

# Conowingo Models



## Nottingham Carriage House

### Beginner's Kit

HO Scale



[www.conowingomodels.com](http://www.conowingomodels.com)

<https://www.facebook.com/ConowingoModels/>  
[conowingomodels@yahoo.com](mailto:conowingomodels@yahoo.com)

June 2023



### Thank you for purchasing this kit!

The enclosed building is real. The origins of the building itself are unknown, but it resides on the property of a restaurant and has been used as a bartending station.

Supplied are the basic directions. For more tips, some additional instructions and the occasional update to our kit instructions, please see

[www.conowingomodels.com](http://www.conowingomodels.com)

**If you are brand new to building craftsman kits, we highly recommend you download our General Instructions document from the website.**

**For more information on what paints, glues, etc to use, please refer to the General Instructions Help file on our website under Instructions.**

There are two ways to do this kit. If you're just starting into building craftsman kits, you want to take the easy road. If you've done a kit or two (or two hundred....), perhaps you'll want to try the more advanced steps.

There are two different types of stripwood provided in this kit – 3= 1/32x1/16 pieces and 6= 1/16 x 1/16 pieces.

There are a number of steps that mention to do things quickly and they require weights. 3-2-1 weights are perfect, but do what you can with what you have. The use of weights is to prevent warping. Wood warps easily when it comes into contact with acrylic paint or alcohol.

Use the following techniques to get the most out of the supplied stripwood. Cut the long pieces first. Try to use leftovers for the smaller pieces. Don't throw any of it away unless it's destroyed or a really small piece.

Read through each step before you begin. For purposes of these instructions, we will refer to the trim pieces as being white and the walls as yellow because they were originally used on the real building.

The real building was a very light, yellow color with white trim for many decades. In April, 2023, it was finally painted tan with white trim. Paint it as you desire.

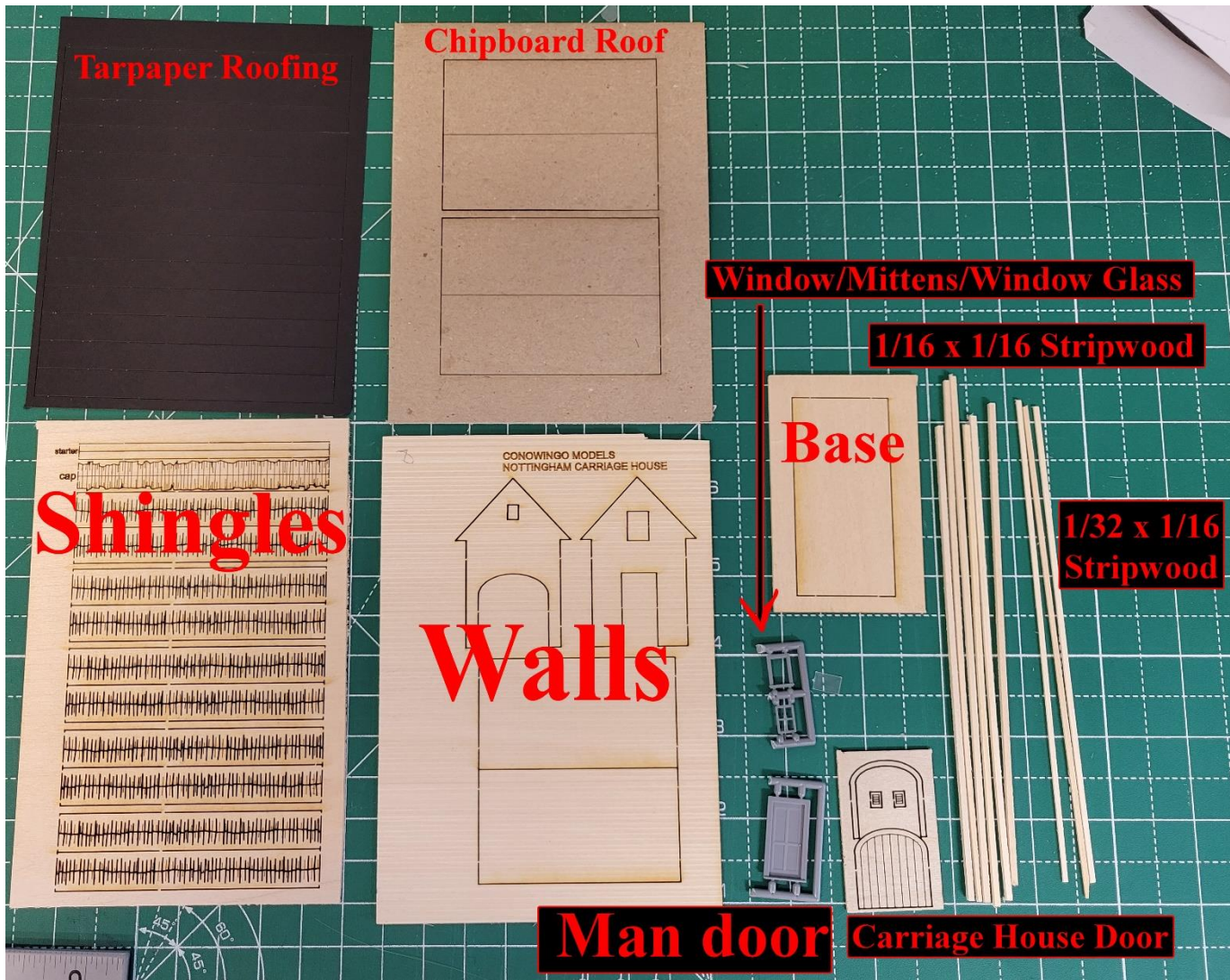
We used a parchment color to simulate an old, white paint and mixed parchment and a little bit of yellow for the yellow. Adding parchment instead of white fades the paint without adding white pigments. Adding white pigments would give it a newer look, whereas the parchment is more of a natural sun-bleaching.

