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ST MARGARET'S CHURCH, HORNBY

Report on the Nave/Chancel and North and South Aisle Roofs

Diocese: Blackburn

View from the north east

Director: D ARNOLD MSc MRICS

Certified Historic Building Professional

Company No: 09360236

Regulated by RICS

A) PRELIMINARY INFORMATION

1.1 The Church – St Margaret's Church, Hornby.

1.2 Diocese - Blackburn.

1.3 Archdeaconry – Lancaster.

1.4 Deanery – Tunstall.

1.5 Benefice - The Church is part of the United Benefice of Hornby, Whittington, Arkholme and Gressingham

1.6 Listing and Conservation Designations - The Church is listed Grade I and is situated in a Conservation Area.

1.7 The Incumbent - Reverend Michael Hampson.

1.8 Inspector - David Arnold MSc MRICS RICS, Chartered Building Surveyor and RICS Certified Historic Building Professional.

1.9 Date of Inspection – 10th February 2020.

Weather Conditions – Very windy with light rain, clearing to dry but cloudy conditions. The previous weekend (8th/9th February 2020) had seen extremely wet and windy conditions (Storm Ciara) with local flooding in the area.

1.10 Drawings – A plan of the church is attached at the rear of the report. This was obtained from the British History Online website:

https://www.british-history.ac.uk/vch/lancs/vol8/pp191-201

The website was accessed on Monday 31st March 2020.

1.11 Photographs – General photographs and some illustrating the defects are attached at the rear of the report. Some of the photographs, including those taken on the roofs, have been provided by the Parish.

1.12 Brief Architectural History and Description of Plan – The current church comprises a Nave with a west octagonal Tower and North and South Aisles (Lady Chapel at the east end of the South Aisle and Organ Chamber at the east end of the North Aisle), and a Chancel with a Vestry (and the Organ Chamber) to the north.

The church has 16th century origins with the octagonal west Tower, Nave and Chancel having been built in 1514 by Sir Edward Stanley Lord Mounteagle. The Chancel was incomplete at the time of his death in 1524. The original Nave was pulled down and a new Nave without aisles erected in 1817 under a single span wide roof. The current footprint of the building dates from this time.

The vast majority of what is seen today dates from the 1889 restoration by Lancaster architects Paley and Austin. The Nave was again reconstructed and the ceiling and west gallery were removed. This work included the installation of the North and South arcades and clerestories. There is no remaining evidence of the earlier Nave.

1.13 Materials of Construction:

1.13.1 Roofs – All roofs are lead covered, the Chancel being continuous with the Nave.

1.13.2 Walls – Ashlar sandstone.

B) LIMITATIONS

1.1 This report is restricted to an inspection of the Nave, Chancel and North and South Aisle roof slopes.

1.2 The weather conditions at the time of the inspection meant that safe ladder access to the roof slopes was not available. The roofs were inspected from the Tower roof only. However, the North Aisle roof was also inspected from the top of a ladder which was erected on the north side of the North Aisle, towards the west end (secured between the parapet merlons and footed at its base to prevent slipping).

C) INTRODUCTION

This report has been commissioned by the PCC to focus on the condition of the Nave/Chancel and North and South Aisle roofs to support a Faculty application for their recovering.

D) DETAILED DESCRIPTION

1.0 External Roof Coverings

1.1 Nave/Chancel

Fairly shallow pitched continuous lead covered roof with lead covered wood core rolls. The Chancel has a polygonal apsidal east end with parapet gutters to the perimeter and is slightly narrower than the Nave. Metal (probably zinc) lined parapet gutters to the Nave north and south. Lead cover flashings at the parapet abutments. There are 4 no. rainwater sumps and lead lined chutes on each side; 3 no. on each side of the Nave (total 6 no.) and 1 no. on each side of the Chancel (total 2 no.). The lead chutes discharge directly into rectangular painted cast iron gutters.

