

INSTALLATION MANUAL

CF SHAKE & CF SHINGLE ON PLY





This installation guide outlines the recommended installation method for Gerard's CF Shake and CF Shingle product ranges. While this guide covers the majority of commonly referred-to roof details, it does not cover all areas of each individual roof. If uncertain of any roof detail, please contact us.

Please note that local building codes may have additional requirements not outlined in this document and will supersede these installation recommendations.

To get the best performance from your roof we recommend referring to our Roof Maintenance Guide and Gerard Warranty documents.



W: www.gerardroofs.co.nz

E: customerservice@gerardroofs.co.nz

P: 0800 100 244



TABLE OF CONTENTS

DETAIL		PAGE	DETAIL		PAGE
Product	Information	04	Area Spec	cific Details	29
	Product Specification	05		Ridges	30
	Accessory Overview	06		Ventilated Ridges	32
	Fastener Details	08		Hips	34
	Recommended Tools	10		Trims	36
Builder'	s Scope	11		Valleys	37
	Plywood Guidelines	12		Barges	39
	Plywood Framing Detail	13	Wall Jund	etions	42
	Plywood Installation	14		Side Walls	43
	Barge Board Detail	15		Head Walls	45
	Eaves Detail	16	Roof Pene	etrations	47
	Head Wall Detail	17		Chimney Penetrations	48
	Ridge Gap Detail	18		Dektite Penetrations	51
	Valley Board Detail	19	Other Det	ails	52
	Chimney Framework Detail	20		Change of Pitch	53
	Skylight Framework Detail	21			
Eaves Ir	nstallation	22			
	Eaves	23			
Panel Installation		25			
	Panel Installation	26			
	Common Cut Guide	27			
	Short Course Installation	28			



INSTALLATION MANUAL

CF SHAKE & CF SHINGLE ON PLY





PRODUCT SPECIFICATION

CF SHINGLE



Overall Length	Cover Length	Width	Cover Width	Panels/sqm	Weight	Minimum Roof pitch
1335mm	1260mm	435mm	370mm	2.15 pcs/sqm	7.5kg/sqm	15°

CF SHAKE



Overall Length	Cover Length	Width	Cover Width	Panels/sqm	Weight	Minimum Roof pitch
1335mm	1260mm	424mm	370mm	2.15 pcs/sqm	7.5kg/sqm	15°

FASTENING REQUIREMENTS

Tile fastenings in Wind Zone up to and including High	8 nails/panel or 5 screws/panel	25mm x 3.05mm coil nails, ring galvanised or #10 1-1/2 inch screws
Tile fastenings in Wind Zone up to and including Extra High	10 nails/panel or 5 screws/panel	25mm x 3.05mm coil nails, ring galvanised or #10 1-1/2 inch screws

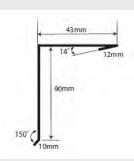


ACCESSORY OVERVIEW

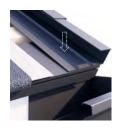
903 CF SHAKE/SHINGLE BARGE COVER



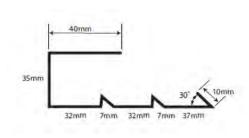




905 CF SHAKE/SHINGLE BARGE CHANNEL



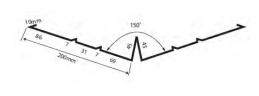




906 CF SHAKE/SHINGLE VALLEY



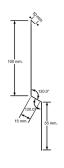




104 SIDE FLASHING







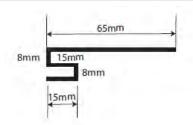


ACCESSORY OVERVIEW

901 CF SHORT COURSE



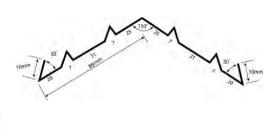




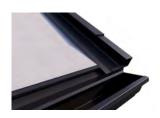
904 CF HIP UNDER CHANNEL



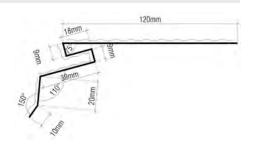




925 CF OVERLAY STARTER FLASHING



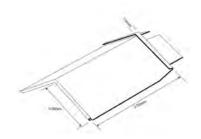




400 CF SHINGLE/SLATE ANGLE TRIM



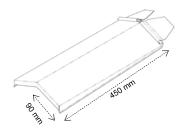




914 CF SHAKE ANGLE TRIM









FASTENER DETAILS

903 CF SHAKE/SHINGLE BARGE COVER





#10x1 1/2 " screws 50mm 8D ringshank nails 3x (1 at each lap, 1 in the middle)

905 CF SHAKE/SHINGLE BARGE CHANNEL





#10x1 1/2 " screws with washers 8D ring-shank sealsure nails 6x @300mm centres

906 CF SHAKE/SHINGLE VALLEY





Valley is held in place with clip or nail bent over the top of the valley

104 SIDE FLASHING





#10x1 1/2 " screws 50mm 8D ring–shank nails 4x @ 500mm centres



FASTENER DETAILS

901 CF SHORT COURSE





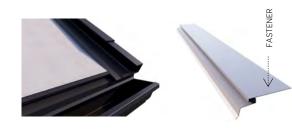
#10x1 1/2 " screws 50mm 8D ringshank nails 6x @ 300mm centres

904 CF HIP UNDER CHANNEL



#10x1 1/2 " screws with washers 8D ring-shank sealsure nails 6x @300mm centres

913 CF SHAKE/SHINGLE EAVES FLASHING



#10x1 1/2 " screws 50mm 8D ring-shank nails 8x @300mm centres

400 CF SHINGLE/SLATE ANGLE TRIM





#10x1 1/2 " screws 2x (1 in each tab)
50mm 8D ring-shank
nails

914 CF SHAKE ANGLE TRIM





#10x1 1/2 " screws 2x (1 in each tab)
50mm 8D ringshank nails



RECOMMENDED TOOLS



Tape Measure



Silicone Gun



Nail Gun



Hammer



Impact Driver or Drill



Soapstone



Snips



Bender



Handbender



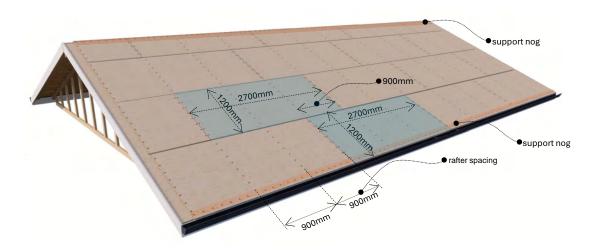
Guillotine







PLYWOOD GUIDELINES



This set of guidelines and requirements is related to the installation of structural grade plywood for roofing purposes.

Thickness and Fastening The structural grade plywood used for roofing must be at least 15mm

thick. It should be fastened to the rafters using 65mm ring shank nails

placed at 150mm intervals along the plywood.

