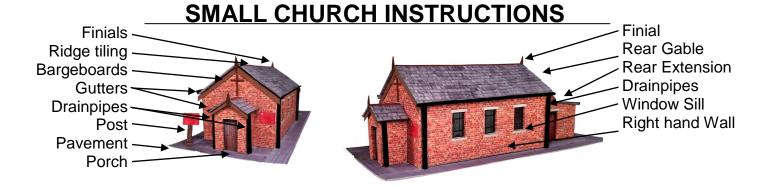
OO Gauge SMALL CHURCH 00-21 3DK© Nov 2017

INSTRUCTIONS



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ASSEMBLY









Indicates the page item can be found.

Curve to the left/right



Curve forward/backward

Apply weight

Please be aware that the colour of the printed kit depends greatly on the type of printer you are using and how the printer is set up to print in colour. Also good colour prints can be affected on the type of paper you are using. Please refer to the Card kit construction tips before printing the kit out.

TOOLS REQUIRED



Craft knife

Selection of blades

Felt tip pens or coloured crayons

Good quality cutting mat

"All purpose" clear or PVA adhesive

Well lit working area

Glue spreading stick

Rubber bands

Heavy flat weight

Weathering powders

Matt spray varnish

Sharp scissors

INTRODUCTION



In the 19th and early 20th centuries many churches were designed and made in kit form to be bought from catalogues. The most common type was timber framed, externally clad with galvanised corrugated iron (CI) but many more were made from brick brought in by the railways. Many of these simple 'tabernacles' had high levels of decoration: timberwork was often richly carved and highly decorative. surfaces were usually enriched with delicate stencilling.



This 3DK© card building kit has been designed to be assembled as quickly and easily as possible. Simply follow the comprehensive instructions.



Please read all the instructions before starting to assemble the kit.



Before starting to cut out the card kit decide which doors and windows you will be using in the finished kit.



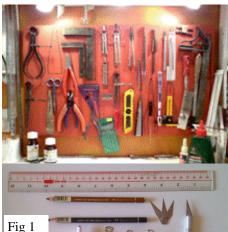
Card blunts knife blades very quickly so these will have to be changed regularly.



As the building kit has a highly detailed interior it may be an idea to illuminate with a grain of wheat bulb



The following construction tips have been added to aid you in the construction of the kit



3DK lets you instantly download and print realistic model railway buildings from your home computers! Most of today's home colour printers have the capacity to print at resolutions well beyond most conventional "pre-printed" card model building kits.

Once downloaded, you can print that kit as many times as you need.

To assemble our card kits you don't have to have an elaborate workshop like we are fortunate enough to have at 3DK, but you do have to have some basic tools before you start. It is essential to have a good supply of craft blades as you will go through quite a few cutting out the kits. Unfortunately, card blunts craft blades very quickly and blunt blades can tear and ruin the wonderful kit you have just purchased. (Remember! If you damage any part of the kit during assembly, just print it out again from the original PDF file.)

I normally keep one larger knife for long basic cutting jobs, one knife for smaller straight forward jobs and one specifically for just cutting out delicate items like windows. The last blade is the one I should change most often and I would expect to go through two or three of these blades assembling just one building kit. At 3DK we have a large selection of hand tools, machinery, casting equipment, drawing materials, computer software and hardware, but that dose not mean that you require any where the amount of equipment that we use on a daily basis.

Fig 1 illustrates a selection of the sort of tools you would require to successfully complete one of our structure kits. As shown in Fig 1, the basic tools for card kit building would include ruler, scissors, glue etc.

To start you need to download the PDF file emailed out to you. A PDF (Portable Document Format) is the current standard for transferring, viewing and printing high-quality documents on the web or via email. 3DK kits are supplied as PDF files, these files can be opened, viewed and printed using Adobe Reader, a free program available from Adobe.com for any

operating system or platform.

The best paper too use to print out your new kit is the letter sized self adhesive address labels which are available form most stationary retail outlets. It's ideal as prints on adhesive labels can be stuck directly onto 1mm or 500 gram card before cutting out an assembling. If you prefer to print on paper then please ensure you print on a matte coated paper as shown in the images on the right.

