

SCOTTISH HOSPITALS INQUIRY

Witness Statement of

RICHARD CANTLAY

In response to Rule 8 Request dated 7 March 2022

28 March 2022

Preamble

The Inquiry has agreed I will present evidence as a witness for Mott MacDonald Limited that includes incorporating answers provided to the Inquiry's written questions to witnesses. This has involved incorporating sections of both David Stillie and Andrew Scott's responses into my statement where applicable.

Professional background

1. I am Richard Cantlay, aged 47 years. My address for the purposes of this inquiry is c/o Clyde & Co (Scotland) LLP, Albany House, Albany Street, Edinburgh, EH1 3QR. I graduated from Aberdeen University in 1996 with BEng degree in Civil Engineering and upon leaving university, began employment with a Civil Engineering contractor in Glasgow. In 1998 I left that company and took up employment at Mott MacDonald Ltd, where I have remained ever since. I have been a chartered civil engineer since 2001.
2. On commencing employment at Mott MacDonald I undertook three years working in engineering design and other areas of engineering work. I worked on a whole range of engineering projects such as power stations in Dubai and road surveys in Argyll and Bute.
3. In 2001, I became involved in Public-Private Partnership ("PPP") projects, working in an advisory capacity. I worked on a whole range of projects as a technical advisor for procuring

bodies. The main focus of my work ultimately became healthcare PPP projects. I carried out work in England and also on the Forth Valley Royal Hospital, which opened in 2010 under Private Finance Initiative (“PFI”). When I started working on the Royal Hospital for Children and Young People and Department of Clinical Neurosciences (RHCYP/DCN) project in 2011, I had had 10 years of experience working on PPP projects as a technical advisor behind me.

Overview

4. In this statement I will provide answers to questions posed in the Rule 8 request dated 7 March 2022 and adopt the headings set out in the 28 March 2022 Rule 8 request, as follows:
 1. Overview of Mott MacDonald role in project
 2. Individuals involved, working on behalf Mott MacDonald
 3. Parties sub-contracted by Mott MacDonald
 4. Mott MacDonald role in business case
 5. Technical advice provided by Mott MacDonald
 6. Governance and decision making
 7. Site constraints
 8. Switch to Non-Profit Distribution Model (“NPD”)
 9. Reference Design
 10. Design Assurance / NHS Design Assessment Process (“NDAP”)
 11. Other relevant issues

Overview of Mott MacDonald role in project

5. My understanding of the role played by Mott MacDonald Limited (MML) in the project is set out below;

2.1 Project Background

In order to answer this question, it is thought useful to explain, at a high level, the chronology of the project and the MML contracts. In responding to this request the answers given are necessarily limited to MML's own knowledge and documents in its possession. MML may, when other parties have provided documentation, wish the opportunity to provide supplementary information and answers. Copies of the contracts referred to below have been provided to the Inquiry. However, MML may not hold complete copies of all documents. The versions provided are those held by MML.

2.1.1 Chronology

2008 NHSL Board approved a capital funded business case for a Children's Hospital

04-Feb-10 MML Supervisor appointment (first appointment)

17-Nov-10 Removal of capital funding Jan 2011 Move to NPD

08-Mar-11 BAM Capital Design Team retained

22-Mar-11 MML NPD appointment (second appointment)

14-Apr-11 TG Sub Consultancy Agreement issued for Signature

14-Apr-11 TT Sub Consultancy Agreement issued for Signature

27-Apr-11 DL Sub Consultancy Agreement issued for Signature

11-Jul-11 Change Control Order issued to appoint Reference Design Team

23-Mar-12 Reference Design Complete

12-Mar-13 Invitation to Participate in Dialogue ("ITPD") under Contract Notice Ref: 386758-2012 issued to Bidders

13-Jan-14 Final Tender Submission

05-Mar-14 Appointment of IHSL as Preferred Bidder

13-Feb-15 Financial Close

2.1.2 First Appointment - MML / NHSL Supervisor Contract (NEC3)

MML's appointment is dated 04 February 2010 and is known as The Agreement, Contract and Scope of Services for the appointment of a Supervisor, between Lothian Health Board and Mott MacDonald Limited ("the First Appointment").

During the capital phase concept design, MML's role was as NEC supervisor. This role would typically occur in the construction phase to check for compliance in accordance with the Scope and check for Defects. During the early design phase, MML undertook additional duties such as supporting the production of the Works and Site information and supporting the development of the Employer's Works Information.

In addition to the MML NEC Supervisor role, MML understands that Davis Langdon was appointed separately by NHSL as the NEC Project Managers. MML also understands that BAM were appointed as the Principal Supply Chain Partner, and the following were involved as BAM's design team:

- Nightingale Associates (Concept Architects)*
- BMJ Architects (Clinical Architect)*
- Hulley & Kirkwood (Services Engineer)*
- Arup (Civils, Structural, Traffic and Transport, Acoustics and Fire Engineering)*
- Tribal (Health Planners).*

MML had started to provide services under the First Appointment when, in 2011, capital funding for the project was removed, and the project migrated to an NPD procurement model. Thereafter the second appointment was entered into.