Flush Installation The plywood must be installed in such a way that it sits flush with the

fascia board, ensuring a seamless and even surface.

Plywood 15mm thick, untreated, tongue and groove structural plywood complying

with AS/NZS 2269.

Sheathing Nails The sheathing must be nail fixed using Sheathing Nails (60x2.87 mm flath

ead hot dip galvanized ring shank nails).

Fixings must be positioned no closer than 10mm to the sheet edges. Any

sheet end edges greater than

120mm from framing support must be supported by framing.

Truss Spacing The trusses (rafters) must be spaced at a maximum of 900mm centres

for the plywood to be installed. Depending on the spans and wind zones, closer rafter spacings may be required. These spacing requirements

should be determined by NZS 3604, specifically table 10.1.

Butt Joint Installation When joining plywood sheets end to end, a 2-3mm cap should be applied

over the timber framing to ensure a secure and stable connection.

Plywood Face Grain and

Joint Pattern

The face grain of the plywood sheets must be laid at the right angle to provide adequate support. The sheets must be applied in a staggered brick bond pattern, which helps distribute the loads more evenly.

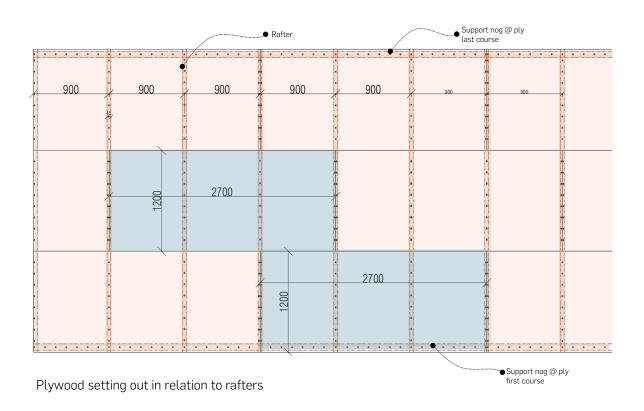
Tongue and Groove Edges When using tongue and groove plywood, the edges should be butt-jointed,

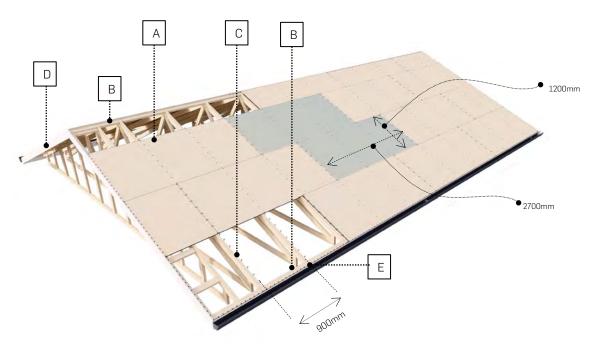
leaving no gaps between the sheet edges. On the other hand, square plywood edges should have a 2-3mm gap between the sheet edges, allowing for expansion and contraction due to environmental changes.

These guidelines are essential to ensure a proper and safe installation of structural grade plywood for roofing. Always follow the manufacturer's recommendations and local building codes when carrying out any construction work.



PLYWOOD FRAMING DETAIL





- A. Structural grade 15mm thick plywood
- B. Support nog for plywood nosing and head/top course
- C. Rafter
- D. Fascia board
- E. Gutter

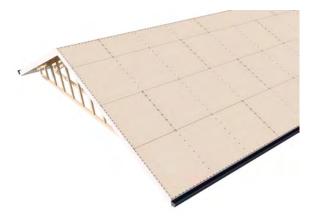


PLYWOOD INSTALLATION

Erect the roof framing complete with fascia board and gutter.



Install 15mm thick structural grade plywood.

