

Committees: Streets and Walkways Sub-committee <i>[for decision]</i> Projects and Procurement Sub-committee <i>[for information]</i>	Dates: 19 March 2024 15 April 2024
Subject: St Paul's Cathedral External Re-lighting Unique Project Identifier: 9672	Gateway 4 Complex Issue Report
Report of: Interim Executive Director of Environment Report Author: Clarisse Tavin, Policy and Projects, City Operations	For Decision
<h1>PUBLIC</h1>	

1. Status update	<p>Project Description: The project proposes to replace the ageing external lighting system at St Paul's Cathedral with a new innovative, sustainable and energy efficient system.</p> <p>St Paul's Cathedral is one of the most famous and iconic landmarks on the London skyline. It is recognised both nationally and internationally. The way it is seen is critical to the character and identity of the entire city as well as the City of London.</p> <p>The project, governed by a joint Board with City of London and St Paul's Cathedral representatives, aims to support a more sustainable low energy solution thanks to use of LED technology controlled through a management system. The new lighting scheme aims to reveal the building's iconic architecture after dark, improving the quality of the lit environment in the local area and contributing to London's nightscape and protected views.</p> <p>This is to be achieved using the latest technology which will allow a more sustainable approach and substantial savings in running and maintenance costs. The project aligns with the objectives of the City Lighting Strategy, the Lighting Supplementary Planning Document and the Climate Action Strategy.</p> <p>Latest update: This report provides an update on the works completed to date including the successful delivery of lighting trials, and requests release of further funding from the previously approved project budget to appoint the project team and relevant experts to progress the design to the next gateway.</p>
-------------------------	--

	<p>Lighting trials to validate the concept design were successfully carried out in January 2024. Various stakeholders attended events to view the lighting proposals which allow them to provide comments and alleviate concerns they may have had. The trial showcased the proposed approach of using warm “light from within” to highlight forms and details commonly unappreciated by day as they are often in heavy shadow, and the dynamic management of the lighting, allowing a slow and gradual reduction of lighting levels. This was achieved through several layers of lighting on key architectural elements of the facades, which together celebrate the Cathedral’s architecture and demonstrated how lighting can greatly enhance the legibility and appreciation of the exceptional heritage of the building. Overall, the trials received very supportive comments.</p> <p>RAG Status: Green (Green at last report to Committee)</p> <p>Risk Status: Medium (Medium at last report to committee)</p> <p>Total Estimated Cost of Project (excluding risk): £2.075M</p> <p>Change in Total Estimated Cost of Project (excluding risk): No change since last report.</p> <p>Spend to Date: £500,470</p> <p>Costed Risk Provision Utilised: N/A</p> <p>Slippage: None</p> <p>The project is being developed as per the programme presented in the Gateway 4 report approved by Committees in September 2023.</p>
<p>2. Requested decisions</p>	<p>Next Gateway: Gateway 4c – Detailed design</p> <p>Requested Decisions:</p> <ol style="list-style-type: none"> 1. Approve the procurement and appointment of services required to reach the next Gateway; 2. Approve the additional budget of £705,000 funded from the S106 contributions allocated to the project (£640,000) and the previously approved £1.16M capital bid (£65,000) as detailed in Finance Tables in Appendix 2; and 3. Note the revised budget of 1,380,000 (excluding risk).
<p>3. Budget</p>	<ol style="list-style-type: none"> 3.1 The project has progressed successfully, and activities completed to date include: a full review of the concept design, the preparation and delivery of the lighting tests and lighting demonstration trials (delivered respectively in October 2023 and January 2024), as well as associated key stakeholders' engagement. 3.2 The project expenditure to date is £500,470 funded from the approved capital bid of £1.16m and Finance Contingency budget of £75,000 (see details in Finance Tables in Appendix 2) 3.3 To progress the detailed design (RIBA Stage 3 equivalent) and manage the technical complexities of working on a Grade I listed

building, additional fees are required to appoint the project team, including:

- **Lighting Designer** to produce the detailed and technical lighting design, including layouts, schedule of equipment and controls, provide advice on design matters and review the final lighting installation.

It is proposed that the services of a lighting designer are procured for all the remaining stages of the project. This approach is deemed more cost-effective and efficient compared to procurement in stages. It will also ensure continuity and consistency of service.

- **Technical Project Manager** to act as a technical interface between the City, the Cathedral and the design and technical teams. This will include the day-to-day co-ordination of work streams, review and evaluation of work delivered by the expert consultants.
- **Heritage Assessor** to evaluate and report on the Heritage value of the Cathedral which will be key to secure relevant secular and ecclesiastical consents.
- **Sustainability consultant** to calculate the proposed embodied and operation carbon of the overall project and help evaluate the potential social economic and environmental impact of the scheme.
- **St Paul's Cathedral Services** including Director of Property, Clerk of Work and Surveyor to the Fabric who are liaising with key decision people at St Paul's, overseeing any works to the Cathedral and ensuring these are appropriately approved and installed.
- **Arboriculturist** to advice on potential impact on local trees.

