

TRADITIONAL GABLE FREESTANDING CARPORT

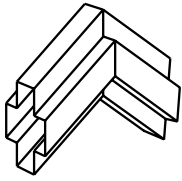
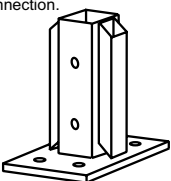
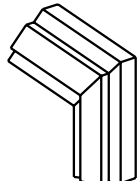
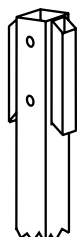
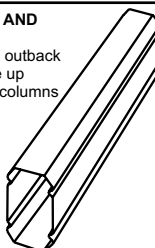
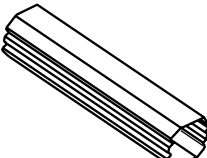
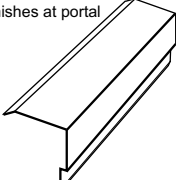
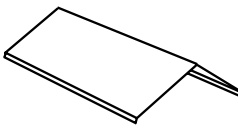
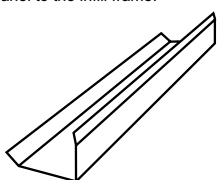
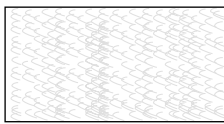
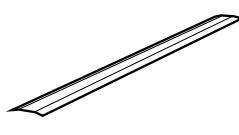
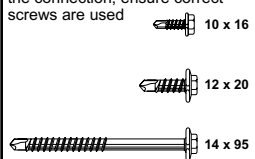
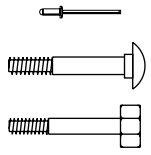
STRATCO OUTBACK® ASSEMBLY INSTRUCTIONS.

Your complete guide to building a FREESTANDING Outback TRADITIONAL GABLE CARPORT

BEFORE YOU START

Carefully read these instructions. If you do not have all the necessary tools or information, contact Stratco for advice. Before starting lay out all components and check them against the delivery docket. The parts description identifies each key part, and the component location diagrams indicates their fastening position.

PARTS DESCRIPTION

<p>RIDGE KNUCKLE Slots inside the gable rafters to form connection at the ridge</p> 	<p>FOOTING PLATE Slots inside column to form on concrete footing connection.</p> 	<p>EAVES KNUCKLE Slots inside gable rafter and column to form connection at eaves.</p> 	<p>FOOTING KNUCKLE Slots inside column to form an in ground footing connection</p> 	<p>COLUMNS AND RAFTERS Pre cut 120 outback beam make up rafters and columns</p> 
<p>PURLINS Purlins provide support for cladding</p> 	<p>BARGE CAP The barge cap covers the area where the deck finishes at portal frame</p> 	<p>RIDGE CAP This flashing covers the roof sheets at the gable ridge.</p> 	<p>HEADER FLASHING This flashing attaches the infill panel to the infill frame.</p> 	<p>INFILL PANELS Sufficient number of sheets are provided, from which the required infill panels can be cut.</p> 
<p>PANEL STRIPS Panel strips attach to the infill panel where applicable</p> 	<p>HEX HEAD SELF DRILLING SCREWS Screw types vary depending upon the connection, ensure correct screws are used</p> 	<p>BOLTS AND RIVETS Bolt types vary depending upon the connection, ensure the correct fixings are used</p> 		

ADDITIONAL MATERIALS

These items are available at request, they are not included in the basic kit price. (They must be purchased as extra items, and their quantities specified)

On concrete footing plate, in lieu of Footing knuckle
Chemical anchors for on concrete footings
Finial
Panel Strips