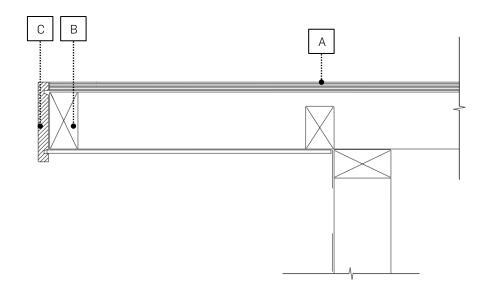




BARGE BOARD DETAIL

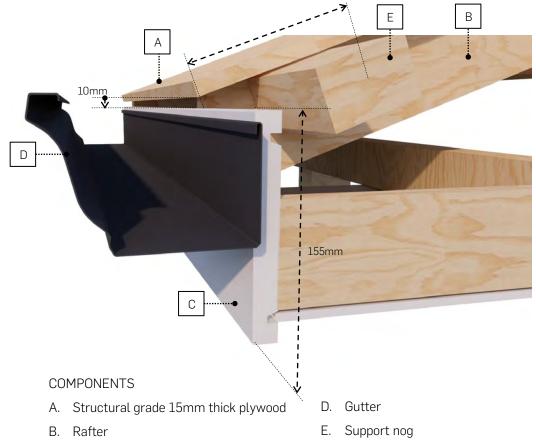


- A. Structural grade 15mm thick plywood
- B. Flying rafter
- C. Fascia board

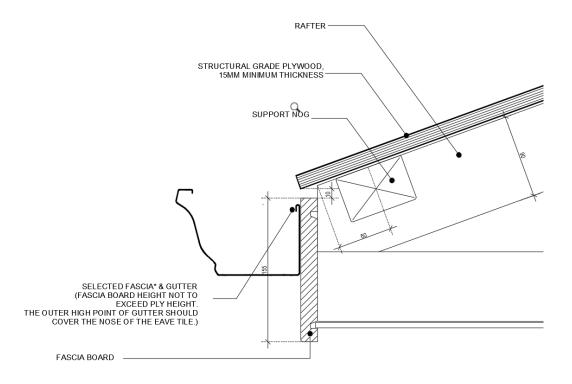




EAVES DETAIL

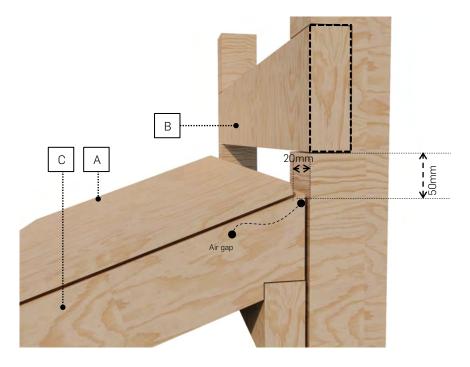


C. Fascia board

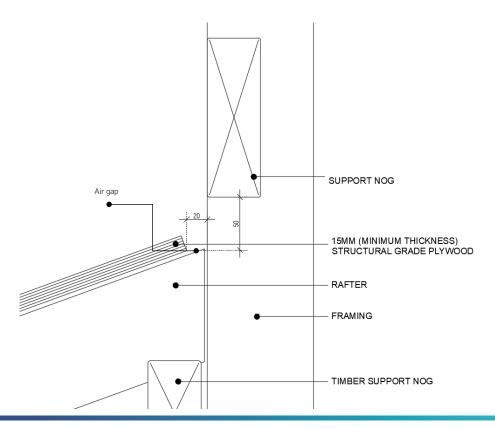




HEAD WALL DETAIL

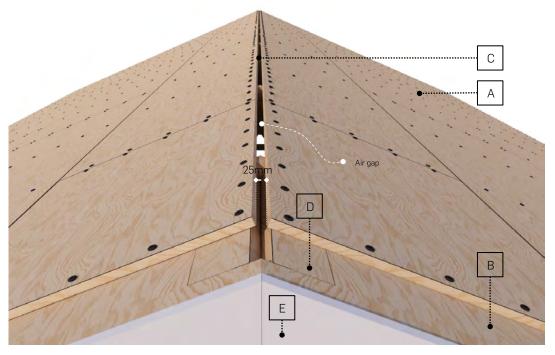


- A. Structural grade 15mm thick plywood
- B. Support nog
- C. Rafter



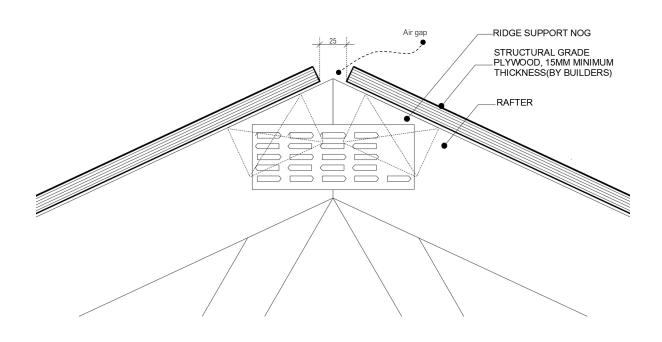


VENTILATED RIDGE DETAIL



- A. Structural grade 15mm thick plywood
- B. Barge channel board/nog
- C. Rafter

- D. Ridge support nog
- E. Fascia board



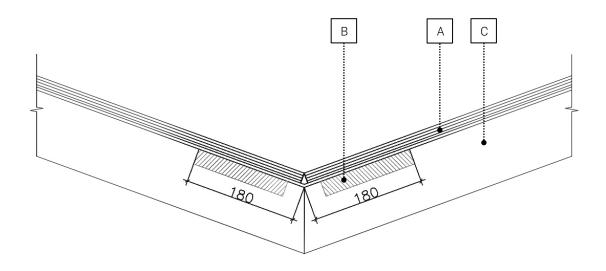


VALLEY BOARD DETAIL



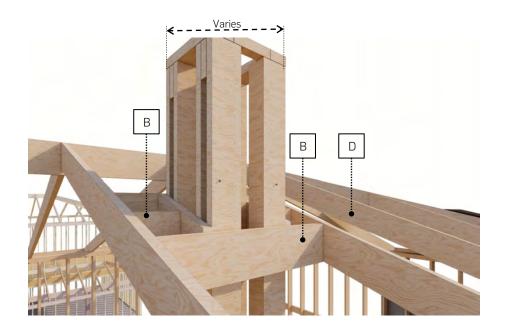
- A. Structural grade 15mm thick plywood
- B. 150x25mm valley board
- C. Rafter

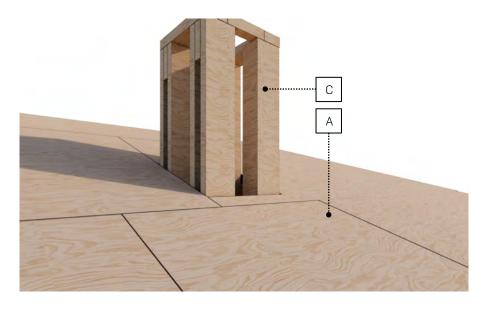
- D. Fascia board
- E. Gutter





CHIMNEY FRAMEWORK DETAIL



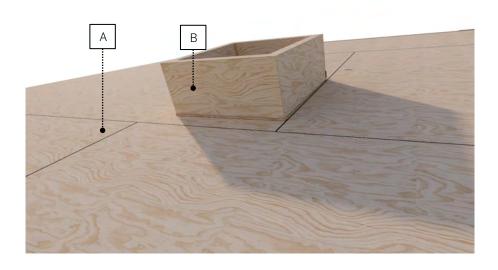


- A. Structural grade 15mm thick plywood
- B. Support nog for chimney (actual design as per architect's detail/specification)
- C. Chimney framing (dimensions and design as per architect's detail/specification)
- D. Rafter



SKYLIGHT FRAMEWORK DETAIL





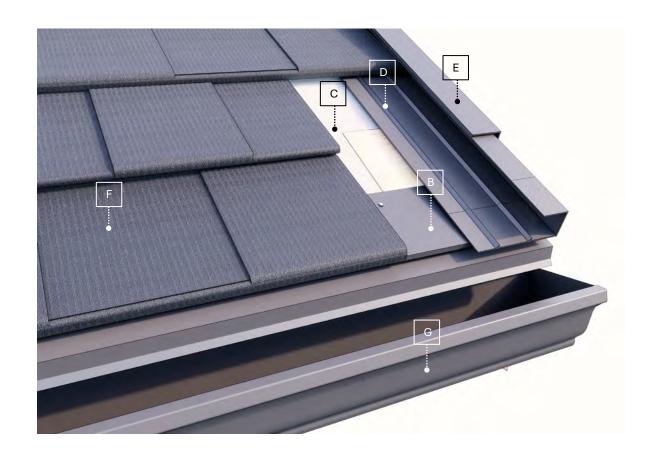
- A. Structural grade 15mm thick plywood
- B. Support nog for skylight (actual design as per architect's detail/specification)
- C. Skylight curb/framing (dimensions and design as per architect's detail/specification)
- D. Rafter

03. EAVES INSTALLATION

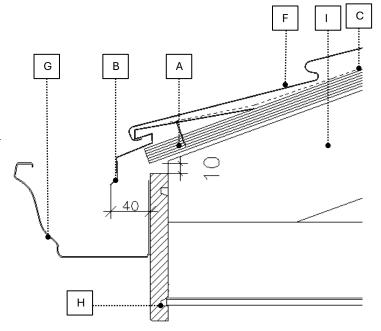




EAVES DETAIL



- A. Structural plywood
- B. 925 CF Overlay Starter Flashing
- C. Underlay
- D. 905 CF Shake/Shingle Barge Channel
- E. 903 CF Shake/Shingle Barge Cover
- F. CF Shingle or CF Shake panel
- G. Gutter
- H. Fascia board
- I. Rafter

