

KEYMER

EST. 1588



HANDMADE

CLAY ROOF TILES

SINCE 1588



OUR HISTORY

1588

HISTORY IN THE MAKING

One of the oldest, most established industries in Burgess Hill, Keymer Brick & Tile Company evolved from the former Ditchling Potteries, a collection of various works including Dunstalls Farm owned by John Billingham, John Palmer and John Pomfrey - a renowned brick maker in Keymer in 1588.

“In the late 1800s, it’s reported that the works were the largest in the South and employed over 300 people”

When the Ditchling Common site was sold, having exhausted its supply of clay, production was moved to Nye Road over a period of 80 years between 1860 and 1940. The factory and clay pit are still situated here and cover an area of approximately 50 acres.

In the late 1800s, it’s reported that the works were the largest in the South and employed over 300 people. At the turn of the century, it was famous for the manufacture of red terracotta ware - winning awards in London in 1862 and Philadelphia in 1876. This bespoke product was used throughout the British Isles and, largely due to its early success, was re-introduced by the modern-day Keymer in the 1990s.

1800-1900'S

AN EVOLVING CRAFT

Back in the 1800s, the site had many tall brick chimneys, which belched smoke from time to time and have since been demolished in line with the ‘Clean Air Act.’ Coal was used for the drying and firing of products, and was regularly delivered to the site. Finished products were also dispatched by rail via Keymer’s own siding, adjacent to the Lewes-Eastbourne train line. Since the closure of the railway sidings, during Dr Beeching’s time, Keymer now uses Natural Gas to dry and fire tiles.

“From 1939 to 1945, the tile manufacturing works were completely closed down. Buildings and kilns were used by the Admiralty for storage purposes and played a major part in the ‘D-Day’ landings”

In the early days, a considerable number of Keymer employees also lived in cottages on site. Further cottages were built in Cants Lane - which have now been demolished - that housed brick making tables on the ground floor with living quarters upstairs. These were commonly known as birdcages.

From 1939 to 1945, the tile manufacturing works were completely closed down. Buildings and kilns were used by the Admiralty for storage purposes and played a major part in the ‘D-Day’ landings. Then, in 1946, a considerable investment was made to introduce new clay preparation machinery whilst ensuring that traditional methods were maintained.

1900-2000'S

A NEW ERA

Since 1969, the Company has been subject to take-overs including the ‘Cavenham’ empire when Sir James Goldsmith was Chairman. Keymer is now owned by a Trust set up by Neil Wates (deceased), who acquired the business in 1980. Due to dramatic fluctuations in the demand for bricks during the early 1970s, a decision was made to stop brick manufacturing and concentrate on the production of handmade clay roofing tiles.

“Keymer, the premium handmade roof tile brand, is now owned by Wienerberger, the leading supplier of wall, roof and landscaping innovations”

In 1978, architects and planners were concentrating more on the conservation and preservation of all types of buildings; this attitude gave new life to the company and resulted in the increased production of

roofing tiles and fittings. In 1981, the very latest micro-processor controlled kilns were installed to reduce fuel consumption and provide better working conditions whilst still retaining the traditional production methods. Recession in the construction industry during the 1990s led to a decline in the home market and a reduction in the production of tiles.

Keymer, the premium handmade roof tile brand, is now owned by Wienerberger, the leading supplier of wall, roof and landscaping innovations. Renowned as one of the world’s oldest operational roofing manufacturers, Keymer made its fourth move in its 400 year history and was re-launched from its new home at Wienerberger’s factory in Ewhurst, Surrey in 2015. Situated in the plain tile heartland and 20 minutes from the original site, Keymer’s handmade clay tiles will continue to be produced using the orange clays of the South Weald and the same traditional equipment and processes at its new home. The company has invested heavily to ensure the handmade manufacturing process is retained, meaning that all Keymer products will boast the quality and performance they have become famous for.

TODAY

IN SAFE HANDS

Keymer still uses Wealden clay native to the area and many of the traditional craft skills have been passed down from maker to maker through the generations.

Demand and production for Keymer’s handmade clay roof tiles have shown a steady increase in recent years. Now dispatched throughout the British Isles, used on roofs from cottages to castles, supermarkets to town centres, Keymer also export to the Continent, America and lately even Russia and Japan.

“Used on roofs from cottages to castles, supermarkets to town centres”

Keymer continue to invest in up-to-date techniques to strengthen commitment to fuel efficiency and a safe working environment - and, at the same time, to manufacture the finest genuine handmade clay roofing products.

KEYMER

EST. 1588



KEYMER

EST. 1588

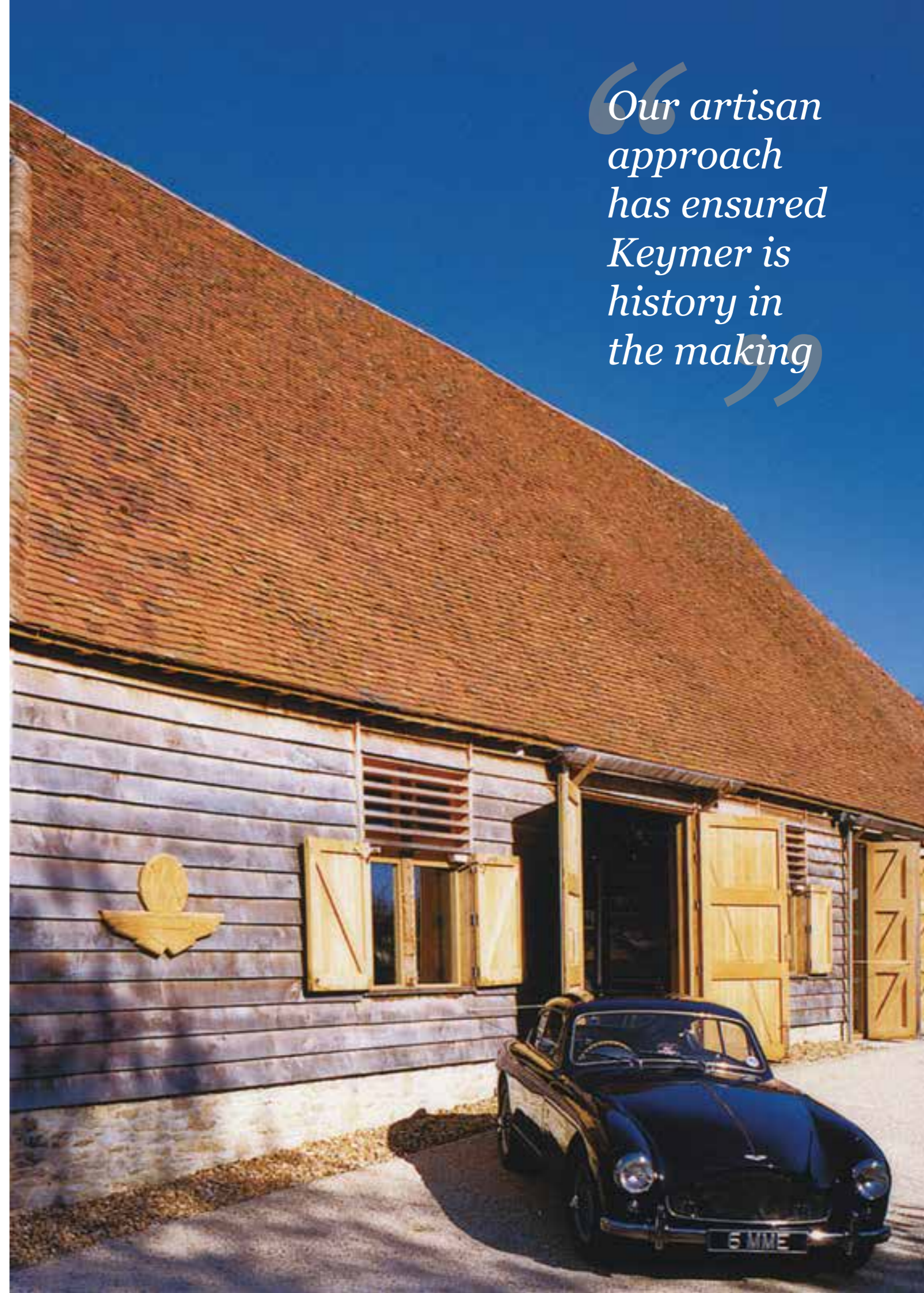
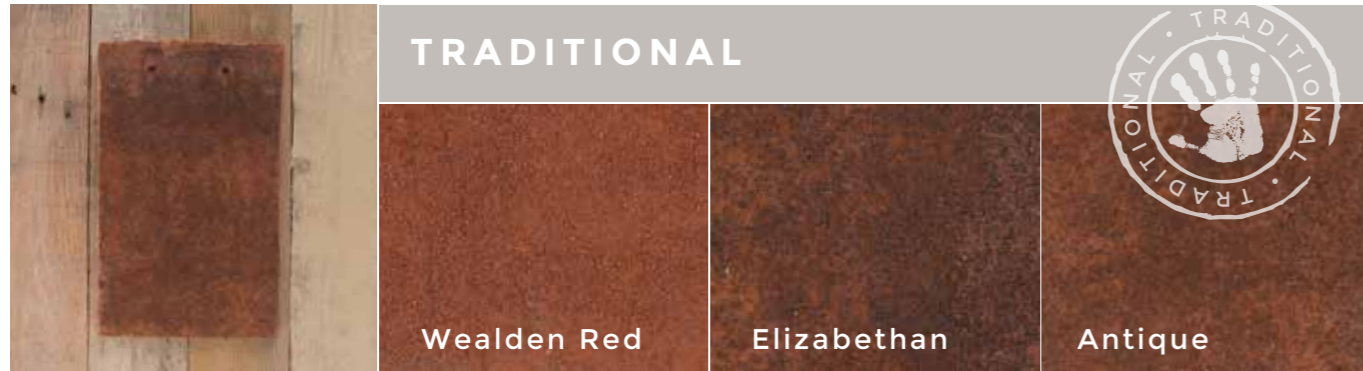
DISCOVER KEYMER

“
The Keymer range has been born over many generations, defined by time and mastered by hand.

The character of the product is inherent within every Keymer tile which ages beautifully and naturally over time.

From the period Peg Tile, to the standard handmade brown Goxhill Range, you are guaranteed to find a colour or texture bespoke to your project.
”

KEYMER TILE RANGE AT A GLANCE



“Our artisan approach has ensured Keymer is history in the making”





PEG TILES

KEYMER
EST. 1588



Keymer Peg Tiles

County Peg - Weathered

Our County Peg Tiles are innovative in design. They are created for renovation use, with three nail holes and one nib, to make fitting easier and less disruptive. These tiles are the ideal choice for the refurbishment of older Peg tiled buildings or for use on oast houses.

Kent Peg - Antique

Our Kent Peg Tiles are Britain's best Peg Tiles, handmade by craftsmen using the company's rich Wealden Clay. They are better and more cost effective than using second hand tiles which can quickly deteriorate once stripped off and re-used.

PEG TILE - TECHNICAL INFORMATION

	County Single Nib	Kent Nibless
Nominal size	250x150mm	250x150mm
Colours available	Weathered	Antique
Minimum pitch	40°	40°
Gauge	95mm	95mm
Coverage	70/sq.m	70/sq.m
Weight at max. gauge	79kg/sq.m	79kg/sq.m
Weight per 1,000	1,130kg	1,130kg
Weight per 1,000 eaves	822kg	822kg
Weight per 1,000 gables	1,650kg	1,650kg
Average quantity per pallet	830 tiles	830 tiles
Average weight per pallet	938kg	938kg

*FOR VERTICAL TILE INFORMATION PLEASE VISIT WWW.KEYMER.CO.UK



LEEDS CASTLE
KENT

Keymer Traditional Tiles

Traditional to look at, but innovative in design, Keymer Traditional tiles are created for renovation use. These tiles are the ideal choice for the refurbishment of older Peg tiled roofs and elevations or for use on oast houses.

TRADITIONAL TILE - TECHNICAL INFORMATION

	Traditional Tiles
Nominal size	265x165mm
Colours available	Wealden Red Antique Elizabethan
Minimum pitch	40°
Gauge	100mm
Coverage	60/sq.m
Weight at max. gauge	76kg/sq.m
Weight per 1,000	1,270kg
Weight per 1,000 eaves	969kg
Weight per 1,000 gables	1,880kg
Average quantity per pallet	830 tiles
Average weight per pallet	1,054kg

TRADITIONAL

KEYMER
EST. 1588

*FOR VERTICAL TILE INFORMATION PLEASE VISIT WWW.KEYMER.CO.UK



SHIRE

KEYMER
EST. 1588



BEWLEY HOMES
SOUTH WARNBOROUGH

Keymer Shire Tiles

A genuine handmade British made clay tile that offers a serious alternative to the traditional style of clay roof tiles. Produced in three colours, every tile weathers naturally to look better and improve with every passing year.

SHIRE TILE - TECHNICAL INFORMATION

	Shire
Nominal size	265x165mm
Colours available	Downs Red Heritage Priory
Gauge	100mm
Coverage	60/sq.m
Weight at max. gauge	66/sq.m
Weight per 1,000	1,100kg
Quantity per pallet	860
Weight per pallet	990kg
Recommended minimum pitch	40°

*FOR VERTICAL TILE INFORMATION PLEASE VISIT WWW.KEYMER.CO.UK



VALLEY WAY
GERRARDS CROSS

Keymer Goxhill Tiles

The Keymer Goxhill range of tiles is one of the finest and most distinctive roof coverings available. This handmade plain tile gives a rich textured roofscape that will become more and more attractive with age.

GOXHILL TILE - TECHNICAL INFORMATION

	Roof	Vertical
Nominal size	265x165mm	265x165mm
Colours available	Autumn Brown Dark Red Dark Chestnut	Autumn Brown Dark Red Dark Chestnut
Minimum roof pitch*	40°	75°
Headlap (minimum)	65mm	38mm
Gauge coverage	100mm	114mm
Weight at max. gauge	79kg/sq.m	79kg/sq.m
Weight per 1,000	1.2 tonnes	1.2 tonnes
Weight per tile	1.25kg	1.25kg
Quantity per pallet	530	530

GOXHILL

KEYMER

EST. 1588



GOXHILL FITTINGS

KEYMER
EST. 1588



<p>PLAIN TILE</p> <p>H. 265 H. 10 1/2" W. 165 W. 6 1/2"</p>	<p>EAVES TILE</p> <p>H. 200 H. 8" W. 165 W. 6 1/2"</p>	<p>GABLE TILE</p> <p>H. 265 H. 10 1/2" W. 248 W. 10"</p>
<p>HALF ROUND</p> <p>L. 305 L. 12"</p>	<p>HOGBACK</p> <p>L. 305 L. 12"</p>	<p>THIRD ROUND</p> <p>L. 305 L. 12"</p>
<p>STANDARD BONNET</p> <p>40-50 SLOPE 5:12 - 6:12</p>	<p>VERTICAL ANGLE 90° (HANDED)</p> <p>EXTERNAL</p>	<p>VERTICAL BAY ANGLE 135° (HANDED)</p> <p>EXTERNAL</p>

*Also available in: Baby Ridge, InvisiVent, Valley Tile, Arris Hip, Half Round Concealed Air Vent Ridge 457mm



Keymer Fittings

Keymer manufacture the largest range of handmade clay fittings you'll find. The true skill of the Keymer master tile maker is well displayed, from the valley to the ridge. Using Keymer's own Wealden clay, these fittings are not only the natural choice in conservation areas but also add character and value to any new building too.

PLAIN TILE H. 265 H. 10 1/2" W. 165 W. 6 1/2"	EAVES TILE H. 200 H. 8" W. 165 W. 6 1/2"	GABLE TILE H. 265 H. 10 1/2" W. 248 W. 10"	PLAIN TILES	
PEG TILE (KENT or COUNTY) H. 250 H. 10" W. 150 W. 6"	PEG EAVES H. 150 H. 6" W. 150 W. 6"	PEG GABLE H. 250 H. 10" W. 225 W. 9"		MODERN PEG H. 250 H. 10" W. 150 W. 6"
HALF ROUND L. 305 L. 12"	HOGBACK L. 305 L. 12"	THIRD ROUND L. 305 L. 12"	RIDGE TILES	
STANDARD BONNET 40-50 SLOPE 5:12 - 6:12 	TRADITIONAL BONNET 40-45 SLOPE 5:12 	KENT BONNET 50-60 SLOPE 6:12 - 7:12 		HIP TILES
STANDARD VALLEY 40-50 SLOPE 5:12 - 6:12 	GULL WING VALLEY (CAMBERED) 40-45 SLOPE 5:12 	60° VALLEY 50-60 SLOPE 6:12 - 7:12 	VALLEY TILES	
THREE PIECE VENT SET 	LOUYRED VENT HALF ROUND L. 305 L. 12" 	LOUYRED VENT HOGBACK L. 305 L. 12" 	VENT TILES	
MONOPITCH RIDGE L. 305 L. 12" 	PORCH RIDGE L. 305 L. 12" 	SPECIAL RIDGE TILES		
VERTICAL ANGLE 90° (HANDED) EXTERNAL	VERTICAL BAY ANGLE 135° (HANDED) EXTERNAL			

*Only apply to Traditional, Shire and Peg tiles

FITTINGS

KEYMER
EST. 1588

*GINGERBREAD
Bespoke Tile



TRADITIONAL ORNAMENTS

KEYMER
EST. 1588



Keymer Ornamental Tiles

Since handmade clay tiles first went into production, their makers recognised that special design could set a roof or clad wall apart from the rest - enhancing the building in looks as well as worth.

