

<b>Committees:</b> Corporate Projects Board - for information Barbican Centre Board - for decision Projects Sub - for decision	<b>Dates:</b> 13 January 2020 22 January 2020 27 January 2020		
<b>Subject:</b> Sand & Seal Woodblock Flooring (02800129)  <b>Unique Project Identifier:</b> 11761	<b>Gateway 6:</b> <b>Outcome Report</b> Light		
<b>Report of:</b> Barbican Centre <b>Report Author:</b> Cornell Farrell – Head of Engineering and Projects Barbican Centre	<b>For Decision</b>		
<p><b>NOT FOR PUBLICATION</b></p> <p>By virtue of paragraph(s) 3 of <a href="#">Part I of Schedule 12A</a> of the Local Government Act 1972. Specifically, paragraphs <b>1, 3 and 13</b> of the report contain sensitive information which may be exempted under the Act, and as this cannot be presented to Members as a separate appendix this report needs to be considered in closed session. It is considered that information falling under the following paragraphs outweighs the public interest in disclosing information:</p> <table border="1" data-bbox="204 1227 1385 1301"> <tr> <td data-bbox="204 1227 284 1301">3)</td> <td data-bbox="284 1227 1385 1301"><i>Information relating to the financial or business affairs of any particular person or body (including the authority holding that information).</i></td> </tr> </table>		3)	<i>Information relating to the financial or business affairs of any particular person or body (including the authority holding that information).</i>
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**Summary**

<b>1. Status update</b>	<p><b>Project Description:</b> To repair by process of “sand and seal” the Barbican Centre level -1 (minus one) woodblock flooring and limit the damage in future years.</p> <p><b>RAG Status:</b> Red (Red at last issue report)</p> <p><b>Risk Status:</b> Medium (Medium at last issue report)</p> <p><b>Costed Risk Provision Utilised:</b> CRP was not part of the project management process during the life of the project.</p>
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	<p><b>Final Outturn Cost:</b> £117,000.91 (excluding staff costs) funded from Capital CAP. Additional £2,247.63 funded from revenue (see section 13 for detail).</p>
<p><b>2. Next steps and requested decisions</b></p>	<p><b>Requested Decisions:</b></p> <p>Members are asked to note the content of the report, particularly the lessons learned and approve the closure of this project.</p>
<p><b>3. Key conclusions</b></p>	<p><b>Main objective –</b> The main project objectives were as follows:</p> <ul style="list-style-type: none"> <li>- Restore the Centre’s level -1 woodblock flooring to its original colour and condition and to protect it from future deterioration. The floor suffers from high levels of footfall and is one of the busiest areas within the Barbican Centre. This project was necessary to stop the continued degradation of the floor and the risk of slips, trips and falls. <b>This was achieved.</b></li> <li>- Complete the project within the programme as per the gateway 5 report. <b>This was not achieved.</b></li> <li>- Complete the project within budget as per the gateway 5 report. <b>This was not achieved.</b></li> </ul> <p><b>Reasons for variance –</b> The works were completed but to an unsatisfactory standard. In order to bring the flooring finish to the desired levels, rectification works were required. The floor was fully repaired prior to the repeated sanding and sealing process. The reasons for the rectification work are detailed in item 11.</p> <p><b>Main learning and recommendations –</b></p> <ul style="list-style-type: none"> <li>- A small inobtrusive sample area should have been repaired by the contractor and evaluated by the client/PM prior to the full delivery phase</li> <li>- Additional time should have been built in to the original delivery plan to allow for review and sign-off of each phase</li> <li>- Each section of floor (phase) should be signed off prior to commencing the next phase to ensure on-going quality of workmanship</li> <li>- A clear process for reporting issues identified by the contractor affecting their ability to complete works satisfactorily, should be agreed</li> </ul>

- A (client) process to resolve and communicate progress on those issues should be implemented to assist contractors working on projects

