



Hints and Tips

This **General Notes** document should be read before and also in conjunction with the particular **Assembly Note** for the Fine Scale Buildings model you have purchased. These notes include important safety advice and hints and tips on how to construct, weather and detail our range of models,

These **General Notes** are also provided on our website:

www.finescalebuildings.com

Safety Tips

Knives and scalpels are sharp, they work best when sharp and they are safer to use when sharp as less effort is required to cut through material. However, a few simple tips will ensure that you do not have to waste valuable modelling time running for a bandage or bothering the medical profession...

- Always keep your fingers away from, and preferably behind the blade when cutting.
- Make light multiple passes when cutting thicker materials.
- Do not cut close to and towards your body.
- Support the work being cut - a stable work table and cutting mat is highly recommended.
- Protect your eyes - You are only allowed one mistake in your lifetime regarding eye safety.
- Obey all the rules regarding glues and paints - especially regarding ventilation and ingestion
- Finally, Do not rush!

Recommended Tools

Remember, when buying tools that the internet can be your friend. However, do not buy cheap unbranded tools and always check the sellers feedback ratings if buying on *Ebay*.

List of Essential Tools

The following is a list of the basic tools that you need to complete one of our models to a satisfactory level:

- **Scalpel or small craft knife** with new blades - We prefer a straight blade, but use a blade that you are comfortable with. Either buy a retractable scalpel/knife or use a cork or other means to protect the blade, and you, when the scalpel or knife is not being used. We use a small sharpening stone to preserve the edge and prolong the life of blades.
- **Steel rule** - for a straight edge to cut against and fold. A 300mm engineers rule is fine if you are careful, but purpose built cutting edges are safer, if a bit more cumbersome.
- **Cutting mat** - A4 size is fine but an A3 sized one is better if you have the space for it.
- **Tweezers** - Fine point ones are good for most uses, but a small selection are handy.
- **Engineering Squares** - Both 75mm and 150mm sized are recommended. If you think you need only one get the 75mm size.
- **Emery Paper/Board** - Emery board (used for filing nails) and emery paper is used for straightening the edges of card templates. A useful tip is to glue a strip (75mmx150mm for example) of emery paper onto a 2mm piece of card and use that for sanding things flat by laying it on the cutting mat and moving the item to be sanded across it. We use 240 grade emery, but use the grade you are comfortable with.
- **Paint Brushes** - Get good quality ones. A size 00 and a size 5 does for all of our needs.
- **Damp Cloth** - For when the glue does not go just where you want it to.

List of Useful Tools

Although not absolutely necessary, the following tools can help make your modelling experience a lot more pleasant:

- **Scissors** - Not essential, but we use them for cutting an angle in the paper when wrapping it around the base card to avoid double thickness at the rear of the card. Do not use cheap and nasty ones, buy medical quality with piercing points. They can be obtained relatively cheaply from *Ebay*.
- **PVA Glue Applicator** - Although our models can be constructed using a general purpose adhesive and paper glue (*UHU* and *PrittStick* for example), our preference is to print on A4 sticky label sheets and use PVA type glue and a precision glue applicator. Such applicators can deliver a small amount of glue in the right place with no or little "collateral damage". There are a few available, a name to look out for is "*Fine Tip*". Alternatively, a syringe and needle of a suitable size and bore could be used, but may be susceptible to clogging. If neither of these solutions appeal to you, then a fine paint brush could be utilised but remember to clean it after use.

- **Lighting and Magnification** - Again not an essential tool, but it is much easier to work under a good light source and magnification can be really useful for small jobs, especially for older eyes. We use a combined light/magnifier on an angle poise mounting. Once again *Ebay* is your friend in this matter.
- **Vernier Gauge** - Useful for measuring the thickness of card stock. Digital one are cheap nowadays, mechanical ones (especially the non-dial type) are even cheaper and more than adequate for this task.
- **Wire Cutters** - Useful for snipping wire and plastic rod.
- **Needle Files** - Sets are available on *Ebay* and useful in all modelling situations.
- **Drill Bits and Pin Chuck** - 0.7mm, 1mm and 2mm drills are most useful to detail our models.

