

N-Circle Railroad Update 41 – August 25, 2026

Building an Etched Metal Diner Kit

A few years ago, I purchased the Miller Engineering "Parkway Diner" kit, as it seemed interesting. I don't have an immediate need for it on the N-Circle layout but decided to build it as I have never built an etched metal structure kit and thought it would be interesting to try it and write an N-Circle Update article comparing it to the other types of kits built in recent years. Given the flexibility of nothing being permanently attached to the N-Circle layout, I am sure I can find at least a temporary home for it!

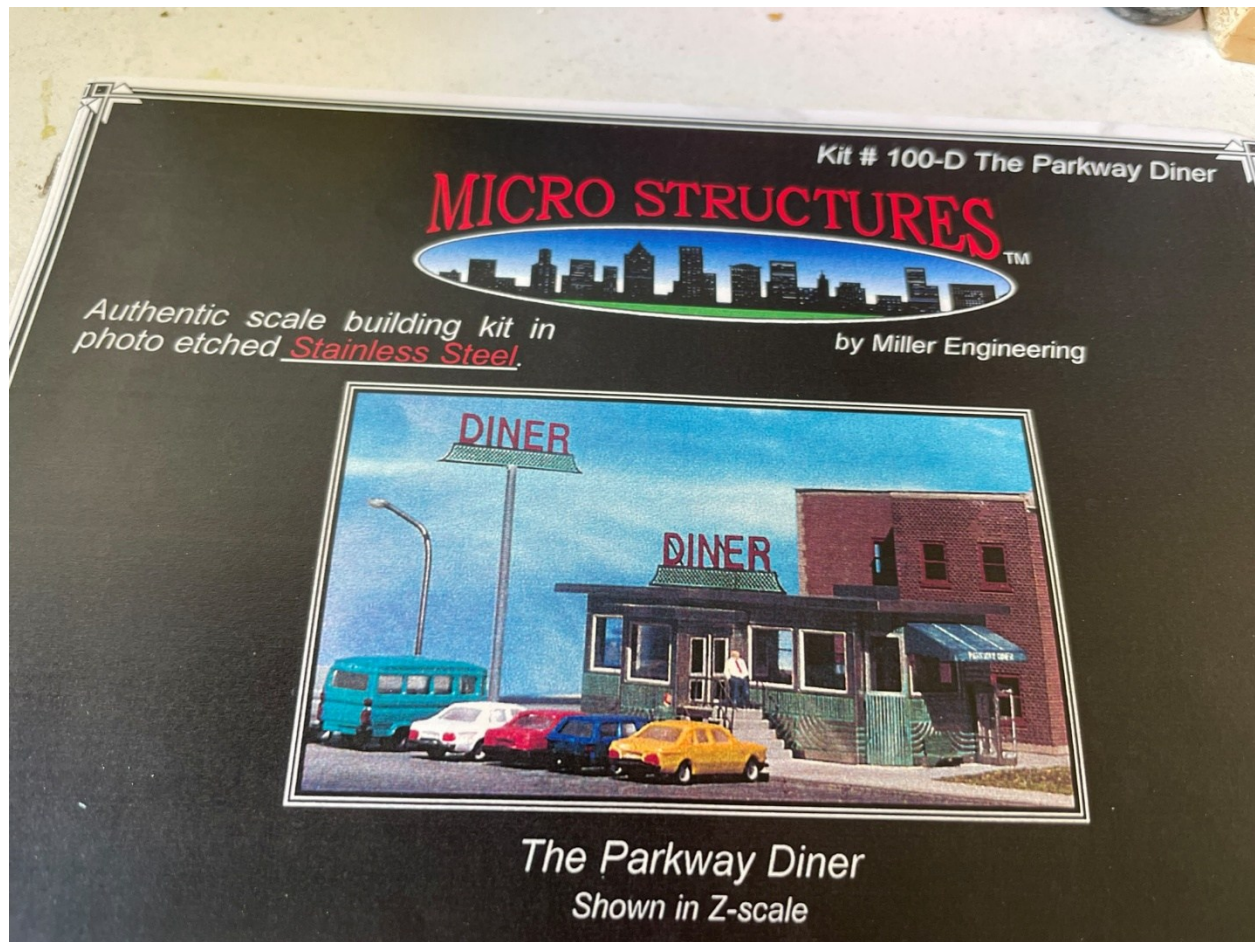
The package cover is shown here for reference.

[N-Circle_26-08-08_ParkwayDiner_1_Cropped](#)



And a close-up view of the photo on the label shows how they finished and detailed it.

[N-Circle_26-08-08_ParkwayDiner_2](#)



There is a real Parkway Diner in South Burlington, Vermont, near where I live. Here are two photos captured from the web, obviously at different times, as the venting on the roof is different between them as is the whole area in front. Note the similar entrance on the front like the kit, though the overall building is quite a bit longer than the kit.