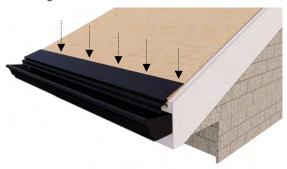




EAVES FLASHING INSTALLATION

SETTING OUT

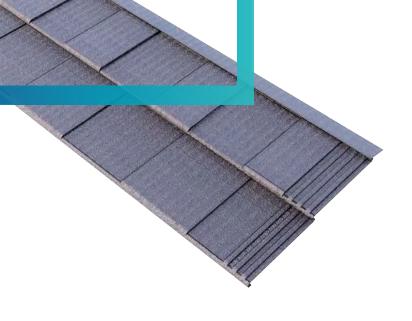
Fix the starter flashing with a minimum 40mm overhang from the fascia into the gutter. Fix with a fastener every 400mm across the starter flashing.



Pinout and fix underlay to the roof, with the overlay on top of the eaves flashing. Underlay should finish 10mm short of the bottom edge of the starter flashing.



04. PANEL INSTALLATION



INSTALLATION MANUAL

CF SHAKE & CF SHINGLE ON PLY

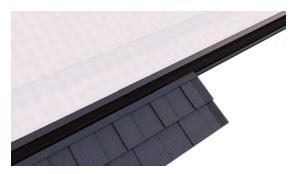




TILE INSTALLATION

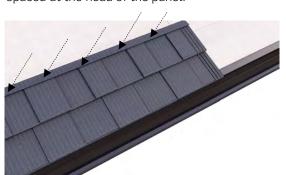
METHOD

Hook the nose of the first panel to the already installed 925 CF Overlay Starter Flashing.





Secure the panel with five fasteners evenly spaced at the head of the panel.



After installing the first panel, use the same method to fit the second panel over the first, overlapping at the weather channel. Push the panel upwards to secure in place, then fix with five fasteners.



After installing the first course, fit the second course by hooking the nose of the second course panel into the rear head check. Stagger the panels to give an irregular pattern across the roof.

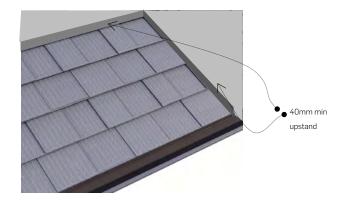
Push the panel upward to ensure full contact along the panel, then secure the panel with five fasteners.

Repeat across and up the plane of the roof.



UPSTAND

Turn up panels a minimum of 40mm at side walls and top course.



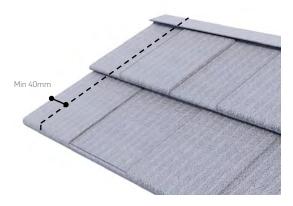


COMMON CUT GUIDE

SIDE BEND

Cutting correctly for side bends is critical as crushing will prevent the next course from being able to interlock into the head of the panel.

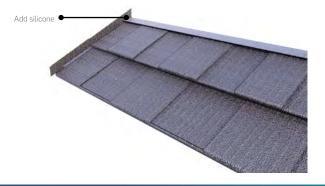
Measure your bend line from the edge of the panel nose and head. There should be a minimum of 40mm from the edge.



Cut the fold of the panel's nose, cutting the underside only, then snip the head fold partway



Then bend the side end of the panel to create a 40mm upstand. When installing the next course, add a bead of silicone to the join.

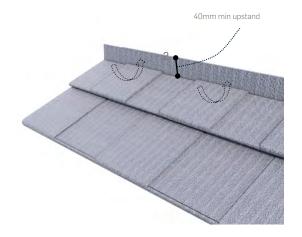


HEAD BEND

Measure your bend line from the nose of the panel up to the head of the panel. Mark out your cut line and your bend line. Your bend line should be a minimum of 40mm from the cut line.



Cut your panel along the cut line. Then bend the head of the panel to create a minimum of 40mm upstand against the wall or support nog.

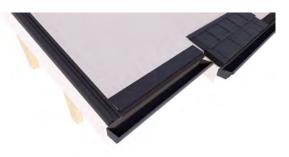




SHORT COURSE INSTALLATION

METHOD

Prepare your roof area by installing underlay, fascia, gutter, barge channel, and starter flashing. Install full roof panels up to the change in roof eaves.



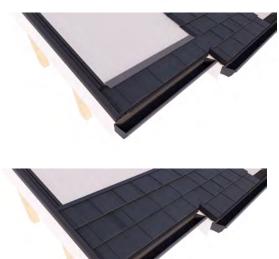
Measure and cut the head off the first course of panels at the short edge of the roof. The head should align with the head of the already- installed panels. Hook the nose over the starter flashing and fasten in place.



Fasten the shortcourse flashing in place, in alignment with the head check of the already-installed panels.

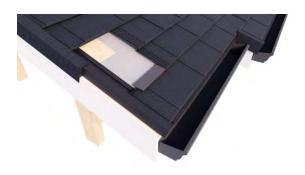


Install the second course of panels.



Install the rest of the panels and then finish with the barge cover and ridge trims.

See below for a cutaway of the shortcourse setup.



05. AREA **SPECIFIC DETAILS**

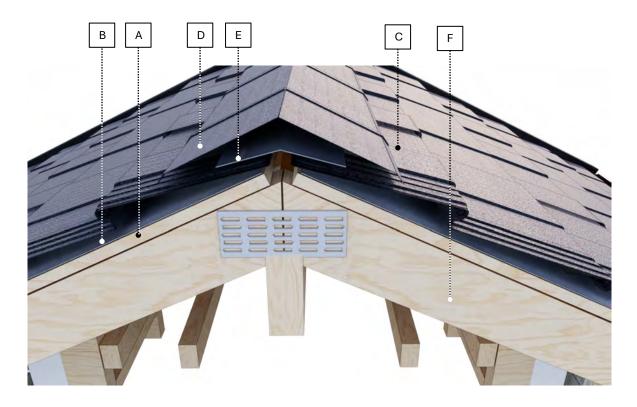
INSTALLATION MANUAL

CF SHAKE & CF SHINGLE ON PLY

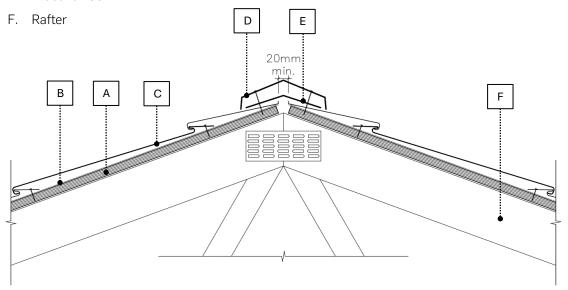




RIDGE DETAIL



- A. Structural plywood
- B. Underlay
- C. CF Shingle or CF Shake panels
- D. 400 CF Shingle Angle Trim or 914 CF Shake Angle Trim
- E. Aluband 150mm





RIDGE INSTALLATION

SETTING OUT

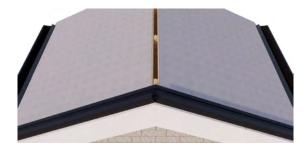
Install the eaves flashing.



