

SCRATCH BUILDING SHEDS FOR THE CB&W

By George Downer

The Chesapeake Bay Railroaders recently started a shed building project. We've been wrestling with a way to show new engineers (and remind old engineers) where the endpoints of the blocks on the layout are located. As a solution, we decided to place a shed or two (or three) at the point where each block ends. The project will require 25 to 30 sheds to mark all the blocks. To make all these sheds, we decided to start a series of workshops where members would get a chance to try their hand at scratch building. These sheds are all painted in the railroad's colors, light gray and white. Three different sheds have been designed and the scratchbuilding workshops have, so far, yielded over half of our needs and there are a number under construction, so we're close to completion. The sheds use commercial windows and doors, except for the door on the larger shed, which is scratch built. The sheds have been designed so the builder simply fabricates the parts and then assembles these like a kit.

Figure 1 shows a diorama I built showing the three sheds.



Figure 1

In this article, I'm going to show you how to scratch build the shed on the right of the picture. This will be in HO scale and it can be built using either Evergreen styrene siding material or Northeastern wood siding. The construction methods for using either material are similar, so I'm showing you how it was built using wood. The trim is wood and cardstock. The roof has a cardstock base covered with paper. The steps and rafter tails are cardstock.

The drawings were done on my computer, making it easy to make additional copies of specific parts from the plans. The floor, roof panels, steps, trim and rafter tails were printed on 100 lb Strathmore Bristol paper. The plans for these items were printed on Strathmore paper, cut out and used as parts for the shed. Strathmore paper is available at craft stores like Michaels. To get around buying a pad of Strathmore for just this project, I'll explain how to use other materials when we get to them. The tools used for this project were an X-Acto with a sharp #11 blade, a sharp single edge razor blade, a steel rule and tweezers. To assemble the shed, I used Aleene's Tacky Glue, but any white or carpenter glue would work. In case I forget to mention it, make sure you use a sharp blade.

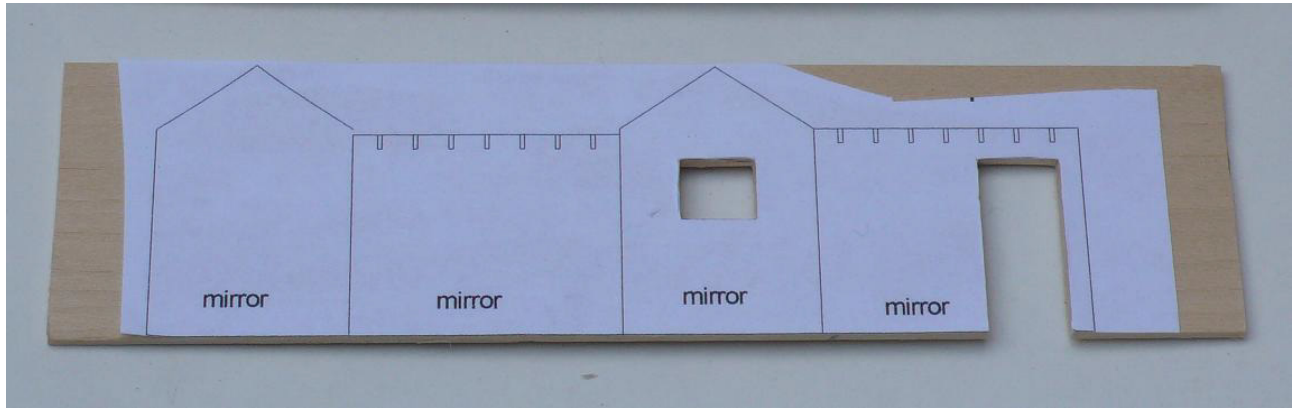


Figure 2

To cut out the walls, print the mirrored view of the walls on computer paper and glue this to the back of a piece of siding material as shown in Figure 2. Use a temporary cement like rubber cement, so the paper can be peeled off the wood after the walls are cut. To cut out the wall pieces, place a steel ruler along the drawing lines and cut with a sharp blade. Make multiple passes with the blade – don't try to make the cut in one pass. Notice that I cut out the bottom area below the door. The steps cover this gap and makes cutting easier.