2.1.3 Second Appointment - MML / NHSL Advisory Service Contracts (NPD)

MML's appointment is known as RHSC DCN Contract between Lothian Health Board and Mott MacDonald Limited – Order Number NM66866 dated 22 March 2011 ("the Second Appointment")." Reference to the Second Appointment can be found in Annex 1 – Part 2 (Ref 11).

MML entered into a sub-contract with Davis & Langdon as Project Managers, who in turn subcontracted the Reference Design Team which included:

- *Nightingale Associates (Concept Architects)*
- *BMJ Architects (Clinical Architect)*
- *Hulley & Kirkwood (Services Engineer)*
- *Arup (Civils, Structural, Traffic and Transport, Acoustics and Fire Engineering)*
- *Tribal (Health Planners). In relation to Tribal/Capita, they were contracted directly to MML as per 2.3.2. of the Project Execution Plan (and the organisational chart provided to MML's witnesses in the Inquiry's bundle.*

In addition to the above, MML also entered into a sub-contract with Thomson Gray for cost advisory services, and Turner and Townsend for health and safety advisory services.

During the pre-procurement phase, MML's role initially involved developing technical components of the OJEU Notice and Pre-Qualification Questionnaire Evaluation; developing the technical components of the Invitation to Participate in Dialogue ("ITPD"); and participating in the Competitive Dialogue process. MML's role is expanded further in the sections below.

Under the MML Contract, MML was appointed as Technical Advisor (TA). In MML's experience, the role of a procuring body TA in an NPDP / PFI contract does not typically involve undertaking any design, or assuming any design responsibility. This is dependent on the definition of 'design' as a procuring body TA may carry out exemplar designs but these are provided for information purposes only.

On this particular contract, MML's sub-consultants did undertake some outline design services in relation to the Reference Design only, during the pre-procurement stage. Those outline design services are discussed in more detail in section below. MML did at times carry out a limited review of elements of the design as and when required. However MML was not the project designer, nor

did MML provide any design audit service. MML did not undertake a shadow design, or validate or approve the design by others. At the end of the MML Contract is a spreadsheet entitled Technical Advisor Scope 17 March 2011 – v12. This sets out the roles up to financial close of:

- *MML*
- *Davis Langdon*
- *Thomson Gray; and*
- *Turner & Townsend.*

The spreadsheet stipulates which party was leading, supporting, or reviewing. There were also some services listed in the MML Contract that MML did not provide through agreement with NHSL.

Contract Control Orders ("CCOs") were agreed throughout the duration of MML's involvement to update the services to be provided by MML to NHSL under the MML Contract. The CCOs were classified as additional work; clarification of present scope of work; variation of existing work; or release of work previously on hold. Copies of the CCOs have already been provided to the Inquiry in (Bundle 5, doc 1, doc 5, doc 15)

Individuals involved, working on behalf Mott MacDonald

6. The Project Execution Plan (Bundle 3, vol.2, doc 55, p.488) sets out the roles of people within the project. A table of key personnel was also provided on page 3 and Annex 1 of MML's response to Part B of the Inquiry's First Request for Information which is exhibited below. I agree with the list of personnel in the exhibit.

- Capital Project Stage (From Feb 2010)-
 - MML Project Manager: Andrew Duncan
 - MML Project Director: Andrew Oldfield
 - MML Technical Advisor: N/A
- MML's Appointment as Technical Adviser (from June 2011)
 - MML Project Manager: Andrew Scott (Retired) then Kenny Falconer (Left MML) from August 2012 until he left MML in 2013

- MML Project Director: Alistair Cowan (Retired)
 - MML Technical Advisor: Andrew Scott (Lead Technical Adviser), David Stillie (Technical Adviser)
 - MML Lead NPD Procurement Adviser: Richard Cantlay
 - MML's Appointment as Technical Adviser / Tender Evaluation (from June 2013)
 - MML Project Manager: Graham Greer
 - MML Project Director: Richard Peace
 - MML Technical Advisor: Andrew Scott (Lead Technical Adviser), David Stillie (Technical Adviser)
7. David Stillie has confirmed the following to me: MML were involved in writing the initial brief for the capital project. It was design/build contract and this initial brief eventually became the basis for the construction output specification for NPD. The Project Manager ("PM") on the capital project was Fraser McQuarrie of Davis Langdon, who were sub-contracted by MML. It is important to note that Davis Langdon were only sub-contracted by MML once it became a NPD project. Fraser continued through the reference design stage and later joined MML.

