

Overview and Scrutiny Committee Report

Report of Director of Service Delivery

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## **Guildford Crematorium redevelopment post project review**

### **Executive Summary**

This report sets out an account of the rebuilding of Guildford Crematorium following approval of the business case and preferred option by the Council's Executive in 2016. From inception of the idea as part of the Bereavement Services Fundamental Service review in 2013-14 to closing out of the project has been a 7-year scheme for the Council.

It has been a complex but successfully executed phased project working in the sensitive environment of the Crematorium.

The report reflects on the business case, governance, issues that arose, feedback on the building now it is in use, and the learning from the post project review.

### **Recommendation to Committee:**

That the Committee

- a) note the account of the project from start to finish
- b) consider and progress the learning from this project
- c) make any recommendations to the Executive it considers appropriate.

### Reason(s) for Recommendation:

The Council is a learning organisation and the beneficial learning from this project has a direct application to other Council construction related contracts, to improve performance.

### **Is the report (or part of it) exempt from publication?**

Yes – in part. Appendix 1.

- (a) The content is to be treated as exempt from the Access to Information publication rules because of its commercial sensitivity and is therefore exempt by virtue of paragraph 3 of Part 1 of Schedule 12A to the Local Government Act 1972 as follows: Information relating to the financial or business affairs of any particular

- person (including the authority holding that information)
- (b) The content is restricted to all councillors.
  - (c) The exempt information is not expected to be made public because it is considered that the public interest in maintaining the exemption outweighs the public interest in disclosing the information.
  - (d) The decision to maintain the exemption may be challenged by any person at the point at which the Committee is invited to pass a resolution to exclude the public from the meeting to consider the exempt information.

## **1. Purpose of Report**

- 1.1 The purpose of this report is to enable the Overview and Scrutiny Committee to explore the learning points arising from the Council's experience in delivering the project to rebuild Guildford Crematorium.

## **2. Strategic Priorities**

- 2.1 The rebuild of Guildford Crematorium delivered on the Corporate Plan Priorities of the time in the following ways:
- 2.2 *'Our Infrastructure- Providing high quality facilities and land for new schools and health centres – Refurbish or rebuild Guildford crematorium to ensure that the service is fit for purpose for the next 50 years'* which was due for delivery by December 2019.
- 2.3 *Our Borough:* the redeveloped facilities will be more appropriate to the expanded community needs for this service. The present facilities were constructed at a time in the 1960s when the use of this service was a small fraction of its current level. An upgraded and expanded facility will be a significant improvement to the bereavement services offered by the Council, recognising that this is a service called-on by many of its residents, and indeed the wider South West Surrey community at one time or another which yields significant revenue for the Council.
- 2.4 *Our Economy:* the project will help to maintain and support the borough's business base as the redeveloped and enhanced facility will more adequately fulfil the needs and requirements of the local bereavement service industry, both within the Borough and wider afield. This sector includes clergy, undertakers, memorial masons, health sector, third sector, transport related, accommodation and hospitality related, as well as the crematorium services itself.
- 2.5 *Our Environment: Reducing energy and water use* – contributing to the Council's target of *'Reduced Energy and water use by 20% over 2014/15 levels.* Modern facilities have significantly better energy efficiency, can incorporate energy-from-heat recovery technologies, have better thermal insulation, low energy lighting and heating and the potential to incorporate renewable energy. This scheme can contribute to that target.
- 2.6 *Our Society:* a more flexible design will allow the Council more accurately to align the bereavement services to individual beliefs, or to none.
- 2.7 *Our Council:* this project delivers on the recommendations of a Fundamental Service Review and contributes to *'Ensuring long-term financial stability and*

*sound financial governance' through delivering efficiency savings and service improvements through our programme of reviews, and increased income from our commercial services and investment assets.*

### **3. Background**

#### **3.1 Context of the project**

3.1.2 The need to refurbish or rebuild Guildford Crematorium was identified in the Fundamental Service Review of the Council's Bereavement Services in 2013. The Executive adopted this recommendation in 2014 and incorporated it as a target in the Council's Corporate Plan 2015-2020. In addition, a provisional capital budget was agreed of £4.5 million in the 2015-16 budget based on a high-level feasibility study, and available cost information undertaken in 2013. This need was identified, as the facilities were no longer fit for purpose to deliver the services required.

3.1.3 Guildford crematorium broadly serves the Guildford and Waverley Borough Council catchment area and caters for approximately 83-85% of deaths in this area through cremation. It is the operational and administrative home for the whole of the Council's bereavement service. The service undertakes around 1600-1800 cremations a year, around 50 burials at the Council's two cemetery sites, cares for 9 closed churchyards, and provides facilities for remembrance such as gardens, books of remembrance, and a flower room for the bereaved. This supports the long and ongoing grief and bereavement process bringing many visitors to the site who carry out personal acts of remembrance.

#### **3.2 Overview of delivery**

3.2.1 A Project Board was established in 2015 of Officers and Councillors to oversee the project. Subsequent to this, £500,000 was moved to the approved capital programme to appoint a quantity surveyor and architect and design team to enable progress to be made with the crematorium project.

3.2.2 In 2015, following the Council's Procurement Procedure Rules the Council appointed Press and Starkey as the Quantity Surveyor and Employers Agent and Haverstock LLP as the Lead Architect and Design Team, incorporating civil, structural and mechanical and electrical engineers, landscape architects, and other such expertise required to support this project. In addition to this Peter Linsell Management Consultancy, a bereavement industry specialist, was also appointed as an advisor in regard of the technical area of crematory plant and equipment along with the company Inneco.