For beginners, utilizing the new colors may be the best course of action, along with the tarpaper roof.

If you are interested in one roof over the other, you can skip the steps for the roof you do not desire. However, as a former co-worker used to say "get your moneys' worth." Do both, if for no other reason than to practice your skills. If one doesn't come out to your liking, it's not the end of the world.

We have included check boxes to ensure you hit each step.

## KIT CONTENTS



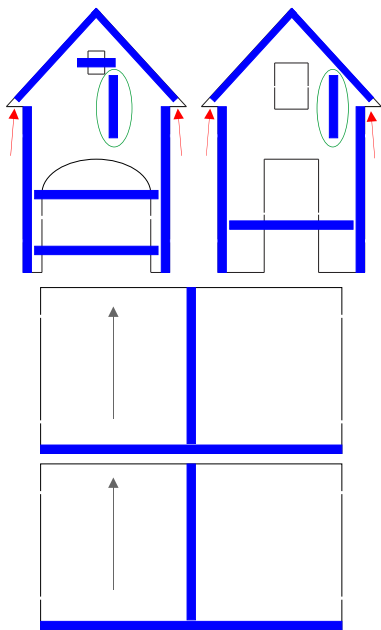
If any parts are missing, please e-mail [conowingomodels@yahoo.com](mailto:conowingomodels@yahoo.com) with the part(s) you need. We will get them to you as quickly as we can. This is mostly a one-man shop and we occasionally miss things. We apologize in advance.

## BRACING

Vertical bracing is important on this kit because the strength of the wood goes horizontally. That is, if you get the wall pieces wet, they will curl top to bottom. This has to do with the cut of the clapboard and the grain of the wood.