Parties sub-contracted by Mott MacDonald

8. As set out at paragraph 2.3.2 of the Project Execution Plan (Bundle 3, vol.2, doc 55, p.502), the following parties were sub-contracted by MML:
- Davis Langdon - Project management, reference design, facilities management and procurement.
 - Turner & Townsend - Construction and Design Management (CDM) coordinator.
 - Thomson Gray Partnership - Costs consultants
 - Capita - Health planner.

9. In particular, Davis Langdon were responsible for the reference design management and coordination (as confirmed in the Project Execution Plan, at paragraph 2.5.1.3) (Bundle 3, vol.2, doc 55, p.505). They were also Project Manager, responsible for the overall management and coordination of the workstreams (Project Execution Plan, at paragraph 4.1) (Bundle 3, vol.2, doc 55, p.517).
10. The reference design team were not party to any commercial discussions. As set out in the Project Execution Plan at paragraph 2.6.2 (Bundle 3, vol.2, doc 55, p.507) their activities were "ring fenced" by an ethical barrier. This was to mitigate the risk of the reference design organisations joining bidders' teams and having knowledge around the commercial or procurement components of the project, which other designers not involved in the reference design would not have.
11. The reference design team was appointed by means of Contract Control Order 2, dated 11 July 2011 (Bundle 5, doc 1, p.4)], and was comprised of a number of parties, sub-contracted to Davis Langdon as follows:
- Boswell Mitchell Johnson - Architectural services.
 - Nightingale Associates - Architectural services.
 - Hulley & Kirkwood - Building services engineering.
 - Arup – Civil and structural engineering services.
 - Montagu Evans – Planning.

These are set out in the organograms at paragraph 2.4 of the Project Execution Plan (Bundle 3, vol.2, doc 55, p.502).

Mott MacDonald role in business case

12. MML did not draft the business cases, but in the course of fulfilling their contractual obligations, MML provided technical input which might ultimately have been used in the Outline Business Case (OBC) and Final Business Case (FBC). For instance some sections in the business case might be copied or drafted from other documents we had been involved in producing. By way of example, Section 1.71 might have pulled the key dates from a programme we had developed; Section 2.94 may have pulled text from some of our technical reports; and Sections 6.8 to 6.27 might have pulled in text from some procurement papers we had drafted or contributed to.

13. A number of the appendices to the OBC are documents we fed into, such as the Draft OJEU Notice (Appendix 20), OB forms (Appendix 17). These were documents prepared for the project but are then included in the OBC as supporting information. As set out in Section 2.6.9 of the Project Execution Plan (Bundle 3, doc 55, p.511) the Business Case workstream comprised the NHSL Finance Project Manager, NHSL Capital Planning Project Manager and EY Financial Adviser, who would call on Technical Advisor workstream leads as required.

14. Therefore, MML was not drafting the OBC, however, information MML had produced may have ended up being used by the business case authors. I'm not aware of MML having any role in reviewing the OBC. NHSL had ultimate ownership of and responsibility for the business case.

15. Davis Langdon undertook specific drafting in respect of the business cases, having been appointed to do so by means of Contract Control Order 8 dated 9 August 2011 (Bundle 5, doc 5, p.43), this was limited to specific risk, contractual and project management sections and a minimal input.

Technical advice provided by Mott MacDonald in the period up to the commencement of the procurement exercise

16. MML were the appointed Technical Advisors and their role up to the commencement of procurement. The role of MML which can be summarised as:

1. technical input to the procurement process preparation including advice on how to design the procurement from a technical perspective (e.g. technical dialogue requirements, technical evaluation criteria etc.) and drafting of technical components of the procurement documents; and
2. drafting of the technical components of the contract documentation including the output specification ((Board's Construction Requirements) for which MML were the lead author for Sections A-C and E.

17. Following the decision to use a reference design, which was a decision taken by NHSL, MML also provided technical advice regarding the use of the reference design. This included MML's advisory paper on Reference Design Development, drafts of which are included in the Inquiry Bundle (Bundle 3, vol.2, doc 40, p.356). The aims of these papers (Bundle 3, vol.2, doc 40, p. 359-371) included setting out the reasons for preparing and the purpose of a reference design; outlining the level of detail required for a reference design; outlining the distinctions between mandatory and non-mandatory elements of the reference design; the application of reference design during competitive dialogue; and outlining the development of the reference design.

18. MML provided some limited advice to NHSL on the NPD/PPE/PFI procurement process as mentioned in paragraphs 10 and 16. As MML were involved in discussions about evaluation criteria and how the tender process would be run, an ethical barrier was put in place between the reference design team and the rest of the Mott MacDonald team advising on the procurement process since we didn't want any of the design team being exposed to these conversations as they were potentially going to be joining bidding consortia and it would be inappropriate to have inside knowledge of procurement process.

