CLOSING STATEMENT BY MOTT MACDONALD LIMITED

in relation to

SCOTTISH HOSPITALS INQUIRY

Introduction

1. In the following statement, Mott MacDonald Limited ("MML") sets out its position in relation to those issues covered in the evidence available to the Inquiry. The statement does not cover all of the issues addressed in the evidence, only those issues that are directly relevant to MML and upon which MML believes it is in a position to assist the Inquiry in fulfilling the Terms of Reference. Much of the content of this closing statement has been taken from MML's closing statement following the evidential hearing in April 2023 and from MML's responses to PPPs. This closing statement is intended to be a comprehensive set of submissions on behalf of MML. In general, it attempts to proceed chronologically.

Summary of MML's Position

2. The evidence suggests that four main factors may have contributed to the ventilation issue in Critical Care that led to the delayed opening of the hospital:

    2.1. Errors were made by Hulley & Kirkwood ("H&K") in the preparation of the reference design Environmental Matrix ("EM"). It is questionable whether these initial errors were causally significant in relation to the delay in the opening of the hospital given that (i) IHSL took ownership of the EM and was responsible for developing and checking the design; and (ii) Wallace Whittle ("WW") was apparently aware of the erroneous entries and made a conscious decision not to change them because (according to Stewart McKechnie), it considered the entries to be consistent with SHTM 03-01.

    2.2. WW took ownership of the EM but did not correct the errors because (according to Stewart McKechnie) it did not think they were errors. It is submitted that this is the main causal factor leading to the delayed opening of the hospital. In his

evidence at the February 2024 hearing[1] Mr McKechnie's own position was that the cause of the delayed opening was a "difference of opinion" regarding the interpretation of SHTM 03-01. This difference of opinion was between an untenable interpretation advanced by Mr McKechnie and the consensus interpretation spoken to by every other witness with appropriate expertise. But for Mr McKechnie's claimed interpretation of SHTM 03-01, the issue would have been rectified and the delay in the opening of the hospital would not have occurred.

2.3. WW changed the EM by altering Guidance Note 15, but did not highlight the change. WW has not provided a satisfactory explanation for failing to highlight this change. Had the change been highlighted, it is likely that the issue with Critical Care ventilation would have been identified and the delay in the opening of the hospital would not have occurred.

2.4. None of the other parties involved in the project, including NHSL and MML, identified the errors. For the reasons examined in detail in this closing statement, the failure to identify the errors on the part of these parties was not unreasonable. Design responsibility lay initially with the reference design team and then with IHSL and its sub-contractors. MML was not appointed to confirm that IHSL's design complied with SHTM 03-01. MML was not a shadow design team and did not provide design assurance. NHSL sought and received confirmation from those with design responsibility for the EM (initially H&K and then IHSL) that the design complied with SHTM 03-01. The tender review process was not conducive to picking up this type of error. After IHSL was appointed, any reviews conducted by NHSL and MML were for the limited purposes of the Reviewable Design Data ("RDD") process and were focused on Operational Functionality. The difficulty in noticing the issue was compounded by WW making a material change to Guidance Note 15, without highlighting that change. The issue might also have been obscured by the fact that the clinical activities in the RDS for relevant rooms had been altered from the template Activity Database ("ADB") sheet so that the listed activities were those of a

[1] Page 131 of transcript

normal bedroom, not those of a Critical Care Area. Although the error may be readily apparent to those reviewing the project now with the benefit of hindsight and in full knowledge of the issue that arose, given the complexity of the project and the volume of design material, it would have been unreasonable to expect any party, other than the designer, to have identified the issue during the currency of the project. MML accepts that it had potential opportunities to pick up the issue, however its failure to do so was not unreasonable in these circumstances.

3. A number of other issues affecting MML were explored in evidence before the Inquiry, however none of these had any causal relationship to the delay in the opening of the hospital. For example, although consideration was given to whether the Invitation to Participate in Dialogue ("ITPD") and contractual documentation was ambiguous, including the status of the EM, it became apparent that the parties proceeded on the basis of a clear common understanding that WW required to ensure that the design of the ventilation system complied with SHTM 03-01. Notwithstanding the overwhelming evidence to that effect, the Closing Statement by Counsel to the Inquiry ("CTI") dated 7 May 2024 ("CTI 2024") suggests (at paragraphs 7 and 22) that a lack of clarity in the contractual documentation was a causal factor in the issues that subsequently emerged. This conclusion is not supported by the available evidence. The clear evidence that all parties proceeded on the basis that compliance with SHTM 03-01 was required demonstrates that there was no lack of clarity about what was required. In any event, any lack of clarity regarding the status of the EM did not have any causal relationship with the issues that arose: whether the requirement was to comply with the EM or to comply with SHTM 03-01, that would have led to the same result because the designer, WW, considered that the EM did comply with SHTM 03-01.

4. Similarly, although CTI 2024 states (at paragraph 9) that the lack of a finalised document clearly setting out the technical requirements for the ventilation at Financial Close was at the root of the problems with the project, this conclusion is not supported by the available evidence. The ventilation parameters would have been no different had they been finalised prior to Financial Close.

5. CTI 2024 (at paragraph 12) suggests that a wider theme is that it was not exactly clear what precise role MML was playing; and (at paragraph 11) that NHSL considered it was getting technical advice and assurance from MML. This is not a fair reflection of the totality of the evidence before the Inquiry. The full extent of MML's role was not explored in evidence: the focus was on one very narrow aspect of the project (albeit one which ultimately had significant adverse consequences). There is no doubt that the precise terms of MML's instructions were not always set out in writing by NHSL. As Graeme Greer explained[2], some of the assistance was provided on an "ad hoc" basis. This is perhaps understandable given that the project did not always follow a conventional course. It is also consistent with the fact that some of MML's staff were located in the same office as NHSL's project team[3] and worked together with them on a collaborative basis. This was a productive method of working that was consistent with NHSL's requirements. The available evidence did not disclose any lack of clarity on the part of MML regarding the role it thought it was performing in relation to the particular areas under consideration by this Inquiry. MML's position is that Brian Currie, who was primarily responsible for instructing MML, had a clear understanding of MML's role. In his evidence at the February 2024 hearing[4], Graeme Greer explained that the extent of MML's role had been discussed extensively with Brian Currie. Any lack of clarity seems to have been on the part of members of NHSL's senior management who were not so closely involved in instructing MML and who appear to be proceeding on the basis of a misunderstanding regarding MML's role. So far as the suggestion that MML was providing "assurance" is concerned, this evidence came only from Susan Goldsmith. Those with a closer understanding of MML's role in the project, namely Brian Currie, Ronnie Henderson and Janice MacKenzie, gave no such evidence. Such an understanding would, in any event, be inconsistent with the terms of correspondence sent by MML to NHSL in June 2018.

6. The Chair is invited to make findings in keeping with this summary.

7. These points are developed, by reference to the evidence before the Inquiry, in this closing statement.

[2] Paragraph 9 of his Statement for the February 2024 hearing
[3] Paragraph 6 of Graeme Greer's Statement for the April 2023 hearing
[4] Page 97 of transcript

Ventilation requirements in hospitals

8. MML's position is as set out in its position paper dated April 2022 that was produced in advance of the May 2022 hearing[5]. MML does not take issue with the summary provided in section 2 of CTI's submission following the hearing in April 2023 ("CTI 2023").

The Activity Database System, Room Data Sheets and Environmental Matrices

9. MML was not involved in the decision to use an EM. MML understands that the decision to use an EM had been taken during the capital funded stage of the project. Michael O'Donnell of H&K spoke[6] to a design team meeting on 14 December 2009 at which H&K was instructed to develop an EM to take over from ADB sheets.

10. There is no evidence that MML provided any advice to NHSL regarding its compliance with CEL 19 (2010). It was not, and would not have been, apparent to MML from the fact that an EM was being used that the guidance in CEL 19 (2010) regarding the use of the ADB had not been complied with. Richard Cantlay noted[7] that the existence of an EM is not inconsistent with ADB having been used as a briefing/design tool as the ADB could have been used to generate data in the EM: it is just a different way of presenting the same information. Graeme Greer also stated[8] that the use of an EM and the use of ADB are not mutually exclusive: ADB could be used to populate the services in the EM. This view was shared by Susan Grant of Health Facilities Scotland ("HFS") who stated[9] that the use of an EM would not necessarily be incompatible with CEL 19 (2010): the EM would typically be a logical export following production of initial data from ADB.

[5] Bundle 8 for the May 2022 hearing at page 3
[6] Paragraph 6 of his Statement for the April 2023 hearing
[7] Paragraph 35 of his Statement for the April 2023 hearing
[8] Paragraph 44 of his Statement for the April 2023 hearing
[9] Paragraph 66 of her Statement for the April 2023 hearing as subsequently clarified in email correspondence with the Inquiry

11. In any event, the use of an EM ought not to have affected the quality of the design. There are potential benefits in using EMs instead of Room Data Sheet ("RDS") produced using ADB. Although there may be scope for errors to be made when using an EM, the use of RDS produced using ADB does not remove the risk of errors.

12. In MML's experience, EMs are commonly used in NPD healthcare projects. In his evidence in May 2022[10], Richard Cantlay explained that he has seen them being used on "numerous projects." In his statement[11] he described them as a "commonly used tool". Graeme Greer stated[12] that EMs had been used on every NPD project he had worked on. Willie Stevenson confirmed[13] that the use of EMs was not unusual on healthcare projects and that they had been used in most healthcare projects in which he had been involved. In his evidence[14], Colin Macrae stated that every PFI project that he had worked on had used an EM, which he described as the "standard way".

13. MML's view regarding the ubiquity of EMs seems to be shared by other parties with experience of designing M&E for similar projects. Michael O'Donnell of H&K described[15] an EM as a standard reference briefing document in most healthcare projects H&K had been involved in. Indeed, he noted[16] that SHTN 02-01 from October 2021 now requires the use of an EM. The common use of an EM also seems to have been the experience of Ken Hall[17] and John Ballantyne[18] of Multiplex ("MPX").

14. Those witnesses with experience of using EMs in practice generally seemed to view them as offering significant benefits when compared to RDS produced using ADB. Willie Stevenson noted[19] EMs to be more user-friendly than working with thousands of pages of RDS. In his evidence[20], Colin Macrae stated that an EM allowed M&E designers to start work quicker and in a more efficient manner. Michael O'Donnell

[10] Page 87 of transcript
[11] Paragraph 53 of his Statement for the April 2023 hearing
[12] Paragraph 44 of his Statement for the April 2023 hearing
[13] Paragraph 9 of his Statement for the April 2023 hearing
[14] Page 8 of transcript
[15] Paragraph 11 of his Statement for the April 2023 hearing
[16] Paragraph 12 of his Statement for the April 2023 hearing
[17] Paragraph 8 of his Statement for the April 2023 hearing
[18] Paragraph 8 of his Statement for the April 2023 hearing
[19] Paragraph 9 of his Statement for the April 2023 hearing
[20] Page 9 of transcript

considered an EM to be a more manageable tool[21]; more consolidated and easier to control and review[22]. He considered[23] that lots of different parties reviewing ADB RDS sheets in a coordinated fashion would be very difficult and impractical as it could involve thousands of pages. In his evidence[24], he described the process of reviewing thousands of pages of RDS as being very difficult. John Ballantyne described[25] EMs as very useful for capturing all data in one place rather than a library of RDS. Stewart McKechnie considered[26] that the idea of all building services engineering information being in one document made sense from a practical point of view. HFS do not appear to have been opposed to the use of EMs, with Susan Grant suggesting[27] that an EM would better enable stakeholder communication. Although in his evidence at the May 2022 hearing[28] Stephen Maddocks expressed concerns regarding the use of an EM, this must be viewed in the context of the fact that, at that stage, Mr Maddocks could not recall having used an EM in practice. He was therefore not speaking from experience of encountering any difficulties in practice. In any event, by the time he gave evidence at the February 2024 hearing, his views regarding EMs had perhaps changed. He considered[29] them to be helpful to engineers.

15. CEL 19 (2010) states that "Spaces designed using ADB data automatically comply with English planning guidance". However, the evidence suggests that it is an oversimplification to conclude that spaces designed using ADB automatically comply with applicable guidance and legislation. Graeme Greer set out his understanding[30] that ADB cannot always be relied on for accuracy. He noted that it could be out of date. He provided a specific example, related to multi-bed rooms in Critical Care, in which there are apparently contradictory sheets in ADB. Stewart McKechnie stated[31] that ADB was not necessarily up to date. Michael O'Donnell noted[32] H&K's experience that outputs from ADB sheets regarding environmental criteria were often inaccurate

[21] Paragraph 13 of his Statement for the April 2023 hearing
[22] Paragraph 24 of his Statement for the April 2023 hearing
[23] Paragraphs 21 and 24 of his Statement for the April 2023 hearing
[24] Page 52 of transcript: MML noted him as saying "difficult" rather than "different"
[25] Paragraph 8 of his Statement for the April 2023 hearing
[26] Paragraph 4 of his Statement for the April 2023 hearing
[27] Paragraph 66 of her Statement for the April 2023 hearing
[28] Page 88 of transcript
[29] Pages 30 to 31 of transcript
[30] Paragraph 60 of his Statement for the April 2023 hearing
[31] Paragraph 13 of his Statement for the April 2023 hearing
[32] Paragraph 24 of his Statement for the April 2023 hearing

or incomplete. In his evidence[33], he stated that, if the ADB sheets that had originally been produced by NHSL for this project had been used to populate the EM, much of the information in the EM would have been missing or incorrect. He gave a particular example[34] of the ADB sheets for treatment rooms which had 6ac/hr for ventilation, rather the 10ac/hr that was required by the guidance. In his experience, where RDS were used instead of an EM, the environmental data would either not be populated or would need to go through a process of review. In his opinion[35], the EM produced by H&K was "far superior" to ADB sheets as it was "almost 100% correct", which was "an excellent starting point". Indeed, he considered[36] that the error in Critical Care ventilation would have been harder to spot had it been in a RDS than it was in the EM. In his view[37], the EM was of higher value than ADB sheets. David Stillie's evidence[38] was that the documents used in the present case, including the EM, were of equal quality and value to ADB as those documents contained all of the information that would have been in ADB sheets. Peter Henderson of HFS noted[39] that ADB being moved to the private sector could have caused designers to question its reliability and perhaps use other equivalent tools. Susan Grant stated[40] that ADB has "many limitations". In any event, the ADB incorporates data from HTMs, not from SHTMs, which may be different. A design engineer using the ADB in Scotland would therefore use the initial template document from the ADB but then manually enter project-specific environmental requirements with reference to the SHTMs. As Stephen Maddocks noted in his report[41], ADB sheets are a "starter for ten". There remains scope for error while using them.

16. In light of the foregoing considerations, it would be reasonable to conclude that the approach taken in the present project was of "equal quality and value" to the use of ADB as a tool for briefing and design, and therefore potentially in compliance with CEL 19 (2010).