Install underlay across the roof. Underlay should be draped over the top of the eaves flashing. Underlay should finish 10mm short of the edge of the eaves flashing.



Once battens are fixed, install barge channel.



TILE INSTALLATION

Install your panels, starting at the eaves. Work your way up to the ridge, leaving a 5-10mm gap between the panels from both planes of the roof. Turn up the panels at the ridge by 5mm.



Apply Aluband to the gap in the ridge.



Install the barge cover over the barges.

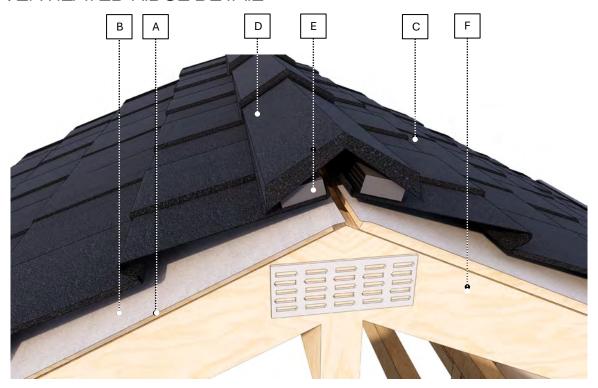


Install trims at the ridge.

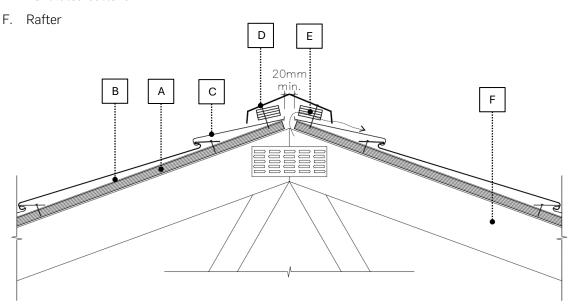




VENTILATED RIDGE DETAIL



- A. Structural plywood
- B. Underlay
- C. CF Shingle or CF Shake panels
- D. $400\ \mathrm{CF}$ Shingle Angle Trim or 914 CF Shake Angle Trim
- E. Ventilated battens





VENTILATED RIDGE INSTALLATION

SETTING OUT

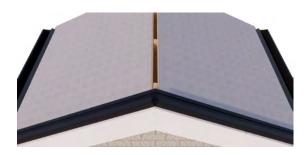
Install the eaves flashing.



Install underlay across the roof. Underlay should be draped over the top of the eaves flashing. Underlay should finish 10mm short of the edge of the eaves flashing.



Install barge channel.



TILE INSTALLATION

Install your panels, starting at the eaves. Work your way up to the ridge, leaving a 5-10mm gap between the panels from both planes of the roof. Turn up the tiles at the ridge, creating a 5mm upstand.



Install ventilated battens along the ridge.



Install the barge cover over the barges.

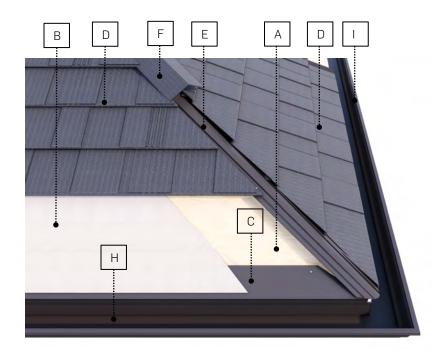


Install trims at the ridge.

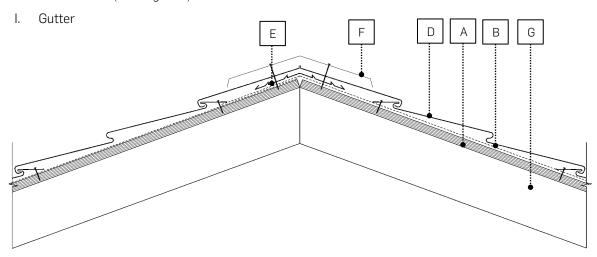




HIP DETAIL



- A. Structural plywood
- B. Underlay
- C. 925 CF Overlay Starter Flashing
- D. CF Shingle or CF Shake panels
- E. 904 CF Hip Under Channel
- F. 400 CF Shingle Angle Trim or 914 CF Shake Angle Trim
- G. Rafter
- H. Fascia board (under gutter)





HIP INSTALLATION

SETTING OUT

Install the starter flashing at the eaves.

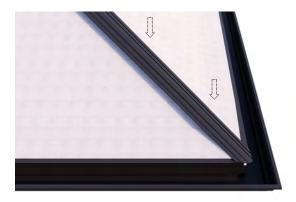


Then install underlay across the roof. Underlay should be draped over the top of the eaves flashing. Underlay should finish 10mm short of the bottom edge of the starter flashing.

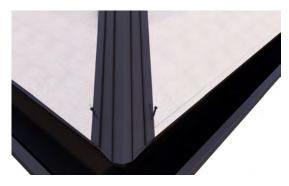


INSTALLATION

Starting at the eaves fix the hip under channel to the hip of the roof.



Screws or nails should be fixed to the battens through the farthest edge, avoiding the weather channels.



Install your panels, starting at the eaves.



Install trim.





TRIM INSTALLATION

CUTTING AND FOLDING

Prepare your first trim for installation. Using a 914 CF Shake Angle Trim or 400 CF Shingle Angle Trim, cut the fold of the nose off. Then cut the in the middle, slightly off-centre, and on the sides of the nose.



Fold the top down, overlapping the centre point to create a clean front.



Fold in the edges if required. Trim off excess if required.



INSTALLATION - HIP

Cut and fold the first trim to fit into the corner of the roof. Fasten into the hip under channel with a fastener in each tab at the head of the trim.



Take care to fasten at the outside edge of the tabs to avoid penetrating the weather channels of the under channel.



Hook the next trim into the installed trim's head and fasten, making your way up the hip.