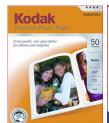


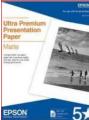






The kit has been designed to be used with 1mm or 500 gram card which is called shirt card or ticket board. Most art suppliers will have some of this type of card in stock. It is normally bright white on one side and grey on the other.







CARD KIT CONSTRUCTION TIPS Page 2



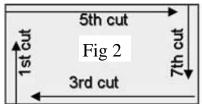


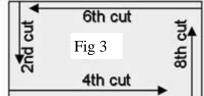
If you are not going too use the self adhesive labels then I would firstly prefer to use a good quality spray photo mount adhesive. There are other options like the Pritt stick and white wood glue but these can be messy ad difficult to work with.

To cut out delicate items from the kit successfully a razor sharp knife blade is essential. Pick a craft knife and use it only for cutting out the delicate items and replace the blade frequently.

Cutting out windows is one of the hardest aspects of building card kits but if done right it can be very successful. The process for cutting out windows begins with a new sharp blade. The order of the cuts are shown below.

The first cut is shown in fig 2 and goes from the corner of the bottom left to the top left. Be sure not to cut right into the opposing corner and stop short as it is easy to over cut and ruin the top corner.



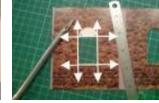


Each cut is shown in sequence from the first cut to the eighth. It is important to always cut away from a corner and never into one. This way you will always have clean corners. If when pressing out the card after cutting, it does not fall away cleanly, DO NOT try to force it out as this will result in a tear. Simply go over the cuts again until it drops out cleanly.

When cutting out round window openings, cut out the window below the semi-circle to start with. Next, cut out most of the semi-circle as shown below. The best way to remove the

inside of the semi-circle is to use a downward sawing action with the tip of the blade to carve out the remaining card.





It is handy to suspend the card over the edge of the workbench when cutting out the remaining card. Remember! you can only perform this action if the blade is extremely sharp. If the blade is blunt, it will simply rip the card and ruin the kit. When cutting our curves, rather than trying to cut the curve out freehand following the line of the curve, which should only be attempted if you are skilled with a knife, attempt to cut slices off as shown below

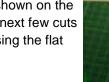




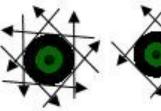
With each slice taken off the curve should start to take on its shape. When you get down to the last small portions use a very sharp knife and the flat

edge of the blade to finish. The same

technique can be used for cutting out complete circles as shown on the

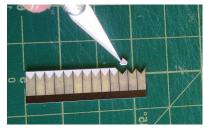






right. As can be seen the first few cuts square the circle off. The next few cuts reveal more of the circular shape. The final cuts should be cut using the flat edge of a sharp blade.

CARD KIT CONSTRUCTION TIPS Page 3



There are occasions where it is preferable to cut out freehand. Usually when you are cutting out very small pieces of card such as the station valance shown on the left which can be a fiddly job. In such cases I prefer to use a sharp scalpel blade as it is fairly firm and you can apply pressure directly over the tip. You will find these being sold in art shops or hobby shops. The great thing about this type of blade is that you can re-sharpen them on an oil stone thus extending their life, and saving you money.

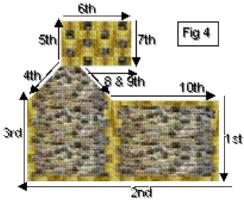
Another excellent knife for freehand cutting is the Stanley Knife which I have used for years. The Stanley Knife is ideal for cutting small pieces where you can put a lot of pressure on a small area. Also it is ideal for cutting out large parts of the kit.



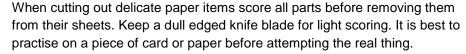


When cutting out the walls always try to cut out the door and window openings first before cutting out the rest of the building. NEVER apply excess pressure to the knife, it's easier to cut heavy card with several lighter cuts rather than a single cut. Once you have removed all the delicate parts you can then cut out the main walls. Before starting, plan the sequence of cuts you are going to make, as can be seen below left. This is essential to ensure that no parts move or come loose while you are cutting them out.