To ensure compatibility with all Keymer products, the range of Ornamental tiles can be made to order in all the standard colours.

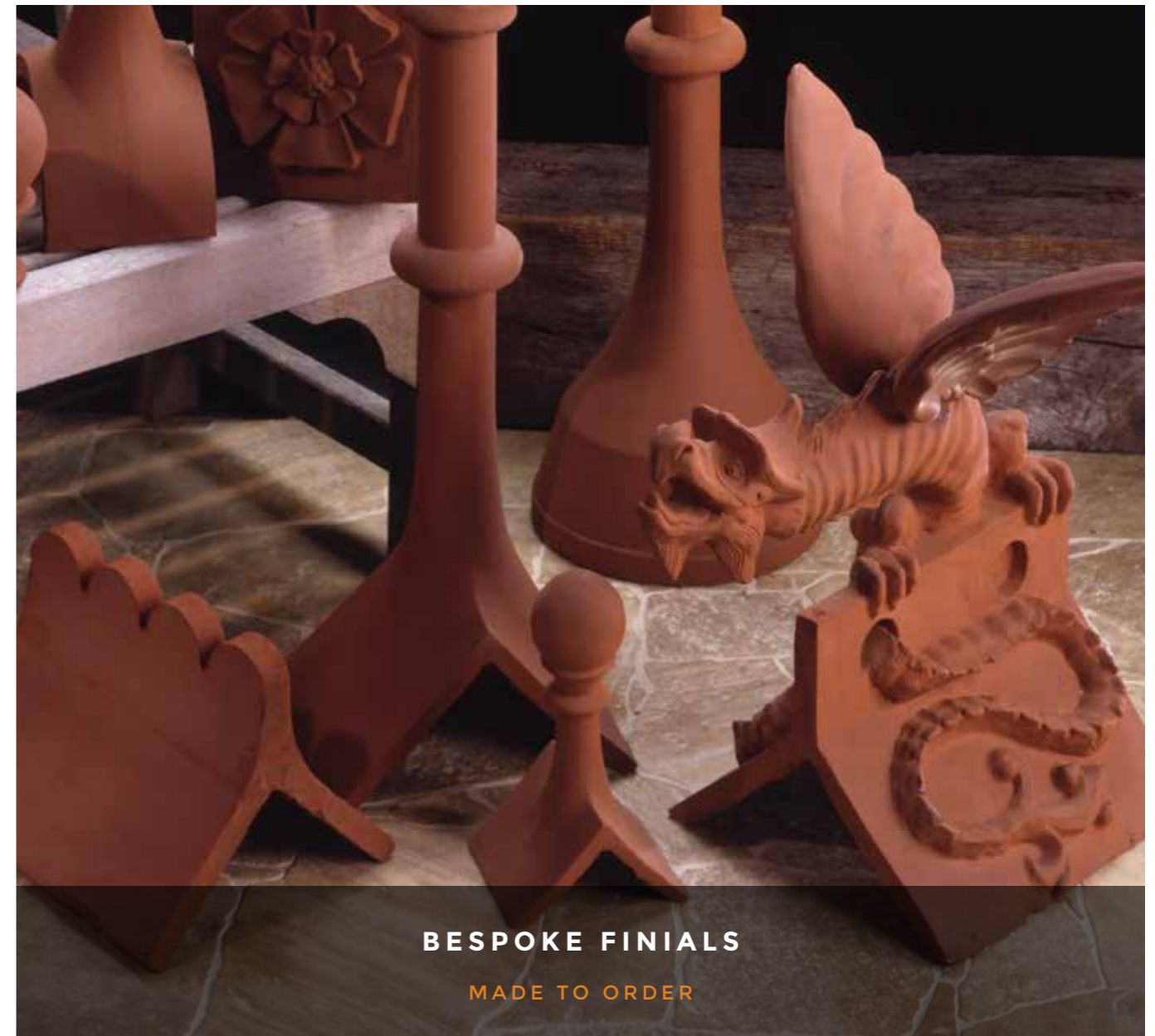
Keymer can also make Ornamental tiles to individual specification - whether for matching or to realise an original concept.

All of these products have the same renowned Keymer weathering properties. They soon blend in with existing materials for renovation work - looking better and lasting longer.

TRADITIONAL HANDMADE CLAY TILE - TECHNICAL INFORMATION

	Club	Arrow	Point	Bull Nose
Nominal size	265x165mm	265x165mm	265x165mm	265x165mm
Coverage	53/sq.m	53/sq.m	53/sq.m	53/sq.m
Weight per 1,000	1,100kg	1,100kg	1,100kg	1,100kg
Average Weight per pallet	943kg	943kg	943kg	943kg
Average quantity per pallet	830 tiles	830 tiles	830 tiles	830 tiles





BESPOKE FINIALS

MADE TO ORDER

FINIALS

KEYMER

EST. 1588

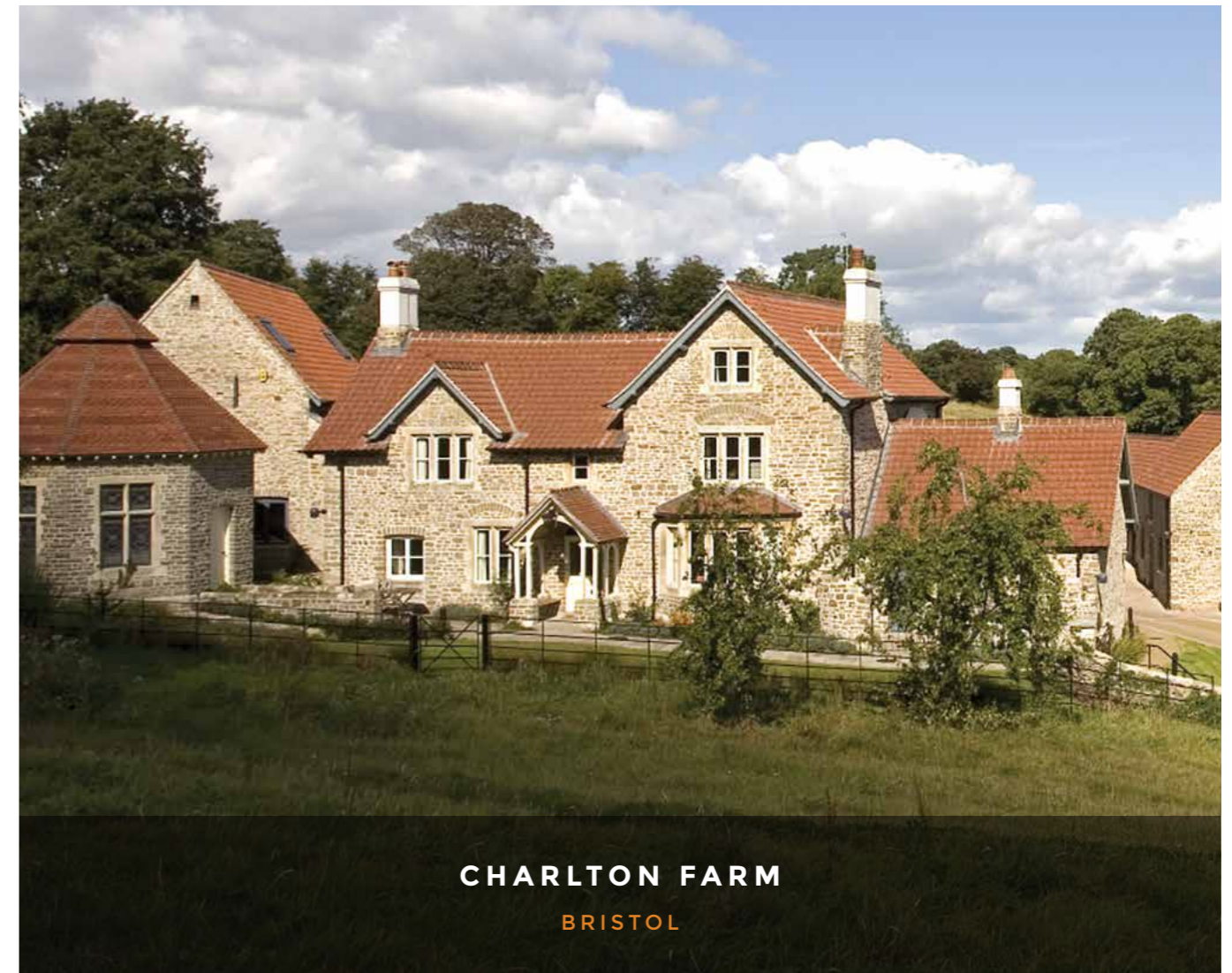


“Our expertise means that anything can be made in clay to suit the needs of any project, whether to match an authentic piece or fulfil a new specification. Each item is individually made by hand using Wealden clay from Keymer’s own sources.”



HERITAGE SERVICE

KEYMER HERITAGE SERVICE
IS A SPECIALIST CONSERVATION AND
RESTORATION SERVICE THAT CREATES
BESPOKE HANDMADE ROOF TILES
AND FITTINGS



CHARLTON FARM
BRISTOL

“There is a growing demand for highly trained craftsmen who understand the wide range of skills and methods used in conservation projects. Companies such as Keymer play a valuable part in the programme, allowing students to see the techniques being used in a real working environment...”



“Part of the charm of our build heritage stems from the wide diversity of roof coverings adorning our historic buildings...”

From cottages and barns to stately homes, many of our older buildings offer a profusion of detail that, today, would be deemed an architectural luxury.

Over the centuries, the use of roofing material has varied from place to place, with a diversity determined by local geography and material availability.

One of the most enduring and appealing of these materials was natural clay; which became desirable for its mellow appearance and weathering properties. Its popularity as a roof covering was enhanced by its unique ability to be pressed into a multitude of shapes and designs.

This enabled past designers to create an endless landscape of decorative roofs through the inclusion of ornate finials, ridges and hips. Builders in the 17–19th centuries in particular placed great emphasis on appearance and detail and strove to add character to their work.

Family homes that would be passed down through generations were often constructed to include bespoke features that reflected the occupants’ tastes or even personal wealth. Individuality within a style in keeping with the overall local vernacular was of paramount importance.



WELL COURT
EDINBURGH



KEYMER SPECIFICATION GUIDE

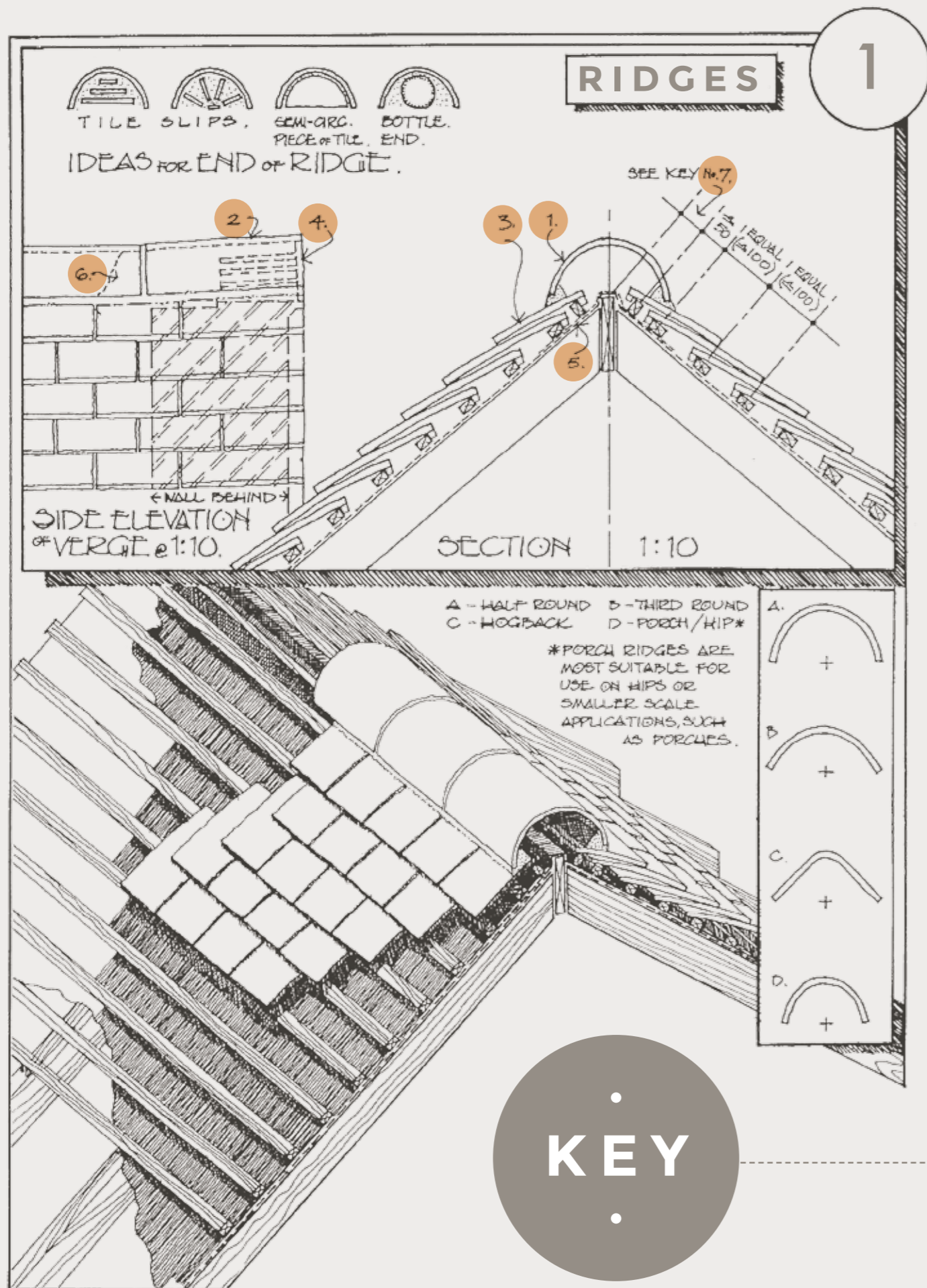
The Keymer specification guide is a piece of roofing history, its drawings and explanations have become as much a part of the heritage of handcrafted roofing as has the brand in the hearts of those that touch, use and feel its products.

This guide is intended to act as a walkthrough for the many uses of clay plain tiles and the versatility of the products, all of the practices are still viable today, but many have become lost to the market apart from the few skilled roofers still working today.

Keymer wishes to thank David Baker Architects for their invaluable and extensive expertise in preparing the following drawings and details.

CONTENTS

Ridges	01 - 02
Monopitch Ridge	03 - 04
Verges	05 - 06
Abutments	07 - 08
Lead Formed Back Gutter	09 - 10
Lead Formed Front Apron	11 - 12
Stepped Flashings	13 - 14
Lead Saddles	15 - 16
Lead-Lined Valley	17 - 18
40° - 50° Granny Bonnet - Hips	19 - 20
Little And Large Bonnet Hip Tiles	21 - 22
Standard Valley	23 - 24
Laced Valley	25 - 26
Eaves Detail With Open Soffit And Straight Rafter Foot	27 - 28
Eaves Detail With Closed Soffit And Straight Rafter Foot	29 - 30
Eaves Detail With Sprocketed Rafter Foot	31 - 32
Dormer Windows	33 - 36
Tile Hanging	37 - 38
Corners In Tile Hanging. Vertical Tile Hanging. General View Of Tile Hanging. Base Of Tile Hanging	39 - 40
Ridge And Verge Junctions. Vertical Tile Hanging	41 - 42
Bonding. Tiles In Walls	43 - 44
Tiles In Walls And Copings	45 - 46
Notes	47 - 48



RIDDGES

- 1 Ridge tile

- 2 Ridge is tilted up at verge and creasing tile slips inserted in ridge end to reduce visual impact of mortar bedding

- 3 Use 165 x 210 "Top Tile" here on batten turned through 90° to give correct pitch to top tile

- 4 Pointing to ridge struck back 10mm or so, to keep tile edge clean, protect mortar, and make shadow line

- 5 Strip of underlay fixed over ridge board to overlay general underlay by not less than 150mm

