

## Project Cost Estimator

| Equipment                            | Quantity | Cost |
|--------------------------------------|----------|------|
| Square                               |          |      |
| Spirit Level or Post Level           |          |      |
| Spade or Post Hole Digger            |          |      |
| Hammer                               |          |      |
| Screwdriver                          |          |      |
| Measuring Tape                       |          |      |
| Drill                                |          |      |
| Circular Saw or Hand Saw             |          |      |
| Shifting Spanner                     |          |      |
| String Line                          |          |      |
| Paint Brush                          |          |      |
| <b>Total</b>                         |          |      |
| <b>ADD Total</b> From Materials List |          |      |
| <b>Grand Total</b>                   |          |      |

All these materials you need for this job are available at Magnet Mart, your home improvement warehouse.

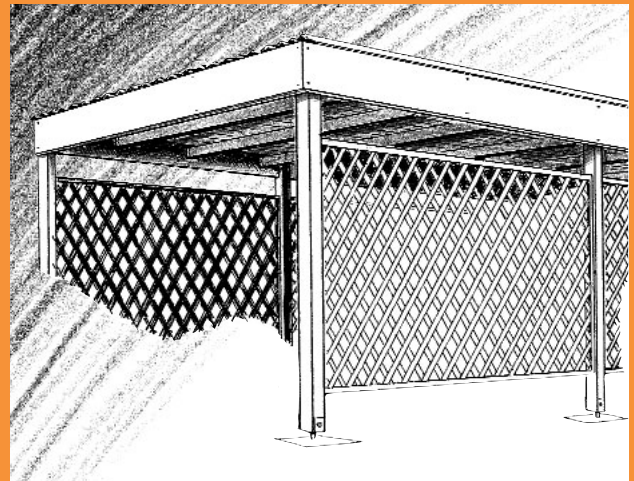
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# Build a Covered Carport



- Easy to follow step-by-step guide
- Important and handy tips
- Materials check list
- Project Cost Estimator

Before you start, please read through this 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.

## You Can Build a Covered Carport

### Types of Carport

There are two basic types of carport – free standing and house fixed. Both types have similar construction methods. Check with your local building authorities to ensure that your carport will comply with any relevant building regulations before you commence.

### Preparing the Site

- Check your site plan to ensure that there are no water, gas, sewerage or drainage lines under your proposed carport site – you may need to mark their position before you dig footings.
- Prior to laying out your carport consider drainage for the structure – check the position of the nearest stormwater drain as you may wish to add guttering to the carport. Your downpipe will need to be connected to the stormwater system by a qualified plumber.
- Lay out your carport using string lines. Check for square by measuring the diagonals (fig 1).
- If house fixed, lay out the positions for posts along the side facing the wall (fig 2). If free standing, lay out the posts on two sides, around 3 metres between posts is a good guide for laying out. For a double carport, you may need an additional post set in the centre of the rear side to support the roof.

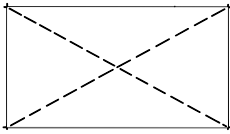


Fig 1 Check for square.

Fig 2 Set site with string lines. Mark post positions.

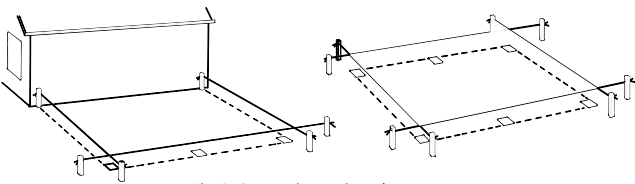
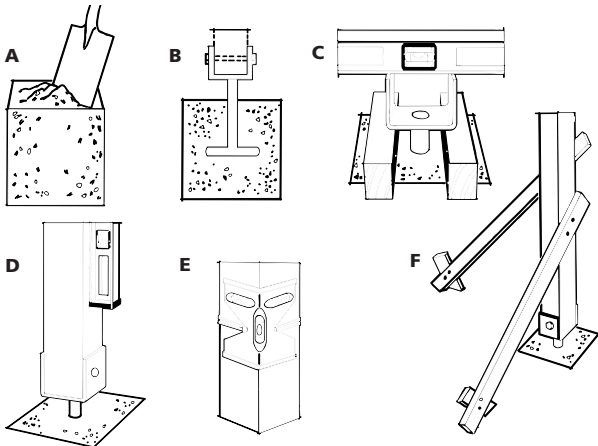


Fig 3 Stages in setting the posts.