STRATCO
OUTBACK®
VERANDAHS · PATIOS
CARPORTS · PERGOLAS

COMPONENT LAYOUT

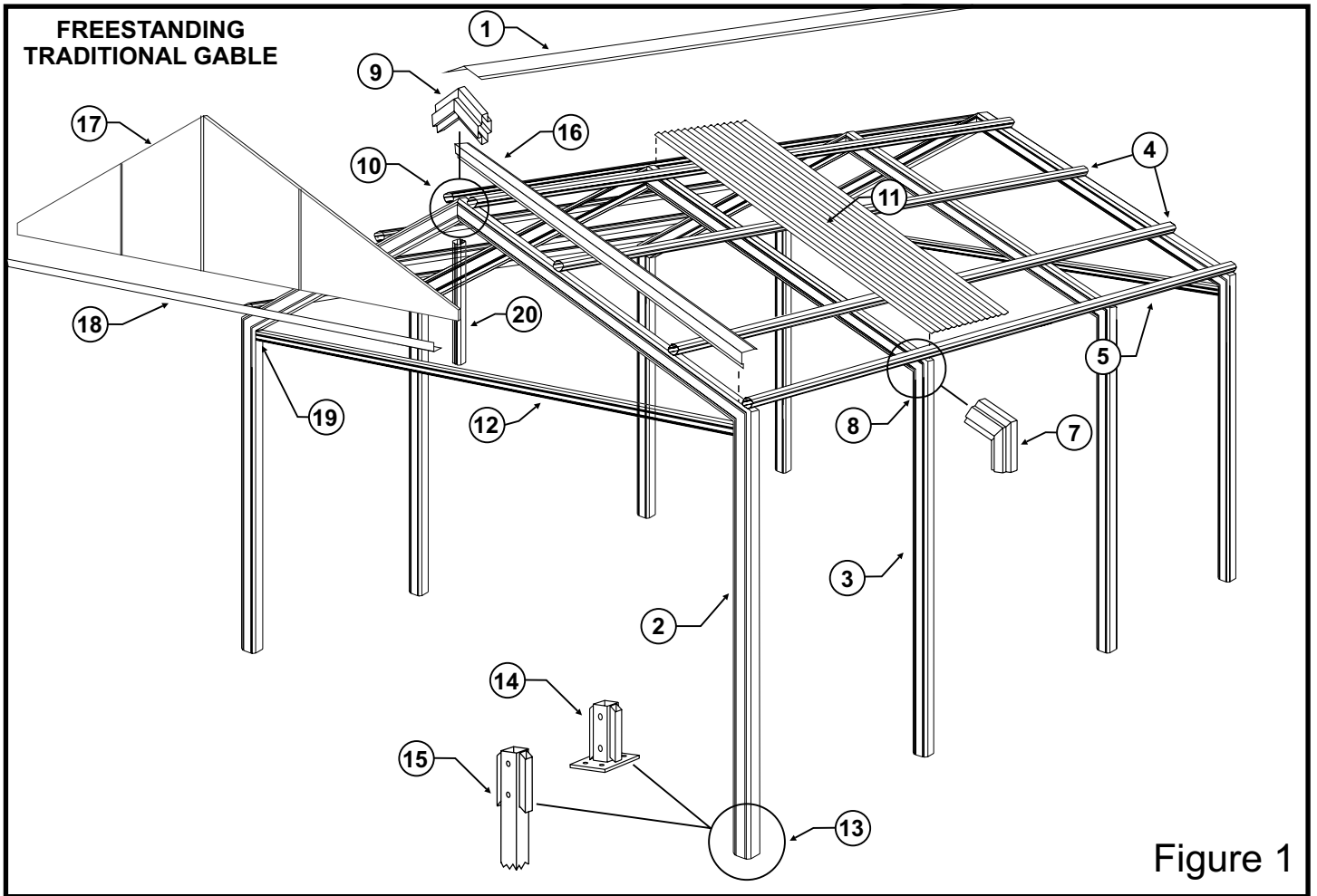
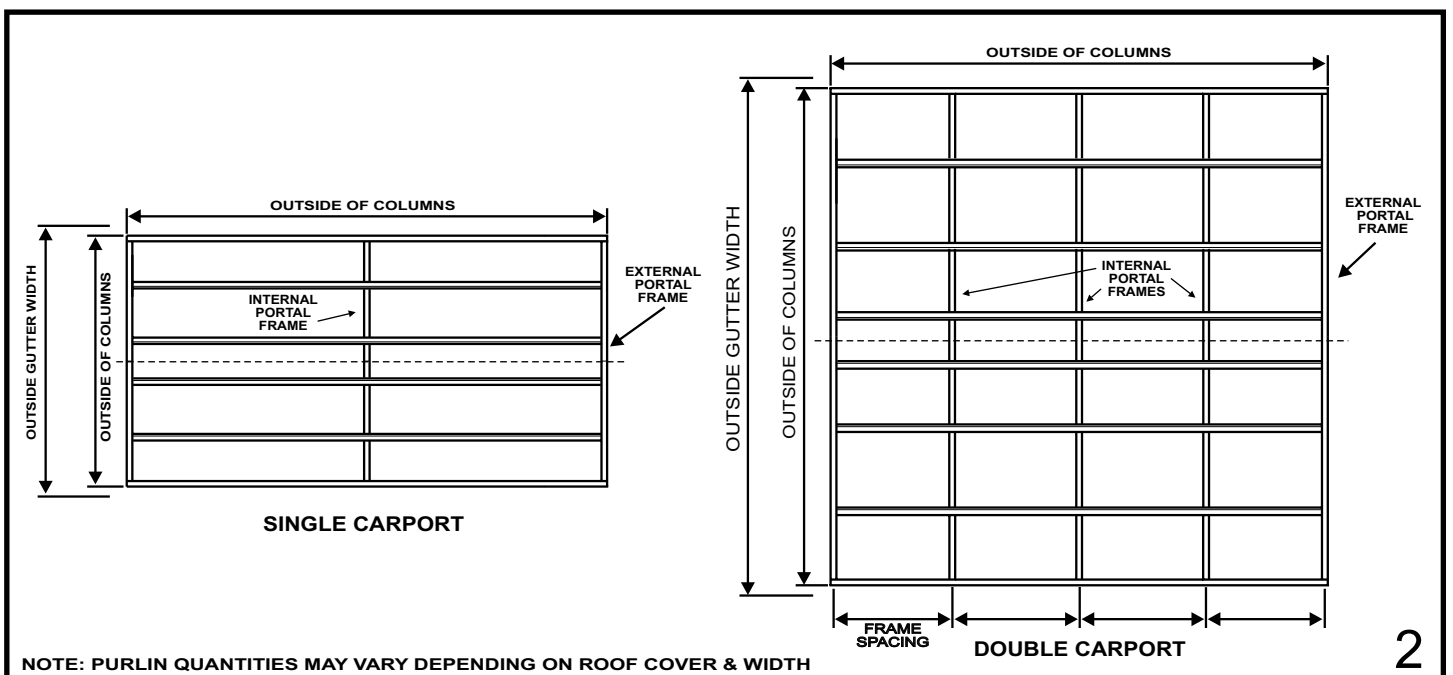