Materials

Card

Most of our models can be built in 4mm scale using three thicknesses of card; 2mm, 1mm and 0.5mm. The 0.5mm size can in most cases be any size up to 0.5mm, cereal boxes are useful for this. If "Mount on thin card (please see assembly notes)" is specified on the model rather than just "Mount on thin card" then the assembly notes will specify the thickness of card required to successfully build the model. In many cases two thicknesses of thin cereal box card laminated together are about 0.5mm, but measure to check.

If you choose to model in scales other than 4mm to the foot (1/76), then the thickness of card used should reflect the scale chosen. See the table under the section "Modelling in Different Scales".

Paper

We prefer to print on good quality A4 label paper suitable for our printer. You may wish to print on plain paper and glue onto the card templates. Whatever your choice, use good quality paper. Matt photo paper is recommended by many of about 100gsm paper weight.

Some of our models require you to print sheets on transparency film. **Please, only use transparency film that is suitable for your printer.** Remember to insert the transparency film the correct way round when placing it in the printer.

Glues

Although our models can be constructed using a general purpose adhesive and paper glue (*UHU* and *PrittStick* for example), our preference is to print on A4 sticky label paper and use PVA type glue and a precision glue applicator (see the section on tools).

Normal PVA adhesive is fine, the only problem is the slow grab and setting time. We use a brand called *Fast Tack* available from a firm called Hi-Tack which has a much faster grab time and allows speedier construction. We do keep both *UHU* and *PrittStick* glues on hand as well - just in case.

Colouring

Colouring is used on our models to touch up the exposed edges of card templates and card wrap paper.

There are a number of ways of achieving this. One is to run a felt tip marker of the appropriate colour along the edges. Another method is to use water colour paint (remember those little water colour sets you had as a child with the small hard squares of pigment). Both methods can work fine but bear in mind that you may need a large number of felt tips for the colours required and that both methods will not lighten a darker surface, grey card for instance.

Therefore, other than when we need to colour something black when a felt tip pen is quicker and a bit less messy, our preference is to use an opaque paint such as acrylic or poster paint in tubes. Remember, you will only require the three base colours, red, blue and yellow, together with white and black to create any shade of colour you may require. A positive bonus is that both of these are water based which is safer and makes brush cleaning easy.

When weathering your model it is a good idea to have a small selection of artists pastels available (see the section on weathering).

Plastic Rod

Some of our models require a small amount of plastic rod to complete the kit, for downpipes usually, sometimes for chimneys or as formers for chimney pots or flower pots. A small selection of 1mm, 1.5mm and 2mm is useful to have ready.

Transparent Plastic Sheet

Some of our models require you to mount paper wraps onto transparent sheets. Most windows in our models can be glazed using printer transparency film (or the transparent lids of soft cheese tubs). However, where the window is a major structural part of the model, in our greenhouse models for example, it may be better to use transparent plastic sheet of a suitable thickness. If this is a recommendation it will be mentioned in the assembly notes and a warning will be printed next to the pertinent card wrap on the model sheets.

Downloading and Printing Your Model

Downloading and Accessing Your Files

Your model is downloaded as a number of PDF files which are compressed into a single ZIP file for download convenience.

Some computers will automatically unzip a ZIP file after download to expose the contents. Sometimes you only need to double click or right click on the ZIP file to unzip it. Increasingly rarely, you may have to find an application on the internet that will allow you to unzip these types of files. Among the many free applications to look out for that will open ZIP files are:

- *7zip*
- *Zipeg*

There are usually three PDF files in the ZIP file:

- This document. (Yes, we are aware of the paradox, but this information is also available on our website for those who have not managed to get this far.)
- The ***Assembly Notes*** for the particular model.
- The model itself.

To open the PDF files on some computers all you need to do is double click on them. However, sometimes you need to have an application installed on your computer that can handle these files. There are a few about, *Foxit* for example, but our recommendation is the free *Adobe Acrobat Reader*, produced by the company that invented the file format.

Printing Your Model

Open file in the PD Reader.

Print on good quality paper

- **A4 labels and transparency film - make sure paper is the correct way up in the printer.**
- **Only use transparency film that is compatible with your printer.**

Print Out PDF on printer.

- Orientation Landscape
- Best Quality
- Actual Size 100% (for different scales see the following section).

It is often suggested that once printed out the sheets should be sprayed with colourless artists matt varnish to protect the printed surface. Personally, we do not bother as printing on A4 label media does not require the application of large amounts of paper glue to the rear surface of the printed wraps during construction, but feel free to do this if you are printing on plain paper.