3.2.3 Detailed feasibility work was undertaken in 2016 revisiting the 2013 high level study to determine whether to rebuild or refurbish Guildford Crematorium. This led to the approval of a recommendation to rebuild Guildford Crematorium with a supporting business case, and approval of the transfer of £4 million from the provisional capital programme to the approved capital programme in November 2016 by the Council's Executive. The report also requested a further £5.5 million supplementary estimate from Full Council which was approved in December 2016.

3.2.4 The business case included the provision of temporary facilities to ensure the ongoing operation of the crematorium service to support local need and

businesses who use the crematorium facilities such as funeral directors, and the hospitality industry.

- 3.2.5 As part of the design process a cremator supplier was procured in accordance with the Council Procurement Procedure Rules, to input into the design of the building, supply and install the cremators and abatement plant, and provide a term maintenance contract for the lifecycle of the equipment. The successful supplier was Facultatieve Technologies who were appointed in June 2017.
- 3.2.6 Following public and service consultation through winter/spring of 2016-17 the design was developed to RIBA Stage 3 and a planning application was submitted in July 2017. Planning consent was granted by the Council's Planning Committee for both the temporary facilities and replacement building on 5 October 2017.
- 3.2.7 The technical design process followed this, and procurement exercises were then undertaken to appoint a contractor for the temporary facilities and main contractor. These were awarded to Alresford Marquees and Buxton Building Contractors respectively.
- 3.2.8 In the winter 2017-18 a limited number of trees were removed in accordance with the planning consent and a limited number of memorials moved in consultation with families to enable the development.
- 3.2.9 A further supplementary estimate was required of £1.692 million to cover the additional cost of VAT over the life of the scheme due to the risk of the Council breaching its partial VAT exemption limit and was approved as part of the 2018-19 budget process.
- 3.2.10 As part of the project, mitigation had to be provided for bats roosting in the existing crematorium under a European Protected Species License (EPSL) from Natural England. Following a number of bat surveys in 2016/17/18 this license was granted on 19 September 2018 by Natural England. A number of bat habitat features and replacement roosts were incorporated into a replacement groundsman's store built in winter spring 2017-18, by virtue of the General Permitted Development Order, Part 12, Development by Local Authorities. This had to be completed in advance of demolition of the main building in winter 2018-19 to enable the bats to relocate and was critical to maintaining the project programme. The monitoring of this mitigation has to continue until 2022.
- 3.2.11 A Clerk of Works was appointed in March 2018 to provide regular reports and monitor quality of the construction throughout the duration of the construction phase.
- 3.2.12 The construction phase of the project was undertaken as a six-phase project from May 2018 to March 2020 in order to continue to provide services to the community. The phases were:
  - Phase 1:** Construct and commission new access road, car park, and remembrance courtyard.
  - Phase 2:** Construct and commission temporary facilities, decant from main building.
  - Phase 3:** Demolition of existing crematorium.
  - Phase 4:** Construction and commissioning of new crematorium.

**Phase 5:** Decommissioning and removal of temporary facilities, commissioning and opening of the new facilities.

**Phase 6:** Removal of interim cremator, completion of new car park and external works.

- 3.2.13 The temporary chapel and office facilities were commissioned in October 2018 and remained operational until November 2019 to enable construction of the main building and to continue service provision.
- 3.2.14 An application for a revised 'Permit to Cremate' for the new building was submitted in April 2019 to Regulatory services and approved and issued on 11 July 2019. As part of this a Non Material Amendment (NMA) was submitted to the local planning authority on 29 March 2019 to remove louvres from around the emissions stack. This was to ensure compliance with guidance and legislation relating to emissions stacks. The NMA was approved 18 April 2019.
- 3.2.15 The new crematorium opened on 16 December 2019 and operated successfully until Covid restrictions limited service provision in March 2020.
- 3.2.16 A Minor Material Amendment (MMA) was submitted to the local planning authority on 15 January 2020 to take account of an approved highways design to the entrance of the site, the retention of some existing parking area, a fixed access ladder, and swale crossover. This was approved on 14 April 2020.
- 3.2.17 A section 278 consent was approved by Surrey County Council for a widened entrance to the crematorium in February 2020.
- 3.2.18 The complete project achieved practical completion on 20 March 2020.
- 3.2.19 Following enquiries received from member of the public in regard of the emissions stack and subsequent internal investigation by the Council, the emissions stack had to be extended from 8.1m to 9.0m. This included identification of the error to Regulatory Services on 24 April 2020 and a revised permit being issued by Regulatory Services on 11 June 2020 with a condition for stack height to be amended by 9 October 2020. The extended stack received planning consent on 16 September 2020 and was installed on 26 September 2020.
- 3.2.20 This investigation into the error concluded a human error in calculating the stack height in accordance with HMIP D1 guidance and interpretation of the architectural drawings. The Council is also undertaking an external audit of this issue.
- 3.2.21 The defect liability period is nearly complete, however this has been impacted and delayed by Covid 19.
- 3.2.22 A post project review was undertaken in December 2020 and January 2021 and is discussed later in this report.
- 3.2.23 The Council has not yet been able to hold an official opening for the building because of Covid restrictions.
- 3.2.24 The project has been visited by several other Local Authorities who are looking at redeveloping or building new facilities because of the standard that has been set by the project for both permanent and temporary facilities.

3.2.25 The building has been awarded two awards by the Guildford Society; Best New Public Building and Best Civic Building Public Realm. It has also been shortlisted for the following award; Structural Timber Awards “Engineer of the year”. It is hoped others will follow in 2021.

3.2.26 Developing the gardens of remembrance and memorial options will take place in the coming years once the impact of Covid 19 on the service has passed.