Figure 1

- | | | | |
|-------------------------|---|----------------------|-----------------------------|
| ① Ridge Cap | ⑦ Eaves Knuckle | ⑬ Footing Connection | ⑱ Header Flashing |
| ② External Portal Frame | ⑧ Eaves Connection | ⑭ Footing Plate | ⑲ 68mm beam to wall bracket |
| ③ Internal Portal Frame | ⑨ Ridge Knuckle | OR | ⑳ End Strut |
| ④ Purlins | ⑩ Ridge Connection | ⑮ Footing Knuckle | |
| ⑤ Eaves Purlin | ⑪ Roof Cladding | ⑯ Barge Cap | |
| ⑥ Cladding | ⑫ Header Beam
(forms part of infill frame) | ⑰ Infill Panel | |

TRADITIONAL GABLE PLAN VIEW



CONSTRUCTION

MARKING OUT CARPORT POSITION

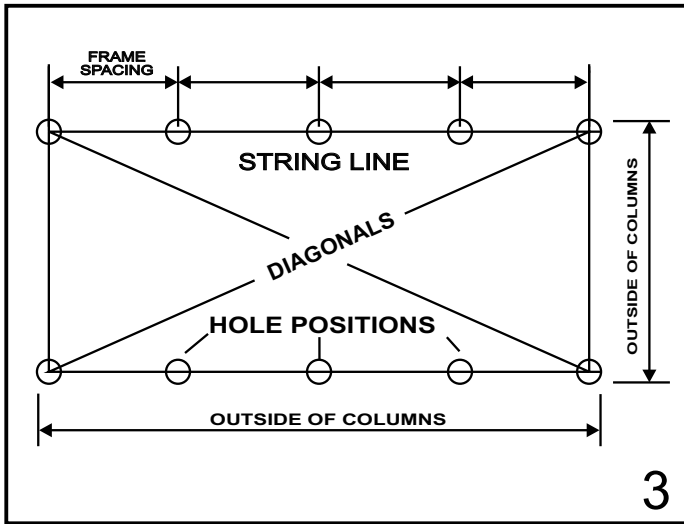
A) IN GROUND FOOTING

Place stakes at the carport column locations, as shown in figure 2 using the appropriate footing centre-line width W and the footing centre-line length L from the drawings supplied.

Internal portal frames are spaced evenly along the length as shown in figure 3. Refer to the drawings supplied for these dimensions.

Note: These column locations are critical, as the roof sheet lengths are governed by these dimensions.

Therefore ensure the frame centres and the width of the carport are exactly as specified in the drawings.



Tie string lines between the stakes to ensure the footings are in line. Check the dimensions and diagonals for squareness.

Dig holes to the required size as stipulated by your Council Application Form. Place bricks in the bottom of the holes to give a solid base onto which the footing knuckles can be positioned.