ParkwayDiner_1



ParkwayDiner_2

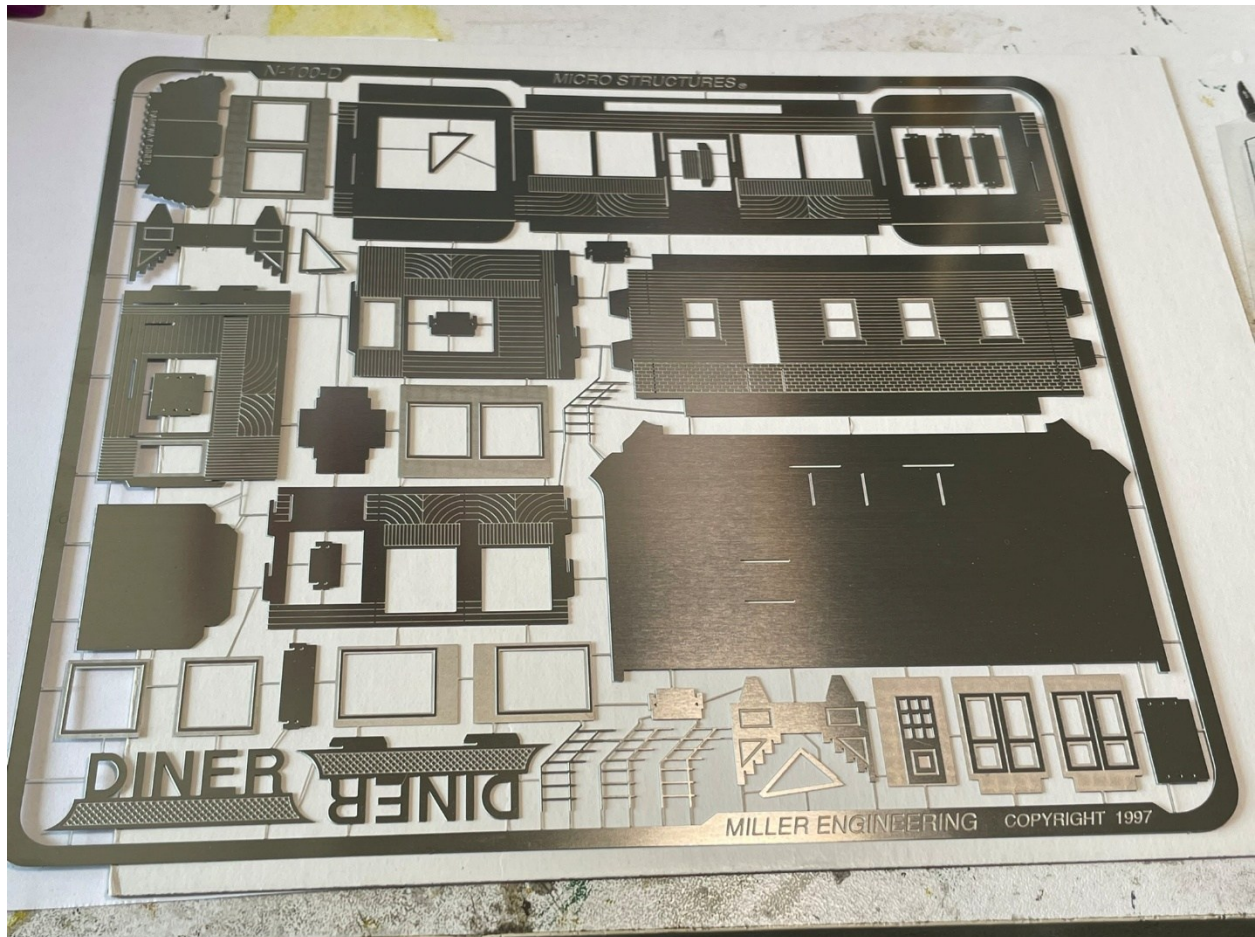


Though the kit is not identical to my local diner, I am not going to attempt to kit bash it to reproduce the prototype. However, with custom signage and appropriate painting, we will see how close we can get!

The instructions for the kit are very detailed and clear, with well-labelled diagrams synchronized to the written directions. They even include some guidance on painting.

All the parts come from one large etched sheet of stainless steel shown here and a small separate sheet for the parts of the telephone booth.

[N-Circle_26-08-09_ParkwayDiner_1](#)



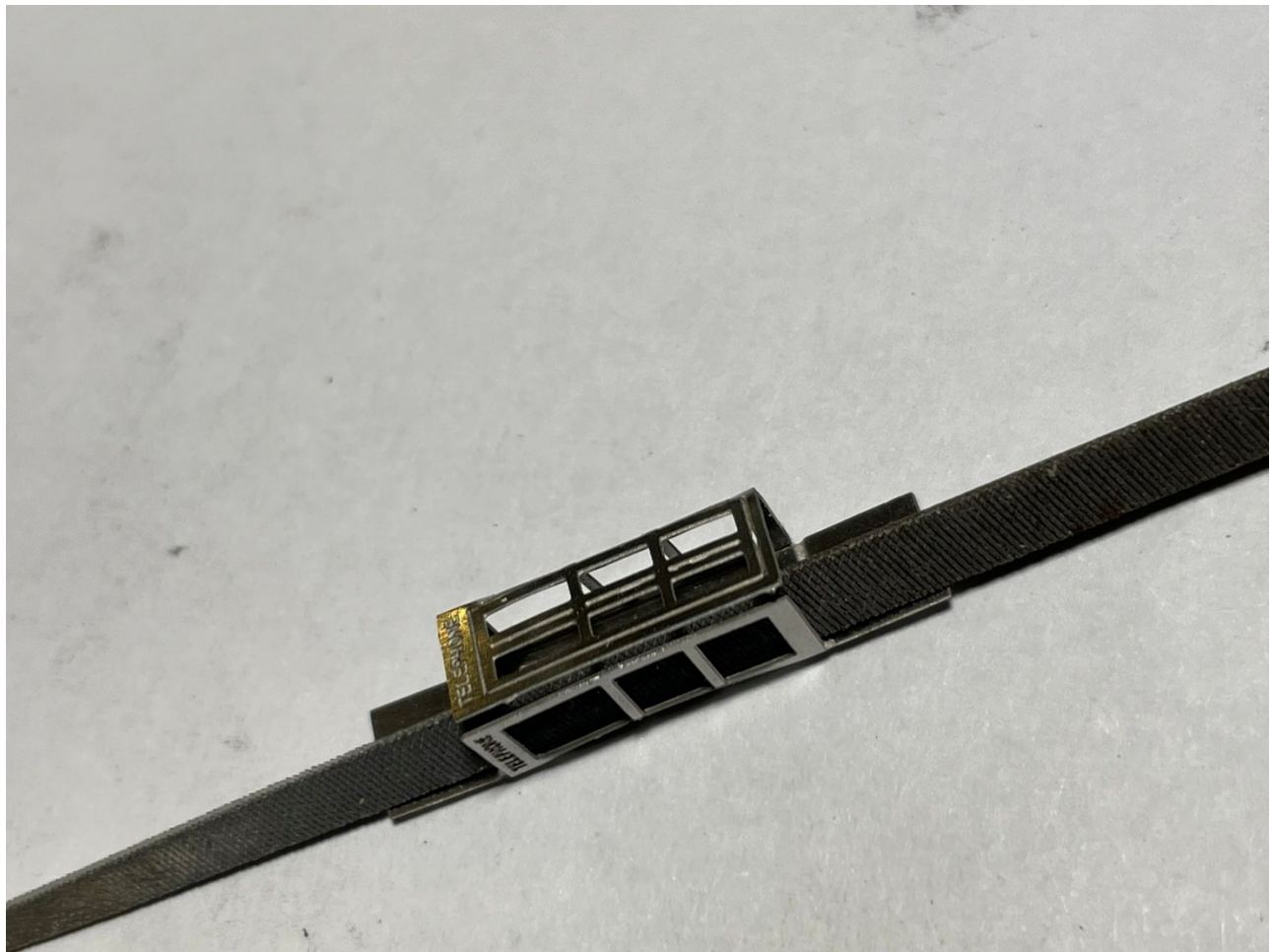
I began by assembling the telephone booth – I thought it best to start my first build of an etched metal kit by practicing on a non-essential sub-structure, rather than the main front wall where the kit instructions start. I am glad that I did...

