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| Committees: RASC - for decision Projects and Procurement Sub Committee - for information | Dates: 18 Sept 2024 23 Sept 2024 |
| Subject: PSDS Project: Retrofit Accelerator – Workplaces PSDS Project Unique Project Identifier: 12134 | Gateway 6: Outcome Report Regular |
| Report of: City Surveyor Report Author: Chris Spicer – PSDS Programme Manager | For Information |
| PUBLIC | |

Summary

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| 1. Status update | Project Description: Various energy efficiency upgrades across Barbican, Guildhall and GSMD (Silk Street, Milton Court and Sundial Court) funded through the Public Sector Decarbonisation Scheme RAG Status: Green Risk Status: Low Costed Risk Provision Utilised: £450,000 (funded by PSDS Grant) Final Outturn Cost: £7,077,401 |
| 2. Next steps and requested decisions | Requested Decisions: <i>Approve closure of the project</i> |
| 3. Key conclusions | 3.1 The project was delivered later than planned and exceeded the original budget, it should be noted that additional scope was added to the budget to allow full expenditure of the grant and prevent the need to hand back underspend to central Government. 3.2 Overall, the objectives were met, and the benefits realised. All projects were completed broadly in line with the original GW proposal. 3.3 Carbon savings achieved from the project have reduced from a forecast 397 Tonnes/annum at GW5 to 245 Tonnes/annum. The reasons for this reduction are being |

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| | <p>investigated although there are many variables linked to building operation which could influence this reduction,</p> <p>3.4 The total capital cost for the project increased to £7.07m from the original project budget of £6.75m, with the main cost increases driven by time delays due to supply chain issues and the requirement for electrical upgrades which were not included in the original budget (risk)</p> <p>3.5 The capital cost was funded through a combination of PSDS Grant (£6.975m) and Climate Action Strategy Funding (£101k) to cover any construction work which extended beyond the Salix funding deadline (June 2022)</p> <p>3.6 The original Salix completion date was extended to June 2022 (from original date of Sept 2021) to allow for unforeseen events, primarily caused by materials supply chain and resource issues resulting from the Covid pandemic. The project reached practical completion in March 2023.</p> <p>3.7 Due to the short timescales available to scope the project there were a significant number of additional cost items identified during the work e.g during the lighting project at Guildhall there was a requirement to replace the existing wiring which was not fit for purpose. This was added to the scope at a cost of £191k which was funded through the project risk budget (grant funded).</p> <p>3.8 The complexity of the programme meant that a specific process was needed to obtain asbestos surveys that took longer than allowed for in the original scope.</p> <p>3.9 Extra time needed to allow for resident engagement in future projects to avoid complaints from residents e.g., at the Barbican.</p> <p>3.10 It is recommended that dedicated full time project management is needed at the Barbican on future projects due of the complexity of the site and requirement for stakeholder and resident engagement. For example, the Barbican has specific needs regarding access and timings of on-site works.</p> |
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Main Report

Design & Delivery Review

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| <p>1. Design into delivery</p> | <p>1.1 The design of the project was completed by the contractor Vital Energi as part of their responsibilities under the design and build contract.</p> <p>1.2 Overall, the design met the requirements of the project however, there were areas which could have been improved and resulted in a more accurate budget estimate. However, due to the limited amount of time available there was limited amount of time to carry out a full design process.</p> <p>1.3 There was an increased requirement for out of hours working – the contractor allowed for 50% of the light fittings to be installed out of hours, however in practice this was significantly higher due to the operational demands of the building.</p> <p>1.4 Requirements to meet Building Control were not included in the original contractor scope and were instructed as a variation to the contract.</p> <p>1.5 The original completion date that was dictated by the terms of the grant was not achievable for all the works. The delay was primarily due to unforeseen events relating to material supply chain and resource issues resulting from Covid pandemic.</p> <p>1.6 Extension of the completion date was applied for an agreed with Salix.</p> <p>1.7 All the technologies identified in the original scope were installed with the exception of some minor amendments to the lighting upgrade.</p> |
| <p>2. Options appraisal</p> | <p><i>Did the option chosen allow the project to meet the project's objectives and provide long term value? Yes</i></p> <p><i>Were any compromises or changes made against the options approved (i.e. Scope or time changes)? No</i></p> <p>2.1 The option set out in GW3-5 were as follows. - the chosen option was option 4.</p> <p>2.2 Option 1 (not recommended) – Do not proceed – Under this scenario, the project would be cancelled and the PSDS grant funding would be handed back to BEIS. COL would not benefit from the £450k per annum cost saving and 20% carbon reduction, against the 2019/20 baseline used for the project.</p> <p>2.3 Option 2 (not recommended) – Proceed with scope of Investment Grade Proposal – The scope of the project has been developed to meet the requirements of the Grant scheme and be delivered by the funding deadline of March 2022. This is not recommended as the estimated £420k currently unallocated to projects would need to be returned to Salix.</p> <p>2.4 Option 3 (not recommended) – Proceed with scope of Investment Grade Proposal excluding Guildhall Lighting – This option has the same scope as Option 2 but would exclude the Guildhall Lighting project from the scope. This is not</p> |