19. David Stillie confirmed to me that, with input from MML Building Services team, he prepared the initial brief for the capital project and this was still in development with NHSL and BAM

when capital funding was withdrawn. It became the basis of the Board's Construction Requirements (BCRs) and was developed by other members of the MML team including, Andy Duncan. David Stillie also assisted with reviews of the floor plans and managed the sign-off of the architectural (layouts and equipment) for the Key and Generic Rooms.

20. The adoption of the reference design was part of the requirements for the NPD model and NHSL were adopting SFT guidance. As Technical Advisors MML worked collaboratively in identifying how to use the reference design as a procurement tool and present it in a way that wouldn't cut across PPP/NPD procurement processes and risk profile.
21. I would describe the business case process as collaborative, however, would stress that NHSL had ultimate ownership and responsibility for the business cases.
22. David Stillie was asked to confirm any involvement on the part of the Scottish Government for technical advice up to the procurement exercise but he confirmed he does not recall any. He believes there was involvement from Scottish Futures Trust ("SFT") at different stages but not at a level in which he was involved since the technical workstreams were developed quite separately from the procurement, administrative and contractual side of things.

Governance and Decision making

23. I understand that NHSL made the decision to build the new hospital. I do not have any further knowledge of the background as this decision was taken many years before I was involved in the project. I also understand it to be the case that NHSL were responsible for selecting the site. Again, this was a decision made years before my involvement in the project.
24. I understand that the Scottish Futures Trust ("SFT") took the decision over which funding model should be utilised. SFT and the Scottish Government were responsible for making decisions relative to procurement, such as the decision to move from a capital funded to a revenue funded model of procurement. MML were not involved in the decision making process

25. SFT and NHSL were responsible for making the decision to proceed with the reference design approach. The use of reference designs in NPD procurement was a policy decision by SFT in order to change the previous approach used for revenue funded projects under PFI/PPP model. I do not recall how this was communicated to MML but presume it was a verbal briefing. This aligned with NHSL's desire to ensure that the prior two years of design work on the project, which had been completed by BAM, was not wasted in its entirety. NHSL asked MML to consider how the work could be used, that is to say how the work which had been done by BAM could be finalised and turned into a Reference Design. MML provided this advice via advisory papers – an initial early draft is contained at ("Advisory Paper 02: Reference Design Development", dated 7 February 2011) (Bundle 3, vol.2, doc 40, p356). The issue of how to use the Reference Design was debated at length over many months and was finalised as Version H in May 2012 (Bundle 3, vol.2, doc 68, p.898). The paper was evolved through a number of iterations and a final version.

26. The governance arrangements for the delivery of the project are set out in line with MML's externally accredited Business Management System. I am obliged to add the caveat that this only relates to MML's service delivery and not the overall project. Every commission MML undertakes has a Project Director and a Project Manager, who are responsible for the application of the Business Management System. Andrew Scott has confirmed the MML Project Director was Alistair Cowan and subsequently Andrew Oldfield. The Project manager was initially Andrew Scott, then, Kenny Falconer and later Graeme Greer. I acted as liaison and Strategic Technical Adviser at a senior level in the project. Below was a virtual army of bodies. I refer again to paragraph 6 of my statement.

With regards the governance procedures of NHSL my understanding is that as a public body they have their own internal governance clearly set out. MML's understanding of that in relation to how it was applied to the project is set out in MML's Project Execution Plan, (Bundle 3, vol.2, doc 55, p.501). The governance procedures for the Scottish Government is through the business case process. I am aware of discussions around the need for NHSScotland Design

Assessment Process (“NDAP”) reviews given the timing of the project and there was a meeting to discuss the matter held on 20 January 2012 which was attended by SFT, HfS, A+DS and the Scottish Government. No clear way forward came out of the meeting.

27. David Stillie has confirmed the following to me: there were also design checks undertaken via the AEDET process. AEDET is an acronym for Achieving Excellence Design Evaluation Toolkit, and is a review undertaken by users of the design. The first AEDET Review was undertaken on 12 August 2011, as referred to in the minutes of the design team meeting dated 2 August 2011 (Bundle 5, doc 3, p.35). This was referenced in the Atkins report, which was a design review carried out by SFT, of 12 December 2011 included in (Bundle 3, vol.2, doc 57, p.636). Details of a further AEDET Review in March 2012 are attached at (Bundle 5, doc 14, p.82). A workshop (Workshop 2 in the SFT Protocol), led by SFT, was held on 24 August 2011 and is referenced in the Atkin’s Report Item 1.3.4 in (Bundle 3, vol.2, doc 57, p.580).

28. SFT and the Scottish Government were responsible for making decisions relative to procurement, such as the decision to move from a capital funded to a revenue funded model of procurement. MML was not involved in the decision to migrate to the NPD revenue funded contract from a capital funded NEC 3 contract. MML did not draft the Initial Agreement or the business cases, but in the course of fulfilling their contractual obligations, MML provided technical input which might ultimately have been used in the Outline Business Case and Final Business Case.