The instructions recommend a specific tool for cutting the parts from the metal sprues – a Micro Structures #T100, which from a web search appears to be a small saw. I did not own one and did not feel like buying one for building one kit. A small pair of diagonal cutters for metal worked okay. Where they would not fit between the pieces, just using a hobby knife on a cutting board like with wood kits was fine – the sprue connections are very thin.

The instructions say to smooth the nubs at the cut points with fine sandpaper. I tried a fingernail filing stick, but it was not robust enough, so I ended up using a small metal file. The nubs are solid metal and there are many of them, so this becomes a tedious task. You will know how well you did by how many times you get stabbed by these tiny sharp points when you pick up a piece to work with it...

I started the fold of the first two walls of the telephone booth by just placing the etched crease face down on the edge of a small wood block and pressing the overhanging side down until the fold was square – my planned technique for all the kit pieces. But moving to the second fold, that's when the trouble started...the walls are so narrow that you need a very small block to fit inside the "U" shape of two adjacent walls. That's when I came up with using the small triangular file I was using for smoothing off nubs. That fit inside the frame, allowing folding of the second and third joints as seen here.

[N-Circle_26-08-09_ParkwayDiner_2](#)



Closing the box by super-gluing the fourth wall to the edge of the first wall became the next challenge, as it is difficult to fold them to precisely align. I ended up folding over the top and bottom panels and using a clamp to hold them tightly as shown here, then inserting spring-loaded tweezers to clamp the side walls joint together. The tips of the tweezers are wrapped in tape, so hopefully they will not forever be glued to the phone booth...

[N-Circle_26-08-09_ParkwayDiner_3](#)



And don't forget to insert the telephone inside before you close up the box – I almost did. I did not feel like preparing black paint for a three-millimeter device that no one will ever see again, so I painted it with a black fine-point Sharpie pen. It would probably be better to glue the phone to the inside wall before you begin folding the walls – inserting it after with superglue on it was a challenge. There is no guidance in the instructions on this level of assembly detail.

After assembling the walls of this telephone booth, it occurred to me that I had been through this before. Sure enough, the Gold Medal Models phone booth built in Update 16 was almost identical to this one, with the same challenges. I should have read my own report first! Note that the Gold Metal Models kit did not include clear acetate for windows and this kit did not either. I apparently thought of it before building the Gold Medal booths and added my own windows ... I did not think of it this time...too late now, but something for you to consider.

I left the telephone booth unpainted, it came out okay, not great, with some glue residue on the edges. It is not a necessary piece for the diner structure, so it will probably go in the Details Parts Box for future use elsewhere.

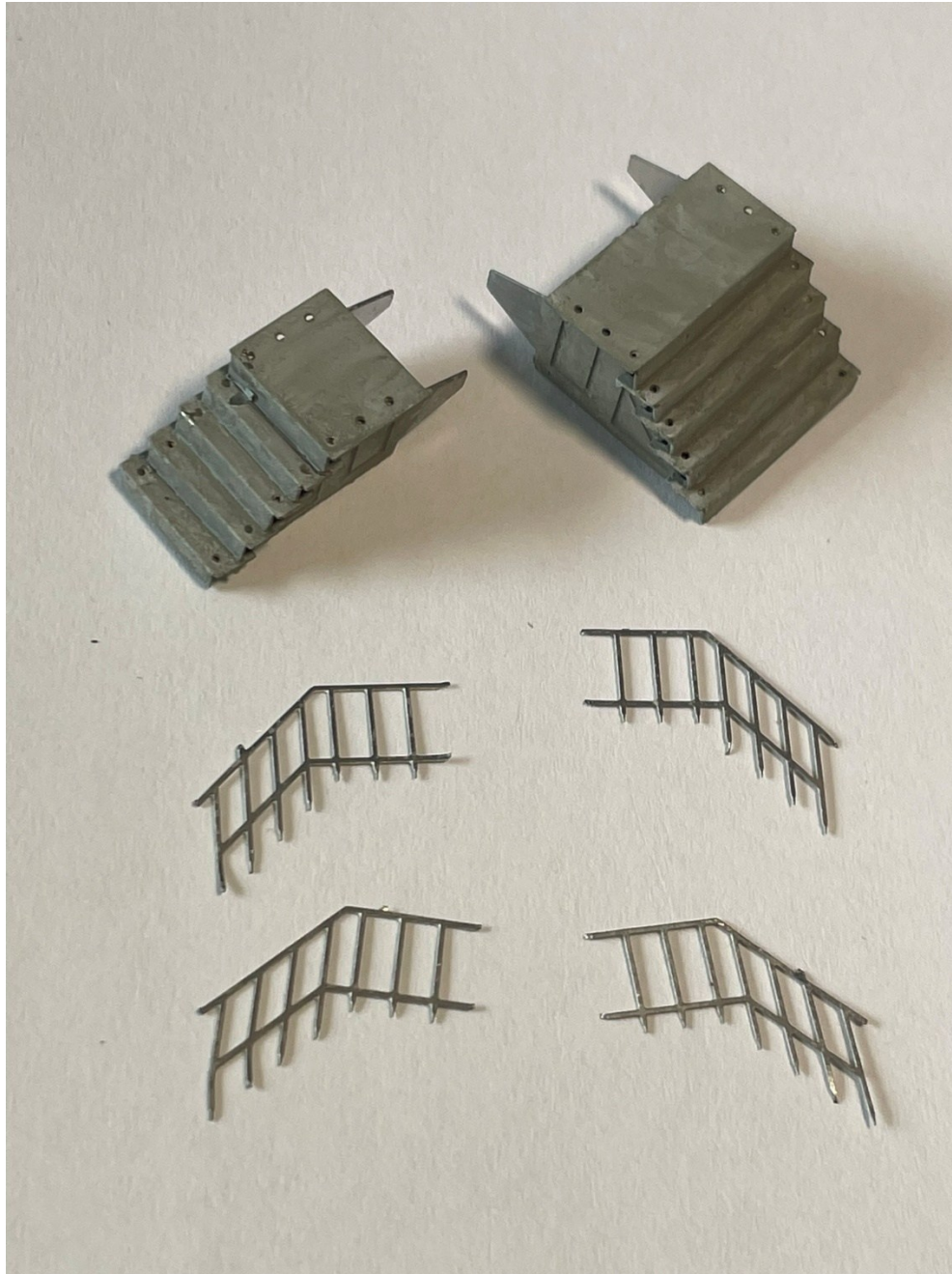
Given how the phone booth went, I decided to practice some more on the stairways, before attempting Step 1 in the instructions to build the front wall. If anything, these metal stair sets are even more of a challenge than the laser-cut wood stairway on the Majestic Theater in Update 25. First, you have to file off four or more hard-metal sprue stubs on the edges of each tiny stair tread. Holding the piece securely is the challenge. Then the stair riser on each tread is very narrow – a couple of millimeters. Therefore, it is difficult to apply enough force to bend the fold just using your bare fingers and the square edge of a wood block. I ended up holding the stair tread tightly in a pair of wide-nose pliers and pressing the riser against the hard surface the workbench to bend it as seen here. A tiny bead of superglue on the underside of each end then holds each step in place on the side stringers.