[33] Page 18 of transcript
[34] Page 53 of transcript
[35] Page 54 of transcript
[36] Page 55 of transcript
[37] Page 65 of transcript
[38] Page 22 of transcript
[39] Paragraph 58 of his Statement for the April 2023 hearing
[40] Paragraph 34 of her Statement for the April 2023 hearing
[41] Bundle 6 for the May 2022 hearing at page 15

17. In any event, the use of an EM on this project did not mean that RDS would not ultimately be produced. The original intention was that a full suite of RDS would be produced by IHSL prior to Financial Close. Although IHSL failed to produce all of the RDS prior to Financial Close, it nevertheless remained under an obligation to produce a full suite of RDS before constructing the hospital[42]. As Michael O'Donnell noted[43], once the EM had been concluded, ADB RDS could be produced to align with it.

The Reference Design

18. MML's involvement in the decision to use a reference design is described in the statement provided by Richard Cantlay for the hearing in May 2022 and in the evidence given by Mr Cantlay at that hearing. The reference design approach was new in Scotland. The use of a reference design was a requirement of SFT as part of the NPD funding model, however the ultimate decision to utilise a reference design for the project was made by NHSL. As Mr Cantlay explained, the main driving factor behind the decision to adopt a reference design approach was to shorten the procurement process and reduce the amount of money spent on having three bidders developing a different design.

19. Following NHSL's decision to use a reference design, MML provided technical advice regarding the use of the reference design. This included MML's Approach to Reference Design paper which evolved through several iterations. The aims of this paper included setting out the reasons for preparing 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; outlining the application of the reference design during competitive dialogue; and outlining the development of the reference design. MML worked collaboratively with NHSL in identifying how to use the reference design as a procurement tool and present it in a way that would not cut across the NPD procurement processes and risk profile.

20. Paragraph 126 of CTI 2023 questioned whether, by the conclusion of the Project Agreement, NHSL had provided adequate briefing of the requirements for

[42] See Richard Cantlay at paragraph 56 of his Statement for the April 2023 hearing
[43] Paragraph 13 of his Statement for the April 2023 hearing

environmental parameters. MML understands this observation to have been made on the basis that (i) there was no full suite of RDS; and (ii) NHSL contends that the EM could not be taken as a brief. CTI's position appeared to be that, in the absence of fully developed RDSs or a fixed EM, IHSL had not been provided with an adequate brief in relation to environmental parameters. However, this position seems to conflate the concept of a design brief with that of a fully developed design. The design brief was provided through, amongst other things, the mandatory elements of the reference design (which are discussed further, below), the schedule of accommodation, the Clinical Output Based Specification and the list of guidance documents and standards with which the design required to comply. This ought to have been a sufficient design brief to have allowed IHSL to prepare its design, including producing RDS and developing the draft EM. The provision of a full suite of RDS or a fixed EM by NHSL would go beyond simply providing a design brief.

Errors in the Environmental Matrix

21. It was the consensus view of almost all of the witnesses with appropriate expertise that the EM contained errors concerning air change rates in certain rooms in Critical Care. These errors in the EM were introduced by H&K at the reference design stage. In his evidence[44], Michael O'Donnell confirmed that the entries in the H&K EM[45] stipulating 4ac/hr for single bedrooms and four bed rooms in Critical Care were human errors. They were not picked up by Mr O'Donnell when he signed off on the EM[46].

22. One witness alone considered that these entries were not errors. Stewart McKechnie's position is that the EM did comply with the guidance. His rationale is that the guidance for Critical Care Areas in Table A1 of SHTM 03-01 related only to isolation rooms. His position is set out in a report dated 15 July 2019[47] and a further report dated 8 April 2022[48]. This interpretation is said to be based on the "Comments" in Table A1 of SHTM 03-01 regarding "Critical Care Areas" which state "Isolation Rooms may be -ve press". This rationale is not convincing: if the entry for "Critical Care Areas" in the

[44] Pages 79 and 80 of transcript
[45] Bundle 4 for the April 2023 hearing at page 131
[46] Paragraph 29 of his Statement for the April 2023 hearing
[47] Bundle 2 for the February 2024 hearing at page 1577
[48] Bundle 1 for the February 2024 hearing at page 757

table was supposed to relate only to isolation rooms, it is surprising that it was not headed "Isolation Rooms in Critical Care" or words to similar effect. The use of the plural "Areas" suggests that the entry relates to all areas in which Critical Care is being provided, not simply isolation rooms. If the entry related only to isolation rooms, the comment specific to pressure in isolation rooms could have been made in the "Pressure" column as it would apply to the entire entry: it would be strange to include it as a separate comment. If the entry related only to isolation rooms, there would be a gap in the guidance in relation to Critical Care Areas other than isolation rooms. Paragraph 163 of CTI 2023 identified a number of other provisions within SHTM 03-01 which cast considerable doubt on Mr McKechnie's claimed interpretation. As CTI state at paragraph 35 of CTI 2024, Mr McKechnie's claimed interpretation "is difficult to reconcile with the natural meaning of the words used in the guidance".

23. None of the other witnesses who expressed a view on the matter agreed with Mr McKechnie's claimed interpretation. In his evidence at the February 2024 hearing[49], Stephen Maddocks expressly disagreed with it.

24. In his evidence at the April 2023 hearing, Mr McKechnie sought to justify his interpretation by placing emphasis on the importance of the pressure regime when compared to air change rates. He suggested[50] that the purpose of the provisions in Table A1 in SHTM 03-01 was to prevent contaminated air from coming into a space: and that pressurisation was more important in achieving that than the air change rate. He seemed to dispute the suggestion that air change rates could help dilute contaminants in a room but conceded that he was not an expert on that. He also sought[51] to justify his interpretation by stating that he did not see 10ac/hr and 10 Pascals of pressure as being a practical solution for all rooms in Critical Care. Although these matters could support an argument that the guidance in SHTM 03-01 is incorrect, they do not undermine the clear terms of Table A1 in SHTM 03-01.

[49] Page 39 of transcript
[50] Pages 27 and 28 of transcript
[51] Page 31 of transcript

25. Mr McKechnie also sought[52] to justify his claimed interpretation by relying on the changes that were subsequently made to the Table A1 of SHTM 03-01 in its latest revision[53]. However, the changes made to Table A1 offer no support for his claimed interpretation. Although these changes provided greater clarity on which areas require the enhanced ventilation parameters applicable to Critical Care Areas, the fact that such a change was made suggests no more than a recognition that the provisions in the 2014 version of SHTM 03-01 were ambiguous in relation to the meaning of Critical Care Areas. It offers no support whatsoever to the suggestion that Critical Care Areas were limited to isolation rooms.

26. In his evidence at the February 2024 hearing, Mr McKechnie's position appeared to be (at least initially) that NHSL and MML had been made aware of his interpretation during the project. This matter is addressed later on in this closing statement in the context of the change that Mr McKechnie made to Guidance Note 15.

27. This issue is not the only aspect of Mr McKechnie's claimed interpretation of SHTM 03-01 that is questionable. At the hearing in February 2024[54], he was asked about a proposal made by WW to lower the air change rate to 3ac/hr in relation to four bed rooms. In support of this air change rate, he claimed that SHTM 03-01 has a "default minimum rate of 10 litres per second", which he said would still be compliant with the guidance. He was not taken to SHTM 03-01 to confirm whether this view was accurate. So far as MML has been able to determine, the only reference to 10 litres per second in SHTM 03-01 is to be found at paragraph 3.7[55]. This recommends 10 litres per second as a minimum rate "where odour dilution is the overriding factor". There is no suggestion that this air change rate should be taken as superseding the recommended air change rates contained in Table A1. In any event, it is not apparent that, so far as the relevant rooms were concerned, odour dilution was the overriding factor. On the contrary the overriding factor was infection prevention and control: that was the reason that Mr McKechnie was being asked to reconsider the ventilation for four bed rooms.

[52] Paragraph 76 of his Statement for the February 2024 hearing
[53] Bundle 1 for the February 2024 hearing at page 2628
[54] Page 47 of transcript
[55] Bundle 1 for the February 2024 hearing at page 1064

Indeed, Mr McKechnie appeared[56] to recognise this. Accordingly, Mr McKechnie's claimed interpretation of SHTM 03-01 on this matter also seems to have been incorrect.

The Procurement Exercise

The Role of Advisers

28. MML's role in the project up to procurement is described in the statement provided by Richard Cantlay for the hearing in May 2022 and in the evidence given by Mr Cantlay at that hearing. In summary, MML's involvement during this phase was as follows:

29. The project was initially approved as a capital funded project. On 4 February 2010, MML was appointed as NEC Supervisor. Capital funding was withdrawn in 2011 and the project migrated to an NPD procurement model.

30. MML entered into a contract with Lothian Health Board dated 22 March 2011 which appointed MML as Technical Advisor (TA). MML entered into a sub-contract with Davis Langdon (DL) in terms of which DL became Project Managers. DL was also responsible for the reference design management and coordination. DL entered into sub-contracts with the reference design team. The reference design team included H&K as Services Engineer. The reference design team was appointed by means of Contract Control Order 2 dated 11 July 2011.

31. During the pre-procurement phase, MML's role involved facilitating production of the reference design by the reference design team; developing technical components of the OJEU Notice and Pre-Qualification Questionnaire Evaluation; developing the technical components of the ITPD; and participating in the competitive dialogue process. MML's role did not involve undertaking any design or assuming any design responsibility.

32. 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

[56] Page 51 of transcript

design audit service. MML did not undertake a shadow design or validate or approve the design by others. Such a level of review is not a feature of the PPP/NPD model as the whole point of this model is the transfer of design responsibility and risk to the private sector through the Project Agreement. MML's role in reviewing the design is considered in more detail later in this closing statement.

33. MML provided technical advice regarding the use of the reference design. This is described earlier in this closing statement.

34. MML did not draft or review the business cases, but in the course of fulfilling its contractual obligations, MML provided technical input which might ultimately have been used in the Outline Business Case (OBC) and Final Business Case (FBC).

The clarity of the procurement documentation including the mandatory requirements

35. The evidence and submissions before the Inquiry suggest that there is a dispute between NHSL/MML on the one side and IHSL/MPX/WW on the other regarding the correct interpretation of the procurement documentation and the subsequent Project Agreement, particularly in relation to the status of the EM. IHSL/MPX/WW claim that the EM supplied by NHSL as part of the procurement process was a "fixed brief" reflecting NHSL's requirements. This interpretation was advanced by several witnesses from MPX and WW, including Ken Hall and Stewart McKechnie. Various issues with the evidence given by these individuals are discussed elsewhere in this closing statement. In any event, it was readily apparent that neither Mr Hall nor Mr McKechnie had a clear understanding of the terms of the relevant contractual documentation. Insofar as both men claimed that the EM was a "fixed brief", this belief seems to be due to the failure of both men to familiarise themselves properly with the contractual documentation rather than by any genuine ambiguity in the ITPD and contractual documentation regarding the status of the EM.

36. MML submits that, when the provisions are viewed as a whole, it is clear that the EM was not intended to be mandatory and that compliance with SHTM 03-01 was mandatory. With respect to the invitation made to the Chair at paragraphs 172 and 223 of CTI 2023, MML accepts that the procurement documentation did contain some

potential ambiguities if certain entries are viewed in isolation. However, this does not detract from the overall position that the procurement documents, viewed as a whole, made the status of the EM, and the requirement to comply with SHTM 03-01, clear. In any event, the subsequent actions of the parties (as discussed later in this closing statement) make it clear that there was no real confusion.

37. The following section considers the status of the reference design EM that was provided to bidders at ITPD stage. The status of the EM at Financial Close will be considered below in the context of the Project Agreement.

38. During the period leading up to the procurement exercise, internal consideration was given by NHSL and MML to the reference design EM being mandatory for bidders. This is evidenced by Revision J of the "Approach to Reference Design" paper[57]. However, the "Approach to Reference Design" paper was an internal document that was not issued to bidders. There were a number of iterations of the document, reflecting the evolution of the plan for the procurement process. Making the EM mandatory for bidders was not the final position, nor was it the position that was communicated to bidders. That position is to be found in the ITPD documentation itself.

39. Richard Cantlay explained[58] the status of Volume 1 and Volume 3 of the ITPD. As he stated, Volume 1 of the ITPD[59] was a procurement document which explained the procurement process (e.g. what bidders are required to do in terms of submitting a bid, arrangements during the bid period, how bids will be evaluated, etc) and became redundant at Financial Close. Volume 3[60] was the Board's Construction Requirements ("BCRs") (the output specification for the design and build of the project) and would form part of the Project Agreement at Financial Close. This is apparent from the fact that it is headed "Schedule to the Project Agreement…" As Richard Cantlay went on to explain, at the start of the procurement process, Volume 3 was drafted (as much as it could be at that stage) in the form it was intended to be when included in the Project Agreement at Financial Close, with the appreciation that it would have clauses amended

[57] Bundle 2 for the April 2023 hearing, page 605 at page 622
[58] Paragraph 8 of his Statement for the April 2023 hearing and in his oral evidence
[59] Bundle 2 for the April 2023 hearing at page 942
[60] Bundle 2 for the April 2023 hearing at page 773

and sections added to it (such as the final agreed EM) as developed and agreed through the procurement process to reflect the agreement reached between NHSL and the preferred bidder.

40. The difference in status between Volume 1 and Volume 3 did not seem to be recognised in CTI 2023: although it is fundamental to a proper understanding of the procurement documents, it is not mentioned at all. Provisions in Volume 1 and Volume 3 are referred to interchangeably as if they were of equal status. For example, at paragraph 185 of CTI 2023, when construing clause 2.6 of ITPD Volume 1, reference is made to the definition of EM in the draft BCRs at Volume 3. Given that Volume 1 and Volume 3 serve different purposes, provisions in Volume 3 do not assist in interpreting the provisions in Volume 1. Similarly, paragraph 214 of CTI 2023 refers to paragraph 8 of the draft BCRs at Volume 3 as being "a direct instruction to tenderers". This is plainly incorrect. The instructions to tenderers are to be found at Volume 1, not Volume 3. Accordingly, the following submissions will focus primarily on the provisions in Volume 1. The finalised BCRs, as found in the Project Agreement, are considered in the section on the Contract, later in this Closing Statement.

41. Clause 2.5 of ITPD Volume 1[61] clearly sets out the mandatory elements of the reference design under reference to Appendix E[62]: the EM was not included in the mandatory elements in either clause 2.5 or Appendix E. As Richard Cantlay stated[63], this was entirely intentional and reflected the fact that, with the exception of matters related to Operational Functionality, the design risk was to sit with Project Co. Further provisions in ITPD Volume 1 are to the same effect. Clause 2.6[64] expressly stated that "Building services engineering solutions" were included as part of the "Indicative Elements of the Reference Design". "Building services engineering solutions" would include the EM. Clause 2.6 continued "Such information is issued to the Bidders for "information only" so that they may understand the intent of the Reference Design."