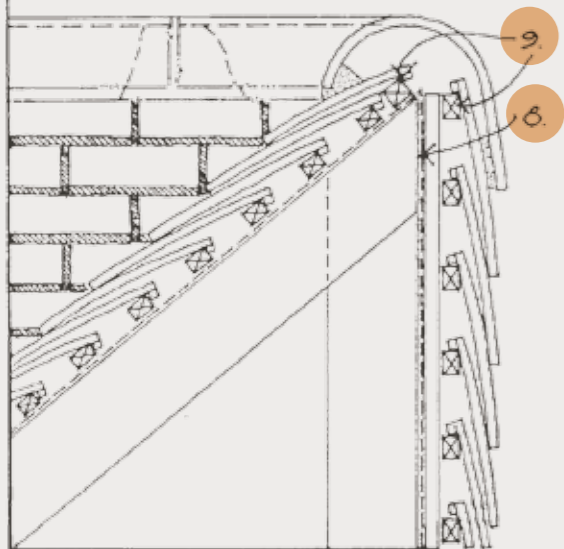
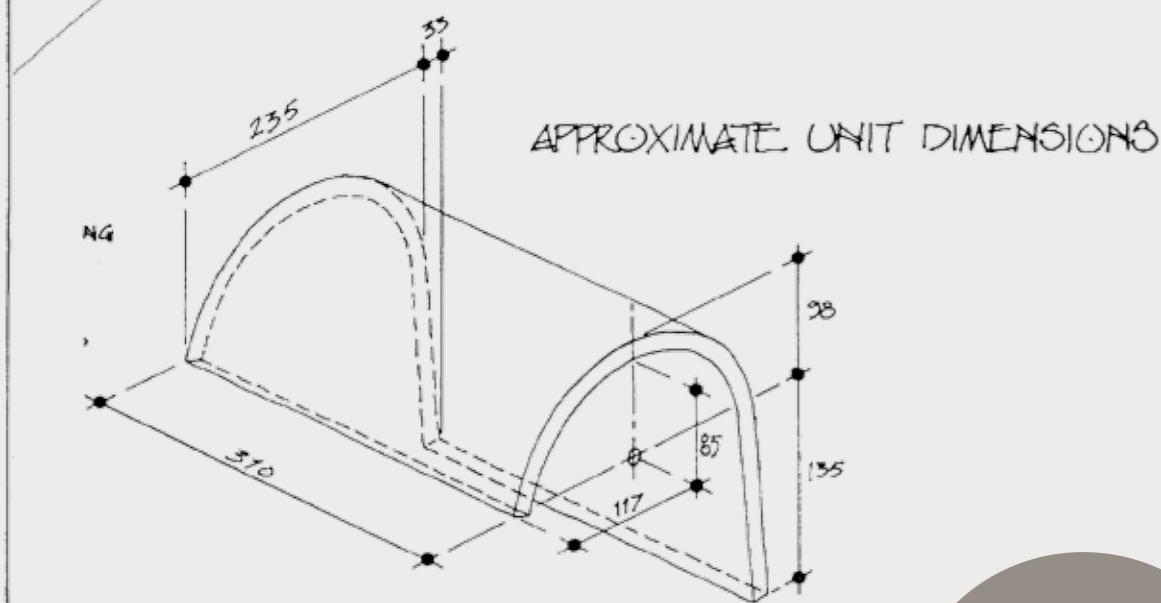
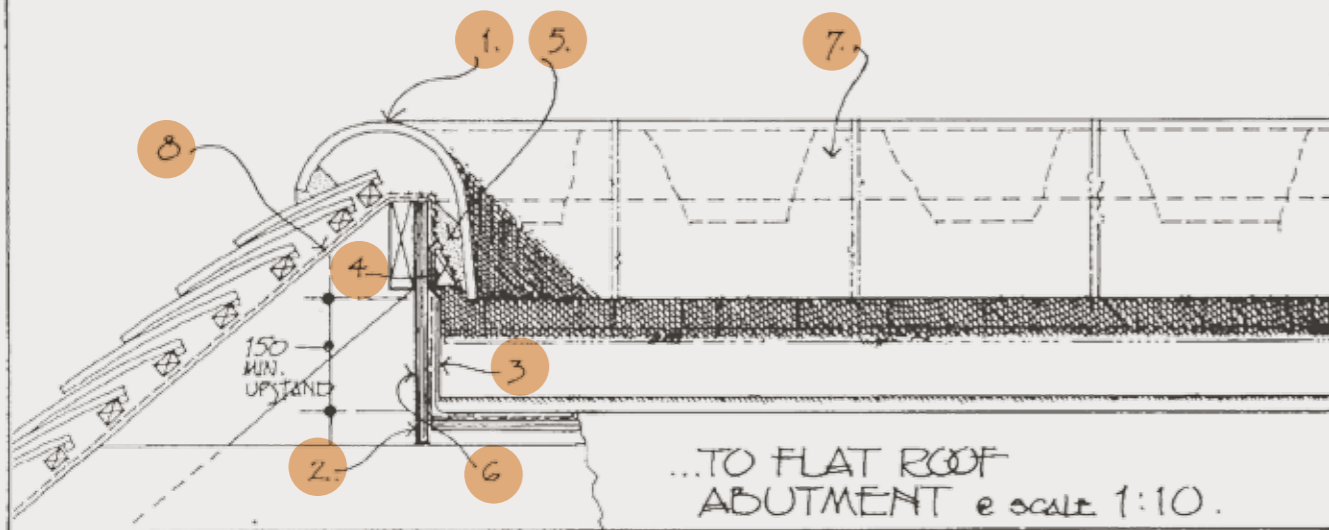
- 6 Mortar bedding of ridge tiles

- 7 Setting out the top tile batten requires care, and depends on the spread of the ridge tile. The line chosen must ensure that the ridge tile overlaps the top tile by a minimum of 65mm

Please note, these drawings are only intended as an aid to the correct usage of Keymer's products.

MONOPITCH RIDGE

1A



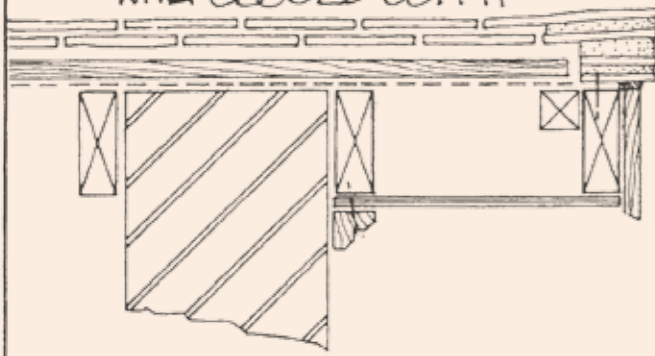
MONOPITCH RIDGE

- 1 Monopitch ridge unit
- 2 Vertical board/sheet substrate for membrane roof covering
- 3 Flashing
- 4 Timber fillet carrying expanded metal mesh as key for mortar bedding
- 5 Mortar bedding
- 6 The flat roof covering is turned up under flashing min 150mm, and fixed/restrained to manufacturer's recommendations
- 7 Solid bedding under butt joints - see model spec
- 8 Underlay - See model spec and key note 7 on Ridges 1
- 9 For guidance on setting out first batten see Ridges 1

VERGES

2

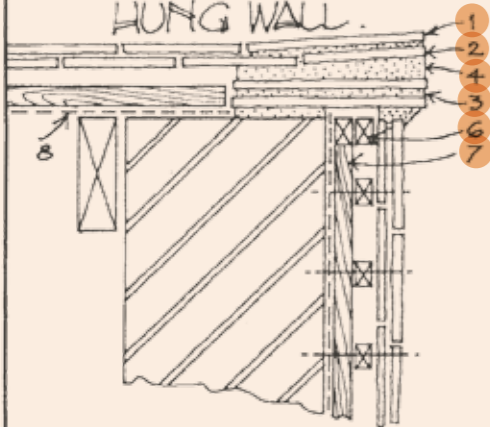
EXTENDED BARGEBOARD WITH CLOSED SOFFIT



THE ESSENTIALS OF A GOOD VERGE ARE:-

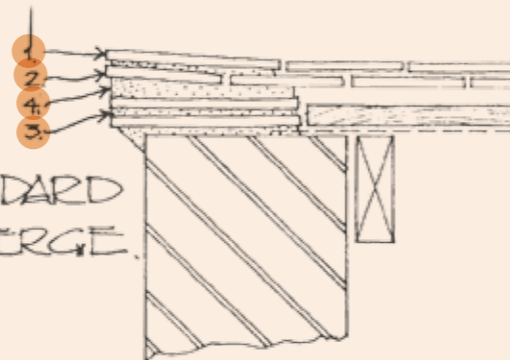
- Ⓐ IT MUST BE WELL BEDDED + POINTED SO THAT WATER WILL NOT PENETRATE BETWEEN THE VERGE TILES + GO INTO THE ROOF.
 - Ⓑ IT MUST OVERHANG THE WALL BELOW BY AT LEAST 35mm, + PREFERABLY 50mm, SO AS TO PROTECT THE SURFACE IMMEDIATELY UNDER THE VERGE.
 - Ⓒ IT MUST BE TILTED SO THAT WATER IS ENCOURAGED TO RUN DOWN THE ROOF, RATHER THAN OVER THE VERGE.
- ALL OF THESE DETAILS SHOW A DOUBLE UNDERCLOAK COURSE, WHICH ASSISTS IN PRODUCING THIS INWARD TILT, + ALSO MAKES A ROBUST DETAIL IN ELEVATION, PARTICULARLY SUITABLE FOR LARGER BUILDINGS. A SINGLE UNDERCLOAK COURSE WOULD BE QUITE ADEQUATE FOR ONE OR TWO STOREY BUILDINGS OF MODEST SCALE.

VERGE TO TILE HUNG WALL

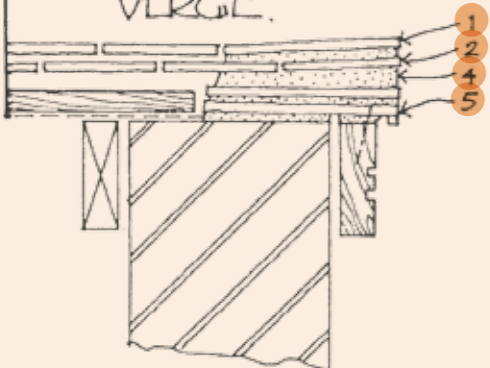


KEY

STANDARD VERGE



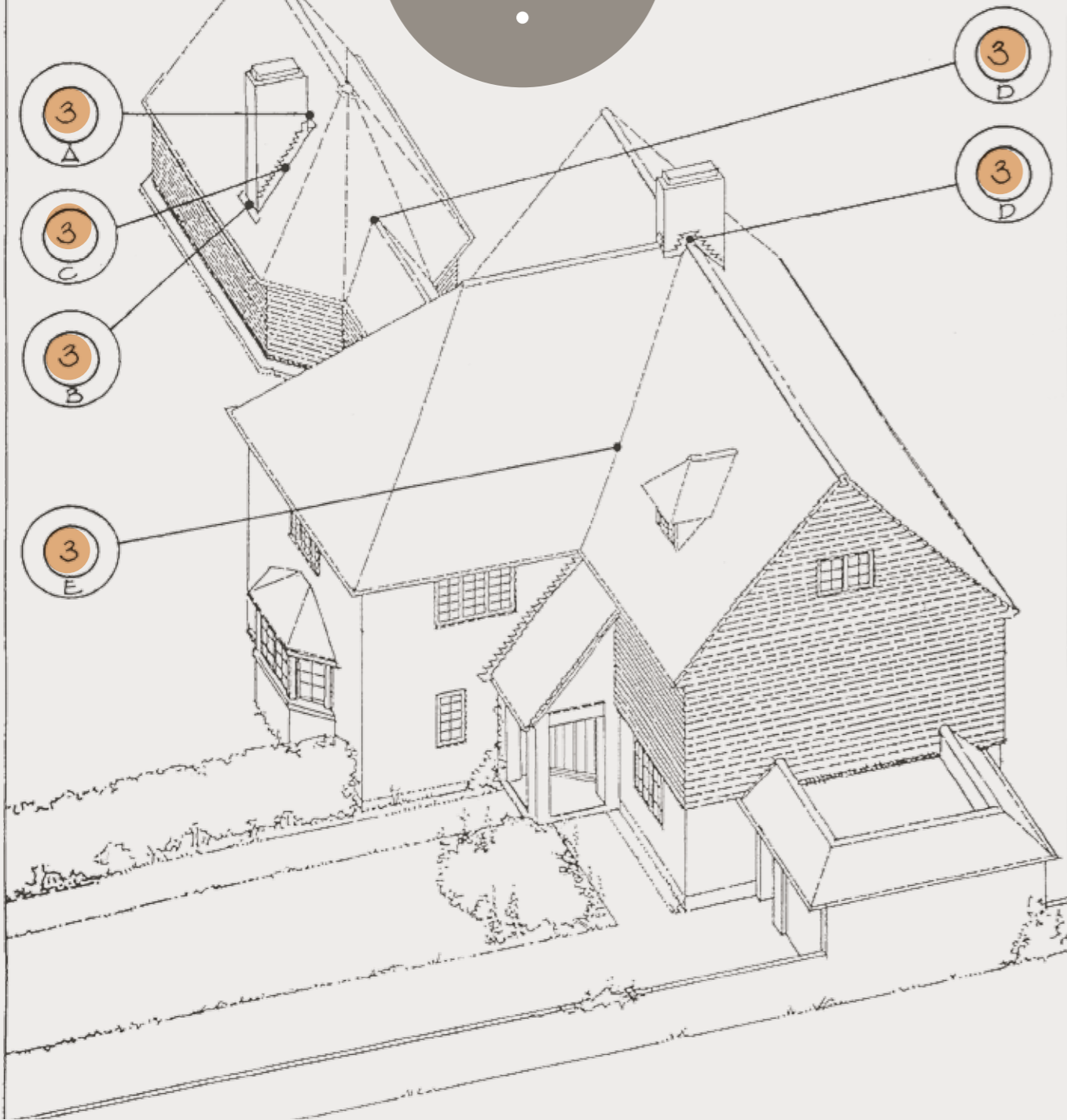
BARGE BOARDED VERGE



VERGES

- 1 Tile-and-a-half tile
- 2 Standard tile
- 3 Double undercloak course of standard or nibless tiles with 165mm edge showing and face side downwards
- 4 Mortar bedding, pointed when verge is bedded, or as soon as possible thereafter
- 5 'Tile-on-end' undercloak course fixed to bargeboard with nibs showing to give dentil effect
- 6 Batts
- 7 Counterbatts
- 8 Underlay. In cavity work, this should bridge the cavity and lap onto the outer leaf by 25mm