Printing Out in Different Scales

The Fine Scale Buildings models are designed to be modelled in 4mm to the foot (1/76) scale. However, as long as the thickness of card used is scaled roughly proportionately (and that you have the requisite dexterity in modelling to the smaller scales) there is no reason why they cannot be constructed to other scales simply by printing each sheet with the printer set to the appropriate scaling:

Scale	Name	Printer Scaling	Card Thickness		
			Thick	Medium	Thin
1/32	54mm	238%	4mm	2mm	1mm
1/35		218%	4mm	2mm	1mm
1/43.5	0 Gauge	175%	3.5mm	1.75mm	1mm
1/72		106%	2mm	1mm	0.5mm
1/76	00 Gauge / 4mm Scale	100%	2mm	1mm	0.5mm
1/87	HO Gauge	87%	2mm	1mm	0.5mm
1/100		76%	1.5mm	0.75mm	0.35mm
1/148	N Gauge	53%	1mm	0.5mm	0.25mm
1/152	2mm Scale	50%	1mm	0.5mm	0.25mm

Please note: that the sheets are designed to be printed on A4 paper, if you choose to print out at a larger scale either you must tile multiple sheets on an A4 printer, or print on a printer that can handle larger paper sizes.

General Assembly Instructions for Fine Scale Buildings Models

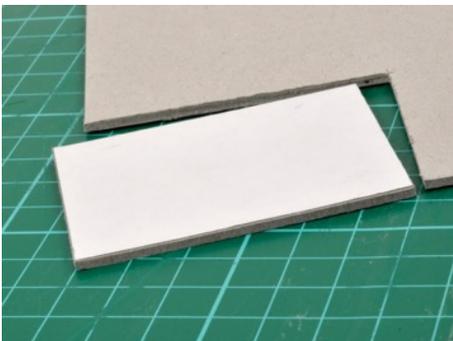
Cut out Template.



Mount on card of the required thickness



Cut card around the edges of the template keep knife vertical when cutting especially on thicker card.



If printing on plain paper and glueing to card make sure the glue has set completely before cutting around the template

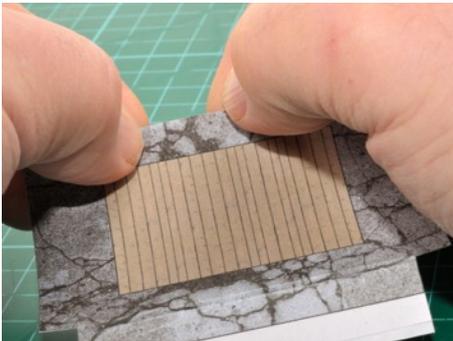
Cut out the texture wrap that will go around the card base. Leave some space along the edges where a fold mark is shown and trim that after folding.

Fold the texture wrap where indicated by the green marks to give an edge that makes it easier to locate the wrap on the card base. Set the fold by placing on top of the rule and aligning along the edge, run your fingernail or the back of your knife along the edge.

When using A4 label paper Set the fold before removing the backing paper.



Complete the fold by folding completely in two and running your nails along.



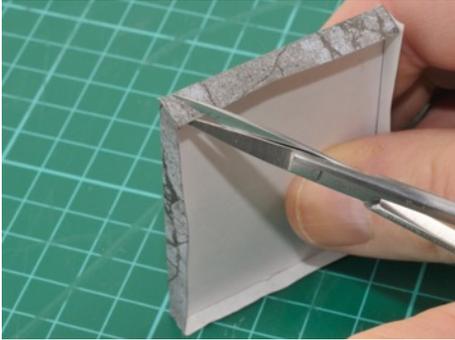
Do final trimming.

Wrap the texture around the base card. Make sure it is flat with no bubbles and aligned correctly. (like wallpapering in miniature).

