N-Circle Railroad Update 26 – July 25, 2025

Building the Laser-Cut Wood Northeastern Models Old South Church Kit

The next project was to build another laser-cut wood kit, this time the Old Stone Church by Northeastern Scale Models. The kit box is shown here.

N-Circle_25-07-13_Church-1

The instructions were reasonably detailed and adequate for assembling the kit, but as with other wood kits, provided minimal guidance on how to paint the kit for the best appearance.

I started by painting the main exterior stone walls and the stone walls for the steeple with a Vallejo acrylic grey primer. Even using a bristle brush, the paint did not go down into the deep grooves between the stones unless applied thicker than I wanted. Thus, there remained a lot of brown between the stones as seen in the following photo. The wood for the main walls is quite thick, so I only painted the exterior side. Only the end walls bowed a little, hopefully this can be corrected by clamping when glueing the four walls together later.

N-Circle_25-07-13_Church-2

The next day I applied a watered-down wash of Polly-Scale – Reefer White paint over the walls, then rubbed the excess off the surface with a paper towel, as I have done with previous plastic kits to create mortar. However, the paint was absorbed into the bare wood in the deep grooves between the stone faces, leaving most of them still showing exposed brown wood. Therefore, I applied a second coat a few days later, which improved the coverage, though not completely. But after two coats of white mortar paint, even with wiping the excess off the surface, the initial dark grey stones ended up a much lighter shade. Perhaps air-brush painting the walls with a primer to seal all the wood surfaces and grooves initially before applying colors would have produced better results.

However, the first-pass mix was so wet that the four main walls did warp quite a bit. I quickly placed them under a heavy metal toothpick holder that was handy on the workbench to try keep them flat.

N-Circle_25-07-13_Church-3

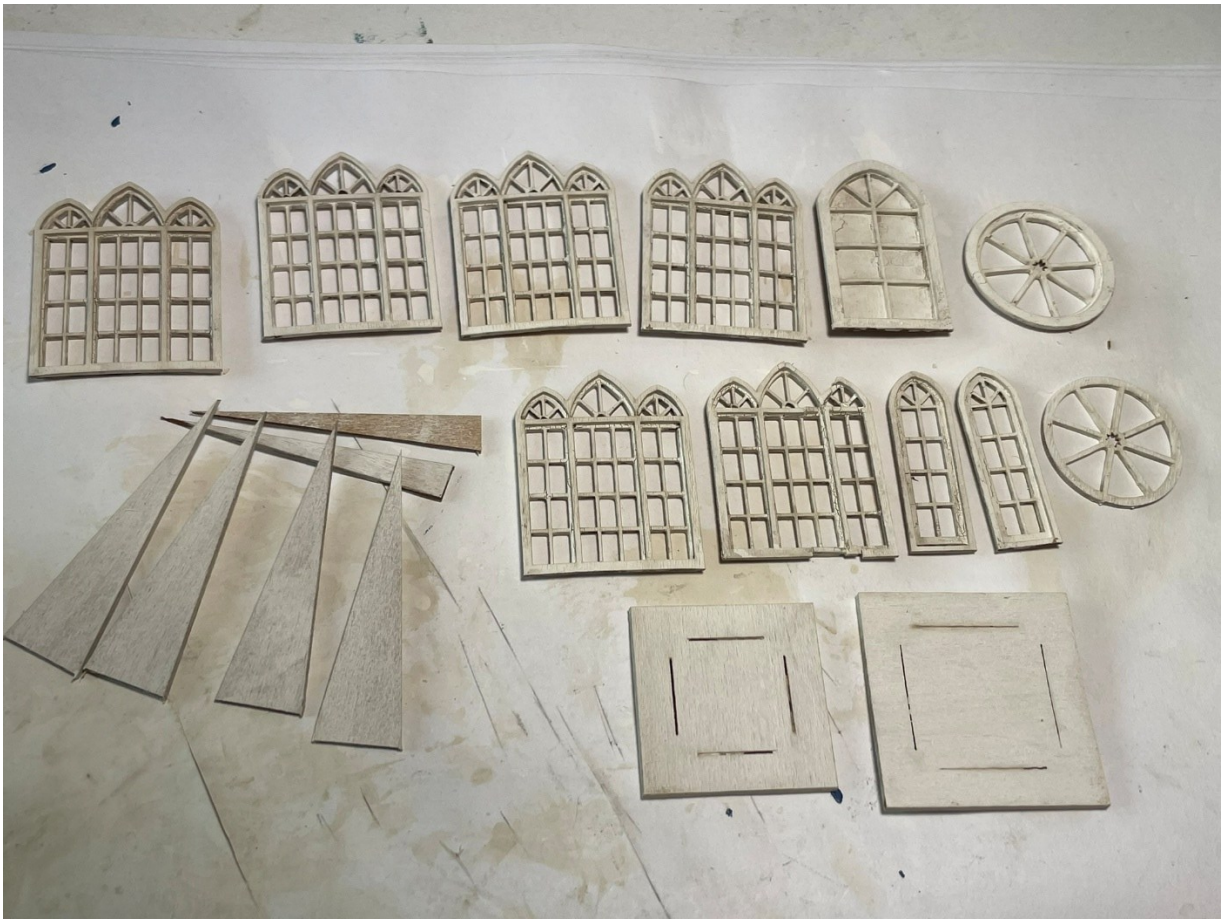
The next step was to glue all the outer window frames to the inner window frames. This was fairly easy to do, though it required more sub-millimeter alignment like the trim on the theater. But the pieces are larger, and I find sliding pieces into alignment held by wet white glue to be much easier than peel-and-stick pieces.