29. MML understands that Davis Langdon (now AECOM) provided initial drafting and review of the Risk, Contractual, and Project Management sections of the Outline Business Case. This was agreed in email correspondence between Davis Langdon and NHSL on 4 July 2011 and formalised in Contract Control Order 8 dated 9 August 2011 (Bundle 5, doc 5, p.43).

30. In regards to the decision making on proceeding with the reference design approach, these decisions were made by SFT and NHSL. The use of the reference design approach in NPD procurement was a policy decision by SFT in order to change the previous approach used for

revenue funded projects under PFI/PPP model. This aligned with NHSL's desire to ensure that the prior two years of design work on the project, which had been completed by BAM, was not wasted in its entirety. NHSL asked MML to consider how the work could be used, that is to say how the work which had been done by BAM could be finalised and turned into a reference design. MML provided this advice via advisory papers – an initial early draft is contained at (Bundle 3, vol.2, doc 40, p356) ("Advisory Paper 02: Reference Design Development", dated 7 February 2011). The issue of how to use the Reference Design was debated at length over many months and was finalised as Version H in May 2012 (Bundle 3, vol.2, p.898). The paper was evolved through a number of iterations following the agreement to adopt the reference design. I have been asked why this continued to be adapted after the decision was made to adopt the reference design. Although the decision had been made there was then the task of presenting the design and this evolved a number of times prior to submission of finalised version.

Site constraints

31. I am aware of the fact that there were site constraints encountered by NHSL at the initial planning stages, however the project was developed for a number of years before I was involved. These site constraints were progressed through the reference design team during my time working on the project, however, there was an ethical barrier in place between myself and the design team. I was not involved in discussions around site constraints or contractual issues with Consort and therefore my understanding is around the principles only. I understood that the problems included the site being on an operational hospital site; a requirement for alterations to the existing operational site to accommodate the new build and the need for a physical connection and the existing hospital having a PFI operator. I have no knowledge on how the issues were ultimately resolved between NHSL and Consort. From my own viewpoint this was one of the most complicated projects I have ever seen attempted, due in part to the operational site, PFI operator and alterations that were needed.

Switch to Non-Profit Distribution Model ("NPD")

32. The decision to switch to the NPD model of funding was taken by Scottish Futures Trust (“SFT”) and the Scottish Government. The decision to incorporate the Department of Clinical Neurosciences (“DCN”) as part of the project was taken by either NHSL or SFT.
33. In January 2011 following the switch to NPD and adoption of the reference design, MML were tasked by NHSL with amending the design that BAM had prepared to reflect the new scope (inclusion of DCN), which was carried out via a subcontracting arrangement with the BAM design team. This was a further iteration of BAM's work. This approach was taken to avoid losing the value of the design which NHSL had paid for and to be able to present a reference design to the bidders to avoid them starting from the start of the design process. SFT wished for NPD procurement to utilize the use of a reference design as an evolution of how PPP/PFI projects were procured.
34. MML were not involved in the decision to switch to NPD, in any capacity.

Reference Design

35. I have been asked to explain the difference between an exemplar design and a reference design. An exemplar design is an example of a solution. A reference design is where certain aspects of the design will be retained. It applies a mandatory component. The difference is set out in MML's draft Advisory Paper 02: Reference Design Development (Bundle 3, vol.2 doc 40, p.360) as follows:

Design type	Definition
Exemplar design	A design developed by the procuring authority that represents one example or solution to the output specification.
Reference design	A design developed by the procuring Authority that represents a specific solution to the output specification, the key features

	(potentially other areas) which the procuring authority wish to see in the final design.
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36. An exemplar design and a reference design represent a springboard for the bidders to develop their own designs, however the level of fixity and prescription in the case of a Reference Design is greater. Sections 4.1 and 7.3 of MML's paper "Approach for Reference Design" (Bundle 3, vol.2 doc 68, p.913 and p.925) set out the aspects of the reference design which NHSL wished to see in the final design as the mandatory elements, those relating to the operational functionality of the facility (as defined in 1:500 interdepartmental layouts, 1:200 layouts and 1:50 generic and key room layouts).

37. The decision to adopt a reference design approach was taken in or around January 2011, following the decision to switch to the NPD model. MML was not involved in the decision to adopt the reference design. NHSL made that decision, which aligned with SFT guidance for the use of reference designs in NPD procurement.

38. MML entered into a sub-contract with Davis Langdon to undertake the reference design, and Davis Langdon in turn sub-contracted the designers from the Capital phase of the project. The Reference Design Team was appointed in Contract Control Order 2 dated 11 July 2011 (Bundle 5, doc 1, p.4).

39. MML's role in the development of the reference design was limited to contractually facilitating the appointments, and then, from a project management perspective, including the information produced in the ITPD with a description of how the reference design was to be used by bidders.