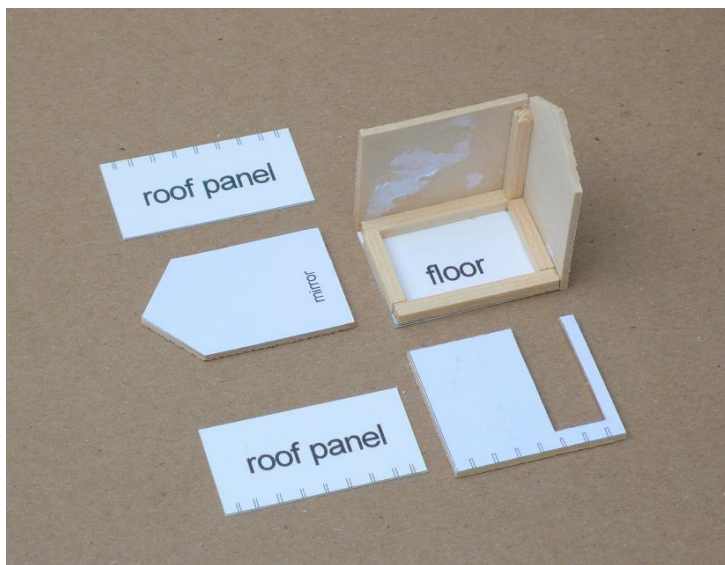


Figure 3



Figure 4

The floor in Figure 3 was made of Strathmore paper. Strip wood was glued around the floor edges to provide a gluing surface for the walls. If you aren't using Strathmore, print the plans on regular computer paper and then glue the floor plan to a sheet of 1/16" basswood or balsa. Cut out the floor like you cut out the walls. Add strip wood around the edges as was done with the Strathmore. The building in Figure 3 is a variation of the shed without a window and the door on the left (from the outside).

Assembling the shed starts by gluing the walls to the floor. The corners between the walls were reinforced with strip wood. The roof panels in Figure 3 were made from Strathmore. The 1/16" wood used for the floor can be used as a substitute here. Glue the roof panel plans to the sheet of 1/16" wood with a permanent glue and cut the panels out. The purpose of the permanent glue is to have the guide marks for the rafter tails available when you glue the rafter tails in place. Glue the printed side down.

Figure 4 shows the back of the building and you can also see the rafter tail details. They aren't difficult to do, and add a lot to the appearance of the building. To make them from Strathmore, cut out the rafter tail area of the plans and glue this piece to a scrap of Strathmore to give it a double thickness, which is close to the prototype 2". The rafter tails are then cut out using a single edge razor blade as shown in Figure 5.

You can also make them out of a piece of 2x6 strip wood. Lay the strip wood on one of the rafter tail templates on the drawing and make the horizontal cut along the bottom and the angled cut on the top using a single edge razor blade. The rafter tails are glued to the bottom edge of the roof after the roof panels have been glued in place. The rafter tails are going to be too long, so after the glue dries trim the tails along the roof edge using rail nippers, large nail clippers or something like that.



Figure 5

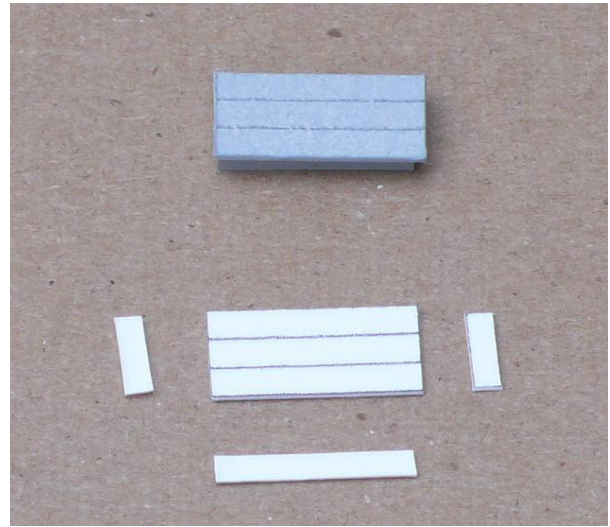


Figure 6

The front step is made from Strathmore. The top planks are scribed before the pieces are cut out and glued together (Figure 6). You can also use three or four pieces of 2x6 strip wood, cut to 4' length. Glue these edge to edge. Add two perpendicular pieces of wood to the bottom to give them strength and a little height.

At this point the building should be painted. After painting the corner trim is glued on. The trim is 1/8" square strip wood and should be painted before it's glued in place as shown in Figure 7.