### 3.3 **Building Design**

3.3.1 The design sought to address a number of issues with the existing building, site layout, and site restrictions this included:

- Increased and improved car parking provision.
- Eliminating services crossing and clashing when using the crematorium.
- Creation of a better comforting atmosphere through design and material choices.
- Flexible chapel space to cater for small and large services, and different faiths and practices.
- Improved toilet and waiting room provision.
- Improved office space and welfare provision for staff.
- Improved energy efficiency.
- Development of areas for new memorial gardens.
- Improved memorial provision and floral tribute area.
- Minimising disturbance to over 25,000 cremated remain plots and memorials.

3.3.2 The building incorporates a number of carbon reducing and environmental features;

- Taking a ‘fabric’ first approach where possible to building design which involves maximising the performance of the components and materials that make up the building fabric itself, before considering the use of mechanical or electrical building services systems.
- Plate heat exchanger using waste heat from the cremation process to heat the building.
- Building management system (BMS) incorporating various mechanical and electrical energy saving components.
- Replacement bat habitat and accommodation (Photo1).
- Sustainable urban drainage system (SUD’s) (Photo 2).
- A photo voltaic (PV) array on the roof to provide electricity (10,141kWh per annum, around 5% of total demand) (Photo 3).
- Full mercury abatement plant compliant with national guidance to abate emissions from the cremation process.
- One of nine installations in the UK to voluntarily abate emissions of oxides of nitrogen and controlled through the sites permit to cremate.
- 30 semi mature trees planted.
- 400 metres of new native hedging.
- 4 electric car charging points.



Photo 1: Bat bricks in groundsman store to provide replacement habitat



Photo 2: Part of SUDs system being installed



Photo 3: PV array on roof of new building (Credit Dan Hannington)

### 3.4 Project Governance and Monitoring

3.4.1 The project board for the project was comprised of the following officers with the following roles. The board met monthly to steer the project and have oversight of it covering programme, risks and issues, finance, communications, and make decisions in line with delegation agreed by the Executive in November 2016 to see the project delivered such as choices around procurement options, risks, and finance.

**Table 1: Project Board**

| Officer          | Role                         | Project Role   |
|------------------|------------------------------|--|
| Peter O'Connell  | Director of Environment      | Project Sponsor, ultimate say on all officer decisions   |
| Pauline Searle   | Lead Councillor              | Political oversight  |
| Nigel Kears      | Councillor                   | Political oversight  |
| Paul Stacey      | Parks & Landscape Manager    | Project Manager, to coordinate reports, issues for resolution and present information to the project board           |
| Natasha Precious | Bereavement Services Manager | Deputy Project Manager/Client<br>To advise on all service implications, considerations, and specifications regarding |



|                                   |  |  |
|-----------------------------------|--|--|
|                                   |  | the design of the facility, lead on liaison with stakeholders  |
| Marieke van de Reijden            | Asset Development Manager                                  | To provide strategic and operational support with any property issues – land and maintenance of the facilities, and any financial implications arising from them |
| Darren Burgess                    | Building Surveyor Manager                                  | To provide strategic and operational support with any property issues – land and maintenance of the facilities, and any financial implications arising from them |
| David Draghi                      | Property Manager Neighbour and Housing Management Services | To support mechanical and electrical requirements and consider any financial requirements arising from them  |
| Vicky Worsfold/<br>Michele Rogers | Principal Accountant                                       | To provide financial advice supporting all capital and financial implications  |
| Claire Andrews                    | Communications Officer                                     | To produce and deliver Communications plan   |
| Nathaniel Burrows                 | Procurement Officer  | To provide procurement advice and support  |
| Joyce Hamilton                    | Council's Solicitor  | To provide all legal advice and support the appointment of consultants/contractors   |

3.4.2 The project also reported into the Council's Major Projects and Programme Board monthly, giving broader organisational oversight of the project as one of its major projects. Financially the scheme was also reported on as part of the capital budget monitoring process.

3.4.3 Decisions were approved by the Council's Executive, Full Council, and the Planning Committee where required in accordance with the councils constitution.

### 3.5 Business Case

Following a thorough design and feasibility process four options and business cases were considered in making the decision to rebuild the crematorium, as follows:

#### 3.5.1 Option 1: Courtyards - the selected scheme

This scheme saw the crematorium redeveloped on its current footprint in a compact form. The phasing and delivery of this scheme was simpler and relied

on the use and construction of temporary offices and a chapel to enable the scheme to be built as a single phase. The cremator was kept operational during construction to maintain service continuity then demolished and removed once the new facility was operational.

### **3.5.2 Option 2: Alternative Courtyards**

This scheme proposed the crematorium to be redeveloped on its current footprint in a linear form. The phasing of this scheme was complex as the scheme worked around keeping the existing chapel and cremator in use while the new building was developed either side of the existing chapel. Once the new build elements were complete, the chapel and crematory would be demolished. Because of the proximity of the construction of the new building the project would have needed to be delivered as a restricted hours contract to enable services to be maintained on site.

### **3.5.3 Option 3: New build with full closure**

This proposal was to close the facility and deliver either new build option 1 or 2 and reopen once the rebuild was complete

### **3.5.4 Option 4: Refurbishment**

This option was to refurbish/add minor improvements and extensions to the facility over a 208-week period with significant disruption to users and operation of the facility.

### **3.5.5 Discounted Cash Flow Analysis**

Aside from operational and practical implications the financial business case was undertaken using a discounted cash flow analysis in line with treasury management guidance.