To ensure the card does not move while you are cutting it out you can pinch the underside of the workbench with your thumb with your fingers clamping the steel rule to the work piece.



Bend all parts prior to assembling. If the card or paper requires to be folded the opposite way to the indication line then it may help to prick the card with a pin to leave a mark on the reverse side. It is then just a matter of lining up the pin holes with your steel rule before scoring and bending.







When a score line extends into a cut line, score the whole line first, then cut through where required afterwards. This will keep everything lined properly.

CARD KIT CONSTRUCTION TIPS Page 4



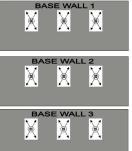
Practically any surface modeled can be weathered with a dry brush technique. Before weathering the card kits it is recommended to spray with Testers dull Cote as this will give the card a protective coating that can then be weathered. Weathering is best carried out with that old tired worn out brush that's been lying at the bottom of your paint box.

Take your brush, which should be a flat faced brush, and rub it into the colour you have mixed up, which should have been mixed up with a very little thinners or water. Gently rub the brush onto a piece of cardboard, removing all but a small amount of paint. Almost immediately gently rub the almost dry brush over the desired area in a soft circular scrubbing motion. This should leave the required faint trace of weathering colour on the wall. For wood affect, the brush should follow the grain of the wood.

Weathering model trains with chalk designed for model railroaders works well because it has a fixative in it that helps it to adhere to shiny surfaces like the plastics used for buildings and rolling stock. I like Bragdon and Bar Mills weathering chalks. You can buy packs with the primary colors you will use most often: black, rust, raw sienna, burnt sienna, etc. Weathering chalks are easy to apply. Use a soft brush to put them on. A makeup brush works well. With these commercial weathering chalks there is no need to overspray with Dull coat if the model will not be too roughly handled. You probably will need to do so if you make your own powdered chalk.

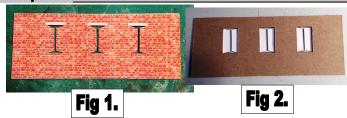
These techniques can be used anywhere that requires ageing or distressing. Weathering powders are readily available, but I prefer to grind up my own using artists chalk rubbed over sandpaper. To ensure the powders stay where put, spray the area with thinned down acrylic matt varnish, Remember to highlight any areas that would attract water, like leaking drainpipes, rising damp etc. The acrylic varnish will seal all the powders thus ensuring that the powders do not detach themselves.

Step 1



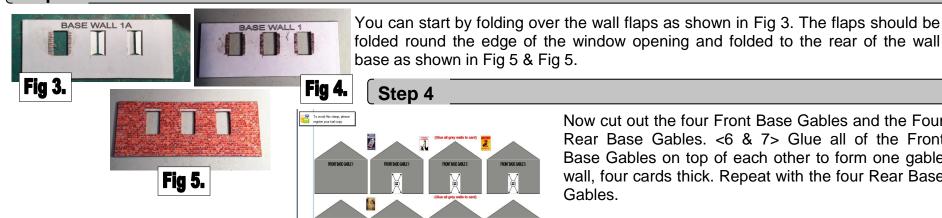
To start the kit begin by cutting out the three Base Walls 1, 2 & 3 & the three Base Walls 1A, 2A & 3A <5>. Glue the walls to card as indicated in the red text. Only glue pieces of the kit to card where indicated in red text. Glue Base Walls 1, 2 & 3 back to back to form one wall, three cards thick. Repeat with Base Walls 1A, 2A & 3A.

Step 2



Now cut out the Right & Left Corrugated Iron green Walls <1> and glue in place over the two walls you created in step 1 and as shown in Fig 1. Fig 2 shows the rear of the base wall with the window flaps showing through the window openings.