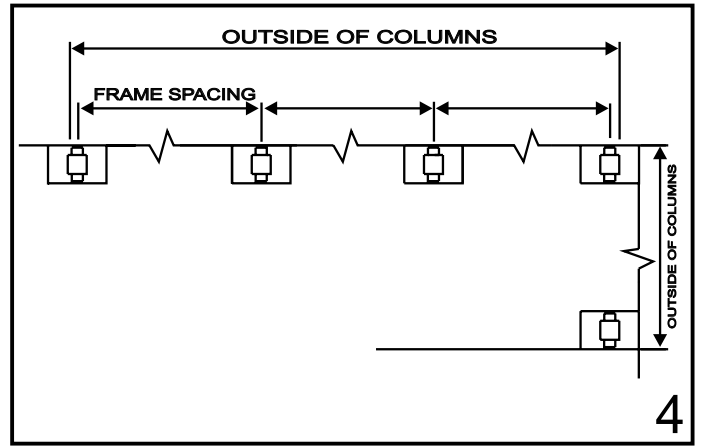
B) ON CONCRETE FOOTING

If bolting columns onto existing concrete slab check to ensure concrete dimensions are as specified by your Council. Stratco does not take any responsibility for concrete failure.

Mark the position of the columns as shown in Figure 4, using the appropriate "footing plate outside edge width" W , from the drawings supplied.

Internal portal frames are spaced evenly along the length as shown in figure 4. Refer to the drawings supplied for these dimensions.

Note: These column locations are critical, as the roof sheet lengths are governed by these dimensions. Therefore ensure the frame centres and the width of the carport are exactly as specified in the drawings.



Check the dimensions and diagonals for squareness.

Place the outside edges of the footing plate inside the marks. The orientation of the base plate is such that the smaller dimension runs along the width as shown in Figure 4.

Mark the position of the holes through the existing holes in the base plate. Remove the base plate and drill into concrete using the values given in Table 1.

NOTE: Do not drill completely through slab, as chemical anchors require a solid base to bear against.

Use chemical anchors (for size refer to Table 1) together with the appropriate anchor capsules and install according to the manufacturers recommendations.

Leave the Stud Bolt undisturbed for the minimum time specified by the manufacturer for the resin to cure. Curing times are dependent on the concrete temperature at the time of installation.

Note: Footing plates are not fixed until portal frames have been assembled.

CARPORT	CHEMICAL ANCHOR SIZE (mm)	HOLE DIAMETER (mm)	HOLE DEPTH (mm)
CARPORTS < 5000mm WIDE IN W41 WIND SPEED	M10x130	12	95
CARPORTS 5000mm WIDE IN W41 WIND SPEED	M12x160	14	115

TABLE 1

ASSEMBLE PORTAL FRAMES

Place the three knuckle connections inside portal frame members, using a hammer to tap in position (a block of timber should be used whenever hammering to avoid damaging paintwork).

Important note: Knuckles are colour coded as follows, ensure that the correct knuckle is used for each connection.

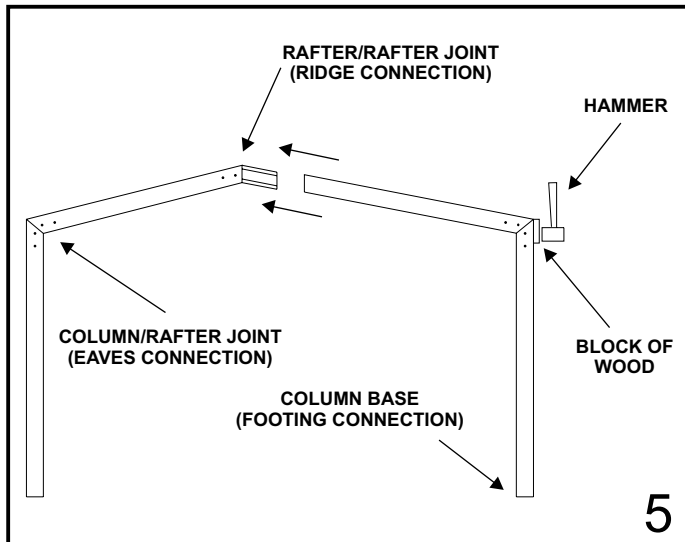
22° Ridge Knuckle - Green

22° Eaves Knuckle - Red

30° Eaves and Ridge Knuckle - Yellow

Join all frame members; first insert eaves knuckle into column to rafter joint, next the footing knuckle/base plate into the column base, and then finally the ridge knuckle into the two halves of the frame at the ridge (refer to figure 5 for knuckle locations).

Use a hammer at the eaves knuckle to join the two sides together as shown in Figure 5. If knuckles are difficult to insert apply a lubricant or grease.



EAVES AND RIDGE CONNECTION

Screw together eaves and ridge connections, using two 12 x 20 hex head self drilling screws both sides of each member and two 12 x 20 hex head self drilling screws through the top (double flange side) of each member. Pilot holes indicate screw locations as shown in figures 6 and 7.