This involves estimating the capital and revenue expenditure and income over a 30-year lifecycle such as replacing the cremators, roofs, redecoration, and other property maintenance. We included differences such as the additional income possible, savings through energy efficiency and differences in timing of capital expenditure between new build and refurbishment. It also includes lost interest and loss of income through closure while works take place.

The DCF calculation results in a single figure – the Net Present Value (NPV), which is the total cash flow over 30 years discounted to today's prices. The discounted rate is based on Treasury advice for local authorities. In addition to this, the internal rate of return has also been calculated.

Throughout the project and at key stages the business case was kept under review and are shown below in Table 2:

**Table 2: Discounted Cash Flow Forecast**

|  | Payback<br>(Years) | NPV     | Capital<br>Exp<br>over 30<br>years | Capital<br>Receipts | Net<br>Capital | Total revenue<br>cost/(income)<br>over 30 years | Internal<br>Rate of<br>Return |
|--|--------------------|---------|------------------------------------|---------------------|----------------|---|-------------------------------|
| At 2016 Executive Approval (Assumes 50% loss of income during works (86 weeks))  | 18                 | (5,594) | 12,293                             | 0                   | 12,293         | (19,699)  | 8.61%                         |
| As at contractor appointment (May 2018) (Assumed 50% loss of income during works (76 weeks))                               | 23                 | (4,002) | 13,187                             | 0                   | 13,187         | (20,030)  | 6.97%                         |
| As of May 2019 (Factors in no revenue losses during revised contract period (99 weeks)) and updated interest implications  | 25                 | (4,118) | 14,442                             | 0                   | 14,442         | (18,503)  | 7.45%                         |
| As of January 2021 (Factors in agreed final account, actual revenue during construction and updated interest implications) | 22.5               | (6,288) | 15,043                             | 0                   | 15,043         | (22,839)  | 8.98%                         |

3.5.6 The route chosen (option 1), was absolutely the right choice from a practical and operational perspective and the financial business case has and is being delivered. This is discussed further in section 6. The implications of Covid 19 have meant that the use of the facility has not had a sustained period of normal operation to fully consider the outcomes of the business case.

3.5.7 Within the post project review it was regarded as one of the key milestones that a thorough feasibility study, options appraisal, and a sound business case was explored enabling a key decision to be taken to ensure the project could progress with option 1.

### 3.6 Temporary Facilities

3.6.1 Critical to the success of the project and business case was delivery and operation of the temporary facilities which were comprised of a chapel, waiting room, temporary floral tribute, offices, and toilets (Photos 4 and 5). It was the first time that this had been attempted in the UK to the Council's knowledge.

- 3.6.2 The main reasons for providing temporary facilities were;
- The building footprint for the new build had to be on existing site, meaning the crematorium would be out of commission for a lengthy period due to:
    - the presence of memorials
    - the impact of guidance and legislation in relation to the siting and planning of crematoria
  - The need to support local businesses who use the facility, such as funeral directors, florists, masons, and hospitality venues
  - The need to support families affected by bereavement either recent or past
  - In consulting with other facilities that had closed for rebuilding or refurbishing, they had undergone a sustained period of reduced business after reopening.
- 3.6.3 The service and architects undertook various research looking at temporary facilities at Guildford Cathedral and Basingstoke Hospital and discussion with suppliers looking at what would be feasible and the potential impact on the service. It was hard to establish how temporary buildings and facilities would be received by families despite engagement with funeral directors over its design and operation.
- 3.6.4 As part of the business case and the 2018-19 budget process, the Council approved a reduction in the revenue budget for income from the Crematorium. This was to account for operational disruption and temporary closure as well as factoring in whether a temporary building and facilities would be accepted and used.
- 3.6.5 Money was put into the budget pressures reserve to mitigate this assumed loss in income – a total of £1.1 million spread over the main build period in 2018-19 and 2019-20. In 2018-19 and 2019-20 the reserve was not used as the crematorium generated more income than originally assumed, and expenditure was under budget. This is shown below in Table 3.
- 3.6.6 The temporary facilities were a success suffering little loss in use and the variances can probably be ascribed to natural variance in the mortality rate and the periods of closure that were required in the project, this is shown in Table 4:

**Table 3: Crematorium Financial Outturn 18/19 and 19/20**

|  | <b>18/19 Budget</b> | <b>18/19 Actual</b> | <b>18/19 Variance</b> |
|--|---------------------|---------------------|-----------------------|
| Expenditure  | 909,540             | 687,538             | (222,001)             |
| Income   | (702,650)           | (1,346,216)         | (643,566)             |
| <b>Net</b>   | <b>206,890</b>      | <b>(658,687)</b>    | <b>(865,567)</b>      |
|  |                     |                     |                       |
|  | <b>19/20 Budget</b> | <b>19/20 Actual</b> | <b>19/20 Variance</b> |
| Expenditure  | 1,201,100           | 726,898             | (474,202)             |
| Income   | (989,550)           | (1,368,902)         | (378,542)             |
| <b>Net</b>   | <b>211,550</b>      | <b>(641,194)</b>    | <b>(852,744)</b>      |
|  |                     |                     |                       |
| <b>Net for construction phase/ use of temporary facilities (May 2018 - Mar 2020)</b> | <b>418,440</b>      | <b>(1,299,881)</b>  | <b>(1,718,311)</b>    |

**Table 4: Cremation figures**

| Calendar Year                             | Cremations per annum<br>(Business Model Forecast) | Cremations per annum<br>(Actual) | Variance   |
|---|---|----------------------------------|------------|
| 2016 (Old Building)                       | 1658  | 1741                             | +5%        |
| 2017 (Old Building)                       | 1658  | 1434                             | -14%       |
| 2018 (Old Building /Temporary Facilities) | 1658  | 1582                             | -5%        |
| 2019 (Temporary Building)                 | 1704  | 1416                             | -17%       |
| 2020 (New Building)                       | 1704  | 1897                             | +11%       |
| <b>Five year average</b>                  | <b>1676</b>                                       | <b>1614</b>                      | <b>-4%</b> |