[61] Bundle 2 for the April 2023 hearing at page 963
[62] Bundle 2 for the April 2023 hearing at page 1156
[63] Paragraph 9 of his Statement for the April 2023 hearing
[64] Bundle 2 for the April 2023 hearing at page 965

42. Section C8.2x of the Submission Requirements at Appendix A(ii) of ITPD Volume 1[65] required bidders to provide "An environmental conditions/room provisions matrix for both mechanical and electrical services for each room in the Facilities…" This clearly placed the onus on bidders to provide their own EM. Such a requirement is impossible to reconcile with the notion that the draft EM provided by NHSL was a mandatory part of the brief.

43. Section C8.3 of the Submission Requirements at Appendix A(ii) of ITPD Volume 1[66] stated "Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis." It was therefore made clear, under specific reference to the EM, that (i) bidders were to undertake their own design; (ii) the EM provided in the ITPD documentation was a "draft"; and (iii) it was anticipated that bidders could propose changes to the draft EM. In his evidence at the April 2023 hearing[67], Richard Cantlay explained the rationale for requiring bidders to highlight proposed changes on the Board's EM. He stated that it was a very detailed document containing a huge amount of data and that marking changes on this draft would give a good indication of where a bidder's proposals varied from the baseline. This provision was accordingly not about restricting a bidder's ability to make changes, but rather requiring those changes to be highlighted so that there was clarity about what was being proposed in comparison with the EM produced at reference design stage.

44. In this context it is worth noting that, in its Closing Submission following the hearing in April 2023, MPX suggested a choice between (i) the reference design EM being mandatory; or (ii) the reference design EM being a document that tenderers should ignore because they had to prepare their own EM from scratch. This is a false dichotomy. This false dichotomy is also reflected at paragraph 7 of CTI 2024 which suggests that the EM was either "a fixed brief (intended to form the basis for the design of the ventilation system) or a document upon which no reliance could be placed by IHSL, MPX and WW." A similar flaw is apparent in the document entitled

[65] Bundle 2 for the April 2023 hearing at page 1052
[66] Bundle 2 for the April 2023 hearing at page 1054
[67] Pages 39 and 40 of transcript

RHCYP/DCN Critical Care Ventilation Systems Review by Stephen Maddocks dated 13 December 2023 at paragraph 2.1.5[68] where it is stated that there "would be no point in a client issuing a "draft" EM that could not be relied on by the engineer." Mr Maddocks does not appear to have had access to the evidence that has been led before the Inquiry concerning the decision to issue the draft EM to bidders and the actions of the parties thereafter, which made it readily apparent that all parties recognised that the EM was to be developed by the successful bidder. He has not analysed the ITPD documentation and the Project Agreement in order to understand the status of the EM. His comments are at odds with the available evidence. MML's position is not that the reference design EM should be ignored by tenderers, nor that tenderers were required to prepare their own EM from scratch. It was envisaged that tenderers would use the reference design EM as a starting point to develop their own designs, as is clear from section C8.3. A tenderer could choose to ignore the reference design EM and start from scratch if that was their preference, but they need not do so. Should they choose to do so, they had been provided with a suite of other documentation to assist in that task, including the schedule of accommodation, the Clinical Output Based Specification and the list of guidance documents and standards with which the design required to comply. This understanding of the status of the EM is reflected at paragraph 92 of CTI 2024: it is noted that the provision by NHSL of an EM "was apt to lead to its adoption as a starting point for the design and to the understanding that it reflected NHSL's wishes about the way the hospital would be used." However, the possibility that the EM would be used in this way does not support the suggestion made earlier in paragraph 92 of CTI 2024 that the provision of the EM caused "ambiguity and confusion". For the reasons set out at length below, it is clear that there was no genuine confusion regarding the status of the EM.

45. The status of the EM provided to bidders at ITPD stage is also apparent from the document itself which stated, at Guidance Note 1[69], "This workbook is prepared for the Reference Design Stage…" It continued, at Guidance Note 5, "Ventilation air change rates… in Patient Areas shall be reviewed throughout the detail design process…" This wording is inconsistent with the notion that the provisions in the EM were mandatory: on the contrary they were to be subject to ongoing review. In particular, the onus was

[68] Witness Bundle volume 1 for the February 2024 hearing at page 13
[69] Bundle 4 for the April 2023 hearing at page 132

placed squarely on the designer to review air change rates in patient areas (which would of course include single bedrooms and four bed rooms in Critical Care) throughout the design process. This is a far cry from the notion that the air change rates for these rooms in the reference design EM were a fixed brief.

46. Providing the EM to bidders on the basis that it was not mandatory was consistent with the overall decision to make use of the design work that had already been undertaken. The EM would provide information which the bidders could use but which they were not bound to follow. It would also assist in providing clarity about the extent to which the tenderer's proposals varied from the "baseline" EM produced by H&K.

47. Clause 2.5 of Volume 1 of the ITPD[70] also stated "Bidders will be fully responsible for all elements of the design and construction of the facilities including being responsible for verifying and satisfying themselves that the Mandatory Reference Design Requirements can be designed, built and operated to meet the Board's Construction Requirements". The draft BCRs were included in ITPD Volume 3. The key relevant provisions in the final BCRs are considered in more detail, below, in the context of the Project Agreement.

48. Paragraph 8 of the draft BCRs contained in ITPD Volume 3[71] stated that "Project Co shall provide the Works to comply with the Environmental Matrix." Volume 3 defined the "Environmental Matrix" as "the Environmental Matrix, which details the room environmental condition requirements of the Board required within each department / unit / space / area. The title is Reference Design Envisaged Solution – RHSC / DCN Environmental Matrix version third issue as set out in Appendix C of this Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time in accordance with the Project Agreement)". As Richard Cantlay explained[72], given that this version of the EM is described at Section C8.3 of Volume 1 as being a "draft", it was anticipated that the final version of the BCRs for inclusion in the Project Agreement at Financial Close would have the EM reflecting the preferred bidder's design included in it and that this

[70] Bundle 2 for the April 2023 hearing at page 963
[71] Bundle 2 for the April 2023 hearing at page 873
[72] Paragraph 13 of his Statement for the April 2023 hearing

definition would be amended accordingly. The definition of the "Environmental Matrix" did indeed change between the ITPD documentation and the Project Agreement. The EM itself appeared as an appendix to the draft BCRs in ITPD Volume 3: however, in the Project Agreement it was moved to schedule part 6 together with the RDS, reflecting its status as one of IHSL's documents.

49. MML would invite the Chair to conclude that it is was made clear to bidders that the EM provided to bidders at ITPD stage was not mandatory. Such a conclusion would be consistent with the provisions in the ITPD documentation set out above and with the key principle described by Richard Cantlay[73] that the design risk on a PPP contract sits with the private sector (with the exception of Operational Functionality).

50. This view is shared by NHSL. Susan Goldsmith confirmed[74] that the EM was provided for information as disclosed data. Its provision did not mean that bidders need not refer to SHTMs or use the ADB[75]. She considered[76] that the provision of the EM to bidders ought not to have contributed to the delay in opening the hospital because IHSL required to comply with SHTM 03-01. In her evidence, she noted her sense that MPX did not fully understand the contractual responsibilities under an NPD contract. Brian Currie stated[77] that it was always clear that the reference design would be replaced by the preferred bidder's full design solution and[78] that this was a fundamental point that was communicated to bidders. He noted[79] that the only element of design retained by the Board was Operational Functionality, which did not encompass matters such as ventilation. He stated that the EM was a non-mandatory element that had been developed to verify the feasibility of the reference design. Bidders were to develop their design in compliance with mandatory guidance such as SHTM 03-01[80]. Although the information in the EM was not warranted by the Board and should not be relied on

[73] Paragraph 8 of his Statement for the April 2023 hearing
[74] Paragraph 10 of her Statement for the April 2023 hearing
[75] Paragraph 19 of her Statement for the April 2023 hearing
[76] Paragraph 20 of her Statement for the April 2023 hearing
[77] Paragraph 24 of his Statement for the May 2022 hearing
[78] Paragraph 48 of his Statement for the May 2022 hearing
[79] Paragraph 35 of his Statement for the May 2022 hearing
[80] Paragraph 41 of his Statement for the May 2022 hearing

for accuracy (clause 7.2), it was thought that it may prove useful to engineers[81]. This understanding of the documentation was also expressed by Iain Graham[82].

51. This understanding of the status of the EM is also supported by the fact that both IHSL and Bidder C made changes to the EM. The significance of these changes is discussed further below.

52. This understanding of the status of the EM appeared to be disputed by witnesses from MPX and WW. The approach taken by these witnesses is perhaps best exemplified by the evidence of John Ballantyne when challenged on his interpretation of one of the provisions in the ITPD documentation (paragraph 5.2(f) of the BCRs[83]). When it was put to him[84] that his interpretation was not what the provision said, he referred to "the unwritten word" and "implied compliance". The approach taken by these witnesses relied on erroneous assumptions about the terms of the documentation and wishful thinking. It perhaps reflected Susan Goldsmith's sense, as expressed in her evidence at the April 2023 hearing[85], that MPX did not fully understand the contractual responsibilities under an NPD contract. The witness statements provided by these witnesses are lacking in explanation for the basis of their interpretation of the status of the EM. They largely proceed by way of assertions that the EM was "encapsulating the Board's requirements" (Ken Hall[86]); that the EM was "what the Board wanted" (Paul Serkis[87]); that the EM was a "line in the sand" regarding the technical requirements IHSL was expected to deliver (John Ballantyne[88]); that "it was seen as the Bible" and "Validation and certification were to be done against the Environmental Matrix" (John Ballantyne[89]); that it was mandated conditions the client was providing and formed part of their brief (Stewart McKechnie[90]); that it was assumed to be "the key document" (Paul Cooper[91]); and that it was a mandatory document to follow (Darren Pike[92]).

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[81] Paragraph 45 of his Statement for the May 2022 hearing
[82] Paragraph 15 of his Statement for the April 2023 hearing
[83] Bundle 2 for the April 2023 hearing at page 839
[84] Page 52 of transcript
[85] Page 60 of transcript
[86] Paragraph 13 of his Statement for the April 2023 hearing
[87] Paragraph 28 of his Statement for the April 2023 hearing
[88] Paragraph 10 of his Statement for the April 2023 hearing
[89] Paragraph 12 of his Statement for the April 2023 hearing
[90] Paragraph 4 of his Statement for the April 2023 hearing
[91] Paragraph 6 of his Statement for the April 2023 hearing
[92] Page 17 of transcript

53. Ken Hall went so far as to say that NHSL was "responsible for interpreting the guidance and then producing their requirements" and seemed to say[93] that there was accordingly no need for MPX/WW to check the EM for compliance with SHTMs. He continued[94] that, in the event of a conflict between the EM and the guidance "the matrix would prevail because the interpretation of the guidance had already been done which then produced the matrix". His attitude when giving evidence at the hearing in April 2023[95] and asked about other parts of the BCRs that he had not considered was that "we had the EM" that "effectively gave the MEP answers that we needed". He considered that the existence of the EM meant that the process of going through other documents in more detail had already been done. He claimed[96] that "because it all tied up, then it seemed straightforward" that the EM was what they were to use.

54. Ken Hall's stated interpretation was that the provision for 4ac/hr for Critical Care bedrooms was a conscious and deliberate choice made by the Board. He claimed that this was supported by H&K's Thermal Comfort Analysis, the output from which was 4 mechanical air changes per hour. However, when taken to this document[97] during his evidence at the April 2023 hearing[98], he immediately conceded that he had not looked at it in any great detail and that he "skimmed through" it. In fact, the document offers no support for his interpretation: at section 2.6[99], it states "As such critical care and high dependency type ward rooms which receive air change rates in the region of 10ACH, have not been analysed in this study." Had Mr Hall read the document properly, it would have been apparent to him that the document offers strong support for the requirement of 10ac/hr in Critical Care. In his evidence, he was unable to provide any satisfactory explanation for his attempt to rely on this document as supporting his interpretation. Mr Hall also sought to rely on inputs that had apparently been used for energy calculations but was not able to identify any particular document that supported this claim. In his evidence at the April 2023 hearing[100], Stewart McKechnie recalled

[93] Paragraph 23 of his Statement for the April 2023 hearing
[94] Paragraph 33 of his Statement for the April 2023 hearing
[95] Page 39 of transcript
[96] Page 43 of transcript
[97] Bundle 4 for the April 2023 hearing at page 184
[98] Page 65 of transcript
[99] Bundle 4 for the April 2023 hearing at page 194
[100] Page 158 of transcript

that the energy calculations were not based on an assumption of 4ac/hr for single bedrooms. There is accordingly no compelling evidence before the Inquiry supporting Mr Hall's suggestion that the provision of 4ac/hr for Critical Care bedrooms (in direct contradiction to the clear provisions in SHTM 03-01) was a conscious and deliberate choice.

55. Ken Hall[101], Stewart McKechnie[102] and Darren Pike[103] sought to justify their interpretation by reference to the inclusion of the EM in the BCRs. In his evidence at the April 2023 hearing[104], Mr Hall stated that the BCRs were "our key document" that he used throughout the Preferred Bidder stage. He claimed to have a good insight and understanding of the BCRs and stated that he had read the BCRs. He continued[105] that section 8 of the BCRs was the "key document for me". However, as his evidence developed, it became apparent that he was not familiar with the totality of the BCRs, at one stage stating[106] that he did not go through the BCRs line by line. He claimed that he was aware of the Clinical Output Based Specifications and had a copy of them, but when asked specific questions about them he stated[107] that he had not read them and that it was "more a secondary type document" for him: despite the fact that it formed part of the BCRs and contained elements concerning the services provision for each department. In any event the reliance placed by witnesses on the opening sentence of paragraph 8 of the BCRs involves taking one sentence of the ITPD documentation out of context and ignoring the other provisions, discussed elsewhere in this closing statement, which clearly demonstrate that the EM was not a mandatory document. It also involves ignoring the totality of paragraph 8 of the BCRs which state, not just that the Works ought to comply with the EM, but also that the works comply with mechanical requirements including SHTM 03-01 and, for the avoidance of doubt, that the hierarchy of standards provision applies. These provisions are considered in more detail, below, in the context of the Project Agreement. In any event, it ought to have been plain from a complete reading of the BCRs, particularly the very paragraph in

[101] Paragraph 34 of his Statement for the April 2023 hearing
[102] Paragraph 28 of his Statement for the April 2023 hearing
[103] Page 18 of transcript
[104] Page 17 of transcript
[105] Page 18 of transcript
[106] Page 42 of transcript
[107] Page 36 of transcript

which compliance with the EM is mentioned, that this did not mean that IHSL/MPX/WW could simply ignore SHTM 03-01.

56. MPX's approach to the ITPD documentation is perhaps illustrated by its attitude to the requirement to produce RDS. Paul Serkis[108] considered that it was not normal for a client to seek to have 100% RDS in place at Financial Close: however, that is exactly what the ITPD documentation required (see para 2.5.3 of ITPD Volume 1[109]). Similarly, in her evidence[110] Liane Edwards stated that preparation of the RDS was a time-consuming activity and that it "didn't seem reasonable" to prepare 100% of the RDS, notwithstanding the requirement in the ITPD. As CTI 2023 noted (at paragraph 245), despite complaints by IHSL about NHSL changing what was required, no witness was able to provide any example of a radical change by NHSL to the stated requirements that increased the requirements placed on IHSL. As with the issue regarding the EM, any claimed misunderstanding could have been avoided had the key personnel within IHSL, MPX and WW read all of the applicable documentation rather than focusing on those isolated passages that supported their preconceived assumptions about what might be required.