When I opened the box, one of the large, three section window frames had already come free of the sheet and had broken into many small pieces, but I was able to recover it with careful reconstruction and gluing, as seen here in the lower right of the six in the photo. The couple of missing pieces hopefully will not be noticeable when done. One of the outer frames for the round windows was missing too…that unit will go on the rear of the building.

N-Circle_25-07-15_Church-1

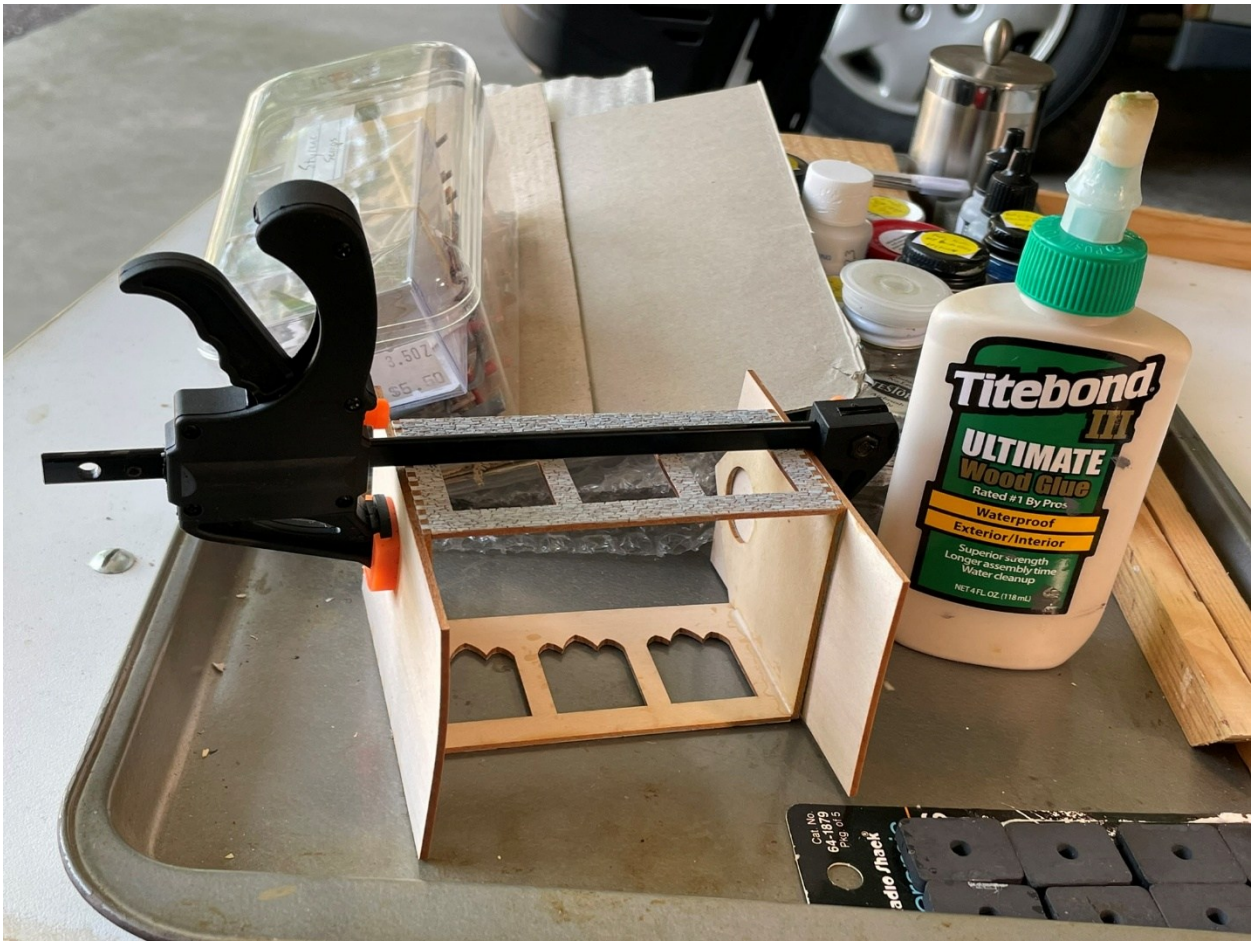
With all the frames assembled, it was again fairly easy to paint them on all sides and edges at once. I painted the inside surfaces too, to reduce warping of these thin pieces. For the inside surfaces, I used mostly water on the brush, as they don't require paint, and the wood warping is sensitive to the water in the paint, not the pigment. These bare wood pieces soak up a surprising amount of paint for their small size.