- 3.6.7 The site had to close for a total of 8 weeks on separate occasions during the build period of May 2018 to March 2020 to enable moving between facilities and a short closure to bring new utility services across the site.
- 3.6.8 The Council has provisionally sold the temporary chapel to City of Lincoln Council as a going concern after a period of marketing the facility to recover some cost.
- 3.6.9 The key learning point around the temporary facilities was that it would have been beneficial to include it in the main contractor's package to ensure better on site coordination with groundworks and service installation. As the first of its kind we opted to procure it ourselves to maintain control over design and construction and to meet the requirements of the project programme.



Photo 4: External view of Temporary Chapel (Credit Dan Hannington)



Photo 5: Internal of Temporary Chapel (Credit Dan Hannington)

### 3.7 On site delivery; programme

3.7.1 The construction programme was originally set at 76 weeks at contractor appointment and was ultimately completed in 99 weeks, 23 weeks behind schedule. The delays were as follows:

**Phase 3:** Demolition – 7 week delay due to required method of demolition for bat removal to meet requirement of European Protected Species License, significant additional asbestos finds and removal. (Photo 6 and 7)

**Phase 4:** Construction of main building – 9 week delay due to ground conditions, additional groundworks required by building control, and delay on joinery package.

**Phase 6:** Completion of residual groundworks - 7 week delay due to requirement to repair SUDs membrane after removal of temporary building, variations to external works and S278 approval delays.

This was a complex phased project so an overrun in programme is not surprising. Whilst some contingency was built in as we had planned for an 86-week programme, the full extent of the programme issues arising were not able to be mitigated. The delay on opening the new facility and ongoing operation of the temporary facility was 16 weeks as phase 6 was undertaken after completing the new building and removal of the temporary building.



Photo 6: Preparation for removal of concealed asbestos



Photo 7: Removal of bat roosts being undertaken by hand under supervision of an ecologist and in accordance with EPSL.

### **3.7.2 On site delivery; project management (works)**

The project was managed effectively and proactively by all members of the project. Monthly contract meetings were held covering key issues with the main contractor submitting effective progress reports.

Two Clerks of Works were appointed to maintain oversight on build quality through regular quality inspections, covering both construction and the mechanical and electrical installation, these were supported by regular reports and trackers.

Regular health and safety audits were undertaken through the construction phase by the main contractor with no significant issues arising. Documentation from the contractor was very good and they followed the processes as set out in their tender submission which could be considered as a benchmark for all other projects. The appointment of their and our sub contractors proved effective.

Delivery was conducted through an exceptionally healthy project culture with all members of the project striving to deliver the scheme with good quality control, openness, and effort to resolve issues.

### **3.7.3 On site delivery; reflections on procurement**

The success of the delivery team and end result reflects directly back on the procurement strategies and processes employed for the project and overseen by the project board. Significant research and premarket engagement was undertaken to shape the design and structure of the project. Effective pre-qualification processes were employed and weightings in the tender packages were geared to quality in line with the ambition for the project.

The procurement process was managed through the procurement portal 'Intend' which linked to the governments 'Contract Finder' portal. Supplier interviews were assessed as part of the procurement process and were very effective in addressing queries, understanding suppliers approaches to the project in detail and building on our premarket engagement process.

Choosing a 'Traditional' method of design and construction as opposed to design and build has ensured ownership of quality control, design, and end outputs has been retained by the Council. This does place a huge responsibility and resource requirement on the client to engage in and be part of the detailed design process.

The above demonstrates the value in projects determining the right approach to procurement rather than one corporate approach.

## **3.8 Close out and in use**

- 3.8.1 The aftercare process from the main contractor and design team has effectively addressed snags, defects, and operational issues arising with the same commitment shown throughout the project.
- 3.8.2 The biggest issue has been staff capacity and the impact of Covid 19 to embed the operation of the building, and review and adjust procedures.
- 3.8.3 The build quality has been good with no significant defects identified in the defects liability period, just teething issues and defects typical of any construction project as a building settles.
- 3.8.4 The design has achieved the aesthetic, functional, and emotional requirements for the building. Photos 8 to 14 show the completed building.



3.8.5 User feedback from staff, funeral directors, clergy, and members of the public on the new facilities has been overwhelmingly positive. Obtaining full operational feedback has been compromised by Covid restrictions so we will need to keep under review and reconsider when normal services can resume. Feedback has included:

*'It's brilliant what you have done with the crematorium, it is a lovely setting, one of the mourners said they would come back to walk around because it was so peaceful'*

*'we felt as the judges that if there was a building in the future that was going to be listed that the Guildford Crematorium would be one of them'*

3.8.6 The only area of concern has been directional signage around the site which we are improving to enable wayfinding. Some users have not adjusted to the new flow around the sites. Other than this the design has fulfilled the brief the Council set for the building.

3.8.7 Emissions from the cremator plant are continually monitored and subject to a full annual test. The results have been within and compliant with the legal limits for crematoria and the conditions set down on the sites permit to cremate in relation to voluntarily abating oxides of Nitrogen.