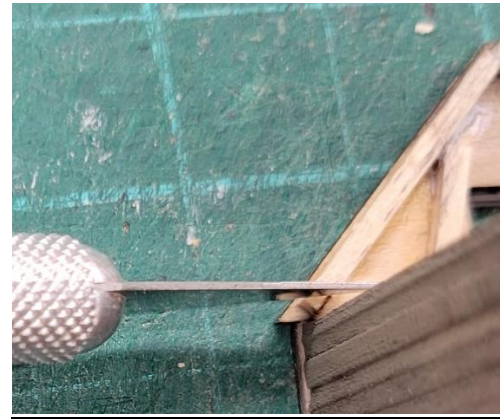
Ensure that the walls are properly braced as shown below. Add glue to the length of the bracing as insufficient glue will act like the bracing isn't there. Additionally, the bracing must be really dry before you paint it.

If parts warp, most can be fixed. However, those fixes will cost you lots of time and the warping doesn't come out 100%. If this is the case, get the part soaking wet with water, add some bracing (with glue) and a boatload of weight. Occasionally, if a part is allowed to warp, it can get out of control and crumble.



1. Start out by locating the carrier tray (piece of basswood with the parts cut into it) with the four walls on it as shown above.
2. On the inside of the side walls, mark the tops with a pencil (as shown above in grey). This is to ensure you utilize the side walls with the correct side up.
3. Using a hobby knife with a brand-new #11 blade, carefully cut out the four walls from the carrier tray. There are breaks in the laser cuts that hold the walls to the carrier tray. These notches can be somewhat

hard to find. If this is the case, flip the piece so that the flat side is up and they will be much more visible.



4. In the steps below, you will glue each piece on the inside (flat side) of each wall. The bracing doesn't need to be precise, except that it should not cross over the ends of the walls and avoid the areas shown with the red arrows. There will be a piece of 1/32 stripwood that fits into that spot between the front and rear walls.
  5. Locate the 1/16 x 1/16 stripwood. They are square. You should need about two pieces to complete this step. To ensure best utilization of your stripwood, cut the larger pieces first and work your way to smaller. If you cut one piece down to a point where it doesn't work for the next piece you use, see where else you can use it.
- Cut the bottom bracing for the side walls first. Glue them into place. The bottom bracing is more for supporting the floor than walls in this kit.
  - Cut the two vertical braces for the side walls and glue them into place
  - Cut the four vertical braces for the front and rear walls and glue them into place.
  - Cut the four braces for the roof line and glue into place.
  - Cut and glue into place two small braces to cover the vertical gap on the front and rear walls. (Circled in green) The main goal here is to ensure that vertically you have covered both walls to prevent warping.
  - There are four horizontal braces that are there purely to hold the front and rear doors and the air vent in place. Do not cover the front window.
  - Add a weight evenly across the carrier tray and allow to dry.

## PAINING

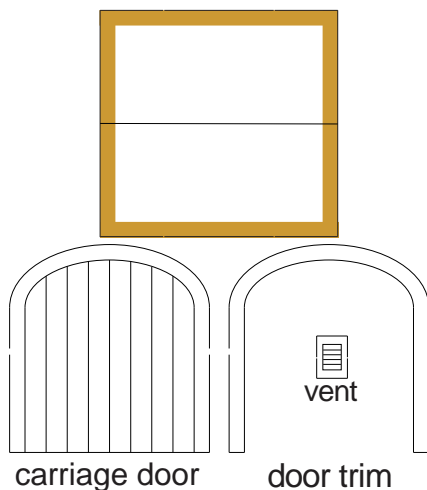


This building has two main colors, plus the roof. The rest is mainly weathering. You need to decide which direction you want to go, weathered or freshly painted. If you are a beginner, we recommend freshly painted. You can add some weathering later as your experience level increases.

Before we proceed, we'll talk a little about the chipboard roofing pieces. We have included two- One for the tarpaper roof and one for the wood shingle roof.

You will notice there is a partially cut line in the middle of each. **Do not cut that line!** This is where the roof crest will be located. The side with the cut through the center is the top side.

On the steps below, it will talk about painting the underside of the roof. Paint as shown below. You need to only paint  $\frac{1}{2}$  -  $\frac{3}{4}$  inch inward as well as the edges. If you paint the whole underside, you risk warping.



1. Locate the rectangular piece of 1/16 basswood. It's about 1 inch by 2.5 inches or so. Paint the outer edges a concrete color.