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| | <p>recommended as the Corporation would need to hand a significant sum of money back to Salix and financial/carbon savings would not be realised.</p> <p>2.5 Option 4 (recommended) – Proceed with scope of Investment Grade Proposal and approve for Vital Energi to design additional project to be completed by March 2022 to utilise remaining PSDS Grant funding, for projects subject to separate approval as a variation to their contract with CoL. The level of variation will be limited to 20% of the original £6.27m (excluding risk) contract value.</p> <p>2.6 Option 4 was recommended and progressed. The scope was designed to be deliverable within the funding timescales dictated by Salix and BEIS. While the total project value increased it was within the 20% threshold outlined in option 4.</p> |
| <p>3. Procurement route</p> | <p>3.1 Vital Energi were procured through the GLA Retrofit Accelerator Workplaces programme. This framework provided rapid access to a framework of specialist providers which could be procured to meet the grant funding timescales.</p> <p>3.2 This is a design and build contract with guaranteed savings.</p> <p>3.3 The savings which are identified in the Investment Grade Proposal are monitored post installation, if the savings are not achieved then the Contractor will be required to make up the difference through additional energy efficiency measures or a financial payment.</p> <p>3.4 The client-side project management resource was procured through the BLOOM framework through a competitive tender process.</p> |
| <p>4. Skills base</p> | <p>7.1. Due to the scale of the project, external project and programme management resource was procured to deliver the project.</p> <p>7.2 The resource budget was managed at a programme level and details on the expenditure are provided in the PSDS Programme GW6 report which will follow this report at the next meeting.</p> |
| <p>5. Stakeholders</p> | <p>8.1. The project scope covered a range of buildings therefore required a significant level of stakeholder engagement. This included:</p> <ul style="list-style-type: none"> • Barbican estates team • GSMD occupiers • Sundial Court • Guildhall Estates <p>8.2. Specific stakeholders included:</p> <ul style="list-style-type: none"> • Contractor – Vital Energi • Project Manager – Beveridge Associates |

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| | <ul style="list-style-type: none"> • COL Team – Energy team and site FM • CDM – Vital Energi (Principal Contractor and Principal Designer) • Engineering support – Elevate Everywhere (Silver EMS)/Beveridge Associates • Commercial Review – Currie and Brown • Measurement & Verification Review – EEV’s • Salix (grant administrators) <p>8.3. Stakeholders were keep informed and engaged as the project progressed.</p> |
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Variation Review

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| 6. Assessment of project against key milestones | <i>Please provide a short assessment of progress against key milestones/timescales during the project’s design and delivery.</i> | | | |
| | | Key milestone set out in GW3-5: | Achieved? | Comment |
| | 9.1. | The project is completed by the Salix programme deadline of 18 th March 2022. | No | Project reached practical completion on 31 st March 23. Delay due to unforeseen events relating to material supply chain and resource issues resulting from Covid pandemic. An extension agreed with Salix until 30 th June 2022. |
| | 9.2. | Carbon savings of 397 Tonnes/CO2 per annum are achieved | No | Carbon savings from the project are forecast at 263 Tonnes of CO2 |
| | 9.3. | The project meets the needs of the building stakeholders and meets performance specification and standards. | Yes | |
| 9.4. | Energy cost savings of circa £472k per | Yes | Higher energy cost savings/avoided | |

