KEYMER

EST ENGLAND 1588

Wienerberger

THE VYNE | Hampshire

CONTENTS

Clockwise
HOLY TRINITY CHURCH | KNIGHTS HAYES COURT |
CROSBY HALL | VALLEY WAY

QUALITY, EXPERT CRAFTMANSHIP AND CREATIVITY.

DISCOVER KEYMER

Keymer's ambition is to inspire leading architects and homeowners like you, who want to make their mark, by providing the highest quality, premium handmade British roof tiles.

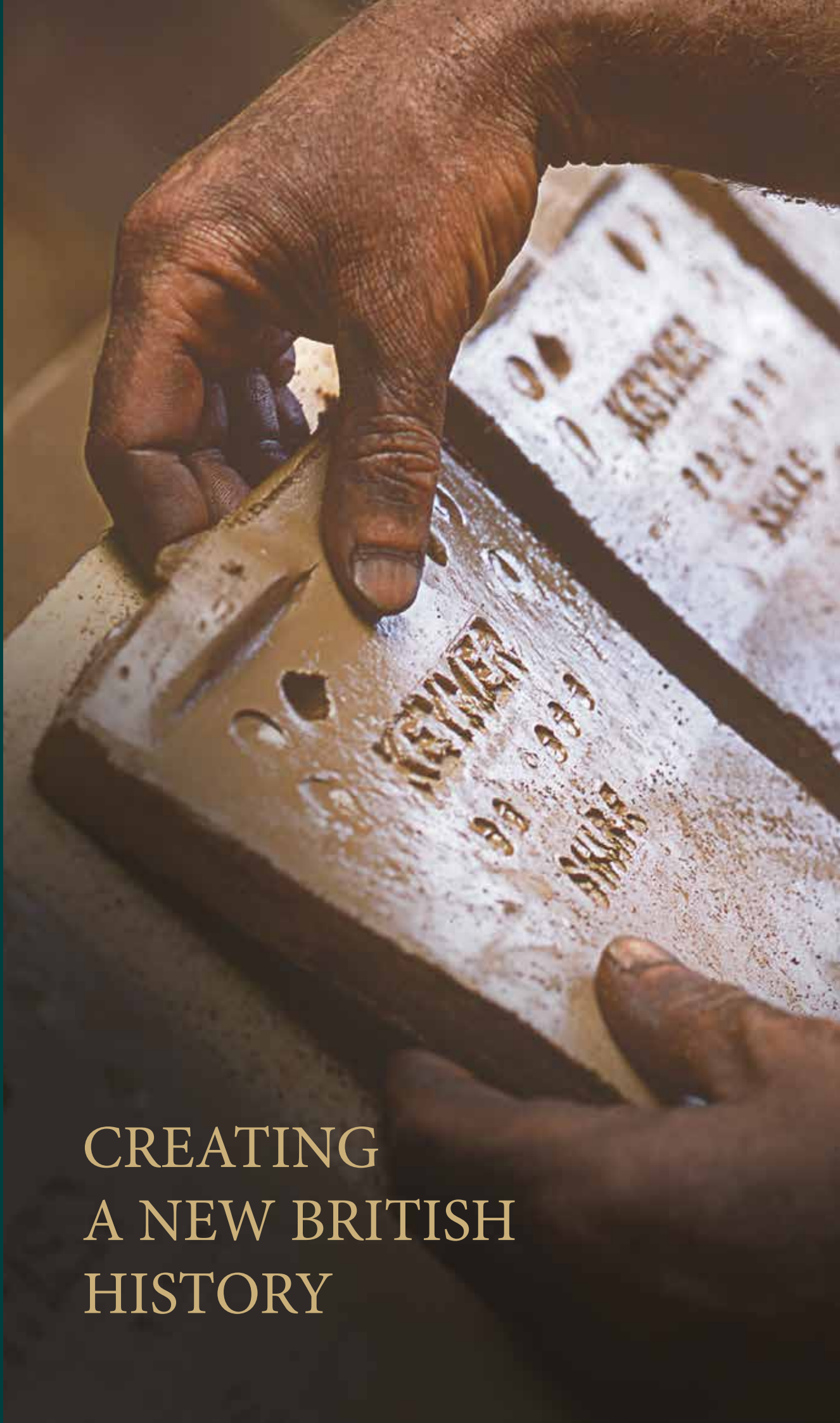
Founded in 1588, we're one of the oldest established roofing brands in the UK and have become synonymous with quality, expert craftmanship and creativity. Our use of local, rich Wealden clay produces award winning authentic roof tiles in unique warm colours and textures, providing you with renowned durability.

Now based in Ewhurst, Surrey and owned by Wienerberger, the leading supplier of wall, roof and landscaping solutions, we continue our uncompromised artisan approach to manufacturing, using the same materials and methods as we did all those years ago.

We know the way our roof tiles are made is important to you. We continue to invest in modern progressive techniques, strengthening our commitment to fuel efficiency and a safe working environment whilst passionate about maintaining the professional skills from the past to ensure our roof tiles boast the premium quality and performance they've become famous for.

We're entering a new era for Keymer – building on our great heritage we're creating a new British history, delivering prestige roof tiles and an unrivalled specification service to both your heritage and contemporary buildings - standing out in marketplace being saturated by cheaper and less authentic imports.

We understand you're looking to make history with your designs – whether it's a modern development looking for that prestige feel or a restoration bringing a building back to its former glory, Keymer is your expert partner who can help make that happen.



CREATING A NEW BRITISH HISTORY

OUR HISTORY

HISTORY IN THE MAKING

Keymer have been crafting beautiful handmade tiles for over 400 years. Keymer Brick & Tile Company evolved from the former Ditchling Potteries, a collection of various works including Dunstalls Farm. One of the farm's owners was John Pomfrey, who was a renowned brickmaker in Keymer in 1588.

When the Ditchling Common site was sold, having exhausted its supply of clay, production was moved to a 50-acre site on Nye Road over a period of 80 years between 1860 and 1940.

Towards the end of the 1800s, the Nye Road works were the largest in the south of England, employing 300 workers. 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.

AN EVOLVING CRAFT

In the early days, a considerable number of Keymer workers lived in cottages on site. Further cottages were built that housed brick making tables on the ground floor with living quarters upstairs. These were commonly known as birdcages.

The site also had many tall brick chimneys, which have since been demolished to meet the requirements of the Clean Air Act. Coal, used for the drying and firing of products, was regularly delivered to the site by rail via Keymer's own siding, alongside the Lewes-Eastbourne train line. Finished products were also dispatched from the factory using the same trains. Dr Beeching's plan to increase efficiency of the railways saw the closure of the railway sidings so natural gas replaced coal as the fuel used.

During the Second World War, the tile manufacturing works were completely closed. Buildings and kilns were used by the Admiralty for storage purposes and played a major part in the 'D-Day' landings. After the War, considerable investment was made to introduce new clay preparation machinery against a backdrop of ensuring that traditional production methods were still maintained.

CHANGING TIMES

Due to dramatic fluctuations in the demand for bricks during the early 1970s, Keymer took the decision to stop brick manufacturing and concentrate on the production of handmade clay roofing tiles.

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 computer-controlled kilns were installed to reduce fuel consumption and provide better working conditions whilst still retaining the traditional handmaking skills. Recession in the construction industry during the 1990s led to a decline in the home market and a reduction in the production of tiles.

Since 2014, Keymer has been owned by Wienerberger, the leading supplier of wall, roof and landscaping innovations. In 2015 we made our fourth move in our 400 year history and re-launched from our new home at Wienerberger's factory in Ewhurst, Surrey.

Situated in the plain tile heartland and 20 minutes from the original site, our premium handmade clay tiles continue to be produced from the orange clays of the South Weald using the same traditional equipment and processes as it always has. We've 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.

CREATING A NEW BRITISH HISTORY

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; also export to the Continent, America and lately even Russia and Japan.

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 hand made clay roofing products.

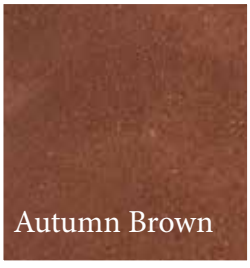
OUR TILE RANGE AT A GLANCE

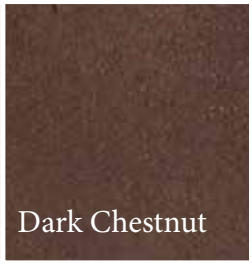
PEG TILES

TRADITIONAL

SHIRE

GOXHILL





LOOKING FOR INSPIRATION?

Be inspired by the very best roof architecture created using our market-leading range of roof tiles and roofing systems.

Discover roof design ideas for your next project, with our beautiful range of roof project examples, from small-scale installations to complex, bespoke designs, and everything in between.

Throughout this brochure we'll be showcasing stunning roof architecture, from complete renovations of historic landmarks with handmade clay tiles, to award-winning modern homes that push the envelope of what can be done with roofing. Past projects include stunning stately homes, modern luxury residential developments, social housing, commercial projects and more.

Our portfolio of roofing products is the largest in the UK, including bespoke solutions from our Keymer Heritage team and a full range of roof systems and accessories. See how developments across the UK have used our roofing products to deliver unrivalled performance and aesthetics with our collection of projects.

PROJECT DETAILS

Clockwise from top left
Private house | DIDSBURY
BRADFIELD COLLEGE | Reading
Private house | ARTS & CRAFTS HOUSE
THE OLD BARN | Rusper
CHURCHILL COLLEGE | Cambridge

DELIVERING PRESTIGE HANDMADE CLAY ROOF TILES

SHAKESPEARE'S BIRTHPLACE TRUST |
Stratford upon Avon

INNOVATIVE IN DESIGN.

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.

TECHNICAL INFORMATION

	County Single Nib	Kent Nibless
Size of tile[1]	250x150mm	250x150mm
Colours available	Weathered	Antique
Minimum roof pitch	40º	40º
Covering capacity	70.2 tiles per m^2	70.2 tiles per m^2
Batten spacing (fixed gauge)[1]	95mm	95mm
Weight per tile	1.2kg	1.2kg
Weight as laid	84.3kg per m^2	84.3kg per m^2
Weight per 1,000 (inc pallet & packaging)	1.24 tonnes	1.24 tonnes
Pallet quantity	760	760
Pallet weight	0.939 tonnes	0.939 tonnes

[1]Clay tiles are subject to small variations in size because of drying and firing shrinkage in the manufacturing process. Before deciding on the batten gauge and linear coverage, the roof tiler should inspect each batch of tiles to ensure that the correct minimum headlap and sidelap are achieved. Unless otherwise stated, data is based on the tiles laid at minimum headlap.

THE VYNE | Hampshire

QUALITY CRAFTMANSHIP.

TRADITIONAL TILES

Our traditional clay plain tiles are hand made using Weald Clay. The rich reds of the clay give them their deep natural colour. The tiles do not all sit flat next to each other in total conformity but in gentle undulations reminiscent of a centuries old cottage.

Antique

Wealden Red

Elizabethan

TECHNICAL INFORMATION

	Traditional
Size of tile[1]	265x165mm
Colours available	Antique Wealden Red Elizabethan
Minimum roof pitch	40°
Covering capacity	60 tiles per m^2
Batten spacing (fixed gauge)[1]	100mm
Weight per tile	1.22kg
Weight as laid	73.2kg per m^2
Weight per 1,000 (inc pallet & packaging)	1.3 tonnes
Pallet quantity	760
Pallet weight	0.988 tonnes

[1]Clay tiles are subject to small variations in size because of drying and firing shrinkage in the manufacturing process. Before deciding on the batten gauge and linear coverage, the roof tiler should inspect each batch of tiles to ensure that the correct minimum headlap and sidelap are achieved. Unless otherwise stated, data is based on the tiles laid at minimum headlap.

PLAISTOW

INNOVATIVE IN DESIGN.

SHIRE TILES

A genuine handmade British 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.

Heritage

Downs Red

Priory

TECHNICAL INFORMATION

	Shire
Size of tile[1]	265x165mm
Colours available	Heritage Downs Red Priory
Minimum roof pitch	40°
Covering capacity	60 tiles per m^2
Batten spacing (fixed gauge)[1]	100mm
Weight per tile	1.22kg
Weight as laid	73.2kg per m^2
Weight per 1,000 (inc pallet & packaging)	1.3 tonnes
Pallet quantity	550
Pallet weight	0.715 tonnes

[1]Clay tiles are subject to small variations in size because of drying and firing shrinkage in the manufacturing process. Before deciding on the batten gauge and linear coverage, the roof tiler should inspect each batch of tiles to ensure that the correct minimum headlap and sidelap are achieved. Unless otherwise stated, data is based on the tiles laid at minimum headlap.

THE RECTORY |

QUALITY CRAFTMANSHIP.

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.

Autumn Brown

Dark Red

Dark Chestnut

Restoration Blend

TECHNICAL INFORMATION

	Roof	Vertical
Size of tile[1]	265x165mm	265x165mm
Colours available	Autumn Brown Dark Red Dark Chestnut	Autumn Brown Dark Red Dark Chestnut
Minimum roof pitch	35°	75°
Covering capacity	60.0 tiles per m^2	53.0 tiles per m^2
Batten spacing (fixed gauge)[1]	100mm	114mm
Weight per tile	1.21kg	1.21kg
Weight as laid	72.6kg per m^2	64.2kg per m^2
Weight per 1,000 (inc pallet & packaging)	1.31 tonnes	1.31 tonnes
Pallet quantity	540	540
Pallet weight	0.707 tonnes	0.707 tonnes

[1]Clay tiles are subject to small variations in size because of drying and firing shrinkage in the manufacturing process. Before deciding on the batten gauge and linear coverage, the roof tiler should inspect each batch of tiles to ensure that the correct minimum headlap and sidelap are achieved. Unless otherwise stated, data is based on the tiles laid at minimum headlap.

SHIREBURN ROAD |

INNOVATIVE IN DESIGN.

ORNAMENTAL TILES

Club

Diamond

Arrowhead[2]

Bullnose

[2]We've updated some of our ornamental tiles product names. Diamond was previously known as Arrow and Arrowhead was previously known as Point.

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.

Because all these products have the same renowned Keymer weathering properties, they soon blend in with existing materials for renovation work looking better and lasting longer.

TECHNICAL INFORMATION

	Club	Diamond	Arrowhead	Bullnose
Size of tile[1]	265x165mm	265x165mm	265x165mm	265x165mm
Minimum roof pitch	40°	40°	40°	40°
Covering capacity	60 tiles per m^2	60 tiles per m^2	60 tiles per m^2	60 tiles per m^2
Batten spacing (fixed gauge)[1]	100mm	100mm	100mm	100mm
Weight per tile	1.22kg	1.22kg	1.22kg	1.22kg
Weight as laid	73.2kg per m^2	73.2kg per m^2	73.2kg per m^2	73.2kg per m^2
Weight per 1,000 (inc pallet & packaging)	1.3 tonnes	1.3 tonnes	1.3 tonnes	1.3 tonnes
Pallet quantity	550	550	550	550
Pallet weight	0.715 tonnes	0.715 tonnes	0.715 tonnes	0.715 tonnes

[1]Clay tiles are subject to small variations in size because of drying and firing shrinkage in the manufacturing process. Before deciding on the batten gauge and linear coverage, the roof tiler should inspect each batch of tiles to ensure that the correct minimum headlap and sidelap are achieved. Unless otherwise stated, data is based on the tiles laid at minimum headlap.

KEYMER

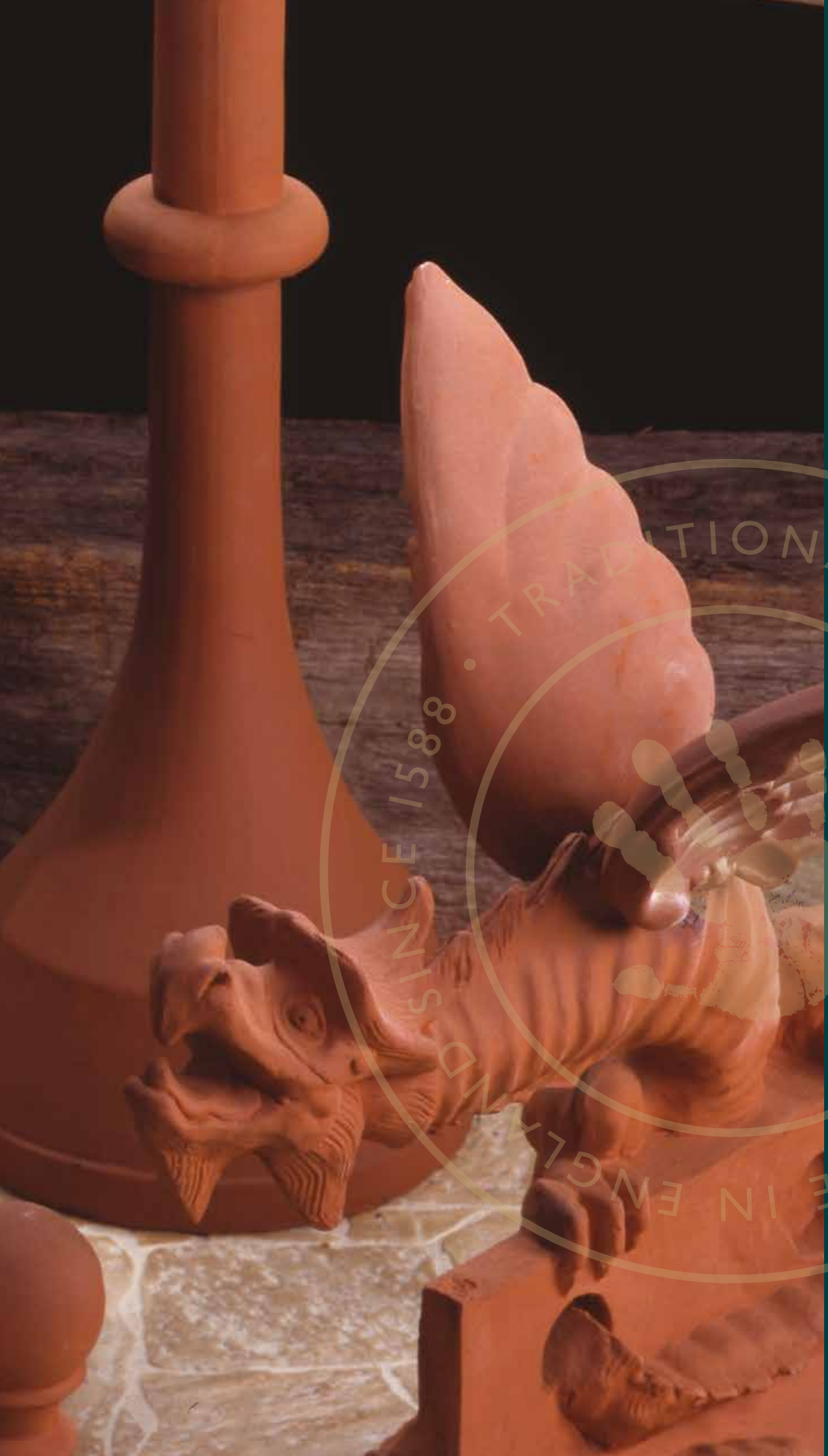
BESPOKE

BESPOKE FINIALS

made to order

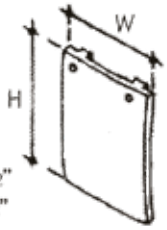
OUR EXPERTISE MEANS THAT ANYTHING CAN BE MADE IN CLAY TO SUIT THE NEEDS OF ANY PROJECT, WHETHER TO MATCH AN AUTHENTIC PIECE OR FULFIL A NEW SPECIFICATION.