### ADVANCED VERSION

STAIN GREY before proceeding to Painting White

- 2x 1/32 x 1/16 stripwood – underside of flashing
- 1x 1/16 x 1/16 stripwood – corners of the building
- Carriage door
- Carriage door trim
- Vent
- 4x – walls

### PAINT WHITE (BEGINNER VERSION)

- Underside of roof
- 2x 1/32 x 1/16 stripwood – underside of flashing
- 1x 1/16 x 1/16 stripwood – corners of the building
- Carriage door
- Carriage door trim
- Vent
- Window (2 parts to it) (Cut the mintins to match the real building if you wish)
- Door
- 4x – walls

PROCEED TO PAINT YELLOW/TAN

### PAINT WHITE (ADVANCED VERSION)

1. Drybrush on an off-white, such as parchment to each piece listed below.
  - Underside of roof
  - 2x 1/32 x 1/16 stripwood – underside of flashing
  - 1x 1/16 x 1/16 stripwood – corners of the building
  - Carriage door
  - Carriage door trim
2. Quickly sand the above pieces down using a 400-grit sanding sponge as you desire. This smears and removes the paint, leaving a weathered effect.
3. If there is too much paint on the surface(s), you can wet brush on some water to dilute it while it is still wet.



- 4x – walls
- 2. Add some thicker paint along the tops of the walls as shown above. Those areas are more protected from the elements and therefore would retain more paint.
- 3. Proceed to PAINT CONCRETE

4. Drybrush on an off-white, such as parchment to each piece listed below. The difference here is that you don't want to cover the entire part. In fact, you might want to wipe off some of the paint with a paper towel.

- Vent (two pieces, but only need one painted)
- Window (2 parts to it) (Cut the mintins to match the real building if you wish)
- Man Door

5. If there is too much paint on the surface(s), you can wet brush on some water to dilute it.
6. Proceed to PAINT YELLOW (ADVANCED VERSION)

**PAINT YELLOW/TAN (BEGINNER VERSION)**

- 1. Paint the walls the desired color
- 4x – walls
- 2. Proceed to PAINT CONCRETE

**PAINT YELLOW (ADVANCED VERSION)**

We custom mixed a yellow/parchment paint for this step. The sun certainly faded the paint over the years.



- 1. Drybrush on your yellow to each piece listed below using the same techniques listed for the Paint White – Advanced Version section.

**PAINT CONCRETE**

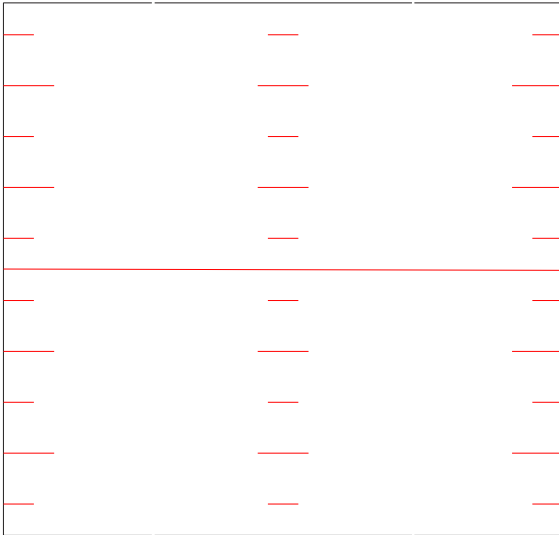
The real building is surrounded by a deck. Most likely, it has a wood base. We designed it for a concrete base. Do as you wish.

- 1. Everyone has their own version of what concrete color is. If you don't have one, mix some off-white and a little bit of grey or tan. The more towards grey, the newer the concrete. The more towards tan, the older it will look.
- 2. Paint the sides of the base piece. It's a rectangular piece of 1/8-inch basswood. It will require multiple coats of paint because it absorbs easily into the edges of wood.

**PAINT BLACK**

- Door hinges

## ROOF PREPARATION



Unfortunately, the concept of pre-marking the roofing came to our minds after we cut the first batch of kits. Future kits will be pre-marked, making this series of steps unnecessary.