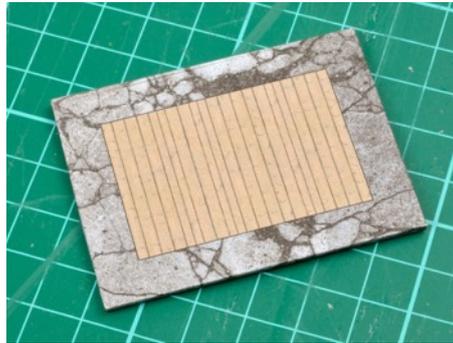
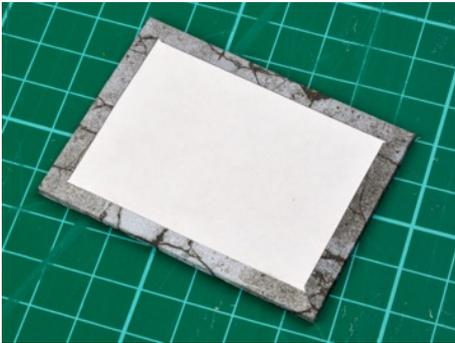


Use your fingernails to create sharp edges around card. (pressing edges vertically on a flat surface works really well also).

If necessary, trim where the wrap folds underneath at an angle with good quality sharp scissors to avoid overlapping layers.



Apply pressure to ensure that the wrap does not lift from the card while the glue is setting.



Using A4 Labels

If printing on A4 label paper cut out three sides and leave a tab of paper on the fourth
Score across to tab to the level of the backing paper.



When using A4 label paper Set the fold before the final trim and removing the backing paper.

Lift the label away from its backing at the score line...



...then trim the fourth edge (use the edge of the cutting mat to temporarily stick the label when cutting).



Creating Glazed Features

This is where we strongly recommend printing such features on sticky label paper as the following technique is an easy way to create accurate windows with good looking glazing bars and little marking on the glazing material.

Print the glazed feature wrap on sticky label media that is suitable for your printer.

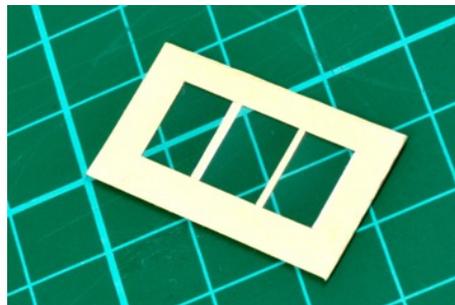
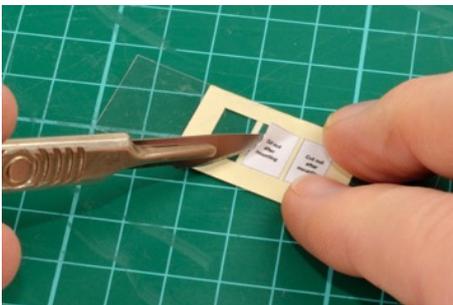
Cut out the wrap with the glazed features. Do not cut out any of the glazed openings yet.

Stick the wrap to the glazing material of your choice.



Very carefully with a sharp blade cut out the glazed openings in the wrap (you can cut into the glazing bars if you wish as the label is firmly attached to the transparency film and will not move). Do not cut through the transparency film, only the label (you will feel when the paper is cut through as the cutting action suddenly becomes very smooth).

When the cuts are made carefully lift a corner of the label with the knife blade and peel off the surplus material. We think you will be pleased with the results.