EACH ITEM IS INDIVIDUALLY MADE BY HAND USING WEALDEN CLAY FROM KEYMER'S OWN SOURCES.


TRADITIONAL CLAY
HANDMADE IN ENGLAND
SINCE 1588

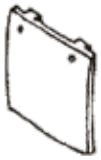
GOXHILL FITTINGS

PLAIN TILE



H. 265 H. 10 1/2"
W. 165 W. 6 1/2"

EAVES TILE

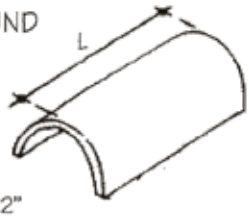


H. 200 H. 8"
W. 165 W. 6 1/2"

GABLE TILE

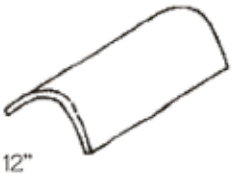
H. 265 H. 10 1/2"
W. 248 W. 10"

HALF ROUND



L. 305 L. 12"

HOGBACK



L. 305 L. 12"

THIRD ROUND

L. 305 L. 12"

STANDARD BONNET

35-50

SLOPE
5:12 - 6:12

VERTICAL ANGLE
90°
(HANDED)

EXTERNAL

VERTICAL BAY ANGLE
135°
(HANDED)

EXTERNAL

*Also available in: Baby Ridge, InvisiVent, Valley Tile, Arris Hip and Monopitch Ridge

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 ALLUVIAL CLAY FOR GOXHILL AND WEALDEN CLAY FOR KEYMER, THESE FITTINGS ARE NOT ONLY THE NATURAL CHOICE IN CONSERVATION AREAS BUT ALSO ADD CHARACTER AND VALUE TO ANY NEW BUILDING TOO.

KEYMER FITTINGS

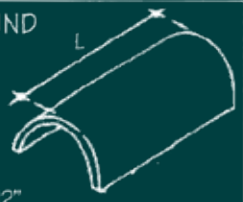
PLAIN TILES

PLAIN TILE	EAVES TILE	GABLE TILE
 H. 265 H. 10 1/2" W. 165 W. 6 1/2"	 H. 200 H. 8" W. 165 W. 6 1/2"	 H. 265 H. 10 1/2" W. 248 W. 10"

PEG TILES

PEG TILE (KENT or COUNTY)	PEG EAVES	PEG GABLE
 H. 250 H. 10" W. 150 W. 6"	 H. 150 H. 6" W. 150 W. 6"	 H. 250 H. 10" W. 225 W. 9"

RIDGE TILES

HALF ROUND	HOGBACK	THIRD ROUND
 L. 305 L. 12"	 L. 305 L. 12"	 L. 305 L. 12"

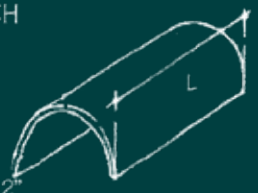
HIP TILES

STANDARD BONNET	TRADITIONAL BONNET	KENT BONNET
40-50 SLOPE 5:12 - 6:12 	40-45 SLOPE 5:12 	50-60 SLOPE 6:12 - 7:12 

VALLEY TILES

STANDARD VALLEY	GULL WING VALLEY (CAMBERED)	60° VALLEY
40-50 SLOPE 5:12 - 6:12 	40-45 SLOPE 5:12 	50-60 SLOPE 6:12 - 7:12 

SPECIAL RIDGE TILES

MONOPITCH RIDGE	PORCH RIDGE
 L. 305 L. 12"	 L. 305 L. 12"

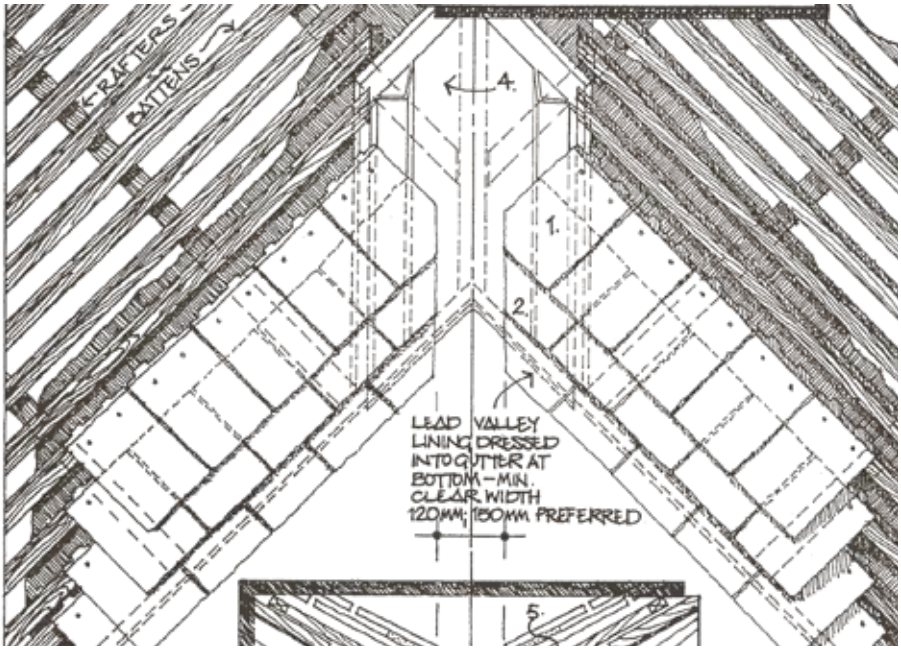
VERTICAL ANGLE 90° (HANDED)	VERTICAL BAY ANGLE 135° (HANDED)
 EXTERNAL	 EXTERNAL

Aesthetic ambitions and practical needs

Caring Wood is an extensive country home project set in 84 acres of scenic Kentish countryside designed by architects James Macdonald Wright and Niall Maxwell. It is a magnificent country home with the space for three generations of the same family, incorporating formal, communal and private spaces.

The architects chose the **Keymer County Peg Antique tile** for two reasons. Firstly, they liked the natural aesthetic, which is imbued with a distinctive finish and warmth of colour thanks to Keymer's use of rich Wealdon Clay. And secondly, the design made handling and laying a simple and easy process for contractors. The architects were meticulous in their detailing and planning and so were attracted to working with the Keymer team because of their dedicated and flexible service.

The 153,000 Keymer County Peg Antique tiles added together to create a striking looking roof for the country home. The tiles were gradually delivered throughout each stage of the project and were produced using the traditional handmade techniques over a period of a year.



PROJECT DETAILS

Caring Wood, Kent
Client: **Private**
Design and Project Management Architect: **Macdonald Wright Architects**
Executive Architect: **Rural Office for Architecture**
Contractors: **Complete Roofing Contractors**

OFFERING A DEDICATED AND FLEXIBLE SERVICE

DOKETT BUILDING | Queens' College, Cambridge

UNMATCHED QUALITY.

A natural choice for the roof replacement

The Dokett Building is a site steeped in academic history, named after the first President of Queens' College, Andrew Dokett. This magnificent building is a prominent element of the college's architecture, it can even be seen from the opposite side of the campus. The Dokett Building provides accommodation for the college's students, featuring 34 study bedrooms, 12 kitchens and a Fellows' room.

The roofing contractors were tasked with stripping and re-covering the entire 100-year-old roof. One of the main reasons the roof needed replacing was that it hadn't been updated in decades. The accommodation needed to be drastically modernised, so new dormers were created to allow for ventilation and new bathrooms.

Due to the prominent location of the building on campus, and it being of historical local interest, **Keymer's handmade Traditional Antique and Elizabethan tiles** were selected to ensure a sympathetic renovation that was in keeping with the existing building design principles of Queens' College. As well as providing Traditional Keymer tiles, the Keymer team manufactured 450 bespoke hips tile for all the new and existing dormer roofs.

PROJECT DETAILS

Dokett Building, Queens College
Client: **University of Cambridge**
Architect: **BB+C Architects Limited**
Contractors: **GHB Roofing Ltd**

The use of beautiful heritage products

Award-winning and experienced renovator Tim Pitt chose **Keymer's Traditional Elizabethan and Antique tiles** to reroof his Grade 2 listed property in Suffolk, with the aim of keeping its historic integrity whilst creating a comfortable and insulated family home. The appearance of the sympathetically renovated roof complements the building beautifully and is much admired by the local community.

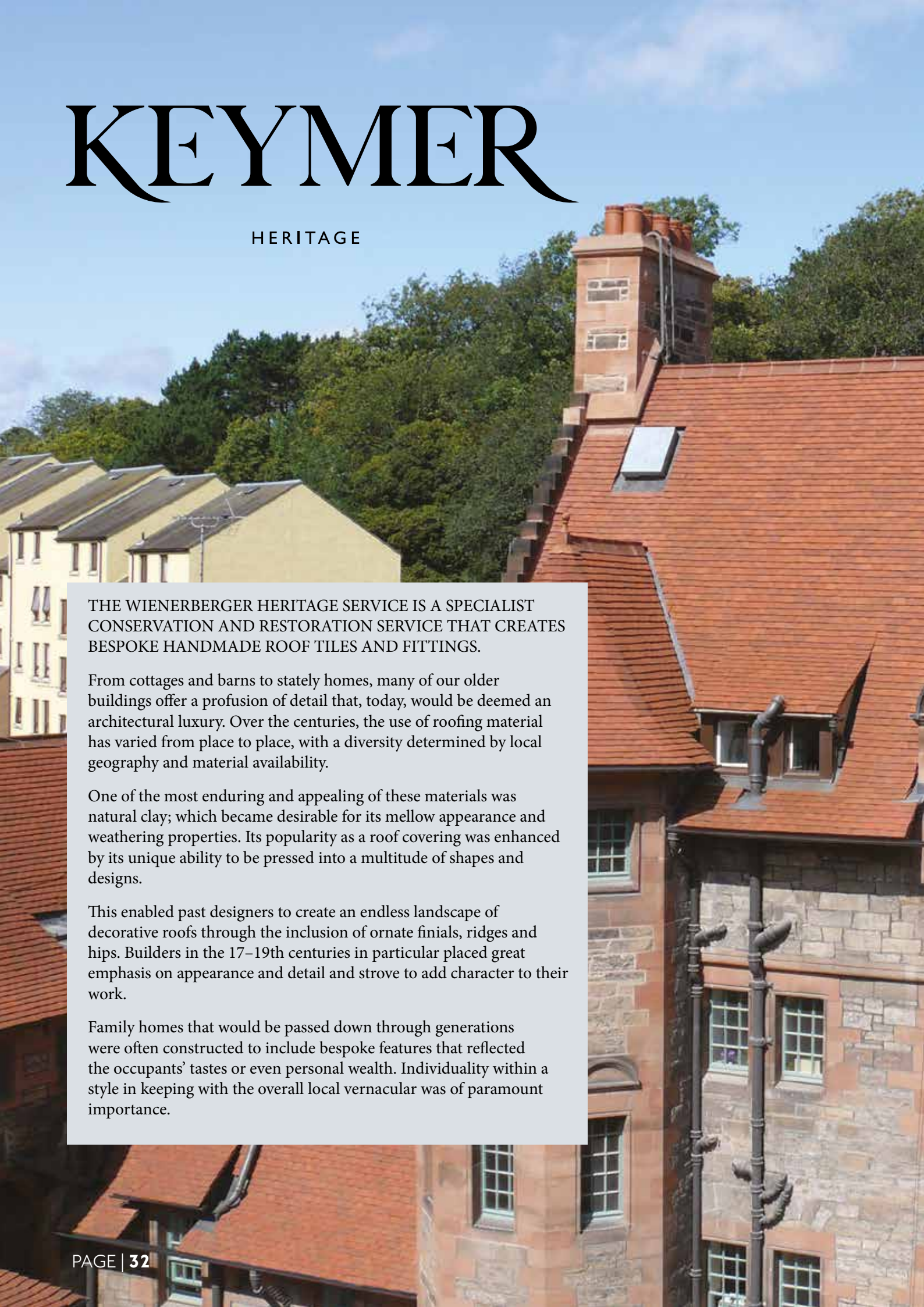
Due to the Grade 2 status of the property, it was essential to the success of the reroofing stage that the tiles chosen fitted in with the overall character and quality of the building. By selecting a 50/50 mix of Keymer's Traditional Elizabethan and Antique tiles, the period property now boasts the use of beautiful handmade heritage products, which the home owner believed were the closest match to the peg tiles expected to be seen on a house of this period and location. They are considered by the owner to be a very significant improvement on the machine-made plain tiles that had previously been slipping and falling from the roof.

Tim and his family now enjoy a stunning period home, which is comfortable and efficient to run - holding an even temperature both in Summer and Winter. The quality and durability of the tiles used for the renovation means that the roof should remain beautiful and watertight for decades to come.

A UNIQUE AESTHETIC WITH TRUE HERITAGE

KEYMER

HERITAGE



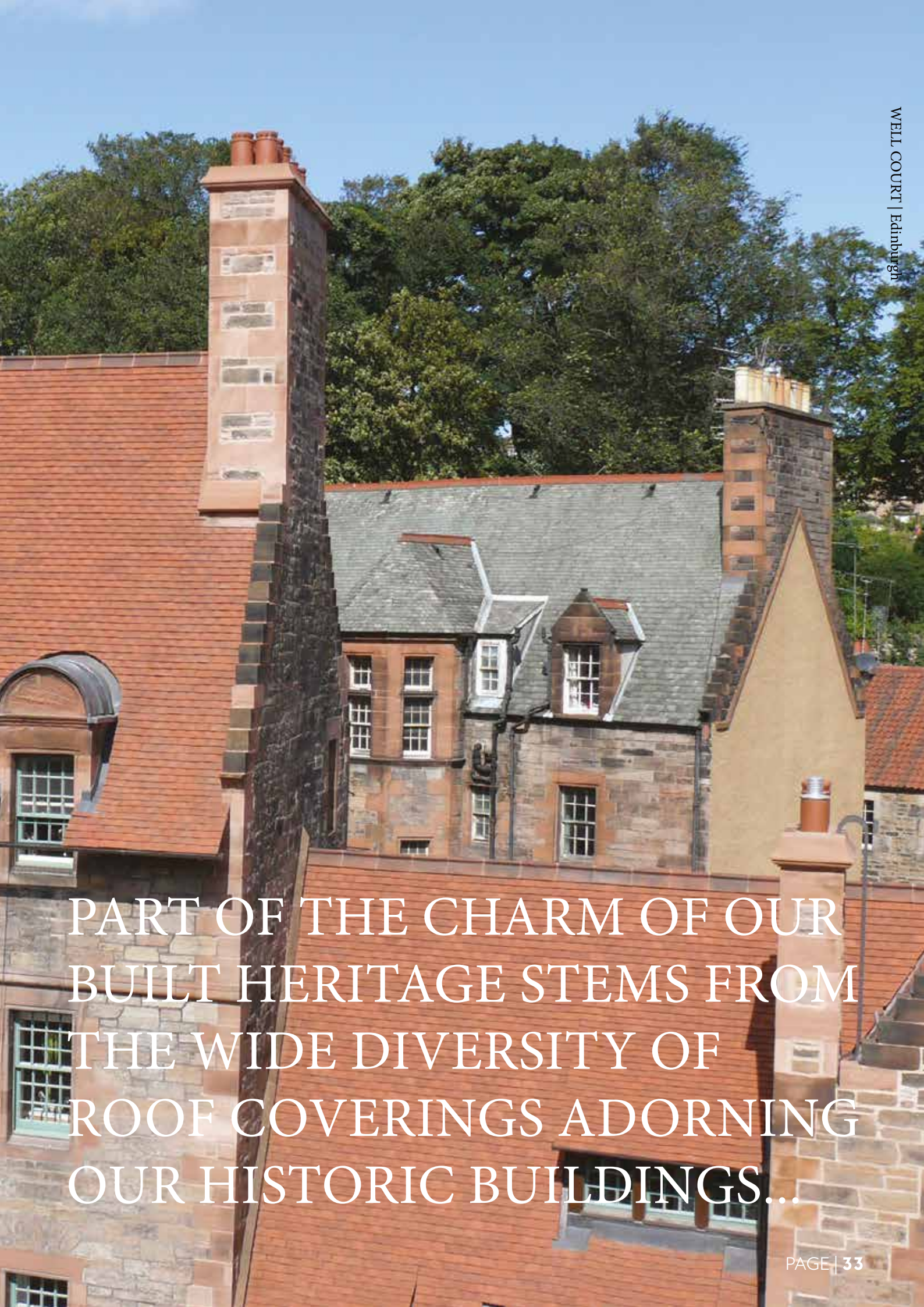
THE WIENERBERGER HERITAGE SERVICE IS A SPECIALIST CONSERVATION AND RESTORATION SERVICE THAT CREATES BESPOKE HANDMADE ROOF TILES AND FITTINGS.

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

PART OF THE CHARM OF OUR BUILT HERITAGE STEMS FROM THE WIDE DIVERSITY OF ROOF COVERINGS ADORNING OUR HISTORIC BUILDINGS...

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.