N-Circle_25-07-15_Church-2



My original intent, like with my previous wood kits, was to ignore the instructions and attach the windows to the walls before assembling the main walls. However, given how the end walls warped, I decided I had better do the assembly first, so that clamping the structure would not damage the window frames. Here we see the structure after glueing and clamping. I used the thick wood base panels from the kit to apply pressure on the entire height of the end walls, and with tight clamping, that brought all four walls into square. The panels only slightly adhered to the walls due to glue leaked from the joints and fortunately were easily removed!

N-Circle_25-07-16_Church



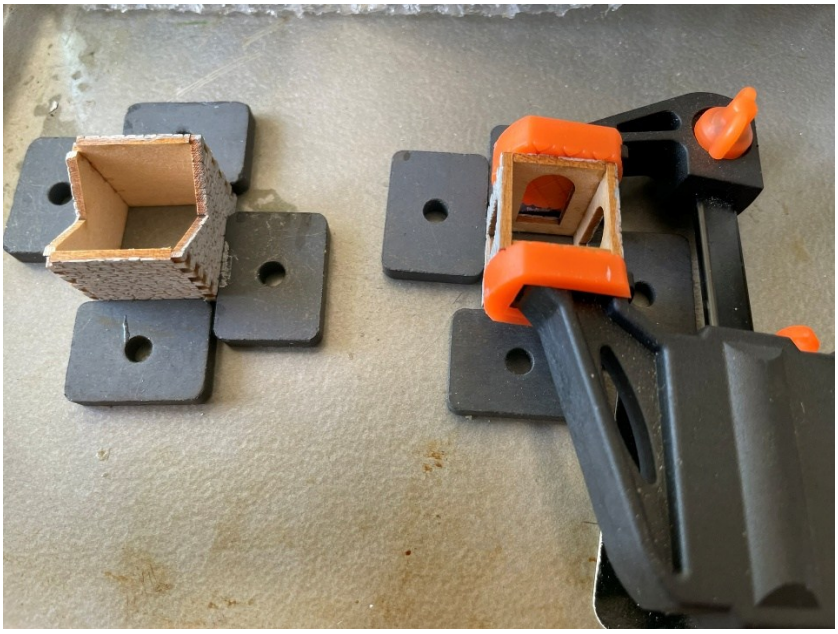
It occurs to me now that perhaps the reason the wood kit instructions say to assemble the main walls first is because of warping. While they do not say it, perhaps with the four walls tightly glued, the walls cannot warp after ensuing painting.

Also, with my sequence, the ends of the interlocking fingers at the corner joints were not painted, as can be seen in the photo above, so I had to touch them all up with grey paint to match the stones.

I did not add bracing in the corners of this structure. The wood of the walls is quite thick, and the interlocking joints are small, creating many three-sided glued surfaces the entire height of the walls. The roof panels are also quite thick, so the resulting box structure should be quite strong.