Photo 8: Aerial view of completed project (Credit Dan Hannington)



Photo 9: View of completed project (Credit Dan Hannington)



Photo 10: Internal view of new chapel (credit Simon Kennedy)



Photo 11: Exit from chapel (credit Simon Kennedy)



Photo 12: View of chapel from protected courtyard (credit Simon Kennedy)



Photo 13: New waiting room (credit Simon Kennedy)



Photo 14: Reflective pool (credit Simon Kennedy)

### **3.9 Error in Stack Height Calculation and Air Quality Impact Assessment**

- 3.9.1 Following enquiries received from a member of the public in regard of the height of the emissions stack and subsequent internal investigation by the Council, the emissions stack had to be extended from 8.1m to 9.0m. Following the necessary regulatory and planning process the emissions stack extension was installed on 26 September 2020.
- 3.9.2 An internal investigation has taken place as to why the error occurred. This investigation into the error concluded a human error in calculating the stack height in accordance with HMIP D1 guidance and interpretation of the architectural drawings.
- 3.9.3 The Council is also undertaking an external audit of this issue where our enquirer has been invited to participate. The internal investigation is set out as a confidential part 2 item in Appendix 1.
- 3.9.4 Our enquirer also raised concerns that an independent air quality impact assessment (AQIA) had not been undertaken as part of the planning process. Criticism has been made that the planning authority did not seek an air quality impact assessment when the planning application for the new crematorium was validated at the very start of the planning process.
- 3.9.5 The planning administration team has a validation checklist, both at national level and local level. At the time (2017), there was no specific requirement for an air quality impact assessment to be submitted and the administrative officer & case officer did not ask for one. The reason being it was felt that because the facility and use of land as a crematorium was already in existence, there was therefore no requirement. This clearly would have been different had the submission been for a new crematorium facility on land not previously used as a crematorium.
- 3.9.6 There were also multiple discussions between the Case Officer and Regulatory Services Officer during the course of the application and at no time did the Regulatory Services Officer raise concerns over this aspect or ask for a report to be commissioned for consideration.
- 3.9.7 The planning application was referred to and considered by members of the Planning Committee on 4 October 2017 as this was a Council application and had the members of the Committee been concerned by this point, they could have asked for the application to be deferred and a report commissioned. No deferral or request for deferral was made, as the Committee felt it had all the facts before them to make a decision. Finally, no legal challenge was made in the 6-week challenge period following the decision.

#### 4. Capital cost

- 4.1 Table 5 sets out the cost and budget for each element of the project and the overall forecast outturn:

Table 5: Budget and Forecast outturn

| Item                 | Budget              | Total Forecast Cost | Variance           |
|----------------------|---------------------|---------------------|--------------------|
| Main Contract        | £ 7,797,512         | £ 9,358,170         | £ 1,560,658        |
| Temporary Facilities | £ 500,000           | £ 437,341           | (£ 62,659)         |
| Groundsman Store     | £ 85,000            | £ 96,255            | £ 11,255           |
| Surveys              | £ 100,000           | £ 99,021            | (£ 979)            |
| Professional Fees    | £ 917,464           | £ 829,962           | (£ 87,502)         |
| Minor contractor     | £ 86,000            | £ 163,822           | £ 77,822           |
| Miscellaneous        | £ 80,000            | £ 41,763            | (£ 38,237)         |
| Internal Salaries    | £ -                 | £ 10,174            | £ 10,174           |
| Contingency          | £ 564,024           | Inc above           |                    |
| <b>Sub total</b>     | <b>£ 10,130,000</b> | <b>£ 11,036,508</b> | <b>£ 906,508</b>   |
| VAT                  | £ 1,692,000         | £ -                 | (£ 1,692,000)      |
| <b>Total</b>         | <b>£ 11,822,000</b> | <b>£ 11,036,508</b> | <b>(£ 785,492)</b> |

- 4.2 Overall the project is forecast to be underspent by £785,492. The main construction works encountered delays as described in section 3.8 and further issues which incurred additional cost and delay are set out below:
- 4.2.1 Availability of steel fixings to construct the precast elements of the structure of the building in Phase 1. The specified fixings were not available and on a long lead time, despite pre contract checks, therefore replacements had to be found, the columns redesigned which led to a project delay and additional cost.
- 4.2.3. The temporary building was tendered and awarded as a design and build turnkey solution, however this ended up being very involved from the client, design team, and contractors perspective in delivery. Design and co-ordination issues over the base and mechanical and electrical requirements of the temporary building caused issues for the main contractor and design team. The delay on phase 1 required additional facilities such as temporary power due to UK Power Networks not delivering to programme, additional temporary parking measures, and a temporary floral tribute area.
- 4.2.4. Bat relocation and demolishing parts of the old building by hand to comply with the European Protected Species License (EPSL). The exact method of demolition was not able to be determined until the EPSL was granted with the relevant conditions. The system for applying for EPSLs only allows an application to be made 3 months prior to the works. In accordance with the programme and legislation this was applied for in July 2018, after the contract had started. When the license was granted this required additional inspections, attendances, and costs for access equipment, as well as incurring project delay.
- 4.2.5. Extent of concealed asbestos finds and removal which were only able to be determined after a demolition survey had been undertaken which was more than we had allowed for in the original budget. A demolition survey could not take