57. Ken Hall also sought[111] to place reliance on the wording of paragraph 2.3 of the BCRs (which stipulates compliance with standards including SHTMs) as supporting his interpretation. In particular, he placed reliance on the words "unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement", claiming that the EM was such a "specific and different requirement" such that compliance with SHTMs was not required. The merits of this argument are considered further, below, in the context of the Project Agreement.

58. Ken Hall also sought to place reliance on section C8.3 of the evaluation criteria. However, when asked about this in evidence at the hearing in April 2023[112], his position seemed to be that he did not pay any attention to what the full provision meant and appeared to accept that the wording was at least ambiguous.

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[108] Paragraph 35 of his Statement for the April 2023 hearing
[109] Bundle 2 for the April 2023 hearing at page 965
[110] Page 27 of transcript
[111] Paragraph 34 of his Statement for the April 2023 hearing
[112] Pages 75 and 76 of transcript

59. In addition to some of the MPX and WW witnesses placing reliance on an incomplete reading of the BCRs, others placed reliance on their recollections of what they claim to have been told by NHSL and/or MML. Paul Serkis claimed[113] that MPX were told by NHSL and MML that there was a reference design and "Don't change any of it… just deliver what we want." However, when asked during his evidence[114] who had told him this, he could not remember exactly, but that it was a "feeling" he had from the various meetings. In any event, he did not recall any specific conversations regarding the EM. It therefore seemed that his "feeling" that IHSL were not to make changes related to the project more generally, not to the specifics of the EM. Taking his recollection as a whole, there was no compelling evidence that IHSL had ever been told that the EM was a mandatory document that could not be changed.

60. John Ballantyne claimed[115] that MPX was told "at the competitive dialogue meetings that the Environmental Matrix was mandatory and that there was to be no deviation. It was absolute." However, his position in evidence was not so definitive. When asked what he was told during competitive dialogue about the EM he said that it was just another document of the reference design, all of which were to be read in conjunction with one another. When specifically asked[116] who had told him that the EM was mandatory, he gave a vague response and could not "single out" an individual. More generally, he described[117] it as being his "understanding" that the EM represented the expectations of the Board. When expressly asked if there was any discussion about the status of the EM at the bidder's day, he did not recall there being any. Although he then went on to state[118] that he was surprised during the process to understand the "elevated importance" of the EM as it was not a document that "jumps off the page" as being one of "great debate and gnashing of teeth" it is not at all clear what he meant by this. He then suggested[119] that the EM was "effectively the board's expectations" that would then be developed by the three bidding entities. Any such development would tend to suggest that the EM could not have been a fixed, mandatory document. In any

[113] Paragraph 28 of his Statement for the April 2023 hearing
[114] Page 30 of transcript
[115] Paragraph 13 of his Statement for the April 2023 hearing
[116] Pages 27 and 28 of transcript
[117] Page 12 of transcript
[118] Pages 12 and 13 of transcript
[119] Page 16 of transcript

event, his evidence fell a long way short of a clear articulation of having been told directly by NHSL or MML at any stage that the EM was a mandatory document. The impression left by his evidence was that he was recalling general statements by NHSL regarding the reference design as a whole, rather than specific comments related to the EM.

61. Neither of these witnesses referred to any documentation supporting their recollections, nor did they identify any particular person who is said to have made these statements. Their recollection is refuted by witnesses from MML and NHSL. Richard Cantlay stated[120] that he did not recall any statements from the Board or any of their advisors to the effect that bidders were not to innovate in developing the EM. Although he did not participate in all of the competitive dialogue meetings, he considered it to be unlikely that such a statement would have been made given the terms of the ITPD documentation. Graeme Greer stated[121] that he was confident that IHSL was reminded at a number of points that it had responsibility for design, including the EM; and that the EM had to be compliant with the BCRs. Brian Currie explained[122] that he had numerous conversations with IHSL about compliance with guidance and that IHSL was very much aware that the NHSL brief was to deliver a building that complied with guidance. He continued[123] that bidders were "very aware" that the reference design was to fall away, which was communicated at the outset of the open day for bidders and continuously during competitive dialogue. He did not recall[124] ever saying that the EM was mandatory or a "fixed brief": he would not have used that language as it was not his understanding of the status of the EM. Iain Graham noted[125] that the intention that the reference design EM would be redundant at Financial Close as the preferred bidder's proposals would contain all the necessary information was "extensively communicated" to bidders in the ITPD and throughout the competitive dialogue process. In his evidence he stated[126] that, during competitive dialogue, NHSL was asking for updates of the EM in line with bidders' design development on the

[120] Paragraph 15 of his Statement for the April 2023 hearing
[121] Paragraph 75 of his Statement for the April 2023 hearing
[122] Paragraph 16 of his Statement for the February 2024 hearing
[123] Paragraph 28 of his Statement for the February 2024 hearing
[124] Paragraphs 41, 63 and 106 of his Statement for the February 2024 hearing
[125] Paragraph 20 of his Statement for the April 2023 hearing
[126] Page 41 of transcript

architectural side of things and engineering developments. He had no recollection[127] of bidders being told that they must comply with the EM as a mandatory requirement. Stewart McKechnie's evidence at the April 2023 hearing[128], was that he was present at the competitive dialogue meetings where engineering matters were discussed. He did not suggest that anything was said by NHSL at these meetings to the effect that the EM was mandatory. When he was specifically asked[129] if the EM was discussed at competitive dialogue meetings, his answer was that there was discussion between MPX and WW: there was no suggestion of any comments being made by NHSL or MML about the status of the EM. Insofar as he claims[130] that he was asked not to "revamp" the EM, he explained in his evidence[131] that this instruction had come from MPX, not NHSL or MML. When he was asked to explain how he came to the view that the EM was mandatory, he relied entirely on what was stated in documents (such as the BCRs) not on anything that was said at competitive dialogue meetings. If something had indeed been said at those meetings to the effect that the EM was mandatory, it is surprising that this did not form part of the basis for Mr McKechnie's understanding of the status of the EM.

62. Given the clear intention on the part of NHSL and MML that the EM was not to be a mandatory document, it is inherently implausible that any representative of either organisation would have told IHSL during competitive dialogue that the EM was mandatory.

63. Regardless of what was said at any meetings between the parties, the status of the EM is clearly set out in the documentation. Even if MPX's understanding from competitive dialogue meetings was that the EM was a mandatory document, that is not reflected in the documentation that it was bound to comply with.

64. In any event, MPX's claim that the EM was a mandatory document, and that it did not require to comply with SHTM 03-01 insofar as it was inconsistent with the EM, is in direct contradiction to the actions of the parties before and after IHSL was appointed as

[127] Page 44 of transcript
[128] Pages 77 and 78 of transcript
[129] Pages 79 and 80 of transcript
[130] Paragraph 9 of his Statement for the April 2023 hearing
[131] Page 127 of transcript

preferred bidder. It is apparent from these actions that there was no real confusion about the status of the EM and, in particular, about the requirement that IHSL's design comply with SHTM 03-01:

64.1. IHSL's Specification for Ventilation System dated 13 January 2014[132] was signed off by Stewart McKechnie and submitted as part of its final tender. John Ballantyne's evidence[133] was that Ken Hall sat on top of a triangle of organisations (including WW and Mercury) with responsibility for this document. However, Mr Hall's evidence[134] was that he had not read the parts of IHSL's tender related to M&E "in any great detail to be honest". Mr Hall's lack of familiarity with these documents perhaps explains his erroneous understanding regarding the status of the EM. The Specification clearly demonstrates IHSL's understanding of the applicable standards at the relevant time. At para 5.0 it states "All elements of the works shall be in accordance with the requirements of current legislation, regulations and industry standards unless otherwise stated. The Ventilation System shall accord with all appropriate Hospital Technical Memoranda, Codes of Practices and relevant British and European Standards and Appendix A." John Ballantyne attempted[135] to explain this statement by focusing on the words "unless otherwise stated" as meaning that the bid need not comply with all guidance. However, this does not provide a convincing explanation. The words relied on by Mr Ballantyne appear in the paragraph before the reference to HTMs: the reference to the ventilation system according with HTMs is completely unqualified. In any event, there is no statement anywhere else in the tender submitted by IHSL that qualifies its stated intention to comply with all applicable guidance. The document continues (at section U10) "The hospital ventilation systems shall be in accordance with SHTM 03-01…" The document does not make any reference to the EM. In his evidence at the April 2023 hearing[136], Stewart McKechnie explained that this document appeared to be the specification that was part of the package to be passed to sub-contractors and

[132] Bundle 6 for the April 2023 hearing at page 3
[133] Page 35 of transcript
[134] Pages 21 and 22 of transcript
[135] Page 33 of transcript
[136] Pages 89 and 90 of transcript

related to no more than the build quality, rather than the design itself. However, the general statements concerning compliance with SHTM 03-01 are not framed as being limited in this way. It is accordingly quite clear that, when IHSL submitted its final tender, its position was that the ventilation system required to comply with industry standards and relevant guidance. If IHSL considered the EM to be a mandatory document specifying the ventilation parameters, it is surprising that this is not mentioned in IHSL's Specification for Ventilation System.

64.2. IHSL's document entitled Tender Package Deliverables – Building Services Deliverables Appendix 1.1.5/FT – Mechanical and Electrical Services dated 13 January 2014[137], submitted as part of its final tender, stated (at para 5.9.7) "The ventilation systems to the Hospital are designed in accordance with Scottish Health Technical Memorandum SHTM 03-01. Ventilation shall be provided to suit both the operational and statutory requirements of the development." Again, this confirms that IHSL's tender proceeded on the basis that the design of the ventilation system required to comply with SHTM 03-01, without any suggestion that parameters in the EM were considered to be mandatory. John Ballantyne conceded in evidence that this provision could be understood as meaning definitively that the ventilation system complied with all aspects of SHTM 03-01. Tellingly, he then continued[138] that if the word "generally" had been inserted before the word "designed", "it might have read better from IHSL's point of view". He then went on to say that, elsewhere in the documents, there may be a specific pointer that SHTM had not been complied with, but he did not identify any such reference.

64.3. IHSL's final tender in relation to C8 "Clarity, Robustness and Quality of M&E Engineering Design Proposals"[139] also made it clear that it did not consider the EM to be mandatory. At section C8.1 (page 264) it stated that "These outline designs have been reviewed for compliance with SHTM's etc…" At C8.2(x) (page 303) IHSL noted that it "shall provide an addendum matrix for any rooms

[137] Bundle 6 for the April 2023 hearing at page 323
[138] Pages 40 and 41 of transcript
[139] Bundle 3 for the April 2023 hearing at page 252

on an exception basis highlighting any changes at preferred bid stage". The document then went on to note (at page 304) that "The room temperature set points, air change rate and ands [sic] shall be in accordance with SHTM-03 [sic]." This passage was followed by a table which included an entry for "HDU" with a supply ventilation of 10ac/hr. IHSL's tender accordingly made it clear that it understood that the ventilation required to comply with SHTM03-01, that IHSL was responsible for reviewing the design to ensure compliance with SHTMs and that IHSL envisaged making changes to the EM at preferred bidder stage. Although CTI 2023 made reference to some passages from IHSL's tender documents (from paragraphs 225 to 228) it does not refer to these passages from the final tender in relation to C8. It is submitted that these passages are important when considering IHSL's understanding of what was required of it by the ITPD documentation.

64.4. The terms of WW's appointment by MPX[140] are inconsistent with the claim that the EM was a fixed brief that superseded SHTM 03-01. Paragraph 2.12.7[141] required WW to "carry out the Services in accordance with" the BCRs. Paragraph 2.12.16[142] required WW to "diligently and regularly review the various documents which are relevant to the performance of the Services… to ascertain whether any ambiguities, discrepancies, inconsistencies, divergences, design or construction impracticalities or omissions exist from, within or between any such documents so as to identify conflicts in the design". Paragraph 4.2[143] stated that MPX gave no warranty or undertaking in respect of the Disclosed Data. Most significantly, paragraph 4.3.1[144] stated that WW "acknowledges and confirms that … it has conducted its own analysis and review of the Disclosed Data and has, before execution of this Agreement, satisfied itself as to the accuracy, completeness and fitness for purpose of any such Disclosed Data upon which it places reliance". The definition of Disclosed Data[145] clearly included the EM.

[140] Bundle 1 for the February 2024 hearing at page 1381
[141] Bundle 1 for the February 2024 hearing at page 1395
[142] Bundle 1 for the February 2024 hearing at page 1396
[143] Bundle 1 for the February 2024 hearing at page 1398
[144] Bundle 1 for the February 2024 hearing at page 1399
[145] Bundle 1 for the February 2024 hearing at page 1386

64.5. On 3 July 2014, Ken Hall of IHSL emailed MML[146] seeking an Excel (rather than pdf) version of the EM "to allow to populate [sic] the schedule with any changes." The Excel version was sent to IHSL on 11 July 2014. This followed on from discussions spoken to by Graeme Greer[147]. Stewart McKechnie confirmed in evidence at the April 2023 hearing[148] that, although he was uncomfortable about taking ownership of the EM as his own document, and had told MPX this, he reluctantly did so[149]. He confirmed[150] that after Financial Close, WW embarked on preparing the detailed design of all elements of the MEP installations and finalisation of the EM. The EM was then reformatted and rebadged as an IHSL document. In his evidence at the April 2023 hearing[151], Mr McKechnie agreed that this involved taking something that he saw as a client brief and converting it into a contractor proposal, and that this meant that the contractor took responsibility for the contents of it. Paul Cooper also conceded[152] that, once ownership had been taken of the EM by WW, it did form part of the contractor's proposals.

64.6. Having taken ownership of the EM, IHSL produced at least 11 different iterations of the EM. The changes made by IHSL were not simply to augment the EM as rooms were added (as suggested by some MPX witnesses), nor were all the changes prompted by comments from NHSL: they included substantive changes to existing provisions. The changes made by IHSL included:

64.6.1. Removing the H&K logo[153] and eventually giving the document a WW reference number.

64.6.2. In the EM prepared by IHSL for Financial Close[154], removing the entry for HDU from the Room Function Reference Sheet ("RFRS"). In his

[146] Bundle 10, volume 2 for the April 2023 hearing at page 1300
[147] Paragraph 79 of his Statement for the April 2023 hearing
[148] Page 80 of transcript
[149] Page 81 of transcript
[150] Paragraph 10 of his Statement for the February 2024 hearing
[151] Page 82 of transcript
[152] Page 10 of transcript
[153] Bundle 4 for the April 2023 hearing at page 220
[154] Bundle 4 for the April 2023 hearing at page 222

evidence at the April 2023 hearing[155], Stewart McKechnie described this as tidying up as WW was "taking ownership" of the EM. This change was not in response to a comment from NHSL, nor was it highlighted to NHSL.

