

REPAIR SPECIFICATION

1. Preparation

- 1.1 The Contractor must allow for all scaffold and access ladders with a min. 3 meter high metal sheeting to base of scaffold.
- 1.2 Protection must be provided at all times to prevent damage from falling material to ceilings or structure beneath whilst stripping roof slopes.
- 1.3 Prior to stripping existing tiles, the Contractor is to record the existing course widths and particularly note the layout of the tiles.
- 1.4 The Contractor shall strip roofs with the greatest care in order to avoid any damage to the tiles. All tiles shall be carried from the scaffolding and no tiles, whether damaged or not, shall be thrown down.

2. Materials: Tiles

- 2.1 Roofing tiles shall be "Club" "Fishtail" and traditional single camber standard tiles by Dreadnought Tiles to match colours and textures of the existing tiles. Club and Fishtail tiles to be Staffordshire Blue, plain tile banding to be Dark Heather. All new tiles must be pre-drilled with min 2/10 nail holes and have min 2/10 ribs on the rear.
- 2.2 Valley tiles should be used at all valleys to match existing detail.
- 2.3 Special attention must be paid to matching existing layouts exactly.

3. Materials: Other

- 3.1 The underlay is to be a Bitumastic 1F under-felt, colour: black, to comply with 'Good Practice Guidelines, 3rd Edition; Bat Conservation Trust (2016).
- 3.2 Battens to be class 1 graded quality treated softwood size 38x25mm. The width of the batten should be at least 10 times the thickness of the nails.
- 3.3 Batten nails to be copper nails with angular rings.
- 3.4 Ridges are to be covered with ridge pieces, either the existing reclaimed or new to match the existing as closely as possible.
- 3.4 All mortar to be a 1:2.5 naturally hydraulic lime mortar NHL3.5. Mortar droppings must be carefully brushed from the tiles before it has time to mark the tiles and the roofs are to be left in a clean and tidy condition.

4. Workmanship: Tiling

- 4.1 Roof tiles should be laid in accordance with BS5534 Part 1 and 11 codes of practice for slating and tiling. If you require extra fixing, please refer to zonal method BS6399-2 for wind loads.
- 4.2 Tiles are to be laid in courses similar to the existing to a max 100mm gaugelo give a head lap not less than 85mm.
- 4.3 Each tile at least in every fifth course is to be twice nailed. Above 60° every tile to be twice nailed. At eaves and top courses and all perimeters each tile to be twice nailed.
- 4.4 Allow a double course tiling at eaves. This is to be set to the centre line of the guttering.
- 4.5 Verges tiles are to be slightly tiled to reduce runoff.
- 4.6 The drilling of old tiles must be done with care and it will generally be found that a special slow-speed or hand operated drill is the most effective for this purpose.
- 4.7 Where nail hole/ peg holes have become over enlarged but the tile is otherwise sound, fix with tough plastic pegs in conjunction with combined plastic sleeve and double washer. Alternatively, reduce holes by filling with an epoxy-resin powder amalgam then carefully drilling the amalgam to form the desired hole diameter.
- 4.8 No half tiles will be permitted as verges or eaves. The Contractor is to allow for obtaining new matching or salvaged tile-and-a-half and undertook tiles for this purpose.
- 4.9 Cut tiles are to be kept to a minimum and no tiles should be cut less than half a tile width.
- 4.10 All cut half tiles - which are likely to occur at the junction of the roofs with vertical upstands - shall be nailed.
- 4.11 Unless otherwise specified the tiling is to be left unbedded to allow free drainage except the undertook course at eaves which is to be bedded on a lime sand mortar.
- 4.12 Where tiles are mortar bedded they shall be soaked in water first to control suction.

5. Workmanship: Underlay

- 5.1 Where tiles are to be nailed, underlay is to be provided.
- 5.2 Underlay to be laid parallel to eaves with horizontal joints lapped over at least two rafters (75mm if continuously supported), vertical joints not less than 150mm.
- 5.3 At the eaves pull underlay taut, dress over the undertook course and into gutters.
- 5.4 At verges, lay underlay to finish neatly, slightly recessed from the outside face so as not to be visible.
- 5.5 At abutments lay underlay to overlap flashings by not less than 100mm to give effective weathering.
- 5.6 At ridges lay a length of underlay over the ridge or overlap general underlay not less than 150mm.

6. Workmanship: Battens and fixings

- 6.1 Battens are to be set out to suit the tile courses.
- 6.2 Fix additional battens at ridge and eaves to allow double tiling.
- 6.3 A tiling fillet is to be provided at all projecting eaves. At clipped eaves the foot of the rafters must be set to allow the front edge of the wall top to act as a tiling fillet.

7. Workmanship: Abutments, hips and ridges etc.

- 7.1 Code 5 lead soakers are to be provided at all raking abutments.
- 7.2 Code 6 lead abutment cover flashings to the bottom of the roof slope.
- 7.3 The new secret gutter is to be Code 6 lead.
- 7.4 Code 5 lead saddle flashings at abutments to ridges.
- 7.5 Ridge pieces are to be bedded on mortar and the vertical joints ONLY to be pointed-up.

8. Substances Hazardous to Health.

- 8.1 Clay roof tiles & fittings do not present any risks to health when used as supplied. However, if either hand or power tools are used to cut tiles a certain amount of dust and chippings will be produced. Persons carrying out these operations must wear suitable eye protection and face mask.
- 8.2 Where possible the lifting of tiles should be carried out on site by a lift hoist.