Step 3



Now cut out the four Front Base Gables and the Four Rear Base Gables. <6 & 7> Glue all of the Front Base Gables on top of each other to form one gable wall, four cards thick. Repeat with the four Rear Base Gables.

Step 5





Now cut out the corrugated Iron green Rear Gable Wall <1> and glue to the back of the Rear Base Gable as shown in Fig 6. Fold the extending flaps round the Rear Base Gable and glue to the rear of the base wall as shown in Fig 7

Step 6





Fig 9.



Now cut out the corrugated Iron green Front Gable Wall <1> and glue to the back of the Front Base Gable as shown in Fig 8. Fold the extending flaps round the Front Base Gable sides

and round the doorway opening and glue to the rear of the base wall as shown in Fig 9. Now cut out the doors you want to use and glue the printed paper door over the door opening as shown in Fig 10 & 11.



Step 7



Now cut out the Interior Rear Wall <3> and glue in place over the rear of the Rear Base Wall as shown in Fig 12. Now cut out the Interior front Wall and glue in place over the rear of the Front Base Wall as shown in Fig 13.

Step 8

Fig 14.

Fig 10.

Now you can cut out the six window ledges <1>. Glue the window sill in place on the bottom of the window with the longer edge to the outside as shown in Fig 14. now fold down the front

flap and glue to the front wall and fold down the rear flap and glue to the rear of the base wall as shown in Fig's 15 & 16.



Fig 15.

Fig 16.

Step 9



We now turn our attention to the windows. You have a choice of using the pre-printed windows (See Fig 17) or printing out the glazing file on acetate. Simply back these with clear glazing after you have cut out the windows. Print out the glazing file supplied but, be aware to only use clear glazing that has been specifically designed for printers as your printer generates heat that will melt glazing not approved for printing. There is a selection of styles of windows for you to use. Once you have decided the ones you want to use, glue them to the back of the window openings in a central position as shown in Fig's 18 & 19. Repeat for all six windows.

Step 10



Now cut out the Interior Right & Left Interior walls <3> and glue to the back of the Right & Left Walls covering the windows you have just fitted.

Step 11

Take the Front Gable Wall and the Right Wall. Now glue the Right Wall to the rear edge of the Front Wall as shown in Fig's 20, 21 & 22. Now take the Left wall and glue the rear edge of the Front Wall as shown in Fig 23



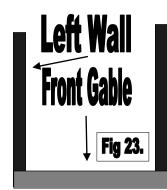


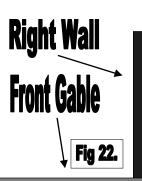
Step 12



Finally glue the Rear Gable in place butting up to the Left & Right Walls to form the completed main building as shown in

Fig 24. Now cut out the four main drainpipes <10> and roll round a cocktail stick to form a small tube as shown in Fig's 25 & 26. Glue the end flap and glue the drainpipes in place concealing the four joints where the gables are fixed to the side wall as shown in Fig 24.









Step 13

Now is the point to decide whether you want to detail the interior and illuminate before we secure the ceiling in place.

Step 14



Cut out the ceiling <7> and glue to card and then cut out the loft floor <8> (Do not glue to card) but glue the printed paper floor to the rear of the ceiling. Now glue in place on top of the two side walls as shown in Fig 27.



Step 15

Now cut out all the Roof truss sets <12 & 13>. You do not have to cut out the interiors of the truss if you don't want to Fig 27.

but they must be fitted as they are an integral part of the strength of the building and



must not be left out. Take one of the roof trusses and glue to the rear of the gable end resting on the loft floor as shown in Fig 28. Glue a second roof truss to the other gable end similar to the first one. Now take the remaining roof trusses and glue back to back to form five pairs. Glue on set in the middle of the roof as shown in Fig 29. Take the remaining pairs of roof trusses and space them out over the roof in equal fashion as shown in Fig 30.



Step 16



Fig 31.

Now cut out the Roof Base <14>. Now cut out the Roof Top Cover <10>. Lay the Roof Top Cover colour side down on you workbench and glue the roof base grey side up on top of the cover in the centre as shown in fig 31. Fold over the outer flaps and glue to the roof base on all four sides as shown in Fig's 32 & 33.