64.6.3. According to Mr McKechnie's evidence at the April 2023 hearing[156], correcting "some obvious issues" (although he did not explain what those issues were). He continued "we might have tidied up a wee bit".

64.6.4. Adding Guidance Note 26[157].

64.6.5. Changing all single bedrooms, including those in Critical Care, from positive pressure to balanced[158], despite this being in response to a comment made[159] concerning standard bedrooms, not those in the Critical Care. The comment referred specifically to bedrooms with ensuites: none of the bedrooms in Critical Care had ensuites.

64.6.6. Changing the humidification provisions in Guidance Note 15[160]. Stewart McKechnie explained in his evidence at the April 2023 hearing[161] that this change was prompted by one of WW's engineers reviewing the requirements in the EM, particularly guidance note 15[162] and seeking clarification[163].

64.6.7. Altering guidance note 15 so that it related only to isolation rooms in Critical Care. This matter is considered in more detail later on in this closing statement.

In his evidence at the February 2024 hearing[164], Stephen Maddocks confirmed that, if the document was a "fixed brief", he would not have made changes without client approval.

[155] Page 140 of transcript
[156] Page 113 of transcript
[157] Bundle 4 for the April 2023 hearing at page 221
[158] Bundle 4 for the April 2023 hearing at page 226
[159] Bundle 4 for the April 2023 hearing at page 219
[160] Bundle 4 for the April 2023 hearing at page 221
[161] Page 103 of transcript
[162] Bundle 4 for the April 2023 hearing at page 132
[163] Bundle 10, volume 2 for the April 2023 hearing at page 1302
[164] Page 46 of transcript

64.7. In around August 2014, IHSL (or one of its contractors) conducted a review of the EM[165] which uncovered "a number of discrepancies". It was minuted that IHSL was going to raise a Request for Information (RFI) with NHSL. Liane Edwards' position in evidence[166] was that this was not a review for compliance but rather a review for consistency. Regardless of whether the review related to compliance or consistency, the conduct of such a review is inconsistent with the claim that the EM was a fixed, mandatory document with which IHSL was required to comply. MML has conducted a check of the RFI register and has been unable to locate any RFI raised by IHSL concerning this issue. Accordingly, it would seem that IHSL was content to address the discrepancies it had identified in the EM without any recourse to NHSL. That again suggests that IHSL was acting on the basis that it was responsible for the content of the EM.

64.8. NHSL made multiple comments on the EMs produced by IHSL[167]. These comments included issues where NHSL was concerned that the provisions in the EM did not comply with SHTM 03-01 (such as the single bedroom pressure issue, which is considered in more detail, below). Such comments are inconsistent with the suggestion that the EM was mandatory or that it in some way took precedence over compliance with SHTM 03-01. John Ballantyne attempted to address this point in his evidence[168] by suggesting that NHSL may allow changes to the "line in the sand" and would "sign off on all changes". That involves a misunderstanding of the process that was followed. Although NHSL made comments on the EM, it did not "sign off" on any changes that were subsequently made. This matter is considered in more detail later on in this closing statement. Stewart McKechnie's attitude to these comments in his evidence at the April 2023 hearing[169] seemed to be that he was happy that they were being made as it would reduce the need for WW to identify those issues.

[165] Bundle 8 for the April 2023 hearing page 55 at para 2.8
[166] Page 32 of transcript
[167] See for example Bundle 4 for the April 2023 hearing at page 218
[168] Page 22 of transcript
[169] Pages 117 and 118 of transcript

64.9. Stewart McKechnie expressed[170] his surprise at the level of queries that arose on the EM: it seemed to him that it was odd to be answering questions on the "client's brief". The obvious explanation for this was, of course, that the EM was not the client's fixed brief but rather a document that WW (through IHSL) had taken ownership of. Indeed, he conceded[171] that WW had taken ownership of the EM.

64.10. Similarly, Paul Cooper was surprised[172] by omissions in the EM. Again, the obvious explanation for this is that the document had not been finalised and required to be developed by WW for IHSL.

64.11. In his evidence at the April 2023 hearing[173], Stewart McKechnie confirmed that he understood that if there were ambiguities between the EM and SHTMs, one of WW's responsibilities was to detect that and bring it to the attention of the Board. In this context he also confirmed that WW had checked "what were seen as the key parameters". In his evidence at the February 2024 hearing Mr McKechnie went further. He confirmed[174] that all parameters in the EM, whether they had been in the original EM or had subsequently been added by WW, would have been checked by WW against the applicable guidance. He confirmed[175] that this was a "line-by-line" check. He accepted[176] that WW took responsibility for the compliance of the parameters with the guidance. He stated[177] that WW always had in mind the need to comply with SHTM 03-01. Indeed, he expressly stated[178] "The brief or our design would always have to comply with SHTM 03-01." He said[179] that, if he was being asked for something that was contrary to the guidance, he would raise it. Paul Cooper, who was involved in the electrical side with WW, also confirmed that they would review the EM for compliance with guidance[180] . In his evidence at the February 2024

[170] Paragraph 8 of his Statement for the April 2023 hearing
[171] Paragraph 9 of his Statement for the April 2023 hearing
[172] Paragraph 15 of his Statement for the April 2023 hearing
[173] Page 76 of transcript
[174] Pages 22 and 23 of transcript
[175] Pages 84 and 85 of transcript
[176] Page 23 of transcript
[177] Page 47 of transcript
[178] Page 62 of transcript
[179] Pages 53 to 55 of transcript
[180] Pages 10 and 11 of transcript

hearing[181], Ken Hall confirmed that WW had its own quality standards and that it was WW's role to check for compliance with guidance. This body of evidence makes it plain that the EM was not a mandatory fixed brief that took precedence over SHTM 03-01. It dispels any notion that there was any confusion about the status of the EM.

64.12. A derogation was granted in relation to the provision in paragraph 8 of the BCRs requiring that the works comply with the EM[182]. The derogation was granted because of "anomalies" within the EM. It was noted that "This shall be further developed…" This is inconsistent with the EM being a fixed client brief.

64.13. At Financial Close, the EM was included as part of the RDD. If the EM was a mandatory document, as MPX claims, it is inconceivable that it could have been included as RDD. Its inclusion as RDD appears to have confused Stewart McKechnie as he thought[183] it was the "client's brief" and it "surprised" Paul Cooper[184]. On the other hand, John Ballantyne seemed to have misunderstood the position regarding the inclusion of the EM in the RDD. He claimed[185] that the RDD process was "there to check that the IHSL design was delivering what had been asked for by the Board, including for example what was in the Environmental Matrix." Far from the RDD process being there to confirm compliance with the EM, the inclusion of the EM in the RDD process confirms that the EM itself had not been finalised by that stage. During his evidence[186], Mr Ballantyne did not know whether the EM had been included as RDD. When he was shown documentation confirming that the EM was included as RDD, his position became[187] that this was solely in relation to new rooms being added to it. However, the comments on the EM that were to be addressed during the RDD process went beyond simply adding new rooms. In his evidence[188], Paul Serkis attempted to rationalise the inclusion of the EM as RDD as being part of

[181] Page 113 of transcript
[182] Bundle 5, paper apart volume 1 for the April 2023 hearing at page 3861
[183] Paragraph 22 of his Statement for the April 2023 hearing
[184] Paragraph 9 of his Statement for the April 2023 hearing
[185] Paragraph 36 of his Statement for the April 2023 hearing
[186] Page 23 of transcript
[187] Page 25 of transcript
[188] Page 36 of transcript

a process by which the contract permitted changes, which would then be agreed between the parties. However, this seems to conflate the Change Protocol (at clause 33 and Schedule Part 16 of the Project Agreement) with the RDD process. However, later in his evidence[189] he contradicted this by accepting the validity of Stewart McKechnie's comments to the effect that including the EM in RDD was commercially dangerous for IHSL (which would not be the case if it was part of an agreed change protocol).

64.14. On 15 April 2016, MML sent a message to MPX[190] attaching comments on the EM. The message stated "IHSL are also reminded that the reference design has no relevance to the current contract, and IHSL are to comply with the Project Agreement and in particular the BCRs and PCPs. Any non-compliance with the BCRs and PCPs should be highlighted to the Board." On 17 October 2016, MML emailed IHSL[191] following a review of the most recent draft EM provided by IHSL, stating that the Board "still has significant concerns on the items that do not appear to comply with the BCR's." General comment 6 noted that "Some ventilation rates don't appear to comply with BCRs." The email concluded "Whilst the Board has noted general and specific comments above, the Board reminds Project Co that unless the Board has already accepted a derogation, it is Project Co's obligation to comply with the BCR's/SHTMS [sic] etc, and the Board not commenting, does not remove that obligation on Project Co." A further email dated 7 November 2016[192], upgrading the EM to status B for RDD purposes, noted that "the Board still does not believe the Environmental Matrix and resultant design complies with the Project Agreement. Project Co's failure to comply with the BCRs/PCPs… the Board believes would result in a non-compliant Facility." IHSL was invited to "resolve non-compliant and other issues as matter of urgency". It is clear from this correspondence that parties were proceeding on the basis that (i) compliance with BCRs required more than simply complying with the EM; (ii) there was an overarching requirement to comply with SHTMs; and (iii) the onus to develop the EM and provide a

[189] Page 56 of transcript
[190] Bundle 13, volume 5 for the February 2024 hearing at page 1097
[191] Bundle 14 for the April 2023 hearing at page 339
[192] Bundle 14 for the April 2023 hearing at page 338

compliant facility rested with IHSL regardless of any comments made by NHSL and/or MML on the EM. In his evidence at the February 2024 hearing[193] Ken Hall was unable to provide a satisfactory explanation as to how this correspondence (particularly the letter dated 17 October 2016) was consistent with his claim that the EM was a fixed brief. In his evidence[194] concerning the email from MML dated 17 October 2016, Darren Pike confirmed his understanding that IHSL was responsible for ensuring that the EM, including the air change parameters for Critical Care, was compliant with the BCRs and SHTM 03-01 (unless there was a derogation). He thought[195] that there was an obligation on MPX to raise any items that it saw as non-compliance with the guidance.

64.15. In May 2016, IHSL issued derogation request WW014[196] This sought a derogation from SHTM 03-01 in relation to the air change rate in single bedroom ensuites. In July 2016, IHSL issued derogation request WW015[197]. This sought a derogation from SHTM 03-01 by decreasing the air change rate in single bedrooms from 6ac/hr to 4ac/hr. WW015 ultimately led to item 13 in SA1, which is discussed in more detail later in this closing statement. The derogations sought in WW014 and WW015 reflected entries that were already in the EM. WW014 and WW015 were attempts to derogate from the requirements of SHTM 03-01 in favour of what was written in the EM. If the EM was a fixed brief that took precedence over SHTM 03-01, there would be no need for IHSL to issue these derogation requests. The fact that IHSL issued these derogation requests makes it plain that IHSL recognised that it required to comply with SHTM 03-01 regardless of what was contained in the EM. This undermines any suggestion that the EM was a fixed brief that in some way took precedence over SHTM 03-01. Although this matter was explored with Ken Hall at the February 2024 hearing[198], he was unable to provide a satisfactory

[193] Page 143 of transcript
[194] Pages 28 and 29 of transcript
[195] Page 30 of transcript
[196] Bundle 13, volume 2 for the February 2024 hearing at page 543
[197] Bundle 13, volume 2 for the February 2024 hearing at page 544
[198] Pages 190 to 197 of transcript

explanation for seeking a derogation from SHTM 03-01 if the EM was indeed a fixed brief.

64.16. In February 2017, WW prepared a document entitled Accommodation Design Criteria – Single Rooms & Multi Bed Wards[199]. The purpose of this document appears to have been to check whether the design solutions for single bedrooms and four bed rooms complied with SHTM 03-01. The fact that this document was prepared suggests that WW was aware that its design required to comply with SHTM 03-01.

64.17. In September 2017, WW confirmed[200] that it had carried out a further line-by-line check of the EM.

64.18. In early 2019, there was an exchange of correspondence between NHSL and IHSL concerning compliance with SHTM 03-01. On 31 January 2019, IHSL wrote to NHSL[201] stating "All ventilation systems have been designed, installed and commissioned in line with SHTM 03-01 as required…" It is plain from this confirmation that IHSL took responsibility for the compliance of the ventilation design (as set out in the EM) with the applicable standards. It completely undermines Ken Hall's claim that SHTM 03-01 had in some way been superseded by the EM for the purposes of the project.

64.19. Although WW was not party to the correspondence referred to in the preceding paragraph, Stewart McKechnie confirmed[202] that WW had been requested to confirm that its design was compliant with SHTM 03-01 "which we did". WW's position was that the design complied with SHTM 03-01 without any qualification.

64.20. The suggestion that the draft of the EM that was developed at reference design stage should remain a mandatory requirement throughout the project is

[199] Bundle 13, volume 2 for the February 2024 hearing at page 678
[200] Bundle 13, volume 2 for the February 2024 hearing at page 1048
[201] Bundle 4 for the February 2024 hearing at page 9
[202] Paragraph 64 of his Statement for the February 2024 hearing

inherently unlikely given that the applicable standards and guidance might change over the lengthy period that the project would inevitably take. It is unrealistic that the expectation would be that values were set in stone at reference design stage.

64.21. The suggestion that the EM developed at reference design stage was a mandatory requirement is inconsistent with the key principle described by Richard Cantlay[203] that the design risk on a PPP contract sits with the private sector (with the exception of Operational Functionality).

65. Having regard to the foregoing considerations, it is apparent that, regardless of the claims made by various witnesses to contrary, all parties, including IHSL, MPX and WW acted on the clear understanding that the EM produced in the ITPD was not a mandatory document and that compliance with SHTM 03-01 was required. Perhaps most importantly, Stewart McKechnie's position was that WW's design would always have to comply with SHTM 03-01[204]; that all parameters in the EM would have been checked by WW against the applicable guidance[205]; and that WW's design was compliant with SHTM 03-01[206]. Accordingly, even if there was any ambiguity in the contractual documentation, that had no practical effect because all parties proceeded on the basis that the design required to comply with SHTM 03-01.

