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Our Ref: EH/SvB/Tutbury/100418

10th April 2018

By e-mail: rick@nuth.me.uk

Rick Nuth Esq
26 Hillcrest
Tutbury
DE13 9JD

Dear Rick

Conservation of the Priory Alabaster Arch (CoPAA) at Tutbury Priory Church

Thank you for asking us to price for this and as you know we are very committed to this most interesting and significant project.

The project is planned in three phases:

- Phase I – Condition Survey – Completed by Hirst Conservation
- Phase II – Conservation
- Phase III - +12 months ‘light’ Comparative Condition survey

Quotation for Phases II and III as follows:

- 5. The quote is broken down into four sections on the attached spread sheet:
 - 5.1. Phase II Arch Conservation - Work directly on the Alabaster Arch
 - 5.2. Phase II Arch Protection - Work not on the Alabaster Arch itself but considered essential to the conservation of the Alabaster Arch
 - 5.3. Phase II Other Works – Any other works identified in the Condition Survey Report
 - 5.4. Phase III Comparative Survey - the follow-up ‘light’ Condition Survey 12 months after the Phase II Conservation work is completed

Sabina van de Bruck will be a key member of the site team performing the work and I will continue to work with her as this is a very special project to both of us.

Summary of works outlined in the condition report and in verbal discussion.



Figure 1 Area of proposed works – the alabaster archivolt order and adjacent stonework.

Phase II Arch Conservation – work directly on the Alabaster Archivolt

Scaffolding and protection

Fixed independent scaffold fully hoarded to protect public from any laser damage but also to allow continuous work during rain etc.

Sampling

Collection of 6 samples from protected areas for microscopic examination of cross-section and to ensure that evidence of polychrome is not removed during the laser cleaning.

Dry Cleaning

Dry cleaning of loosely adhered deposits using soft bristle brushes and vacuum extraction to facilitate the pre-consolidation and laser cleaning, where surface areas are stable.

Pre-consolidation

Most vulnerable stone material should be pre-consolidated using a combination of nano-lime consolidation and filleting repairs. It is envisaged that the nano-lime product CaLoSiL E25 will be used to consolidate the stone, followed by lime-based filleting repairs to exposed edges.

Laser Cleaning

Laser cleaning to all areas within the alabaster order exhibiting surface crusts.

Repairs

Lime-based mortar repairs to secure vulnerable edges and delaminating stone fragments. In isolated areas spot fixing with a suitable resin.

Grouting

Lime-based grout mixes can be used. Nano-lime injection to act as a consolidant and pre-wetting agent. All openings should be filled using fine lime mortars.

Removal and Replacement of Failing Pointing and Repair Mortar

Removal of failed repairs and pointing and repairs in either non-hydraulic or feebly hydraulic mortars containing pozzolanic additives, matching the existing or in keeping with the surrounding fabric.

Shelter Coating

Localised application of sacrificial lime-based shelter coat.

Documentation

Provision of a fully illustrated treatment report to include a photographic record, together with graphic recording where appropriate. A hard copy will be provided to the client, together with an electronic copy, in PDF format, on CD.

Laser Scan (by others)

A high-resolution 3D laser scan survey of two representative stone blocks within the alabaster order immediately after completion of the proposed conservation work. The exiting data points should be used as a basis for future laser scanning, allowing the information to be correlated with the existing information.

Phase II Arch Protection - Work not on the Alabaster Arch itself but considered essential to the conservation of the Alabaster Arch (based on emergency work to include other elements of the doorway).

Surface cleaning to remove accretions and biological growth to the hood moulding to facilitate further treatment.

Lime mortar repairs to hood moulding and joints to prevent rainwater from trickling down the hood moulding and alabaster elements.

Emergency consolidation to most friable areas within the sandstone elements including the archivolt and animal carvings to either side.

Filleting/holding repairs to prevent losses within detaching fragments.

Phase II Arch Other Works - Any other works identified in the Condition Survey report (plus additional work as discussed with the church architect, Robert Kilgour).