40. MML had a role in respect of facilitating production of the reference design by the reference design team. In terms of facilitating production of the reference design by the reference design team, David Stillie confirmed to me that he chaired meetings, and was present at Edinburgh Council planning meetings as well as other meetings on key and generic rooms from an architectural point of view. David Stillie does not think any MML personnel chaired design team

meetings or were present at equipment meetings. David Stillie confirmed to me that the architectural design was undertaken by Nightingales and BMJ, the structural design by Arup and the M&E design work was done by Hulley + Kirkwood. David Stillie's remit was the architectural inputs (not design nor approval). His role was to ensure that the preparation of the reference design proceeded on programme and on a day to day basis to advise the NHSL team on any architectural issues as the design progressed.

41. The decision to utilise the reference design for the project was made by NHSL as this was a requirement of the NPD funding model and of SFT. MML's first task was to assist NHSL in considering how to use the design and advising them accordingly. The second task was to advise them on what further work was needed to the BAM design to turn it into the design required. The third task was developing the design further. This was a pathfinder NPD project, and the use of a reference design was a new approach in Scotland, though it was being used in other areas of the UK such as Northern Ireland. The Reference Design Advisory paper sets out the further work required on the design and why it was needed, being the fact that the BAM design was incomplete and reflected only part of the project, it had a strong design and build emphasis and it reflected BAM construction preferences.

42. It is my understanding that a firm called Tribal contributed healthcare planning during the BAM contract although I was not involved in that. This firm later became part of Capita who were retained as healthcare planners by NHSL up to the commencement of the procurement process. At this stage of the process, where the majority of the healthcare planning had been done, the ongoing role was to provide any advice in relation to healthcare planning issues as they arose.

43. MML later produced the Approach to Reference to Design paper, as set out at paragraph 30 which set out which aspects of the Reference Design would be mandatory and which would be indicative, relevant to risk allocation in the overall project agreement. It is important to note the advisory paper was about how to use the Reference Design in the procurement process.

The approach to Reference Design was how to use it and the Reference Design could pre-date it. The two things are unrelated.

44. The adoption of the reference design was a new approach in Scotland as normally, under PFI/PPP projects, an exemplar design is prepared. However it was already happening in some UK areas and it was not unusual in my experience. The industry had been using PPP since 2000 and had gone through this journey with some projects taking too long, or the situation where you had three bidders developing designs with only one bidder being selected. The use of the reference design would look to speed up and reduce costs in revenue funded procurement and seen as a natural evolution of the PPP process. By adopting a reference design with mandatory elements it would shorten the procurement process, reducing costs and avoiding confusion for stakeholders.
45. I have been asked to explain my understanding of the mandatory elements within the reference design. Mandatory elements of the design mean that they must be adopted. For the purposes of RHCYP/ DCN, the mandatory elements were all information which defined Operational Functionality, as indicated in Interdepartmental Layouts (1:500), Departmental Layouts (1:200) and Room Layouts (1:50) for Key and Generic Rooms. The ITPD definition states: Mandatory Reference Design Requirements has the meaning given to it in paragraph 2.5 (Reference Design and Mandatory Reference Design Requirements) of Volume 1 of the ITPD. The bidders were responsible for confirming whether the mandatory requirements complied with the BCR's (see page bundle 3; volume 3; page 198) and appendix E of the ITPD does not specify the Environmental Matrix as mandatory. Paragraph 2.6 of the ITPD (bundle 3; volume 3; pages 200-201) contains the indicative elements of the Reference Design. It describes it as a by-product of information from preparing the reference design and as a general project requirement. At the building services engineering solutions section it expressly states it is for information purposes only and intended to assist the bidders to inform the intent of the reference design and the bidders were advised to refer to the BCR's.
46. Operational Functionality was defined in the Project Agreement as follows:

- 1) the following matters as shown on the 1:500 scale development control plan and site plans;
 - a) the point of access to and within the Site and the Facilities;
 - b) the relationship between one or more buildings that comprise the Facilities; and
 - c) the adjacencies between different hospital departments within the Facilities, as indicated on the following drawings in Section 4 (Project Co's Proposals) of Schedule Part 6 (Construction Matters)

- HLM-Z0-00-PL-700-020 Rev 6;
- HLM-SZ-B1-PL-400-400 Rev 2;
- HLM-SZ-00-PL-400-400 Rev 3;
- HLM-SZ-01-PL-400-400 Rev 2;
- HLM-SZ-02-PL-400-400 Rev 2;
- HLM-SZ-03-PL-400-400 Rev 2;
- HLM-SZ-04-PL-400-400 Rev 2;

- 2) the following matters as shown on the 1:200 scale plans:
 - a) the points of access to and within the Site and the Facilities;
 - b) the relationship between one or more buildings that comprise the Facilities;
 - c) the adjacencies between different hospital departments within the Facilities; and
 - d) the adjacencies between rooms within the hospital departments within the Facilities, as indicated on the following drawings in Section 4 (Project Co's Proposals) of Schedule Part 6 (Construction Matters)