### Setting the Posts

- Dig post holes to allow at least a 300mm x 300mm x 300mm concrete pad to be poured for the post stirrup bracket (fig 3A). For free standing carports, 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 concrete into the hole and set a stirrup bracket in the centre of the pad allowing around 75mm clearance between the ground and the bottom of the post (fig 3B).
- Support the bracket with scrap timber laid across the top of the hole (Fig 3C), checking that the bracket is correctly positioned using a spirit level.
- Allow the concrete to set for 48 hours. Note: fast set concrete mix is available at your Magnet Mart store, simply add water and pour – sets in 15 mins.
- Position the post in the stirrup bracket, checking that the post is vertical using a spirit level (fig 3D) or a post level (fig 3E). Temporarily brace the post (fig 3F) and drill a hole for the coach bolt to secure it to the bracket.
- With the aid of a string line, trim the posts to the desired height – you can allow for a pitch (slope) in the roof line for water run off at this point (fig 4). This is easiest if you commence with the post located at the highest point of the carport site, matching all other posts to the desired pitch. If your carport is fixed to the house wall, pitch the roof away from the house.
- Prior to fixing the posts in position, cut a rebate in the top of each post to seat the bearers (fig 5). The rebate should measure 250mm x 50mm as shown in the diagram.

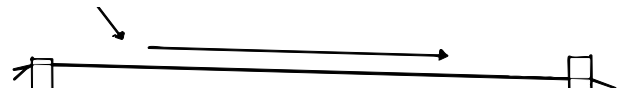
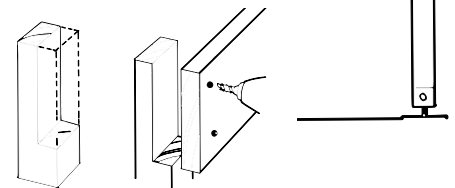


Fig 4 Set the roof pitch with a string line.

Fig 5 Cut rebate in post for bearers.



## Fixing Bearers & Rafters

- Measure and cut the bearers to length, drill for bolt fixing to the post rebates (fig 5). Use two galvanised 115mm coach bolts for each post.
- For a house fixed carport, fix a bearer to the house at the appropriate height. Use dynabolts to fix the bearer to a masonry wall and coach screws for a timber wall (fig 6).
- Measure and cut the rafters to length.
- At this point, you may wish to paint all the posts, bearers and rafters prior to final fitting, alternatively, you can leave painting until the carport is completed. A wide range of timber finishes is available at Magnet Mart to protect your carport, come on in and talk to one of our helpful staff about your needs.
- Use joist hangers to fix the rafters to bearers (fig 7). Commencing at one end of the bearer, fix joist hangers at 900mm centres so that rafters are flush with the top of the bearer. Fix rafters to the hangers using galvanised nails.

Fig 6 Fix bearer to wall with dynabolts and the other bearer to posts (house fixed).

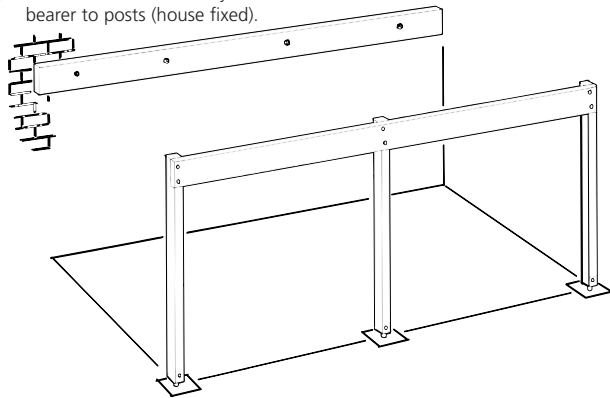
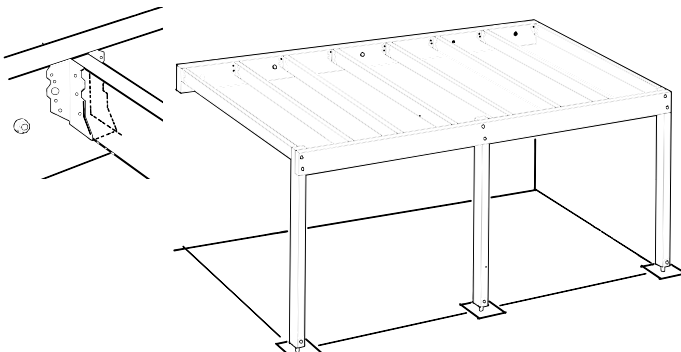


Fig 7 Fix rafters to bearers with joist hangers and galvanised nails.



## Fixing the Roof

- A variety of sheet roofing material is available from Magnet Mart, discuss your needs with our staff prior to making your final decision on what to use on your carport.
- Fix roofing material to the rafters using roofing screws fitted with rubber washers (fig 8). Start at the bottom of the roof pitch (slope), allowing approximately 50mm overhang for water run off. Screw-fix the sheet through every second or third corrugation, drilling through the 'hill', not the 'valley' (fig 8) – be careful not to overtighten the screws. Overlap the sheets by at least one corrugation.