The focus of the condition survey and consultancy to date has been to the alabaster archivolt in the context of the doorway. However, additional conservation repairs should be considered as part of the works. This will necessitate further investigation to provide full specification but the following work is envisaged at this stage and costs have been provided for budgeting purpose.

The condition of the stonework and pointing materials is generally adequate although some limited pointing and treatment to friable stonework to the spandrel stonework can be considered to prevent rainwater ingress into the fabric above the arch structure.

The fitting of a lead capping surrounding the hood moulding can be considered, but advice on this subject and its suitability should be obtained from the architect and costs have not been included. Any protective covering will need to extend to either side of the arch to allow safe water run off avoiding the carving of the animal relief below the arch.

Further cleaning of detrimental black accretions subject to trials and further analysis.

Further mortar repairs to include pointing and filleting of the archivolt and lower sections of the doorway.

Phase III Comparative Survey – the follow-up ‘light’ Condition Survey 12 months after the Phase II Conservation work is completed.

A condition survey 12 months after the conservation project will allow the effectiveness of the treatments to be evaluated and monitor any subsequent changes. At this stage the costs provided include for the comparative condition recording of the alabaster archivolt only.

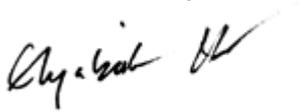
I hope this letter clarifies our approach and the attached costings which would be subject to agreement of terms and conditions. You may wish to add a contingency of say 15% for funding purposes.

Please note our insurance cover is as follows:

- Employer's liability - £10,000,000
- Public liability - £5,000,000
- Professional indemnity - £1,000,000

I trust this is all the information you require at this stage, and I look forward to hearing from you.

Yours sincerely



Elizabeth Hirst ACR IHBC FRSA
Hirst Conservation

Enc Cost schedule

Cc R Kilgour

Tutbury, St Mary's Church

5.1. Phase II Arch Conservation - Alabaster Arch

		Total	£
Paint research		£1,375.00	
Dry Cleaning		£172.45	
Pre-consolidation		£551.84	
Laser Cleaning		£20,771.39	
Repairs	<i>(Provisional)</i>	£4,138.80	
Grouting		£1,655.52	
Removal & replacement of failing pointing/repairs	<i>(Provisional)</i>	£1,655.52	
Shelter coat		£827.76	
Documentation		£1,248.00	
			<hr/> £32,396.28
Preliminaries			£10,380.31
5.1. Phase II Arch Conservation - Alabaster Arch			£42,776.58

5.2. Phase II Arch Protection - Essential works

Surface cleaning to hood moulding		£1,655.52	
Lime mortar repairs to hood moulding to prevent moisture penetrating alabaster archivolt		£1,379.60	
Emergency consolidation		£1,931.44	
Filleting/holding repairs		£1,655.52	
Documentation		£400.00	
			<hr/> £7,022.08
Preliminaries if separate phase			£4,462.25
5.2. Phase II Arch Protection - Essential works			£11,484.33

5.3. Phase II Arch Conservation - Other works

Repointing & repairs to spandrels	<i>Budget only</i>	£2,207.36	
Lead capping	<i>TBA</i>	TBA	
Further cleaning to the archivolts	<i>Budget only</i>	£4,138.80	
Repointing & repairs to archivolts, columns & capitals	<i>Budget only</i>	£8,277.60	
Documentation		£400.00	
			<hr/> £15,023.76
Preliminaries if separate phase			£4,872.66
5.3. Phase II Arch Conservation - Other works			£19,896.42

Total Costs if separate phases for 5.1-5.3

£74,157.33

If Single Phase for 5.1-5.3

£54,442.12

Preliminaries

£11,406.33

Total Costs if single phase for 5.1-5.3

£65,848.45

5.4. Phase III Comparative Survey

Condition survey	<i>to alabaster archivolt only</i>	£797.36	
		£1,248.00	
			<hr/> £2,045.36
5.4. Phase III Comparative Survey			£2,045.36