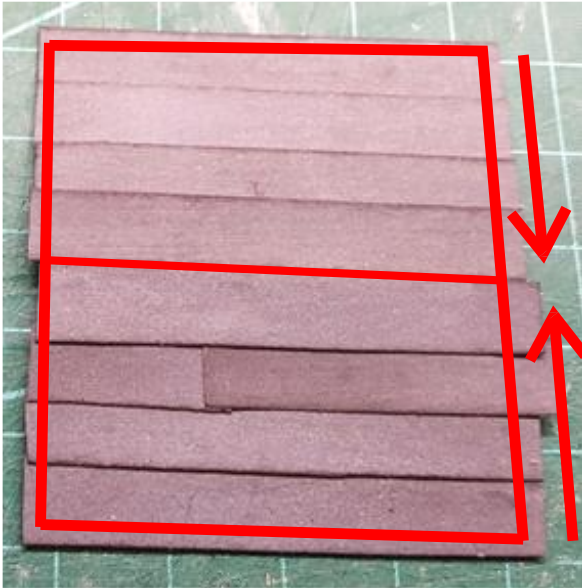
1. Take one piece of the chipboard roofing and add guide marks with a pencil as follows and as shown above.
2. Ensure the cut line is facing up and that the line runs horizontally across the middle.
3. From the bottom, using a ruler, mark each 1/8-inch or so on both the left and right sides, stopping at the center cut line. It can be more or less than 1/8-inch.
4. Rotate the roof 180' and repeat, ensuring that both sides are uniform.
5. Mark a middle guide using a ruler. You could go side-to-side if you desire.
6. Repeat for the other piece of chipboard roofing.

## TARPAPER ROOFING

1. Find the black construction paper carrier sheet with the cut strips on it. **\*\*\*Do not remove the strips from the carrier sheet yet.**
2. You could use it the way it is to represent a brand-new roof. However, we recommend very quickly spray painting it with three different shades of grey. You don't want a uniform cover. Half-sprayed splotches are great.
3. It dries pretty quickly. Once the roofing is dry, cut a strip from the carrier sheet.
4. Take that strip and line it up along the corner of a scrap piece of 2x4 or an edge of a material you don't mind getting messed up.



5. Take either a 400-grit sanding sponge or sandpaper and gently run it across the construction paper strip. The goal is to blend the paint colors together.
6. If you so desire, you can dig into one of the long edges and sides of the construction paper enough that the black comes through to show roofing damage. It's your model, your call. (Photo shows fully assembled)
7. Repeat steps 3 - 6 until all roofing strips are complete.
8. On one piece of roofing material, scratch up both long edges if you're aging the roof. This will be your roof cap. Hold this piece separate from the rest.
9. Locate one of the chipboard roof pieces you prepared a while ago.



- 10. With the middle cut edge up, glue the roofing strips down in the following manner;
- 11. Start by adding a row of tarpaper at the bottom. Use the guides from the roof preparation section. Ensure the scraped black edge is on the down side. You want a slight overlap on the bottom edge and on both sides.
- 12. If you desire, you can cut a row short and add an overlapping piece. Left to right or right to left doesn't matter. This shows where the tarpaper roll ended and a new one began. You may also want to use a scraped edge on the "new roll" where it overlaps the "old roll". This shows character.
- 13. We recommend flipping the roof around and doing the bottom row.
- 14. Allowing for slight overlap, add rows until both halves are covered. Do not cross over the cut line in the middle.
- 15. Allow the roof to dry and cut the excess from the sides. You may choose to add some weight so that the roof dries flat. Not adding weight may add character, but you might not be happy with the results.
- 7. If you chose to add the bottom overlap, it may require a little bit of edge cutting and extra glue to get everything tucked into place.

## WOOD SHINGLES

This kit is our first attempt at producing wood shingles for a kit. We utilized 1/32 basswood, which wouldn't normally be used in a kit to make shingles. As a result, the shingles are very brittle. However, they do resemble those on the real building.