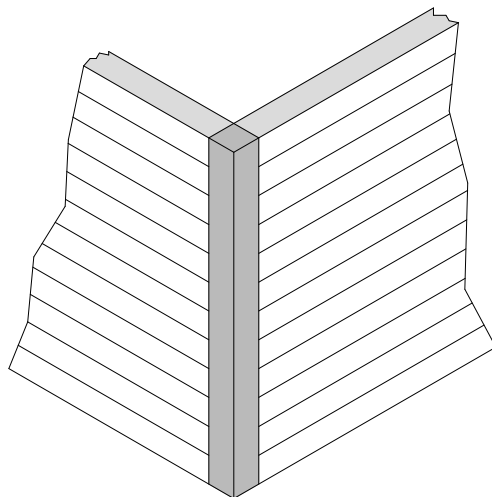


Figure 7

The roof was covered with "tar paper". To make the tar paper, cut the page of an old phone book or a newspaper into 30" (HO) strips. Paint both sides flat black from a rattle can. The strips are then cut long (they will be trimmed to length later) and glued from the bottom to the top with a small overlap.

The trim under the roof should be printed on either Strathmore or a cardstock material like a 4x6 index card. Cut them out and paint them the same color as the other trim. The trim piece will be too long and will need to be trimmed to length before gluing to the wall. The second set is glued to the ends of the roof, under the "tar paper". After the glue dries, place the building upside down on the roof and trim the "tar paper" a scale inch or so from the piece of trim. If you look closely at Figure 4, you can see the overhang. If you place the roof on a smooth cutting surface the "tar paper" will cut with one