KEY



ABUTMENTS

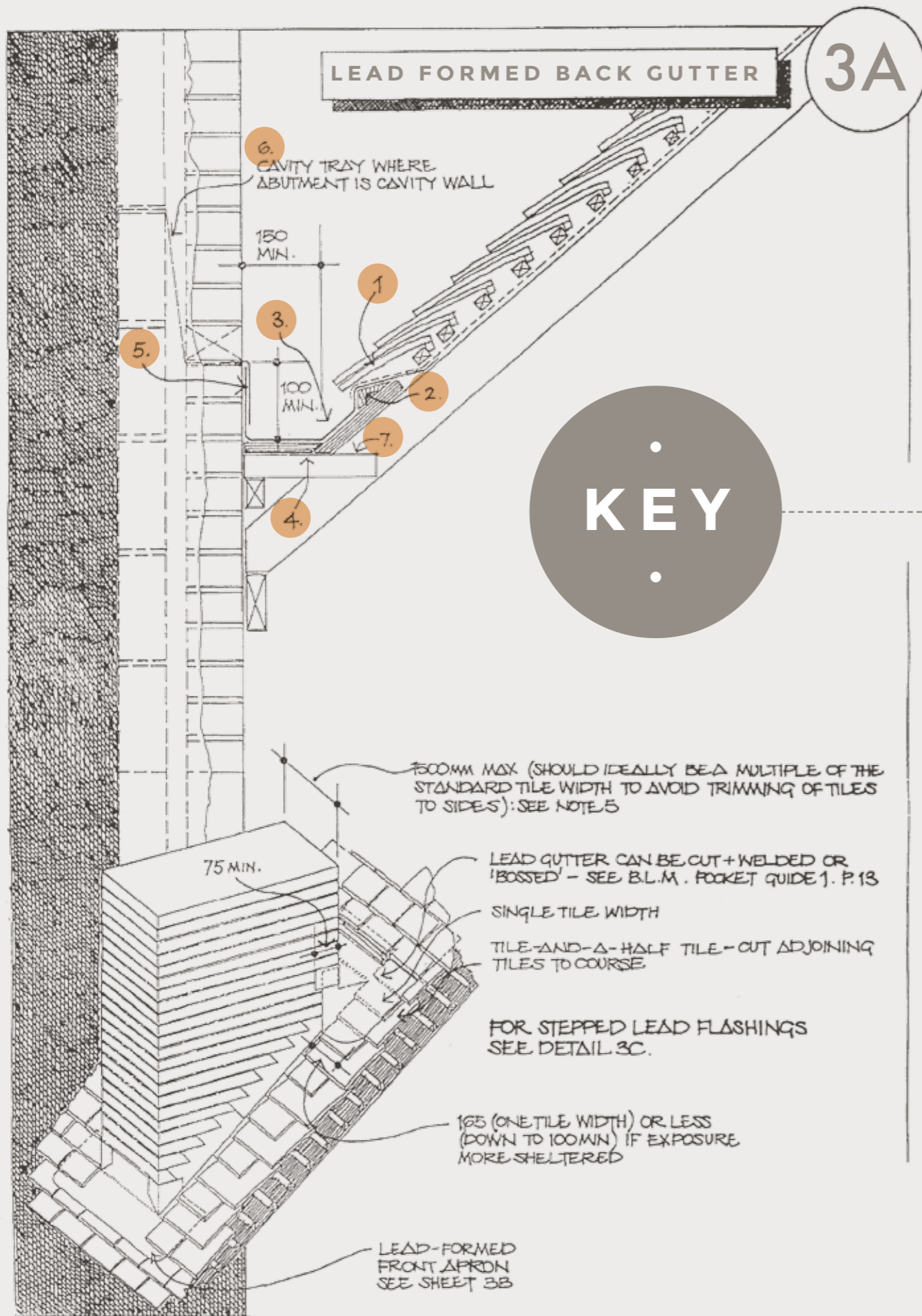
3A Page 9-10

3B Page 11-12

3C Page 13-14

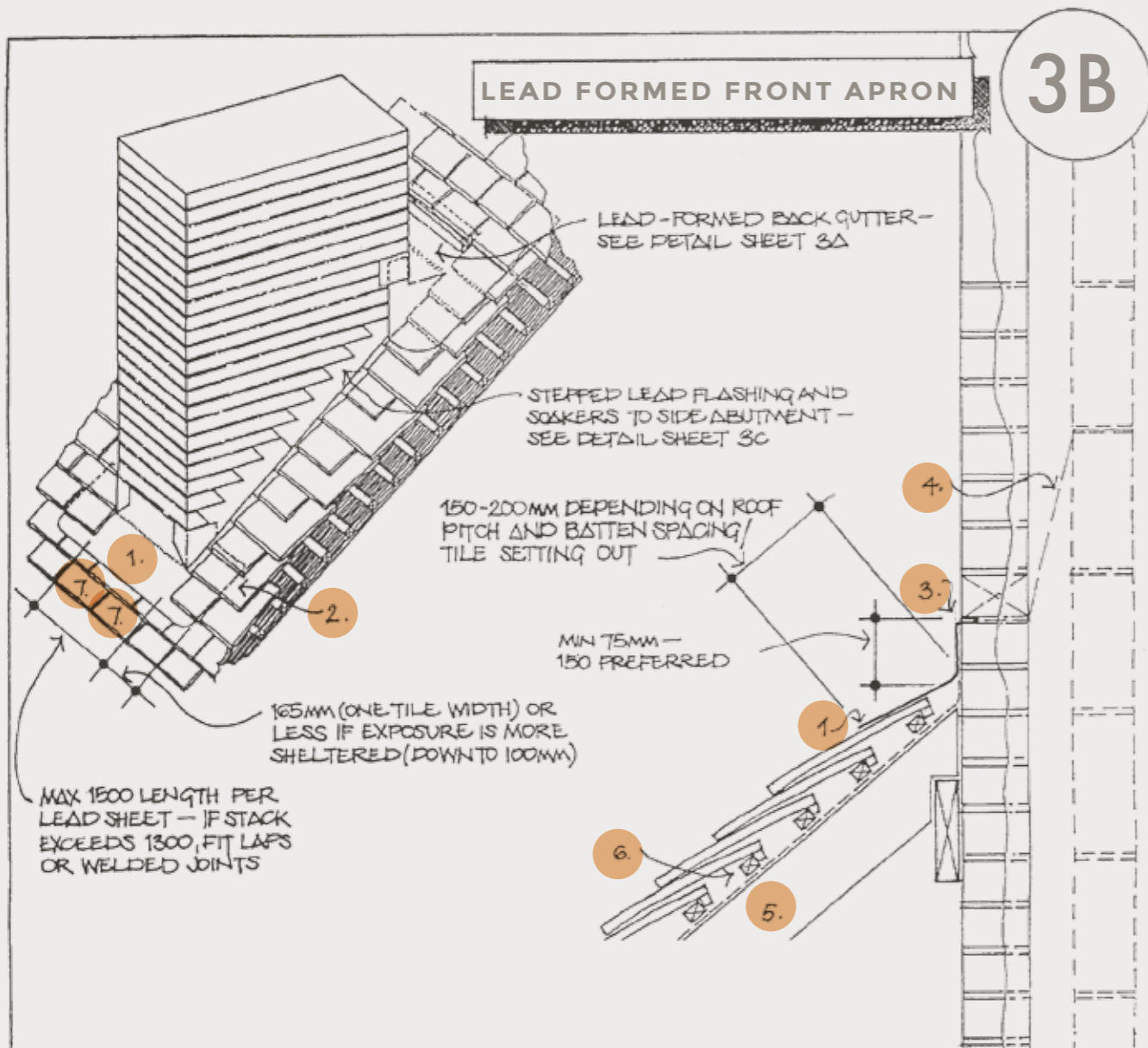
3D Page 15-16

3E Page 17-18



LEAD FORMED BACK GUTTER

- 1 Eaves tile course
- 2 Treated timber fillet with lead-formed gutter bossed* over (*gutter gently worked to form)
- 3 British Lead Mills Code 5 lead formed gutter. The gutter here is nominally flat, having a relatively short length. Maximum length for this detail is 1,500. For longer abutments a stepped lead gutter should be used
- 4 Board/Sheet gutter former for lead-formed gutter
- 5 Code 5 lead flashing to masonry course
- 6 Where abutment is to solid masonry, consider installing a through-wall D.P.C. to reduce damp penetration down through wall. Where abutment is to cavity wall, install cavity tray and weepholes
- 7 Treated timber bearer supporting gutter former



LEAD FORMED FRONT APRON

- 1 British Lead Mills Code 5 lead formed front apron
- 2 Apron is fitted under side abutment flashings and extends under tile courses as shown
- 3 Where abutment is to solid masonry, consider installing through-wall D.P.C. to reduce damp penetration down through wall
- 4 Where abutment is to cavity wall, install cavity tray and weepholes, for similar reasons
- 5 Rafter
- 6 Tile battens and underlay
- 7 If the width of the abutment is not a tile module, cut gable tiles to achieve half tile coursing



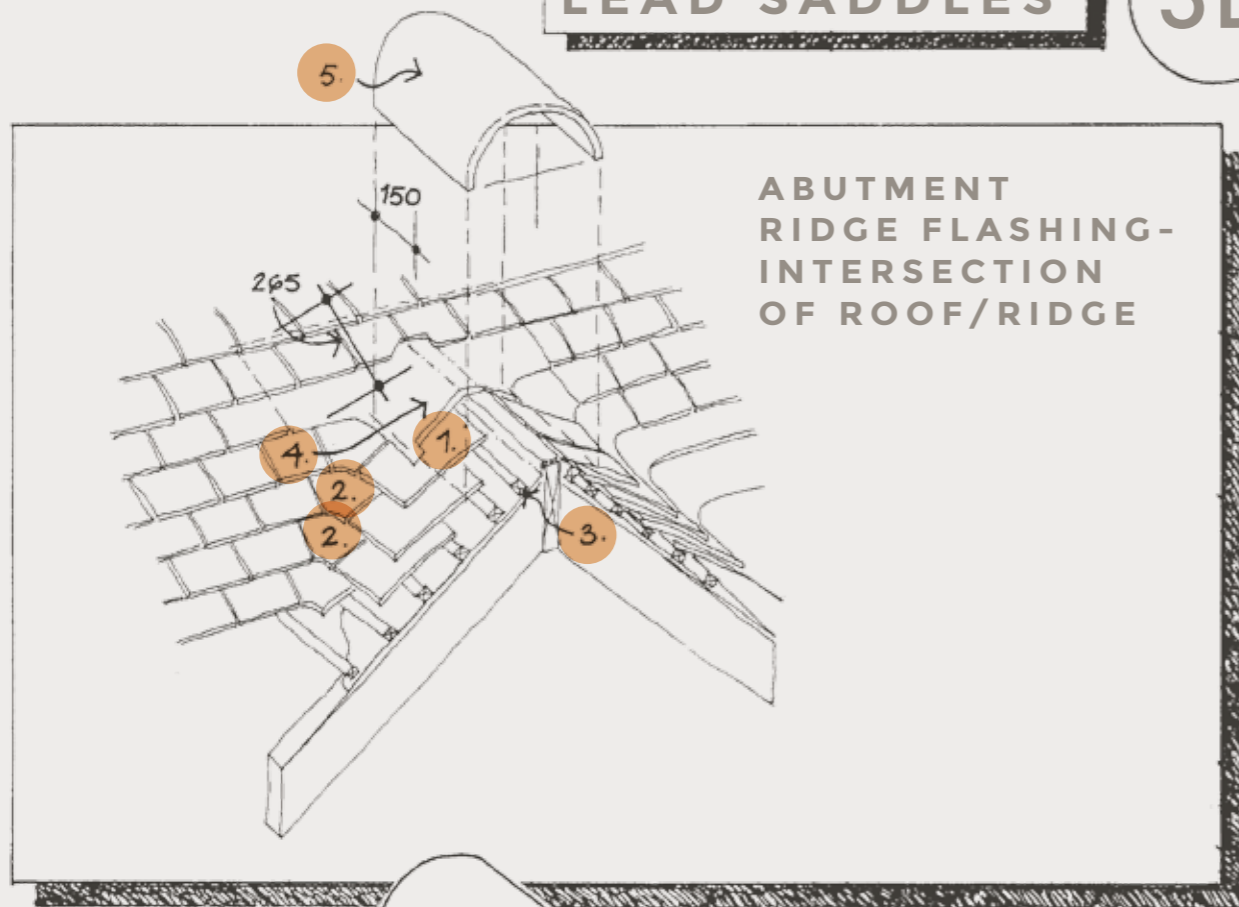
STEPPED FLASHINGS

To Side Masonry Abutments

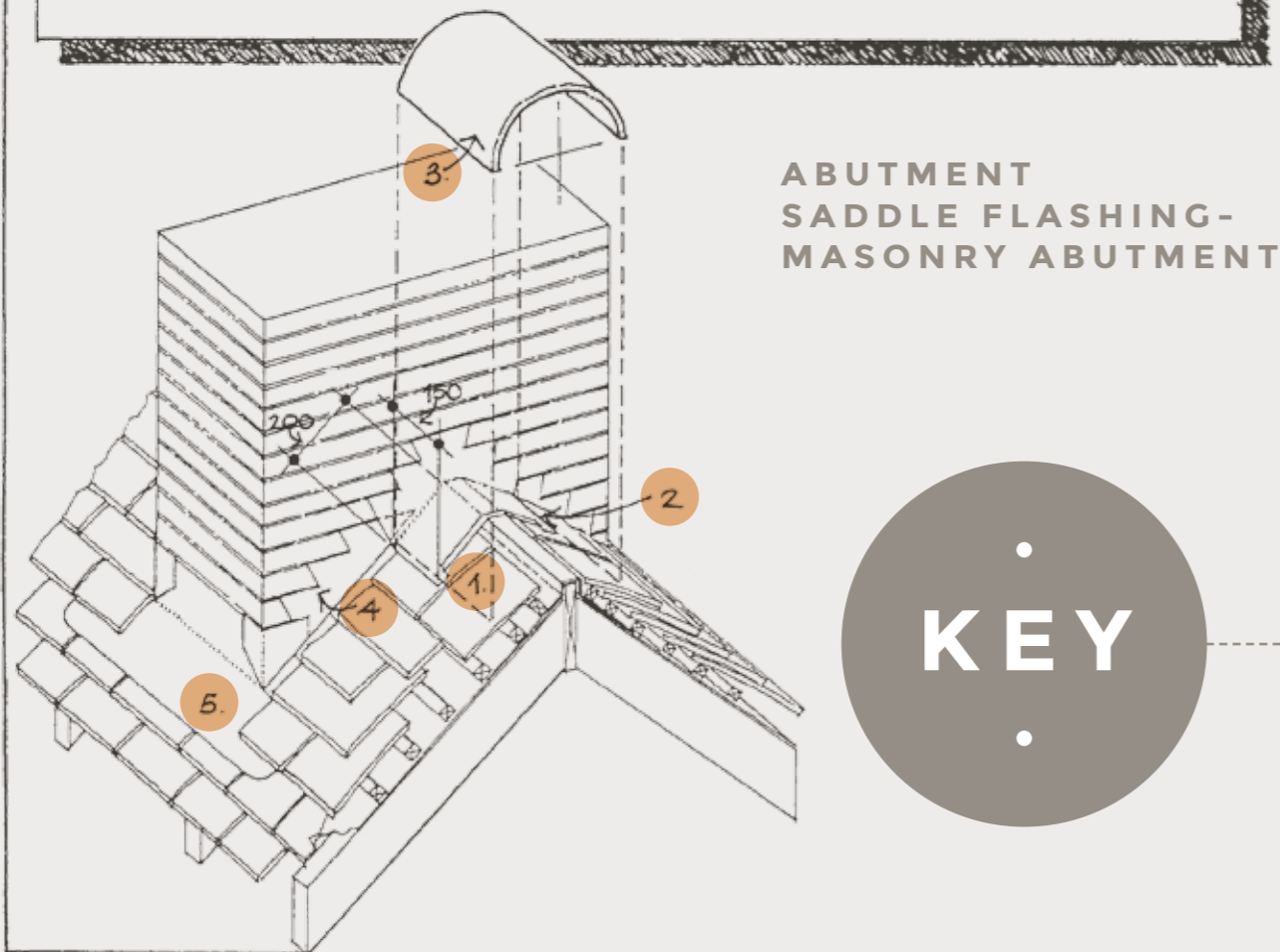
- 1 Full width tile (165mm) - cut adjoining tiles as necessary to achieve half-tile coursing
- 2 Tile-and-a-half to alternating courses
- 3 British Lead Mills Code 3-4 lead soakers to each abutment tile
- 4 Stepped Code 4 or 5 lead flashings fitted over soakers and fixed to masonry joints with lead wedges. Note lower extremity of stepped flashing is brought over and around front abutment flashing
- 5 Where abutment is to solid masonry wall, consider installing through - wall D.P.C. to reduce damp penetration down through wall
- 6 Where abutment is to cavity brickwork, install cavity tray and weepholes for similar reasons
- 7 Edge tiles are laid down over open welted lead secret valley lining. Upper edge tiles to be pointed
- 8 25 x 25 treated counter batten
- 9 Treated bearer / sheet valley former

LEAD SADDLES

3D



ABUTMENT
RIDGE FLASHING -
INTERSECTION
OF ROOF/RIDGE



ABUTMENT
SADDLE FLASHING -
MASONRY ABUTMENT

KEY

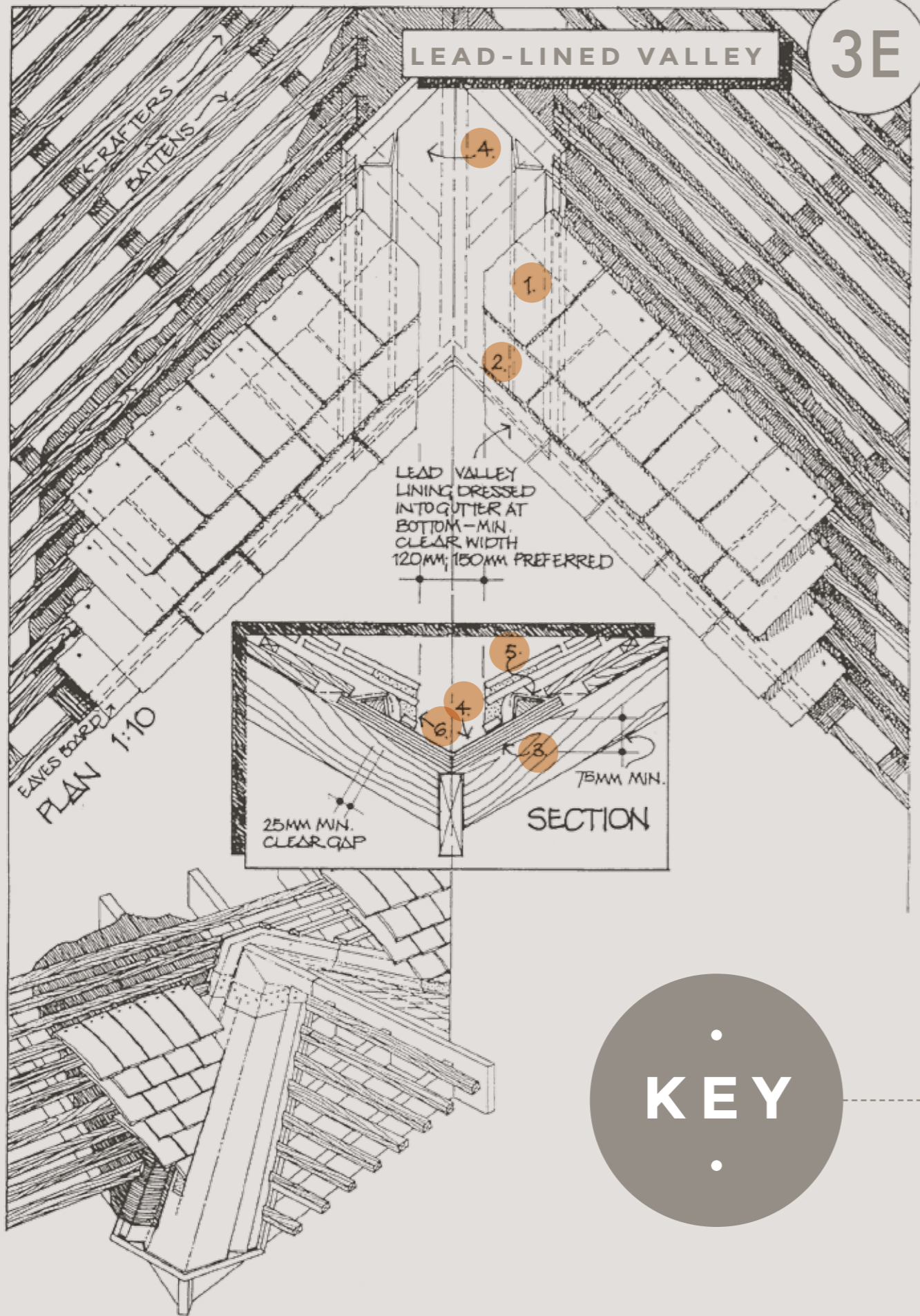
LEAD SADDLES

Abutment Ridge Flashing - Intersection Of Roof/Ridge

- 1 Top tile
- 2 Purpose made valley tile
- 3 See Ridges on pages 1 -2 or batten/felt details
- 4 British Lead Mills Code 5 formed lead saddle to abutment junction
Saddle can be bossed or have welded gusset for steeper roof pitches
- 5 Ridge sits on lead saddle. Rear of ridge is trimmed to angle of adjoining roof abutment and pointed to tiles