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| | | year are achieved, in line with the proposal. | | costs of £947k per annum achieved due to increase in energy prices. |
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| 7. Assessment of project against Scope | <p><i>Please provide a short assessment of the project against its Scope, including any changes and subsequent impact, during the project's design and delivery.</i></p> <p>10.1. All the technologies identified in the original scope (outlined below) were installed with the exception of some minor amendments to the lighting upgrade.</p> <p>10.2. Lighting Upgrades – Replace existing fluorescent fittings with energy efficient LED luminaires across Barbican, GSMD Milton and the Guildhall with new controls. This is also expected to reduce maintenance costs and improve lighting levels.</p> <p>10.3. For the lighting project at Guildhall there was a requirement to replace the existing wiring which was not fit for purpose. This was added to the scope at a cost of £191k which was funded through the project risk budget.</p> <p>10.4. BMS Optimisation – Improvement to the Building Management System to enhance efficiency and optimise the operation of HVAC systems at BAC and GSMD buildings.</p> <p>10.5. Pipework Distribution Repair – Upgrades to the heating and chilled water pipework distribution circuits</p> <p>10.6. Ventilation Distribution Repair – improvements to the ventilation distribution systems through the replacement of failed equipment.</p> <p>10.7. Pipework Insulation – new insulation installed onto exposed pipework, valves and heat exchangers.</p> <p>10.8. AHU EC Fan Retrofit - This measure involved the replacement of fan motors, belts, and fan assemblies in selected Air Handling Units (AHUs).</p> <p>10.9. Metering – Installation of new energy metering to better understand energy consumption across the estate.</p> <p>10.10. Draught Proofing – Addition of new sealant around windows to stop cold draughts and reduce heating load.</p> | | | |
| 8. Risks and issues | <p><i>Did identified risk occur, if so what was the effect? Did unidentified risks occur, what were their impact? Did the CRP facilitate delivery in an efficient manner?</i></p> | | | |

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| | <p><i>State the level of costed risk identified against the project at the start and how much of this was realised/mitigated. Confirm final total of CRP used (if applicable).</i></p> <p>11.1. For the Guildhall lighting it materialised that the existing wiring was not fit for purpose and so there was a requirement to replace it. This was added to the scope and funded through the project risk budget.</p> <p>11.2. Disruption caused to Barbican residents when completing night works. This matter was addressed and resolved.</p> <p>11.3. The complexity of the programme meant that a specific process was needed to obtain asbestos surveys that took longer than allowed for in the original scope.</p> <p>11.4. Extra time needed to allow for resident engagement in future projects to avoid complaints from residents e.g., at the Barbican.</p> <p>11.5. The delays on supply of materials plus the additional time required for asbestos surveys resulted in a delay to the programme and increased contractor costs</p> <p>11.6. The entire Risk budget of £450k was required to complete the project, this budget was funded entirely by the PSDS Grant.</p> |
| <p>9. Transition to BAU</p> | <p><i>Did the project have a clear plan for transfer to operations / business as usual? Did this work well?</i></p> <p>12.1. Project handed over, including training on all technologies where relevant, to the internal operations and maintenance team.</p> <p>12.2. There is a one-year retention for defects, which expires in March 2024.</p> |

Value Review

| <p>10. Budget</p> | <table border="1"> <tr> <td data-bbox="486 1556 783 1704">Estimated Outturn Cost (G2)</td> <td colspan="2" data-bbox="783 1556 1364 1704"> Estimated cost (including risk): £6,727,734 Estimated cost (excluding risk): £6,272,734 </td> </tr> </table> | | Estimated Outturn Cost (G2) | Estimated cost (including risk): £6,727,734 Estimated cost (excluding risk): £6,272,734 | | | | | | | | |
|--|--|---------------------------------|-----------------------------|--|---|---|-------------|---|---|-------|------------|------------|
| Estimated Outturn Cost (G2) | Estimated cost (including risk): £6,727,734 Estimated cost (excluding risk): £6,272,734 | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th data-bbox="486 1742 783 1821"></th> <th data-bbox="783 1742 1080 1821">At Authority to Start work (G5)</th> <th data-bbox="1080 1742 1364 1821">Final Outturn Cost</th> </tr> </thead> <tbody> <tr> <td data-bbox="486 1821 783 1859">Fees</td> <td data-bbox="783 1821 1080 1859">£</td> <td data-bbox="1080 1821 1364 1859">£</td> </tr> <tr> <td data-bbox="486 1859 783 1897">Staff Costs</td> <td data-bbox="783 1859 1080 1897">£</td> <td data-bbox="1080 1859 1364 1897">£</td> </tr> <tr> <td data-bbox="486 1897 783 1955">Works</td> <td data-bbox="783 1897 1080 1955">£6,277,734</td> <td data-bbox="1080 1897 1364 1955">£7,077,401</td> </tr> </tbody> </table> | | At Authority to Start work (G5) | Final Outturn Cost | Fees | £ | £ | Staff Costs | £ | £ | Works | £6,277,734 | £7,077,401 |
| | At Authority to Start work (G5) | Final Outturn Cost | | | | | | | | | | |
| Fees | £ | £ | | | | | | | | | | |
| Staff Costs | £ | £ | | | | | | | | | | |
| Works | £6,277,734 | £7,077,401 | | | | | | | | | | |