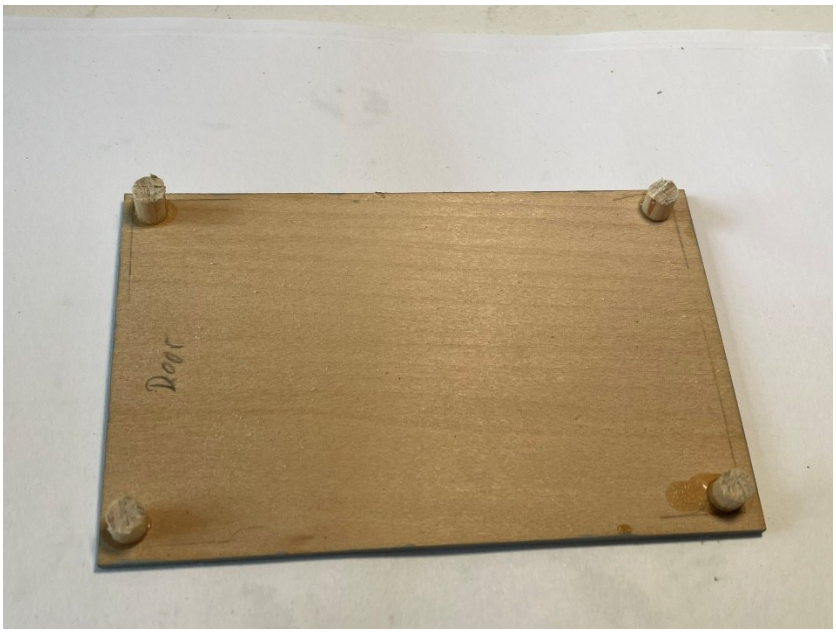
The steeple tower walls went together in a similar manner, I used magnets and the clamp to hold them square and tight while the wood glue dried, as seen here.

N-Circle_25-07-18_Church



I did not glue the wood base to the bottom of the structure, as I wanted to leave the bottom open to allow possibly adding interior details and/or lighting someday. But to keep the base with the building, I glued alignment pegs cut from a 3/8-inch wood dowel in the corners of the base, so the structure can be lifted off if needed. I did this before attaching the roof; allowing me to center the building on the base and draw a pencil line around the inside of the walls to align the pegs to. I painted the edges of the base to match the stonework.

N-Circle_25-07-20_Church-1



Glueing the four triangle steeple pieces is a challenge; the instructions provide no real guidance. You have to apply glue to the edges and align them in free space. Mine did not end up all square, more thought would be required to get this right.

The window frames are very thin wood, but press-fitting them into the walls straightened any warpage. Some were a tight fit, so one needs to be very careful when pressing them in to not damage anything. I used wood glue applied around the wall opening to secure them.

The window-glazing pieces are a bit larger than the window frame and looked like they could be a problem if attached to the frames before inserting the frames in the walls. Therefore, I inserted the windows first, then added the glaze from the inside later, securing it with Kristal Klear for glue. This turned out to be a good decision, as some pieces did not fit in the wall opening completely, and thus would have been a problem if glued to the frame before inserting the frame in the wall opening.

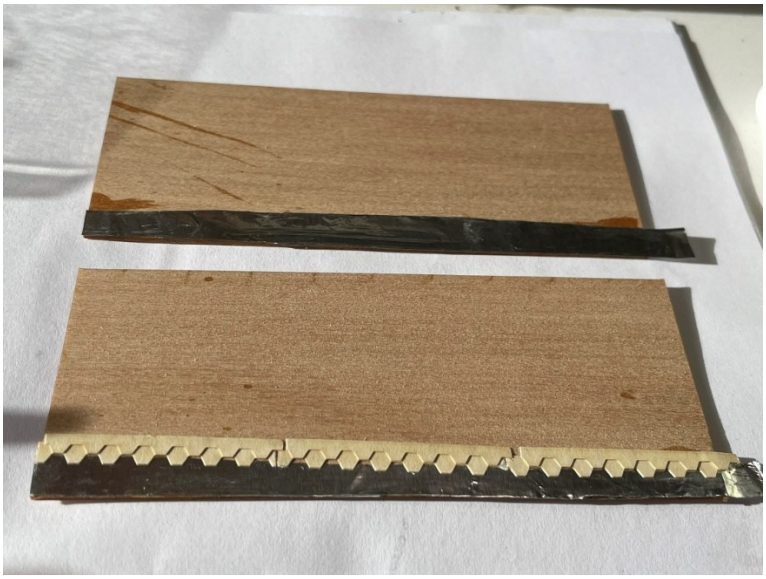
It seemed like a church should have some stained-glass windows, not just the blue tinted windows provided in the kit. Therefore, I got creative and made some for the large round windows on each end of the building. These are described in a separate section below.