Abutment Saddle Flashing - Masonry Abutment

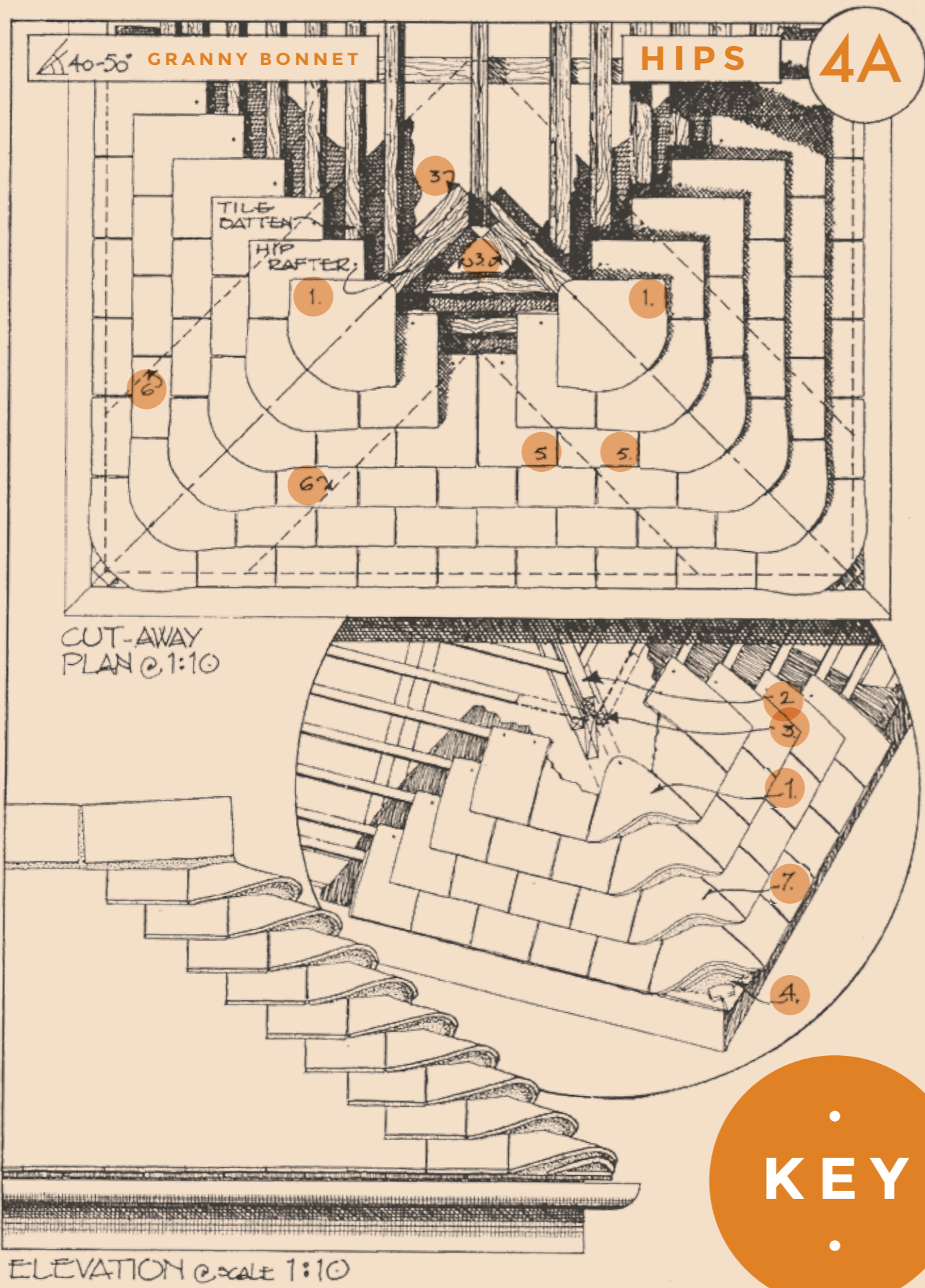
- 1 Top tile
- 2 British Lead Mills Code 5 formed lead combined saddle/flashing.
Flashing is wedged min 25mm into masonry joints with lead wedges
- 3 Ridge sits on lead saddle and is pointed to masonry abutment
- 4 See detail: Page 13 for C3 side abutment flashing details
- 5 See detail: Page 11 for 3B for front lead formed abutment



LEAD-LINED VALLEY

- 1 Cut plain tiles to form valley channel
- 2 Cut gable (tile-and-a-half) tiles may be required to maintain half tile coursing
- 3 Ply valley board and timber fillets each side to support tiles at valley channel
- 4 British Lead Mills Code 5 lead valley lining
- 5 Roofing felt to be dressed over fillet into 25mm gap
- 6 Mortar bedding on plain tile slips

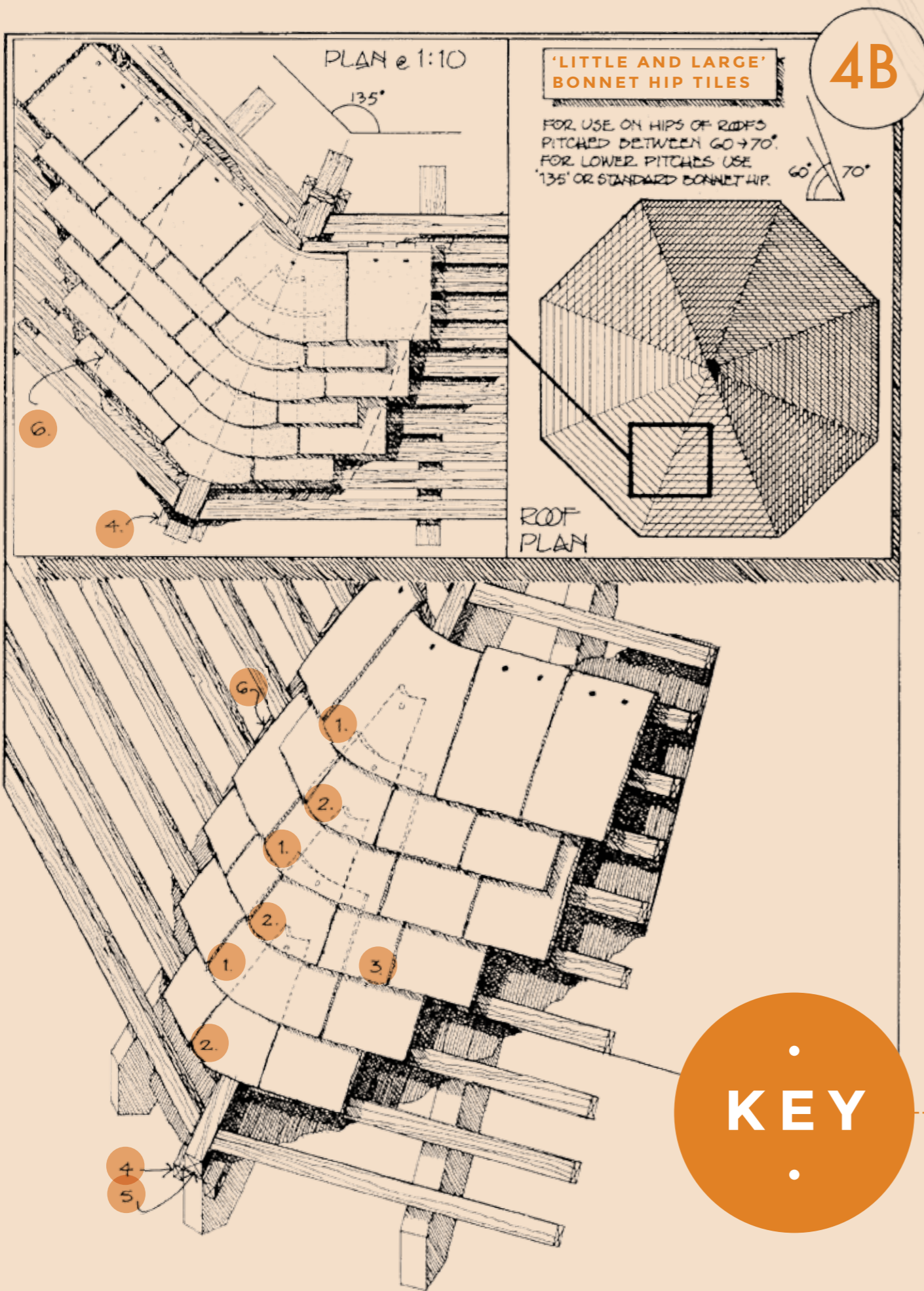




40-50° GRANNY BONNET-HIPS

- 1 Granny bonnet
- 2 For lower roof pitches (ie 40-45°) it is recommended to fix a double batten along the hip rafter to tip the bonnet up, and so reduce the thickness of mortar bedding
- 3 Treated S.W. bearers support batten ends when doubled hip battens are used
- 4 Bonnet tile trimmed as 'undercloak' and tile 'tongue' to reduce visual impact of mortar bedding to bottom bonnet
- 5 Use gable tiles and out tiles as needed to achieve half-tile coursing to main slopes
- 6 600mm wide strip of roofing felt laid over general roofing underlay
- 7 Jockeying of bonnets

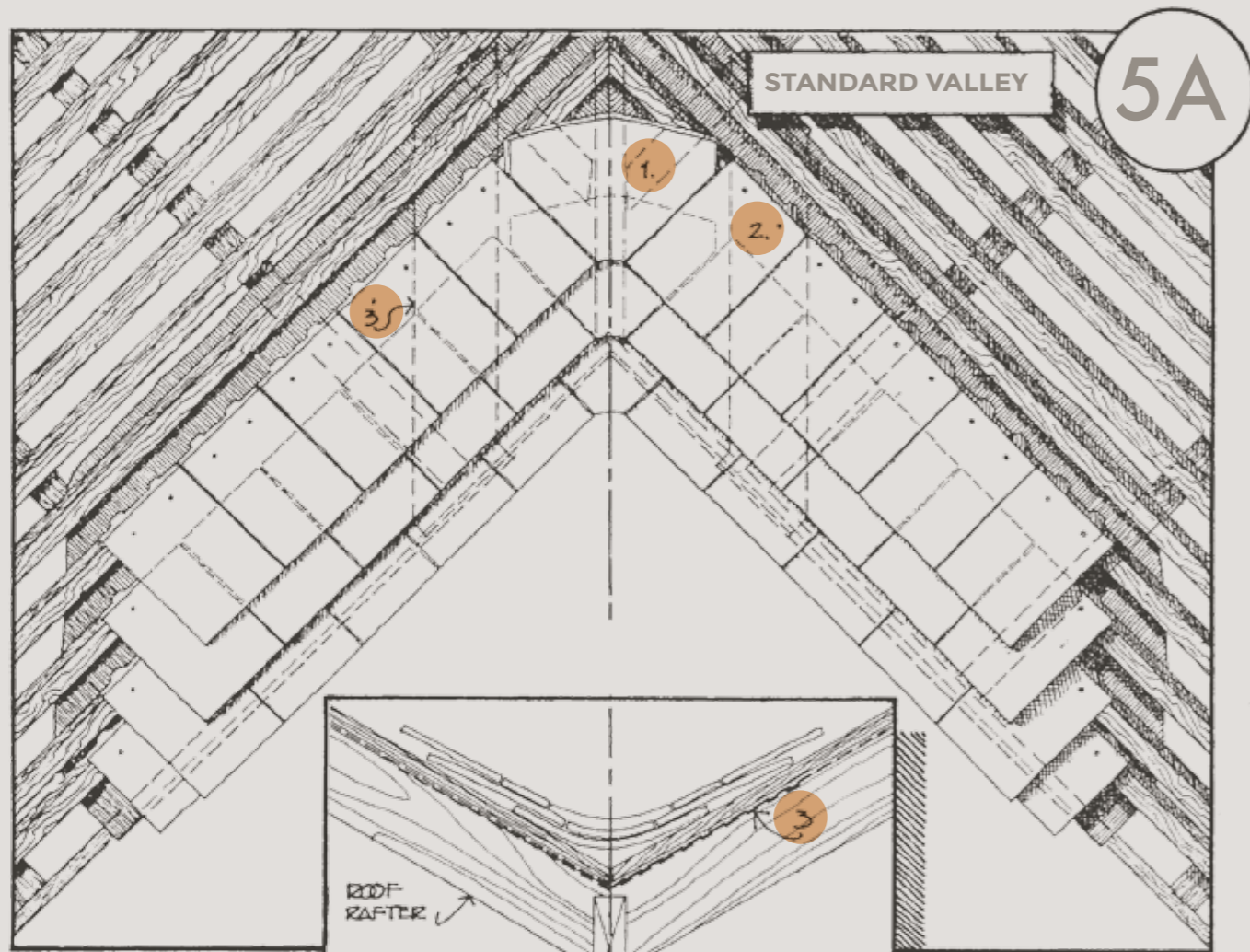




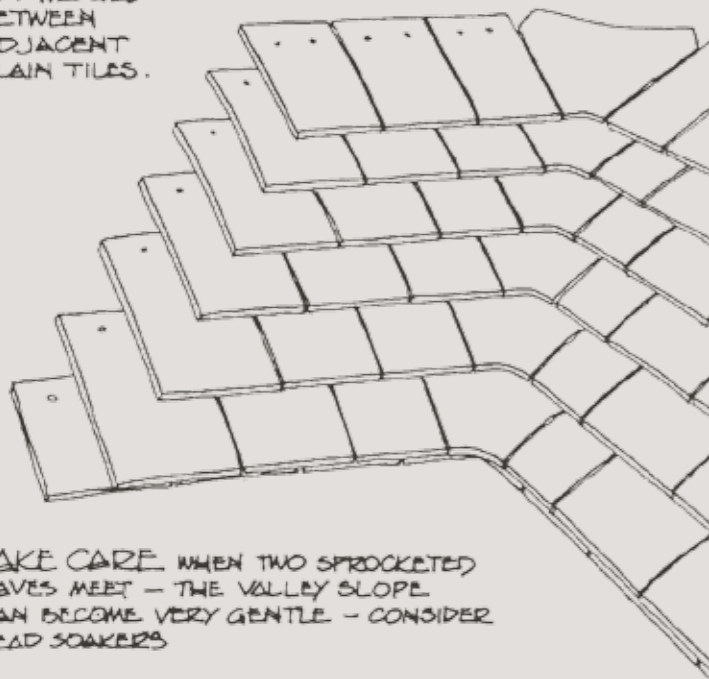
4B

'LITTLE AND LARGE' BONNET HIP TILES

- 1 'Large' tile
- 2 'Little' tile
- 3 Depending on pitch, cut tiles may be required to ensure good fit and half-tile coursing
- 4 Timber bearer to batten ends
- 5 Counter batten to give tilt and good fixing for bonnet nails
- 6 600mm wide strip of underlay, laid over general underlay



NOTE: THESE VALLEY TILES ARE NOT NAILED, BUT WEDGED BETWEEN ADJACENT PLAIN TILES.