There has clearly been a significant water ingress problem in the past as some unconventional remedial work has been carried out. Metal cladding trim has been installed for the full length of the roof at the ridge and at the drip positions on the north and south sides.

A significant number of the lead sheets have been coated with a resin based, fibre reinforced roof repair compound. Again, this illustrates the extent of the water ingress that has occurred.

There are also patch repairs (both lead and "Flashband" type) to the lead sheets, lead covered rolls and parapet gutters. Lead weld repairs are evident to the lead covered rolls below the metal cladding trim at the drip positions, particularly towards the west end on the south side.

A liquid waterproof product has been applied to the south parapet gutter upstand, east end.

The depth parapet gutter at the apsidal east end is inadequate and does not comply with the current recommendations of the Lead Sheet Association. Standing water was noted in the north gutter at the time of the inspection (west end).

The leadwork to the Nave and Chancel is clearly life-expired with water ingress evident internally causing damage/decay to the roof timber work and damp staining to the internal ashlar sandstone (see below). It is possible that the leadwork dates from the 1889 restoration. The roof covering needs to be replaced as soon as possible to prevent further decay (which will result in more costly repairs) and loss of historic fabric.

1.2 South Aisle

Shallow mono-pitched lead covered roof with lead covered wood core rolls. Metal (probably zinc) lined parapet gutters to the Nave north and south. Lead cover flashings at the parapet abutments. There are 3 no. rainwater sumps and lead lined chutes which discharge directly into rectangular painted cast iron gutters.

The leadwork here appears to be of a later date, and certainly more recent than the Nave/Chancel roof. However, the leadwork has been poorly detailed/installed. The lead covered wood core rolls have no splashlaps to the overcloaks. The Lead Sheet Association's recommendation is for 40mm splashlaps. In addition, the overcloaks terminate on the west side i.e. towards the prevailing weather conditions. The village is located in an area that receives 1156mm of rainfall per annum compared with the national average of 885mm i.e. 130% of the national average rainfall (data obtained from the Met Office website). This, together with the poorly detailed leadwork is probably contributing to the significant water ingress evident internally.

Some of the roll ends are lifting. Probably due to the lack of splashlaps or as a result of the installation of the metal (zinc?) lead lined parapet gutter. This could alos be a contributory factor.

There are some "Flashband" type patch repairs evident towards the west end.

As with the Nave/Chancel roof, the depth of the parapet gutters is inadequate in places and does not comply with the current recommendations of the Lead Sheet Association.

The amount of water ingress is unsustainable and although there appears to be relatively few defects, this roof requires urgent attention. Ideally the roof covering should be replaced although it might be possible to carry out temporary holding repairs to the lead covered roofs to prevent further water ingress. However, this would be viewed as a short-term solution with reroofing inevitable in the short-term

1.3 North Aisle

The North Aisle roof is as described for the South Aisle. The 2017 Quinquennial Inspection report stated:

"the North Aisle roof looks to be the oldest of the roofs visually."

However, it is believed that the North Aisle leadwork is contemporary with the Nave/Chancel.

Most of the leadwork to the roof (approximately 80%) was stolen in September 2018. 6 no. bays remain insitu at the west end and 2 no. at the east end (including the lead covering to the wall head (easternmost bay)). The metal (probably zinc) lined gutter and lead cover flashings to the parapet were unaffected.

The roof is currently protected with plastic sheeting secured with softwood timber battens screwed into the timber boarded roof deck. This appear to have been well-installed and has successfully prevented water ingress following the theft.

As the lead was stolen over 18 months ago, the roof is in urgent need of recovering.

2.0 Internal Roofs and Ceilings

2.1 General

Significant water ingress must have occurred in the past in the Nave and Chancel, given the extent of remedial work carried out to the roof (see above). To a limited extent, these interventions appears to have been partially successful. However, there are still areas of water ingress, particularly on the south side adjacent to the easternmost clerestory window. This is causing decay to the timber wallplate and damp staining to the internal ashlar sandstone.