## Main Report

### Design & Delivery Review

<p><b>4. Design into delivery</b></p>	<p>The design of the project i.e. the process/method in which we agreed to sand &amp; seal the floor was appropriate for the nature of the works. In hindsight, however, a time allowance should have been incorporated to sign-off on quality.</p>
<p><b>5. Options appraisal</b></p>	<p>This project followed the 'light' gateway approval route and therefore no options appraisal report was required.</p> <p>An issue report was submitted in March 2018 detailing problems with the poor quality finish of the floor. This issue report asked members to consider the following options:</p> <ul style="list-style-type: none"> <li>- litigation against the contractor;</li> <li>- agree additional cost for the contractor to carry out the works again or</li> <li>- retender the works.</li> </ul> <p>The recommended option was to agree an additional cost with the contractor to carry out the works again. This option allowed the project to meet project objectives, albeit at a higher cost than the gateway 5 value. It is considered that this was the best option for the below reasons:</p> <ul style="list-style-type: none"> <li>- The cost to rectify the work was substantially lower than the originally tender prices and therefore the rectification works offered value for money.</li> <li>- The reason the rectification works were required is largely down to the failings of the Projects team and not the contractor. To provide reassurance (and at no cost) the contractor re-sanded and sealed a small area of the floor. It was then agreed that, providing the contractor was supervised properly and had any issues attended to quicker than the original works, they were capable of carrying out the work to the required standard.</li> <li>- It was agreed that while on site, the contractor would be more closely supervised during the rectification work and money withheld until sign off from both the Head of Projects and Head of Engineering to ensure desired quality was met.</li> </ul>

	<ul style="list-style-type: none"> <li>- Retendering the project would not have offered value for money as the cost would have been substantially more than the reduced rectification cost agreed with the original contractor. Due to the time taken to re-tender, we would have missed the next available slot to carry out the work.</li> </ul>
<b>6. Procurement route</b>	<p>City Procurement invited eight companies who specialise in this type of work to quote for the project. Of these eight companies, seven visited site and submitted a quote. The tender evaluation was scored 60% on quality and 40% on price.</p> <p>The approach taken allowed for numerous suppliers to bid for the work. This gave us a variety of options and a high chance of finding a contractor capable of delivering the project. The outcome of the rectification work proves the contractor who won the tender was able to meet project requirements however as stated in this report, the lack of attention from the projects team resulted in poor results after the original works.</p>
<b>7. Skills base</b>	<p>The projects team had the required skills and experience to deliver the project however, there are lessons to be learned; it is recognised that the need to carry out the works again could have been avoided.</p>
<b>8. Stakeholders</b>	<p>Stakeholders were engaged throughout the project via progress meetings and emails where suitable. It was particularly crucial before and during works on site. This engagement was vital for operational reasons as the event diary dictated what hours/nights the contractor could work and when they had to be clear of site the following morning to ensure business as usual.</p> <p>Stakeholders are now satisfied with the outcome of the project.</p>

### Variation Review

<b>9. Assessment of project against key milestones</b>	<p><b>Original estimated project end date (as per gateway 5):</b> December 2016</p> <p><b>Actual project end date:</b> 3<sup>rd</sup> September 2018</p> <p>Work was carried out and completed by the original estimated project end date however for reasons mentioned in this report the required quality of finish was not met. The work had to be rectified when the space was next available; this was August 2018 through to 3<sup>rd</sup> September 2018.</p>
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<p><b>10. Assessment of project against Scope</b></p>	<p>Works were in line with the scope. This included:</p> <ul style="list-style-type: none"> <li>- Preparation of flooring via wet washing with polish remover</li> <li>- Removing corking and expansion joints</li> <li>- Repairing or replacing badly damaged blocks</li> <li>- Gap filling</li> <li>- Re-installation of corking</li> <li>- Sanding and sealing</li> <li>- Cleaning</li> <li>- Retention of brass covered plates</li> </ul> <p>No changes were made to the original scope of works.</p>
<p><b>11. Risks and issues</b></p>	<p><b>Issues</b> - Due to daytime events at the Centre it was necessary to carry out these works overnight and good lighting and availability of power were essential to the success of the project. The quality of the new finish of the woodblock flooring at level -1 was very poor, which the contractor recognised, but argued this was largely because of the operational problems on site. On several occasions failure to override the lighting controls system left the contractor in relative darkness for periods. To compound matters, the contractor suffered from regular power outages. The contractor argued that neither of these problems were ever addressed promptly. The works were not completed to a satisfactory standard. Despite the poor quality, the contractor had already been paid £72,673.37 which was 97% of the contract sum. It was recognised that paying this amount for such poor-quality works was an error on the Centre's part. After lengthy discussions, it was agreed that the contractor would rectify these works at a cost of £41,666.67 – an additional £39,419.04 plus the unspent amount of £2,247.63, which was held for retention. An issue report was submitted approving this additional funding.</p> <p>The 'main learnings and recommendations' for what we would do differently in the future to avoid the above issues are noted in <b>section 3</b>.</p> <p><b>Risk</b> - Project entered the gateway process before the costed risk provision was adopted and therefore this is not applicable. The reason for the initial failure of this project was the quality of the floor. It is therefore debatable whether CRP would have been able to mitigate this issue if it had been in place for this project.</p>