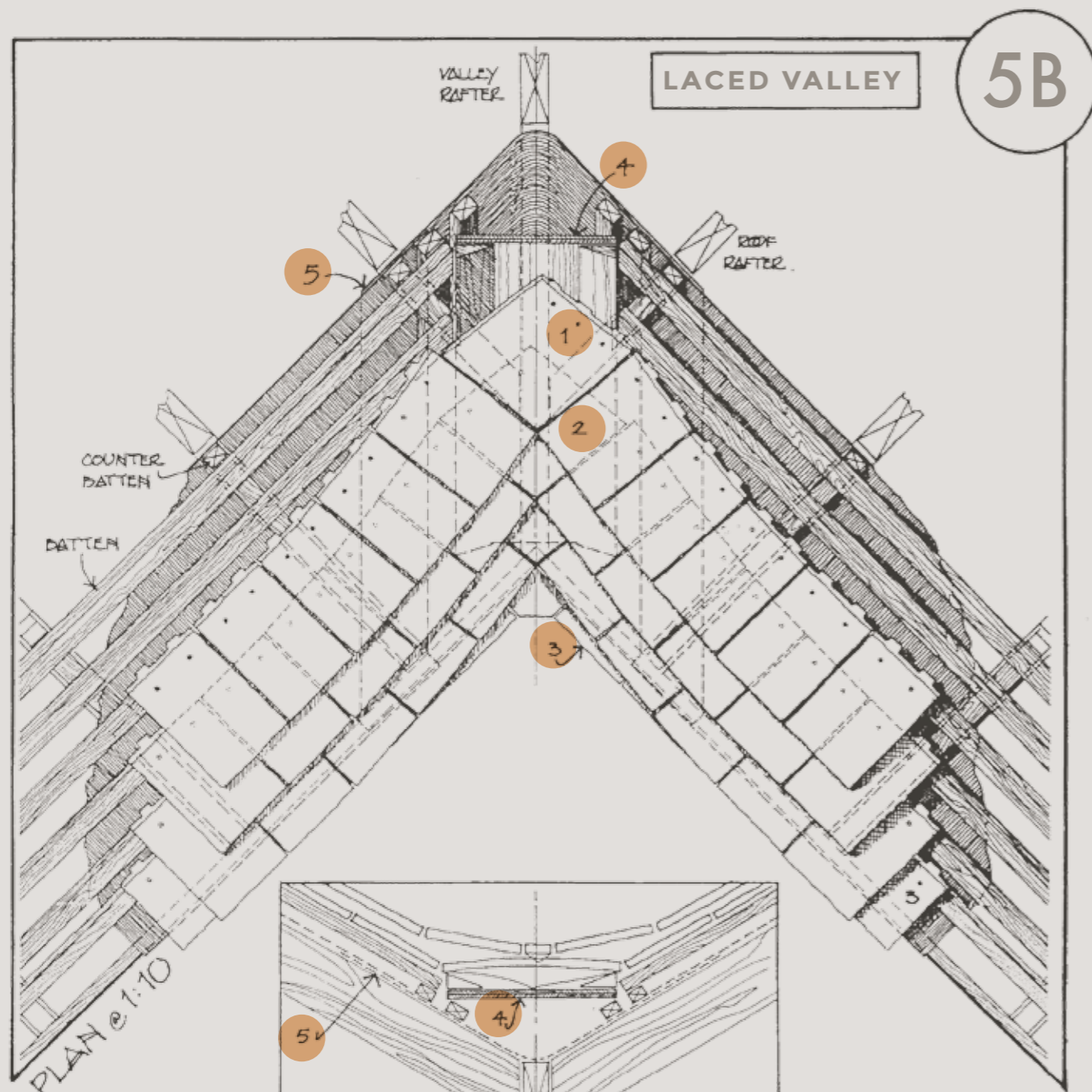


TAKE CARE WHEN TWO SPROCKETED EAVES MEET - THE VALLEY SLOPE CAN BECOME VERY GENTLE - CONSIDER LEAD SOAKERS



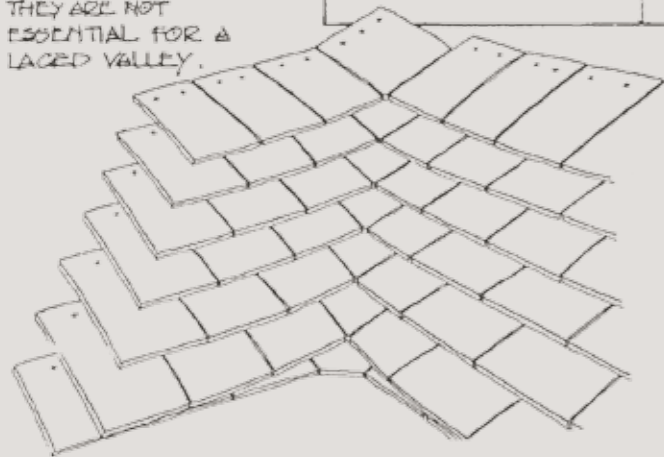
STANDARD VALLEY

- 1 Standard valley tile, suitable for the meeting of equal pitch slopes of 40-50°. For pitches of 50-60°, use the Keymer 60° valley. For pitches outside these ranges, consult Keymer who will make special valley tiles
- 2 Depending on pitch, adjacent plain tiles may require cutting to form neat junction, and to keep half tile coursing
- 3 Continuous 600mm wide strip of underlay, under general underlay, and overlapped by the general underlay by at least 150mm



N.B. THIS DETAIL SHOWS COUNTERDATTENS. THEY ARE NOT ESSENTIAL FOR A LACED VALLEY.

SECTION
@ SCALE 1:10



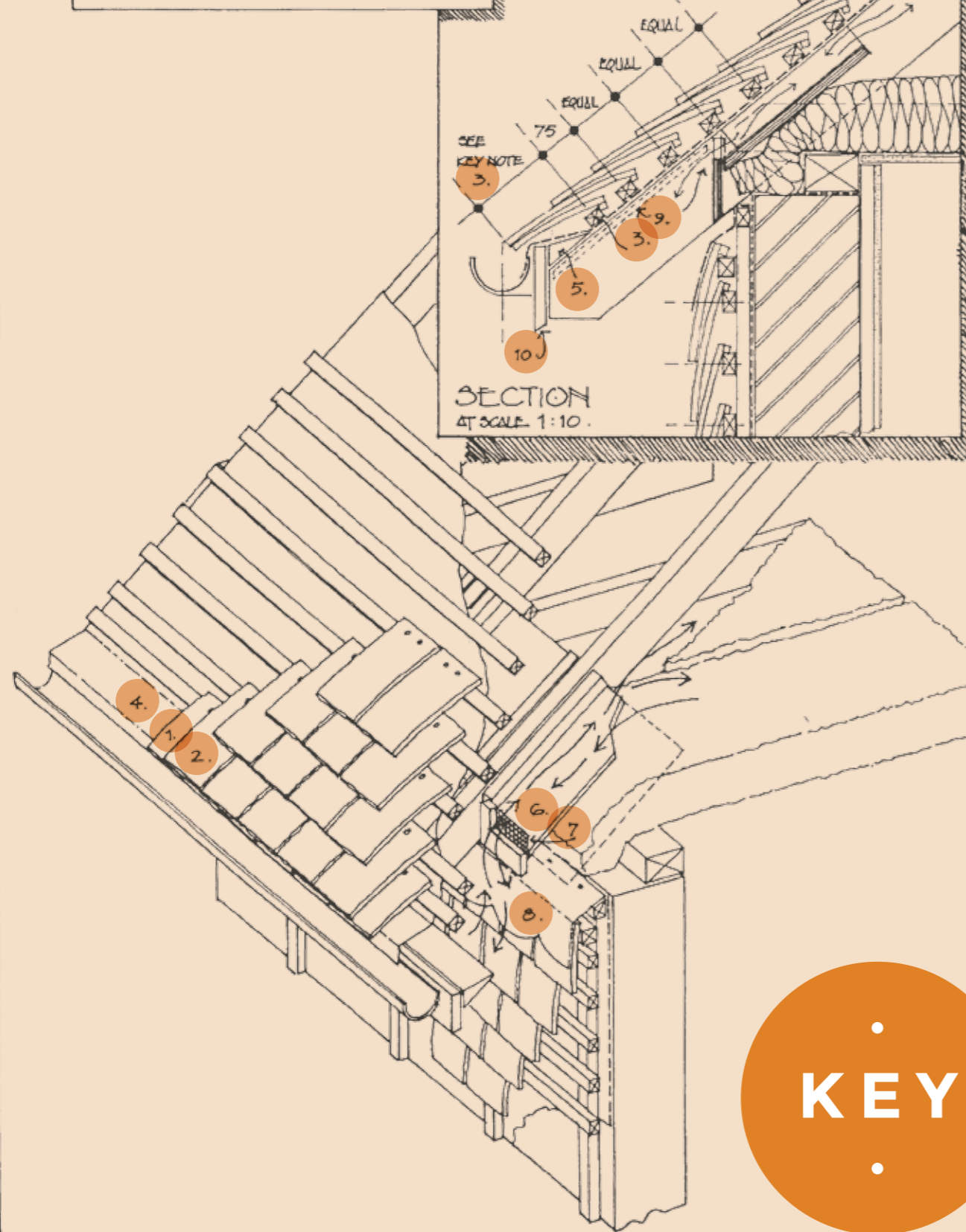
LACED VALLEY

- 1 Tile-and-a-half ' tile turned through 90° in alternate courses
- 2 Adjacent plain tiles may require cutting to fit and course
- 3 Eaves tile course continues straight, but the next course (the first course of full size tiles) tilts up at the valley to start the 'lacing'
- 4 Ply valley board and timber fillets each side to support tile-and-a-half-tile
- 5 Continuous 600mm wide underlay strip, under general underlay

EAVES DETAIL WITH OPEN SOFFIT AND STRAIGHT

6A

RAFTER FOOT



EAVES DETAIL WITH OPEN SOFFIT AND STRAIGHT RAFTER FOOT

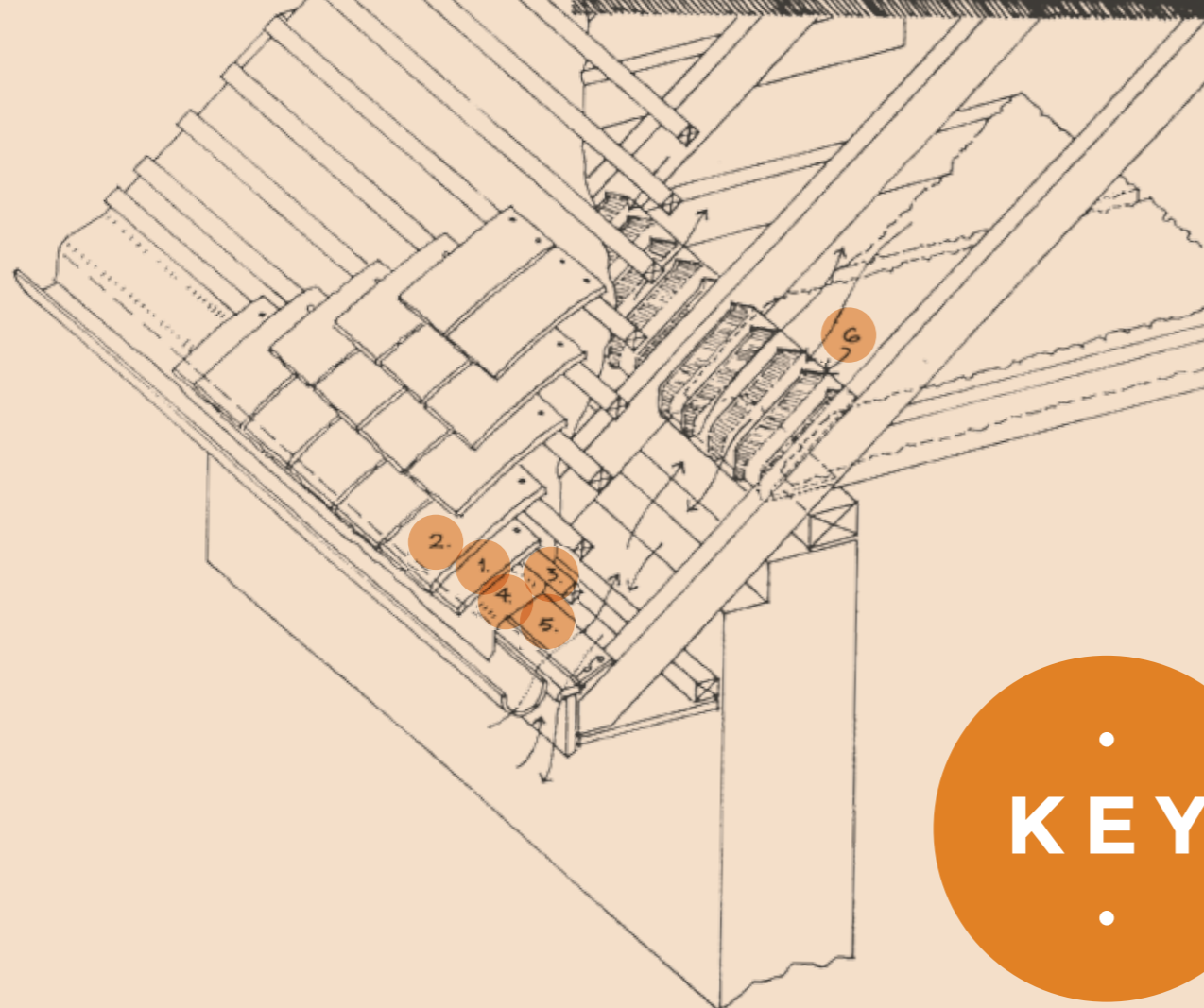
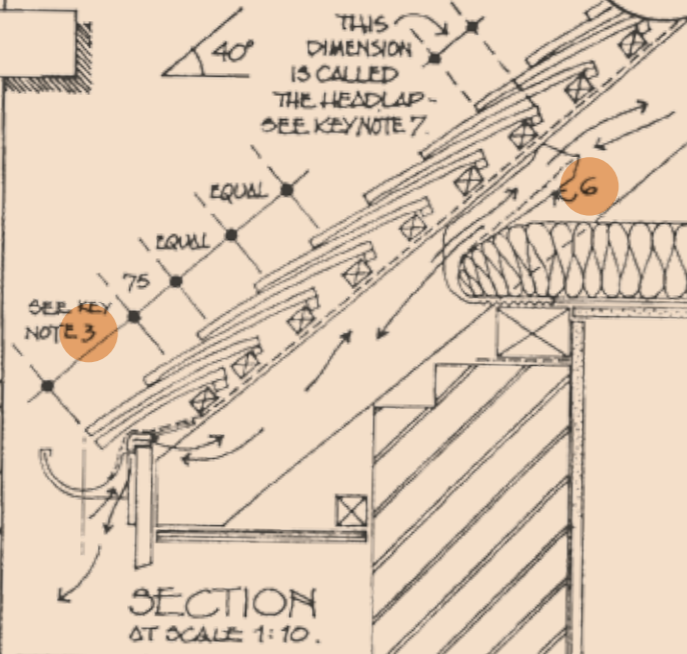
- 1 Eaves tile (190mm long)
- 2 Standard tile (265mm long)
- 3 First batten set out to ensure that rainwater discharges to centre of gutter
- 4 Underlay extends into gutter and ponding is avoided by the use of an underlay support tray
- 5 Timber tilting fillet
- 6 Ply sheet and supporting noggins to maintain ventilation path
- 7 Mesh to keep out insects, birds etc
- 8 Flashing to neaten and weatherproof the top course of tile hanging
- 9 If the eaves overhang is large, consider using a dark stained timber under lining - looking up at underlay is not attractive - but make sure that it does not trap the underlay or obstruct the vent path
- 10 This detail shows a fascia - it can be omitted and the rafter feet exposed (but remember to use rafter brackets to support the gutter, not fascia brackets)

EAVES DETAIL WITH CLOSED SOFFIT AND STRAIGHT

6B

RAFTER FOOT

N.B.
THIS SHEET SHOWS
A ROOF PITCH OF
40°, THE MINIMUM
GENERAL PITCH
FOR A KEYMER
TILED ROOF.
(SPROCKETS CAN BE
A LITTLE GENTLER)



KEY

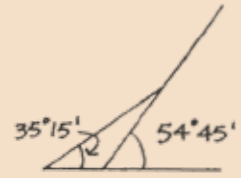
EAVES DETAIL WITH CLOSED SOFFIT AND STRAIGHT RAFTER FOOT

- 1 Eaves tile (190mm long)
- 2 Standard tile (265mm long)
- 3 First batten set out to ensure that rainwater discharges to centre of gutter
- 4 Underlay extends into gutter and is always sloping to avoid ponding
- 5 Keymer 'in-line' eaves vent accessory supports the underlay and gives continuous vent. The need for insect mesh etc, cutting of soffit board and so on is avoided
- 6 Keymer 'in-line' eaves vent accessory keeps insulation from obstructing air path venting the roof space
- 7 Battens set out to give minimum headlap of 65mm. In practice, this means a maximum batten spacing of 100mm

EAVES DETAIL WITH SPROCKETED

6C

RAFTER FOOT



THIS SHEET SHOWS THE MAIN ROOF RAFTERS AT 54°45', THE ANGLE PRODUCED BY SETTING UP THE HIP RAFTERS AT 45°. THE SPROCKETS ARE AT 35°15', WHICH IS THE RESULTANT ANGLE OF THE SQUARE.