The kit does not come with any texturing for the roof – just flat, smooth wood panels, which seems odd. I had blissfully forgotten what a challenge the peel-and-stick shingles were on the Country Barn kit in Update 24, and having material leftover from that kit, decided to use it here.

I could see that I would not have enough for the whole roof, so I decided to be creative and have a section of metal flashing along the edge. For this I used regular kitchen aluminum foil, which is very thin, so you need to cut it with sharp scissors, as it will tear if cut with a hobby knife. I secured the foil to the roof panel with super glue.

The shingle sheets I had remaining from the country barn kit were only 1/3 the width of the church roof, so fitting and alignment of sections were required. Here we see the lower metal flashing in place with the first two rows of shingles on one panel. The flashing is shiny but that's not captured in this photo's light.

N-Circle_25-07-21_Church



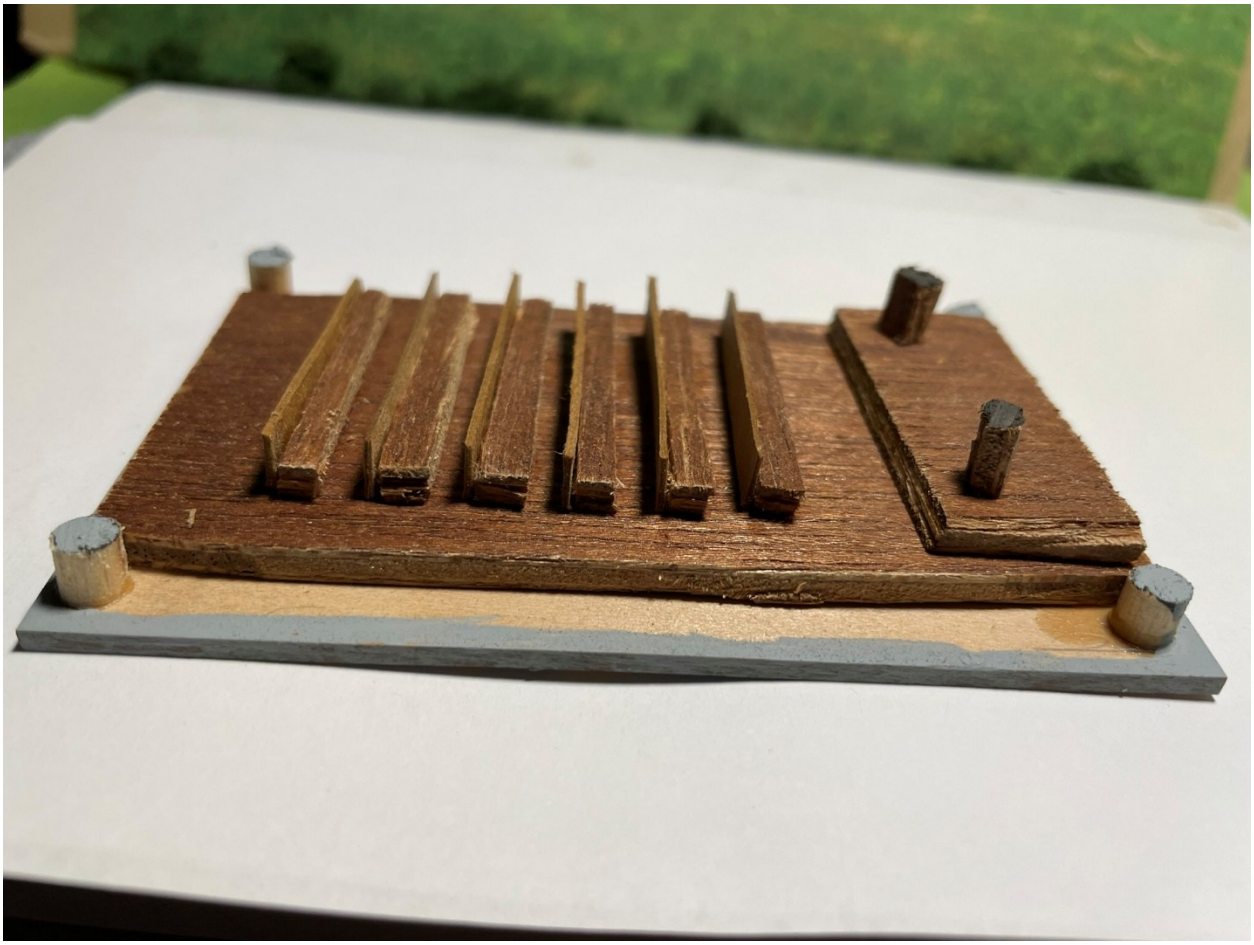
I miscalculated how much shingle material would be needed for the roof, not properly accounting for the overlapping of the rows. Therefore, I ran out with a large gap still to the peak of the roof. So, with more creativity, I glued on a thin sheet of cardboard to cover the upper section.