Fig 32.

Fig 33.

Step 17

At this point we can turn our attention to the roof top. There are a few types of roofs supplied with the kit you can use. You can use the pre-printed roof on pages 7, 8, 11 & 13 that only require to be folded and glued in place on top of the Roof Base or you can build the 3 dimensional style roof with the individual tile strips laid on top of each other to give a more authentic look to the roof. The second option takes a bit longer but creates a far better realistic looking roof.

Step 18



Fig 34.

If you choose the second option of layering the Tile Strips for a more realistic roof then cut out all the strips <12>. You will notice that there is a faint black line halfway up the tile strip as shown in Fig 34. This strip indicates where the next strip should overlaid onto. So glue the next strip on top of the previous one up to the black line as only half the tile will be visible on the finished roof.

Step 19



Take one strip and glue to the bottom edge of the roof level with the roof edge as shown in Fig 35. Glue the strip on top of the first and work your way up the roof laying each tile on top of the previous one as shown in Fig's 36 & 36A. Try to ensure as you lay each strip on the one previous that the tiles as staggered as shown in Fig 37 so the joints between each tile do not line up.

Step 20



| Fig 38.

Once you complete one side, trim the edges to ensure a straight roof edge and start at the bottom of the other side of the roof as shown in Fig 38. Once you have

completed the roof and trimmed all the overhanging edges then cut out the Main Gutters <3>. Fold the Main Gutters in half and glue as shown in Fig 39. Now take the gutter and roll the end round a cocktail

stick as shown in Fig 40 to create the round edge of the

gutter. Take the gutter and glue to the underside of the roof with the rounded edge of the gutter showing along the bottom of the roof edge as

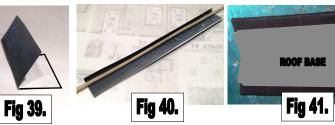


Fig 37

Fig 36A.

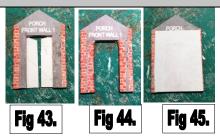
Fig 36.

shown in Fig 41. Glue both gutters in place. **NOTE!** If you used the printed roofs, glue the gutters to the underside of the roof base similar to the process just described. Take the roof and glue on top of the main building.

Step 21



We can now take a look at assembling the front porch. Cut out the Porch Front Wall <2> and the Base Porch Front Walls <4>. Glue the four Base Porch Front Walls on top of each other to form one wall four cards thick. Now take the Porch Front Wall and lay colour face down on your workbench and glue the Base Porch Front Wall to the rear of Porch Front Wall as shown in Fig 42. Now fold over the edge flaps and glue to the rear of the base wall as shown in Fig's 43, 44 & 45.



Step 22



Fig 47.

Choose the door colour you are going to use and cut out the door <3> and glue over the door opening facing out as shown in Fig 46. Now cut out interior Porch Wall that matches the door colour you have used and glue to the rear of the door you just fixed in place as shown in fig 47. Now cut out the three Base Porch Left walls <4> and the three Base Porch right walls <4> . Glue the three Base Porch Left walls on top of each other to form one wall three cards thick and repeat with the three Base Porch right walls.

Cut out the Porch Interior Right and Left Wall and glue the left wall to the back of the left base wall and glue the right wall to the back of the right base wall as shown in fig 48.

Step 23



Now cut out the green corrugated iron Porch Left and Right Walls and glue these on the back of the base wall front the previous step as shown in Fig 49. Take the Porch Right Wall and glue to the rear outside edge of

the Front Porch Wall as shown in Fig's 50, 51 & 52. Take the Porch Left Wall and glue to the other side of the Porch Front Wall as shown

in Fig 53 & 54.

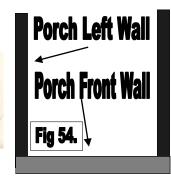
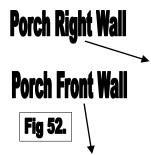


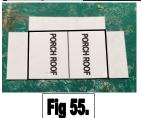
Fig 53.