Make sure that the two ends are flush at the connection, leaving no gaps.

Note: Allow sufficient room for the eaves purlin to be fixed onto the rafter at the eaves connection (Figure 7 and 11).

FOOTING CONNECTION

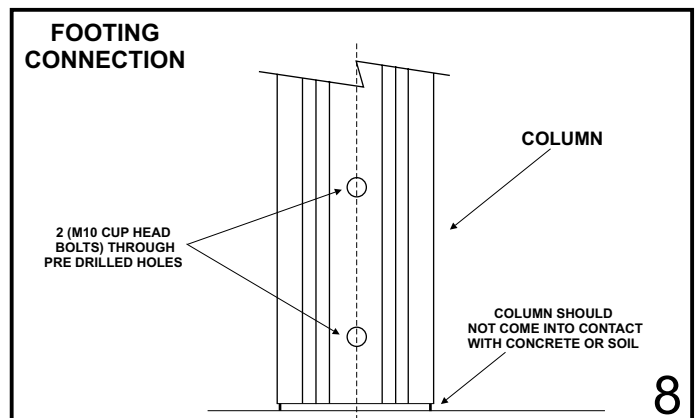
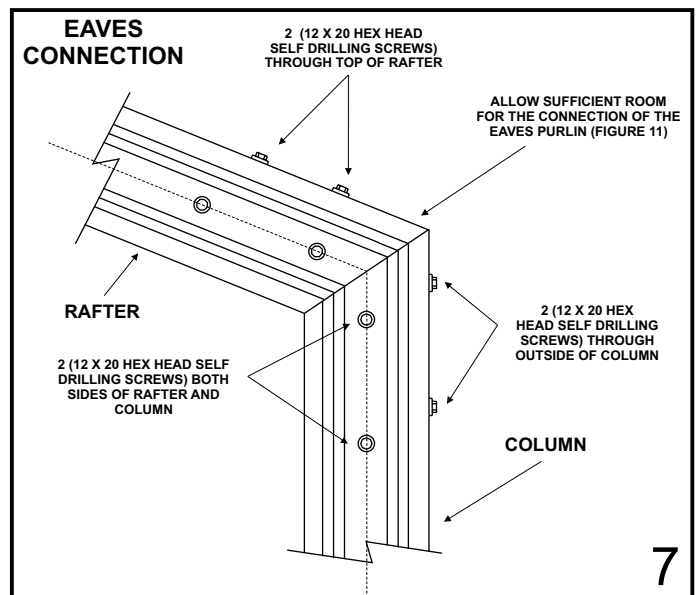
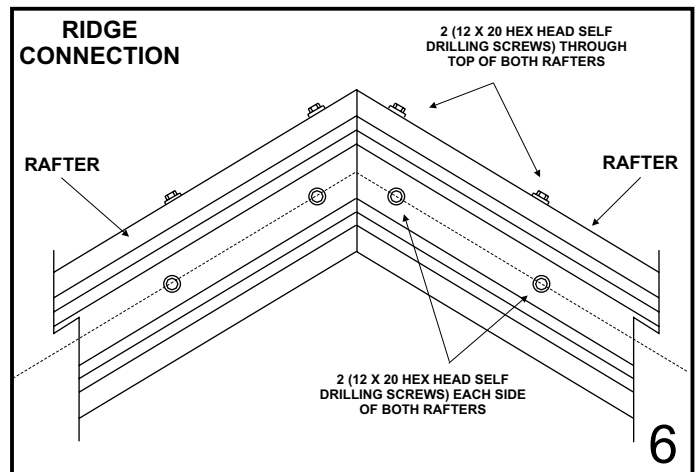
For all footing connections, bolt together through pre drilled holes using M10 cup head bolts as shown in figure 8. Ensure that the bolt heads are all on the same side of the frame.

INFILL FRAME

If a gable infill frame is required, refer to the drawings supplied to determine the size of the header beam specified (68mm or 120mm)

A 68mm or 120mm Beam to wall bracket is used to attach each end of the header beam to the inside of the external portal column. Fasten with two 10 x 16 hex head self drilling screws each side. Attach an end strut between the header beam and frame ridge using an end strut plate and header beam bracket.

Mark the purlin centres on the top of the portal frames.