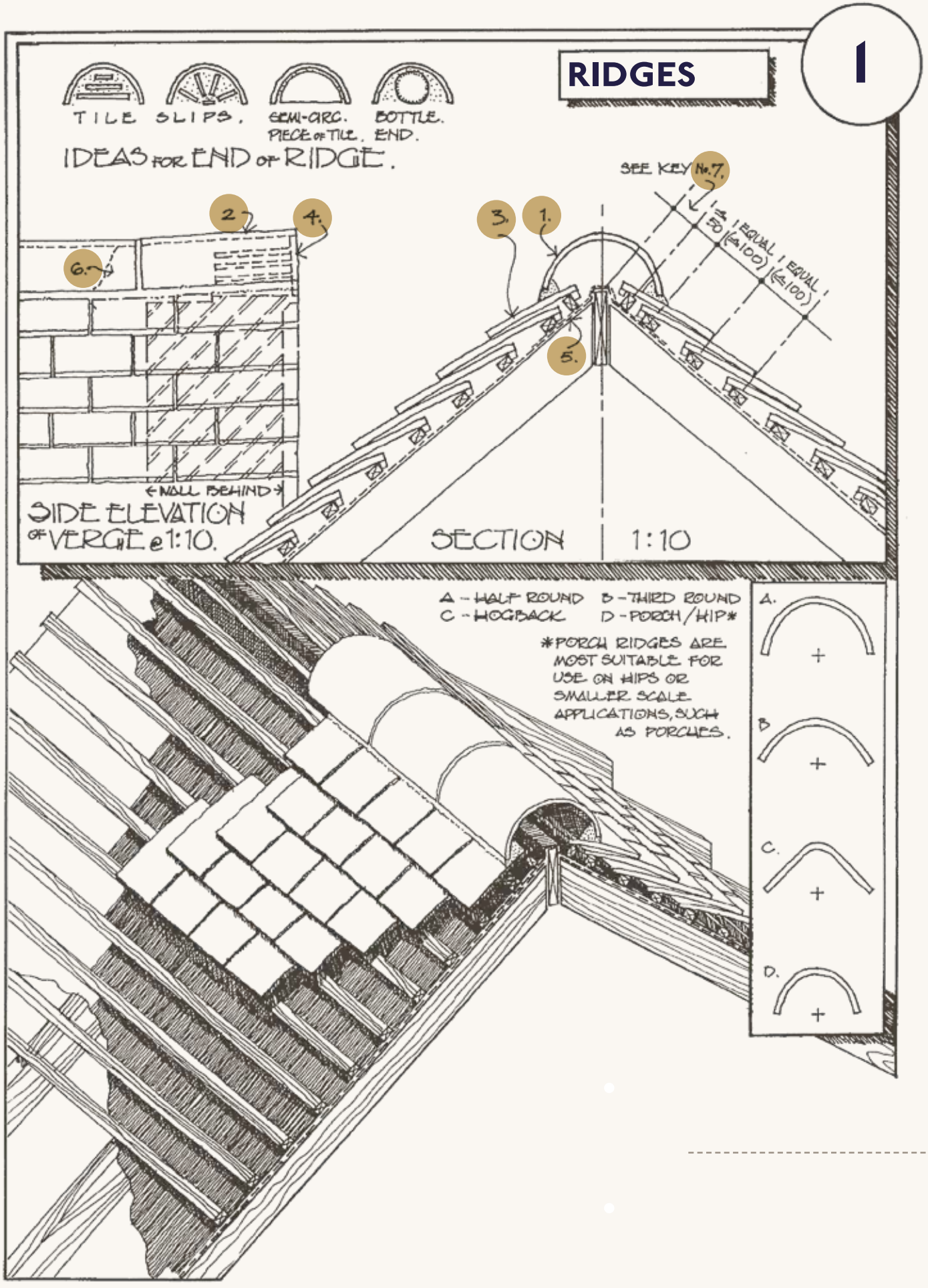
This guide is intended to act as a walkthrough for the many uses of clay plain tiles and the versatility of the products, all of the practices are still viable today, but many have become lost to the market apart from the few skilled roofers still working today.

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

CONTENTS

RIDGES

1


TILE SLIPS.
SEMI-ARC. PIECE OF TILE.
BOTTLE END.
IDEAS FOR END OF RIDGE.
SEE KEY No.7.
2
4.
6.
3.
1.
5.
EQUAL (≤100)
EQUAL (≤100)
50
← WALL BEHIND →
SIDE ELEVATION OF VERGE @ 1:10.
SECTION 1:10
A - HALF ROUND
B - THIRD ROUND
C - HOGBACK
D - PORCH/HIP*
*PORCH RIDGES ARE MOST SUITABLE FOR USE ON HIPS OR SMALLER SCALE APPLICATIONS, SUCH AS PORCHES.
A.
B
C.
D.

RIDGES

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, + make shadow line.½½¾

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

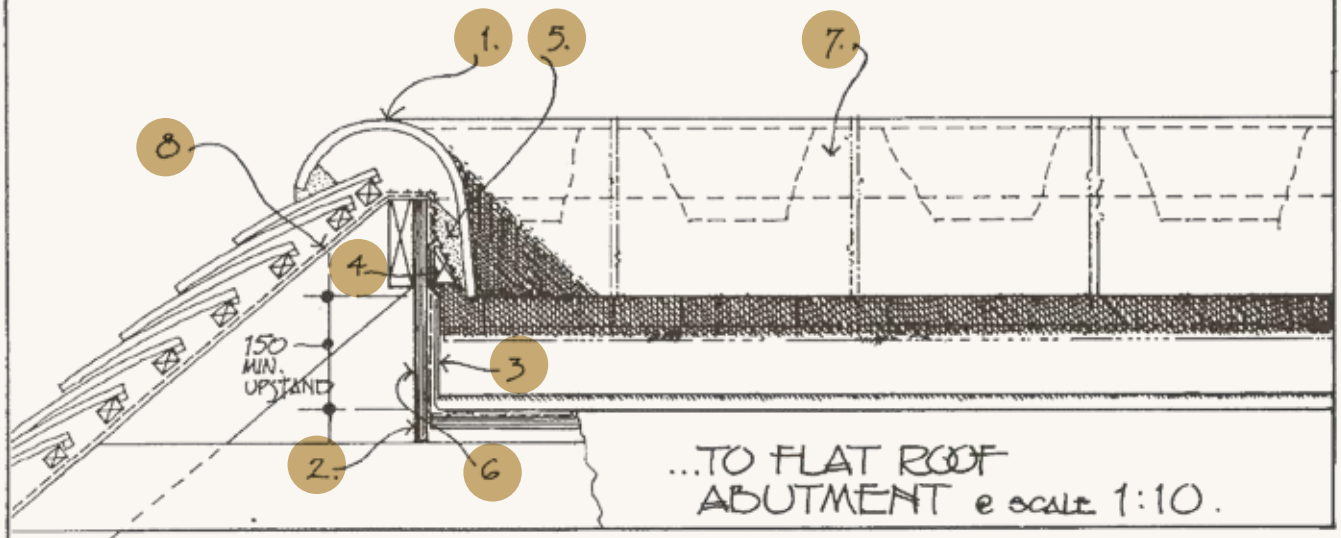
6 Mortar bedding of ridge tiles

7 Setting out the top tile batten requires care, + 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

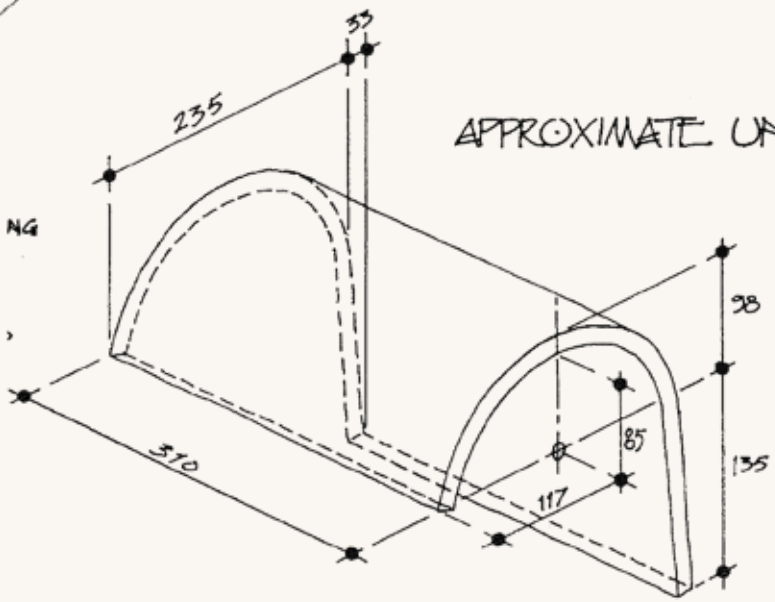
Please note, these drawings are only intended as an aid to the correct usage of Keymers products.

MONOPITCH RIDGE

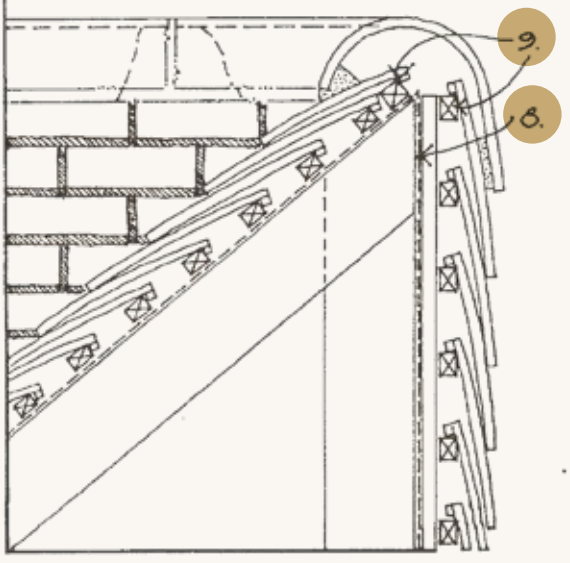
1A



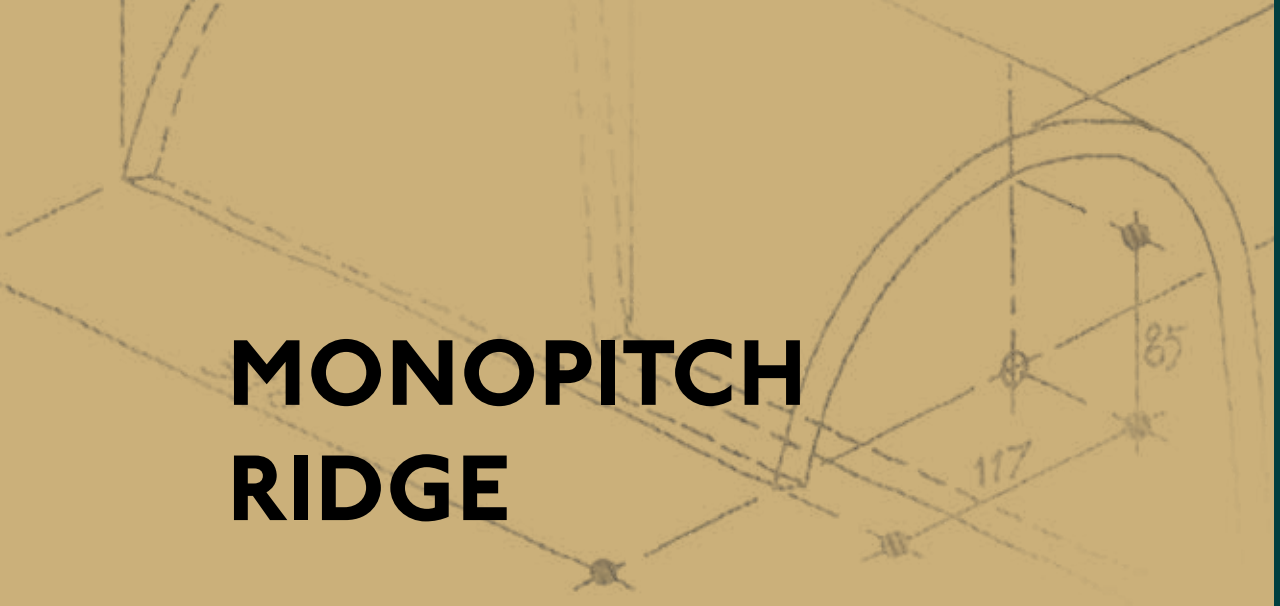
...TO FLAT ROOF ABUTMENT @ SCALE 1:10.



APPROXIMATE UNIT DIMENSIONS



....TO VERTICAL TILED ROOF @ SCALE 1:10



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

9 For guidance on setting out first batten

VERGES

2

THE ESSENTIALS OF A GOOD VERGE ARE:-

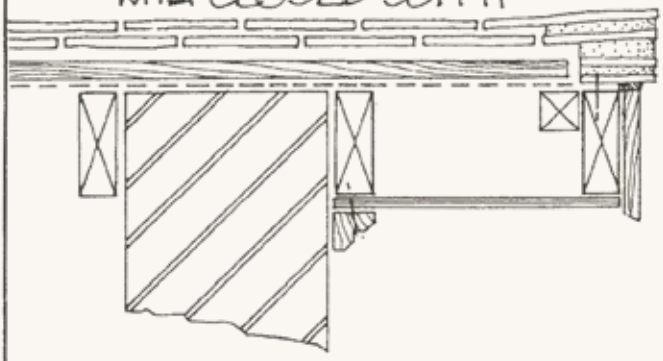
(A) IT MUST BE WELL BEDDED + POINTED SO THAT WATER WILL NOT PENETRATE BETWEEN THE VERGE TILES + SO INTO THE ROOF;

(B) IT MUST OVERHANG THE WALL BELOW BY AT LEAST 35mm, + PREFERABLY 50mm, SO AS TO PROTECT THE SURFACE IMMEDIATELY UNDER THE VERGE.

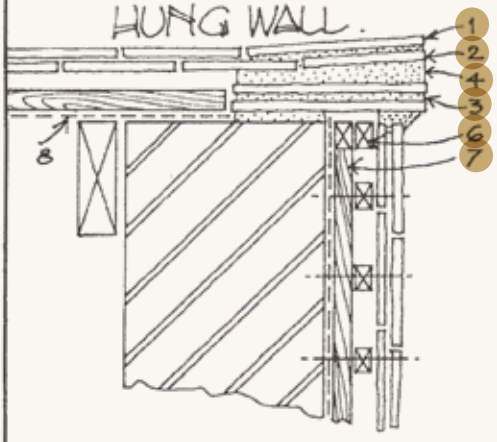
(C) IT MUST BE TILTED SO THAT WATER IS ENCOURAGED TO RUN DOWN THE ROOF, RATHER THAN OVER THE VERGE.

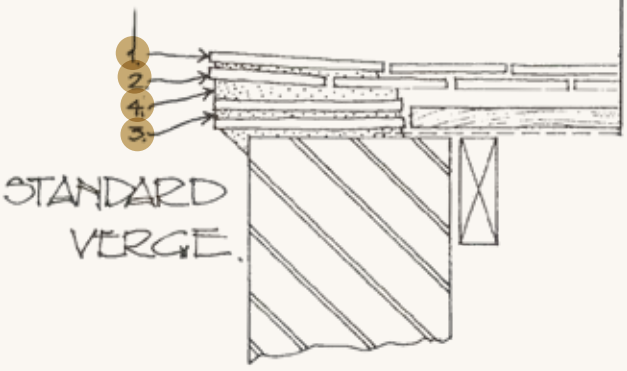
ALL OF THESE DETAILS SHOW A DOUBLE UNDERCLOAK COURSE, WHICH ASSISTS IN PRODUCING THIS INWARD TILT, + ALSO MAKES A ROBUST DETAIL IN ELEVATION, PARTICULARLY SUITABLE FOR LARGER BUILDINGS. A SINGLE UNDERCLOAK COURSE WOULD BE QUITE ADEQUATE FOR ONE OR TWO STOREY BUILDINGS OF MODEST SCALE

EXTENDED BARGEBOARD WITH CLOSED SOFFIT



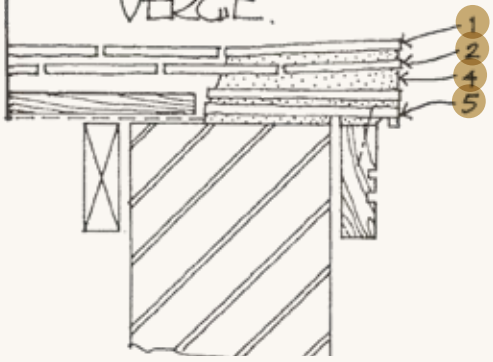
VERGE TO TILE HUNG WALL.





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**

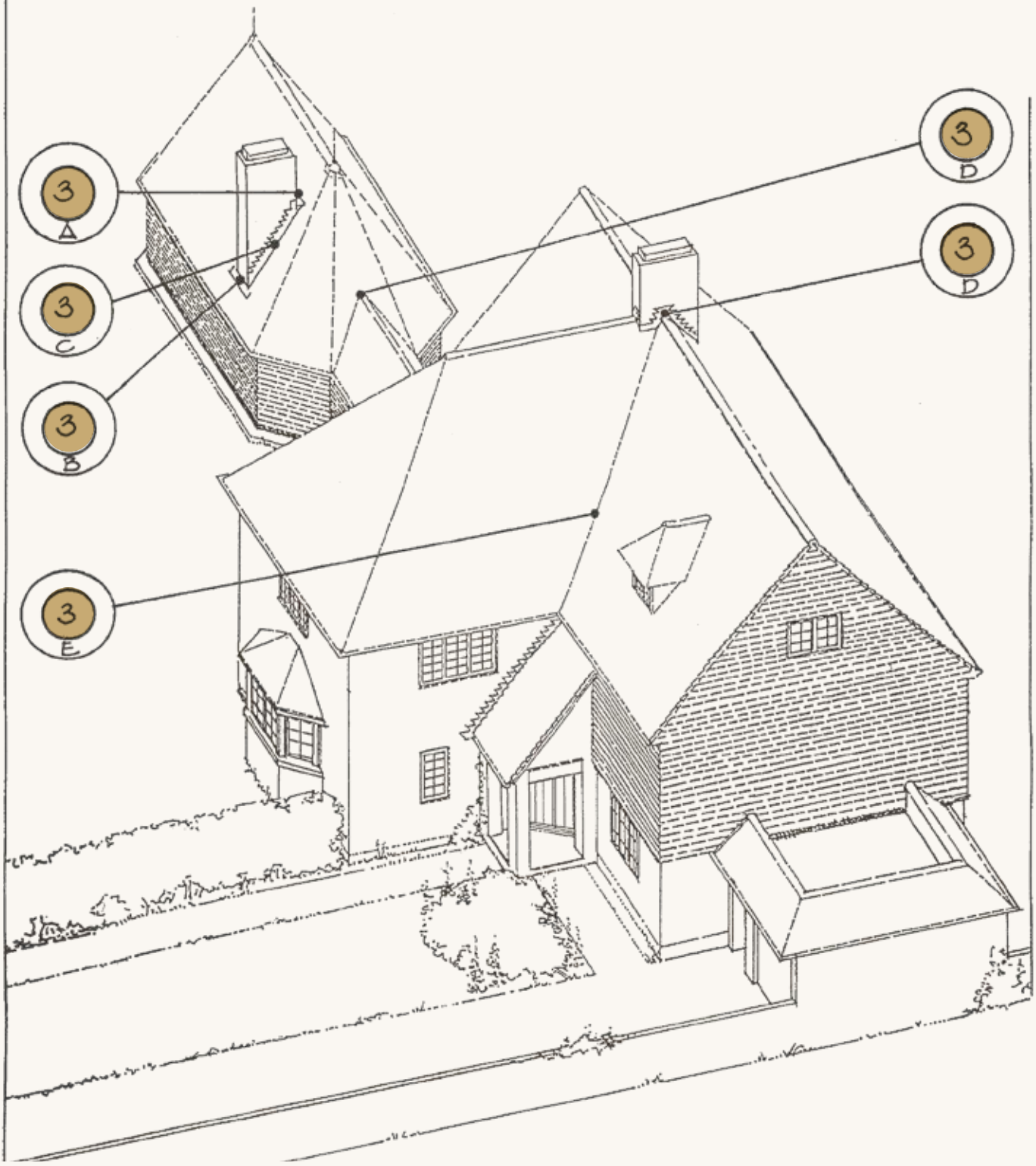
6 **Battens**

7 **Counterbattens**

8 **Underlay. In cavity work, this should bridge the cavity and lap onto the outer leaf by 25mm**