My “prototype” story” is that the church had a lot of problems with this roof over the years…they repaired the bottom edge with the metal roofing, then when the upper shingles went bad, they were going to be too expensive to replace, so the church finance committee had a guy install a layer of tarpaper…

The very large windows on the sides make the interior more visible than with most N-scale structures. Therefore, since this project had already become an exercise in experimental creativity, I decided to add an interior. I first cut a floor from a thin sheet of dark wood paneling from the scraps box, then a second smaller piece for a raised altar at the back of the sanctuary. And more narrow pieces to create rows of pews, and two tiny lecterns for the altar. I used thin cardboard strips for the backs of the pews. Obviously, these are crude structures, but they will only be seen as silhouettes when viewed through the windows.

This floor fits between the alignment pegs on the base, and is attached with double-sided tape for now, to allow for future creativity…

N-Circle_25-07-23_Church_1



This interior detail is visible in this carefully back-lit photo of the completed structure; interior lighting would highlight it better. Maybe someday…

N-Circle_25-07-23_Church_3

The following sequence of photos shows the completed structure. Unfortunately, hints of the unpainted edges on the bottom row of shingles are visible – these would be difficult to fix without getting paint on the metal edging. And I probably should have painted the interior walls of the steeple – I did not anticipate that they would be visible through the openings. Again, the instructions provide no guidance on painting the kit.

The damaged window frame on the right in this first photo is not too obvious…

N-Circle_25-07-23_Church_4_Cropped

The other side looks better…

N-Circle_25-07-23_Church_6

I don’t love how the round stained-glass windows came out, as discussed below. But hopefully the missing frame around the round window on the rear is not obvious to the casual observer…

N-Circle_25-07-23_Church_7

You can see here on the front how the round window is supposed to be with an outer frame…

N-Circle_25-07-23_Church_5

This ¾ shot perhaps is the church's best angle – and the one which will be seen from the primary viewing angle from the north side of the layout.

N-Circle_25-07-23_Church_8

This church kit took about 14 hours to complete over 17 sessions. This includes about 6 hours of extra time to make the stained-glass windows and add roofing materials. Thus, the base kit assembled per the instructions would take maybe 8 hours, considerably less than the theater kit in Update 25 with its many tiny detail parts. The wood in the kit also absorbed a lot of paint, requiring more rework.

When I include the measure of “sessions” in these reports, this is the number of separate times at the workbench, required between steps to allow glue and paint to dry before the next step. With better planning, one could probably reduce the number of sessions, but my experience is probably consistent with a typical modeler who is not striving for corporate production efficiency.

Creating Colored Stained-Glass Windows Using Microscale Kristal Klear

The Old Stone Church kit only came with blue-tinted plastic glaze for all the windows. I thought it would be more interesting to have some colored stained-glass windows. Therefore, I came up with the following experimental process using Microscale Kristal Klear. The setup for the first round is shown here.

N-Circle_25-07-20_Church-2

I mixed the paint into the Kristal Klear in discarded plastic contact lens cases – you need a small container for each color that will create a deep enough pool to dip the application toothpick into to pick up the material. Another valuable lesson in model railroading: my wife gave me these cases a while ago – I had no idea what I would use them for at the time but was sure they would be useful someday…so I stored them under the layout…and remembered where they were…and they were perfect for this project!

For coloring I just used available Tamiya and Polly Scale acrylic paints from other recent projects. I dipped a few large drops of Kristal Klear into the cup, then added a couple of drops of the paint. You want to be sure that the stick used to dip the Kristal Klear does not touch the paint mix, so you do not pollute the whole bottle of Kristal Klear!