Step 24



Cut out the Porch Roof Base <8> and the Porch Roof Cover <11>. Lay the Porch Roof Cover colour side down on your workbench and glue the Porch Roof Base to the rear as shown in Fig 55. Now fold over the edge flaps and glue to the rear of the Porch Roof Base as shown in Fig 56 & 57.



Fig 56.

Fig 57.

Step 25



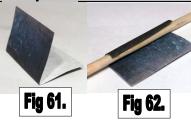
There are a few types of roofs supplied with the kit you can use. You can use the pre-printed Porch Roofs on pages 11 that only requires to be folded and glued in place on top of the Roof base or you can build the 3 dimensional style roof with the individual tile strips laid on top of each other to give a more authentic look to the roof. The second option takes a bit longer but gives a far better realistic

looking roof. Cut out the Tile Strips <12> and glue to the bottom of the roof edge on both sides as shown in Fig 58. similar to step 19, lay each strip on top of the previous one

till you have covered the whole porch roof as shown in Fig 59 and trim the edges as shown in Fig 60 to complete.

Step 26

Fia 58.



Now cut out the Porch gutters <2> and similar to step 20, fold the gutter in half and curl the outer edge round a cocktail stick as shown in Fig's 61 & 62. Take the gutters and glue to the underside of the roof as shown in fig's 63, 64 & 65.







Fig 64.

Fig 65.

Glue the roof of the porch on top of the porch as shown in Fig 66.

Take the porch and glue in place to the front of the main building as shown in Fig 67. You can cut out the Roof Tiles <14>, choose which one you want to use, lightly score down the middle, bend and glue in place on top of the main roof and the roof of the porch as shown in Fig 67.

Fig 67.



We can now turn our attention to the rear extension building. To get started, cut out the three Front Extension Base Walls <4> and glue all three together to form one wall three cards thick. Now cut out the Rear Extension Base walls <4> and again, glue all three together. Now cut out the Right Gable Extension Base Walls and glue together and finally cut out the Left Gable Extension Walls and glue together.



Step 28



Take the Front Extension Base Wall and glue inside edge of the Right and Left Gable Extension Base Wall as shown in Fig's 68 & 69. Take the Front Extension Base Wall and glue inside the higher end of the Right and Left Gable Extension Base Wall as shown in Fig 70 & 71.

Fig 70.

Front Extension Base Wall

Fig 69

Gable Extension

Step 29



Now cut out the Extension Walls <2> and glue the right hand side to the exterior of the Right

Gable Extension Base Wall as shown in Fig 72. Now wrap the Extension Wall round the base walls as shown in Fig 73, and finally gluing the last wall to the Left Extension Base Wall as shown in Fig 74.



Fig 71.

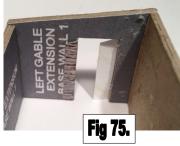




Fig 74.

Step 30

Fig 72.



You can now fold back the edges round the door and window openings similar to previous Step 6 and glue to the interior base wall as shown in Fig 75. Now cut out the Extension Window Ledge <2> and glue the window ledge in place on the bottom of the window with the longer edge to the outside as shown in Fig 76. Now fold down the front flap and glue to the front wall and fold down the rear flap and glue to the rear of the base wall as shown in Fig 77.







You can now glue in place the Extension Rear wall <2>. If you are fixing the extension to the church by the Extension Rear wall, then leave off the Extension Rear wall as it is not necessary. It is only there if you decide to have the extension as a stand along building separate from the church.

Step 32



We now turn our attention to the extension window. You have a choice of using the pre-printed windows (See Fig 17 in Step 9) or printing out the glazing file on acetate. Simply back these with clear glazing after you have cut out the windows. Print out the glazing file supplied but, be aware to only use clear glazing that has been specifically designed for printers as your printer generates heat that will melt glazing not approved for printing. There is a selection of styles of windows for you to use. Once you have decided the ones you want to use, glue them to the back of the window opening in a central position as shown in Fig 78.