easy pass using a sharp #11 blade or a single edge razor. The trim pieces on the ends of the roof will have to be cut off the same way you trimmed the rafter tails.

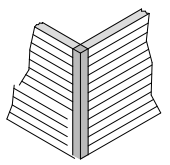
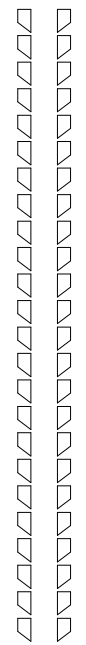
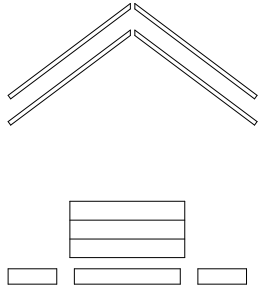
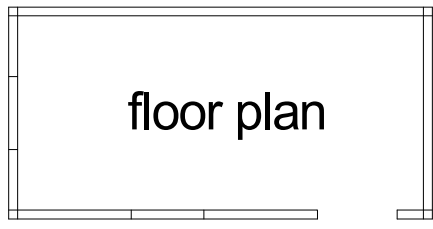
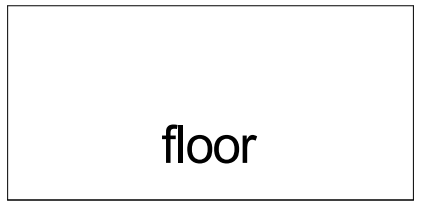
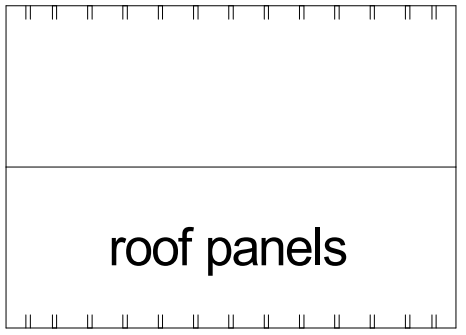
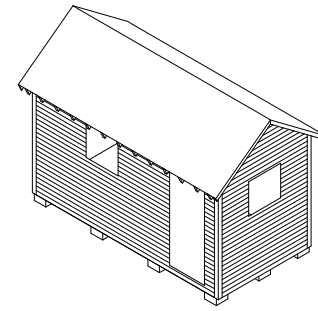
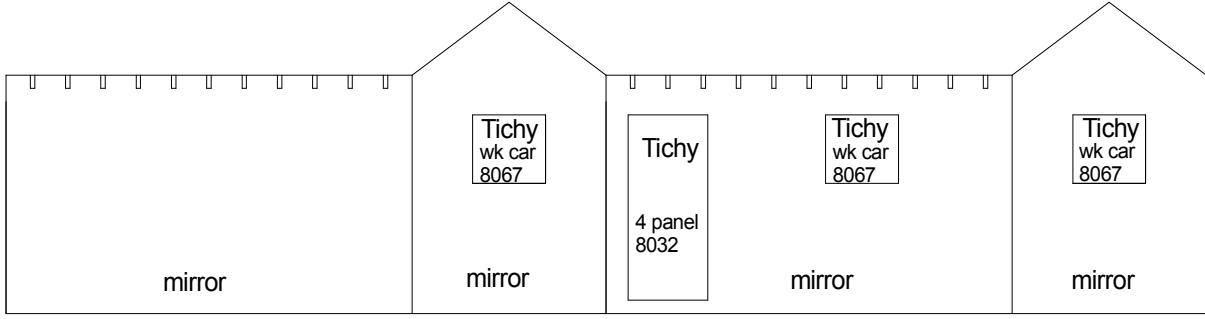
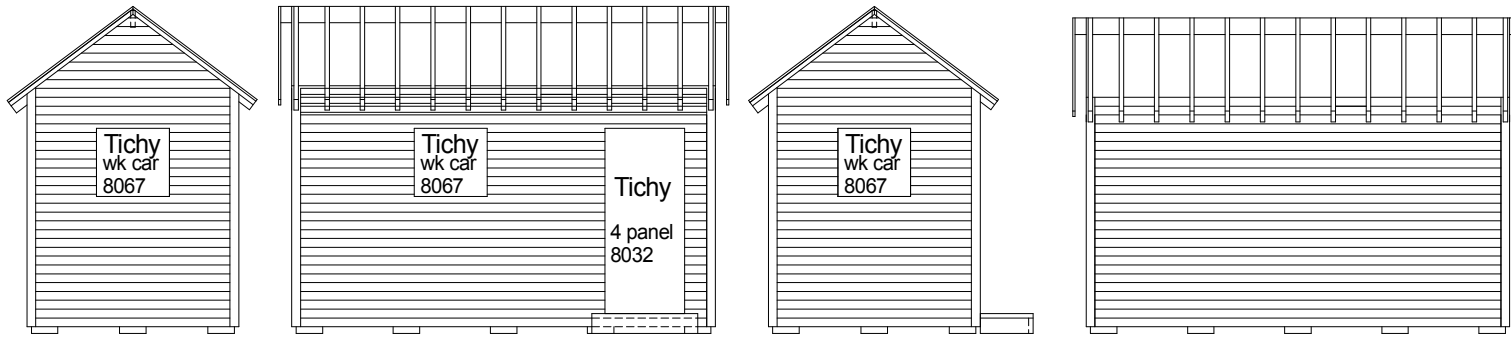
The door is a Tichy 8032 casting and the window is a Tichy 8067 casting. They should be painted the same color as the trim before gluing to the building. I glued 0.010" clear styrene to the back of the window to represent glass. Glue the window and door in place using a gel ACC (super glue). One caution, test fit the window and door before you assemble the walls. Making adjustments to the holes is difficult after the building is assembled.