Given that the North Aisle has temporary protection, there is very little evidence of water ingress.

The South Aisle regularly suffers from water ingress during heavy rainfall. This is probably associated with the poor detailing to the lead covered wood core rolls. The carpet (and herringbone woodblock flooring below) at the west end was saturated at

the time of the inspection and buckets had been strategically located to collect the rainwater.

E) GENERAL SUMMARY OF CONDITION OF THE ROOFS

It is believed that the Nave/Chancel and North Aisle roofs date from the 1889 restoration. The leadwork to the Nave/Chancel roof is clearly life-expired and is in urgent need of replacement.

Following the theft of lead from the North Aisle in September 2018, reroofing is required urgently, particularly as it currently has a temporary polyethylene sheet covering.

The leadwork to the South Aisle is thought to be of a more recent date than the Nave/Chancel and North Aisle. However, it has been poorly installed and there is significant water ingress as a result. There is more water ingress in the South Aisle than the Nave/Chapel despite the Nave/Chancel lead rood bring is far worse condition. It is simply due to significant remedial work that the water ingress in the Nave/Chancel is limited.

F) DISCUSSION

The reroofing of the Nave/Chancel and North and South Aisle is urgent. The Parish faces the daunting prospect of having to raise in excess of £500,000 to replace the roofs with lead.

The National Heritage Lottery Fund (NLHF) is the UK's major funder of heritage. A successful grant application would secure a significant amount of the funding required. The NLHF expects the PCC to contribute a minimum of 5% towards the cost of the project. However, in my many years' experience of Lottery Funded projects, the grant offer is usually in the region of 60 – 75% of the total project costs. The funding shortfall can be from other grant applications (e.g. National Churches Trust), local fundraising and the PCC's own reserves.

In January 2019, the NLHF launched their new Strategic Funding Framework. The new grant programmes have one mandatory outcome which is that "a wider range of people will be involved in heritage". This means that if your project is a success, "the range of people benefiting from heritage will be more diverse than before your project started". The NLHF is looking for "signs that you will be able to show that your audience or volunteer profile has changed between the start - and end - of the project. It might include, for example, a broader range of ages, ethnicities and social backgrounds, more disabled people, or groups who have never engaged with your heritage before".

Due to a reduction in their income (fewer sales of lottery tickets due to price increase and competing lotteries), the amount of funding available for heritage has declined, particularly when compared with the £24 million of ring-fenced churches that was available for churches from the Grants for Listed Places of Worship Programme

(GPOW). This evidence is both anecdotal (we have seen a dramatic reduction in the number of our churches being awarded grants) and empirical (from my Freedom of Information Request to the NLHF in 2018 following the closure of the GPOW Scheme in September 2017).

It is also generally recognised that rural churches within small communities (Hornby had a population of 730 at the 2011 Census) will find it difficult to achieve the NLHF's mandatory outcome of a wider range of people being involved in heritage. This is a real concern for all involved in the care of our historic churches.

Furthermore, due to the current health crisis, the NLHF has halted all new Committee-level grants (£250,000 - £5 million) until at least October 2020. This level of grant has a Development and Delivery Phase. The Development Phase includes surveys, investigations, production of specification and drawings, obtaining consent from the Diocese and issuing and reporting tenders. The Development Phase can take up to two years to complete. It is not guaranteed that a Delivery Phase grant will be offered following completion of the Development Phase.

Given the urgency of the work and the timescale outlined above, a grant application to the NLHF is not a viable prospect, irrespective of the likelihood of receiving a grant offer. Without urgent action, the historic fabric will continue to deteriorate (due to water ingress) with potential loss of fabric and consequential more costly repairs in the future.