[N-Circle_26-08-10_ParkwayDiner](#)



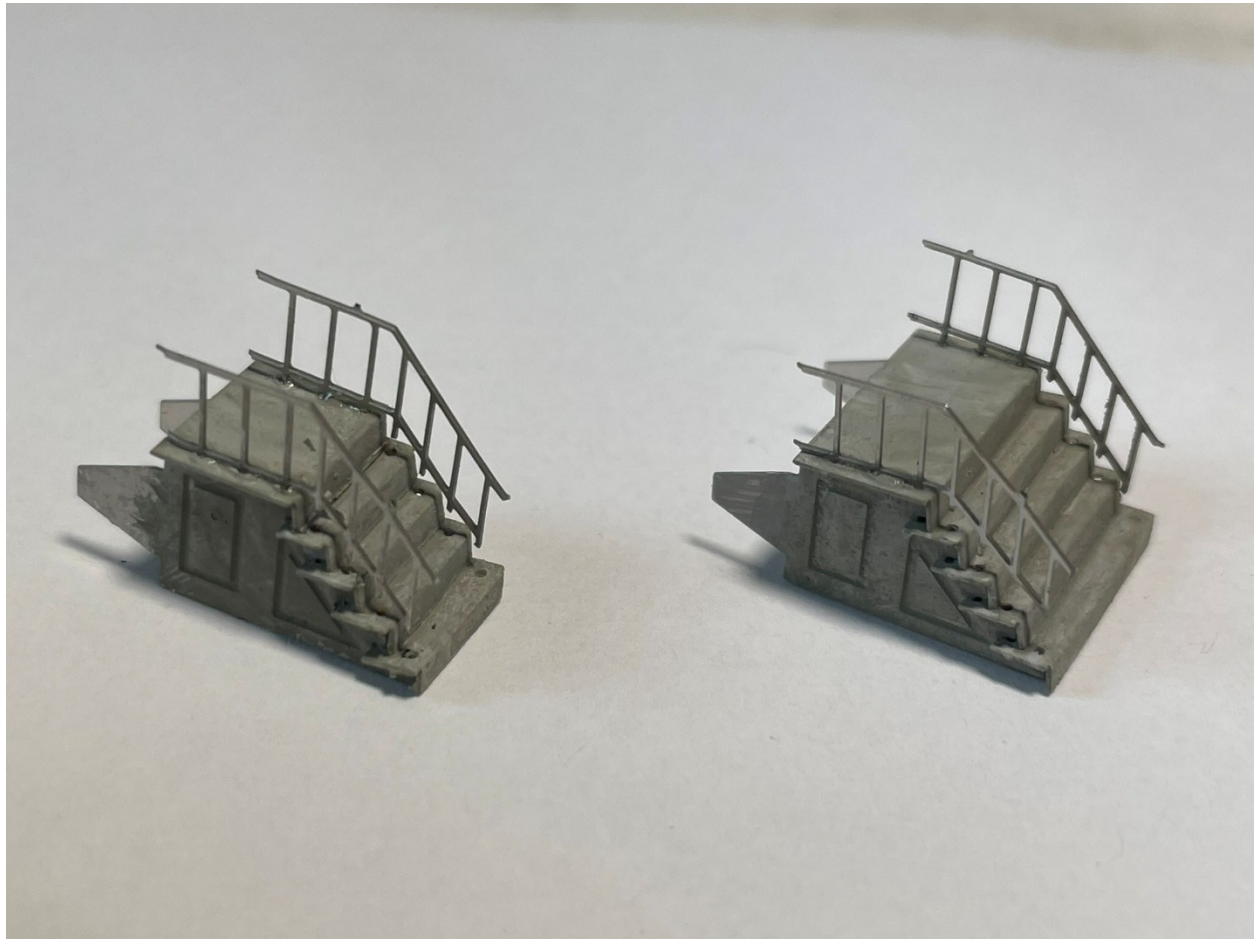
I painted the stairs with Vallejo grey primer, then a second coat of Tamiya "Medium Grey" for better coverage and to darken them a bit. The instructions say to paint the stairs before installing the handrails, but this adds to the challenge, as the paint fills the tiny holes for the handrail posts. As seen here, the handrails have seven posts that must be aligned to the holes in the sides of the stair treads.

[N-Circle_26-08-12_ParkwayDiner_1](#)



After an initial attempt, I decided I did not have the skill or patience to align all seven posts on four sets of handrails, so I cut off the four on the angled rails using the diagonal cutters, leaving just short nubs. It was then fairly easy to superglue the three posts on the top landing platform. I expected to have to support the railings to have them remain vertical while the glued dried, but all four set into the holes sufficiently to stay straight without support. In retrospect, I cut off the lower posts a bit too short, so they do not reach the steps, but as seen here in this closeup photo, the gap is small and will not be noticeable at a distance on the layout.