66. At paragraph 7 of CTI 2024 it is suggested that ambiguity in the contractual documentation created "a disconnect between what NHSL wanted the ventilation system to achieve and what the successful tenderer believed the ventilation system required to achieve". It is readily apparent from the overwhelming body of evidence summarised in the preceding paragraphs that, in reality, there was no such disconnect. All parties proceeded on the same understanding that the ventilation system required to achieve compliance with SHTM 03-01. Similarly, although paragraph 31 of CTI 2024 suggests that the contract "contained ambiguous and contradictory provisions" in relation to SHTM 03-01, the evidence is to the effect that all parties proceeded on the

[203] Paragraph 8 of his Statement for the April 2023 hearing
[204] Page 62 of transcript
[205] Pages 22 and 23 of transcript
[206] Paragraph 64 of his Statement for the February 2024 hearing

basis that compliance with SHTM 03-01 was a mandatory requirement. At paragraph 89, CTI 2024 states that NHSL and MML were relying on "on interpretation of the Project Agreement under which the environmental matrix included in it was not to be read as their brief…" It is apparent from the evidence set out in the preceding paragraphs that all of the relevant parties were acting on the basis of the same interpretation. At paragraph 90 of CTI 2024, having accepted that this interpretation "may well be correct", it is then suggested that there is an "air of unreality" about this interpretation. Having regard to all of the evidence set out above, and having a clear understanding of the transfer of risk that is a fundamental feature of the NPD model, there is no such "air of unreality". If there is any "air of unreality" on this matter, it is in (i) MPX/WW persisting in a claimed interpretation of the status of the EM that is entirely at odds with their own actions; and (ii) CTI suggesting that there was any genuine lack of clarity about the status of the EM. At paragraph 90 of CTI 2024, it is suggested that there may "be some force" in the view that "the environmental matrix set out NHSL's preferences" and that "SHTM 03-01 did not compel a change from them, even if they were not consistent with the recommendations which it made". Essentially the suggestion seems to be that the EM might have taken precedence over SHTM 03-01. Any such suggestion is completely inconsistent with the overwhelming body of evidence set out above, including Mr McKechnie's own evidence regarding the need to comply with SHTM 03-01. Contrary to CTI's suggestion at paragraph 90 of CTI 2024, there is no force whatsoever in this suggestion.

67. The erroneous understanding of the status of the EM articulated by witnesses from MPX and WW is also reflected in the document entitled RHCYP/DCN Critical Care Ventilation Systems Review by Mr Maddocks dated 13 December 2023[207]. For example, at paragraph 2.1.5, having stated that he does "not offer any view on the status of the EM", Mr Maddocks goes on to suggest that there "would be no point in a client issuing a "draft" EM that could not be relied on by the engineer." He also states that the EM is "a key briefing requirement" (paragraph 2.2.1), "a fundamental briefing tool" (paragraph 2.2.5) and "a key briefing document" (paragraph 2.2.6). Mr Maddocks does not appear to have had access to the evidence that has been led before the Inquiry concerning the decision to issue the draft EM to bidders and the actions of the parties

[207] Witness Bundle volume 1 for the February 2024 hearing at page 3

thereafter which made it readily apparent that all parties recognised that the EM was to be developed by the successful bidder. He does not appear to have analysed the ITPD documentation and the Project Agreement in order to understand the status of the EM. His comments are at odds with the available evidence. The Inquiry is invited not to place reliance on these parts of Mr Maddocks' review. In any event, in his evidence at the February 2024 hearing[208], he explained that, from a professional perspective, if an engineer was faced with a brief that did not comply with published guidance, they would flag it to the client as a risk. It follows that, in Mr Maddocks' opinion, even if the EM was NHSL's brief, it was still incumbent on WW to highlight any discrepancies between the EM and SHTM 03-01 (which seemed to be accepted by Stewart McKechnie in any event[209]).

68. Even if, contrary to the actions of the parties, there was some misunderstanding about the status of the EM in the ITPD, the effect of the hierarchy of standards provisions at paragraph 2.5 of the BCRs (which is considered in more detail, below, in the context of the Project Agreement) made it plain that IHSL's design required to comply with SHTM 03-01 regardless of the terms of the reference design EM.

69. In any event, even if the foregoing is not accepted, and one were to proceed on the basis that EM was a mandatory document and that there was no specific requirement to comply with SHTM 03-01, that would not alter the requirement that IHSL proceed on the basis of 10ac/hr for Critical Care. Although the individual entries in the matrix for bedrooms in Critical Care stated 4ac/hr, Guidance Note 15 (prior to the alteration by Stewart McKechnie) made it clear that, for HDU Bed Areas and Critical Care Areas, SHTM 03-01 applied and supply ventilation should be 10ac/hr. As Michael O'Donnell noted in his evidence[210], the Guidance Notes pull together what is important, the key notes, from the current guidance. These were put up front as "important watch points". He was clear that the guidance notes take precedence over the values in the matrix. His evidence on this point is consistent with the entry in the "Notes" column of the relevant entries in the matrix stating "See Guidance Notes". In any event, as an engineer, he

[208] Pages 24 to 25 of transcript
[209] Pages 53 to 55 of transcript
[210] Pages 32 and 33 of transcript

considered[211] that if there was any doubt, he would "sit on the side of caution" and go with the more onerous provision until it was clarified. Such an approach is consistent with the terms of paragraph 2.5 of the BCRs, which would apply to any discrepancies within the terms of the EM.

70. Willie Stevenson's evidence[212] was also that the Guidance Notes take precedence as they give instructions on how to deal with the matrix and highlight up front the specific requirements. In the event of a major conflict between the Guidance Notes and the entries in the matrix, he would expect someone to raise a query or derogation, although he agreed with Mr O'Donnell's view that the more onerous would take precedence.

71. Stewart McKechnie's evidence at the April 2023 hearing[213] was that Guidance Note 15's reference to "10ac/hr" related only to isolation rooms. On a reasonable reading of Guidance Note 15, this interpretation is untenable. It did not seem to be shared by any other witness who was asked to comment on the EM. It is based on Mr McKechnie's own interpretation of Table A1 of SHTM 03-01, which seems to be erroneous for the reasons set out earlier in this Closing Statement. In any event, there is no express mention in Guidance Note 15 of the entry being limited to isolation rooms. The fact that the requirement for "10ac/hr" is included, not just for "Critical Care Areas" but also for "HDU bed areas" suggests that all bed areas in HDU or Critical Care, not just those in isolation rooms, were supposed to have this provision. Such an interpretation is supported by the RFRS which also made provision for 10ac/hr supply in HDU.

72. Whether one approaches matters on the basis that (i) Guidance Notes take precedence over the entries in the matrix; or (ii) the more onerous provision takes precedence, it is apparent that the EM, when properly interpreted, mandated 10ac/hr for Critical Care Areas. Similarly, when one considers the entry for HDU in the RFRS, as it is more onerous than the individual bedroom entries for Critical Care, the provision for 10ac/hr ought to take precedence.

[211] Page 88 of transcript
[212] Pages 19 and 20 of transcript
[213] Page 136 of transcript

73. Given the clear importance of the Guidance Notes, it is surprising, and perhaps rather alarming, that Ken Hall's stated interpretation of the Guidance Notes in his evidence at the April 2023 hearing[214] was that they were effectively working notes from the designer that he was "not that… interested in going through". On that basis, his view seemed to be that they could be ignored. It is plain from even a cursory review of the Guidance Notes that they could not reasonably be described as working notes and that it would be unwise to disregard them.

74. Similarly, Ken Hall's view of the RFRS was that it was "not something [he] had any knowledge of"[215]. He agreed to the proposition that he did not think that it was necessary to read or understand this part of the EM. Again, this is rather alarming given that it was an integral part of the document. Michael O'Donnell described[216] it as attempting to summarise all of the repeatable room types in order to make the review process easier.

75. In any event, the whole question of the status of the EM is academic: Stewart McKechnie is of the view that "the EM did accord with SHTM 03-01"[217] and that 4ac/hr in Critical Care "did not appear to be a mistake"[218]. Accordingly, it would not have mattered whether the reference design EM was mandatory or not: IHSL/WW would not have made any changes to the relevant entries because WW considered them to be correct. Even if the Inquiry were to conclude that there was some ambiguity in the ITPD or contractual documentation regarding the status of the EM, any such ambiguity has no causal relationship to the issues that subsequently developed and resulted in the delayed opening of the hospital. The fact that the EM continued to stipulate 4ac/hr for single bedrooms and four bed rooms in Critical Care was because Mr McKechnie considered that this was what SHTM 03-01 required: not because of any uncertainty on his part about the status of the EM and whether WW's design required to comply with SHTM 03-01. It follows that any ambiguity or uncertainty regarding the procurement documents was of no causative significance in relation to the delayed opening of the hospital.

[214] Pages 62 and 63 of transcript
[215] Page 54 of transcript
[216] Page 72 of transcript
[217] Paragraph 24 of his Statement for the April 2023 hearing
[218] Paragraph 26 of her Statement for the April 2023 hearing

76. CTI 2024 suggests that a lack of clarity in the contractual documentation was a causal factor in the issues that led to the delay in the opening of the hospital. For example, at paragraph 7 it is suggested that a misunderstanding about the status of the EM "is at the heart of the matter". At paragraph 22 it states "The issues on the project arose from a lack of clarity in the brief." For all of the reasons set out in the preceding paragraphs, even if there was a lack of clarity about the status of the EM (despite all of the evidence to the contrary), it made no difference to the development of the ventilation issue. Indeed, CTI appear to recognise this at paragraph 93 of CTI 2024 where it is stated that, given Stewart McKechnie's claimed interpretation of SHTM 03-01, "a different outcome could only have been achieved on the RHCYP/DCN project if NHSL had specified, whether in the environmental matrix or during the process of reviewing it, that they wanted 10 air changes in those rooms, and insisted upon it over the views of Wallace Whittle." This appears to be a recognition that the primary cause of the problem was Stewart McKechnie's claimed interpretation that SHTM 03-01 required 4ac/hr in the relevant rooms.

77. The Chair is invited to conclude that there was no lack of clarity in the procurement and contractual documents regarding the status of the EM. Even if there was such a lack of clarity, the Chair is invited to conclude, based on the actions of the parties, that there was a clear common understanding that the design required to comply with SHTM 03-01. In any event, the Chair is invited to conclude that, even if there was a lack of clarity in the procurement and contractual documents regarding the status of the EM, any such lack of clarity was not a cause of the issues that led to the delayed opening of the hospital.

The tender submitted by Bidder C

78. Bidder C (Mosaic) included a revised EM in its tender submission[219]. Amongst many revisions marked in red, supply ventilation for some, but not all[220], of the single bed cubicles and open plan bays in PICU/HDU was changed to 10ac/hr. However, the tender documents did not suggest that this change had been made because the reference

[219] Bundle 7 for the April 2023 hearing at page 52
[220] See the entries for "Neonatal HDU" and "High Acuity" at Bundle 7 for the April 2023 hearing at page 56

design EM was non-compliant with SHTM 03-01. Bidder C's final tender submission in relation C8 (Approach to design and construction – M&E engineering design proposals) stated at section C8.2x[221] "Mosaic environmental matrices have been produced to reflect the design criteria used as the basis of the Mosaic proposals… The matrices have been derived from the reference design environmental matrices in order to show where the design criteria have been modified to reflect the Mosaic engineering strategy." The tender submission continued at section C8.3[222] "It is Mosaic's intent to generally follow the reference design environmental matrices except where the criteria are modified by the different engineering strategies proposed, for example the proposed use of chilled beams combined with fresh supply rates based on occupancy… Some other criteria have been modified to enhance the proposed design criteria or adjust values based on the intended room use…" Although certain "key adjustments" were identified, these did not include the entries related to bedrooms in PICU/HDU.

79. Accordingly, the impression given by the tender documentation was that any revisions made by Bidder C to the reference design EM were "to reflect the design criteria used as the basis of the Mosaic proposals" or "to reflect the Mosaic engineering strategy." This impression is supported by the fact that not all single bed cubicles and open plan bays in PICU/HDU were changed to 10ac/hr. The documentation would not have put the reader on notice that Bidder C had identified entries in the reference design EM that were not in compliance with SHTM 03-01. It is also relevant to note in this context, that, according to Brian Currie[223], Bidder C had introduced other errors into the EM.

80. Willie Stevenson explained[224] that it would not be a cause for concern if one bidder produced a marked up EM and others did not. He noted that H&K had certified that its design complied with SHTMs, so there was no reason to suspect that the reference design EM did not comply with SHTMs. In any event[225], the important thing was not whether EMs produced by bidders matched each other or the reference design EM: the important thing was that they complied with the guidance.

[221] Bundle 7 for the April 2023 hearing at page 156
[222] Bundle 7 for the April 2023 hearing at page 158
[223] Paragraph 83 of his Statement for the February 2024 hearing
[224] Paragraph 16 of his Statement for the April 2023 hearing
[225] Paragraph 17 of his Statement for the April 2023 hearing

81. Richard Cantlay noted[226] that bidders required to confirm that their proposals complied with the BCRs (as set out in C21 of the Bid Submission Requirements). Bidders could present different solutions provided each confirmed that the bid, when developed, would comply with the BCRs. In his evidence at the April 2023 hearing[227], he noted that changes being made to the EM would not be a red flag: rather it would make it clear how the bidder's proposal varied from the baseline EM provided to tenderers.

82. Graeme Greer did not consider[228] that bidders producing two different solutions would necessarily have rung any alarm bells: it would not necessarily mean that one had complied with the guidance and the other had not. In his evidence at the April 2023 hearing[229], he noted that each bidder likely had a different architectural solution, so would have a different matrix for that reason.

83. Colin Macrae also confirmed[230] that different solutions submitted by IHSL and Bidder C was not a cause for concern as the design development had not started – he would have thought Bidder C was being proactive in making a start on developing their design. He noted[231] that the review of the tender did not involve a side-by-side comparison.

84. Paragraph 224 of CTI 2023 sought to ascribe significance to the changes made by Bidder C which is not supported by the available evidence. It was suggested that "the differing tenders submitted by IHSL and Bidder C exemplify the problems with the drafting of the tender documents". CTI 2023 went on to note that both IHSL and Bidder C "offered to comply with" the BCRs but that Bidder C had "required to make changes" to the EM, while IHSL "did not offer to change any values" in the EM. CTI 2023 then stated "It is not clear why one tender was not rejected as a variant bid."

85. It is not at all clear what is meant by a "variant bid". There is no express suggestion that any of the bids failed to comply with the evaluation criteria: they were accordingly not variant in that sense. The fact that the bids varied from each other is entirely normal:

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[226] Paragraphs 14 and 66 of his Statement for the April 2023 hearing
[227] Page 40 of transcript
[228] Paragraph 40 of his Statement for the April 2023 hearing
[229] Page 63 of transcript
[230] Paragraph 10 of his Statement for the April 2023 hearing
[231] Paragraph 14 of his Statement for the April 2023 hearing

given the volume and complexity of the tender documentation, it would be remarkable if the tenders were identical. The fact that Bidder C made changes to the EM does not mean that the EM had to be changed in order to be compliant with SHTM 03-01. The reasons that Bidder C provided for its changes are set out above: it was to reflect Bidder C's design criteria and engineering strategy. These important passages from Bidder C's tender, which are essential to placing Bidder C's changes in context, are not mentioned in CTI 2023. The suggestion in paragraph 224 of CTI 2023 that Bidder C "required to make changes" in order to comply with the BCRs is not borne out by what is stated in Bidder C's tender documentation. The fact that IHSL submitted a different EM would be readily explicable on the basis that it had different design criteria and engineering strategy from Bidder C. In any event, IHSL did indicate that it also intended to make changes to the EM: at C8.2(x)[232] IHSL noted that it "shall provide an addendum matrix for any rooms on an exception basis highlighting any changes at preferred bid stage".