The building sits on six small concrete pads. These were cut from a 4x10" styrene strip 12" long. Wood stripping can also be used. I painted these with a rattle can of Krylon taupe, which is close to concrete color.

I sprayed the entire building with Testors Dull Cote, to include the window glazing. This gives the windows a dirty look and hides any shine left from glue. You may also want to apply some weathering before you place it on your layout. The steps or wood pad is glued in front of the door after the building is placed on your layout.

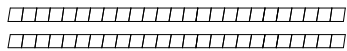
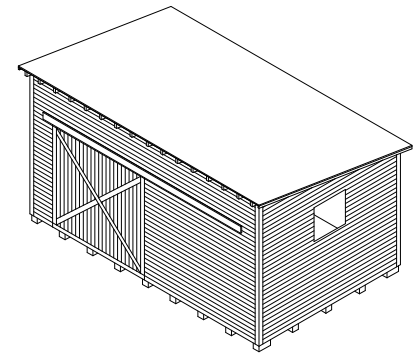
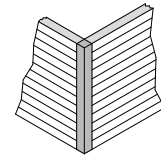
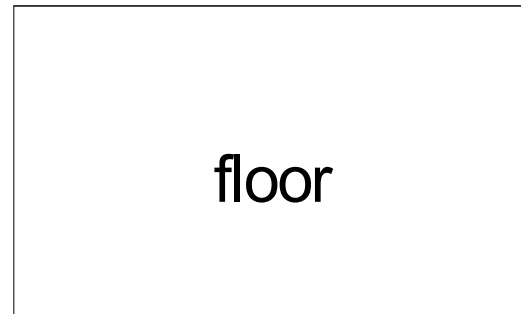
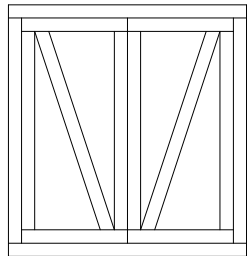
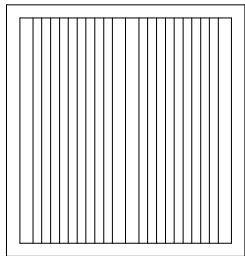
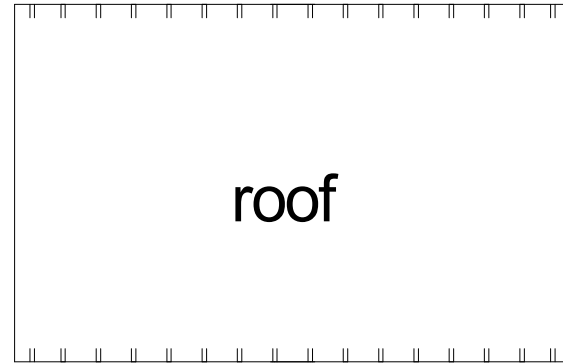
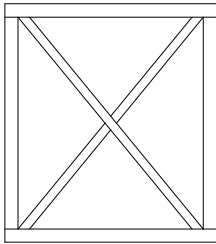
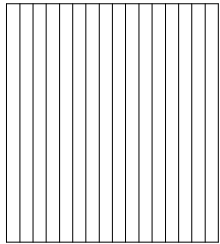
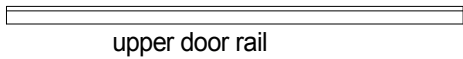
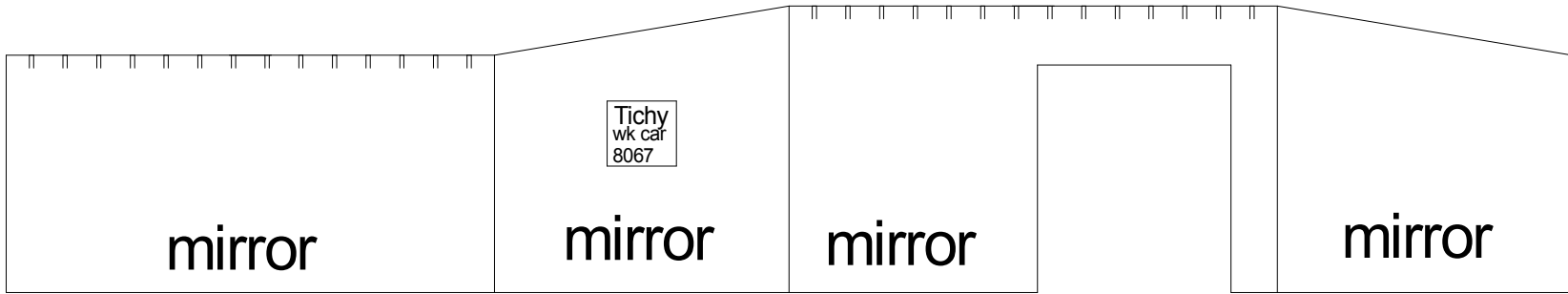
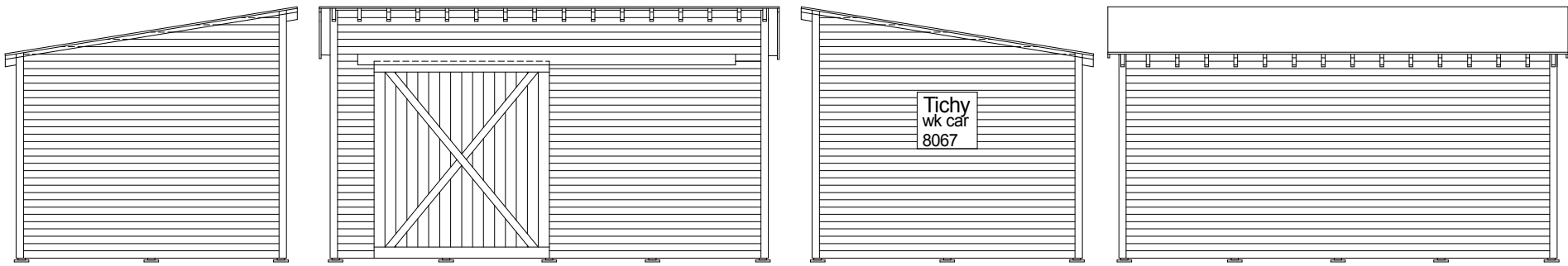
A number of Chesapeake Bay Railroader members have learned, scratchbuilding isn't difficult and is fun. Join in the fun and give the shed a try.