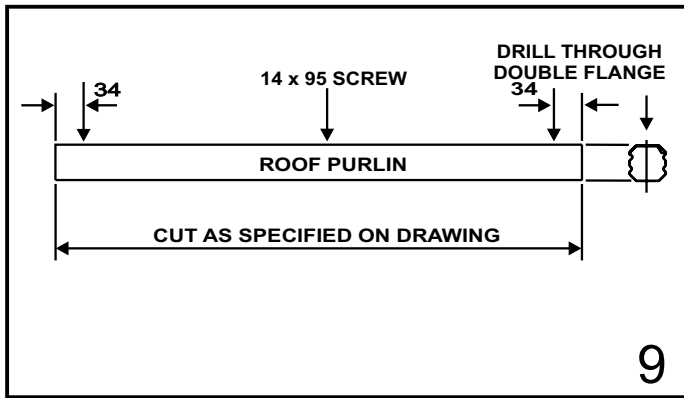


PRE-DRILL PURLINS

Note: All purlins are supplied to suit the individual Heritage designs, It is important you refer to your plan and check purlin lengths before cutting.

For extra long carports where you need to join two purlins, make sure they are joined over a portal frame and that the top lap faces the same way for both purlins to achieve a neat joint.

Cut the eaves purlins to correct length and pre drill as shown in Figure 9.



ERECT EXTERNAL PORTAL FRAMES

A) IN GROUND FOOTING

Stand the external portal frame in the appropriate footing location and temporarily brace in position with clamps and struts (see Figure 10).

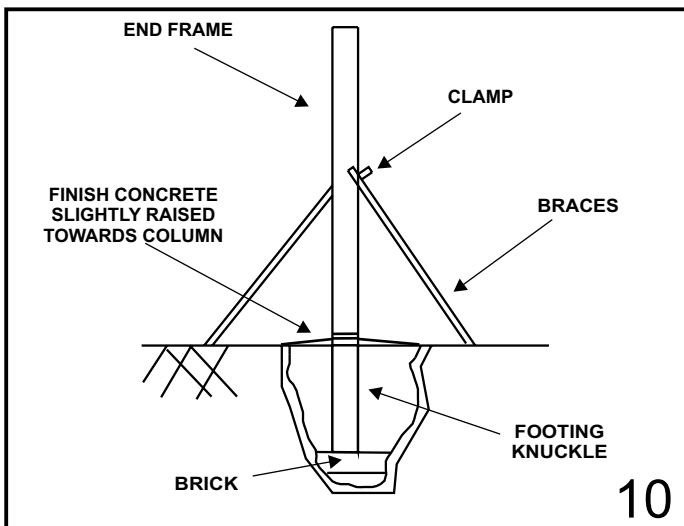
Check column base is at the ground surface, and the clear opening between columns is correct. Finally and most importantly check that the columns are vertical.

Position the other external portal frame and fasten portal frames together using eaves purlins attached to the top of each end portal frame as in Figure 11. Ensure the ends of the purlins are flush with the outside faces of the external portal frames and the diagonal distances between the frames are equal.

Concrete the footings and leave overnight to cure.

Note: The concrete should be finished slightly raised towards the column, ensuring water runs away from the column, see Figure 10.

Important Note: If concrete or soil is in permanent contact with the colorbond columns, corrosion will result in the base of the coloured column. Refer to the "Selection, Use and Maintenance of Stratco Steel Products" brochure for complete details of maintenance requirements.



B) ON CONCRETE FOOTING

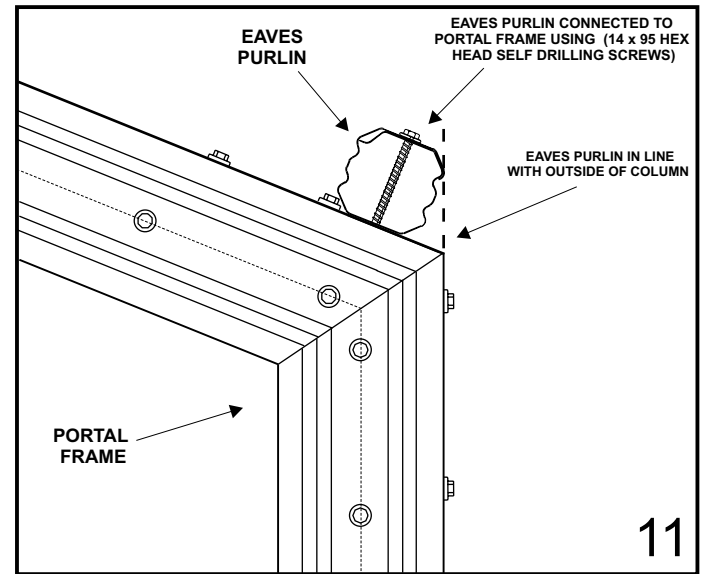
Select the external portal frames. Place the footing plates in position and bolt securely.

ERECT INTERNAL PORTAL FRAME(S)

Now stand the internal portal frame(s) in position, so that the eaves purlins rest on the top of the portal frame rafters.

Fasten the eaves purlin to the internal portal frame(s) using 14 x 95 hex head self drilling screws (see Figure 11).