- place prior to works commencing on site as it would have left significant parts of the building damaged and unable to remain in operation. Buried asbestos waste and contamination was also found below the former cloisters and had to be removed.
- 4.2.5 Ground conditions for the main building meant additional foundation depth being required by building control. These were not able to be determined until the site was clear and the foundations dug as the building was being built on the same location as the existing building.
  - 4.2.6 Low CBR (Californian Bearing Ratio) test results meaning additional works to the road construction and make up. This was part of the contractors package to check the ground conditions to confirm the civil engineers design.
  - 4.2.7 A number of temporary works were required while new services were installed, to keep the segregation of construction areas from the operational site, exploration of potential ashes sites to keep the site operational and to de risk the programme.
  - 4.2.8 Utility company delays impacting cost and programme and additional temporary supplies. A new electricity supply should have been installed in September 2018 but UKPN did not deliver this until December 2018. A new gas supply and meter should have been installed by October 2018, but the meter was not installed until February 2019. Refunds of approximately £12,000 have been received. As statutory undertakers the Council and Contractor has little control over their performance.
  - 4.2.9 The tender package included various options which required clarity and detail as the project progressed such as the extent of the PV system, automatic doors, man-safe systems, and the extent of reconstruction of the entrance to meet Surrey County Council highways requirements.
  - 4.2.10 When the temporary chapel was removed from the car park area, the makeup of this area had to be re excavated to repair the SUDs membrane as the fixings for the temporary structure has penetrated it affecting its integrity and requirement to fulfil its design as per the planning conditions.
  - 4.2.11 Existing surface water drainage was found to be in a poorer state than expected requiring further works.
  - 4.2.12 Variations such as the inclusion of NOx abatement plant, additional walls for memorial plaques, automated doors to the remembrance courtyard, additional car charging points, and retention and resurfacing of some existing parking space.
- 4.3 Following considerable work by the Council's finance team with assistance from Price Waterhouse Cooper (PWC) on the Council's partial VAT exemption, the spend on the project did not make the Council breach its 5% partial exemption and there was no need to capitalise the VAT specific to this project. The partial exemption calculation can only be calculated annually after year end and as such the confirmation was only possible in December 2020. In 2018/19/20 it had been considered that part of the project would be liable for VAT.

## **5.0 Post Project Review**

**5.1** The post project review took place in December 2021 and January 2021 through a survey and workshop. Two sessions were held: one with the project board and one with our delivery partners such as the quantity surveyors, design team, contractors, and clerk of works. This enabled reflection by the project board and feedback from external partners about how we performed as client and the structure of the project. The key areas that came out from these discussions are:

### **5.2 Project Board:**

#### **5.2.1 An appropriate project board with membership invested in the outcome – all willing and able to provide the right level of support, challenge, and decision making in a timely manner:**

The project board and governance of the project were widely considered to be the key factor in successfully delivering the project, the board was made up of key expertise from across the Council brought the skills and knowledge to provide effective support to the project. The board had an effective delegation from the Executive to deliver the project. The Councillors on the board brought the appropriate political perspective, support, and communicated this back to the Executive meaning Councillors were well sighted on the project. Information was well prepared and in advance of board meetings enabling good participation by the board.

#### **5.2.2 A strong business owner who knows their business and has a clear vision of what success looks like.**

The service area who would operate from the building and live through the project was engaged at the outset and brought a significant level of ownership. This was essential to the design of building, structuring of the project as well as providing industry insight. They enabled access to end users in terms consultation and feedback to ensure the facility provided a fit for purpose environment. Also, as owners of the project it brought a further level of ownership and responsibility in delivery.

#### **5.2.3 A delivery focused project manager and project support, ideally dedicated to project delivery, are crucial in maintaining compliance, momentum, and continuity.**

The project had a project support officer from the outset which kept work progressing, undertaking of valuable research, and providing valuable administrative support. Project Managers need to have the capacity and support to be able to deliver. This was challenging for the Project Manager as they were also running other projects and a day to day service. The Project Manager equipped themselves well with this project setting an effective culture through all phases of the project.

#### **5.2.3 Effective risk management, including a costed risk register.**

The project had a large number of significant risks and issues which were dealt with and addressed effectively by the project board and project team. They were reviewed at each project board meeting and systematically closed down. The main area for improvement would be to have developed costed risk registers



where appropriate; for example, items listed as exclusions in the cost plan to assess the contingency sum and inform optimism bias in terms of the overall budget.

#### **5.2.4 Early involvement of enablers like procurement, legal and finance.**

The project brought on board at the outset all key support services to enable them to have input into enabling and developing the project. This was valuable in terms of guiding procurement choices, the business case, legal advice, design development, maintenance implications. It is critical they have early sight of the project.

#### **5.2.5 Simplified financial management for projects.**

One of the challenges of the scheme was keeping track of the forecast outturn, as a multiphase scheme with overlapping phases and the timelag in surveyors agreeing valuations. Corporately an issue over the Council's partial VAT exemption had to be contended with and whether the project would become liable for VAT. This changed as the project progressed adding complexity to forecasting the outturn, the budget, and the business case. This is as much of a resource issue in terms of monitoring finances, ensuring projects take account of corporate financial implications as well having simplified and frequent reporting for projects. Significant effort was made by the finance team in obtaining advice on the Council's partial VAT exemption.

### **5.3 External partners**

#### **5.3.1 Ensure all roles and responsibilities are clear and maintained**

Roles, responsibilities, and scope were generally well defined at the outset of the project. As the project developed and choices were made about the scheme and a review of the scope of appointments would have been beneficial to ensure all requirements were met at key stages. Some additional design works in relation to the Structural and Civil engineering design elements which were originally out of scope had to be added part way through the project.

#### **5.3.1 Define scope as fully as possible be very clear about exclusions and understand the implications – changes later cost time and money**

This relates to the above. The scope was again generally well defined and signed off at key stages where decisions were made such as rebuilding and not refurbishing. Again, at key stages, a check of the scope, responsibilities, and exclusions would be beneficial. The consideration of exclusions is the paramount point, where costed risk registers mentioned above would be a useful tool to mitigate risk and assess cost/business case implications.