ABUTMENTS KEY TO DETAIL SHEETS

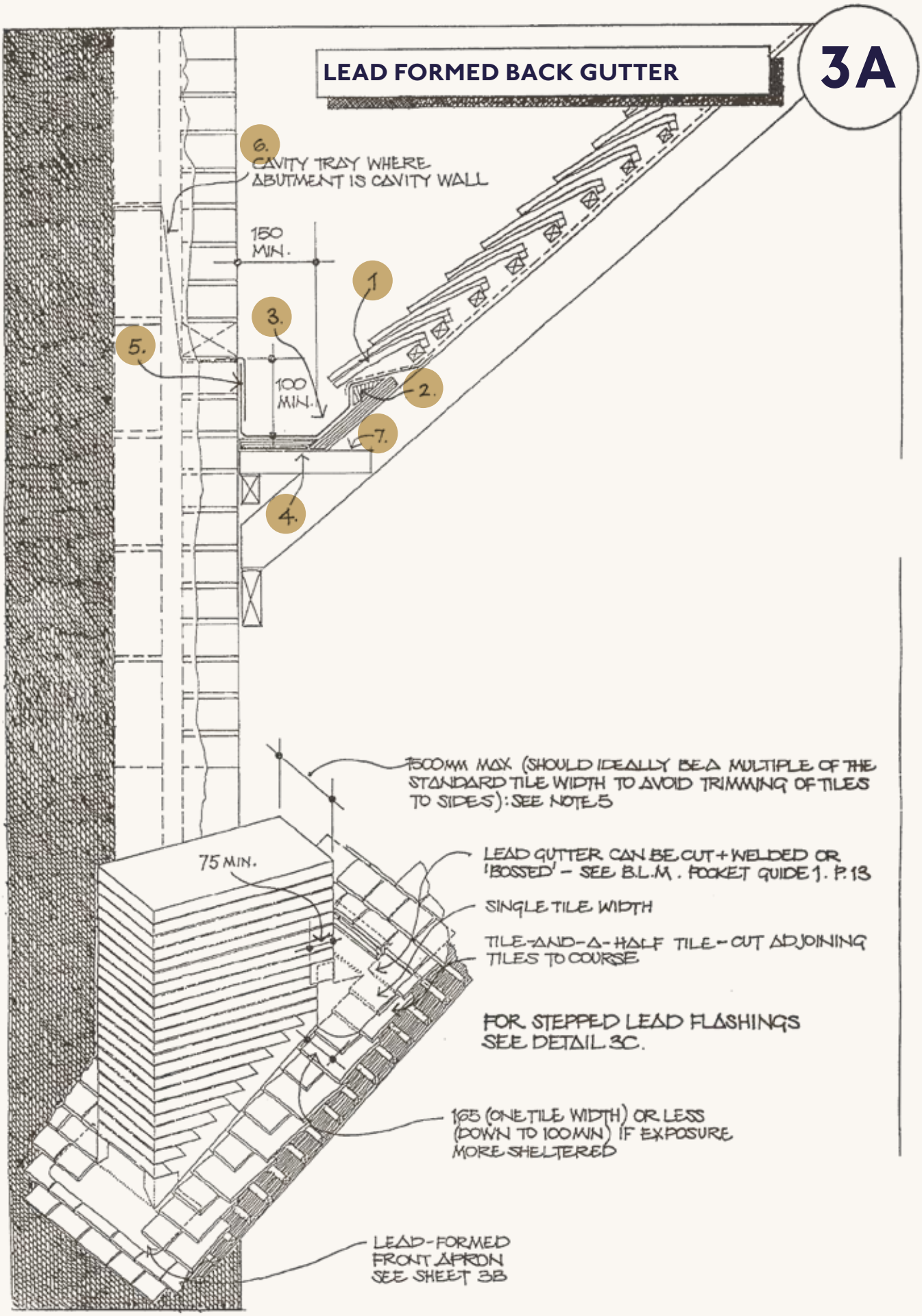
3



ABUTMENTS

LEAD FORMED BACK GUTTER

3A



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 1500. For longer abutments a stepped lead gutter should be used**

4 **Board/Sheet gutter former for lead-formed gutter**

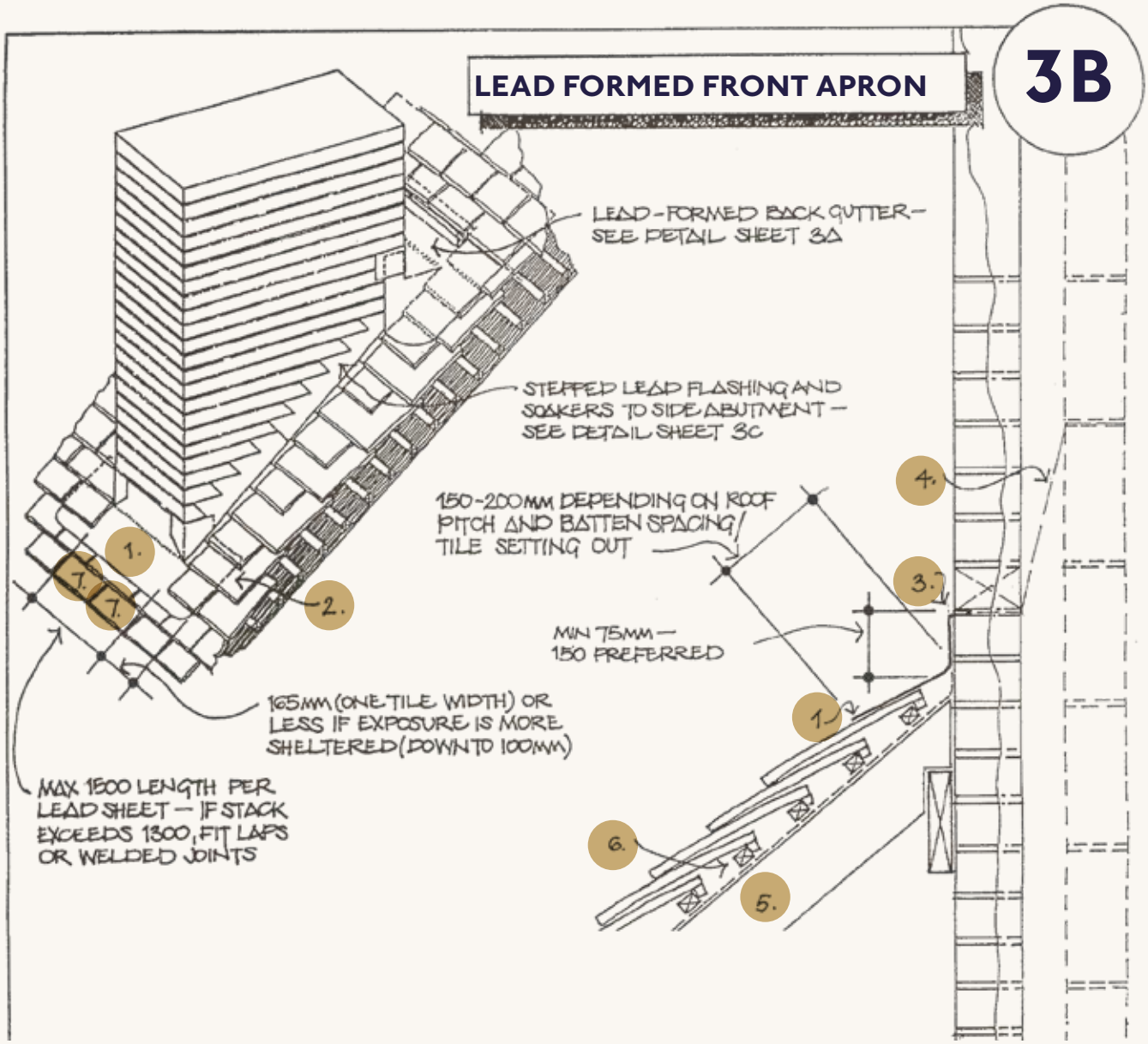
5 **Code 5 lead flashing to masonry course.**

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

3B

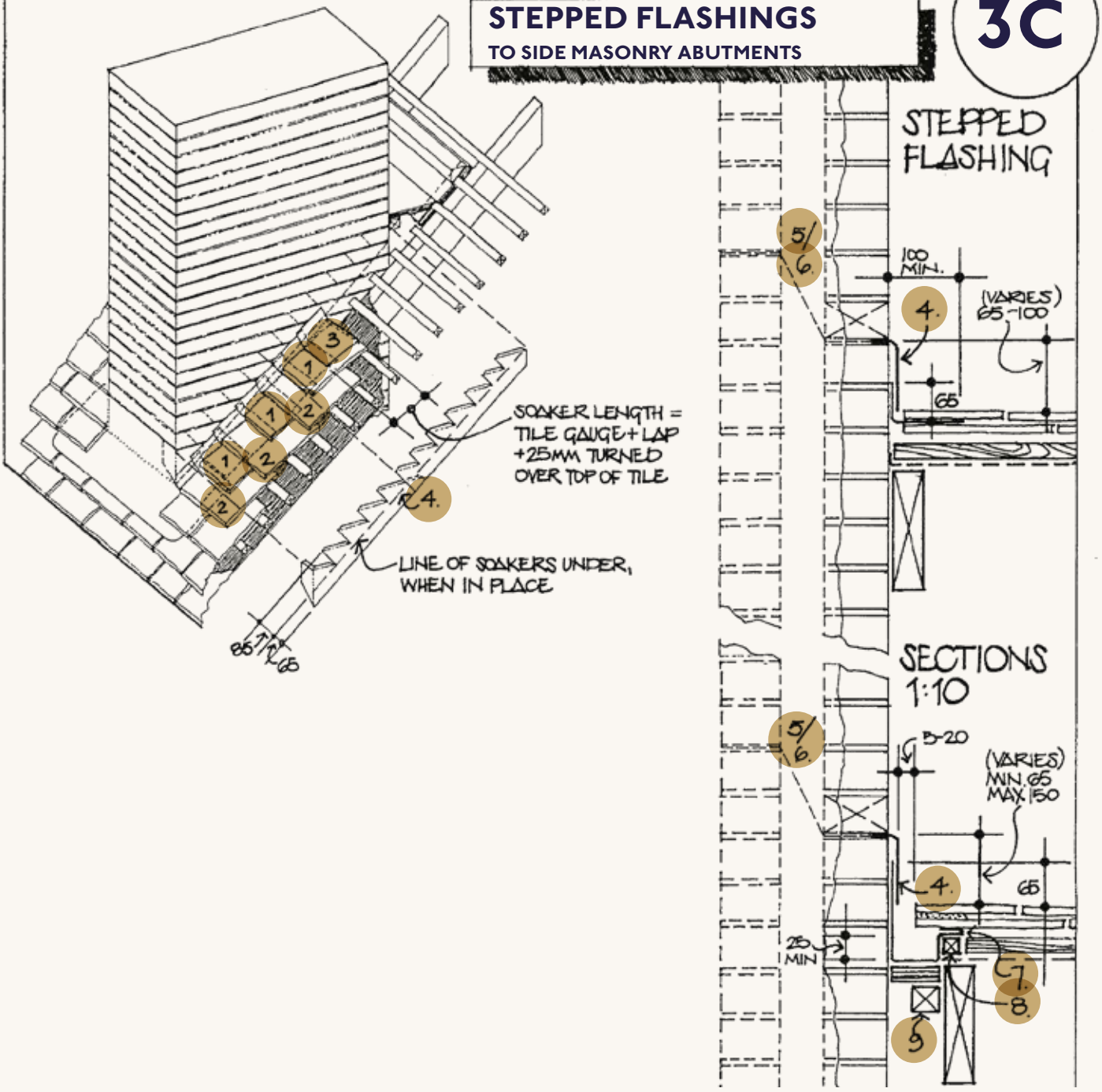


LEAD FORMED FRONT APRON

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

3C



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**

6 **Where abutment is to cavity brickwork, install cavity tray and weepholes for similar reasons**

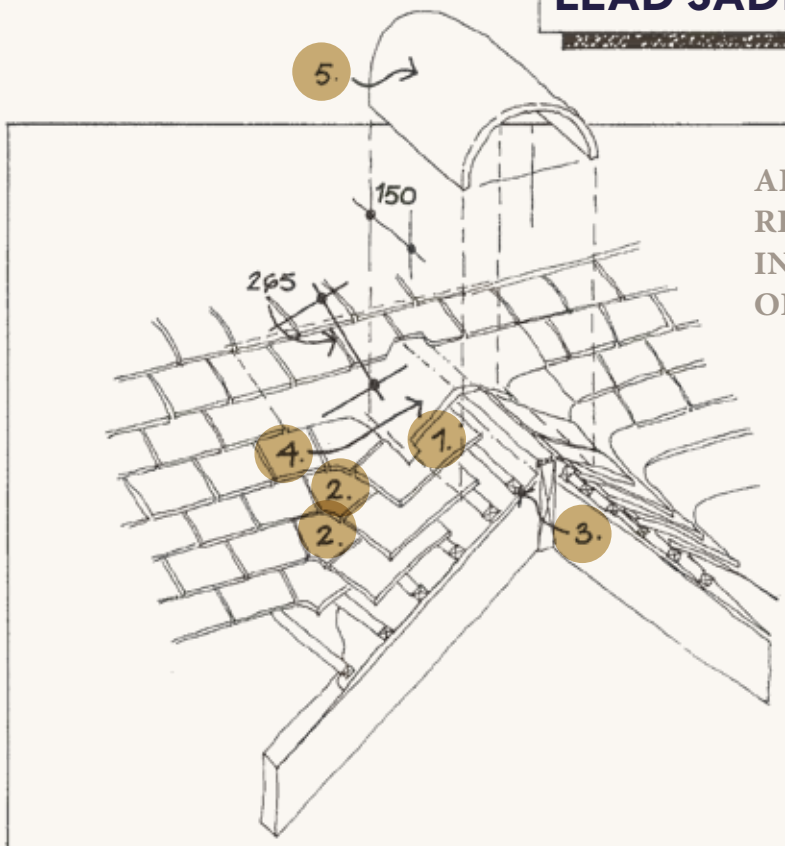
7 **Edge tiles are laid down over open welted lead secret valley lining. Upper edge tiles to be pointed**

8 **25 x 25 treated counter batten**

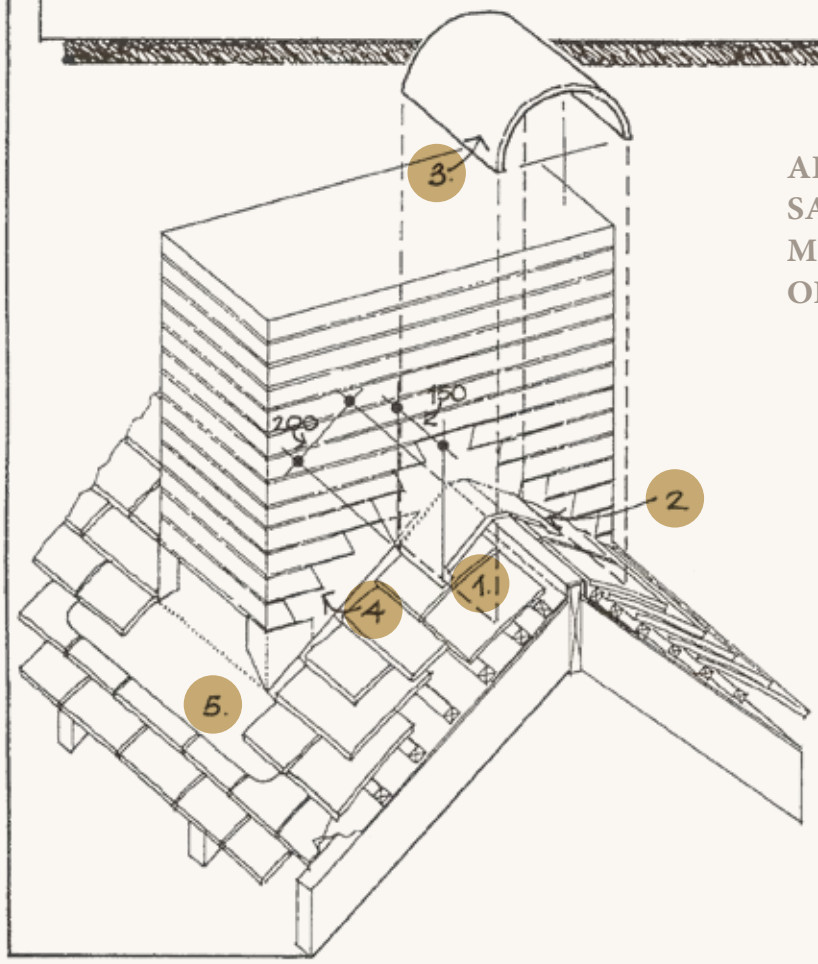
9 **Treated bearer / sheet valley former**

LEAD SADDLES

3D



ABUTMENT
RIDGE FLASHING
INTERSECTION
OF ROOF/RIDGE



ABUTMENT
SADDLE FLASHING-
MASONRY ABUTMENT
OF ROOF/RIDGE

LEAD SADDLES

Abutment ridge flashing intersection of roof/ridge

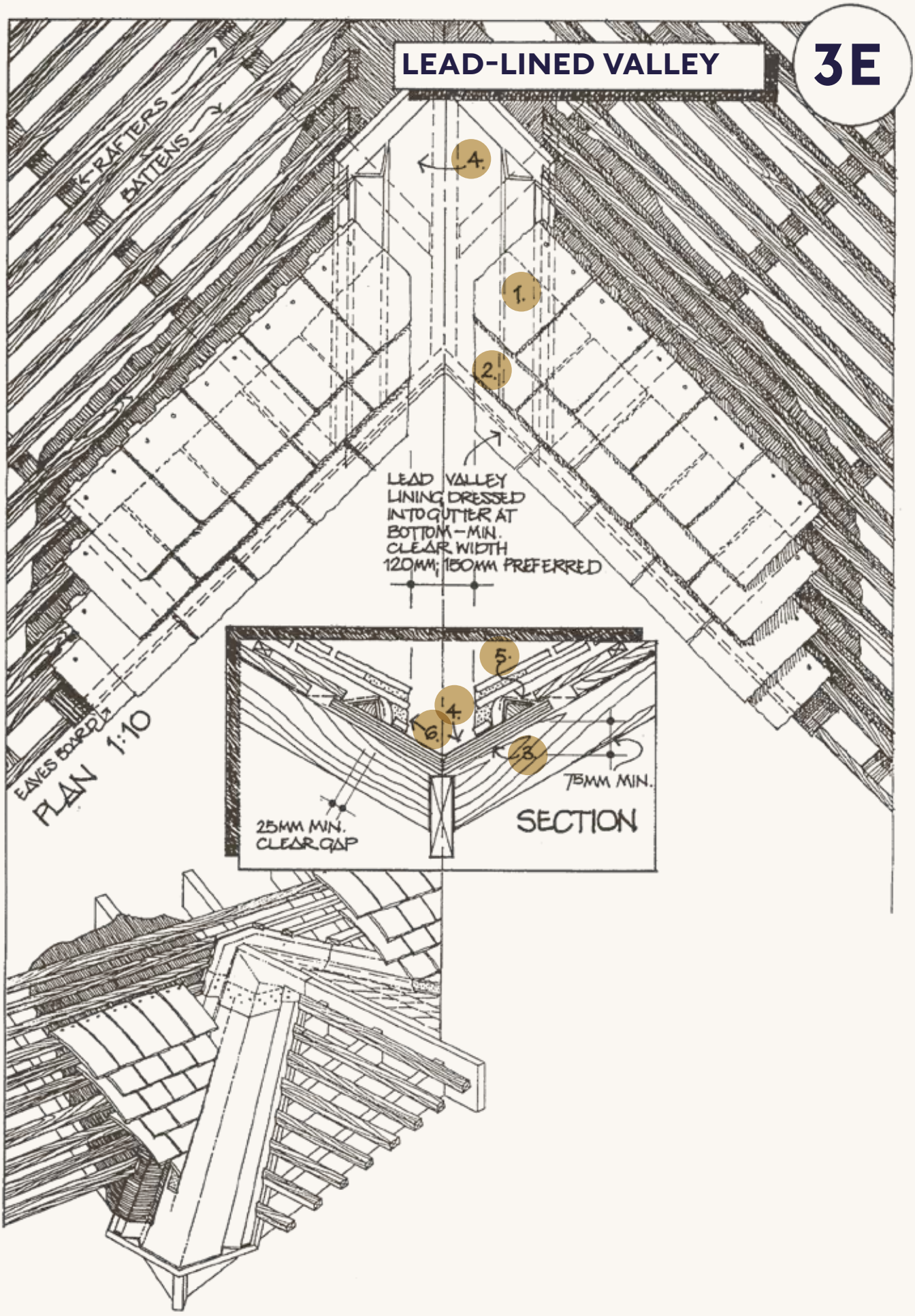
1. **Top tile**
2. **Purpose made valley tile**
3. **See ridge on pages 1 -2 or batten/felt details**
4. **British Lead Mills Ltd. Code 5 formed lead saddle to abutment junction. Saddle can be bossed or have welded gusset for steeper rood pitches – see BLM details**