[N-Circle_26-08-12_ParkwayDiner_2](#)



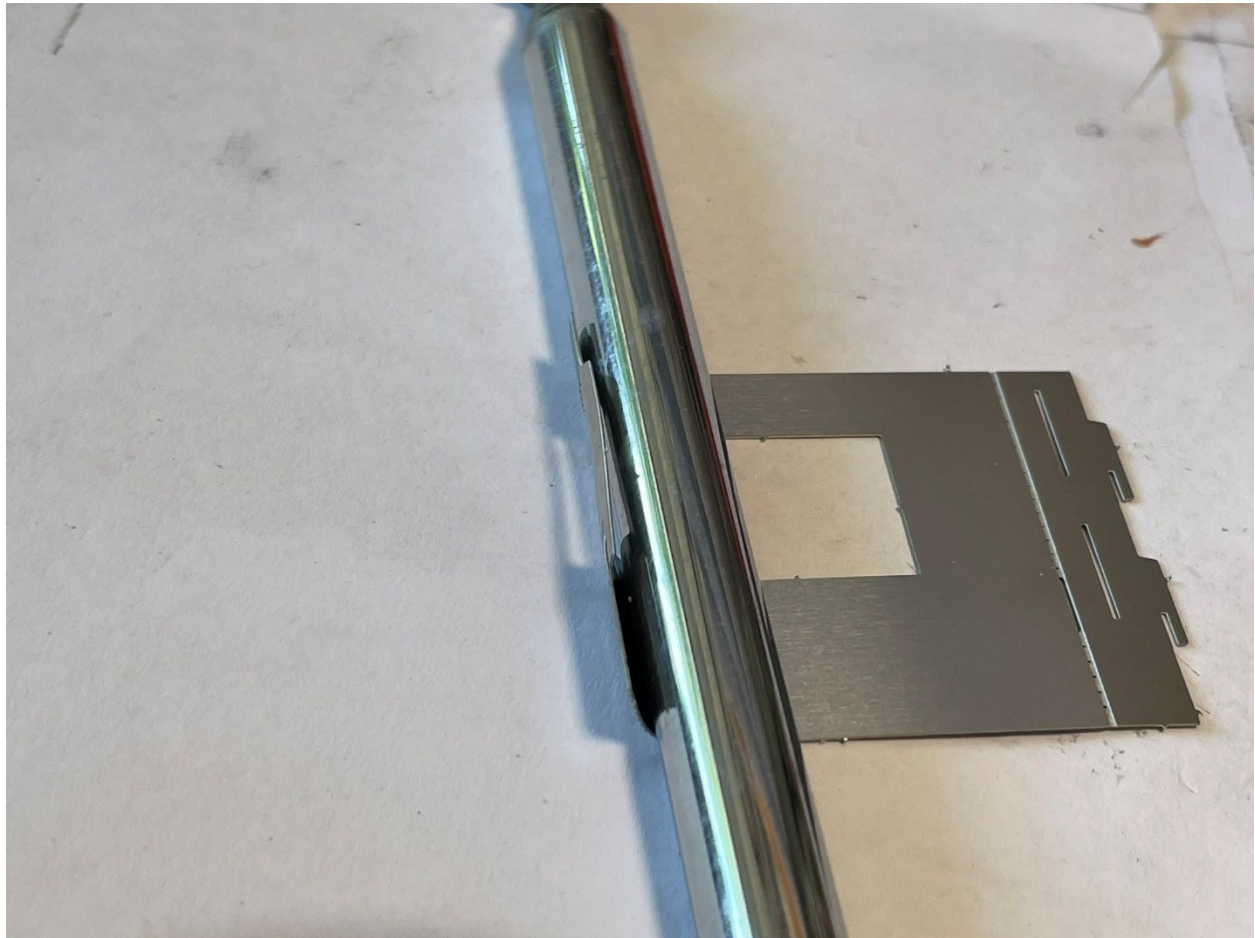
I did not paint the handrails – I figured paint would not adhere well to these tiny stainless-steel surfaces and so they would end up with shiny patches where the paint chipped off, so may as well just have the whole structure shiny stainless steel.

Assembling these stairs may not meet your expectations for “model railroading is fun.” If not, don’t be ashamed to use a set of 3-D printed plastic stairs that fit the dimensions of the building.

For the main walls, you have to think through the order of bending the various edges so that you can hold the body of the piece flat on a block and fold the edges up or down. The bends for the narrow tabs on the top and bottoms of the walls are difficult to get started, as there is not much to get leverage on. I ended up placing the edge of the bend on the edge of the wood shaping block, then tapping the overhang with a small hammer to get them started.

The largest challenge is forming the curved corners of the end walls. I pressed them around the shaft of a tool I had on the workbench, which was about the correct diameter as seen here. This went better than expected.

[N-Circle_26-08-11_ParkwayDiner](#)



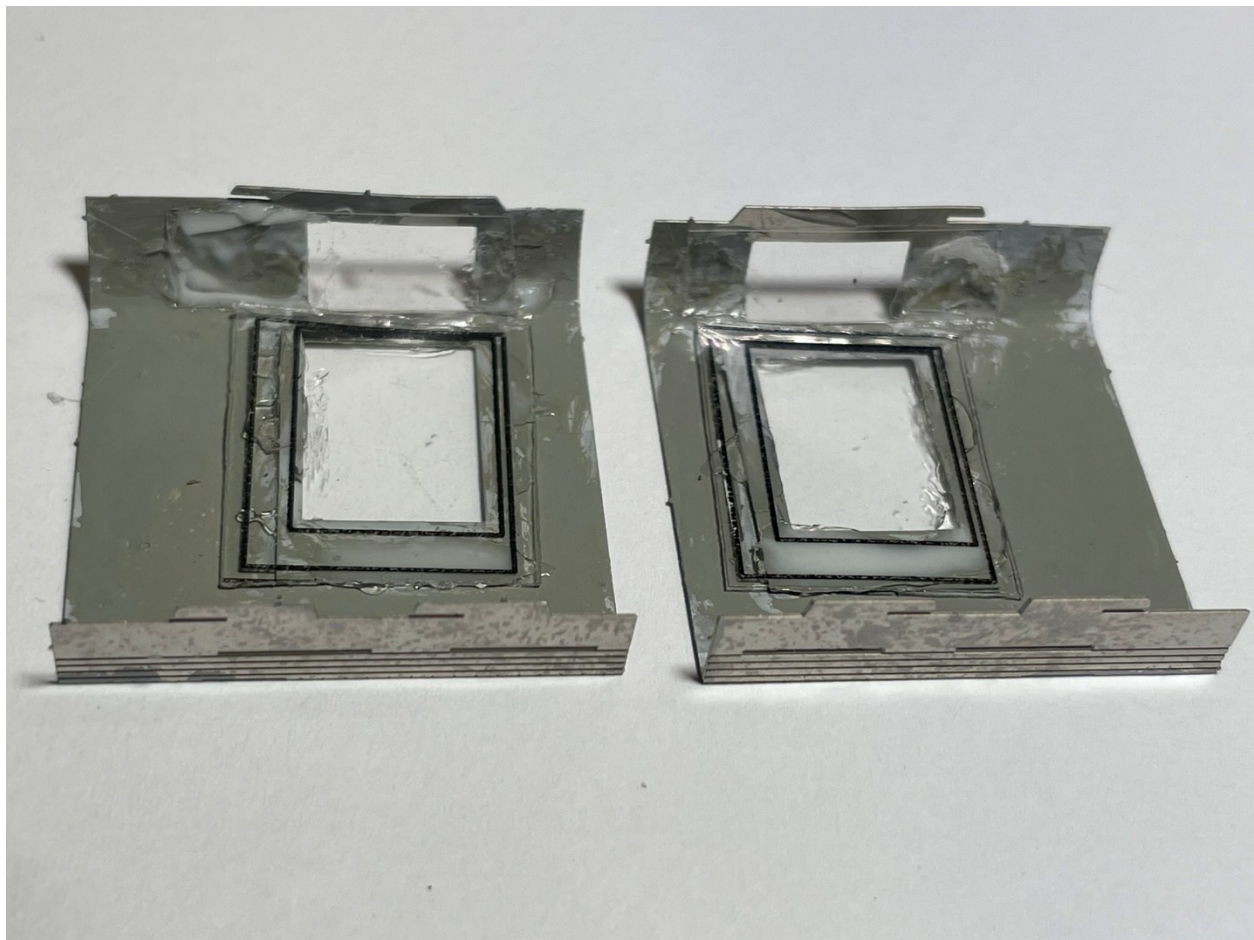
Installing the window and door frames was fairly easy. You don't have to worry about filing off the metal sprue nubs completely, as they will be inside the structure walls. Apply superglue on the inside of the wall above and below the opening and guide the frame into places. The frames have ridges around their edges which make them easy to align.