G) RECOMMENDATIONS

The proposal to replace lead covered roofs on a listed church with a modern alternative is always an emotive issue. However, Historic England guidance on Metal Theft from Historic Buildings (2017) states:

> *"Each case will need to be judged on its own merits and we appreciate that sometimes a change of material should be considered following a theft in order to ensure the long-term future of the building."*

In my opinion, and for the reasons detailed above, this is a case where this applies. The PCC wishes to install an alternative modern roofing material (Dryseal Heritage Roofing System) and has sufficient funding to proceed with the works. In my opinion, none of the proposed work constitutes pre-emptive removal of lead.

It is of course, a regrettable course of action as lead is regarded as the most appropriate material for historic buildings, not only aesthetically but also in terms of its performance, life expectancy and whole life cycle costing compared with modern alternatives and terne coated stainless steel. In addition, is it sustainable as once it has reached the end of its useful life, the lead can be recycled.

At St Margaret's Church, Hornby, the arguments for using an alternative modern roofing material is compelling and is well elucidated in the Roof Repairs Faculty Application 2019 document prepared by the PCC. With reference to the

aforementioned document and in consideration of the contents of this report, I am content to support the Parish with their application to use the Hambleside Danelaw Dryseal Heritage Roofing System. This system can be detailed to imitate the appearance of lead and has been successfully installed on the following churches:

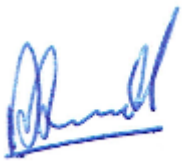
Church	Diocese	Listing
St John the Baptist Church, Bromsgrove	Worcester	Grade I
All Saints Church, Sedgley	Worcester	Grade II*
All Saints Church, Leamington Hastings, Rugby	Coventry	Grade II*

In addition, Bristol DAC has recently recommended the installation of a single ply membrane on a grade II* listed church. Historic England does not support the use of modern roof coverings on listed buildings "unless there are highly exceptional circumstances". The recommendation from Bristol DAC to the Chancellor was on the basis that the Parish's financial situation constituted an exceptional circumstance, as in this case.

I would be pleased to meet at the church with members of the DAC and representatives from the Consultees to discuss this matter further.

