

# Colli Easy DIY Projects

## Build a Pergola

- Easy to follow step-by-step guide
- Important and handy tips
- Materials check list
- Project cost estimator



Before you begin your exciting new project, please read through this entire pamphlet carefully and estimate and assemble all the materials you will need for the project and gather your tools and equipment together. Refer to the checklist and estimating form on the back panel of the pamphlet to assist in this preparation. If you require any help, please don't hesitate to speak with one of Colli's experienced trade team.

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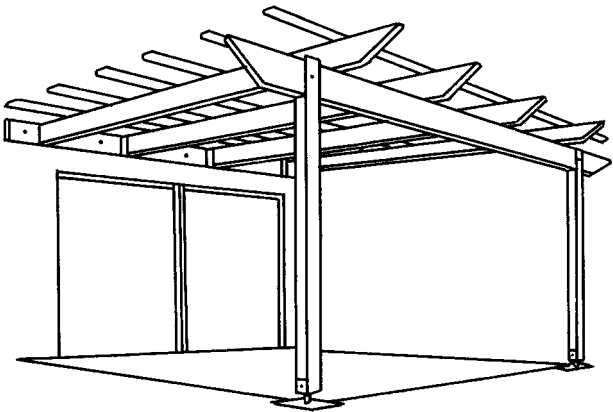


# DIY Pergolas made easy

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## Types of pergola

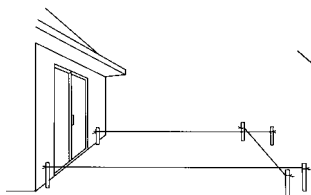
Pergolas are a great addition to any home, providing both shelter and shade. There are two basic types of pergola to choose from - free standing and house fixed. Check with your local building authorities to ensure that your pergola will comply with any relevant building regulations before you commence.



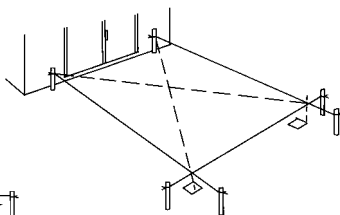
## A house fixed pergola

### Preparing the site

- Check your site plan to ensure that there are no water, gas, sewerage or drainage lines under your proposed pergola site.

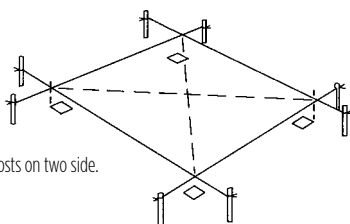


**Fig 1** Marking out the site with strings.



**Fig 2** Check square by measuring diagonals.

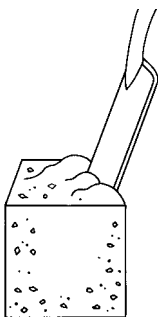
- If there are any obstructions, you will need to mark their position before you proceed with the digging of the footings.
- Lay out your pergola using string lines (Fig 1) and check for square by measuring the diagonals (Fig 2). If your pergola will be fixed to the house, lay out the posts along the side facing the wall (Fig 2). If free standing, lay out the posts on two sides (Fig 3). As the pergola is essentially a light structure, the posts may be set up to a maximum of 3 metres apart.



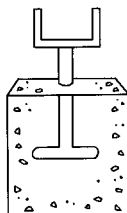
**Fig 3** For free standing pergolas, lay out the posts on two side.

### Setting the posts

- Dig post holes to allow at least a 300mm x 300mm x 450mm concrete pad to be poured for the post stirrup bracket (Fig 4). For a free standing pergola, you will need to dig the holes a little larger to accommodate a larger concrete pad for added stability. Mix concrete according to the manufacturer's instructions, allowing a generous amount for each post hole.



- Pour the concrete into the hole and set a stirrup bracket in the centre of the pad allowing approximately 75mm clearance between the ground and the bottom of the post.

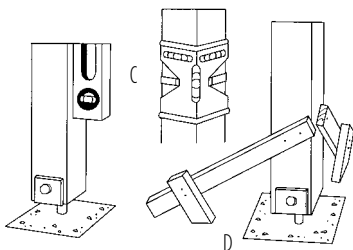


- At this point, it may be advisable to paint all the posts, beams and rafters prior to final fitting. Alternatively, you can leave painting until the pergola is completed although this process is slightly more time consuming. You'll find a wide range of quality timber finishes available at Colli which will all protect and enhance your new pergola. Why not come in and talk one of our helpful team members about your requirements and budget.

*Note: Rapid set concrete mix (which sets in 15 mins) is also available at your Colli store. Simply pour the mix into the hole, and add water.*

- Once the concrete is poured, you must check the post is vertical using either a spirit level or a post level.
- Temporarily brace the post and allow to set for 48 hours. Ensure that it remains in its vertical position.

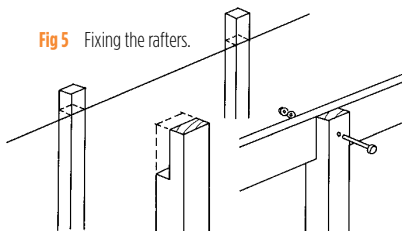
**Fig 4** Setting the posts.