INSTALLATION - RIDGE

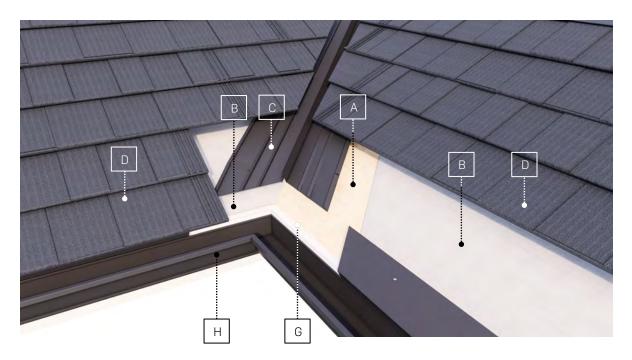
Starting at the barge channel, cut the nose off the trim. This allows for the trim to fit between the barge channel and barge cover. Fit the nose into the barge channel. Fasten using the tabs at the head of the trim.



Hook the nose of the next trim into the head fold of the already-installed trim, then fasten to the ridge. Continue this method along the ridge.



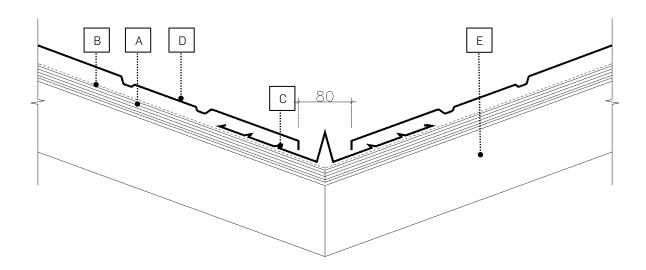
VALLEY DETAIL



COMPONENTS

- A. Structural plywood
- B. Underlay
- C. 906 CF Shake/Shingle Valley
- D. CF Shingle or CF Shake panel

- E. Rafter
- F. 925 CF Overlay Starter Flashing
- G. Fascia board
- H. Gutter



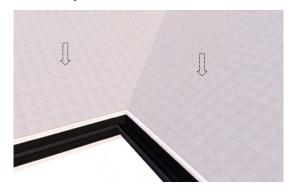
Note: Valley trays are held in place with a clip or nail bent over the top of the valley. Do not nail inside the valley.



VALLEY INSTALLATION

SETTING OUT

Valley boards should be installed by the builder. Install the starter flashing. Pin out and install the underlay.



INSTALLATION

Prepare the first valley tray by cutting and folding the edge to turn down into the gutter. The valley should be positioned a minimum of 40mm from the edge of the fascia for sufficient overhang.





Using a nail or valley clip, secure the valley tray into place. If using nails, ensure you do not penetrate the valley by bending nails over the rail, rather than screwing through the valley tray.

Slide the second valley tray into the first. Add silicone between the trays, across the entire width. The valley trays should overlap by 150mm.



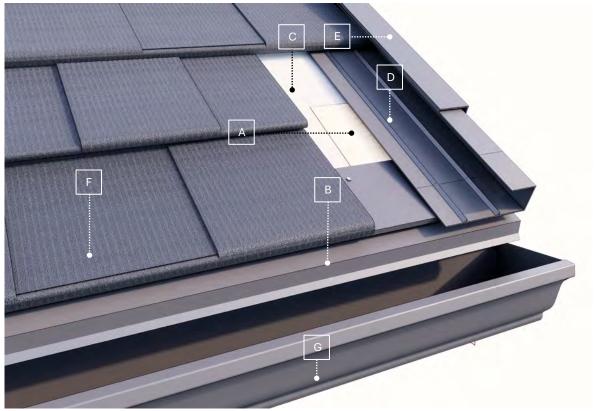


Install CF Shake or CF Shingle panels up the roof, starting at the eaves. When the valley is reached, turn down the sides of the panel into the valley, ensuring a minimum of 80mm space between the panels on opposing sides of the valley. The cut edges of the turn down should have a minimum clearance of 20mm and must not touch the valley.

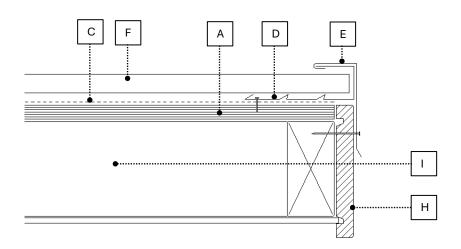




BARGE DETAIL



- A. Structural plywood
- B. 925 CF Overlay Starter Flashing
- C. Underlay
- D. 905 CF Shingle Barge Channel
- E. 903 CF Shingle Barge Cover
- F. CF Shingle or CF Shake panel
- G. Gutter
- H. Fascia board
- I. Outrigger





BARGE INSTALLATION

CUTTING AN END

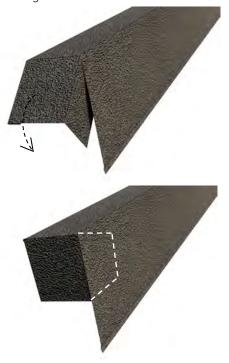
Measure 55mm (approx.) from the front of the barge cover. Cut up the long edge of the cover.



Make a horizontal cut to remove the bottom half of the newly-created flap.

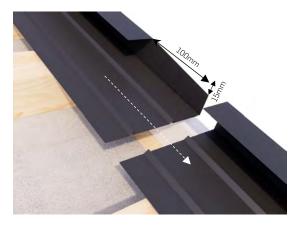


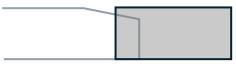
Fold in the flap slightly and fold the front down creating a box-end.



NOTCHING - BARGE CHANNEL

Notch the barge channel by cutting 100mm up the side of the top and cut it off. Cut the top of the side on an angle to a depth of 15mm. This makes it easy to fit subsequent pieces into already installed barge channel pieces.



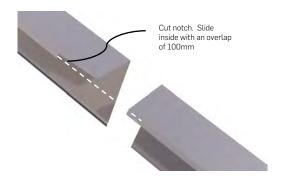


Side section

NOTCHING - BARGE COVER

Cut a 100mm notch from the end of the barge cover. Cut off the excess from the notch. This makes it easy to fit subsequent pieces into already installed barge cover pieces.

Slide inside the first barge cover with an overlap of 100mm.





BARGE INSTALLATION

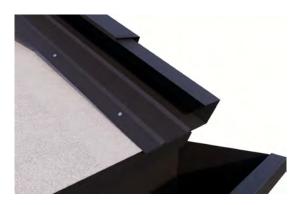
INSTALLATION

After installing underlay, install a barge channel at the fascia. The outer wall of the barge channel should sit flush with the fascia.

Fasten with a screw, taking care to place the screw away from the weather channels.







Install the CF Shake or CF Shingle panels across the roof. Hook the barge cover over the top of the barge channel, with the tail covering the fascia. Fasten horizontally through the fascia into the rafter.