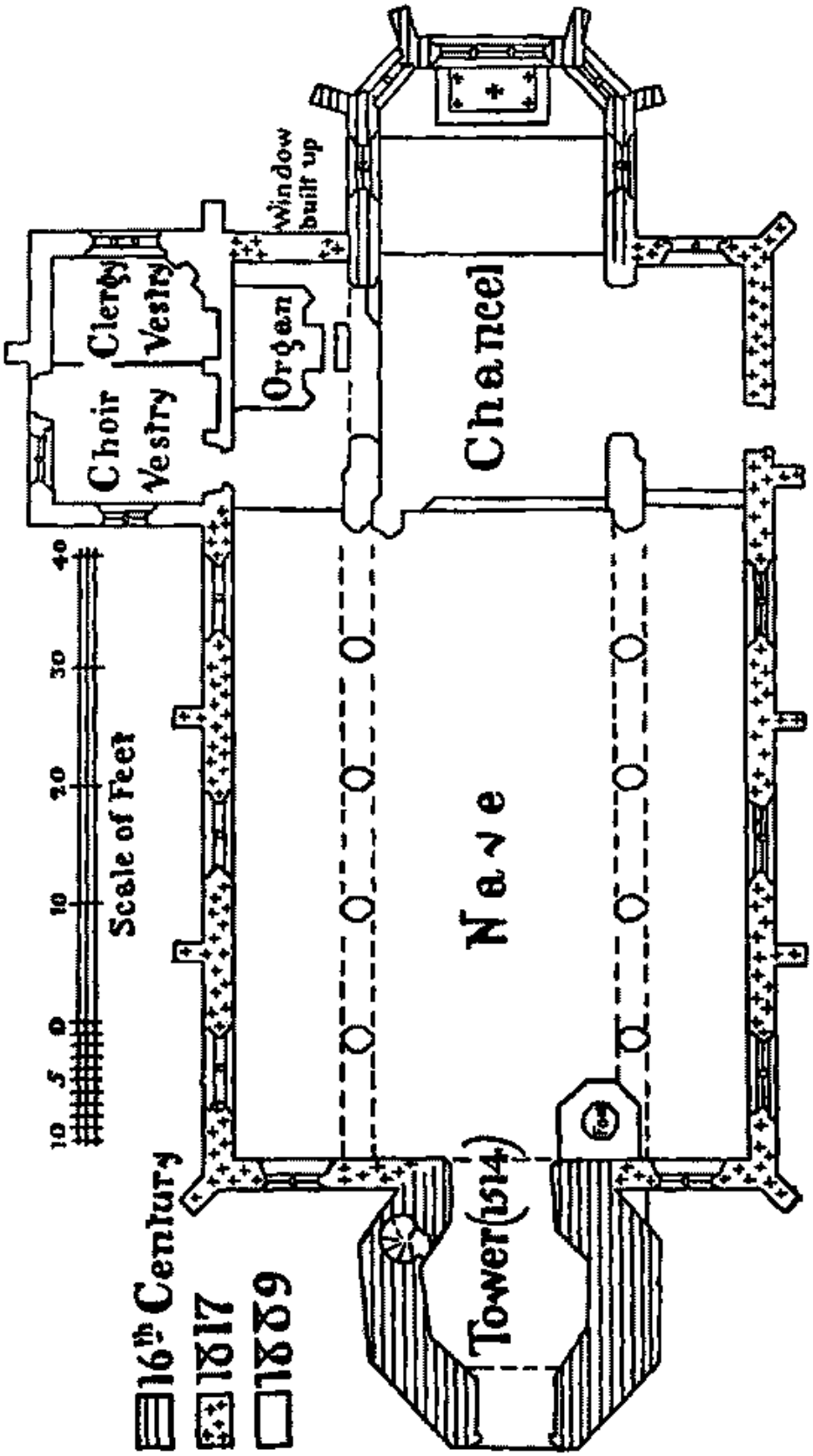
I am also willing to support the PCC with any additional documentation required by the DAC (e.g. drawings/specification/details) in order to obtain the Faculty for the proposed works as well as site supervision and contract administration if necessary.

Inspected by: Date of inspection: 10th February 2020



David Arnold MSc MRICS
Chartered Building Surveyor
RICS Certified Historic Building Professional
For and behalf of Arnold Bartosch Ltd Date of report: 3rd April 2020

CHURCH FLOOR PLAN



Details

SD 56 NE, 7/124

HORNBY-WITH-FARLETON, MAIN STREET, Church of St Margaret

4-10-1967

GV

I

Church, with tower built in 1514 by Sir Edward Stanley Lord Monteagle, chancel incomplete at his death in 1524, nave rebuilt 1817, and arcades and clerestorey added 1889 by Paley and Austin. Sandstone ashlar. Comprises a west tower, nave and chancel under a continuous roof with clerestorey, and north and south aisles. The tower is octagonal on plan and of three stages, the two upper stages being set diagonally to the base. The parapet is embattled with pinnacles and the bell openings each have a mullion and a transom and have Tudor-arched heads with hoods. Above and below them is a string with corner gargoyles. The middle stage has a plaque carved with the Mounteagle arms. The west window is of three round-headed lights under a pointed head with Perpendicular tracery. Above is a panel inscribed: 'E. Stanley : miles : dnu : Montegle . me fieri fecit.' The west doorway is chamfered in two orders and has a pointed head with hood. The nave and aisles have embattled parapets. The south aisle is of three bays separated by buttresses and has 2-light windows with straight-sided Tudor heads. To the right is a chamfered doorway. The clerestorey windows are of 3 lights under a pointed head with Perpendicular tracery. The north side is treated similarly, At the east end is a semi-octagonal apse. The north and south sides, and each canted side, have cross windows with Tudor-arched heads, Perpendicular tracery, and ogee hoods with head stops and floriated finials. The east window has a round head, 3 cinquefoiled upper lights and 3 Tudor-arched lower lights. Inside, the 5-bay nave arcades have moulded pointed arches, and piers chamfered in 2 orders. The roof is boarded, of shallow pitch with tie beams but no principals. The pews, carved choir stalls, and communion rails, appear to date from the 1889 restoration. In the south aisle is a memorial tablet by Hardman to Dr. John Lingard, historian and Catholic priest of Hornby 1811-51.