Abutment ridge flashing intersection of roof/ridge

1. **Top tile**
2. **British Lead Mills Ltd. Code 5 formed lead combined saddle/flashing. Flashing is wedged 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

3E



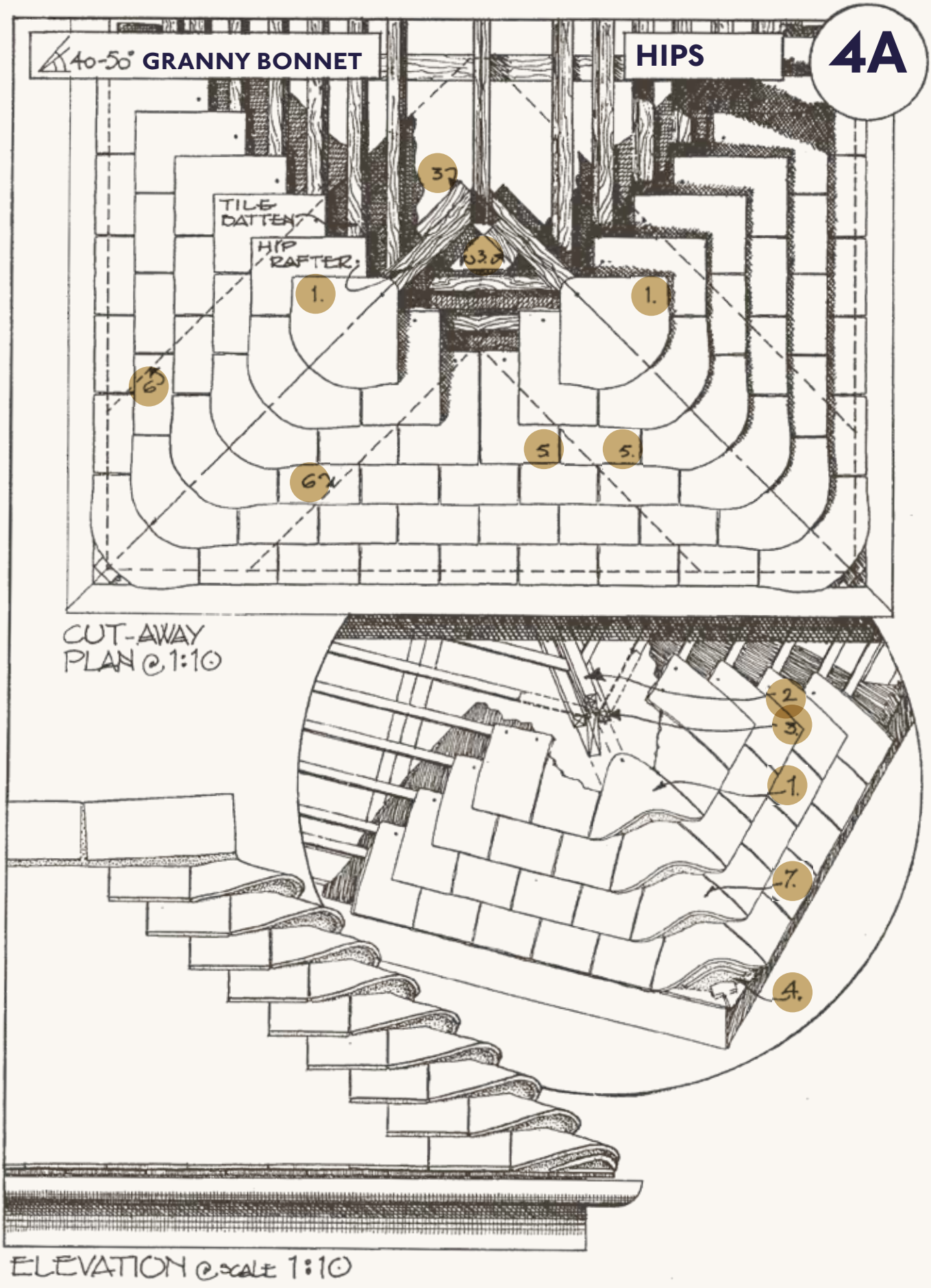
LEAD LINED VALLEY

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 + timber fillets each side to support tiles at valley channel
4. British Lead Mills Ltd. Code 5 lead valley lining
5. Roofing felt to be dressed over fillet into 25mm gap
6. Mortar bedding on plain tile slips

4A

40-50° GRANNY BONNET

HIPS



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

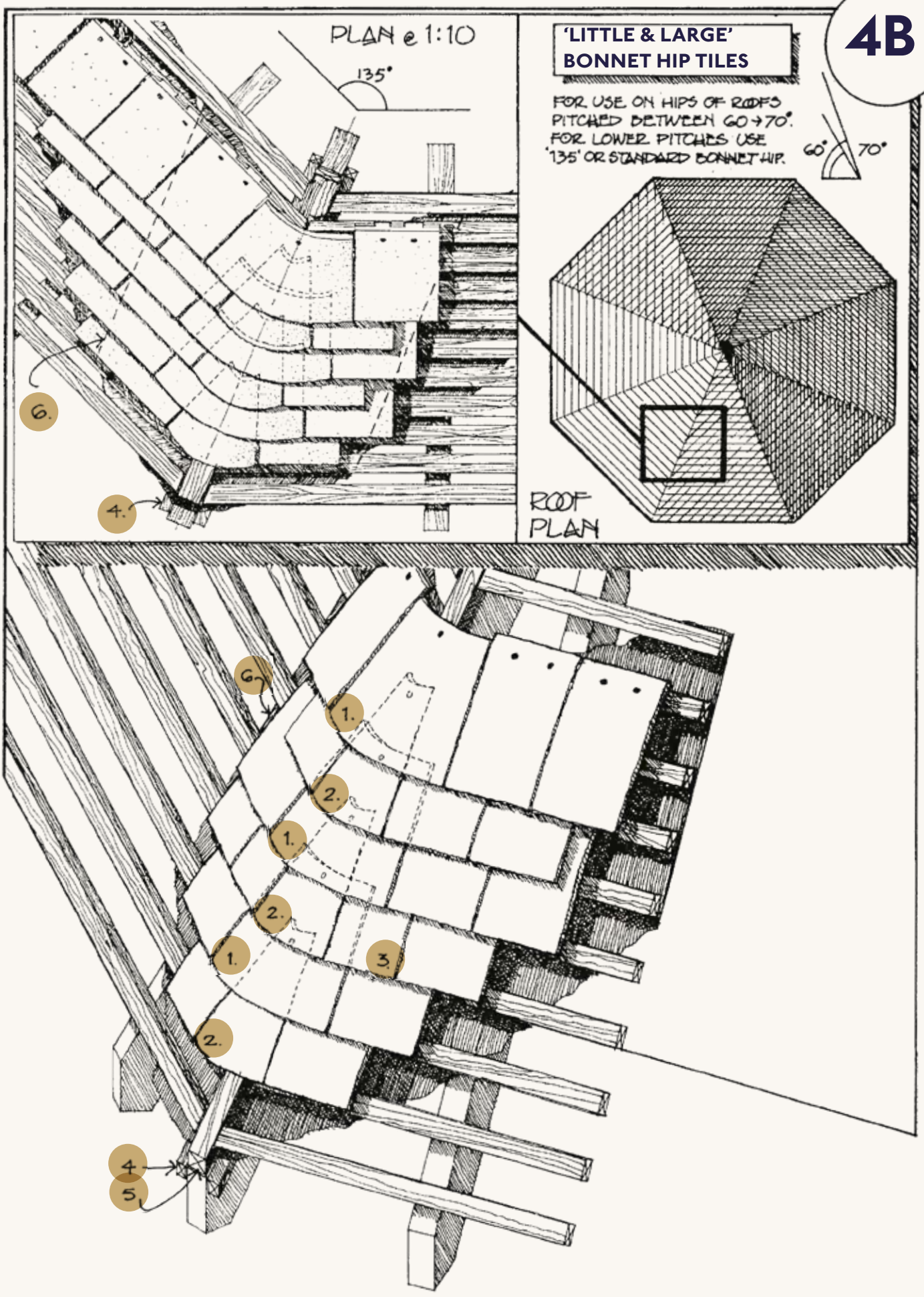
6 600mm wide strip of roofing felt laid over general roofing underlay

7 Jockeying of bonnets

4B

'LITTLE & LARGE' BONNET HIP TILES

FOR USE ON HIPS OF ROOFS PITCHED BETWEEN 60→70°. FOR LOWER PITCHES USE '135' OR STANDARD BONNET HIP.



‘LITTLE + LARGE’ BONNET HIP TILES

1 ‘Large’ Tile

2 ‘Little’ tile

3 Depending on pitch, cut tiles may be required to ensure good file + half tile coursing

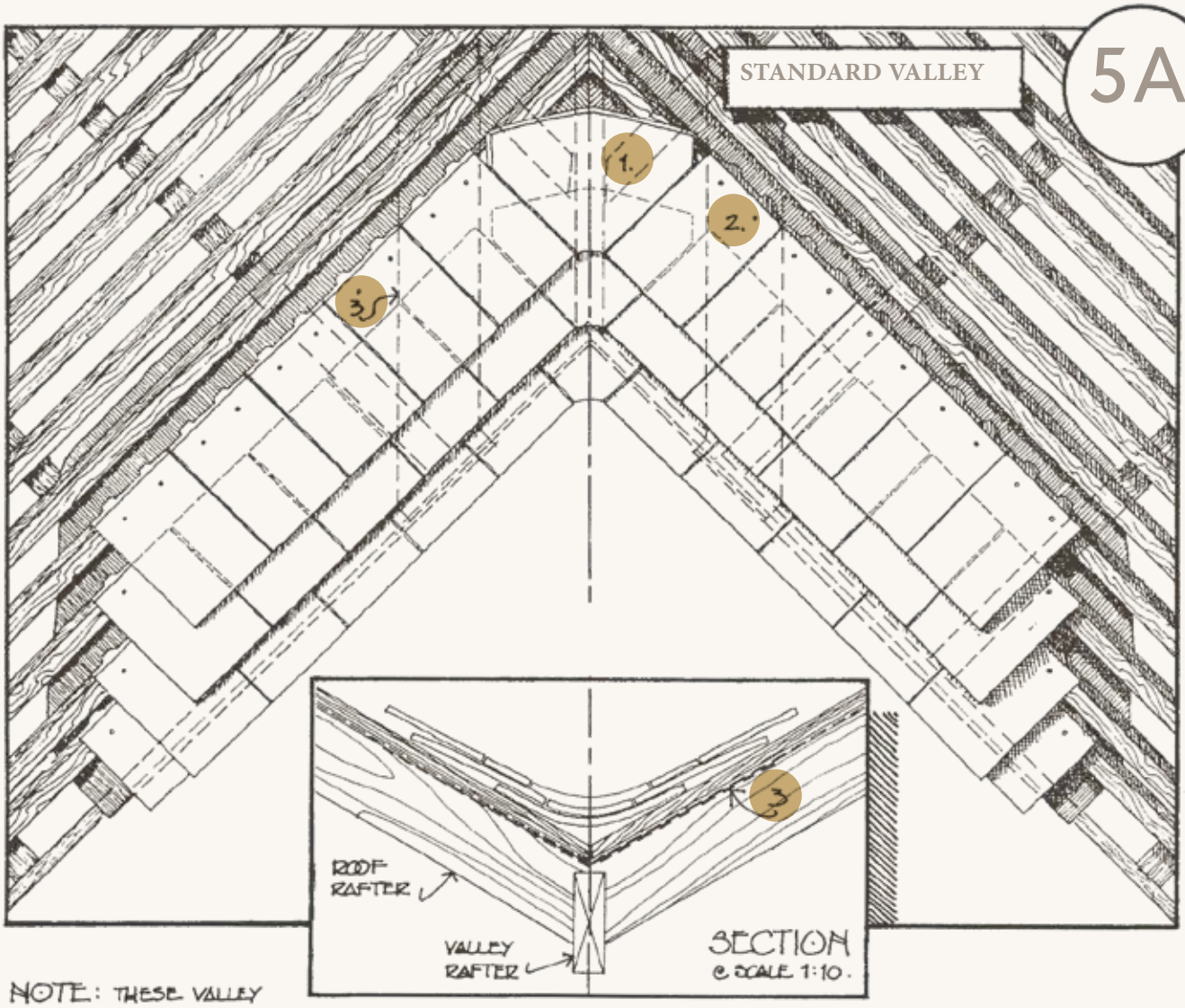
4 Timber bearer to batten ends

5 Counter batten to give tile + good fixing for bonnet nails

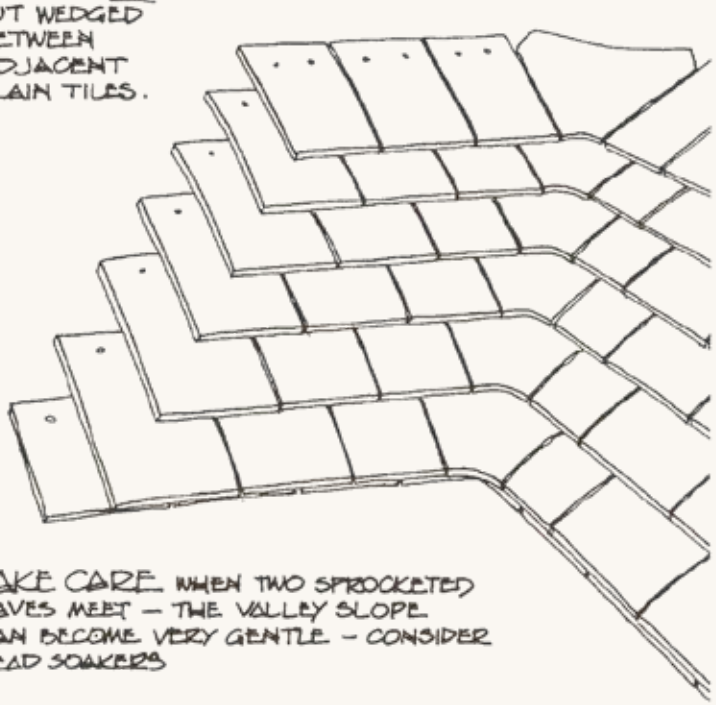
6 600mm wide strip of underlay, laid over general underlay

STANDARD VALLEY

5A



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

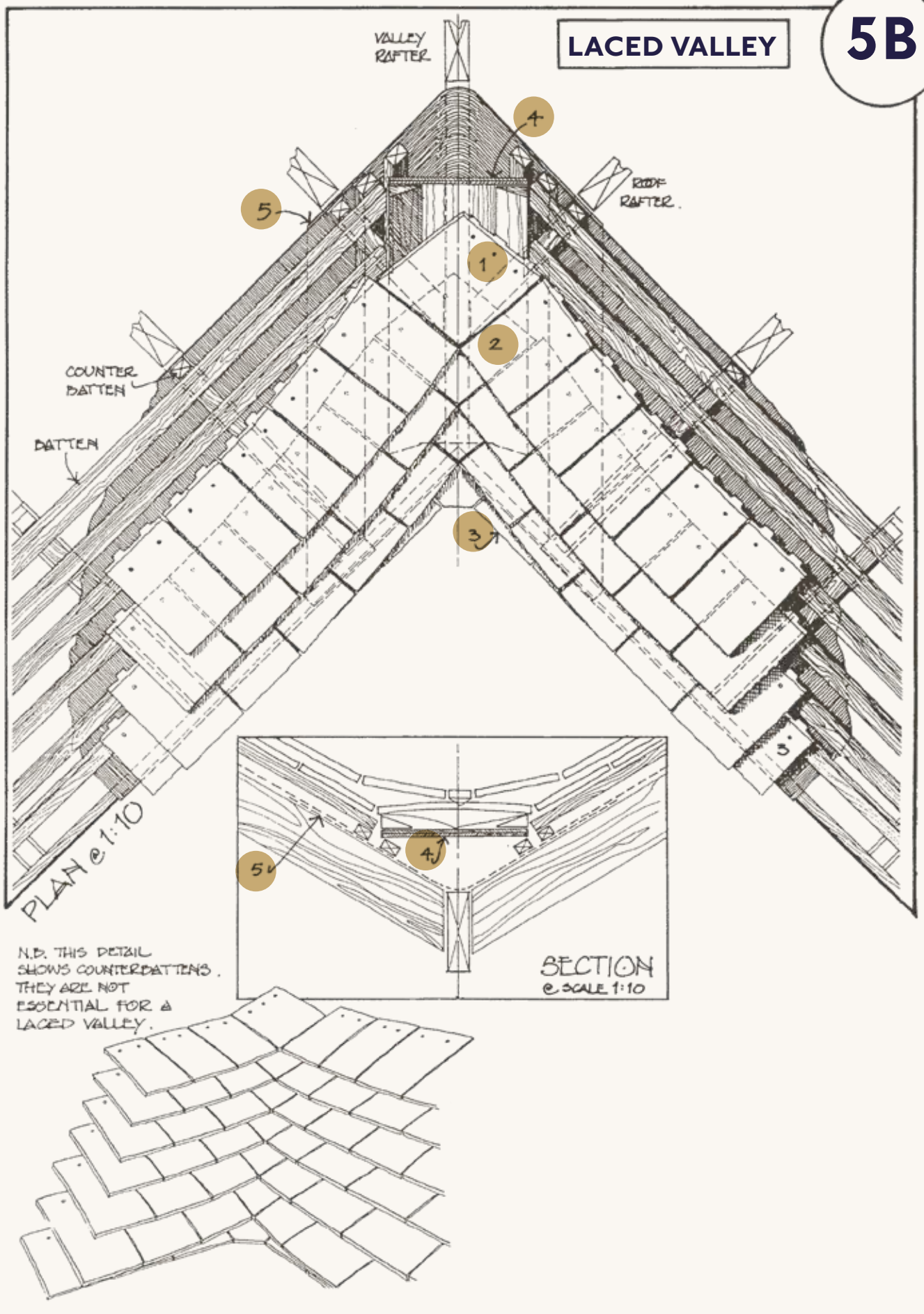
1 **Tile-and-a-half ‘ tile turned through 90° in alternate courses**