SEE KEY NOTES

SECTION AT SCALE 1:10

KEY

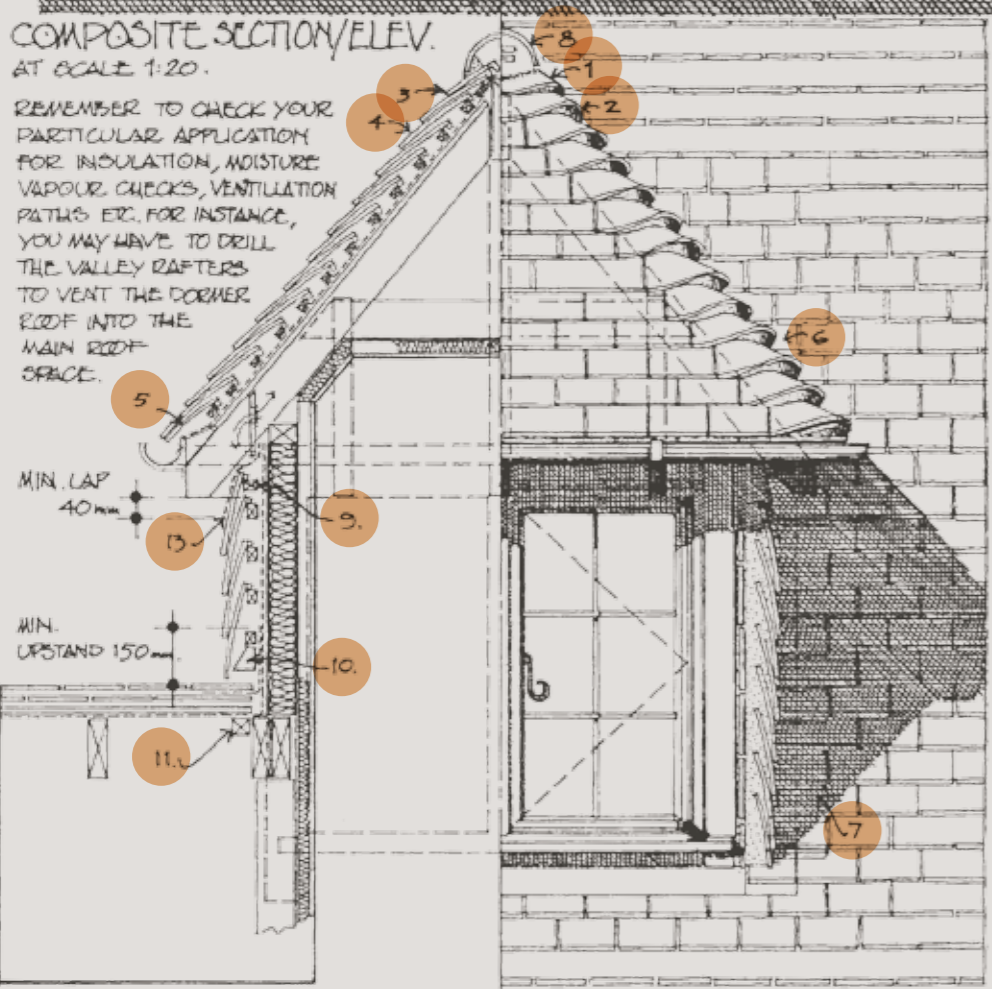
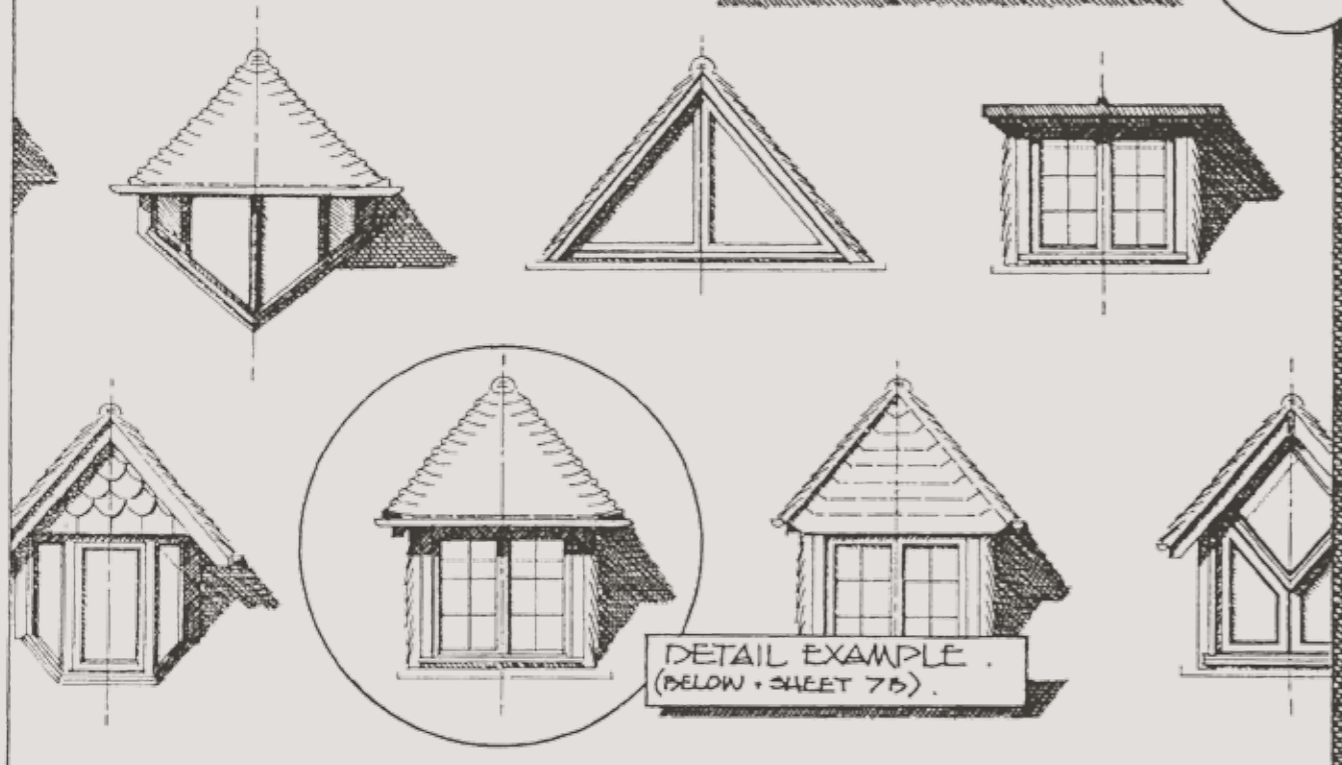
EAVES DETAIL WITH SPROCKETED RAFTER FOOT

- 1 Eaves tile (190mm long)
- 2 Standard tile (265mm long)
- 3 First batten set out to ensure that rainwater discharges to centre of gutter
- 4 These battens should be set out to miss the change in angle between sprocket and rafter. This gives a much gentler 'bell cast' shape to the roof
- 5 Underlay
- 6 Tilting fillet
- 7 Sprocket nailed to side of rafter foot
- 8 Ply sheet to maintain vent path*
- 9 Counter-batten to produce air path

*Don't forget the insect mesh

DORMER WINDOWS

7A



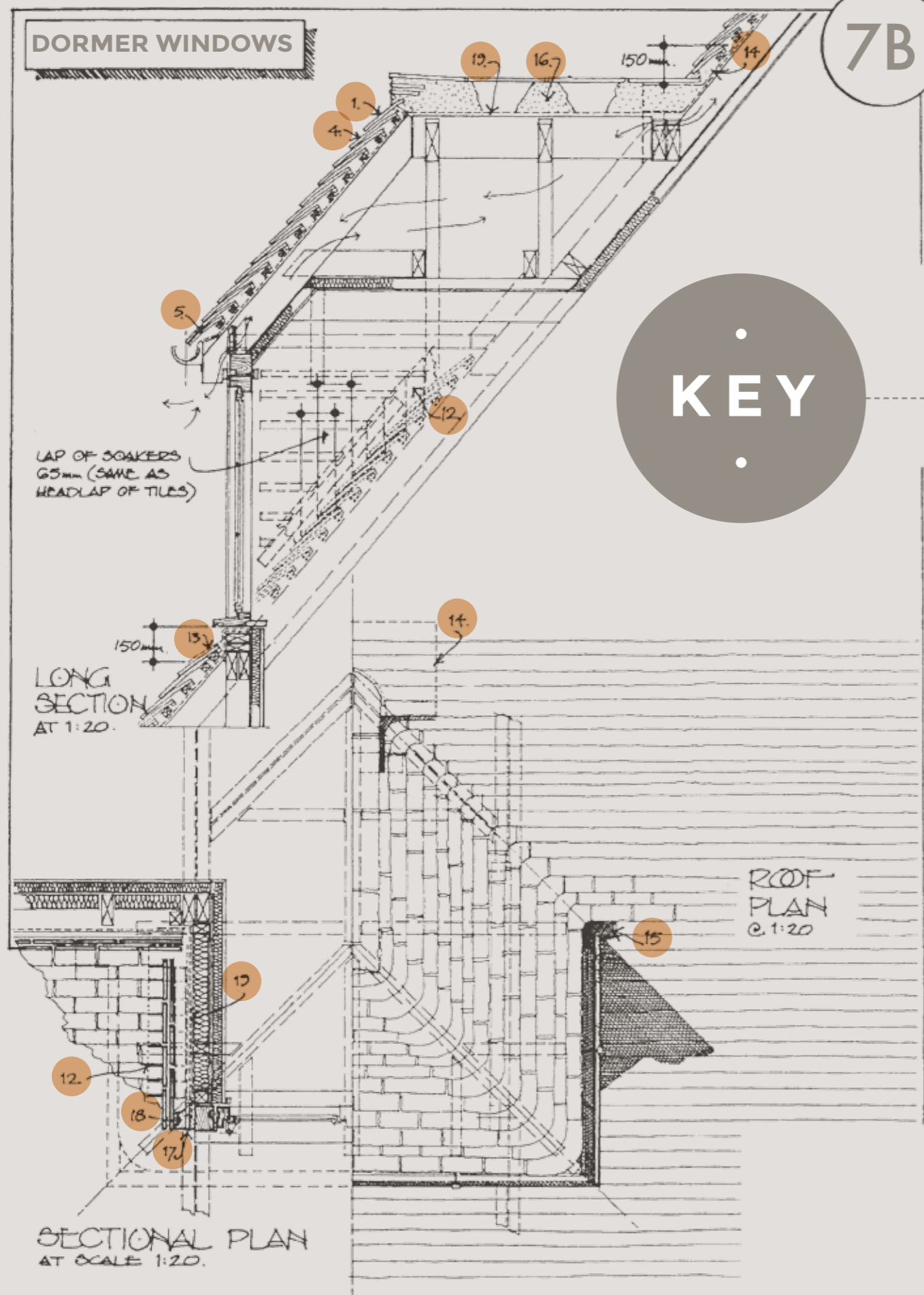
DORMER WINDOWS

From Diagrams 7A - 7B

- 1 Top bonnets cut to fit and to course, and to lift end ridge tile
- 2 Standard bonnet
- 3 Top tile (210mm long)
- 4 Standard tile (265mm long)
- 5 Eaves tile (190mm long)
- 6 Standard valley
- 7 Tile-and-a-half tile
- 8 Half Round ridge tile. Tile slip end filling
- 9 Top batten turned through 90° to build out top course
- 10 Tilting fillet
- 11 Batten bearer may be needed, depending on width of dormer cheek structure

DORMER WINDOWS

KEY



DORMER WINDOWS

Continued From Page 34

- 12 Lead soakers, 150mm upstand and 150mm under each tile, and projecting 10mm past leading edge of each tile

- 13 Lead dressing over top tile

- 14 Lead saddle under ridge and carried 150mm up slope

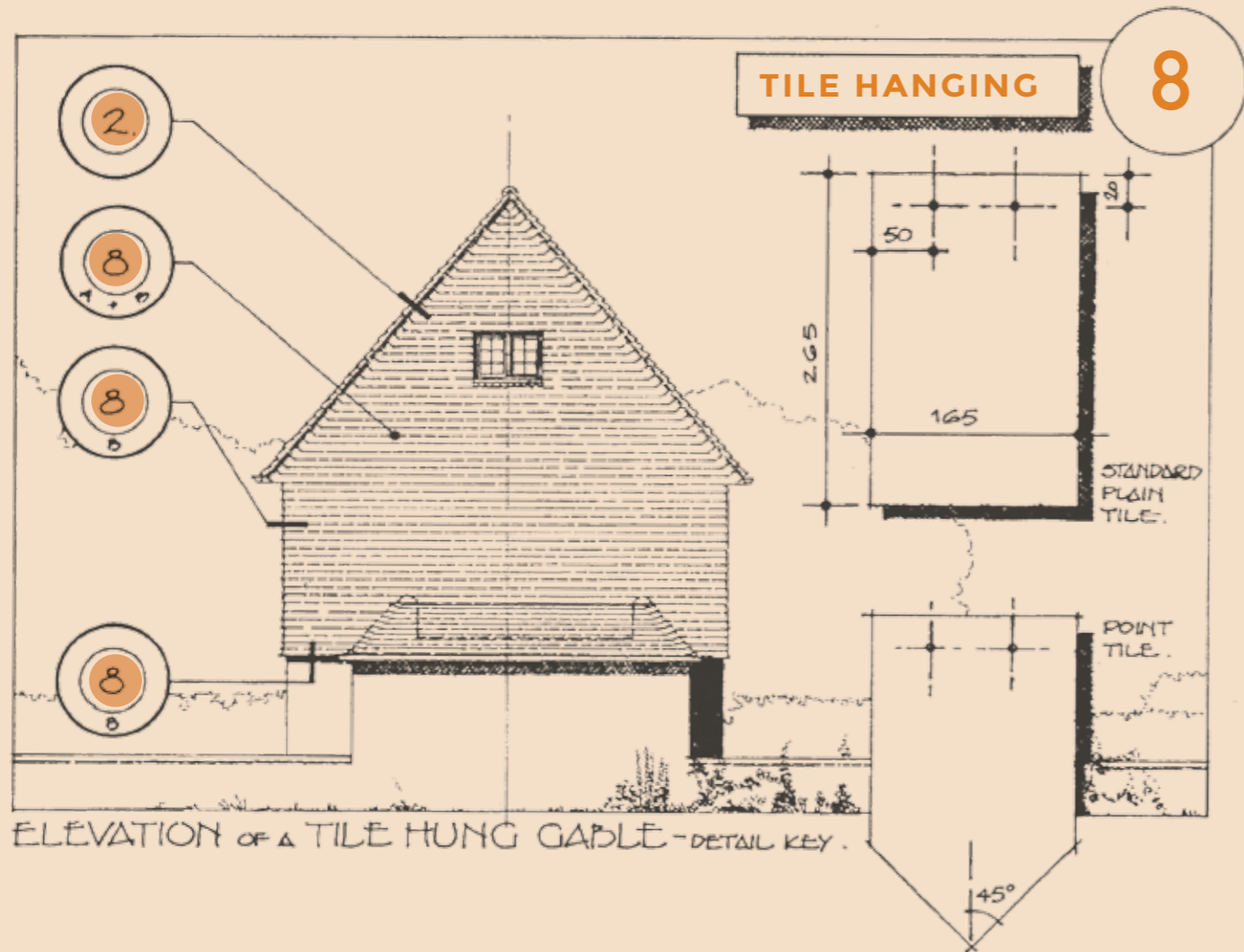
- 15 This area will receive rainwater from both the valley and the gutter. A lead apron would be sensible

- 16 Solid mortar bedding to ridge tile joints

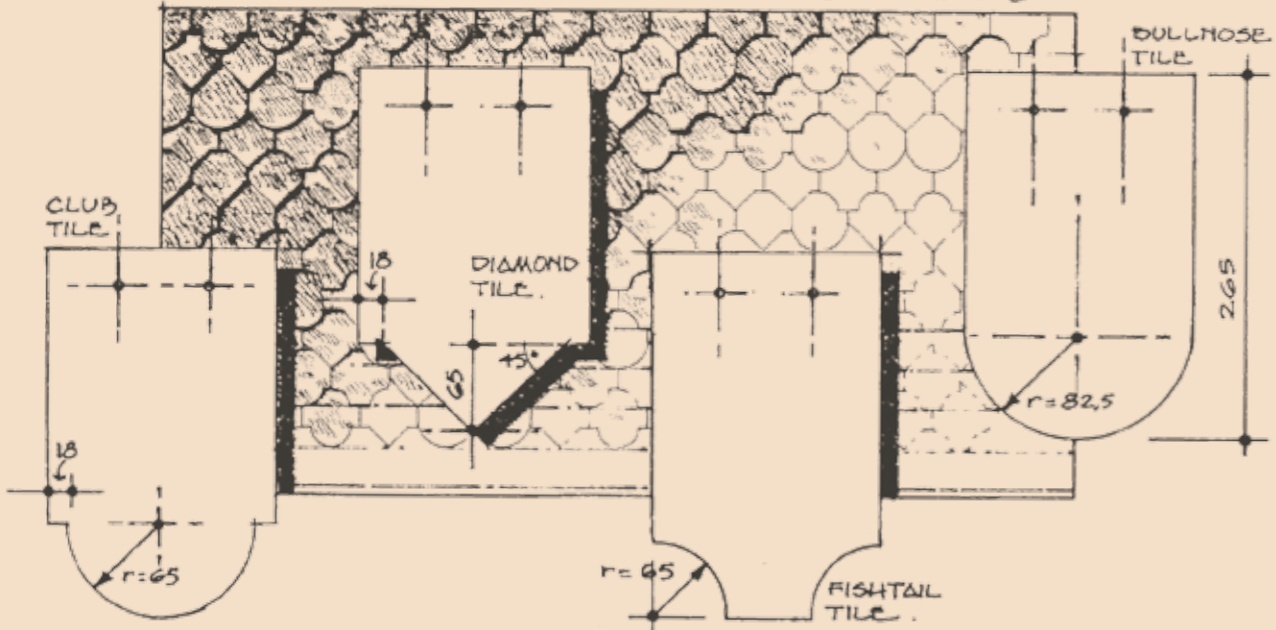
- 17 Half-tile slips nailed to post, to stop battens, give key for mortar, and to reduce visual mass of mortar. Set the mortar back a little, and take care to keep the tile edges clean

- 18 Mortar pointing to weatherproof edge of tile - hung cheeks. Again, keep the tile edges clean

- 19 Underlay is fixed in pieces and strips in accordance with the recommendations for each particular junction

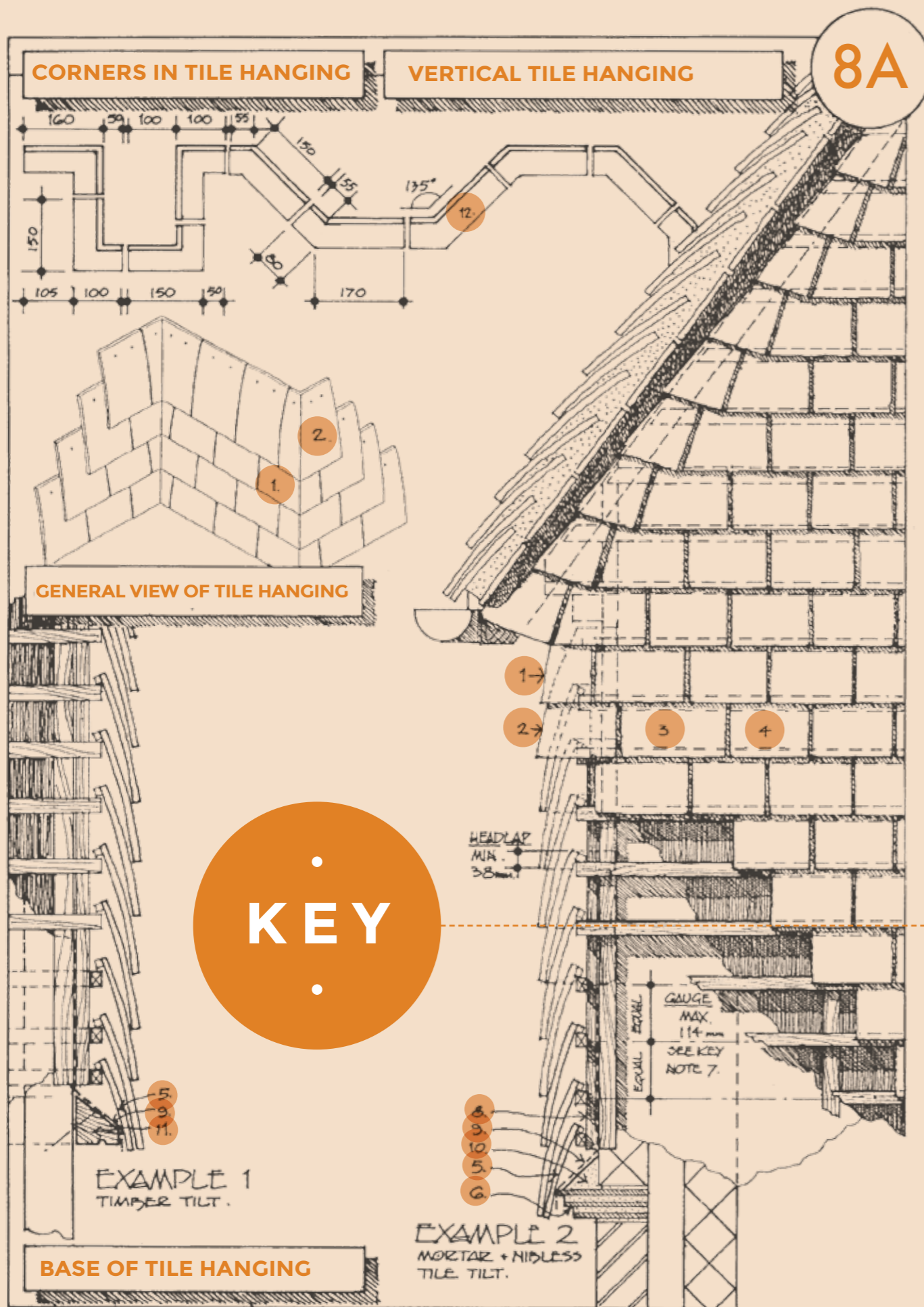


KEYMER STANDARD ORNAMENTAL TILES AT 1:5.