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| | | |
| Purchases | £ | £ |
| Other Capital Expend | £ | £ |
| Costed Risk Provision | £450,000 | £ |
| Recharges | £ | £ |
| Other* | £ | £ |
| Total | £6,727,734 | £7,077,401 |

The project funding was allocated in the following way:

- £6,975,569 – funded through the Salix PSDS Grant
- £101,833 – funded through the CAS programme, to cover remaining work after the June 2023 Salix deadline. This included additional prelims and additional scope of work
- The increase in budget was approved by the PSDS Project Board and in consultation with the City Surveyor and CAS Programme Director as set out in the GW2 Governance Process

Please confirm whether or not the Final Account for this project has been verified. – Yes

In addition, a key part of the PSDS Grant Scheme was the requirement to pass a technical and financial audit by Salix, the grant administrators. This includes providing Salix and their external auditors with statement of account and a copy of all the invoices which were spent against the grant scheme. This audit was passed with no findings.

11. Investment

If this project was an invest to save or revenue generating opportunity, what were the expected returns (At Authority to start work stage G5)? What returns have been made so far, are these in line with initial expectations?

- 14.1. The project was predominantly delivered through grant funded by the Public Sector Decarbonisation Scheme. Additional funding was required through CAS to cover work that went beyond the Salix approved deadline

| | <p>14.2. The project was forecast to deliver significant energy consumption savings equating to £488k per annum. This was achieved and exceeded.</p> <p>14.3. The actual energy savings have been calculated at £947k per annum due to a significant increase in energy costs since the original estimate</p> | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-----------|---|-----------|----------|---|--|-----|---|---|--|----|---|---|---|-----|---------------------|---|--|-----|--|---|---|----|--|
| <p>12. Assessment of project against SMART objectives</p> | <p><i>Did the project deliver against its SMART objectives? Have measures of success been achieved?</i></p> <p>PSDS Programme SMART objectives set out in GW 2 paper are outlined in the table below. These objectives apply to each project within the programme with each project contributing to the completion of the SMART objectives.</p> <table border="1" data-bbox="491 824 1449 1955"> <thead> <tr> <th data-bbox="491 824 571 857"></th> <th data-bbox="571 824 970 857">SMART objective</th> <th data-bbox="970 824 1209 857">Achieved?</th> <th data-bbox="1209 824 1449 857">Comments</th> </tr> </thead> <tbody> <tr> <td data-bbox="491 857 571 936">1</td> <td data-bbox="571 857 970 936">The project commences before 31st March 2021</td> <td data-bbox="970 857 1209 936">Yes</td> <td data-bbox="1209 857 1449 936">.</td> </tr> <tr> <td data-bbox="491 936 571 1413">2</td> <td data-bbox="571 936 970 1413">The project (and all associated works/sub-projects) are complete by 30th September 2021, unless an extension is agreed by Salix.</td> <td data-bbox="970 936 1209 1413">No</td> <td data-bbox="1209 936 1449 1413">The Salix deadline was extended with agreement until 30th June 2022 and the project reached practical completion on 31st March 2023</td> </tr> <tr> <td data-bbox="491 1413 571 1525">3</td> <td data-bbox="571 1413 970 1525">Project achieves specified performance and design parameters.</td> <td data-bbox="970 1413 1209 1525">Yes</td> <td data-bbox="1209 1413 1449 1525">See section 4 above</td> </tr> <tr> <td data-bbox="491 1525 571 1704">4</td> <td data-bbox="571 1525 970 1704">Project achieves high levels of stakeholder and user satisfaction.</td> <td data-bbox="970 1525 1209 1704">Yes</td> <td data-bbox="1209 1525 1449 1704">Overall stakeholders were kept informed and engaged.</td> </tr> <tr> <td data-bbox="491 1704 571 1955">5</td> <td data-bbox="571 1704 970 1955">Minimise disruption to the site's occupants and services.</td> <td data-bbox="970 1704 1209 1955">No</td> <td data-bbox="1209 1704 1449 1955">Disruption caused to Barbican residents when completing night works.</td> </tr> </tbody> </table> | | SMART objective | Achieved? | Comments | 1 | The project commences before 31st March 2021 | Yes | . | 2 | The project (and all associated works/sub-projects) are complete by 30 th September 2021, unless an extension is agreed by Salix. | No | The Salix deadline was extended with agreement until 30 th June 2022 and the project reached practical completion on 31 st March 2023 | 3 | Project achieves specified performance and design parameters. | Yes | See section 4 above | 4 | Project achieves high levels of stakeholder and user satisfaction. | Yes | Overall stakeholders were kept informed and engaged. | 5 | Minimise disruption to the site's occupants and services. | No | Disruption caused to Barbican residents when completing night works. |
| | SMART objective | Achieved? | Comments | | | | | | | | | | | | | | | | | | | | | | |
| 1 | The project commences before 31st March 2021 | Yes | . | | | | | | | | | | | | | | | | | | | | | | |
| 2 | The project (and all associated works/sub-projects) are complete by 30 th September 2021, unless an extension is agreed by Salix. | No | The Salix deadline was extended with agreement until 30 th June 2022 and the project reached practical completion on 31 st March 2023 | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Project achieves specified performance and design parameters. | Yes | See section 4 above | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Project achieves high levels of stakeholder and user satisfaction. | Yes | Overall stakeholders were kept informed and engaged. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Minimise disruption to the site's occupants and services. | No | Disruption caused to Barbican residents when completing night works. | | | | | | | | | | | | | | | | | | | | | | |