<b>12. Transition to BAU</b>	Various stakeholder meetings were scheduled before the start date to discuss the availability of the space. The works on-site dates were carefully checked against the Centres events diary to ensure smooth transition from night time work to daytime events/opening hours. The contractor was always made aware of the programme so they knew what time they had to give the space back the following day to allow the Centre to carry out its normal activities.
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**Value Review**

<b>13. Budget</b>	<table border="1" style="width: 100%;"> <tr> <td style="width: 30%;"><i>Estimated Outturn Cost (G2)</i></td> <td>Estimated cost (including risk): £80,000 Estimated cost (excluding risk): £80,000</td> </tr> </table>		<i>Estimated Outturn Cost (G2)</i>	Estimated cost (including risk): £80,000 Estimated cost (excluding risk): £80,000																												
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<p><b>Please confirm whether or not the Final Account for this project has been verified.</b></p> <p>No.</p>																																
<b>14. Investment</b>	n/a																															

<p><b>15. Assessment of project against SMART objectives</b></p>	<p>SMART objectives were not outlined in any previous gateway. However, the main objective of this project was to repair, sand and seal the level -1 woodblock floor in the Barbican Centre, protecting it from further deterioration reducing the risk of slips and/or trips. This objective was met, albeit at a higher cost than originally anticipated.</p>
<p><b>16. Key benefits realised</b></p>	<p>The floor is now of a high quality finish worthy of the building and services at the Barbican Centre. Defects in the floor have been rectified resulting in a floor free of risks of trips and falls.</p>

**Lessons Learned and Recommendations**

<p><b>17. Positive reflections</b></p>	<p>Throughout the duration of the project, the ‘business as usual’ plan worked well allowing for smooth transition from works overnight to normal daytime function.</p> <p>Stakeholder engagement was good. This was also key in the BAU plan.</p> <p>Procurement route allowed for numerous suppliers to submit a tender which increased our chances of being able to find a supplier capable of delivering the project.</p>
<p><b>18. Improvement reflections</b></p>	<p>At the beginning of the works phase, a small area of floor should have been completed by the contractor and approved by the client as a quality benchmark. Each successive phase of work should have been assessed against the agreed standard. The poor-quality workmanship would have been identified at each stage and addressed in a timely fashion instead of allowing the contractor to continue to completion. The contract form should have addressed the quality requirement and the payments to the contractor should have been structured to reflect satisfactory sign-off following each phase. Regrettably, the contractor was paid in one payment at the end of the works – presumably based on completion only.</p> <p>When the works were undertaken the second time, the payments process was improved to follow the phased approach.</p> <p>There were problems addressing issues identified by the contractor, namely that the lights were insufficient during</p>

	<p>some nights to complete the works to the required quality. This was probably due to the fact the contractor was working nights and the project manager working days. The contractor did not have the authorisation to stop works due to time pressure and the PM did not address the problem with the engineering department. A clear process of raising and resolving issues should have been agreed between the contractor and PM at the pre-start meeting and there should have been regular review meetings. The PM should have made sure the issue with the lighting was addressed as this was outside of the contractor's control.</p> <p>The Barbican must accept there were several failings in the control and management of the works and the communication was poor. It is unusual to have these types of basic lessons learnt but all the more important that future projects benefit from these errors.</p>
<b>19. Sharing best practice</b>	<ul style="list-style-type: none"> <li>- All reports and project files should be stored on the projects drive, accessible to all project team members. This allows for business continuation when PMs leave. They will be referred to during the planning stage of future similar projects.</li> <li>- The importance of strong communication between the Projects team and Engineering/Facilities will be emphasised in future projects as the lack of communication during this project has been highlighted as one of the main reasons for the initial failure of the project.</li> </ul>
<b>20. AOB</b>	n/a

## Appendices

<b>Appendix 1</b>	n/a
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## Contact

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