The instructions say to paint the interior walls with flat black, to cover the shiny metal surfaces. This seemed like it would be too dark, so I used Vallejo grey primer, after the window frames were in place (which also have shiny inside surfaces), but before installing the acetate clear windows. This appeared too light, so I applied another coat of Tamiya Medium Grey. I also added this on both sets of steps.

I attached the acetate window glass to the inside of the frames with Micro-Scale Kristal Klear, as with most kits. Attaching the clear acetate in the rounded windows on the ends was more of a challenge. The acetate pieces provided in the kit were just a bit larger than the opening, like for the other windows. To have more glued surface area, I cut strips from the thinnest, most flexible acetate I had in my parts collection, cutting them to the width of the window opening, but long enough to extend nearly the height of the wall, to provide the maximum surface area above and below the opening for gluing. Initially I attached them with Krystal Klear, pressing the strips into the curve of the wall with wood toothpicks. But this was not strong enough to hold the curve, so I added drops of superglue under the ends and again pressed them into the curve for a couple of minutes. That has held the shape.

My "Plan B" backup was to just fill the windows with Kristal Klear if this didn't work.

[N-Circle_26-08-13_ParkwayDiner](#)



Attaching the rear wall to the structure is a bit tricky and not totally clear in the instruction's illustrations. The tabs on the rear wall engage with the slots on the rear of the end wall extensions. So, the extensions must be in place before attaching the rear wall.

Assembling the walls is fairly easy, insert the tabs into the slots, then slide down to engage the alignment "lock" tab and apply superglue to the joint. Aligning the tabs on the end extension walls can be a bit tricky, depending on how square your bends of the curved ends are. I started by placing the first one upside down on the wrong end, so pay attention to the orientation of the panels! Fortunately, I realized the mistake before applying glue.

Folding the main roof panel and the panel over the entry and the awning were a challenge, as they also have very narrow edges. I used pliers like with the stairway treads above, but they require quite a bit of force to bend without breaking. I started the bends with the pliers, then finished them by gently hammering on the edges.

I filled the slots in the roof for the Diner sign with white glue before applying a layer of grey primer, as I did not use the sign in the kit.

I used Vallejo primer on the painted lower panels, then applied Tamiya red paint. I used Polly Scale "Boxcar Red" for the bricks on the rear wall, with a watery mix of Polly Scale "Reefer White" for the mortar, as described for the Brick Church in Update 40, and left the upper half of the walls as unpainted steel.

Note that unlike with previous plastic or wood kits, I did not paint the lower panels until after assembly, as I would not be painting around the window frames in the upper half of walls. I did not want to risk having the paint crack during the folding of parts.

As finishing touches, I added a 3-D printed exhaust vent on the roof and a utility meter on the rear wall, parts from my Details box purchased for these kinds of kit enhancements.

I brushed light weathering chalks onto the roofs and awning. The white chalk highlighted the "Parkway Diner" lettering etched into the edge of the awning as recommended in the instructions, but not dramatically.

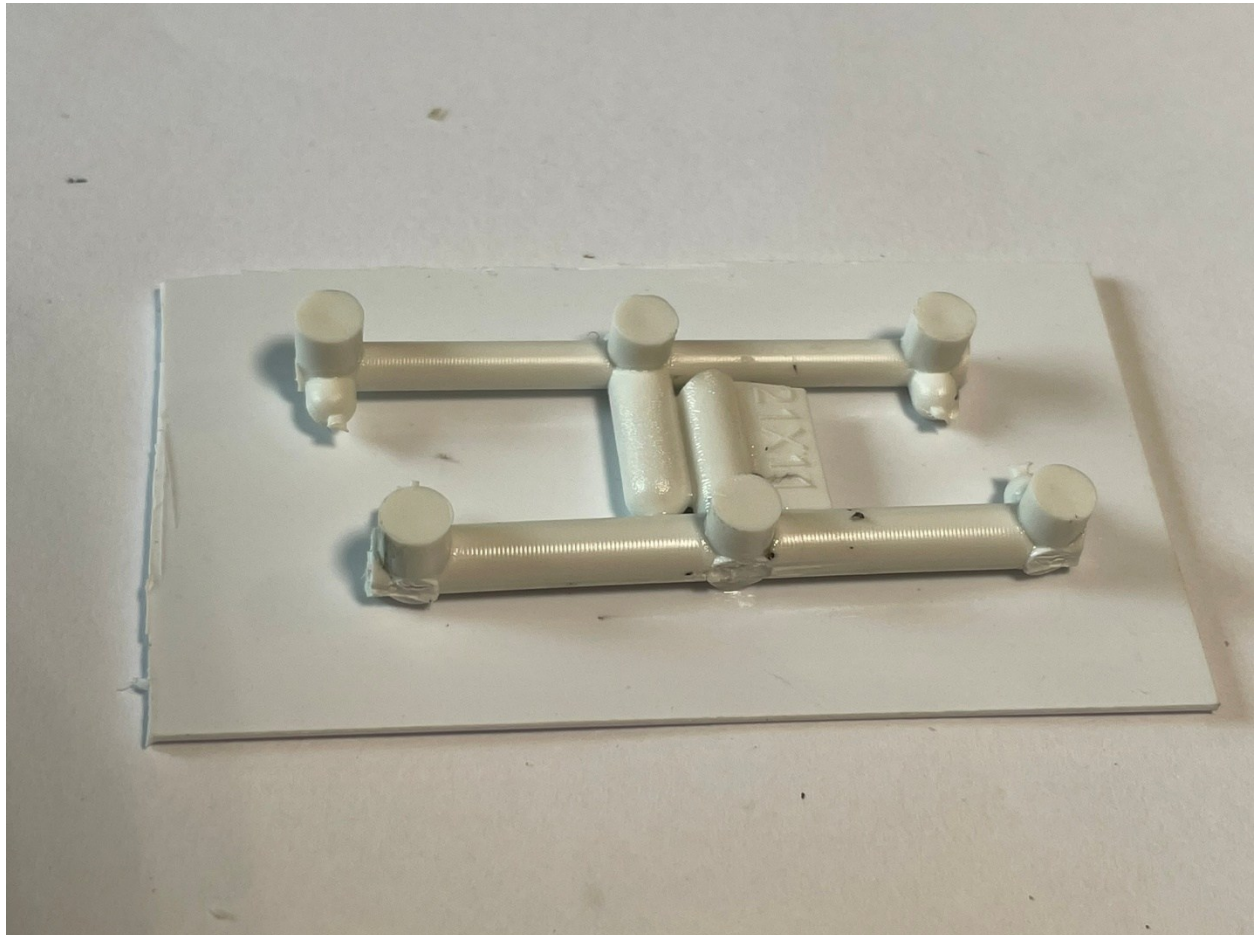
I wrapped blue painters tape around the top half of the walls to protect the acetate windows before spraying the structure with Testor's Dullcote to better protect the painted surfaces. After all this was complete, I cleaned any glue or paint residue off the unpainted metal surfaces with a soft pencil eraser.