Note: Internal portal frames are spaced evenly between the end portal frames (refer to drawings supplied)



CHECK FRAMES

Now that the portal frames are in place, check the dimensions between portals are correct, and all portals are in line and vertical. Most importantly check that the diagonal measurements are equal.

ROOF STRUCTURE

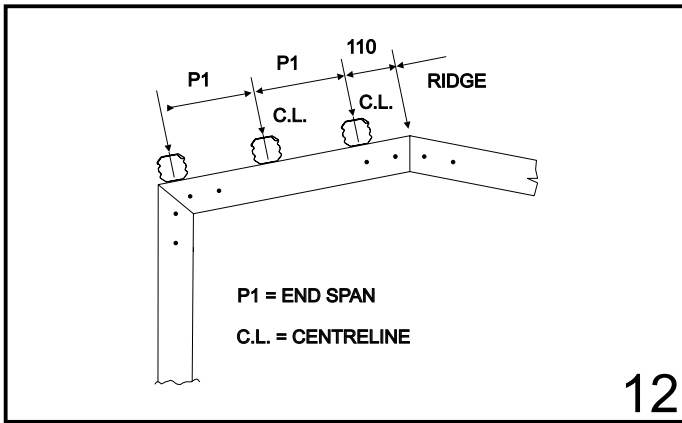
Pre-drill the roof purlins with 14 x 95 hex head self drilling screws at the internal portal locations, through the double flange first. Fasten one of these roof purlins at the ridge as shown in Figure 12. Check roof diagonals to ensure sloping roof area is square.

Single Size Carport

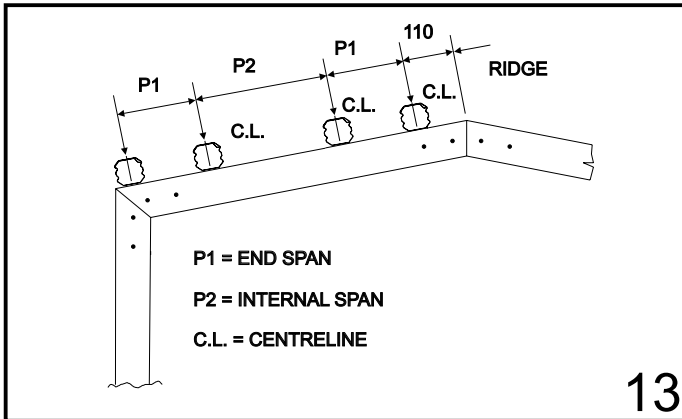
Attach remaining roof purlins as shown in Figure 12 (note: only 3 purlins for single carport, one purlin at eaves, one at ridge and one intermediate). Quantities may vary depending on roof cover and carport width.

Double Size Carport

Fasten the remaining roof purlins at the ridge location and 900 mm further down the rafter on each side. Position a purlin (first roof purlin - see Figure 13) 900 mm up the rafter from the eaves purlin (double flange on top).



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13

CONCRETE REMAINING FOOTINGS (IN CONCRETE FOOTING)

Once the carport frame is complete concrete the remaining footings. Only concrete the galvanised tube footing stumps.

Note: The concrete should be finished slightly raised towards the column, ensuring water runs away from the column, see figure 10.

Important Note: If concrete or soil is in permanent contact with the colorbond columns, corrosion will result in the base of the coloured column. Refer to the "Selection, Use and Maintenance of Stratco Steel Products" brochure for complete details of maintenance requirements.

GUTTER ASSEMBLY

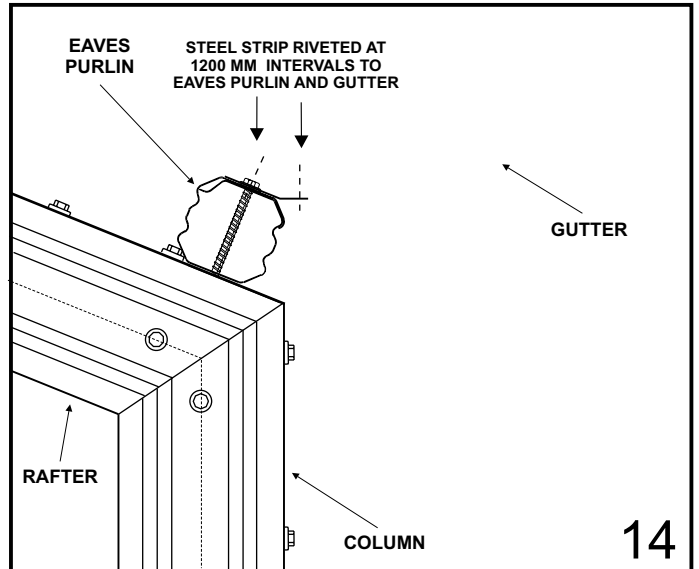
(a) Measure and cut gutters to the appropriate length (ie back length of gutter should equal outside frame dimensions + 30 mm). Rivet and silicone seal.