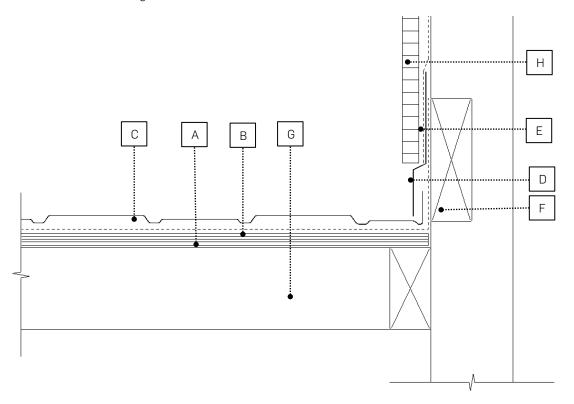


SIDE WALL DETAIL



- A. Structural plywood
- B. Underlay
- C. CF Shingle or CF Shake panel
- D. 104 Side Flashing

- E. Wall underlay (by builders)
- F. Support nog (by builders)
- G. Rafter (by builders)
- H. Wall cladding (By builders)

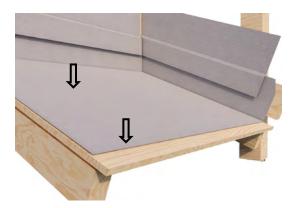




SIDE WALL INSTALLATION

SETTING OUT

Roof framing, support nogs, and wall underlay are installed by builders. Pin out roofing underlay, ensuring enough underlay is available to line the wall above the side flashings.



Install CF Shake or CF Shingle panels up the roof, starting at the eaves. When a wall is met, create an upstand of at least 40mm.



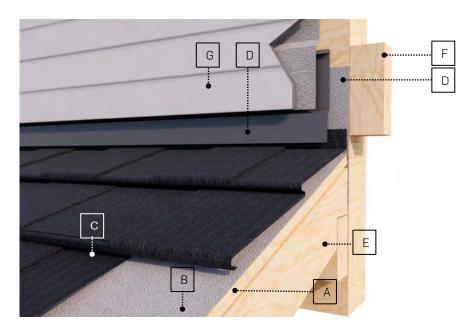
Fix the side flashing to the support nog in the wall. Wall underlay should lay over the top of the side flashing, while the roofing underlay should lie between the side flashing and the wall.



Once side flashings are installed, the builders can install the wall cladding.

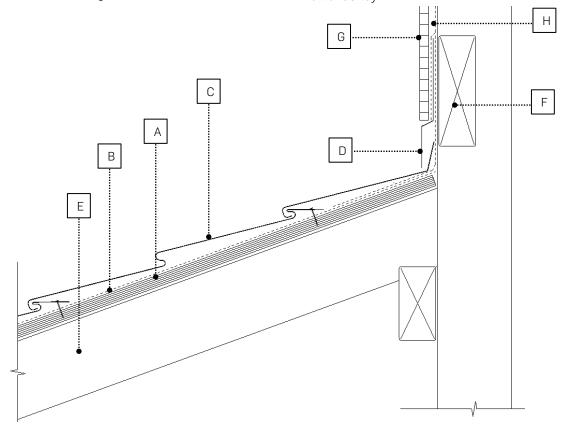


HEAD WALL DETAIL



- A. Structural plywood
- B. Underlay
- C. CF Shingle or CF Shake panel
- D. 104 Side Flashing

- E. Rafter
- F. Support nog
- G. Wall cladding/stucco/siding
- H. Wall underlay

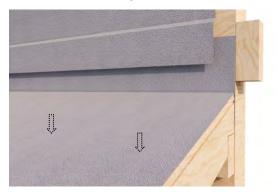




HEAD WALL INSTALLATION

SETTING OUT

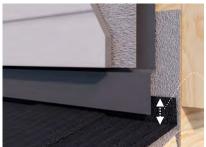
Roof framing and wall underlay are installed by builders. Pin out roofing underlay, ensuring enough underlay is available to line the wall above the side flashings.



Install CF Shake or CF Shingle panels up the roof, starting at the eaves. When a head wall is met, create an upstand of at least 40mm at the head of the panel.



Fix the side flashing to the support nog in the wall. Wall underlay should lay over the top of the side flashing.



40mm minimum upstand

Once side flashings are installed, the builders can install the wall cladding.