Many hobby shingle manufacturers use paper or a thin veneer, which are stronger than those in this kit. Some even include a self-adhesive backing. This is great material. However, we've found that even with the adhesive backing, it helps to use glue to keep the shingles from slipping.

We recently heard of using a glue stick to glue down roofing. It makes sense in that there are no pesky glue globs to mess up your roofing job. However, we haven't tried it yet. Give it a try and let us know your thoughts.

This diagram shows the three different types of shingling materials on the wood shingle carrier tray.

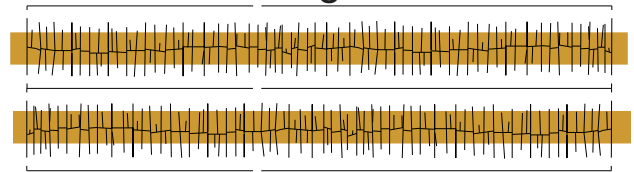
### Starter Strip



### Roof Cap



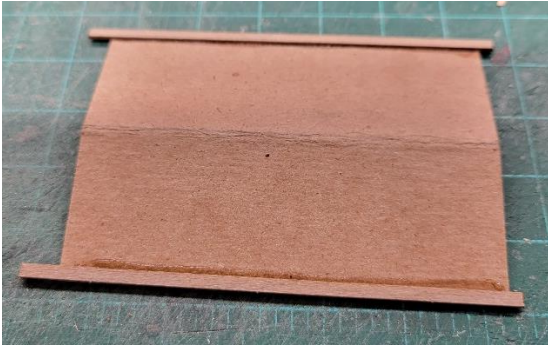
### Shingles



- 1. Locate the carrier tray with the shingles on it. Again, be very careful with the shingles as they are extremely fragile. Don't cut them out yet.
- 2. We recommend alcohol-based stains (such as Hunterline or Vetro) on this step or you can make a mixture of dark acrylic paint (black and/or brown) and water. You could also use a solution of alcohol and small amounts of india ink. You're looking for a driftwood-like color.
- 3. Quickly brush on the stain as shown above in tan. We used tan for clarity. It doesn't need to be as precise as shown above. In fact, the more variation, the

better. Ensure you do this for all the shingles, not just those shown above.

4. Add a weight and let dry to prevent warping.



5. Once the shingles are dry, cut the starter strips from the roofing carrier tray and glue down as shown above. (Pilot model did not have the laser-cut center.)

6. Apply the shingles beginning by covering the starter strip and overlapping the bottom.

- Use the guides from the roof preparation section to judge the levelness of your shingle rows.
- If the shingle strips break, simply line up the top of the strip and continue.
- If there is too much slippage from wet glue, you may stop and return when the glue has set.
- We recommend you add a row of shingles on each side before adding the next row. This helps keep the number of rows even.
- All of the roofing strips were cut long intentionally. This is to allow for variation amongst the rows of shingles.
- Repeat for the other side.
- We ended up with eight rows on each side.

7. When complete, ensure your rows are even at the top and that they do not overlap the laser-cut center.

8. Allow the roof to dry and cut the excess from the sides. You may choose to add some weight so that the roof dries flat. Not adding weight may add

character, but you might not be happy with the results.

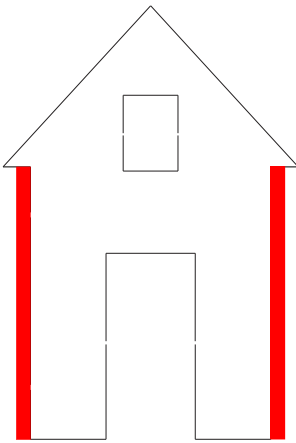


9. **Do not add the roof cap until later, when the roof has been glued into place!**



## BUILDING ASSEMBLY

1. We found it easiest to assemble one side and one end, then assemble the opposite side and end. This will give you two separate halves. We recommend a slower drying adhesive, because you want the walls to stick together, but they will need to be manipulated.