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| | | | | This matter was addressed and resolved. |
| | 6 | Project contributes to PSDS programme energy cost savings of c.£875k/year. | Yes | Energy Consumption savings of circa £947k per year achieved |
| | 7 | Project contributes to PSDS programme carbon emission savings of c.1.5ktCO ₂ e/yr. | Yes | Carbon savings of 263 Tonnes/CO ₂ per annum achieved |
| | Due to increases in energy costs since the proposal was developed, the total cost savings achieved as exceeded targets | | | |
| 13. Key benefits realised | <p><i>Have the Key Benefits been realised? Baseline against G2 report.</i></p> <p>The key benefits outlined in the GW2 report (and listed below) have all been realised for this programme. Specific information on the savings achieved is provided in section 12.</p> <ul style="list-style-type: none"> • Compliant and high-quality building services which satisfies needs. • Lower energy and maintenance costs for the City of London Corporation. • Energy and carbon emission savings contribute towards City of London Corporation targets. | | | |

Lessons Learned and Recommendations

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| 14. Positive reflections | <p><i>What worked well within the project</i></p> <ul style="list-style-type: none"> • The project team worked well together in a challenging project environment, including a global pandemic, restricted labour markets and global supply chain shortages • The grant award scheme was set up with urgency and the governance structure developed at GW2 worked well |
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| | <ul style="list-style-type: none"> • While an extension for completion was needed, all projects did complete within a reasonable timescale • The development of a specific PSDS Project Board, with delegated authority to make decisions provided a fast and efficient approval route for any project changes, allowing quick decision making |
| 15.Improvement reflections | <p><i>How will learning from things that went wrong on the</i></p> <p>15.1 Timelines were agreed in line with the grant application and were tighter than normal. The terms of the grant required fast timelines and project development which were not always compatible with internal timelines and turnaround times.</p> <p>15.2 Allowances for out of hours working during design should be increased when completing work within the COL buildings to minimise disruption.</p> <p>15.3 Extra time needed to allow for resident engagement in future projects to avoid complaints from residents e.g., at the Barbican.</p> <p>15.4 Specific process needed to obtain asbestos surveys that took longer than allowed for in the original scope.</p> <p>15.5 Dedicated full time project management needed at the Barbican on future projects due of the complexity of the site and requirement for stakeholder and resident engagement. For example, the Barbican has specific need in regard to access and timings of on site works.</p> |
| 16.Sharing best practice | <p><i>How will information on the project be shared and used in the future?</i></p> <p>19.1. Lessons learned from this programme will be shared and considered when developing other PSDS and CAS projects and similar programmes of works.</p> |
| 17.AOB | <i>Any other points of note that should be recorded.</i> |

Appendices

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| Appendix 1 | Salix Audit Outcome Letter |
| Appendix 2 | |
| Appendix 3 | |

Contact

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