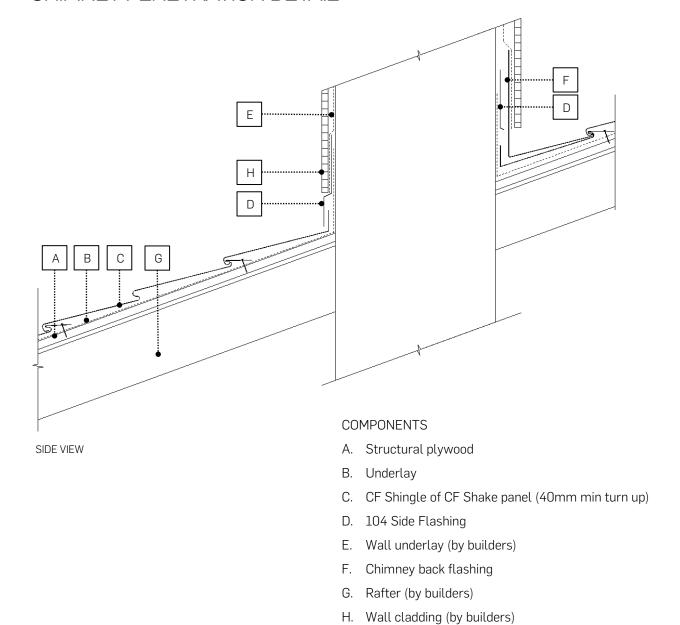
INSTALLATION MANUAL

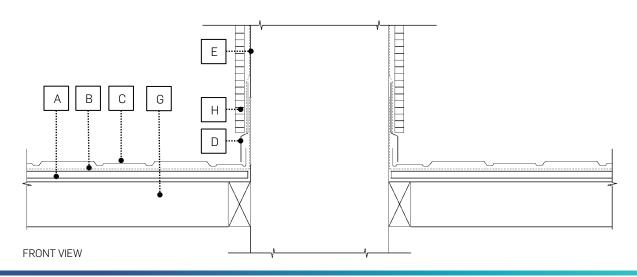
CF SHAKE & CF SHINGLE ON PLY





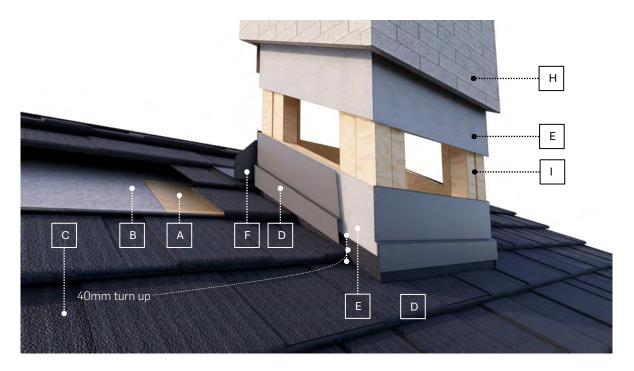
CHIMNEY PENETRATION DETAIL





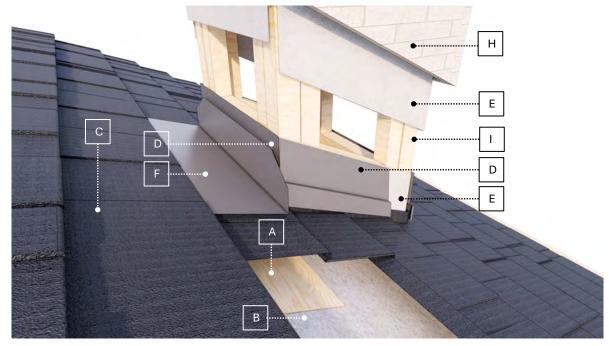


CHIMNEY PENETRATION DETAIL



- A. Structural plywood
- B. Underlay
- C. CF Shingle or CF Shake panel
- D. 104 Side Flashing

- E. Wall underlay (by builders)
- F. Chimney back flashing
- G. Rafter (by builders)
- H. Wall cladding (by builders)
- I. Support nog (by builders)



REAR VIEW SHOWING CHIMNEY BACK FLASHING

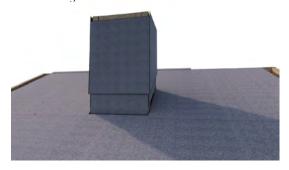


CHIMNEY PENETRATION INSTALLATION

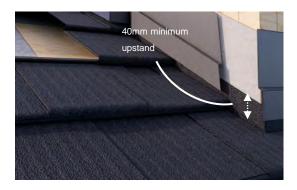
INSTALLATION

For chimneys up to 1 metre in width.

Pin out and install roof underlay across the roof, working around the chimney. Ensure enough underlay is available to reach the wall above the side flashings.



Install CF Shake or CF Shingle panels across the roof, starting at the eaves. At the penetration, turn up the panels by a minimum of 40mm on all sides.



Prepare your back flashing. The head should have a 10mm turn-back to allow the next panel to hook into it.



Install side flashings on the front and sides of the penetration. Then install the back flashing. The upstand on the back flashing should be a minimum of 250mm.



Finally, install a side flashing over the back flashing to align with the other already-installed side flashings.



Once completed, the builders can install wall cladding to the chimney.

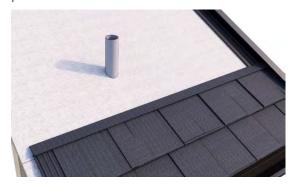




DEKTITE PENETRATION

INSTALLATION

Cut through the underlay for the pipe penetration.



Install CF Shake or CF Shingle panels up the plane of the roof to the pipe. When the penetration is reached, pierce a hole in the panel at the centre of the pipe's location.

Cut to the circumference of the pipe. Install the panel, then apply neutral cure silicone to the pipe penetration at the panel.



Install the next course of panels.



Cut the Dektite cone where indicated for the relevant pipe size.

Slide the Dektite flashing down over the pipe. Water can be used as a lubricant.

Apply neutral cure silicone or double-sided roofing membrane tape on the underside of the flange.

Press pipe flashing into contours of the roof panel.



Fasten with self-tapping or self-drilling screws, or selected pop rivets.





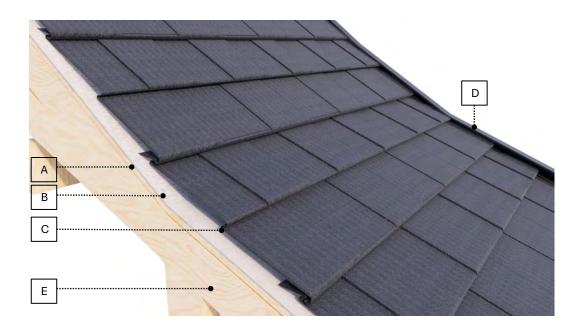
INSTALLATION MANUAL

CF SHAKE & CF SHINGLE ON PLY

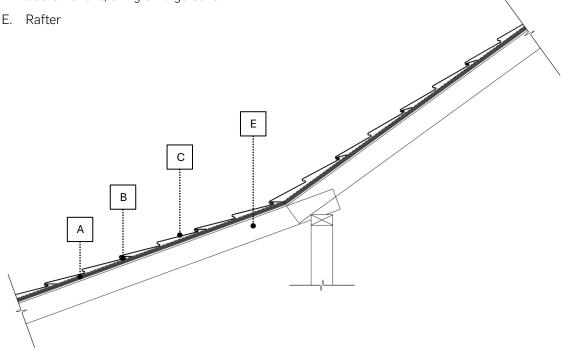




CHANGE OF PITCH DETAIL



- A. Structural ply
- B. Underlay
- C. CF Shake or CF Shingle panels
- D. 903 CF Shake/Shingle Barge Cover

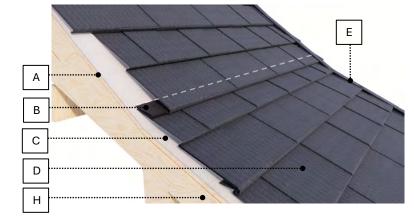


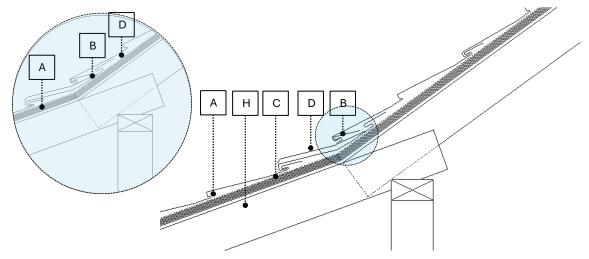


CHANGE OF PITCH DETAIL SHORTCOURSE METHOD



- A. Structural plywood
- B. 901 CF Short Course
- C. Underlay
- D. CF Shingle or CF Shake panels
- E. 903 CF Shingle Barge Cover
- F. Gutter
- G. Fascia board
- H. Rafter





RoofTG Pacific Ltd accepts no liability if the Gerard roofing system is not used in accordance with the instructions contained in this publication. Substitution of specified or recommended components with alternative brands can compromise performance. The Gerard system is not generic and must be installed as specified using Gerard branded components. This publication may be superseded by a new publication. RoofTG Pacific Ltd accepts no liability for reliance on publications that have been superseded. Before using this manual check whether this is the current version on www.gerardroofs.co.nz

© RoofTG Pacific Ltd 2024