#### **5.3.2 Include optimism bias in planning - overlapping phasing and time overruns will inevitably impact cost and quality**

The aim of adjusting for optimism bias is to provide a more realistic assessment of the initial estimates of costs, benefits, and time taken to implement a project. The project utilised this thinking throughout the project through challenge at project boards, budget planning, development of the temporary facilities, and premarket engagement.

It is a skill that most people naturally use in projects however there can be tendency to be over optimistic on cost and outcomes. There is supplementary guidance available in the HM Treasury Green book that can quantify the assessment of optimism bias for capital and operating costs, and, programme based on data from past projects and should be considered as tool for future projects. <https://www.gov.uk/government/publications/green-book-supplementary-guidance-optimism-bias>

### **5.3.2 Early engagement with suppliers pays dividends and good communication should be responsive and two way.**

This was a key success of the project, a number of premarket engagement exercises were undertaken to obtain feedback from suppliers and contractors and to enable them to look at the project raise questions and technical issues. This was then able to be used to inform design, specifications, phasing, and enabled successful procurement exercises with good interest from the market. The subsequent appointments were productive, had buy in and commitment to the project. The project had a positive culture and the Council was perceived as good client to work for.

### **5.3.3 Improve Project and Programme Management information management and document sharing with suppliers (e.g. Dropbox)**

This is a technical issue for the Council to consider in terms of transferring drawings, large file sizes, version control when working with multiple external suppliers. Aside from the Council providing relevant ICT infrastructure or access to 3<sup>rd</sup> party platforms managed by supplier a system a project protocol should be agreed as to what system(s) will be used for the project.

Building Information Modelling (BIM) is a tool that should now be used for public sector projects. BIM is a process for creating and managing information on a construction project across the project lifecycle. One of the key outputs of this process is the Building Information Model, the digital description of every aspect of the built asset. This model draws on information assembled collaboratively and updated at key stages of a project. Creating a digital Building Information Model enables those who interact with the building to optimize their actions, resulting in a greater whole life value for the asset.

The Council will need to consider its approach to adopting this and the system, skill and cost requirements this will bring. It can be a successful tool particularly in new builds but not mitigate everything it is purported to achieve in design. Significant cost would be incurred on surveys of existing buildings to facilitate this.

### **5.3.4 Implement assurance and reviews to ensure the opportunity to reflect is built into plans.**

Currently the council is developing its approach to Project Assurance. For instance, there is no formal documented Post Project Review process, this needs developing to support successful delivery of projects. The project was under constant review by Project Board and Major Projects Programme Board and the

project went through a number of key decisions/gateways. There is room to improve this area through the establishment of a corporate approach and process to assurance.

### **5.3.5 Despite doing everything right some things can still go wrong**

Despite all the planning, controls, resources, and commitment the project had in place things can still go wrong as evidenced by the error in stack height calculation. Projects of this scale go through tens of thousands of decisions by the time it is completed, and this underlies the importance of fully resourcing schemes, and having an effective project culture to address issues and problems.

## **6.0 Financial Implications**

- 6.1 The project has been delivered within the overall capital budget (which included an element for VAT). The main construction cost of the project would otherwise have been £906,508 overspent, the reasons for which are discussed throughout the main body of the report.
- 6.2 Money was put into the budget pressures reserve to cover anticipated lost income, this was not needed so has been made available for other uses.
- 6.3 The final cost has yet to be fully finalised while outstanding commitments are implemented such as bat surveys, and remedial signage. The final account with the main contractor is agreed. The final cost will be reported through the Council's capital monitoring programme and regular financial reporting to Councillors.
- 6.4 The length of payback has increased by 4.5 years due to the construction cost increasing over the original business case. The internal rate of return (IRR) is 0.37% higher than forecast, with an additional £3.1 million net revenue over a 30-year period as set out in table 2. This net revenue increase is largely due to the success of the temporary facilities with £1.3 million more net income being derived than forecast.

## **7.0 Legal Implications**

- 7.1 This project demonstrates the importance of having the correct governance in place around major projects being delivered by the Council, this includes early involvement of key enablers (legal, finance, and procurement), a project board with clear terms of reference and effective members as well as risk management processes. There are no legal issues arising from this report.

## **8.0 Human Resource Implications**

- 8.1 There are no human resource implications arising from this report

## **9. Key Risks**

- 9.1 There are no risks arising from this report

## **10. Consultation**

- 10.1 Post project review workshops with Project Board and External Suppliers

## **11. Suggested issues for overview and scrutiny**

- 11.1 The Overview and Scrutiny committee is asked to consider the following

- a) To note the account of the project from start to finish.
- b) To consider and progress the learning from this project.
- c) To make any recommendations to the Executive it considers appropriate.

## **12. Conclusions**

- 12.1 The rebuilding of Guildford Crematorium has been a complex project but successfully delivered. Throughout the project the Council sustained its bereavement service with no adverse impact and did not suffer any revenue losses. The business case has been delivered and the service can now continue the roll out of further options around memorialisation over the coming years to improve the service offer.
- 12.2 The council has invested in a first-class facility to serve our community for years to come and the building and improvements have been well received by staff and the community.
- 12.3 The project management and governance arrangements have been effective. The learning points in section 5 are worthy of consideration for future projects. It cannot be stressed how resource intensive such projects are and the time commitment to enable delivery.

## **13. Background Papers**

<https://www2.guildford.gov.uk/councilmeetings/ielIssueDetails.aspx?IId=3228&PlanId=0&Opt=3#A12956>

## **14. Appendices**

Appendix 1 – Guildford Crematorium Stack Discharge Height Error Internal Investigation (Part 2 exempt) appended. NOT FOR PUBLICATION