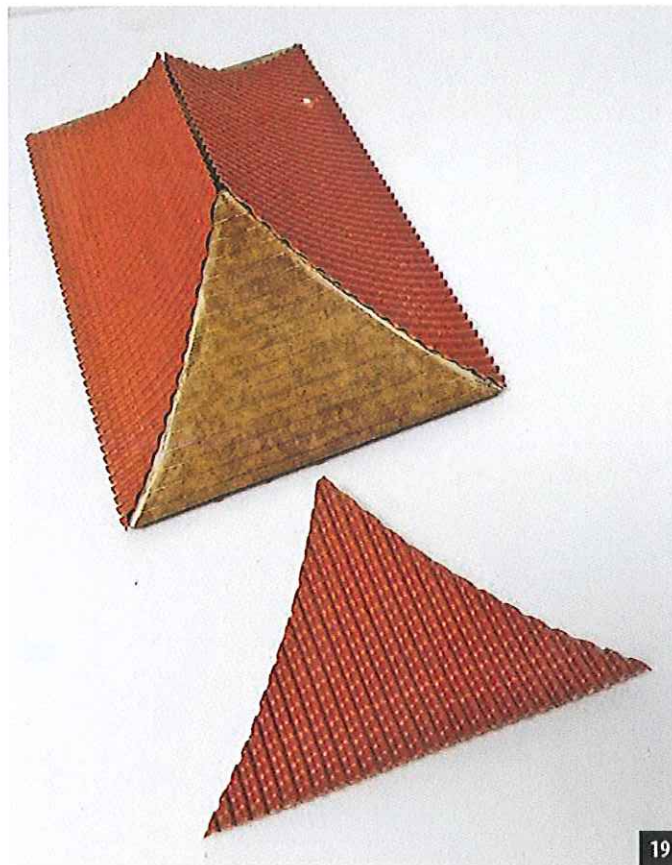
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doors (Photo 10) and a scribed basswood second floor (Photo 11).

The next steps in the assembly show why it would have been impossible to build this model without laser-cutting certain fine details such as the staircase, its simulated decorative iron work (Photo 12), and the exterior trim strip surrounding the building at the level of the second floor. The trim strip consists of two pieces of plastic with adhesive on the back of the finely patterned front strip that makes it simple to assemble the two strips, which I painted before attaching to the structure. Applying the trim strip to the building (Photo 13) was facilitated by laser-cut lines on the exterior walls showing the location of the strip, but the more difficult task was bending the strip around the curved corners and keeping



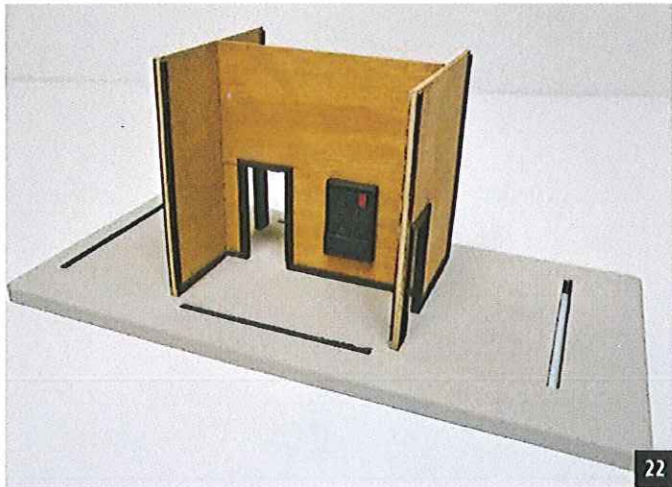
it in tight contact with the walls while the glue dried. I used epoxy to attach the strip to the walls, although TW Trainworx recommends super glue, which I prefer to avoid. I glued the strip to one wall at a time and worked my way around the building once the epoxy on the preceding wall had cured. I used weights to hold the strip in contact with the walls. With the trim strip in place on all four sides, I attached the staircase (Photo 14).

New Haven signal stations were identified by a number within shields on the curved exterior corners. The TW Trainworx kit included the backs of the shields and curved trims, each made from fiberboard. I printed a sheet of numbers (Photo 15) and assembled four shields (Photo 16). Due to the thickness of the backing and trim, it was difficult to bend the shields so they could be mounted on the curved corners of the walls. I recommend that TW Trainworx cut these parts from paper in future kits.

I next turned to installing the tile roofing, which consisted of four pre-cut, vacuum-formed plastic panels and narrow strips to cover the five ridges (Photo 17). Here, I deviated from the kit's instructions by using Styrene cement instead of super glue to attach the four plastic roofing sheets to the fiberboard subroofing.



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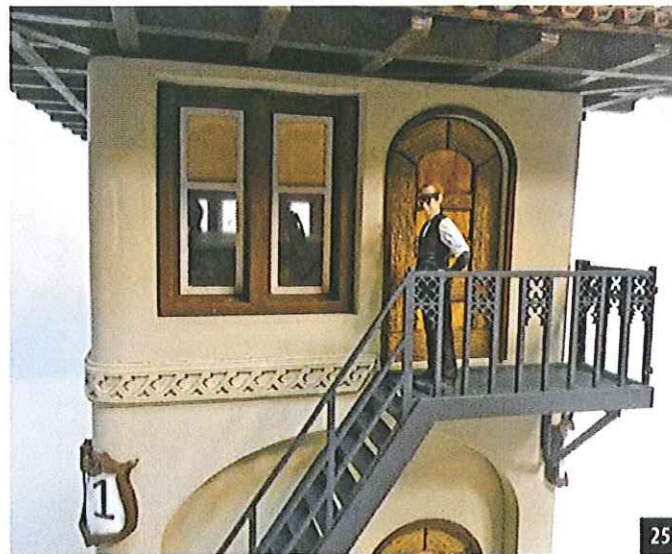


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I find that Styrene cement creates a strong bond between Styrene and wood or fiberboard. In this case, it also provided time to position the roof panels precisely so no filler or caulk was required at the ridges, as described in the kit instructions. I used clothes-pin-type clamps and masking tape to hold the plastic in contact with the subroofing while the cement dried (Photo 18). The two larger roof sheets were glued into position first. Then I trimmed



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the edges to minimize the gaps at the ridges (Photo 19). This allowed the narrow tile ridge strips to completely cover the gaps and made it unnecessary to fill them with caulk (Photo 20). I also cut an opening in the roof tiles to mount a chimney—a fixture present on New Haven signal stations, but not supplied in the kit. The roof was completed by painting it with Poly-Scale rust and mud (Photo 21).

Finally, since I used clear glazing rather than the kit-supplied translucent material, I added interior details on both levels (Photos 22 and 23).

It took me 72 hours to build the model, including seven hours for the interiors. My completed model is shown in Photos 24 through 28.



I found the TW Trainworx New Haven Tower kit to be an excellent design made from high-quality materials with precise laser-cutting. The plastic roofing was a challenge for me and required some trimming and fitting, but eventually resulted in a neat and realistic model of the roof and of a New Haven control

tower. My thanks to the people at TW Trainworx for having produced a kit to build a model that is a landmark on my layout, and which I could not have built without their engineering expertise. I'm already planning to buy another kit for my next model railroad. ☺