After assembling the structure, I decided that with those big front windows, it would be good to add an interior. The top of the front stairway is 8 mm above the base, so I assumed the same for the interior floor. The bottoms of the front windows are only 13 mm above the base, so interior tables and people will be very visible.

I plan to place this diner on a Micro-Scene panel but have it removable like the Post Office in Update 34, with pegs on the base to align the structure. But with the floor 8 mm above the base, there is plenty space beneath it for the pegs, so it is not necessary to cut notches in the corners of the floor for the pegs.

I glued segments of styrene plastic kit sprues to the underside of the floor as seen here to raise it to the desired level.

[N-Circle_26-08-17_ParkwayDiner](#)



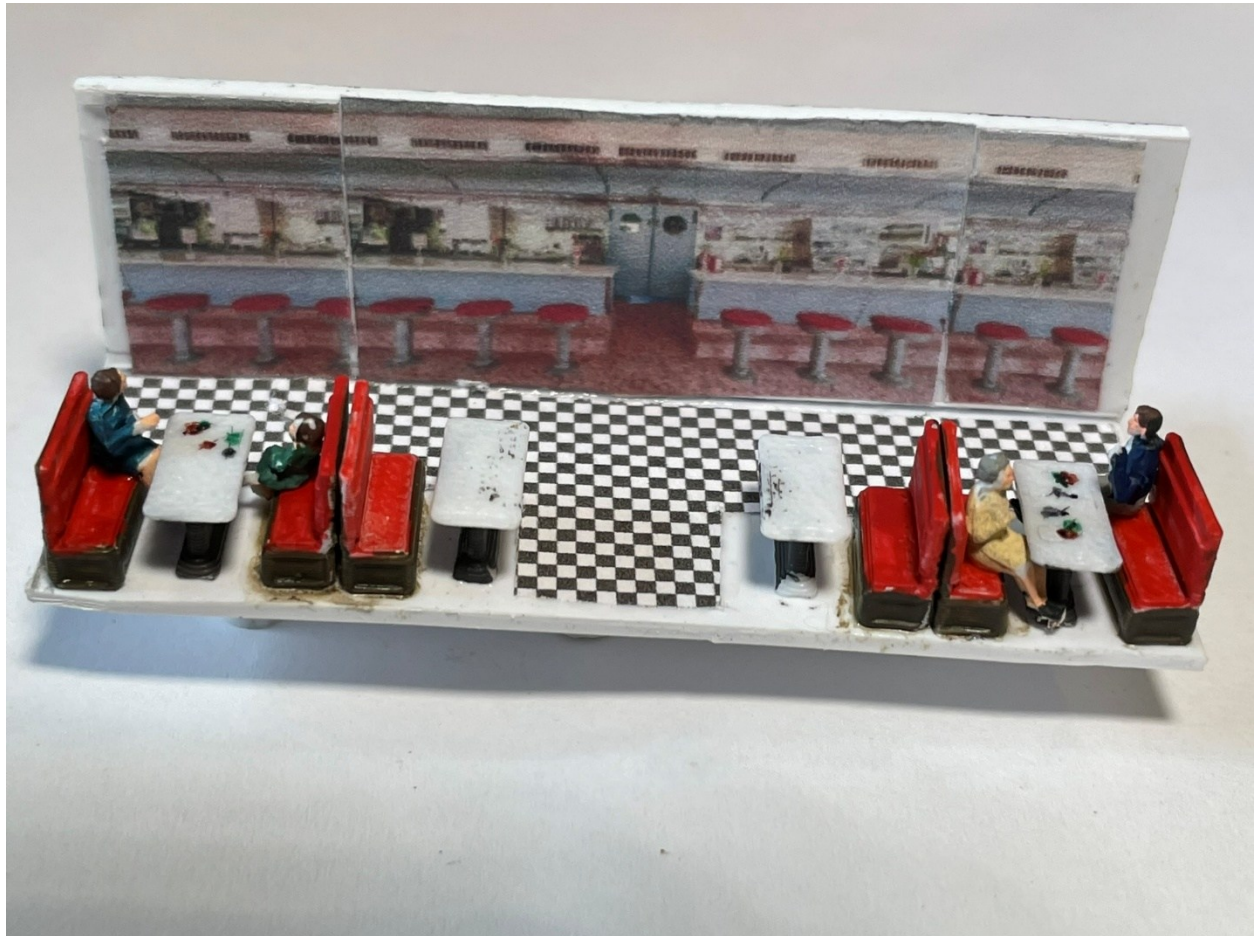
I found a generic diner interior image on the web to use for the front of the interior wall and embedded it into a PowerPoint slide to shrink it to an 18 mm height to fit the floor-to-ceiling height of the structure, similar to the restaurant interiors in Update 27. I glued this printed interior to a piece of thin styrene cut to size for the wall and painted the rear side dark grey. I was not ambitious enough to detail a storage room in the rear of the building.