Step 33



Now cut out the door you want to use and glue the printed paper door <3> over the door opening as shown in Fig 79 facing outward.

Step 34



You can now start to fit the extension interior walls. Start by cutting out the Front Interior Gable Wall <2> and glue in place onto the Front Extension Base Wall as shown in Fig 80. Now cut out the Rear Interior Gable Wall <2> and glue in place onto the Rear Extension Base Wall followed by the two remaining interior walls to complete all interior walls as shown in fig 81.



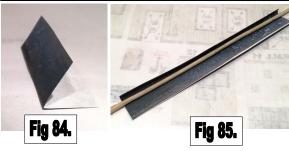




We can now finish with the extension roof. Start by cutting out the Extension Roof <4> and the Extension Roof Cover <11>. Turn the Extension Roof Cover colour side down on your workbench and glue the Extension Roof to the back of it as shown in Fig 82. Now fold over the outer edges and glue to the Extension Roof as shown in Fig 83.



Step 36



Cut out the Extension Gutter <2> and fold in half and glue as shown in Fig 84. Now take the gutter and roll the end round a cocktail stick as shown in Fig 85 to create the round edge of the gutter. Take the gutter and glue to the underside of the roof with the rounded edge of the gutter showing along the bottom of the roof edge as shown in Fig 86. Glue in place on top of the extension with an overhang on three sides and



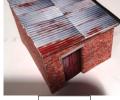


Fig 86.

Fig 87.

flush with the rear wall as shown in Fig 87.

Step 37



Take the extension and glue to the rear of the main building as shown in Fig 88. Now cut out the Extension Drainpipe <2> and roll round a cocktail stick to form a small tubes as shown in previous Step 12. Glue to the right side of the wall as shown in Fig 89.



Step 38



To complete the main building we now need to fit the bargeboards under the eaves of the building. On page 9 there is a number of different bargeboards for you to choose from. Pick the pairs you want to use and glue them to card. The bargeboards are simply glued to the underside of the eaves of the main building roof and the porch roof as shown in Fig's 90, 91 & 92.

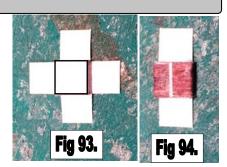




Fig 92.



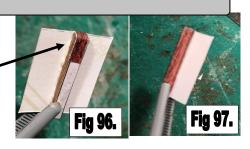
We can now assemble the church sign and post. Cut out the Pole Base Bottoms <8> and the Base Cover < 8>. Glue the three Pole Base Bottoms on top of each other. Now turn the Base Cover colour side down on your workbench and glue the Pole Base Bottoms to the middle as shown in Fig 93. Fold over the edge flaps and glue to the rear of the base as shown in Fig 94.



Step 40



Now cut out the Pole Bases and glue the three bases <8> together to form one pole three cards thick. Now cut out the Pole Cover <8> and glue the Pole Base to the rear of the Pole cover as shown in Fig 95. Now fold over the thin top flap and glue to the rear of the Pole Base as shown in Fig 96 and then fold the flaps round the Pole Base to cover as shown in Fig 97. Now glue the pole to the centre of the base and chose from the selection of signs on page 14 which signs you want to use. Glue one sign to card and glue to the post and glue the other sign to the side of the porch door.



Step 40

Fig 98.

To finish the building you can add the finials on page <10>. Glue on finial to card and glue the other print to the rear of the first and glue in place at the front apex of the porch and main roof front and rear as shown in Fig 98

You should now have the completed building and I do hope you enjoyed it. If you had any issues or need any more information then please get in touch by calling (001) 519-803-9054 Email: tdkcardkits@gmail.com and don't forget to send me a picture of the completed building to be entered into our gallery draw with the chance to win a free building kit.



Don't miss out on our latest releases and product info by submitting to out mailing list at: 3dk.ca/contact-us. Thank you and happy modelling.

Calum 3dk 23rd Nov 2017

Other kits you might find of interest: All can be found at www.3dk.ca

