Since this is a PDF file, the plans below are in HO scale and can be printed that way. When you select Print, a Print box will appear. Select "none" in the drop down box in the left of the Print box. Click OK and go.



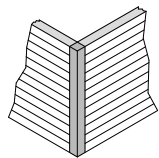
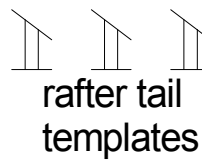
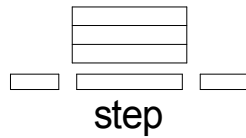
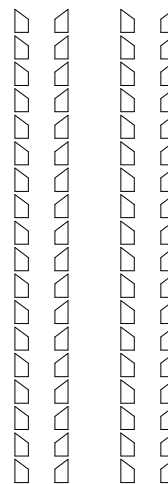
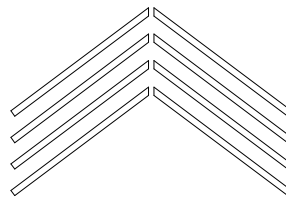
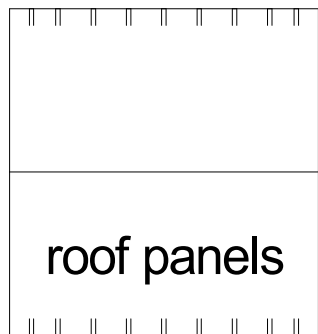
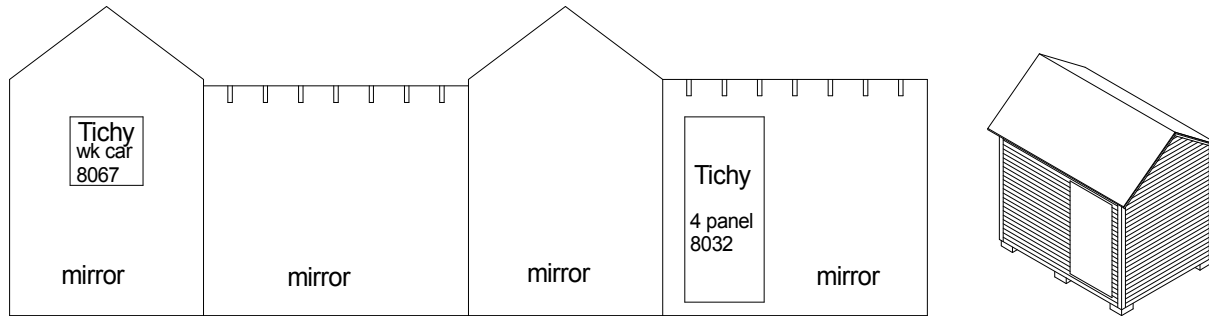
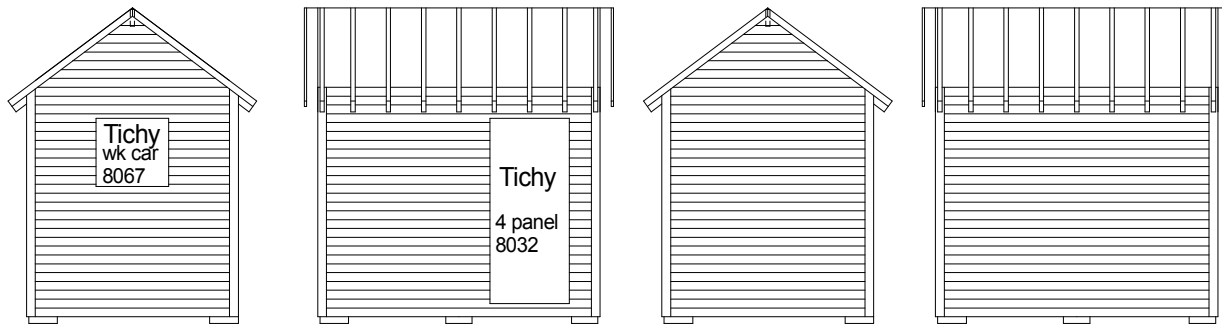
rafter tails

#1 WOOD/STYRENE WALLS



rafter tails

#2 WOOD/STYRENE WALLS



#3 WOOD/STYRENE WALLS