I used benches and tables leftover from the restaurants developed for the NWV module in Update 27 and added some of the seated people figures painted in Update 36. The interior of the model is only 64 mm long, or about 32 scale feet, much shorter than the prototype above or a typical diner, so it does not accommodate many seating booths!

Around the booths I added a black-and-white checkered tile floor print developed in PowerPoint for the Dew Drop Inn described in Update 10. It is not necessary to cut this to fit precisely around the furniture, as that area will not be visible through the windows.

As a finishing touch for the interior, I used colored Sharpie pens to add plates of food on the tables, even though they will be barely visible in the final assembled scene. But they look semi-convincing in this photo of the finished interior before installing it. Are those green vegetables served in a diner?!

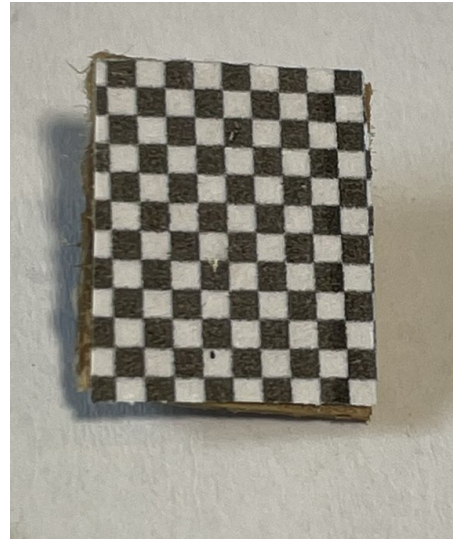
[N-Circle_26-08-24_ParkwayDiner_4](#)



I also added a tile floor in the entryway, as that will be somewhat visible through the large entryway windows. To support it, I glued a styrene support sprue on the edge of the underside first and a sprue stub in the middle to grasp with pliers to guide this panel into the opening from below to glue it in place, as seen here.

[N-Circle_26-08-24_ParkwayDiner_2_Cropped](#)

[N-Circle_26-08-24_ParkwayDiner_3_Cropped](#)



I designed a custom sign in PowerPoint like the prototype in the photos above, printed it and glued it to a piece of thin styrene cut to size. I used two of the three triangular supports in the kit intended to support their DINER sign to support the building end of this sign. This structure will rest directly on the roof of the entryway, rather than being raised above, as this seemed like it would be more structurally stable for an N-scale model. I first glued the two metal triangles together with superglue, held aligned with a small foam block as shown here.

[N-Circle_26-08-22_ParkwayDiner_Cropped](#)



After priming and painting black, I glued the support to the end of the sign, holding the sign vertically sandwiched between two magnets while the glue set.

[N-Circle_26-08-24_ParkwayDiner_1_Cropped](#)



I made a pole to support the other end of the sign from a small piece of round styrene, painted black. To glue this to the other end of the sign without gluing it to the workbench, I supported the joint overhanging the edge of a glass plate.

[N-Circle_26-08-24_ParkwayDiner_5_Cropped](#)



To simplify touchup of chips in the paint of the sign supports, I just used a black Sharpie pen.

I did not glue the main roof onto the walls, in case I want to remove it to work on the interior or add lights later. And I have not glued the sign to the building, as it would be too fragile a structure to be hanging off the edge until it is placed somewhere permanently.

In the final finishing, I added another figure on the front stairs – this exiting satisfied diner customer is also super-glued to the handrail for vertical stability, as done for many previous N-Circle structures.

Here we see all angles of the final finished structure. I sunk the bottom of the sign pole into a small block of foam to keep it upright for the photo session. And note that you can see that food on the tables through the front windows and the tile floor in the entryway!

[N-Circle_26-08-24_ParkwayDiner_6](#)



N-Circle_26-08-24_ParkwayDiner_8



N-Circle_26-08-24_ParkwayDiner_9





While this building was loosely modeled after a prototype in Vermont, it is generic enough to be used in 1950s or 1980s, Vermont or Louisiana operating sessions. But I have not placed it on the layout yet, as I don't know where it will go, so this report does not end with an "on the layout" photo like most previous Updates. But I plan to build a micro-scene panel around it soon, then find a home for it. So, watch for that in a future N-Circle Update!

This kit took about 14 hours to complete over 21 work sessions, but that includes about 4.5 hours of adding details that were not part of the kit. Therefore, I estimate the kit alone could be assembled and painted in about 10 hours over 10 sessions.

Etched Metal Kit Perspectives

My recurring thoughts throughout building this kit were: "This structure would probably be pleasant to build as a styrene plastic kit..." and "People build this kit in Z-scale?!?"

To compare the experience of building this etched stainless-steel kit to my perspectives on building laser-cut wood structure kits in N-Circle Update 32, 3-D printed plastic kits in Update 33 and styrene plastic kits in Update 40, I would say this modeling medium was the most challenging of all.

It was an interesting challenge, with all the careful folding of edges required and attempting to get them squarely aligned and held for gluing. It was interesting, but not necessarily an experience I would want to repeat on a regular basis. The pieces were well cut to proper dimensions to go together, and it was reasonably easy to assemble the main sections, if you get all the folds correct. Amazingly enough, I did not break any joints in any of the folds – the instructions warn against this if you fold a joint back-and-forth more than a couple of times. Nonetheless, I would not recommend this kit to a beginner, only to an experienced N-scale modeler who wants to try building a structure in a different medium.

Even with applying Vallejo primer first, I did not find that the Tamiya acrylic paints adhered well to the stainless-steel and hope that the final spray coat of Testor's Dullcote will protect the model during future handling. The kit instructions recommend using Floquil paints, which of course are no longer available, but perhaps there is a better alternative painting method than used here.

This kit required a similar amount of time to assemble as a comparable complexity laser-cut wood structure, more time than a styrene plastic kit.

I can see the advantage of etched metal for detail parts like the telephone booth and shopping carts in Update 16, but I don't see the advantage for a structure kit like this, other than the shiny stainless-steel exterior looks more realistic, but that can be obtained in other ways with good paints and is not needed for most structures.

Miller Engineering still makes etched metal kits - HO and Z scale versions of this kit are currently shown on their website. The N-scale version is not currently listed but probably can be found on eBay.