Listing NGR: SD5851168581

General view from the south west.

General view from the north east.

General view from the south west.

General view of the Nave/Chancel and north and South Aisle roofs.

General view of Nave/Chancel north and North Aisle roofs.

General view of Nave/Chancel south and South Aisle roofs.

North Aisle – Exposed timber roof deck immediately following theft (photograph provided by the Parish).

North Aisle looking east – Temporary sheeting to roof following lead theft in September 2018.

North Aisle – Remaining insitu lead sheets at the west end.

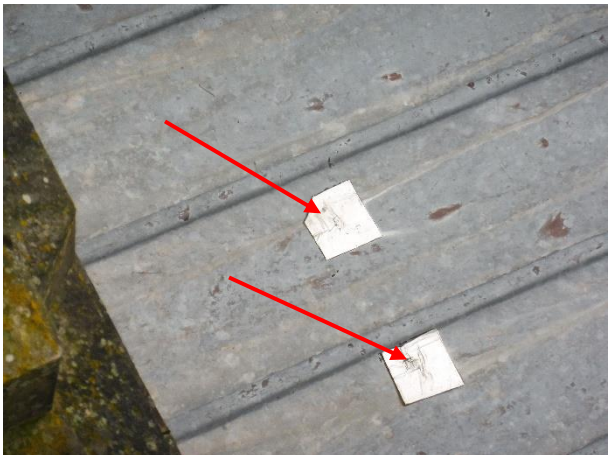
North Aisle – Existing metal (probably zinc) lined parapet gutter.

North Aisle looking west – Temporary sheeting to roof following lead theft in September 2018 (photograph provided by the Parish).

North Aisle looking west – Temporary sheeting to roof following lead theft in September 2018 (photograph provided by the Parish).

North Aisle – Remaining insitu lead sheets at the east end (photograph provided by the Parish).

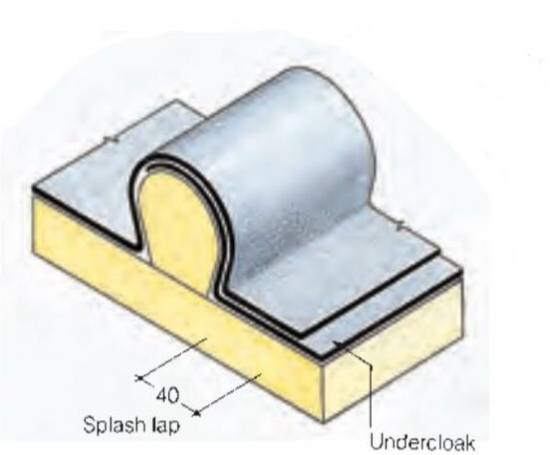
South Aisle – General view looking west (photograph provided by the Parish).



South Aisle – "Flashband" type patch repairs to leadwork.

South Aisle – Leadwork poorly installed. Note no overclock splashlaps to lead covered wood core rolls.

South Aisle – Lifting leadwork to roll ends.



Wood core roll detail with splashlap from the Lead Sheet Association's "Rolled Lead Sheet – The Complete Manual – 2018 Edition".

Nave/Chancel – Modern metal cladding trim installed to ridge and drips to prevent water ingress (photograph provided by the Parish).

Nave/Chancel – Lead sheets coated with resin based, fibre reinforced roof repair compound (photograph provided by the Parish).