- HLM-SZ-00-PL-220-001 Rev 6;
- HLM-SZ-01-PL-220-001 Rev 6;
- HLM-SZ-02-PL-220-001 Rev 6;
- HLM-SZ-03-PL-220-001 Rev 6;
- HLM-SZ-04-PL-220-001 Rev 6;
- HLM-SZ-06-PL-240-001 Rev 5;

- HLM-SZ-B1-PL-220-001 Rev 7;
- HLM-Z5-SL-PL-220-001 Rev 6;

3) the quantity, description and areas (in square metres) and minimum critical dimensions of those rooms and spaces as indicated on the following drawings in Section 4 (Project Co's Proposals) of Schedule Part 6 (Construction Matters)

- HLM-SZ-00-PL-220-001 Rev 6;
- HLM-SZ-01-PL-220-001 Rev 6;
- HLM-SZ-02-PL-220-001 Rev 6;
- HLM-SZ-03-PL-220-001 Rev 6;
- HLM-SZ-04-PL-220-001 Rev 6;
- HLM-SZ-06-PL-240-001 Rev 5;
- HLM-SZ-B1-PL-220-001 Rev 7;
- HLM-Z5-SL-PL-220-001 Rev 6;

4) the location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans in respect of:

- a) all bed and trolley positions;
- b) internal room elevations;
- c) actual ceiling layouts;
- d) the Non-Clinical Services supplies, storage, distribution and waste management spaces; and
- e) the ICT requirements;

5) the location of and the inter-relationships between rooms within the departments within the Facilities, as indicated on the following drawings in Section 4 (Project Co's Proposals) of Schedule Part 6 (Construction Matters)

- HLM-SZ-00-PL-220-001 Rev 6;

- HLM-SZ-01-PL-220-001 Rev 6;
- HLM-SZ-02-PL-220-001 Rev 6;
- HLM-SZ-03-PL-220-001 Rev 6;
- HLM-SZ-04-PL-220-001 Rev 6;
- HLM-SZ-06-PL-240-001 Rev 5;
- HLM-SZ-B1-PL-220-001 Rev 7;
- HLM-Z5-SL-PL-220-001 Rev 6;

but only insofar as each of the matters listed in (a) to (e) above relate to or affect Operational Use”.

This would not include the specific ventilation requirements. Bidders would have to comply with the BCRs.

47. This would not include the specific ventilation requirements. Bidders would have to comply with the BCRs

48. Within the reference design you would also have the non-mandatory elements. My understanding of this aligns with Section 4.2 of MML paper “Approach to reference Design” (Bundle 3, vol.2, doc 68, p.916).

49. The following were ultimately categorised as non-mandatory requirements at Section 2.6 of the ITPD and for Project Co, IHSL, to develop, including:

- FM goods handling and distribution
- Structural engineering solutions
- Building services engineering solutions
- Servicing strategies and space allocations; and
- Hard FM solutions and space allocations

50. The reference design approach was new in Scotland. Normally, under PFI/PPP, an exemplar design is prepared. However, the adoption of the reference design approach was already happening in some UK areas, such as Northern Ireland, and so I would not describe the approach as unusual.
51. The main driving factor behind the decision to adopt a reference design approach with so many mandatory elements was to shorten the PPP procurement process and reduce the money spent on having three bidders developing a different design. It reduced costs and avoided confusion for stakeholders. This was the first NDP project and therefore we were utilising the new approach of using a reference design – the intention of which was to mandate more elements. Each NDP project adopted a different approach depending on status of design and acceptability of it.

Design Assurance / NHS Design Assessment Process (NDAP)

52. In regards design assurance, which suggests that someone is independently checking the work of the design team, this does not happen through PPP/NDP model. As the whole point of this model is the transfer of the design risk through the contract. Therefore the only part of the design risk for NHSL would have been the Operational Functionality. Despite reviews undertaken by NHSL and SFT, the design responsibility and risk would sit with private sector partner. SFT did commission an independent design review, which was conducted by Atkins. I was aware of their involvement as per Andrew Scott's email of 23 August 2011 (Bundle 5, doc 6, p.47).
53. The reference design team had an obligation to check the reference design against the applicable guidance. To my knowledge Andrew Duncan at MML sent an email to Thomas Brady at Davis Langdon on 28 February 2012 (Bundle 5, doc 12, p.78) that stated *"There is an action on the Reference design team to confirm that the Reference Design complies with NHS guidance and key legislation. I attach the requirement schedule for each of the Reference Designers to respond to. We require a statement from each designer to confirm that the*

Reference Design complies with the Requirements Schedule. Should it not fully comply then each designer shall confirm that the Reference Design complies with the Requirements Schedule with a schedule of derogations." This email was forwarded on by Thomas Brady at Davis Langdon to the various sub-consultants asking them to provide a statement of compliance. This request was chased up the following day by Andrew Duncan at MML who asked for the statements of confirmation by 5 March 2012. This was again followed up by Andrew Duncan by email on 13 March 2012 (Bundle 5, doc 13, p.80). This in turn led to the derogations list prepared by the sub-consultants, dated 16 March 2012 (Bundle 5, doc 17, p.107).