The specialist team is required to support the successful delivery of the project successfully and manage the complexities of consents and approvals. This includes assessing the impact the new lighting scheme may have on the fabric of the Grade I listed building, and on the character of the immediate area of St Paul's Cathedral, the surrounding public realm, and the London skyline. The team will also provide recommendations in regard to sustainability to ensure this iconic building is re-lit to the highest standard and in a sustainable way, whilst protecting its integrity, heritage significance and fabric. Their advice will also enable to refine the overall cost-estimate and de-risks important aspects of the project.

- 3.4 Additional internal staff costs are required to continue to lead on the project and ensure City's project management requirements are fulfilled, progress documentation procurement and appointments of specialist consultants and negotiations of legal agreements, undertake further stakeholders and sponsorship engagements and

report writing. Please see details in the Finance Tables in section 3.9 below.

- 3.5 It is expected that additional discrete tests will need to be carried out as part of the further design development to validate final decisions, and the budget request accounts for the expected costs of the associated works.
- 3.6 The total project cost estimate will be further refined following the assessment of the tests and trials and the appointment of a Quantity Surveyor. The full project budget will be confirmed at the next Gateway and if it exceeds the current available budget, additional funding from external sources will be secured before the Gateway 5 report is submitted.
- 3.7 Positive conversations with external high-profile partners have taken place. Since the last report, Officers secured an additional £40,000 contribution from the Fleet Street Quarter (FSQ) for the project, so the current total project funding secured is 2.115M.

3.8 Finance tables

Description	Approved budget (£)	Resources required (£)	Revised budget (£)
PreEv staff costs	15,000	-	15,000
PreEv P&T fees	35,000	-	35,000
Marketing fees	1,900	-	1,900
Sponsorship consultants	7,775	-	7,775
Staff costs	134,325	60,000	194,325
P&T fees	300,000	595,000	814,000
Legal staff cost	6,000	-	6,000
Works (including lighting tests and trial)	213,000	50,000	263,000
Total	675,000	705,000	1,380,000

Source of funding	Amount (£)
City of London Capital Bid (City Fund)	1.160M
S106s	0.840M
Finance Committee Contingency fund	0.075M
External contribution (FSQ)	0.040M

	<table border="1"> <tr> <td>TOTAL</td> <td>2.115M</td> </tr> </table> <p>Costed Risk Provision requested for this Gateway: £0</p>	TOTAL	2.115M
TOTAL	2.115M		
<p>4. Issues description</p>	<p>Project update:</p> <p>4.1 Project objectives</p> <p>The project aims to:</p> <ul style="list-style-type: none"> <li>• Replace the current ageing lighting equipment with a new more effective and efficient system that aligns to the current Institute of Engineering and Technology (IET) regulations, reveals and celebrates the architecture of the Cathedral after dark, aligning with the City Lighting Strategy. <li>• Improve the quality of the evening environment in the local area and reinforce the views of St Paul's Cathedral across London. This will contribute to providing a nicer and more attractive environment after dark encouraging people to dwell and spend more time in the area, aligning with Destination City initiative. <li>• Deliver annual savings of approximately 75% of running costs (electrical) and substantial savings for its future maintenance. <li>• Reduce light pollution and energy use in line with the City Corporation's commitment to sustainability and contribute towards achieving its net zero carbon emission by 2040. <li>• Hand over and formalise the responsibility for the management of the new external lighting to St Paul Cathedral and associated maintenance. <p>4.2 Latest progress</p> <p>Extensive work and important milestones have been achieved since the last Gateway report was approved in September 2023. These helped to develop the project and further understand the effect of the new lighting in the local area as well as medium and long distance views and will provide the basis for the development of the detailed and developed design.</p> <ul style="list-style-type: none"> <li>• The project team focused on securing the relevant approvals and procuring necessary equipment to deliver the January's lighting trials, including testing of a various lighting equipment in October 2023. Testing enabled the lighting designer to specify the most suitable equipment and their settings and positions for the trials. <li>• Lighting trials, illuminating parts of the Cathedral's façade, were undertaken on the week of 22 January 2024. They aimed to carry out a technical evaluation of the scheme, validate the concept design and demonstrate it to key stakeholders and sponsors. 59 people attended and were invited to share their views, ask 		

questions and to submit written feedback to a specific email inbox created for the event (stpaulsighting@cityoflondon.gov.uk)

- The trial enabled an initial examination of the way the scheme might be controlled and helped with addressing key issues, including urban and heritage considerations, sustainable balance of social and economic benefit with potential environmental impact. The successful demonstration provides the basis for the development of the detailed design and helps to de-risk many aspects of the project.
- A report detailing the process and findings of the lighting trial, including stakeholders' feedback and photographic recording was prepared. It will inform the detailed design development stage. Please see summary report in Appendix 3.
- The trial was fully recorded by a professional architectural lighting photographer who captured short, medium and long distance views of the lighting across key locations and viewing points in the City and London. Please see Appendix 4 for a selection of recorded images.