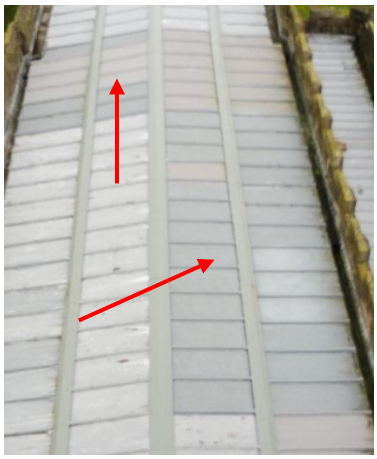
Nave/Chancel – Lead patch repair to sheet and lifted “Flashband” type patch repair to lead roll at east end.

Nave/Chancel - “Flashband” type patch repair to parapet gutter at east end (photograph provided by the Parish).

Nave/Chancel - Patch repair to south parapet gutter at east end (photograph provided by the Parish).

Nave/Chancel – Patch repairs to sheets and lead rolls, metal cladding trim and resin based, fibre reinforced roof repair compound coating (photograph provided by the Parish).

Nave/Chancel – Patch repairs to lead rolls and liquid waterproof product applied to south gutter upstand (photograph provided by the Parish).



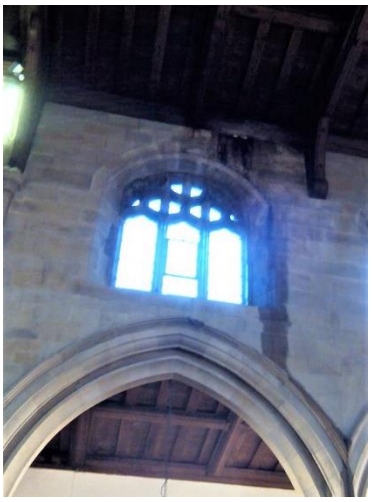
Nave/Chancel – Significant number of lead sheets coated with resin based, fibre reinforced roof repair compound.

Nave/Chancel, north – Patch repairs to lead rolls and metal cladding trim to drip.

Nave/Chancel – Patch repairs to lead cover flashing at north parapet abutment.

South Aisle – Significant water ingress at the west end.

Nave south – Significant water ingress and decay evident to wallplate.



Nave south – Significant water ingress (photograph provided by the Parish).

South Aisle – Water ingress (photograph provided by the Parish).

Notes for the Parochial Church Council (PCC)

General

This is a general report on the Nave/Chancel and North and South Aisles only. It is not a specification, for the execution of the work, and must not be used as such.

The repairs recommended in the report will either be able to be undertaken by obtaining a Faculty. Guidance and assistance can be obtained from the DAC.

The Architect/Surveyor is willing to advise the PCC on implementing the recommendations and will if so requested prepare a specification, seek tenders and oversee the repairs.

The PCC is advised to seek ongoing advice from the Architect/Surveyor.

Limitations

The weather conditions at the time of the inspection meant that safe ladder access to the roof slopes was not available. The roofs were inspected from the Tower roof only. However, the North Aisle roof was also inspected from the top of a ladder which was erected on the north side of the North Aisle, towards the west end (secured between the parapet merlons and footed at its base to prevent slipping).

Grants

The Architect/Surveyor will be pleased to advise the PCC in respect of possible grant aid towards the repairs to the Church.

Insurance

Contact should be made with the insurance company to ensure that cover is in place for the duration of the building works contract.

Bats and other protected species

The PCC should be aware of its responsibilities where protected species are present in a church. Guidance can be found at:

Costs

Those given are broad guidelines and are for the work items themselves. The PCC need to bear in mind that professional fees, VAT and other costs may need to be added for budgeting purposes.

The costs provided here should be regarded as indicative only. They are provided in good faith for budget purposes only. They relate to experience of previous work of a similar nature. However, if more detailed or accurate costings are required at this or at a future stage then we recommend that a Quantity Surveyor is appointed, or builders' estimates are obtained.