2. Size, cut and glue into place the 1/16 x 1/16 stripwood pieces to both the front and rear walls of the building. (Only front shown for clarity.) Do not confuse this with the pieces you used for bracing.



3. Once dry, take one side wall and either the front or rear wall and glue them together at the 1/16 x 1/16 stripwood.

- If in doubt, dry fit (no glue) the pieces together onto the concrete base piece to get a better idea of where they need to sit. There should be some overlap of the base from the 1/16 on the bottom of the side wall.

- Ensure the bottoms are even and will sit level. Make sure the corners are square on the 1/16 edges.

- Use 3-2-1 blocks or something similar to ensure that the building will set up and dry squarely.

- Wait a few minutes for the walls to gel together before proceeding to the next step.

- Repeat for the opposite walls.



4. Once dry, combine the two halves using the same procedures as listed on the previous steps, ensuring that the building has the proper shape and that the walls are level to the ground.

## SUB-ASSEMBLIES

1. Before gluing the acetate into place, you may want to consider adding damage to the glass.

- Cut out the acetate for the window
- Use a hobby knife or needle to “throw a rock”, score broken glass or cut out sections of glass. Or a combination thereof if you choose.
- Glue the acetate to the backside of the window using a clear-drying glue.

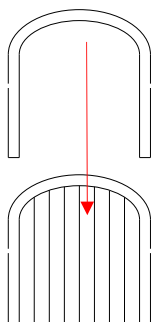
2. Glue the man door into its respective position on the front wall.

3. We included two vents. The reason for this is two-fold.

A. You could either glue one on top of the other so the vent sticks out a little more should you so desire.

B. In the event the first one gets damaged; you have a backup.

- Dry fit the vent in its’ hole above the carriage house doors and decide which path you’d like to take.
- Glue the vent into into its respective position on the rear wall.



4. They is already a laser cut that splits the two doors. To show “signs of life”, use a hobby knife to widen the gap a little bit, if you choose.

5. Glue the trim piece onto the door.

6. Glue the carriage door into its respective position on the rear wall.

## FINAL ASSEMBLY

1. Decide which roof you will use.
  - Be very gentle with the wood shingle roof!
2. Dry fit the roof of choice into place, ensuring it is centered front to rear.
  - Make very small pencil guide marks on the underside of the roof to help guide it into place.
3. We recommend using CA to glue the roof into place.
  - You’ll probably have to hold it down in order to get it to stick.
  - You do not want gaps between the roofing and the front/rear walls.
4. If you are using the tarpaper roofing, glue down the roofing cap.
  - Trim when dry.
5. If you are using the wood shingled roof, gently bend and glue the roof cap into place. They should form an upside-down V shape.



6. Cut a piece of the 1/32 x 1/16 stripwood (from step 8 under Painting) to fill the gap on the sides under the roof.
  - The stripwood needs to lay horizontally across the side wall and should be even with the ends of the eaves. You should be able to easily manipulate that into place.
  - Glue it into place.
  - Do the same for the opposite side. This closes the eaves.

Many thanks to Steve Milley, Jeff Grove, Mark Schreier and my family.



- 7. Cut two pieces (4 total) of the 1/32 x 1/16 stripwood (from step 8 under Painting) to fit the front and rear walls.
- 8. Glue those pieces into place.
- 9. Glue the base to the bottom of the model. It should sit level on the bottom pieces of 1/16 x 1/16 that you added as bracing. Small gaps are ok unless you add lighting.



- 10. Glue the door hinges into place as shown above. Note that we added an extra layer to the door trim (for depth), so it may require a little manipulating to get the hinges to fit properly.
- 11. Weather and detail as you desire. We recommend using either a coat of driftwood-colored stain or thinned out acrylic, dark grey paint to tone down any bright colors.
- 12. Please send us photos!



Visit the Conowingo Models website

[www.conowingomodels.com](http://www.conowingomodels.com)

Or our Facebook page

<https://www.facebook.com/ConowingoModels/>

for more exciting, funky buildings and rolling stock for your model railroad!