The key conclusions from the trials were:

- The trial delivered on its main objectives and validated the concept design, and overall, comments have been overwhelmingly positive.
- The overall approach to the design to provide a well-balanced scheme with warm and sensitive colour tones revealing the Cathedral's architecture after dark, was viewed as a positive and enhancing change to the existing lighting scheme. This could have a benefit impact into the local area and support the night time economy.
- The flexibility of the lighting and ability to create 'layers' of lighting to suit varying phases of night was clearly demonstrated and highly supported.
- The new lighting scheme provides opportunities to add more depth and interest by highlighting further architectural detail that is in a shadow by day using a warm "light from within". This allows for immense architectural details to be brought to life from inside the building's alcoves.
- Attendees also commended on the significant reduction in the building's light pollution brought on by the existing flood lights, creating an innovative, carbon-efficient scheme that reduces both the cost and energy usage significantly.
- Visibility from distant views was achieved despite reduced levels of luminance (60% at the trial).
- Viability of proposed remote lighting positions on neighbouring rooftops was confirmed and additional locations that could further improve the outcome were also identified.

- Amount of lighting equipment and overall energy use might be further reduced without compromise to the overall lit effect (please see Appendix 3 for more details).
- The trial highlighted other specific areas in the Cathedral precinct that may need to be considered at the detailed design stage. These include the Churchyard and the West steps, and assessment will be undertaken to ensure there is sufficient level of lighting when the existing lighting system is removed.
- Engagement, including Accessibility Officers, will continue at detailed design stage to ensure the new lighting design is fully inclusive.
- To progress the detailed design a further £705,000 is required to secure the necessary expertise and complete the detailed and developed design (as detailed in Section 3 of this report). This will allow appointment of a specialist consultants, including Lighting Designer, Technical Project Manager, Heritage Assessor, Sustainability and Arboriculture consultants and services of St Paul's Cathedral, including Surveyor to the Fabric.

4.3 Project programme

The implementation of the lighting scheme is proposed to start in Q1 2026 as detailed in Gateway 4 report approved by Committees in September 2023.

This reflects the need to:

- carry out extensive surveys, design and assessments due to the project's technical complexity and challenging context, and its local, and national impact.
- follow a complex approval process to ensure due diligence is done, and necessary secular and ecclesiastical consents are secured.
- formalise legal agreements in respect of handover to the Cathedral of the management of the new external lighting once it has been installed.

The key actions needed to be undertaken are set out below and in the Appendix 5:

- **Procuring specialist consultants** to assist with the design process and preparation of relevant consents' applications (February – May 2024)
- **Formalising legal agreements** with St Paul's Cathedral to formalise the ownership and future maintenance and management of the new lighting scheme by St Paul's Cathedral (March – December 2024).
- **RIBA Stage 3** to progress detail design, including additional discrete testing (April – June / July 2024).

	<ul style="list-style-type: none"> ● Obtaining consents from the City, St Paul’s Cathedral and other regulatory bodies. This formal consultation process is expected to take six months (July – December 2024). ● RIBA Stage 4 to prepare technical design for tender. This stage can only commence following receipt of formal consents. (January – May 2025) ● Tendering works and materials and contractor appointment in preparation for the installation (June – October 2025). ● Mobilisation of the contractor (November – December 2025). <p>Reporting to Committees is scheduled in line with the actions listed above.</p> <p>4.4 Next steps:</p> <ul style="list-style-type: none"> ● Complete the required procurement of the services of a cost consultant through an open tender. ● Continue liaison with the St Paul’s Cathedral on management and maintenance of the new lighting system and drafting of relevant legal agreements. ● Continue key stakeholder engagement including internal City services (Planning, Highway, Climate Resilience Team), St Paul’s Cathedral decision making bodies, local residents and external statutory bodies such as Historic England, GLA; and consider wider engagement with interested groups and those who may be impacted by the proposed changes. ● Continue engagement with external sponsors to secure additional funding if required. ● Appoint the project team, including Lighting Designer, Technical Project Manager, Heritage Assessor, Sustainability and Arboriculture consultants and services of St Paul’s Cathedral including Surveyor to the Fabric, for the next stages of the project (RIBA Stages 3 – 7 equivalent). ● Develop the detailed design based on the learnings and outcomes of the lighting trials. ● Secure relevant consents and approvals from the City and St Paul’s Cathedral, and other statutory bodies and interested parties as required. ● Prepare the Gateway 4c to provide update on detailed design in Q4 2024.
<p>4 Options</p>	<p>Failure to secure the additional funding to progress to Gateway 4c would mean that the project would have to stop, and the upgrade to the lighting to St Paul’s Cathedral would not be achieved in the timeframe that has previously been set out, with implementation scheduled to start in Q1 2026.</p>

Appendices

Appendix 1	Project Coversheet
Appendix 2	Finance Tables
Appendix 3	Lighting trial report
Appendix 4	Photographic record of the lighting trial
Appendix 5	Programme
Appendix 6	Risk register

Contact

Report Author	Clarisse Tavin
Email Address	Clarisse.tavin@cityoflondon.gov.uk
Telephone Number	020 7332 3634