TILE HANGING

See Key Detail 8A And 8B On Pages 39 - 42



CORNERS IN TILE HANGING. VERTICAL TILE HANGING. GENERAL VIEW OF TILE HANGING. BASE OF TILE HANGING

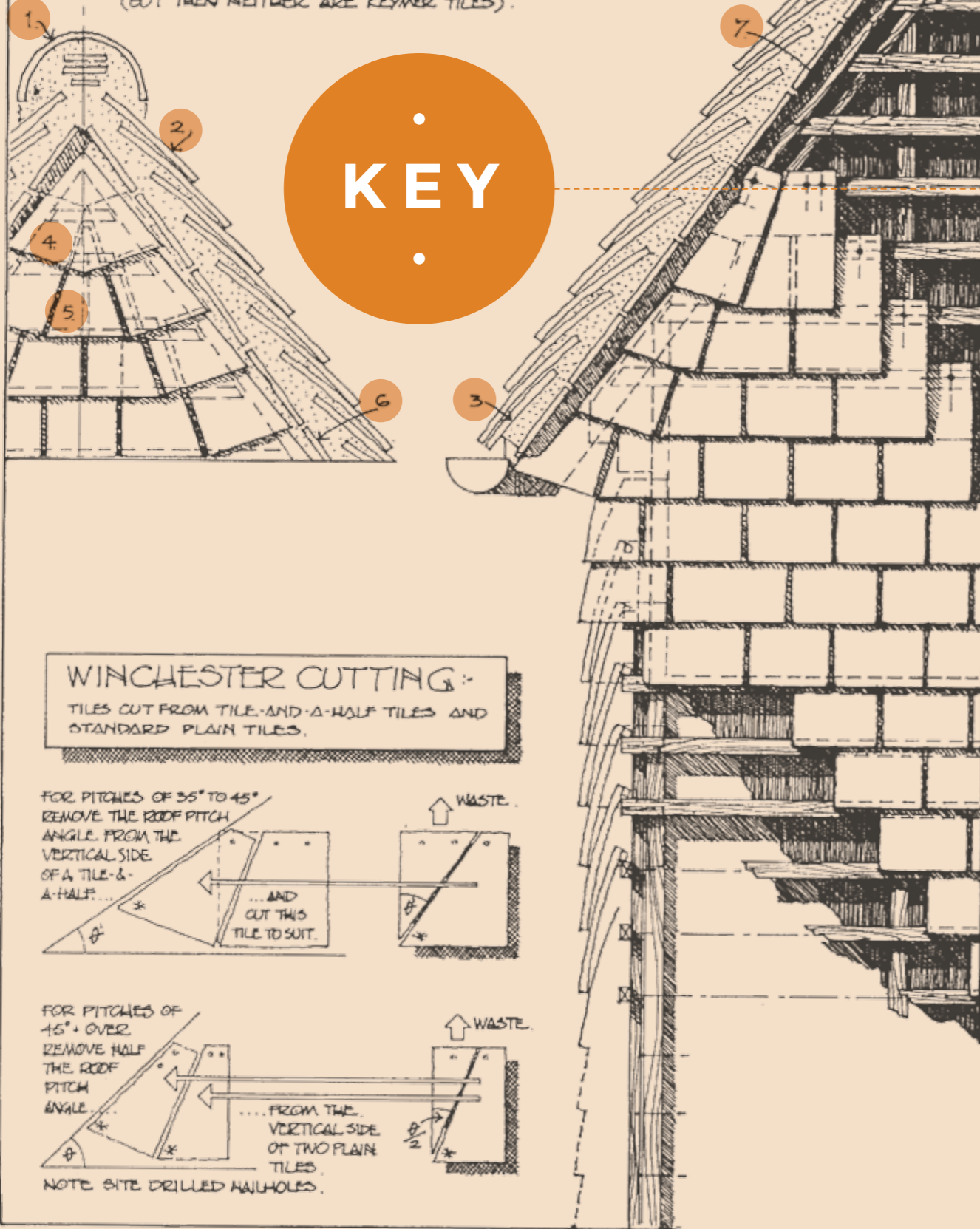
- 1 90° external angle (left hand)
- 2 90° external angle (right hand)
- 3 Cut tile-and-a-half tile to achieve half-tile coursing
- 4 Standard plain tile
- 5 Eaves tile (190 long)
- 6 Nibless tiles
- 7 Battens set out to give minimum headlap of 38mm. In practice this gives a maximum batten spacing for vertical tile hanging of 114mm. The formula is: $\frac{\text{tile length-lap}}{2}$
- 8 Vertical counter battens
- 9 Underlay
- 10 Mortar tilting fillet
- 11 Timber tilting fillet
- 12 Keymer also produces 135° internal and external angles in handed sets

KEY

RIDGE AND VERGE JUNCTIONS

VERTICAL TILE HANGING

NOTE: THE WINCHESTER CUT DETAIL ILLUSTRATED HERE IS NOT RECOMMENDED FOR THE VERGES OF ROOFS PITCHED BELOW 35° (BUT THEN NEITHER ARE KEYMER TILES).



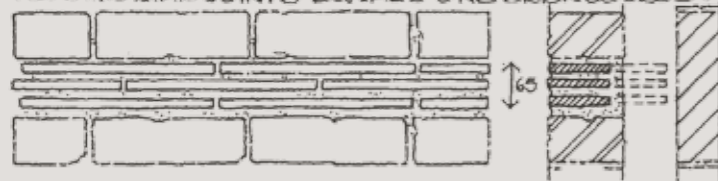
RIDGE AND VERGE JUNCTIONS.

VERTICAL TILE HANGING

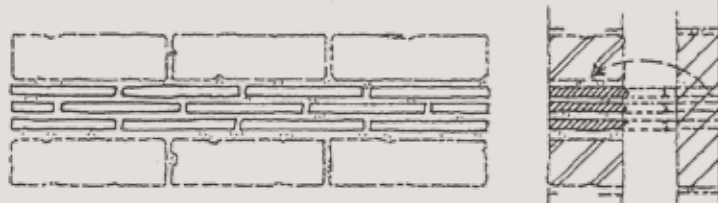
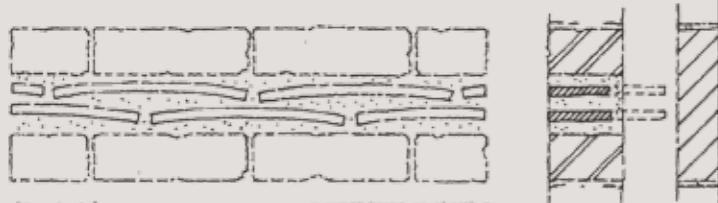
- 1 Half round ridge tile with tile slip filling
- 2 Top tile (see Ridges 1 for further guidance)
- 3 Eaves tile (see 6A, B and C for guidance)
- 4 Special tile cut on site from tile-and-a-half tile, and fixed with mortar, lead clips and/or nailed through site-drilled nail holes
- 5 Special tile cut on site from standard plain tile and fixed as noted in 4 above
- 6 Nibless or standard plain tiles with short side showing as undercloak
- 7 With all roof pitches when Winchester cutting, it will be necessary to fix an additional tiling batten running parallel to the line of the roof pitch, in order to secure the last tile

BONDING

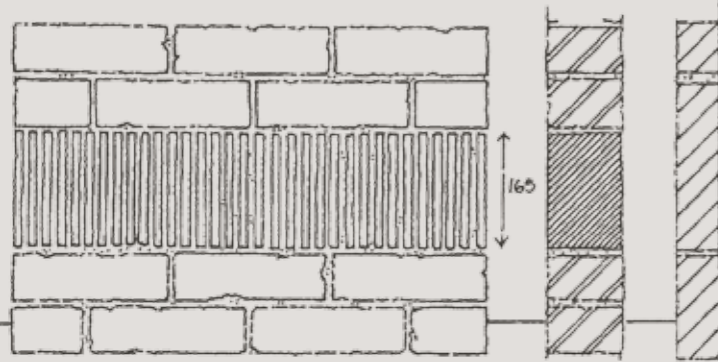
TILES IN WALLS SHOULD BE BONDED IN MUCH THE SAME WAY AS BRICKS. BUT REMEMBER! TILES ARE NOT THE SAME LENGTH OR WIDTH AS BRICKS \approx 50 PERCENTS WILL NOT LINE THROUGH BUT COURSING GENERALLY WILL \approx THREE TILES PLUS MORTAR JOINTS EQUALS ONE BRICK COURSE.



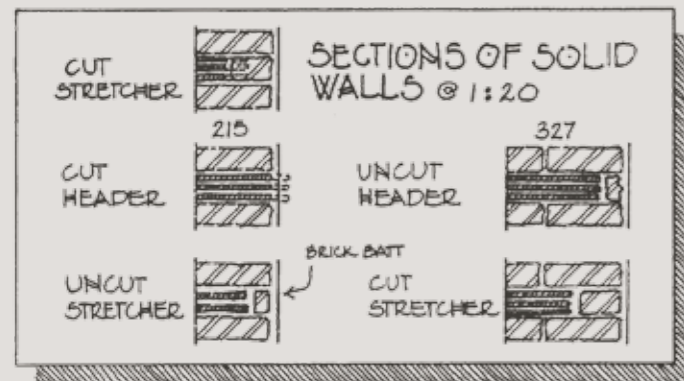
NIBLESS TILES LAID AS STRETCHERS @ SCALE 1:10

NIBLESS TILES LAID AS HEADERS
- OR USE PLAIN TILES

PLAIN TILES LAID AS STRETCHERS



PLAIN OR NIBLESS HEADER SOLDIER COURSE



TILES IN WALLS

INFO

BONDING.
TILES IN WALLS

Why Use Tiles In Walls?

Weather resistance - use to resist the passage of moisture

Non brick shapes - use to form arches, brackets and small module shapes

Colour/texture contrast - use to break up large areas, introduce texture variations, run string courses bands and patterns

Which Tiles To Use

Plain - the Keymer plain tile is suitable in many situations, but the nib must be taken into account (or used to advantage!)

Nibless - this solves any problems you may have with nibs

Ridges - these are useful as copings

Other tiles - your ingenuity is the only limitation!

Cutting

How? - disc cutter (neatest and less wasteful), skutch or nibbler

Avoid! Showing cut edges in face-work. They're ragged and lighter

Mortar

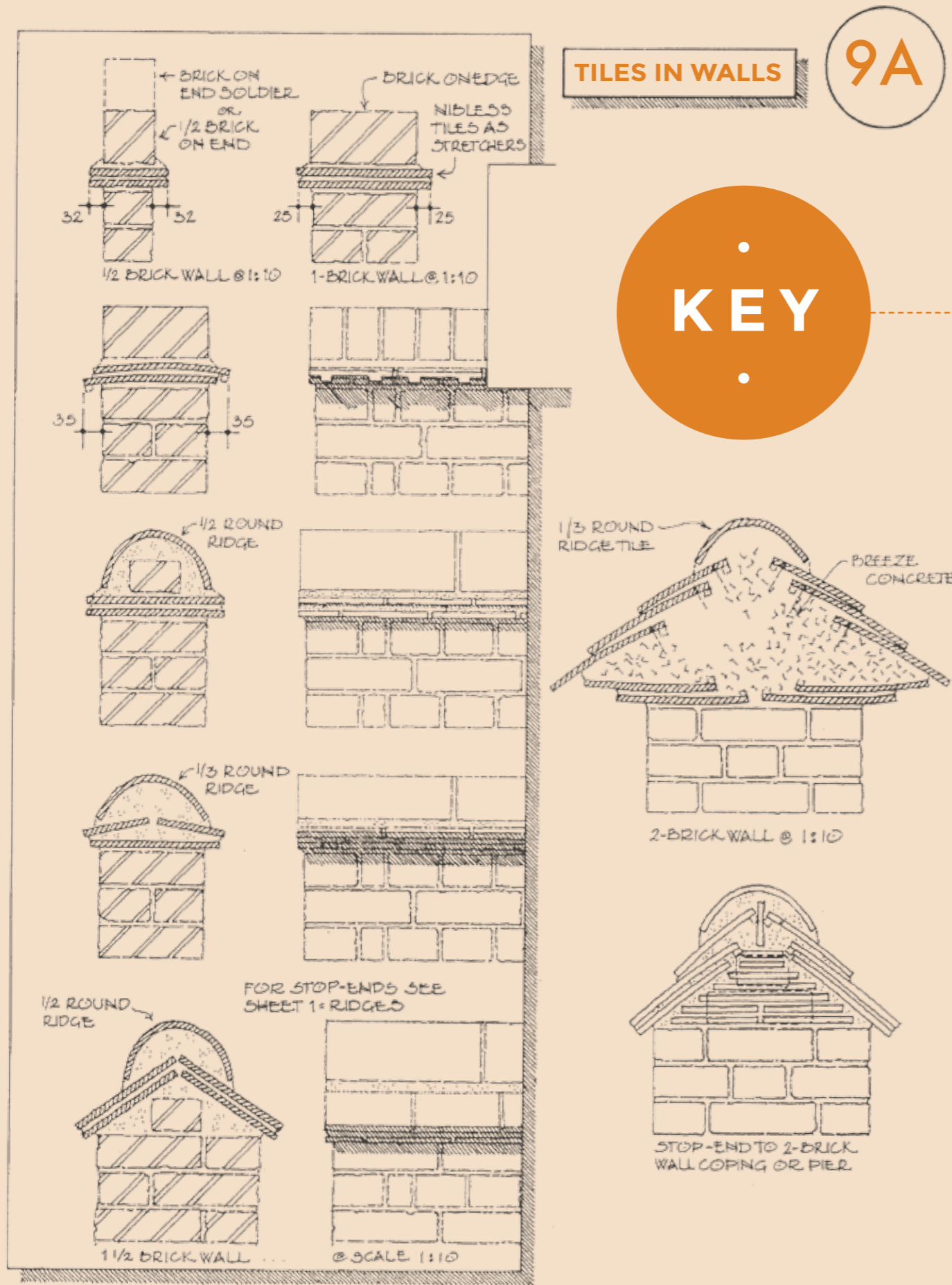
MIX - 1 cement : 1 lime : 1 fine aggregate or 1 cement : 3 fine aggregate

DON'T use soft building sand

JOINT - don't point - nominally recess the joint to keep the edges clean, but don't create ledges - bag or stipple on completion to remove cement laitance and to expose a little aggregate

Danger! Aesthetic Health Warning

In the words of Nathaniel Lloyd, "the adaptability of the unit frequently produced appalling results." Use tiles in walls sparingly and thoughtfully - and avoid fussiness



TILES IN WALLS. COPINGS

Keymer plain and Nibless tiles are more weatherproof and frost resistant than bricks. They also form a stronger bond with Mortar than other DPC materials and are therefore ideal for DPC's and Copings in freestanding walls, parapets and chimneys. They are not suitable for closing cavities in place of a cavity tray.

NOTES

NOTES



Wienerberger
Building Material Solutions



Porotherm

Wall Solutions



Terca

Wall Solutions



Sandtoft

Roof Solutions



Penter

Landscaping Solutions

For further information please contact the Keymer sales office on:

01444 232 931 | info@keymer.co.uk

KEYMER
EST. 1588