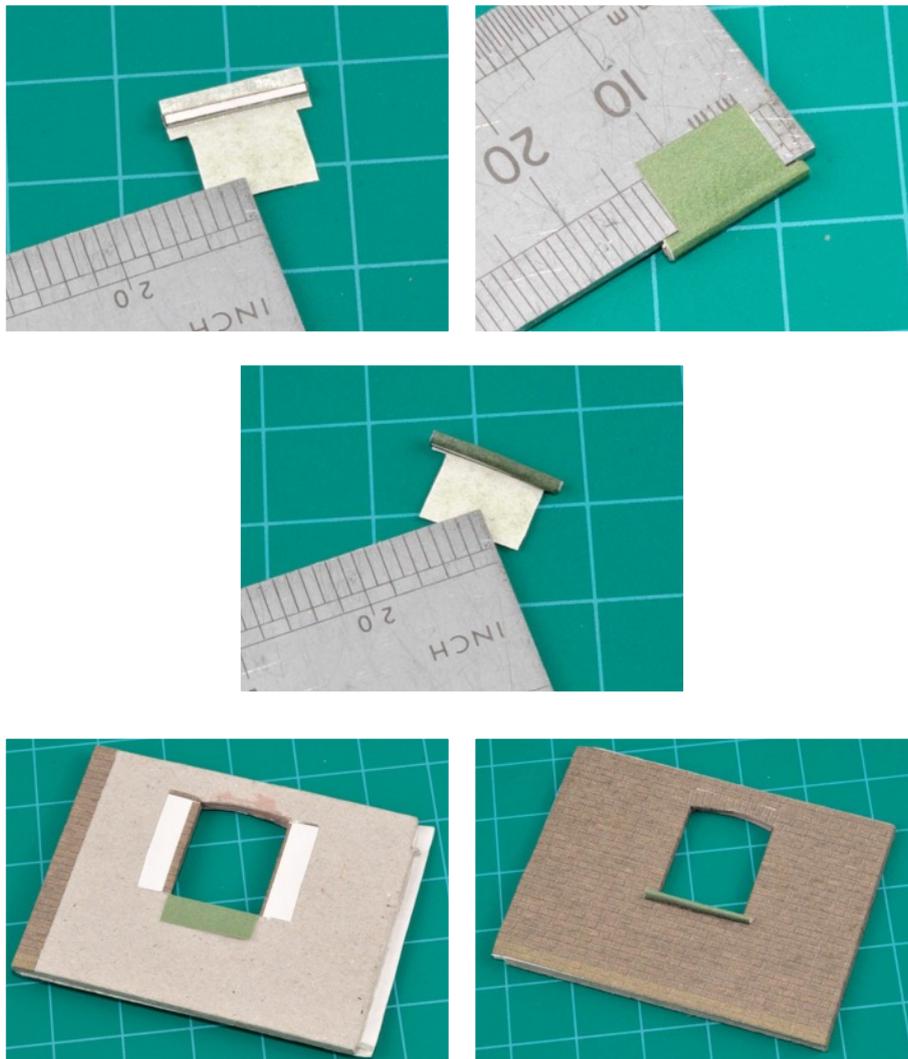
Our thanks for this technique goes to Doug Dickson who goes under the name "Chubber" when he posts on the RMweb forums (www.rmweb.co.uk) which are an invaluable resource for railway modellers.

Window and Door Sills

Window and door sills are generally constructed by rolling a window sill wrap around a template of card. The rolling technique is not unlike creating a very thin hand rolled cigarette. Our models usually show where to set a fold in each window sill wrap to allow the rolling to be achieved accurately.

When cutting out the thin and narrow window or door sill templates it is a good idea to coat the template after cutting with PVA glue and then letting it dry to prevent the card delaminating when being handled.

The idea of this construction technique is to wrap the card and leave a tail of the wrap that can be glued over the lower window or door cutout in a wall and also be glued down the interior face of the wall. It is a good idea to also glue the underside of the window or door sill at the front of the wall for extra strength.



Where one of our models uses window or door sills that are constructed differently then this will be fully explained in the model **Assembly Instructions**.

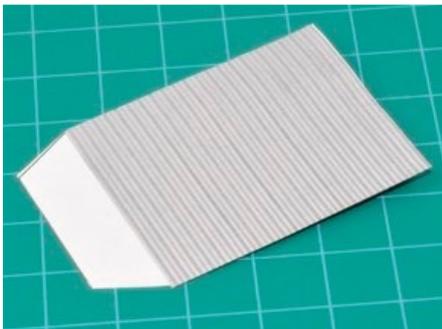
Embossing Corrugated Sheets

While our models can be built using our texture wraps which suggest corrugated materials mounted flat on card templates it will improve the look of the model if the texture wraps can be actually corrugated before installing.

There are a number of methods for achieving this effect, a search of the internet will reveal them. I have found the following method works well and requires only a small initial outlay to purchase the materials required to create the tools needed. Of course, once the tools are purchased, there is no limit to the number of corrugated sheets you can produce from them.

- **Corrugation Formers** (two needed) - either:
 - **Wills Corrugated Asbestos** - 4mm scale for 6" corrugations in 4mm scale (there are four sheets in each pack - you will need to remove the bolt mouldings from the plastic sheets).
 - **Ratio 312 Corrugated Sheet** - for 3" corrugations in 4mm scale or 6" corrugations in 2mm scale (there are also four sheets in each pack).
- **Rounded rod** (I use the end of a paintbrush or the handle of a scalpel for 4mm scale).

