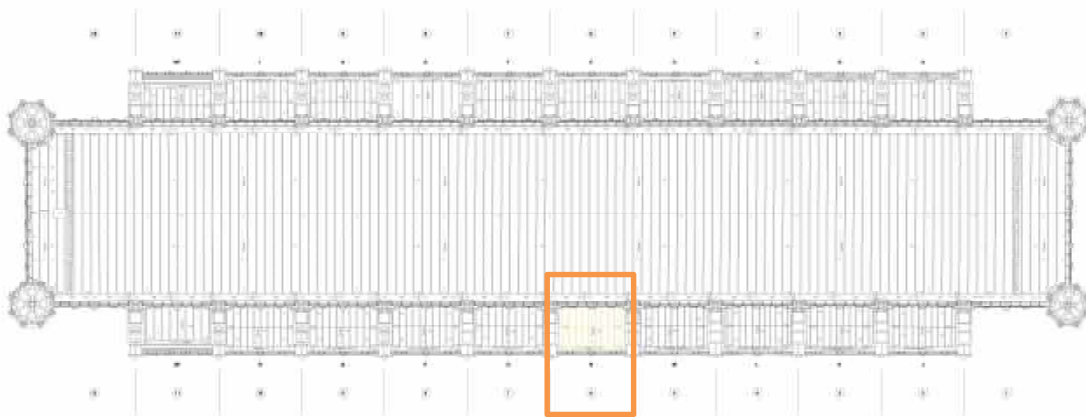


099-04 ROOF LEADWORK RENEWAL, SOUTH CHAPEL ROOFS, KINGS COLLEGE CHAPEL COVER PAPER TO FACULTY APPLICATION

This paper supports an application for Faculty under the 2015 RULES for a phased renewal of the south side chapel roofs and associated parapet gutters.

The context arises from the Quinquennial Inspection of 2018, which identified severe deterioration of the relatively new lead roof coverings. The proposal seeks to address the causes of hastened decay, by replacing the roofs to a modified form to admit ventilation correctly, thus determining the need for a Faculty rather than List B application. The leadwork to side Chapel N shows most advanced deterioration and will be addressed first, forming a prototype upon which environmental performance can be monitored to determine success of the new design, before wholesale implementation across the remaining south side chapel roofs.



Roof Plan showing south side Chapel 'N'

STATEMENT OF SIGNIFICANCE

Very concise history and description.

The Chapel was the major building of the College founded by King Henry VI who laid the first stone in 1446. Its building history, which was marked by long periods of inactivity, reflects a politically turbulent era around the War of the Roses. For this reason, the Chapel went through three phases of construction, under four separate master masons, and was not completed until 1515. Subsequently the college Front Court developed to the South. The ensemble now comprises the C18th classical Gibbs building, the C19th Wilkins building and later C19 screen to Kings Parade, both in a gothic revival stylistic idiom.

Of relevance to the present application there are eighteen side chapels, which Henry VI's Will of 1448 referred to as 'closets,' or places for private worship. Only the two north east chapels were vaulted by Reginald Ely prior to 1461. The rest were not finished until after 1513. These side chapels serve today as spaces of worship and remembrance: on the north side there is a sequence of spaces presented for visitor interpretation and the corresponding vaulted rooms on the south side serve as ancillary vestries.

Significance of the whole: EXCEPTIONAL

“One of the major monuments of English Medieval architecture. Despite its long building history, the interior of Kings College chapel is a harmonious whole, a supreme achievement of a series of royal masons of the highest calibre” Pevsner: Buildings of England.

Inside, the fan vaulting and the set of 25 C16th stained glass windows are especially notable. The C16th screen and choir stalls are exceptionally fine. The chapel encloses major works of art by Rubens and the Masters of Antwerp and many other fixtures and fittings of high value and significance.

STATEMENT OF NEED

The Quinquennial prescribes the need for the renewal of the chapel roof coverings, which show varying extents of decay attributed mostly to underside lead corrosion. In the worst instances, the roof coverings have already failed and are currently patched in an attempt to make weather-tight. The others appear to be approaching this point.

Extract from the QIR:

“Roof to Side Chapel N, bay 6.

The leadwork of this roof has failed spectacularly and is in very poor condition. Whilst there has been some patch repairs undertaken with liberal application of mastic, the roof is in a parlous state and needs to be renewed as matter of urgency.”





Opening up of the 1990 lead roof covering on Chapel N revealed substantial underside lead corrosion.

The roof coverings have lasted poorly and far below the typical life expectancy of lead. The **need** for renewal follows from the preceding paragraphs and is to provide the chapel roofs with weather-tight roof coverings which are better able to deal with the courses of decay. The new roof must therefore be re-detailed to admit ventilation correctly and mitigate against future reoccurrence of underside lead corrosion.

Tobit Curteis Associates have been consulted to assist with accurate diagnosis and design development. As the roof of side chapel 'N' is most urgent, the proposal is to implement the repairs to this roof first to serve as a prototype. TCA will install monitoring equipment to compare the roof space environment of the repaired roof against that of an adjacent chapel, to evaluate its success, before being used as a template the remaining roofs, which are almost identical.

SCOPE OF PROPOSED WORKS FOR FACULTY

The scope of work submitted for Faculty are:

- Replacement of the lead roof on side Chapel N with modified form and detailing to address accelerated decay of the lead, to include the associated parapet gutter and remedial repairs to the downpipe.
- Subject to successful implementation and testing of the above, replacement of all remaining side chapel roofs and parapet gutters to the same template, including remedial repairs to associated downpipes.

Whilst this application pertains only to the south side chapels, it should be noted that the north side chapel roofs might ultimately, require similar renewal within a 10-20 year period.

Recommendations of re-serving heating pipework in the side chapels have been made to allow for greater control over energy consumption, comfort and environmental regulation to limit condensation, however these are beyond the scope of the current application.

PROCUREMENT

Selection of the contractor will be through a competitive tender process, shortlisted based on demonstrated experience and ability. The roof of side chapel 'N' will form the prototype. Pending environmental review, the remaining chapel roofs will be addressed in sequence based on urgency, under the direction of the College Clerk of Works.

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Surveyor to the Fabric of Kings College Chapel
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