2 **Adjacent plain tiles may require cutting to fit + 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’**

LACED VALLEY

5B



LACED 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, + to keep ½ tile coursing**

3 **Continuous 600mm wide strip of underlay, under general underlay, + overlapped by the general underlay by at least 150mm**

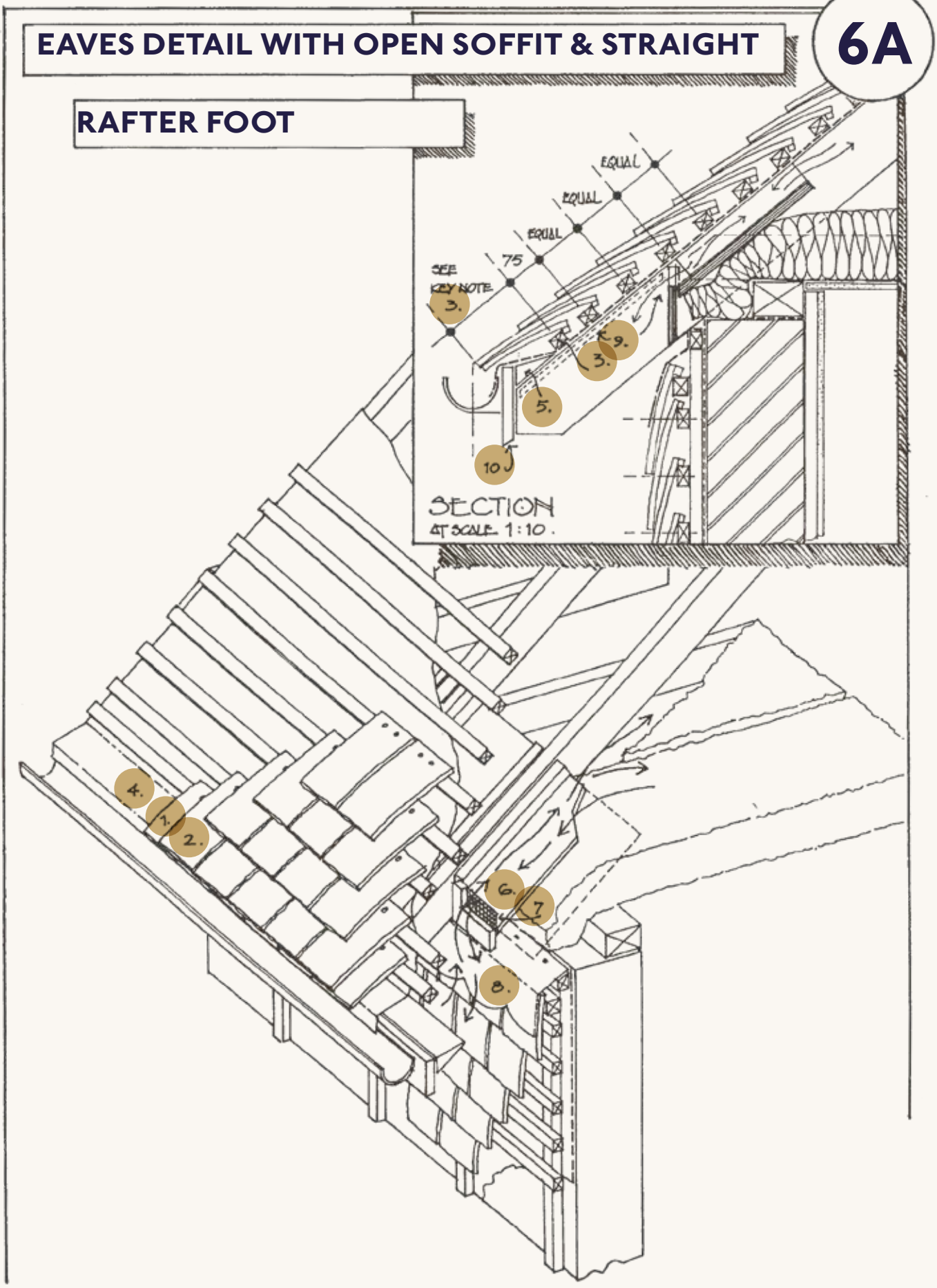
4 **Ply valley board + timber fillets each side to support tile-and-a-half tile**

5 **Continuous 600mm wide underlay strip, under general underlay**

EAVES DETAIL WITH OPEN SOFFIT & STRAIGHT

RAFTER FOOT

6A



EAVES DETAIL WITH OPEN SOFFIT & 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 a underlay support tray

5 Timber tilting fillet

6 Ply sheet + supporting noggins to maintain ventilation path

7 Mesh to keep out insects, birds etc

8 Flashing to neaten + weatherproof the top course of tile hanging

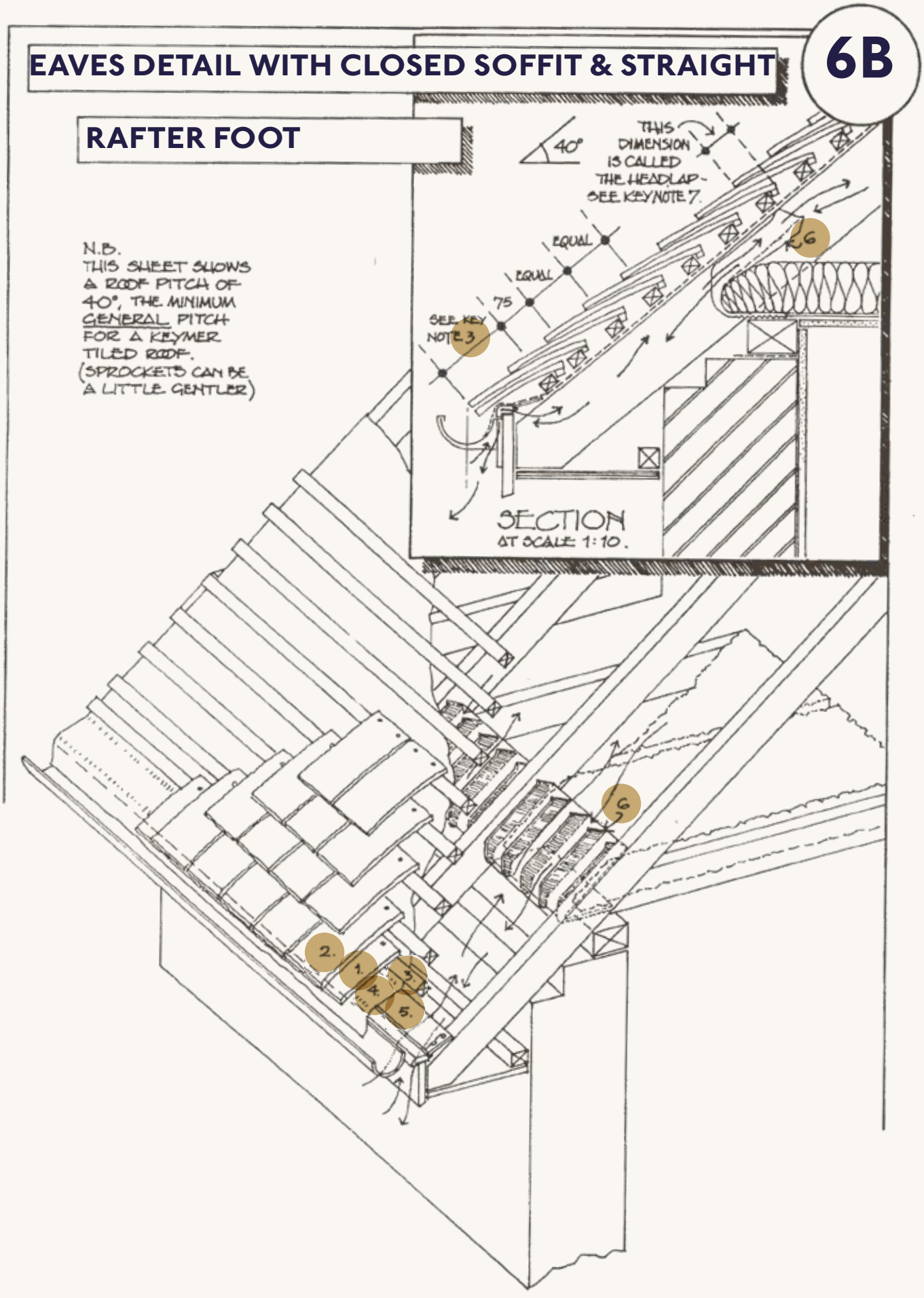
9 If the eaves overhang is large, consider using a dark stained timber under lining - looking up at underlay is not attractive – but make sure that it does not trap the underlay or obstruct the vent path

10 This detail shows a fascia – it can be omitted + the rafter feet exposed (but remember to use rafter brackets to support the gutter, not fascia brackets)

EAVES DETAIL WITH CLOSED SOFFIT & 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)

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 + is always sloping to avoid ponding

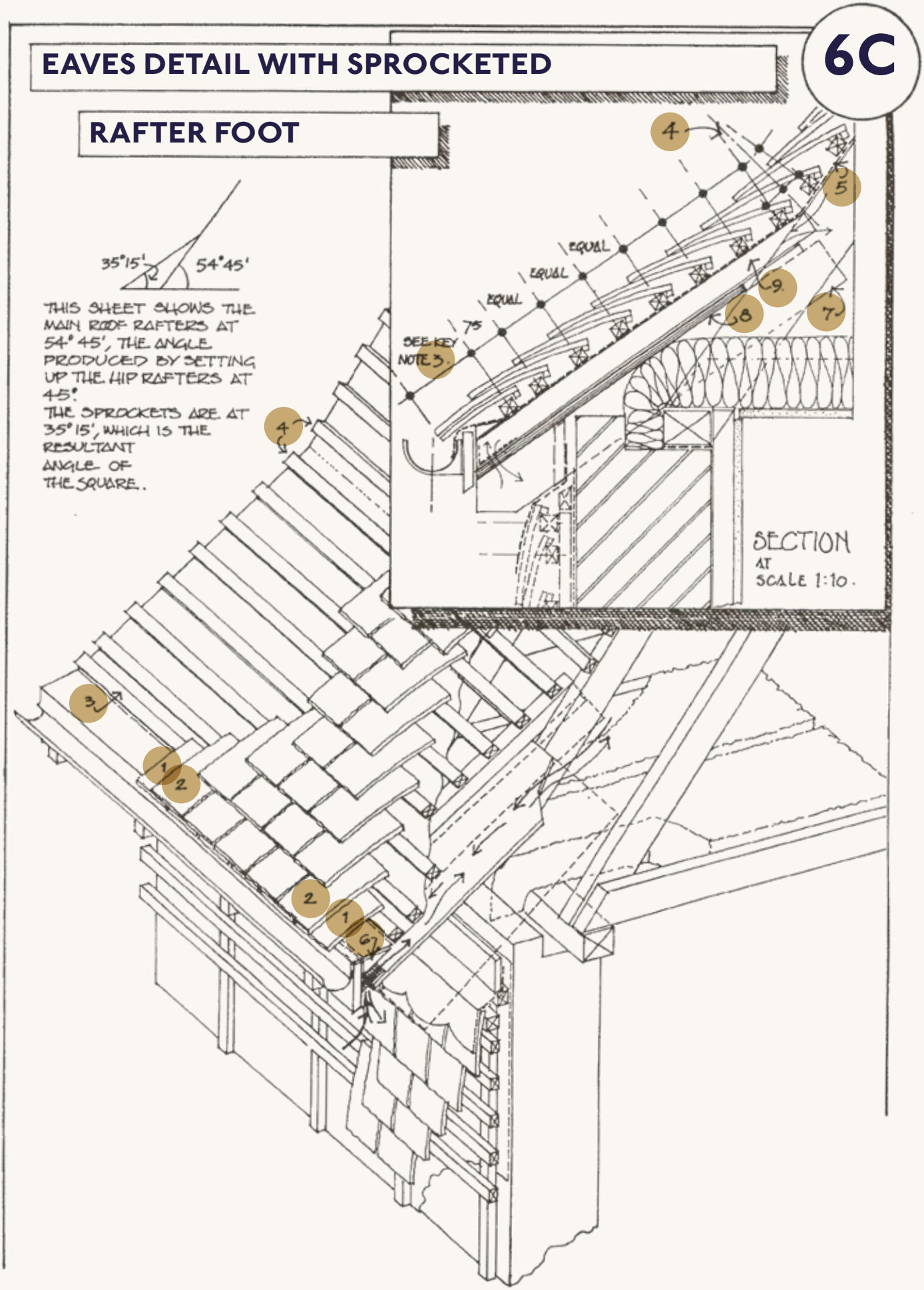
5 Keymer 'in-line' eaves vent accessory supports the underlay and gives continuous vent. The need for insect mesh etc., cutting of soffit board and so on is avoided

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 RAFTER FOOT

6C



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

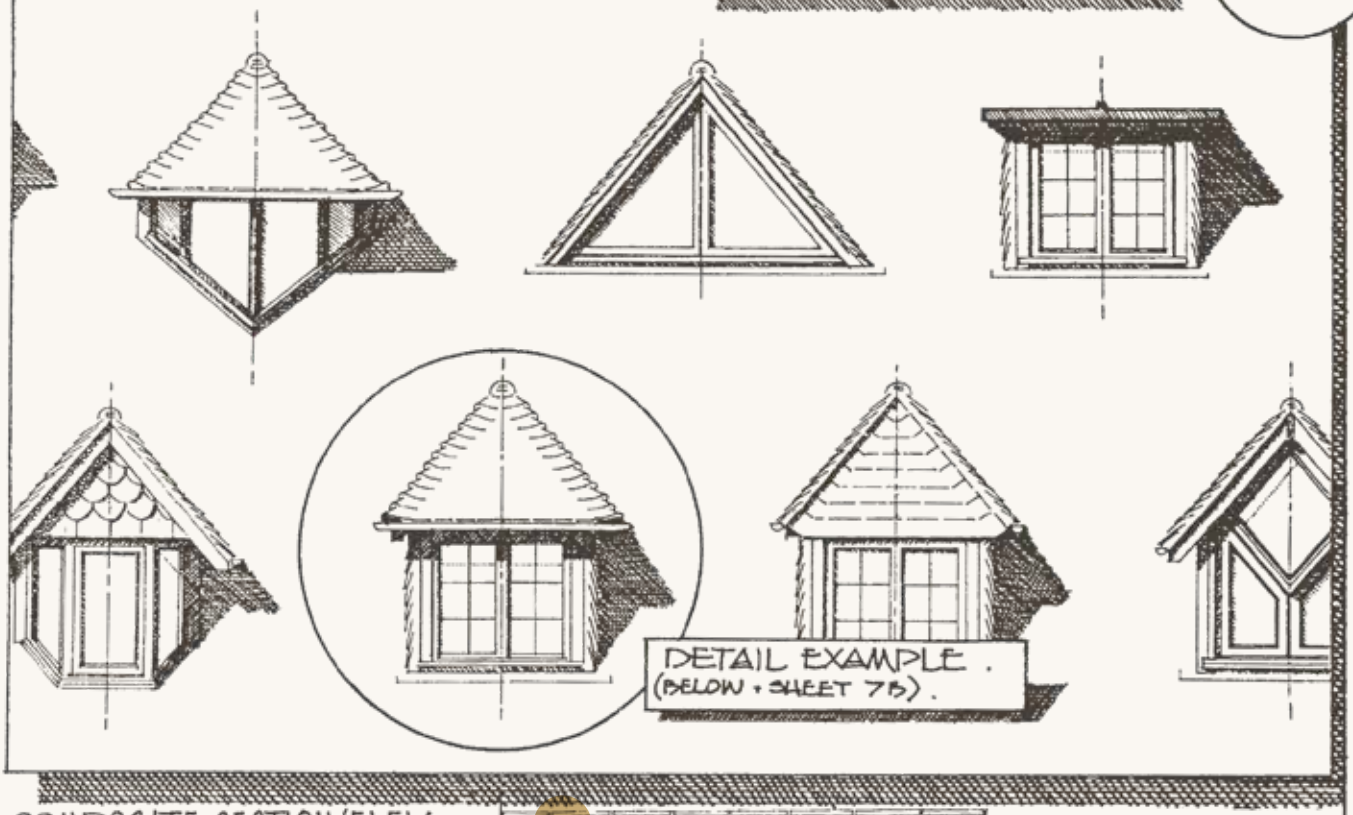
7 Sprocket nailed to side of rafter foot

8 Ply sheet to maintain vent path*

9 Counter-batten to produce air path.
(Don't forget the insect mesh)

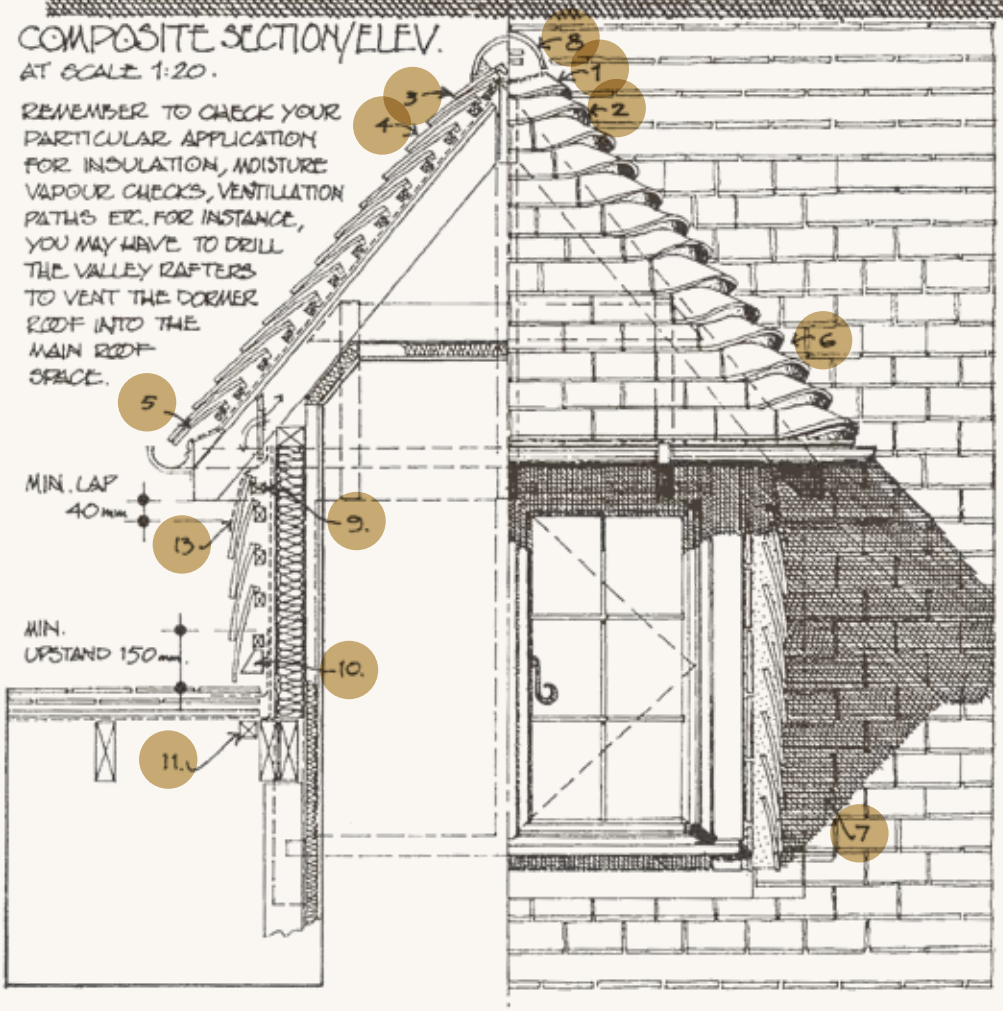
DORMER WINDOWS

7A



COMPOSITE SECTION/ELEV.
AT SCALE 1:20.