I used a toothpick to apply the mix in the window openings – these were fairly large openings, so it took some time and patience to get sufficient material applied for the full triangle to close over.

As you can see in the photo above, you will probably need to repaint the window frames, as it is difficult to keep the window mix off the frames.

I probably added too much paint in this experiment, as the windows are not translucent as I had hoped. But without bright interior lighting, that won't really be an issue for this kit. I added less paint to the green and orange windows, and they are somewhat translucent.

I don't love the final look here – the colors are too strong. For a real stained-glass window, the color should be more translucent and subdued. That may be possible to achieve with this technique by adding less color. But this experiment did produce windows that are more interesting than the blue-tinted glaze in the kit, as seen in the final photos of the church kit building description above.

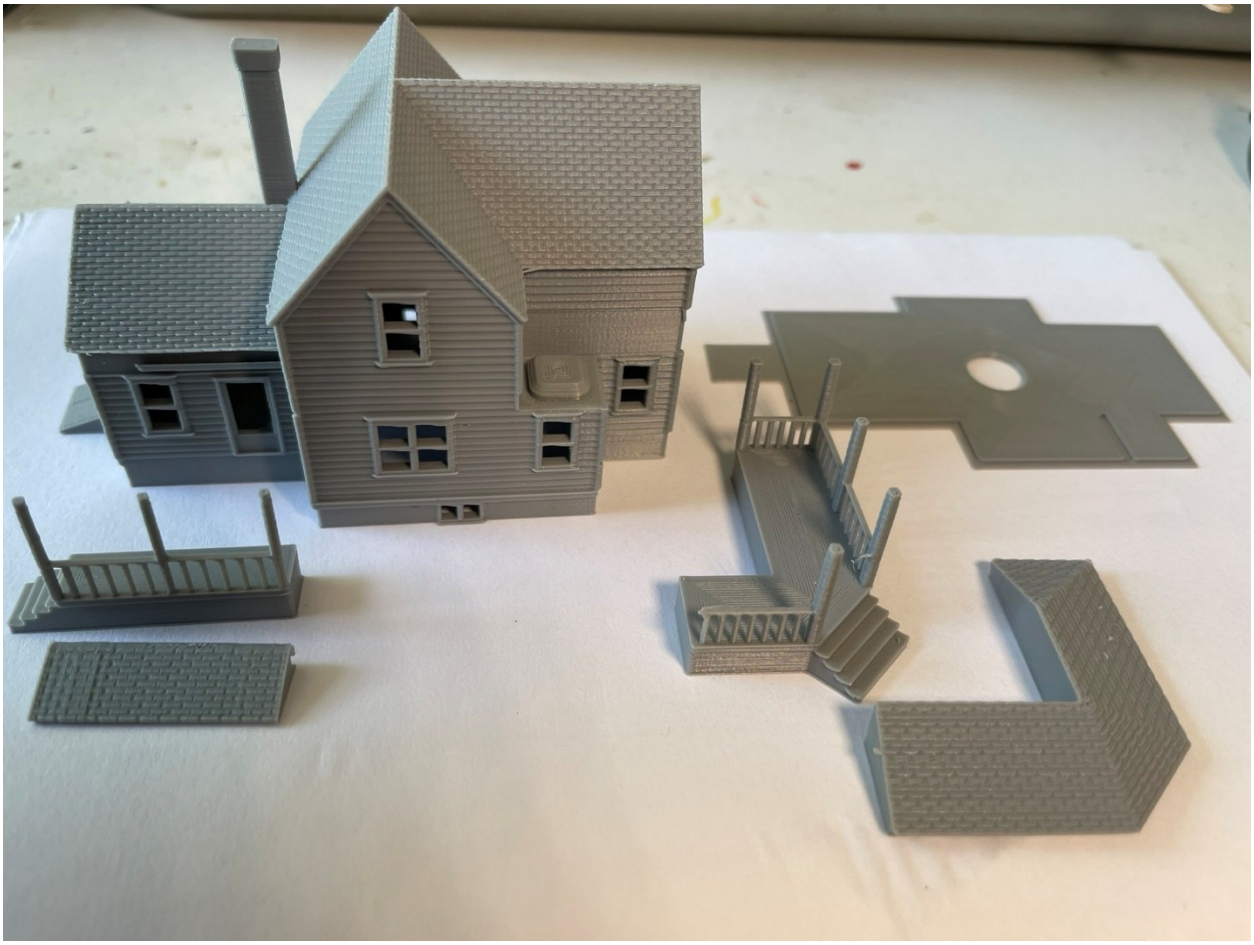
Note that I did not do this for all the windows on the sides, I just used the tinted glaze in the kit. While this was an interesting experiment, you may not find it fulfills your objective of "model railroading is fun…" And while you may not have a need for a lot of stained-glass windows, this technique probably could be used for tinted windows in vehicles too.