86. A proper analysis of the tenders submitted by IHSL and Bidder C does not support the contention that they "exemplify the problems" with the ITPD documentation. Both bidders confirmed that their design would comply with SHTM 03-01. Both bidders indicated that they understood that changes could be made to the EM. Far from exemplifying problems with the ITPD documentation, this passage of evidence supports the contention that there was in fact no real confusion about what was required of bidders.

87. The Chair is invited to conclude that the fact that Bidder C and IHSL submitted different bids should not have alerted MML to any possible issue with the EM.

The intensity of review of tenders

88. Richard Cantlay explained[233] that the bids were reviewed in accordance with an agreed evaluation methodology set out in the Final Tender Evaluation Manual and Supplementary Guide to Final Tender Evaluation. As Iain Graham noted[234] in relation

[232] Bundle 3 for the April 2023 hearing at page 303
[233] Paragraph 65 of his Statement for the April 2023 hearing
[234] Paragraph 10 of his Statement for the April 2023 hearing

to the tender scoring criteria, a minimum pass/fail threshold was put forward in some areas (such as compliance with basic BCRs) to make the best of quality scores. He considered[235] that M&E was not given a lower weighting than other elements as M&E installations have an extensive underpinning of technical standards and all criteria in the BCRs had to be passed or the bid would be deemed non-compliant. Richard Cantlay noted[236] that M&E was not a standalone item that was assessed only in relation to section C8: it was also taken into account in other criteria such as C4, C5, C9, C10, C15, C18 and C19.

89. Richard Cantlay explained[237] that, when evaluating the tenders, it was not MML's role to check the design on a line-by-line basis but rather to review the bids in accordance with the agreed evaluation methodology. In his evidence at the April 2023 hearing[238] he explained that the tenderers were bidding to design and construct the hospital. They were presenting their approach to how they would do the design rather than presenting a full design. In relation to criteria such as C21 (compliance with the BCRs, which was assessed on a pass/fail basis), the final design could not be considered as it did not exist. Rather the tenderer would be confirming that, when doing the design, they would comply with the BCRs. That statement would be taken at face value. Graeme Greer also confirmed[239] that tender evaluation would not involve a line-by-line check of each bid for compliance with all the guidance in the BCRs. In his evidence at the April 2023 hearing[240] he described how each assessment team would perhaps have two to three hours to review the response to each question: "not a massive amount of time". He noted that this was not a design check, rather it was a review of submissions. So far as compliance with the BCRs was concerned, he explained[241] that the onus was on bidders to confirm that they were complying rather than on NHSL reviewing the submissions to confirm compliance. The rationale for this approach lay in the risk allocation in an NPD contract. In any event, reviewing each submission to ensure compliance with the BCRs would have been a huge task which would not have been possible in the time

[235] Paragraph 14 of his Statement for the April 2023 hearing
[236] Paragraph 20 of his Statement for the April 2023 hearing
[237] Paragraph 65 of his Statement for the April 2023 hearing
[238] Pages 65 and 66 of transcript
[239] Paragraph 22 of his Statement for the April 2023 hearing
[240] Page 21 of transcript
[241] Pages 46 and 47 of transcript

available. Mr Greer considered[242] that checking each tender to ensure compliance with the BCRs would have taken months. Willie Stevenson explained[243] that tender evaluation would be a sample review with a few spot checks: not a line-by-line review. In any event, he noted[244] that the tenders were not the bidder's final design: what was being looked for at final tender stage was an indication that bidders were in agreement that what they were going to design would be compliant with the BCRs. Colin Macrae, who reviewed technical submissions from an M&E perspective including ventilation and many other elements, confirmed[245] that when assessing tenders, he would not be looking at compliance with SHTMs as the design had not been developed at that stage. This body of evidence from MML's witnesses is consistent with the position of Brian Currie. He considered[246] that a detailed examination of the bidders' EMs was not necessary.

90. Graeme Greer noted in evidence at the April 2023 hearing[247] that those RDS that were submitted at tender stage, may have been included as an appendix to the architectural submission as opposed to being part of the M&E submission. In any event he doubted that they would be reviewed as part of the tender evaluation process.

91. Paragraph 234 of CTI 2023 stated that "the evidence indicates that there was a low intensity review of tenders". It is unclear whether this was intended as a criticism of those conducting the tender evaluation process. It is unclear whether it was being suggested that the tender evaluation process deviated in any way from the agreed methodology set out in the Final Tender Evaluation Manual and Supplementary Guide to Final Tender Evaluation. It is unclear whether any criticism was being made of the Final Tender Evaluation Manual and Supplementary Guide to Final Tender Evaluation. Reference was made by CTI to two aspects of the task undertaken as part of the tender evaluation exercise: accepting a statement of compliance with the BCRs at face value; and conducting some sample reviews. The sample review itself was described at paragraph 23 of CTI 2023 as a "very low intensity 'sample' review". It was then

[242] Page 49 of transcript
[243] Paragraph 14 of his Statement for the April 2023 hearing
[244] Paragraph 15 of his Statement for the April 2023 hearing
[245] Paragraph 8 of his Statement for the April 2023 hearing
[246] Paragraph 87 of his Statement for the February 2024 hearing
[247] Pages 59 and 60 of transcript

suggested at paragraph 234 that the characterisation of the tender evaluation process as a "low intensity review" was "exemplified" by the lack of a review of the RDS.

92. It is submitted that the evidence does not support CTI's characterisation of the tender evaluation process as being a "low intensity review". The full work involved in evaluating the tenders was touched on very briefly in evidence. It is submitted that the Inquiry would be unable to reach any conclusions regarding the intensity of the evaluation process from the limited examples mentioned by CTI. The full evaluation criteria are set out in the ISFT documentation[248]. Each of the three tenders had to be evaluated against that full set of criteria. Bundle 6 comprises no more than the "key sections" of IHSL's tender. The bundle runs to 1,203 pages and touches upon a very small proportion of the evaluation criteria. Insofar as any criticism is made of a "sample review" exercise, it is unclear what practical alternative is being suggested. The Inquiry heard evidence (discussed below) from a number of witnesses regarding the scope of the task in conducting a full review of the EM (which formed one relatively small element of the tender documentation). A full review of each of the three tenders, including checking for compliance with all of the BCRs, is likely to have taken several months. Given that, at tender evaluation stage, the design had yet to be developed by the successful bidder, any detailed review would have been wholly disproportionate and prohibitively expensive. This must also be considered against the background that NHSL had received confirmation from H&K that the reference design EM complied with applicable guidance.

93. Insofar as it is suggested that the sample review itself was of "very low intensity" there was simply no evidence about the level of intensity with which the sample review was conducted to enable any view to be formed about its level of intensity. In short, the evidence did not suggest that a sample review exercise was inappropriate, nor that any valid criticism could be made of the manner in which that sample review exercise was carried out.

94. In its Closing Submission following the April 2023 hearing, WW invited the Inquiry to consider whether IHSL may have been left with a misplaced confidence that its tender

[248] Bundle 3 for the April 2023 hearing from page 71 to 153

had been assessed as being fully compliant with the BCRs. WW did not point to any evidence to support the suggestion that IHSL had any such confidence. MML is not aware of any such evidence. Given the evidence (discussed below) regarding the scope of the task in conducting a full review of the EM, it seems highly unlikely that any tenderer could have entertained any genuine understanding that the tender evaluation process included a detailed review of every tender to ensure full compliance with the BCRs.

The period to Financial Close

95. The problems and difficulties described in CTI 2023 (from paragraph 241) were primarily the result of IHSL failing to deliver on its requirements. As CTI 2023 noted (at paragraph 245), despite IHSL's complaints to the contrary, no witness was able to provide any example of a radical change by NHSL to the stated requirements that increased the requirements placed on IHSL.

96. As Graeme Greer stated[249], by Financial Close there was not a complete set of RDS from IHSL. This resulted in RDS being included as RDD. Susan Goldsmith stated[250] that MPX did not make the design progress that it was expected to make prior to Financial Close. She continued[251] that, in order to reach Financial Close, a pragmatic way forward was agreed. She considered that MPX used commercial leverage knowing NHSL had limited options[252]. In her evidence at the April 2023 hearing[253], she explained that NHSL were comfortable waiving the requirement for a full set of RDS by Financial Close because contractual responsibility for producing them would lie with IHSL after Financial Close. Iain Graham noted[254] the pressures from various parties to get to Financial Close, and that the reduction in the number of RDS for inclusion in the Project Agreement was one of many compromises, although this was mitigated by the provision of RDS for key and generic rooms. He noted[255] that MPX strongly resisted completing 100% RDS as it would require too much time and cost prior to Financial

[249] Paragraph 65 of his Statement for the April 2023 hearing
[250] Paragraph 41 of her Statement for the April 2023 hearing
[251] Paragraph 43 of her Statement for the April 2023 hearing
[252] Paragraph 45 of her Statement for the April 2023 hearing
[253] Page 59 of transcript
[254] Paragraph 36 of his Statement for the April 2023 hearing
[255] Paragraph 46 of his Statement for the April 2023 hearing

Close. This resulted in RDD being more extensive than expected[256]. In her evidence at the April 2023 hearing[257], Janice MacKenzie described this as a pragmatic decision because they needed to get on and build the hospital. In his evidence at the April 2023 hearing[258], Richard Cantlay noted that the bidder had put forward a fixed price, so the risk to the Board would be the same whether design issues were finalised pre or post Financial Close.

97. As Graeme Greer explained in evidence at the April 2023 hearing[259], the first RDS were produced eight weeks out from the projected Financial Close date. Given the timescales involved, they were not reviewed prior to Financial Close. In any event, the clinical activities in the RDS for four bed rooms in Critical Care produced at Financial Close gave the impression that these were normal bedrooms rather than Critical Care Areas. This matter is considered in more detail later in this closing statement.

98. Colin Macrae described his involvement in highlighting discrepancies in relation to single bedrooms. His concern was that the bedroom ventilation was described in the IHSL EM as being positive. He considered this to be an infection control risk. This issue was noted during the preferred bidder stage[260]. In his evidence he suggested that during this period his reviews got "more focussed"[261], although still at a "fairly high level"[262]. It is apparent from the comment raised on this issue[263], when compared with the requirements of SHTM 03-01, that the issue related to standard single bedrooms, not to those in Critical Care. This conclusion is supported by the reference to the rooms having ensuites (which would not be the case in Critical Care). This was one of the outstanding issues that led to the EM being RDD[264]. It was not resolved at Financial Close.

[256] Paragraph 50 of his Statement for the April 2023 hearing
[257] Page 34 of transcript
[258] Page 78 of transcript
[259] Page 58 of transcript
[260] Bundle 4 for the April 2023 hearing at page 275
[261] Page 24 of transcript
[262] Page 25 of transcript
[263] Bundle 4 for the April 2023 hearing at page 276
[264] Bundle 5 for the April 2023 hearing at page 880

99. Graeme Greer's position in evidence at the April 2023 hearing[265] was that this was one of many issues that they were working through at that point. It did not jump out as being a higher priority than anything else that was being worked on. He noted[266] that there was no indication that IHSL would not address it so that the design was compliant with SHTM 03-01. In his evidence at the April 2023 hearing[267], Richard Cantlay said that he was not surprised that an issue such as this would arise at this stage as the preferred bidder would be developing its design which would be reviewed in more detail. The understanding that this issue was not sufficiently serious to prompt a wholesale review of the EM is supported by Paul Serkis's evidence[268] that this was not something that had been raised as a red flag to him or John Ballantyne and that he could not recall any major conversations about it. On reviewing the documents now, he considered[269] that this was something being raised for review: it was not unusual, just another item to be dealt with as part of design development. In her evidence at the April 2023 hearing[270], Susan Goldsmith considered that this was one of several issues that needed to be resolved, and that she was reassured by the fact that the risk had been identified and was being addressed.

100. Paragraph 248 of CTI 2023 suggested that this issue highlighted that H&K's confirmation that the EM complied with SHTMs was not accurate, and that a failure to "re-visit" the EM was a missed opportunity. It is unclear what is meant by "re-visit". As is readily apparent from the fact that the issue came to light during a review of the EM, the EM was being subjected to review by MML and NHSL. In that sense it was being revisited. However, for the reasons discussed elsewhere in this submission, any full review of the EM would have taken months. Given the time and costs involved, the pressure to achieve Financial Close, the lack of any obvious reason to suppose there were any other significant errors in the EM, the fact that design risk ultimately sat with IHSL and the expectation that IHSL would review its design for compliance with guidance, any such review would not have been a reasonable option.

[265] Pages 86 and 87 of transcript
[266] Page 87 of transcript
[267] Page 82 of transcript
[268] Pages 49 and 50 of transcript
[269] Pages 52 and 53 of transcript
[270] Page 76 of transcript

101. At paragraph 7 of CTI 2024, it is stated that "The lack of a finalised document clearly setting out the technical requirements for the ventilation, at financial close, was at the root of the problems with the project." At paragraph 336 CTI 2024 states that "The shortcomings in the ventilation system … could have been prevented if a clear brief had been agreed before financial close." Similar statements are made at paragraphs 349 and 350, partly under reference to the lack of a full set of RDS at Financial Close. There is no clear explanation in CTI 2024 for the conclusion that the lack of a finalised ventilation design, including a full set of RDS, at Financial Close led to the issues that subsequently developed. On the assumption that there was some uncertainty about whether the EM was a fixed brief, providing further clarity on this issue at Financial Close would not have prevented the issues that led to the delay in the opening of the hospital from arising. If the brief was to comply with the EM, then compliance with 4ac/hr for the relevant rooms would have been mandatory as that is what was included in the EM at that stage. If the brief was to comply with SHTM 03-01, then the designer, Stewart McKechnie, would have ensured that the air change rates complied with his claimed interpretation of SHTM 03-01, namely 4ac/hr. So, even if there was a lack of clarity in the brief, rectifying that issue would have made no difference to the outcome in the present case. It is highly unlikely that the production of a full set of RDS at Financial Close would have made any difference to the outcome. The RDS would presumably have used the same parameters as the EM, either because the information would simply have been copied across or because WW would have inserted ventilation parameters that were consistent with Mr McKechnie's claimed interpretation of SHTM 03-01. When the relevant RDS were ultimately produced, the ventilation parameters matched those in the EM. Accordingly, even if a full set of RDS at Financial Close would have provided more clarity, it would not have avoided the issues that subsequently developed. It would simply have clarified that 4ac/hr was required. In short, any finalised design at Financial Close would have included the error that ultimately led to the delay in the opening of the hospital. The ventilation parameters would have been no different had they been finalised prior to Financial Close. Accordingly, any "lack of a finalised document" at Financial Close had no causal connection to the delay in the opening of the hospital.

The Contract

102. MML recognises that it is not the role of the Inquiry to determine the correct interpretation of the contract. It is readily apparent that there are competing interpretations amongst the various Core Participants. In this part of the submission MML sets out what it contends to be the correct interpretation of the Project Agreement and to highlight all of the relevant provisions.