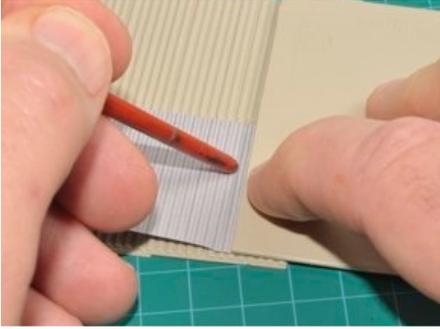
Cut out the wrap to be corrugated. The wraps on our models which allow this corrugation technique are designed to be folded and glued together so that texture is present on both sides of the wrap and give the appearance of an approximate scale thickness. the wraps are also provided with a tab to allow the wrap to be fixed to the former that will provide the corrugations (see below).



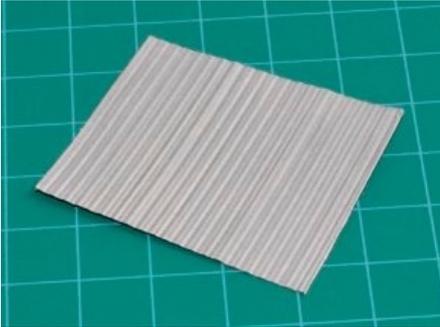
Tape the wrap to be corrugated to the edge of the bottom former at one end only.



Using the rounded rod carefully emboss each corrugation into the wrap starting at the taped end. Place and hold the other plastic sheet on top of the wrap as you work to maintain the set of the corrugations along the length of the wrap and to help stop the wrap moving. Move the top former along as each corrugation is set.



When all the corrugations are set remove the corrugated wrap from the bottom plastic former and carefully cut the paper to size.



Weathering

Do not forget to weather your model for an even more realistic look.

There are a number of ways of weathering structures to make them look more realistic. A search of the internet reveals a wide range of weathering techniques. Here is one that has worked well for us.

Using the rear edge of your knife blade a small amount of black, grey, green and brown artists pastels into a shallow dish or container. With a cotton bud or a artists brush, work small amounts of the pastels in varying combinations onto the building. Look at real life examples of where dirt, soot, rust and green moss form on buildings and how water damage effects the look of structures to recreate an authentic look. Build up the weathering in a number of layers.

When you are happy with the effect you can seal the pastels using artists colourless fixative spray, or even hairspray. (but test the hairspray method on a scrap piece first). Remember to protect any windows as you do this as it can effect the opacity of the glazing.

Detailing

Finishing and weathering your model need not be the end of your efforts to produce something that you will be proud of. Although Fine Scale Buildings are good looking as they are, or so we like to think, there is a lot you can do to further enhance the look of your model.

The internet is full of useful advice on detailing. It is a good idea to read about various techniques and use the ones that appeal to you.

A great enhancement is to make the building blend in with the landscape around it. Scenic scatter for grass and weeds, lichen for small shrubs and plants constructed from twisted copper wire painted, covered in PVA glue and sprinkled with scenic scatter before being "planted" adjacent to the building can all help to make a structure that not only looks good, but is also unique. Static grass applied to dabs of PVA glue on a flat tin plate with an applicator, allowed to set, peeled off and then strategically placed produces realistic clumps of longer grass and weeds around the building.

Wire used in various forms can provide extra detail, from bean poles and fence posts, to TV and wireless aerials. Thin copper, or cotton coated with PVA glue, stuck to walls and roofs can simulate electrical, telephone and TV aerial cabling. Have a look at prototype buildings, they are very often covered in cables, both old and new.

Finally, do not forget to detail the interiors of your buildings if you so wish, Although in many cases it is hard to make out the interiors, it is nice to know they will stand up to really close inspection. Of course, you may choose to install lighting in the building just to show how detailed your interiors are.

Registration Marks

Our latest models are provided with registration marks on each individual sheet which may be of assistance when cutting using an automatic cutting machine such as the *Silhouette* or similar. The details of the size and location of the registration marks are as follows:

Registration Type (*Silhouette*) = Type 2 (Original, SD)

Location = Top Left, Top Right, Bottom Left

Distance from page edge = 10mm

Line length = 5mm

Line thickness = 1mm