54. This request was linked to the need for the reference design team to confirm compliance before they were freed up to join bidders (as set out in the Approach to Reference Design document) (Bundle 3, vol.2, doc 68, p.906). I have seen a copy of this compliance statement (dated 16 March 2012) (Bundle 5, doc 17, p.107) as issued via email from the reference design team to MML on 19 March 2012 (Thomas Brady to Andrew Duncan) (Bundle 5, doc 20, p.113). This compliance statement was a joint document from Nightingales, BMJ, Hulley & Kirkwood and Arup.
55. MML asked the reference design team to certify that their design complied, and identify any derogations. This had to be chased up and MML were told it was taking a while, however they did eventually receive certification on 16 March 2012. The designers would all have been responsible for their own design. The reference design team provided a statement of compliance but Project Co (IHSL) would be responsible for the final design since all design risk sits with them (with exception of those elements relating to Operational Functionality).
56. Following on from all of this, towards the end of the project MML requested confirmation from IHSL that the project complied with the relevant SHTMS and there were no derogations. This was provided to MML (via Brian Currie) from Wallace Weir, Project Co representative, on an IHSL headed letter dated 31 January 2019 (Bundle 5, doc 24, p.123) that stated: "*Construction: - All ventilation systems have been designed, installed and commissioned in line with SHTM*

03-01 as required, systems are maintained in such a manner which allows handover at actual completion to meet SHTM 03/01 standards. Operations: - All critical ventilation systems will be inspected and maintained in line with Scottish Health technical Memorandum 03-01: Ventilation for Healthcare premises”

57. I have been asked if a NHS Design Assessment Process (NDAP) assessment took place in respect of this project. MML had no involvement on providing any advice to NHSL in respect of NDAP process. I recollect prolonged discussion between July 2011 and February 2012 as to whether or not a NDAP was to be carried out on the project. The last correspondence I recollect seeing on the matter was an email dated 6 February 2012 from Thomas Brady (Davis Langdon), (Bundle 5, doc 8, p.61), which referred to a meeting between SFT / HfS / A+DS / Scottish Government on 20 January 2012 to discuss the NDAP assessment. From an email I received, dated 06 February 2012, David Stillie, MML, did make me aware that the meeting did take place however no clear way forward had come out of the meeting. He had spoken to Peter Henderson (Architect HFS) on 23 January 2012 who advised that everyone at the meeting appreciated that the project had been reviewed “to death”. The next action was for NHSL to agree a final position with SFT and I am not aware what the final position agreed was or whether a NDAP was carried out or not.

58. David Stillie has confirmed he has seen the minutes of meeting, dated 21 February 2012, (Bundle 5, doc 11, p.69) that states *"NDAP Review : MML confirmed that the meeting between SFT/HfS/A&DS/Scottish Government and that no clear way forward came out of the meeting. NHSL to move this forward with SFT."*

59. David Stillie has confirmed on 2 May 2012 he sent an email to Denise Kelly at Davis Langdon on 2 May 2012 (Bundle 5, doc 23, p.121), which stated: *"I have spoken with Peter Henderson at HFS who confirmed that the requirement for NDAP review on NPD projects has still to be discussed with SFT. However, he was of the opinion that, given the review by Atkins at OBC stage, there is no likelihood of further review until at least FBC stage and even that at the moment is doubtful. He agreed to take this up with SFT and A&DS but the focus at the moment*

is on the Community Care Facilities and the NPD Projects have not featured on recent agendas. Not sure this helps us put this to bed!" In response to this Brian Currie at NHSL stated on the same date by return: *"It does align with our own internal discussions with SFT"*. (Bundle 5, doc 22, p.119)

60. David Stillie has confirmed the first AEDET review took place on 12 August 2011; item 7.2.2 of the Atkins Report (Bundle 3, vol.2, doc 57, p.636). A second review took place in March 2012 and David Stillie has a report of that review (Bundle 5, doc 14, p.82). This shows the 16 people involved in the review meeting across NHSL, Nightingale and BMJ along with the results summary.

61. MML did not provide advice on whether an NDAP should take place.

62. I have been asked who had ultimate responsibility for design assurance. It is the IHSL's team's designers who were responsible for their own design assurance. The designers would all have been responsible for their own design. IHSL would be responsible for the final design since all design risk sits with NPD Co (with exception of those elements relating to Operational Functionality).

63. I believe that the facts stated in this witness statement are true. I understand that this statement may form part of the evidence before the Inquiry and be published on the Inquiry's website.

Signed: 

Date: 28/4/22