As a general modelling tip, I have found that Starbucks coffee stirrers, as seen in the foreground of the photo at the beginning of this section, make excellent paint stirrers. They are long enough for taller paint bottles, and the knob on the end does a great job of stirring up the paint in the bottom of the bottle, much better than a wood stick or toothpick. And their shiny plastic surface allows them to be easily cleaned off on a paper towel while the paint is still wet and to be reused many times.

Building a Simple 3-D Printed House Kit

Having completed the church, I then needed an adjacent rectory/parsonage for the priest/minister. For this I chose the 3-D printed plastic “Sears Silverdale 1920s Kit Home” purchased on eBay a while ago from HD Custom Design. This kt did not come in a box, just a clear zip-lock bag. But here we see a photo of the only six large parts to assemble!!

N-Circle_25-07-13_Rectory



After building the previous laser-cut wood kits, having the window and door trim perfectly molded into the walls and not having to deal with dozens of millimeter-wide peel-and-stick trim pieces was a welcome relief!!

The parts had minimal flashing to remove, easily done with a sharp hobby knife. I washed the parts in dishwashing detergent to remove any production residue, then painted the walls and trim with Polly-Scale – Reefer White. Two coats were required to cover. Even then, the coverage was not great, the clapboards look a little “weathered.” The church finance committee needs to come up with some money to repaint the minister’s home!

I used Microscale Micro Kristal Klear in all the windows before doing the final assembly, as otherwise some of them would be difficult to reach through the porches. It produces a somewhat concave surface when it dries which is noticeable up close, but otherwise provides a good, shiny glass-like surface.

There were no instructions with this kit but given there are only four large pieces to glue to the main structure, assembly instructions are not necessary. As can be seen in the photo above, there is a groove in the back of the small roof which engages with a ridge on the side of the house, and a large nub on the house which engages into a hole in the underside of the large roof to align it. The only issue was that the three pillars on the small porch were too long, and I had to trim a couple of millimeters off their tops to fit under the roof. I attached everything using superglue.

I did not glue the base plate to the building, as it did not seem to be necessary, and it snaps on and off the building if needed. And as with the church kit, the open bottom could allow adding interior lighting someday. Interior details would be rather pointless, given the small windows.

After the building was complete, I added a figure on the porch with a couple of superglue drops. I placed his shoulder against the porch post to more securely hold him in place. He appears to be clutching the Good Book as he looks out over Park Street.

In the end, this simple 3-D printed kit came out reasonably good, as seen in these final photos. While not noticeable here, the white paint is a bit thick, obscuring some of the details. But this is not the fault of the kit, but rather of the painter and paint used. I suspect that air-brush painting with thin paint would produce better results.

N-Circle_25-07-21_Rectory_1

N-Circle_25-07-21_Rectory_2

N-Circle_25-07-21_Rectory_3

N-Circle_25-07-21_Rectory_4

This simple kit took only about four and a half hours to complete over 10 sessions, much less than the previous laser-cut wood kits, as one would expect… Not the same quality of detail, but a decent model for its purpose on the layout. Comparable to the plastic styrene farmhouse kit in Update 9?

In these final photos, we see the rectory placed on the corner of Church and Park Streets, next to the church.

N-Circle_25-07-24_Church_1

At some point I will need to add a hedgerow between the rectory and the mini-golf course!

N-Circle_25-07-24_Church_2

I need to build a garage for the rectory, and redo the scenery underlay panel to add a driveway to the garage and walkways to the house.

The following will be the primary view of the scene from the north side of the layout, hiding the missing round window frame on the east wall and the broken window frame on the south wall…! But note the new Majestic Theater from the previous Update 25 on the corner – this side of town is looking better, between the grain mill and fuel depot!

N-Circle_25-07-24_Church_3

And apologies for the poor backgrounds showing the surrounding train room. Soon I will make a new portable backdrop like introduced in Update 4 for use in taking overview photos of the layout.