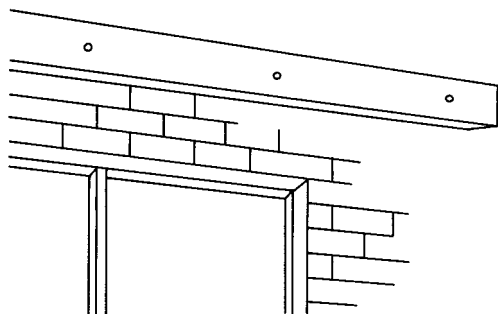
## Fixing the rafters

- With the aid of a string line, trim the posts to your desired height (Fig 5).

**Fig 5** Fixing the rafters.



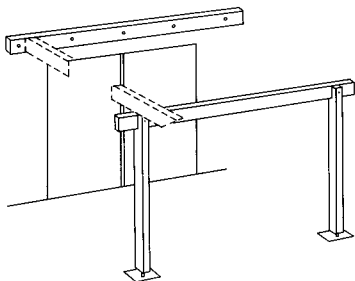
- For a house fixed pergola, fix a beam or wall plate to the house at the appropriate height. Use Mungo bolts to fix the wall plate to a masonry wall, whilst you should use coach screws if fixing to a timber wall (Fig 6). Measure and cut the rafters to length, allowing sufficient length for the end decoration (Fig 7).
- Fix the pergola brackets with coach screws to the pole plate.



**Fig 6** Fixing wall plate to a masonry wall.

## Fixing the rafters to the beams

- Use framing anchors to fix the rafters to beams (Fig 8). Next, fix the anchors at 900mm centres along the beams. Fix your rafters to the brackets using galvanised bolts and nails.



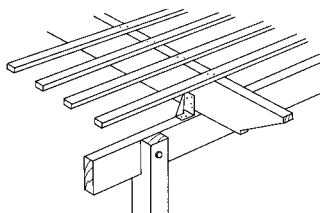
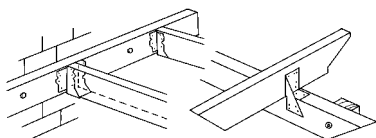
**Fig 7** Fix rafter on to the beams.

- Measure and cut the beam to length, drill for bolt fixing to the rebates.

**Fig 8** Fix rafters to beams with framing anchors

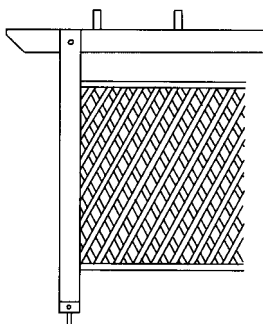
## Adding battens

- Battens can be fixed across the rafters to hold shade cloth, Laserlite or even support climbing plants (Fig 9).



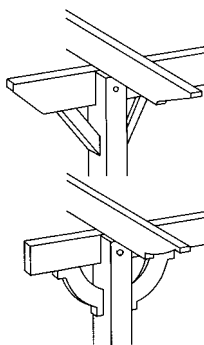
**Fig 9** Nail battens across the rafters.

*Note: Always allow a small gradient pitch for water run off. A handy tip is to vary the spacing off the battens, which will create interesting shade patterns before deciding on final placement. Decorative elements can be added to your pergola using treated pine lattice (Fig 10) or by cutting your own decorative timber corner brackets (Fig 11).*



**Fig10** Pine lattice as screen.

*Note: Use Timber Reseal on any exposed CCA timber ends, this protects any exposed CCA timber from rot and fungi.*



**Fig11** Decorative corner brackets.

## Project Cost Estimator

Materials Description	Quantity	Cost
Posts		
Post Stirrup		
Beams		
Rafters		
Decking		
General Purpose Concrete		
Galvanised Bolts/Screws		
Galvanised Nails		
Framing Brackets		
Timber Finish/Paint/Timber Reseal		
Shade Cloth/Laserlite		
Equipment		
Square		
Spirit Level or Post Level		
Spade or Post Hole Digger		
Hammer/Nail Gun		
Measuring Tape		
Power Drill/Drill Bits		
Circular Saw or Hand Saw		
Shifting Spanner/Sockets		
String Line		
Total		

**All the materials you need for this job are available at Colli, your DIY specialist.**

**Disclaimer:** Please note that this brochure is designed as a guide only - if you have any queries, please consult one of our Colli Team Members for further assistance. The information provided in this brochure is done so on the understanding that Colli Timber and Hardware is not liable for any loss or damage which is suffered or incurred, for any personal injury or property damage as a result of using the information contained in the Colli DIY Projects brochure. Colli Timber and Hardware advises you to call in a qualified tradesperson, such as an electrician or plumber, where expert advice and services are required.

**Note:** Please ensure you comply with local council laws or regulations before undertaking any DIY project.

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