Complete Re-roofing with New Tiles

- 1.1 Record accurately tile layout as existing noting positions of plain tile banding and club and fishtail tiling.
- 1.2 Strip roof of tiles, tiling battens and underlay, carefully moving leadwork away where necessary.
- 1.3 Inspect existing roof rafters for rot or decay and replace as necessary.
- 1.4 Lay a bitumastic 1F under-felt over the existing rafters.
- 1.5 Fix new 38x25mm treated timber tiling battens to 100mm max' gauge.
- 1.6 Lay new tiles to match existing layout recorded previously. All new tiles to be Staffordshire Blue.
- 1.7 Refix all displaced leadwork repairing and replacing as necessary ensuring a water-resistance to all junctions.

The Fixing Specification

For rafter pitches below 60 degrees, tiles must be fixed with 2 nails to each tile in at least every 5th course. At verges and abutments and at each side of hips and valleys the end tiles in every course must be fixed with 2 nails. All tiles in the first two courses at eaves and the two top courses must be fixed with two nails. At pitches above 60 degrees, all tiles must be fixed with two nails. All ridge tiles, including ridge tiles used down the hips are required to be mechanically fixed.

Approx. plan areas:

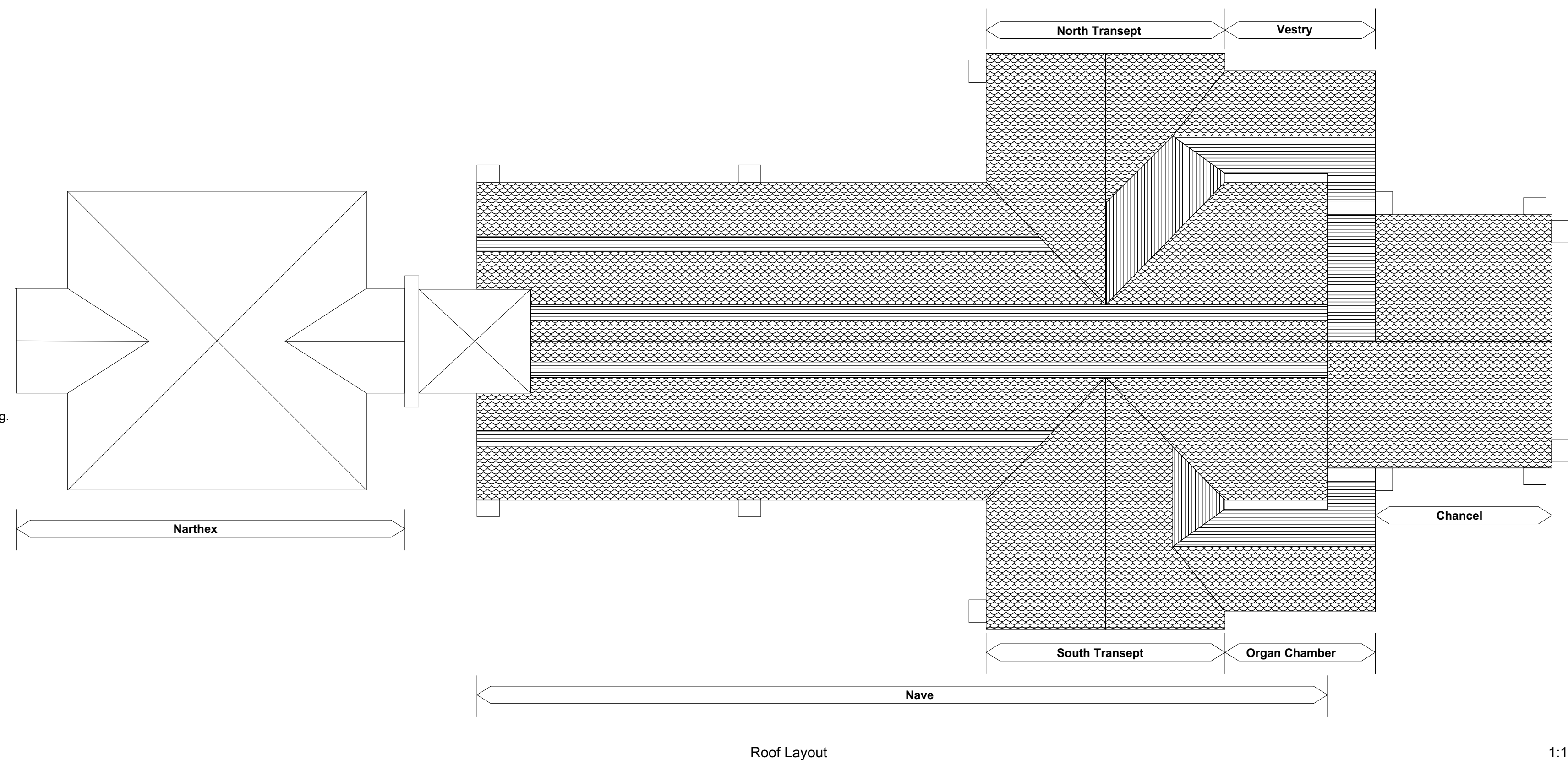
- Roof plan area.....443m²
- Area of Club & Fishtail tiles.....349m²
- Area of Plain tiles.....84m²

- Length of valley tiles.....40.7m
- Length of lead valleys.....8.7m

Note approximate plan dimensions.
Contractor to take own measurements prior to order of any materials and roof stripping.

Key

- Plain clay tiles
- Club and Fishtail clay tiles



Roof Layout

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02 Roof Section Over Nave

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03 Roof Section Over Transcepts

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04 Roof Section Over Chancel

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05 Roof Section Over Gables

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06 Roof Section Over Porch

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07 Roof Section Over Vestry

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08 Roof Section Over Organ Chamber

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09 Roof Section Over Chancel

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10 Roof Section Over Gables

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11 Roof Section Over Porch

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12 Roof Section Over Vestry

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13 Roof Section Over Organ Chamber

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14 Roof Section Over Chancel

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15 Roof Section Over Gables

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