REMEMBER TO CHECK YOUR PARTICULAR APPLICATION FOR INSULATION, MOISTURE VAPOUR CHECKS, VENTILLATION PATHS ETC. FOR INSTANCE, YOU MAY HAVE TO DRILL THE VALLEY RAFTERS TO VENT THE DORMER ROOF INTO THE MAIN ROOF SPACE.



DORMER WINDOWS

From diagrams 7A - 7B

1 **Top bonnets out to fit + to course, and to lift end ridge tile**

2 **Standard bonnet – sheet 2A for further guidance**

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 **½ Round ridge tile. Tile slip end filling**

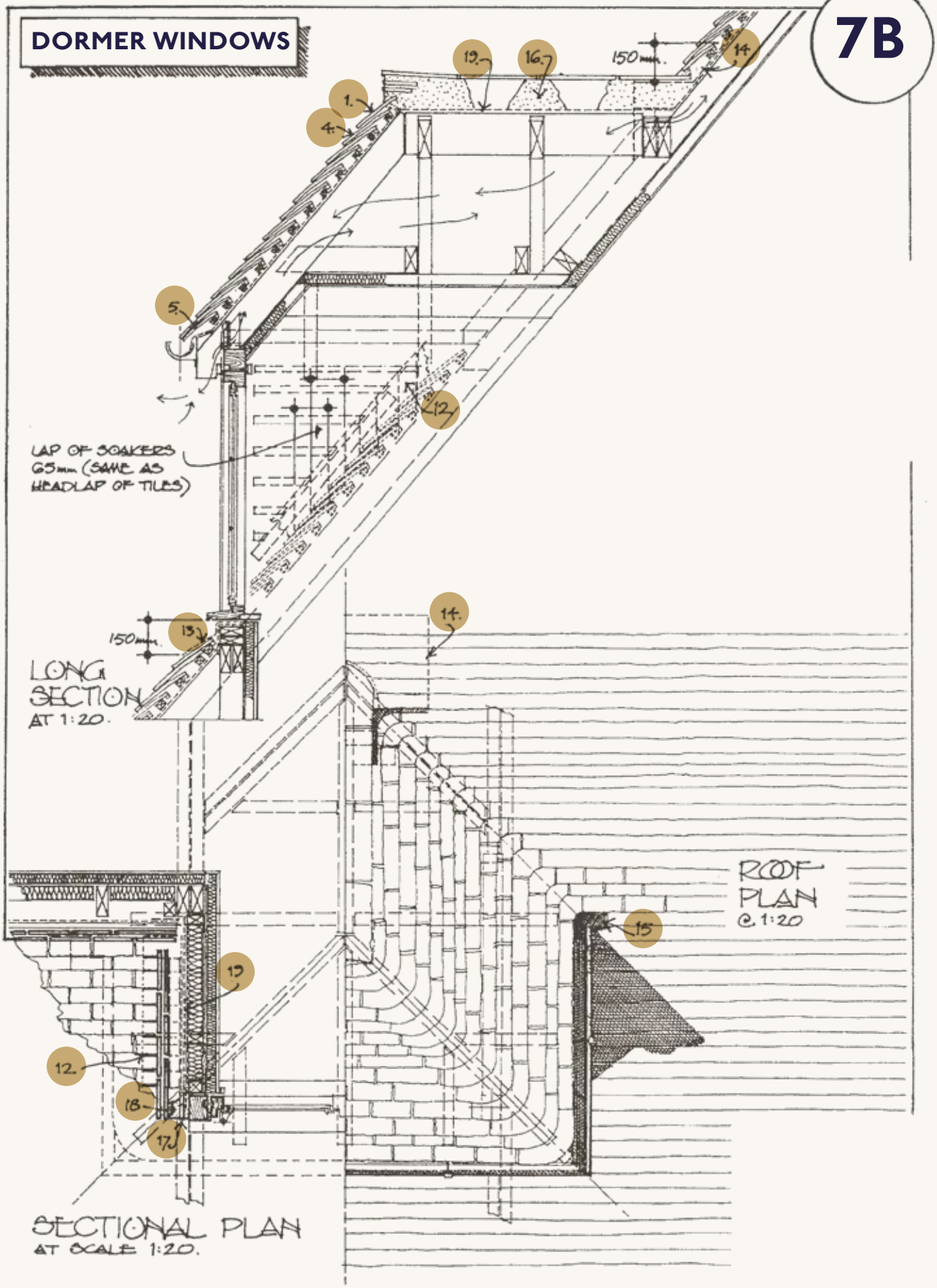
9 **Top batten turned through 90° to build out top course**

10 **Tilting fillet**

11 **Batten bearer may be needed, depending on width of dormer cheek structure**

DORMER WINDOWS

7B



DORMER WINDOWS

Continued from page 69

12 **Lead soakers, 150mm upstand + 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**

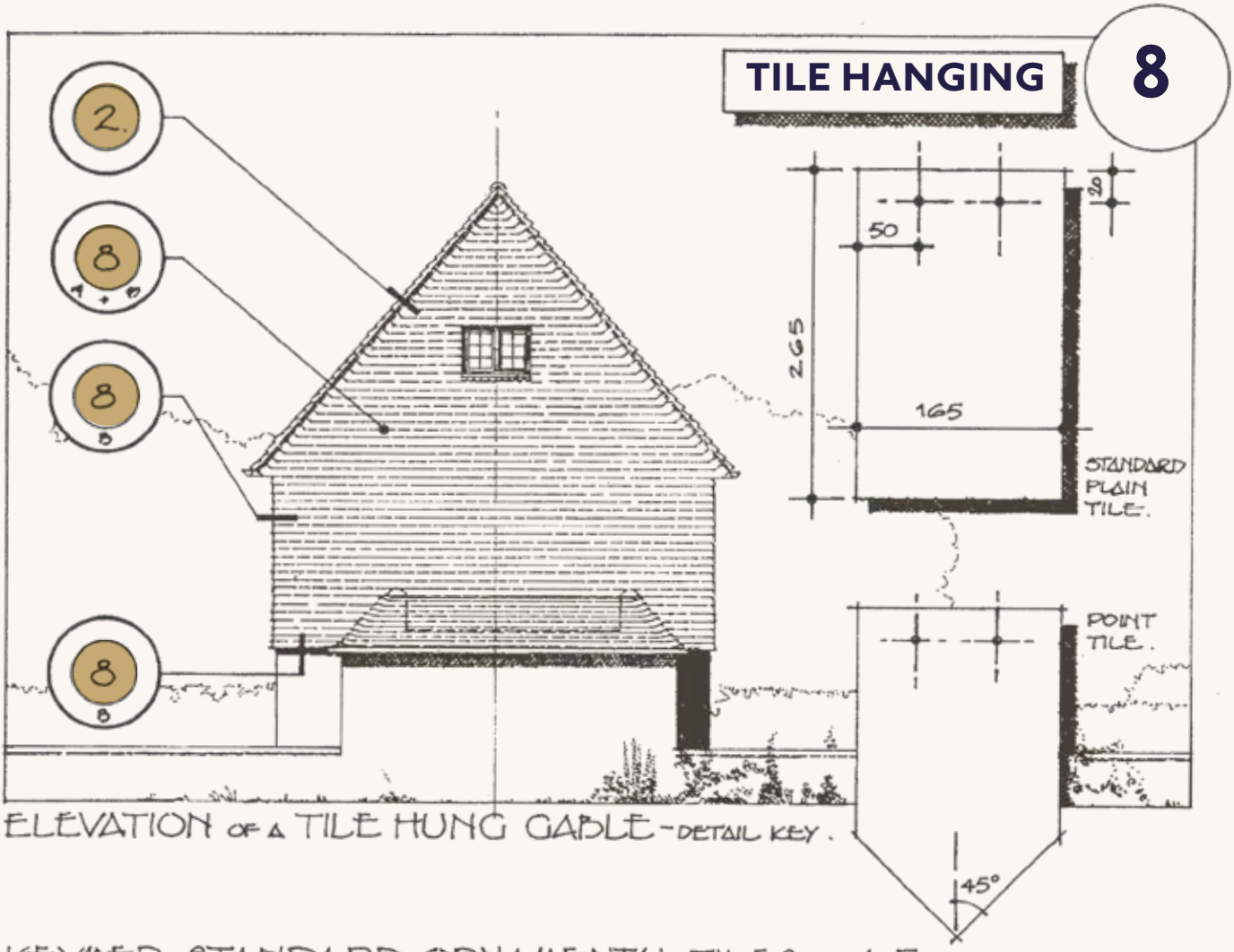
17 **½ Tile slips nailed to post, to stop battens, give key for mortar, and to reduce visual mass of mortar. Set the mortar back a little, and take care to keep the tile edges clean**

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

19 **½ Round ridge tile. Tile slip end filling**

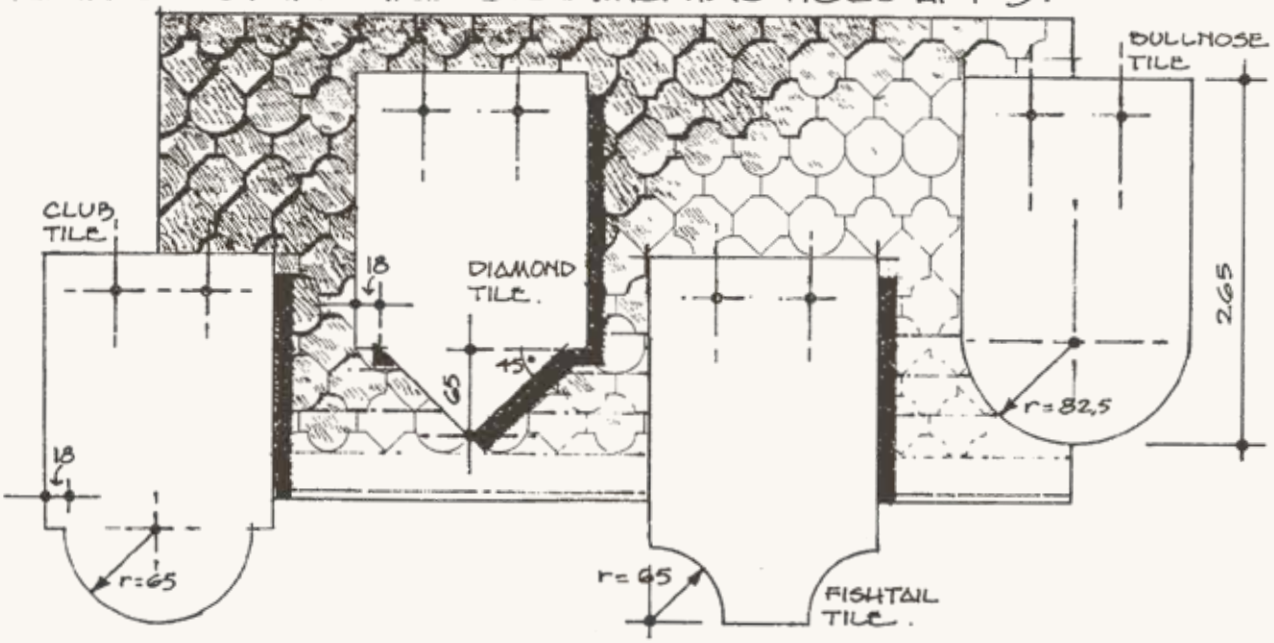
20 **Underlay is fixed in pieces + strips in accordance with the recommendations for each particular junction.**

TILE HANGING 8



ELEVATION OF A TILE HUNG GABLE - DETAIL KEY.

KEYMER STANDARD ORNAMENTAL TILES AT 1:5.

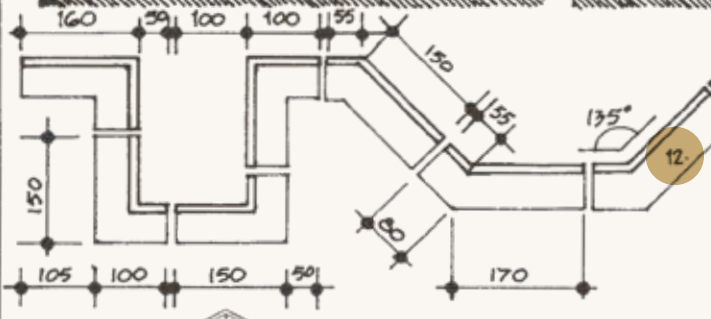


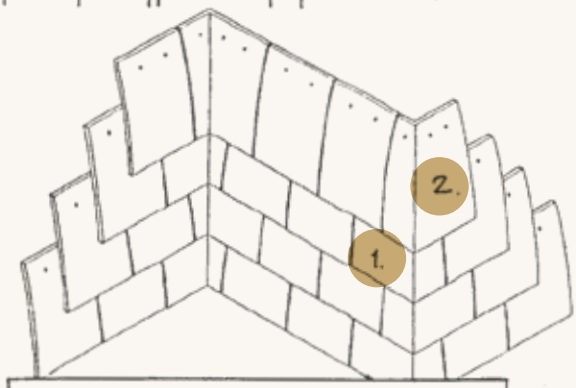
TILE HANGING

See key detail 8A + 8B on pages 74 - 77

8A

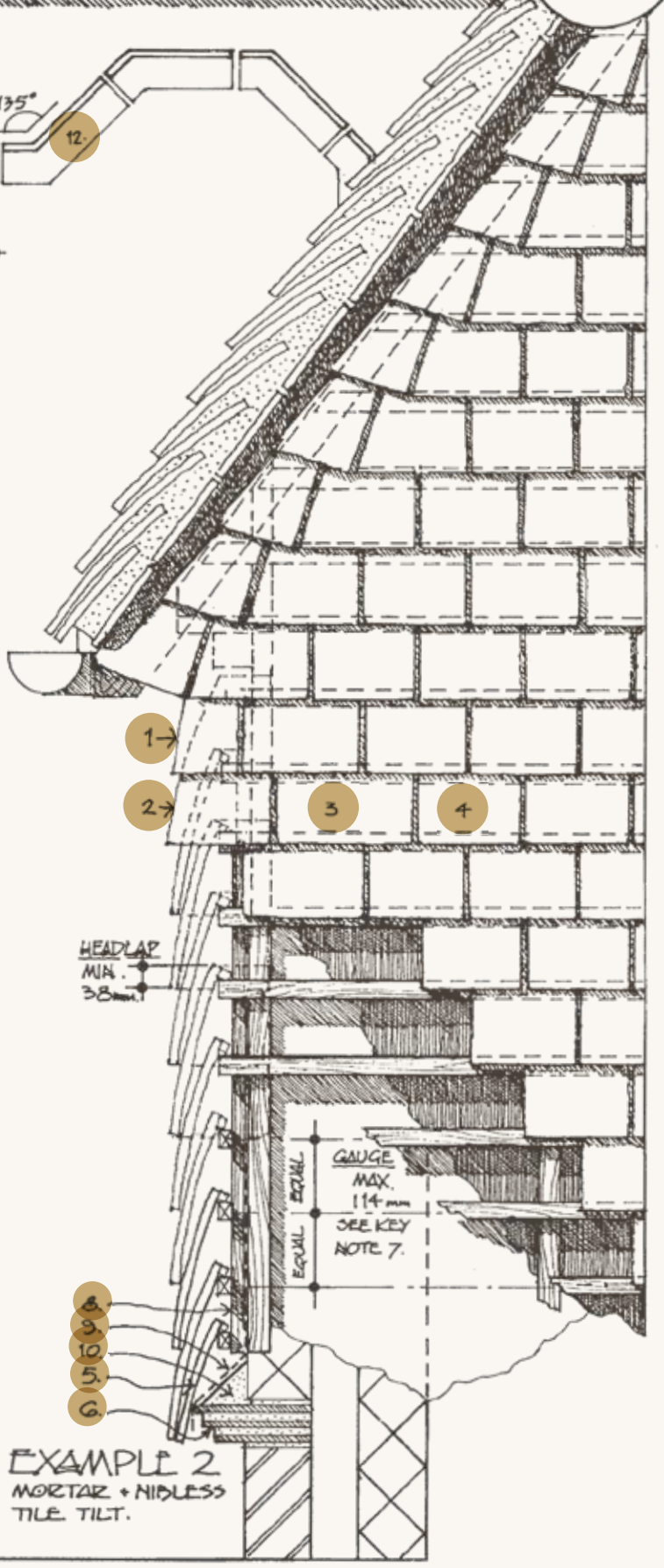
CORNERS IN TILE HANGING

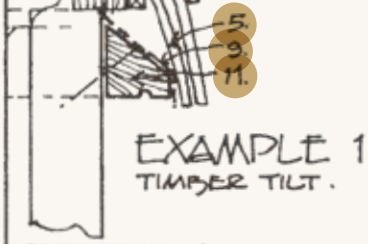




GENERAL VIEW OF TILE HANGING

VERTICAL TILE HANGING





EXAMPLE 1
TIMBER TILT.

EXAMPLE 2
MORTAR + NIBLESS
TILE TILT.