(b) Notch hole in gutter and insert downpipe pop so that downpipe is in line with a portal column.

Note: If your column footings are in ground you would have installed your portal frames with a slight fall towards downpipe end. Ensure that the gutter is notched at the right end.

However if you are bolting the footings on to existing concrete slab, and there is a slight fall in the slab ensure that the downpipe is at the lower end of the slab to help the water run off). Fasten the pop in place using rivets and silicone seal.

(c) Cut 70 mm long metal strips from band supplied. Pop rivet these tags to the top of the eaves purlins and end frame rafters at 1200 mm centres. Rivet the back lip of the gutter to these tags, ensuring the back face of the gutter is held vertical as shown in Figure 14. Rivet and silicone seal.



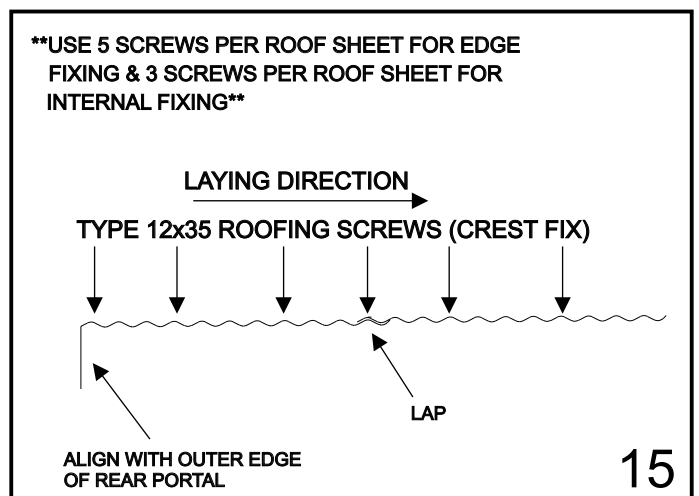
14

ROOF SHEETING

Begin sheeting at one end of the carport roof with the CGI sheets, allowing for a 40 mm overhang at the eaves into the gutter. Always have the lap joint facing away from the prevailing wind direction on all carport roof faces. (See Figure 15)

Crest fix CGI sheeting with 12 x 35 Roofing Screws using 5 per sheet for end spans and 3 per sheet for internal spans.

Attach the gutter straps at 1200 mm centres by crest-fixing to roof sheets with 10 x 16 Screws. Construct two 85 mm downpipe offsets from the downpipe lengths supplied and attach to pops with rivets. Fasten the downpipes and straps to the adjoining column.



15

FIX FLASHINGS AND INFILL PANEL

a) Once all the decking is on, attach the barge cap by riveting the lower lip to the rafter and screw the top section to the purlin through the deck. Mitre the barge at the apex of the gable and finish neatly where it meets the gutter.

b) The ridge should finish flush with the end of the carport, overlapping the front and rear barge capping to provide a weather proof seal.

c) Attach the header flashing to the under side of the infill frame. Cut triangular gable infill panels from the rectangular sheets provided, to fit the gable frames located at each end. Paint the panels to the desired colour before installing. Rest the panels between the infill frame and header flashing and fasten to the infill frame through the flashing and infill panels. Fasten to adjoining rafters through the top groove using 12 x 35 roofing screws spaced at 1000 mm centres.

d) Fix decorative strips to gable infill panel if ordered

e) Gable Spires (Finials): If decorative gable spires are desired, nail the spire bracket to the back of the wooden spire, and rivet in position at the top of the ridge.

HELPFUL TIPS

Leave plastic coating on members until they are about to be fastened to the structure. This will help prevent scratching of the colorbond finish.

Sweep the roof and clean gutters after the completion of work. Ensure any swarf and rivet stubs are removed as they can cause unsightly rust stains.

Leave bracing struts in position until structure is complete and concreted in. This stabilises the structure and holds it square during construction.

Double check all measurements and drilling locations before proceeding.

Regularly check framework for squareness and vertical alignment to make sure it hasn't moved during construction.

MAINTENANCE

Regular washing or hosing of the inside and outside of your Stratco Heritage Outback will ensure it looks its best at all times. Refer to the "Selection, Use and Maintenance of Stratco Steel Products" brochure for complete details of maintenance requirements.



SOUTH AUSTRALIA

GEPPS CROSS Telephone (08) 8349 5555

125 Cavan Road, GEPPS CROSS

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