## Finishing Off the Carport

- Fascias give a neat finish to the carport. Cut fascia boards to the required length, mitred corners give a professional finish (fig 9). Nail fix to rafter ends.
- Decorative elements can be added to your carport using treated pine lattice (fig 10).

Fig 8 Fix roofing material to the rafters using roofing screws.

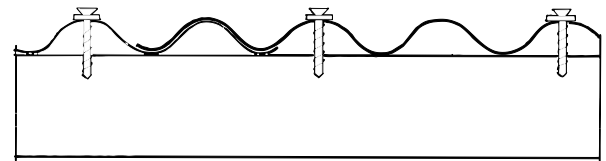


Fig 9 Mitred corners give the fascia a professional finish.

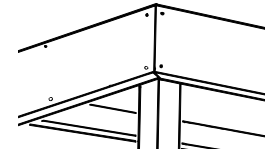
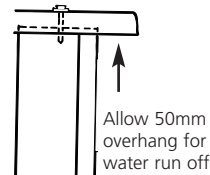
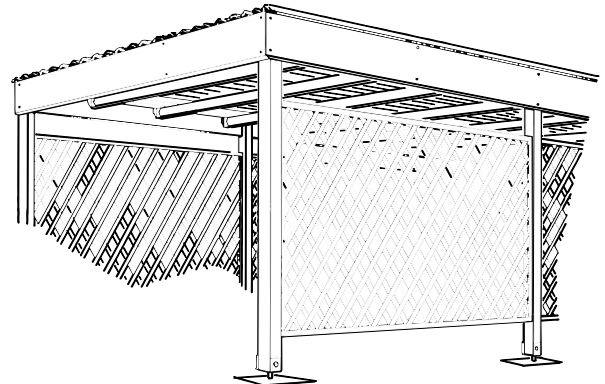


Fig 10 Decorate with pine lattice.



## Fixing Guttering & Downpipes

- PVC guttering and downpipes are simple to work with and provide a long lasting solution for projects like the carport (fig 11).
- Fix the guttering along the outside of the bearers, just below the roofline (fig 12), allowing for a fall (slope) of around 15mm along the length of guttering towards the downpipe.
- Fit the downpipe according to the manufacturer's instructions and arrange with a qualified plumber to connect the pipe to your stormwater drains.
- As an alternative, you could connect the downpipe to a rainwater tank right next to your carport. Modern plastic tanks come complete with internal water filters and can provide a free source of fresh rainwater for you and your garden. Your local Magnet Mart store can assist you with our special order system if you have an interest in rain water tanks.

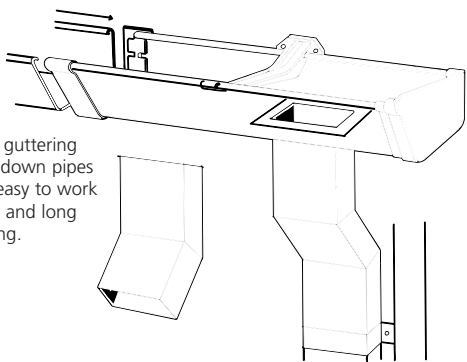


Fig 11 PVC guttering and down pipes are easy to work with and long lasting.

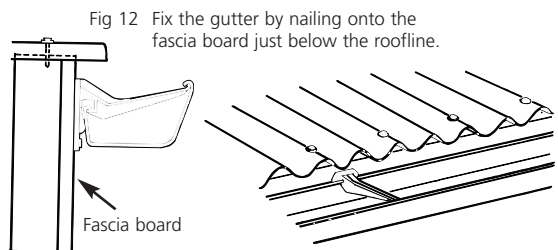


Fig 12 Fix the gutter by nailing onto the fascia board just below the roofline.

## Project Cost Estimator

| Materials Description                                      | Quantity | Cost |
|--|----------|------|
| Post Stirrup   |          |      |
| Posts  |          |      |
| Bearers  |          |      |
| Rafters  |          |      |
| Fascias  |          |      |
| Concrete Mix   |          |      |
| Bolts  |          |      |
| Nails  |          |      |
| Joist hangers  |          |      |
| PVC Guttering Channel<br>(plus channel joints as required) |          |      |
| PVC Gutter Brackets  |          |      |
| PVC Downpipe (incl. bends as required)                     |          |      |
| PVC Channel ends   |          |      |
| Sheet Roofing Material                                     |          |      |
| Roofing Screws & Washers                                   |          |      |
| Timber Finish  |          |      |
| <b>Total</b>   |          |      |

All these materials you need for this job are available at Magnet Mart, your home improvement warehouse.