BASE OF TILE HANGING

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 ½ 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 tile length-lap = gauge

8 Vertical counter battens

9 Underlay

10 Mortar tilting fillet

11 Timber tilting fillet

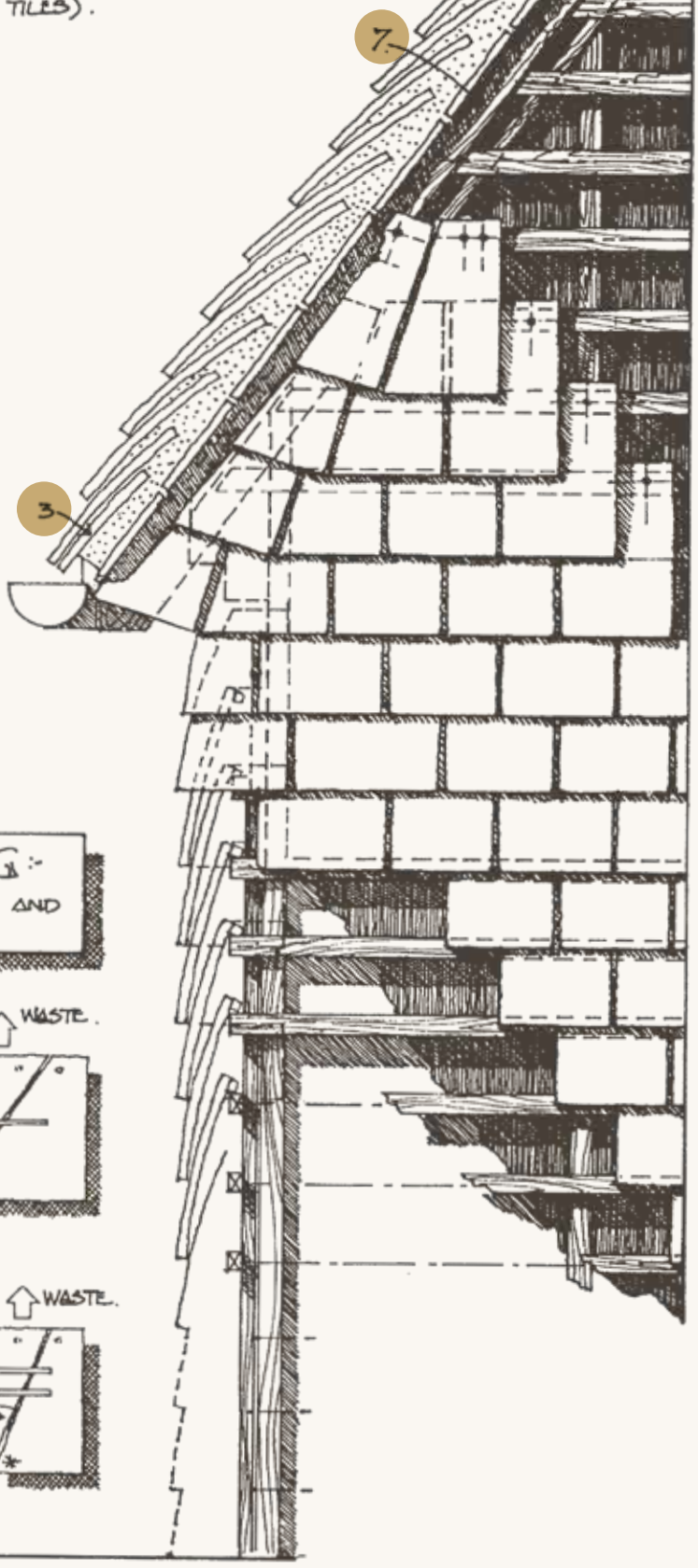
12 Keymer also produces 135° internal + external angles in handed sets

RIDGE & VERGE

VERTICAL TILE HANGING

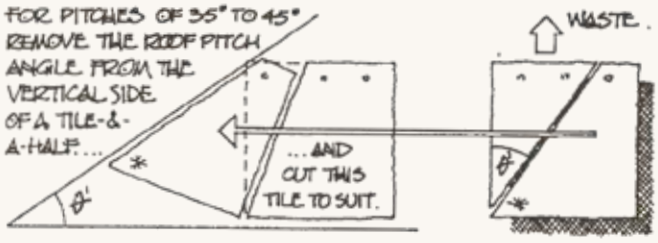
8B

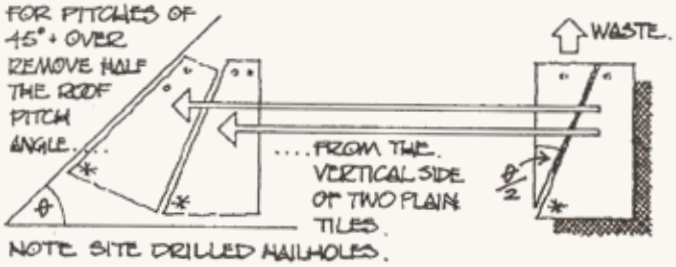
NOTE : THE WINCHESTER CUT DETAIL ILLUSTRATED HERE IS NOT RECOMMENDED FOR THE VERGES OF ROOFS PITCHED BELOW 35° (BUT THEN NEITHER ARE KEYMER TILES).



WINCHESTER CUTTING :-

TILES CUT FROM TILE-AND-A-HALF TILES AND STANDARD PLAIN TILES.





NOTE SITE DRILLED NAILHOLES.

K

RIDGE + VERGE JUNCTIONS. VERTICAL TILE HANGING.

1 ½ round ridge tile with tile slip filling

2 Top tile (see sheet 1 for further guidance)

3 Eaves tile (see sheets 6A, B + 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

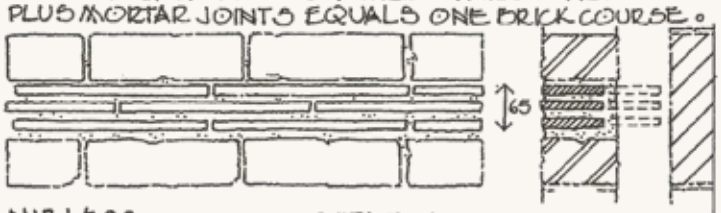
5 Special tile cut on site from standard plain tile = fixed as noted in 4 above

6 Nibless or standard plain tiles with short side showing as undercloak

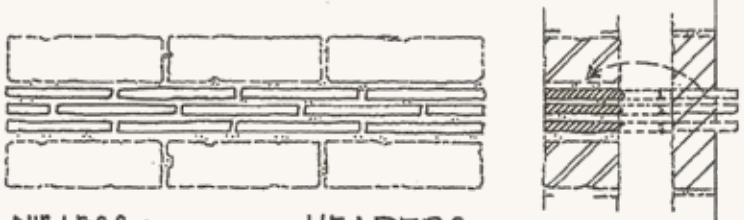
7 With all roof pitches when Winchester cutting, it will be necessary to fix anadditional tiling batten running parallel to the line of the roof pitch, in order to secure the last tile

BONDING

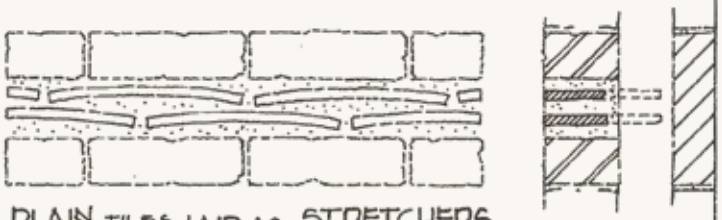
TILES IN WALLS SHOULD BE BONDED IN MUCH THE SAME WAY AS BRICKS. BUT REMEMBER! TILES ARE NOT THE SAME LENGTH OR WIDTH AS BRICKS ≈ SO PERPENDS WILL NOT LINE THROUGH BUT COURSING GENERALLY WILL ≈ THREE TILES PLUS MORTAR JOINTS EQUALS ONE BRICK COURSE.



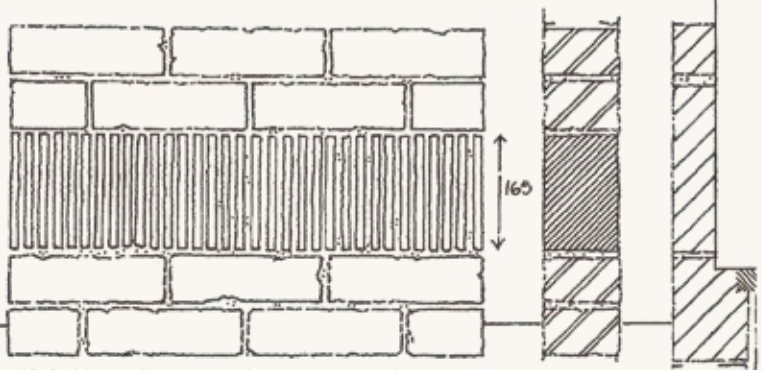
NIBLESS TILES LAID AS STRETCHERS @ SCALE 1:10



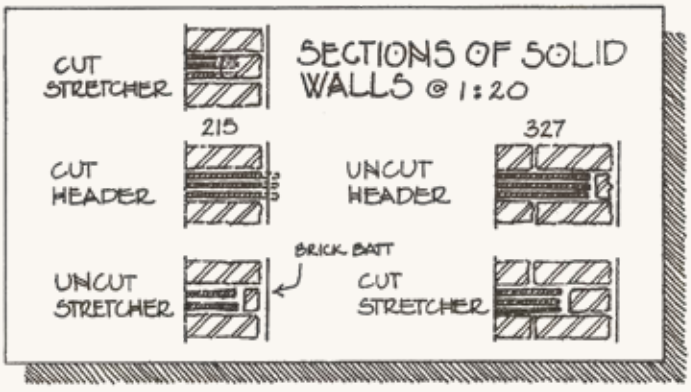
NIBLESS TILES LAID AS HEADERS
– OR USE PLAIN TILES



PLAIN TILES LAID AS STRETCHERS



PLAIN OR NIBLESS HEADER SOLDIER COURSE



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 + small module shapes.**
- **Colour/texture contrast – use to break up large areas, introduce texture variations, run string courses bands and patterns**

Which tiles to sse

- **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

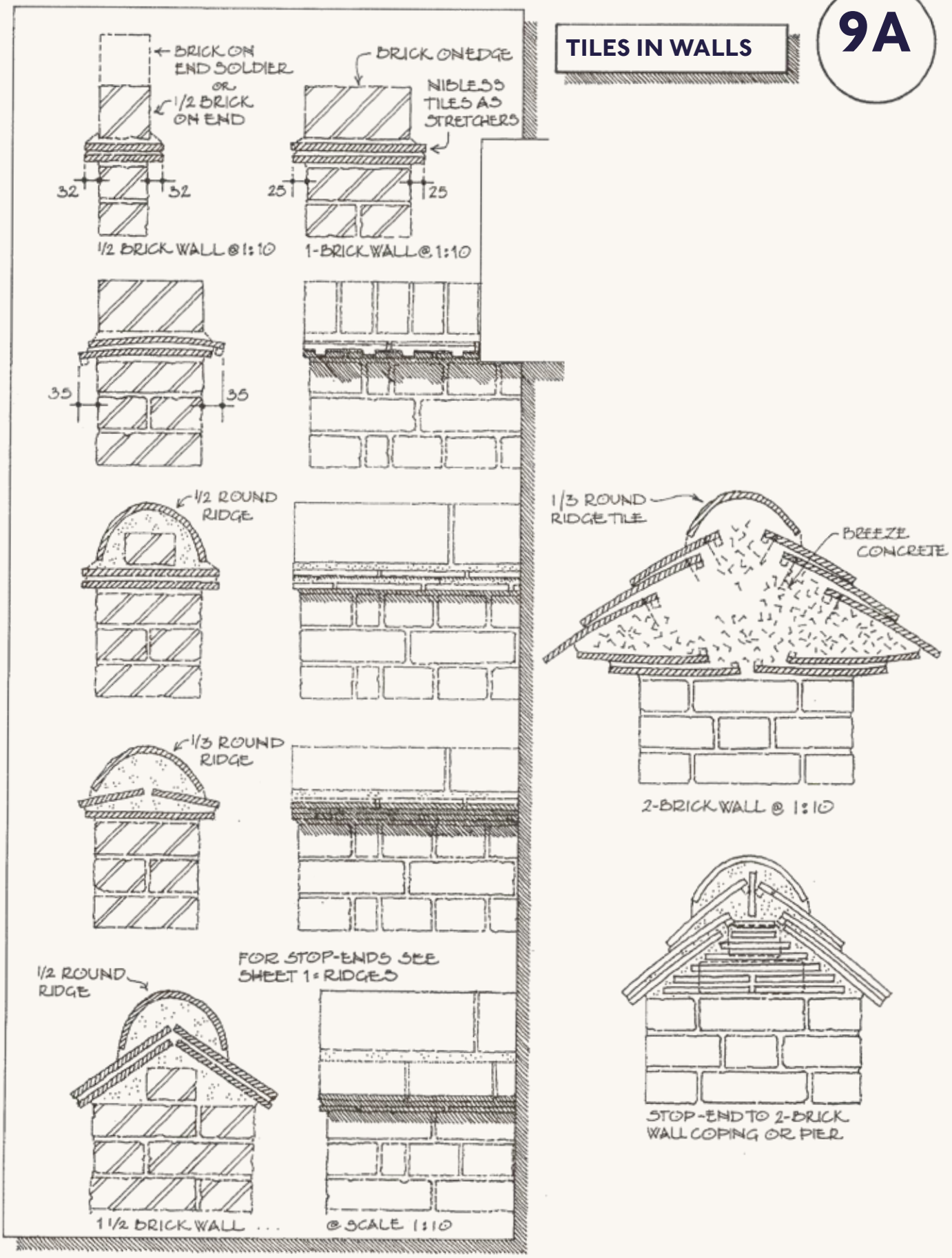
- **MIX – 1 cement : 1 lime : 1 fine aggregate Or 1 cement : 3 fine aggregate.**
  DON'T use soft building sand.
- **JOINT – don't point – nominally recess the joint to keep the edges clean, but don't create ledges – bag or stipple on completion to remove cement laitance and to expose a little aggregate**

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. Laitance and to expose a little aggregate

TILES IN WALLS

9A



TILES IN WALLS.
COPINGS

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Top tile (see sheet 1 for further guidance)

Eaves tile (see sheets 6A, B + C for guidance)

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Nibless or standard plain tiles with short side showing as undercloak

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FINALLY...

Here are some of the past projects we've been involved with

ROYAL HOUSEHOLDS
Windsor Castle
Kensington Palace
St James's Palace
Hampton Court Apartments

RELIGIOUS BUILDINGS
St Pauls Cathedral, the Deanery
All Saints Church, Ongar
Choir House, Canterbury Cathedral
St Thomas Church, Brentwood
St Mary's Church, Rickinghall
Portsmouth Cathedral
Ely Cathedral
Tewskesbury Abbey
Bradwell Abbey
Douai Abbey, Berkshire
Blendworth Church, Hampshire
Caldey Island Monastery
Dunwich St James, Suffolk
Golders Green Crematorium
Our Lady Queen of Martyr's, Chideok
William Booth College, London
Rosslyn Chapel, Roslin
St Columba's Church, Glasgow

NATIONAL TRUST / ENGLISH HERITAGE
Dover Castle, Kent
The Vyne, Basingstoke
Bodiam Castle, East Grinstead
Scotney Castle, East Sussex
Critchley Hall, Buckinghamshire
Harvington Hall, Worcestershire
Hever Castle, Kent
Ightham Mote, Kent
Michelham Priory, East Sussex
Leeds Castle, Kent
Watts Chapel, Surrey
Chartwell, Kent
Cliffords Tower, York
Oxborough Hall, Norfolk
Shakespeare's Birthplace, Stratford-on-Avon
Tyntesfield, Somerset
Welbeck Estate, Notts

PUBLIC & HISTORICAL BUILDINGS
Jane Austen's House, Hampshire
Thames Hospice, Maidenhead
Tonbridge Castle, Kent
The Tower of London
County Hall, London
Market Cross, Wymondham
Shakespeare's Birthplace Trust
Lord Leycester Hospital, Warwick
Cobtree Museum,
Weald & Downland Museum, Sussex
Leatherhead Town Hall, Surrey
Reading Town Hall
Bournville Village, West Midlands
Zoological Museum, Hertfordshire
Bursledon Brickworks Museum, Hampshire
Goodwood Estate
West Boathouse, Glasgow Green
Boston Guildhall, Lincolnshire
Mawley Hall, Shropshire
Ashby Hall, Lincolnshire
Cawood Castle, North Yorkshire
Cliveden House, Berkshire
Ednaston Manor, Derbyshire
Finsbury Circus Pavilion
Fountains Abbey, North Yorkshire
Halnacker Windmill, Sussex
India Building, Liverpool
Middle Temple Hall, London
The Old Curiosity Shop, London
Queensbury House, Edinburgh
Well Court, Edinburgh
Reform Club, Pall Mall
Saffron Walden Town Hall
Stonor Park, Berkshire
The Burge, Coventry
The Old Courthouse, Worcs
Verulamium Museum, St Albans
Villa Urbana, Wroxeter
The Rectory, Frome

EDUCATIONAL BUILDINGS
Sevenoaks School – new girls and boys boarding houses.
Ibstock Place School Refectory
Brentwood School
Churchill College, Cambridge
Queens College, Cambridge
Farnborough Hill College
Kings College, Cambridge
Oxford University
Duke of York Military School, Dover, Kent
Clare College, Cambridge
Cambridge University Library
Eton College
Merchant Taylors School, Middlesex
Sawston School, Cambridge
University of Manchester
Fylingdale School, North Yorkshire

Sponsorships

English Heritage – Corporate Partnership
Conservation in Action interpretation programme at Dover Castle 2021 – 2022

Historic England – Heritage Angels Awards 2018
Sponsor of Best Rescue of a Historic Building or Place (projects under £5 million)
Winner | The Florence Institute, Liverpool

Society for the Protection of Ancient Buildings (SPAB) – Heritage Award
Sponsors of Sustainable Heritage Category 2022
Winner | No.4, Black Bull Close – the rescue of an abandoned 18th-century building behind Dunbar High Street, by community-based charity the Ridge

Recent Awards

Pitched Roofing Awards 2022
Best Use of a Heritage Roof | Jane Austen's House with Clarke Roofing Southern Ltd

2017 Grand Designs RIBA House of the Year
Caring Wood

RIBA National Award 2022
RIBA Regional London Award 2022
AJ Awards - School category 2021
Ibstock Place School Refectory by Maccreanor Lavington

RIBA Regional Southeast Award 2022
Aisher House Sevenoaks School, Kent by Tim Ronalds Architects'

RIBA Regional South Award 2022
AJ Awards - Health and Wellbeing category 2022
Thames Hospice, Maidenhead, by KKE Architects

RIBA Regional East Award 2022
Churchill College, Cambridge, by Cottrell & Vermeulen

RICS Award 2018 (Finalist)
AJ Specification Award 2019 (Finalist)
Grevel Lane – Arts & Crafts House with Design Storey Architects

RIAI Universal Design Award 2022
RICS Awards 2022 - Refurbishment/Revitalisation Project
India Buildings, Liverpool

Wienerberger

Wall Solutions	Roof Solutions	Landscaping Solutions
Terca	Sandtoft	Penter
Porotherm	Koramic	
Corium	KEYMER	
SVK		

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