103. MML accepts the observation made at paragraph 258 of CTI 2023 that the wording of the Project Agreement did contain some potential ambiguities about the status of the EM. However, MML submits that, when the Project Agreement is viewed as a whole, the status of the EM is clear. In particular, it is clear that the provisions in SHTM 03-01 took precedence over the EM. That understanding is clear not just from consideration of the provisions identified in the following paragraphs: it is also apparent from the actions of the parties (discussed earlier in this closing submission), all of whom proceeded on a clear understanding that compliance with SHTM 03-01 was required. The summary of the position adopted by IHSL/MPX/WW in the last sentence of paragraph 258 of CTI 2023 is not borne out by the evidence regarding their actions.

104. Clause 12.1.1 of the Project Agreement[271] provides that "Project Co shall carry out the Works… so as to procure satisfaction of the Board's Construction Requirements…" Paragraph 8 of the BCRs[272] provides, *inter alia*, that "Project Co shall provide the Works to comply with the Environmental Matrix."

105. Paragraph 2.3 of the BCRs[273] provides that "In addition to the standards listed in paragraph 2.4 of this Sub-Section C, unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time." The list of NHS Requirements included "h) HTM and SHTM". Paragraph 2.3v[274] continued: "Project Co shall, in relation to all

[271] Bundle 5 for the April 2023 hearing at page 24
[272] Bundle 5 for the April 2023 hearing at page 289
[273] Bundle 5 for the April 2023 hearing at page 211
[274] Bundle 5 for the April 2023 hearing at page 213

SHTM and all HTM (except HTM where an SHTM exists with the same number and covering the same subject matter): take fully into account the guidance and advice included within such SHTM and HTM; ensure that the Facilities comply with the requirements of such SHTM and HTM; and adopt as mandatory all recommendations and preferred solutions contained in such SHTM and HTM."

106. IHSL argues that the EM is a "specific and different requirement" covered by the qualification to paragraph 2.3 such that there is no requirement for it to comply with the SHTMs. It contends that the EM accordingly took precedence over the SHTMs. However, on a complete understanding of the provisions of the Project Agreement, this argument is incorrect for the following reasons:

106.1. A derogation was ultimately granted in relation to the provision in paragraph 8 of the BCRs requiring that the works comply with the EM[275]. The derogation was granted because of "anomalies" within the EM. It was noted that "This shall be further developed…" Accordingly, at the time the Project Agreement was finalised, the requirement that the works comply with the EM was the subject of a derogation and therefore did not form part of the BCRs. It could not have been a "specific and different requirement".

106.2. Similarly, the EM was included in RDD[276]. It had accordingly not been finalised and signed off for construction. Compliance with it could not have been compulsory. In any event, it was not a "specific and different requirement" as it had not yet been finalised.

106.3. The wording "specific and different requirement" in paragraph 2.3 is not apt to describe the EM, even once finalised. It was a wide-ranging summary of environmental parameters. It was described, in Guidance Note 1 as no more than a "reference tool". It does not specifically state that it is to take precedence over SHTMs. There is no specific statement anywhere in the Project Agreement that there did not require to be compliance with SHTM 03-01.

[275] Bundle 5, paper apart volume 1 for the April 2023 hearing at page 3861
[276] Bundle 5 for the April 2023 hearing at page 880

106.4. The EM was not a "different requirement" to the SHTMs. On the contrary the Guidance Notes, particularly Guidance Note 15[277], made express reference to SHTM 03-01. Indeed, Guidance Note 15 specifically stated that SHTM 03-01, requiring 10 air changes, are the applicable "design criteria". On a fair reading of the EM, it is plainly intended to reflect the SHTMs rather than acting as a specific and different requirement to them.

106.5. In any event, the requirement in the BCRs to comply with SHTMs did not come solely from paragraph 2.3. After making reference to the EM, Paragraph 8[278] continued "Project Co shall in carrying out the Works comply with the following non-exhaustive list of mechanical and electrical requirements…" Paragraph 8.1 Minimum Engineering Standards included "The following is a non-exhaustive list of SHTM's, HBN's and HTM's applicable to the Facilities…h) SHTM 03-01: Ventilation in Healthcare Premises." This express reference to SHTM 03-01 is not subject to the qualification in paragraph 2.3 concerning any "specific and different requirement". Accordingly, even if IHSL is correct in its argument that the EM was a specific and different requirement such that the references to SHTMs in clause 2.3 were of no effect, that has no bearing on the clear provisions in paragraph 8 mandating compliance with SHTM 03-01. On a proper understanding of the BCRs, there is no doubt that IHSL's design required to comply with SHTM 03-01. At paragraph 198 of CTI 2023, it was suggested that the language used in paragraph 2.3 contributed to confusion and ambiguity as to the ventilation requirements. Even if that was correct when viewing paragraph 2.3 in isolation, it ignores other provisions such as paragraph 8.1 which made it clear that compliance with SHTM 03-01 was required. Similarly, the second last sentence of paragraph 253 of CTI 2023 implied that paragraph 2.3 is the only paragraph of the BCRs requiring compliance with SHTMs. That is plainly incorrect having regard to the full terms of paragraph 8 and the provisions identified in the following sub-paragraphs (many of which are mentioned in CTI 2023).

[277] Bundle 4 for the April 2023 hearing at page 160
[278] Bundle 5 for the April 2023 hearing at page 289

106.6. Paragraph 2 of the BCRs[279] provided that "Project Co shall ensure the design complies with the general ethos detailed here… Project Co shall ensure that the design of the Facilities draws upon and endeavours to further develop, improve and exceed current best practice (and Good Industry Practice) standards achieved in other similar schemes…" This provision required IHSL's design to comply with SHTM 03-01.

106.7. Paragraph 3.6.3 of the BCRs[280] stated "For the avoidance of doubt, Project Co shall provide mechanical ventilation, comfort cooling and air conditioning to suit the functional requirements of each of the rooms in the Facilities. Irrespective of the ventilation requirements in the Room Data Sheets, where rooms are clearly intended to be occupied and/or become internal spaces during design development and natural ventilation is not possible, mechanical ventilation and/or extract ventilation shall be provided as appropriate to suit the function of the space." This provision required IHSL's design to comply with SHTM 03-01.

106.8. Paragraph 5.2 of the BCRs[281] made provision in relation to Infection Prevention and Control. It stated that "Project Co shall ensure all aspects of the Facilities allow for the control and management of any outbreak and/or spread of infectious diseases in accordance with the following… (f) Ventilation in Healthcare Premises (SHTM 03-01)". This is a further provision requiring IHSL to comply with SHTM 03-01 which is not subject to the qualification in paragraph 2.3 concerning any "specific and different requirement". John Ballantyne commented[282] specifically on this provision during his evidence. He claimed that NHSL had satisfied themselves that the EM complied, without providing any explanation for this claim. When it was put to him that this was not what the provision said, he referred to "the unwritten word" and "implied compliance".

[279] Bundle 5 for the April 2023 hearing at page 209
[280] Bundle 5 for the April 2023 hearing at page 232
[281] Bundle 5 for the April 2023 hearing at page 255
[282] Pages 51 and 52 of transcript

106.9. Paragraph 8.7 of the BCRs[283] provided that "Systems shall be design [sic], supplied, installed, tested, commissioned, operated and maintained all in accordance with the regulations and standards." This provision required IHSL's design to comply with SHTM 03-01.

106.10. Paragraph 8.7.8 of the BCRs[284] stated "Project Co shall demonstrate how the proposals facilitate the control and management of an outbreak and spread of infectious diseases in accordance with SHTM 03-01…" This provision required IHSL's design to comply with SHTM 03-01. Other provisions to similar effect include paragraphs 4.5.17[285] and 8.5.3[286].

106.11. The Clinical Output Based Specification ("COBS") formed sub-section D of the BCRs (Specific Clinical Requirements), the most relevant part of which was B1 Critical Care[287]. At 1.8, Environmental and Services Requirements it states[288] "Flexibility in use of the Critical Care beds for both High Dependency and Intensive Care is key to maintaining efficient use of high specification beds… All PICU and HDU bed spaces are required to be of the same specification to allow greatest flexibility of use". At 1.9 "Attention is drawn to the design guidance contained in the following documents: … SHTM 2025: Ventilation". By the time the contract was finalised, SHTM 2025 had been superseded by SHTM 03-01. Notwithstanding the reference to SHTM 2025, it ought to have been readily apparent to IHSL that it required to comply with the current guidance in SHTM 03-01. Taken as a whole, the COBS for Critical Care, which formed part of the BCRs, required compliance with the applicable SHTM and mandated that all bed spaces in PICU and HDU be of the same specification. In his evidence at the April 2023 hearing[289], Stewart McKechnie claimed that the provisions regarding the specification being the same was not an engineering requirement: his interpretation was that this related to layouts, fittings and furniture, not to environmental conditions. The relevant provision does not

[283] Bundle 5 for the April 2023 hearing at page 294
[284] Bundle 5 for the April 2023 hearing at page 304
[285] Bundle 5 for the April 2023 hearing at page 253
[286] Bundle 5 for the April 2023 hearing at page 292
[287] Bundle 5 for the April 2023 hearing at page 376
[288] Bundle 5 for the April 2023 hearing at page 389
[289] Pages 44 and 45of transcript

contain any qualification suggesting that it did not apply to environmental conditions. Indeed, given that the provision comes under the hearing "Environmental and Services Requirements" the most natural meaning of the provision is that it clearly relates to environmental conditions.

106.12. Paragraph 2.5 of the BCRs, Hierarchy of Standards[290] stated "Where contradictory standards / advice are apparent within the terms of the Board's Construction Requirements and the Appendices then subject to the foregoing paragraph then (1) the most onerous standard / advice shall take precedence and (2) the most recent standard / advice shall take precedence. When the more onerous requirement is to be used the Board will have the right to decide what constitutes the more onerous requirement." Insofar as there was any inconsistency between the EM and SHTM 03-01, the more onerous provision would take precedence.

106.13. The existence of paragraph 2.5 addresses the concern articulated at paragraph 201 of CTI 2023 concerning what "compliance" means when guidance is open to different interpretations. In any event, that concern is said to be exemplified by the difference in views between Stewart McKechnie and Michael O'Donnell regarding the correct interpretation of the guidance in SHTM 03-01. For the reasons set out above, Mr McKechnie's claimed interpretation of SHTM 03-01 is not a tenable interpretation. Indeed, the fact that CTI 2023 (at paragraph 306) invited a finding that there was indeed an error in the EM supports the conclusion that Mr McKechnie's claimed interpretation is incorrect.

106.14. Paragraph 8 of the BCRs[291] stated "For the avoidance of doubt the hierarchy of standards and advice detailed in paragraph 2.5 (Hierarchy of Standards) of Sub-section C of the Board's Construction requirements shall apply to this paragraph 8." It is therefore clear that paragraph 2.5 applies in determining the hierarchy as between provisions in the EM and provisions in guidance including SHTM 03-01.

[290] Bundle 5 for the April 2023 hearing at page 216
[291] Bundle 5 for the April 2023 hearing at page 289

106.15. Even if all of that was wrong, and the EM was mandatory and compliance with SHTMs was not required, that does not mean that IHSL's design was compelled to follow the individual cells concerning bedrooms in PICU/HDU/Critical Care. All of the individual entries for rooms in PICU/HDU/Critical Care include "See Guidance Notes" in the "Notes" column. This makes it plain that all of the individual entries are subject to the Guidance Notes. Guidance Note 15 expressly stated (prior to the amendment discussed below) "Critical Care areas – Design Criteria – SHTM 03-01 – esp Appendix 1 for air change rates – 10ac/hr Supply…" Notwithstanding any individual entries, the reader was accordingly directed back to this provision. To the extent there was any conflict in the EM, paragraph 8 of the BCRs made it plain that "for the avoidance of doubt" paragraph 2.5 applies, which requires the more onerous provision to apply. Even if paragraph 2.5 does not apply as between the EM and guidance, there is no obvious reason why it would not apply as between inconsistent entries in the EM. Accordingly, even if the interpretation of the contract advanced by IHSL, MPX and WW is correct regarding the precedence taken by the EM, that has no practical effect in relation to the ventilation issues under consideration by the Inquiry because it was nevertheless compelled to comply with SHTM 03-01 in Critical Care Areas in accordance with Guidance Note 15.

MML's Role in Reviewing the Design

107. Paragraph 12 of CTI 2024 suggests that a "wider theme on the project" is that "It was not always clear exactly what precise role MML were playing". Similar statements are made at paragraphs 44, 45, 50 and from 445 to 450. The full extent of MML's role was not explored in evidence: the focus was on one very narrow aspect of the project (albeit one which ultimately had significant adverse consequences). There is no doubt that the precise terms of MML's instructions were not always set out in writing by NHSL. As Graeme Greer explained[292], some of the assistance was provided on an "ad hoc" basis. This is perhaps understandable given that the project did not always follow a conventional course. It is also consistent with the fact that some of MML's staff were located in the same office as NHSL's project team[293] and worked together with them

[292] Paragraph 9 of his Statement for the February 2024 hearing
[293] Paragraph 6 of Graeme Greer's Statement for the April 2023 hearing

on a collaborative basis. Brian Currie described[294] NHSL as working "collectively as a team" with MML. Timothy Davison noted[295] that MML was commissioned to work as an integral part of NHSL's project team. NHSL's project team included those with technical expertise such as Ronnie Henderson, who were involved in technical discussions with MML regarding numerous aspects of the project. MML considers this to have been a productive method of working and to have been consistent with NHSL's requirements. The nature of the working relationship was rather different from what might be expected in other contexts, such as the provision of legal advice. The comparison made with solicitors at paragraph 450 of CTI 2024 is not a reasonable comparison. On occasions, MML's role involved the provision of formal written advice, such as the Approach to Reference Design paper discussed earlier in this closing statement. MML provided formal written advice in other areas during the project, although these documents have understandably not been considered by the Inquiry as they are not relevant to the ventilation issues. If NHSL had required formal written advice from MML in relation to any of the ventilation issues that arose, it was well aware that this could have been instructed.

108. The available evidence did not disclose any lack of clarity on the part of MML regarding the role it thought it was performing in relation to the particular areas under consideration by this Inquiry. MML's position is that Brian Currie, who was primarily responsible for instructing MML, had a clear understanding of MML's role. In his evidence at the February 2024 hearing[296], Graeme Greer explained that the extent of MML's role had been discussed extensively with Brian Currie. Any lack of clarity seems to have been on the part of members of NHSL's senior management who were not so closely involved in instructing MML and who appear to be proceeding on the basis of a misunderstanding regarding MML's role. This is explored in more detail below in the context of the period from Financial Close to SA1.

109. Before turning to the specifics of MML's role in reviewing the design as the project progressed, there are a number of general points that ought to be borne in mind when considering MML's role in the project.

[294] Paragraph 30 of his Statement for the February 2024 hearing
[295] Page 165 of transcript
[296] Page 97 of transcript

110. The fundamental point is that, throughout the period from Financial Close, design responsibility, including responsibility for ensuring compliance with SHTM 03-01, lay with IHSL. MML was not engaged by NHSL to act as a shadow design team or to provide design assurance.

111. During the course of the Inquiry hearings, the tenor of some of the questioning might have been taken as suggesting that NHSL relied on MML as the only party with technical expertise that was conducting reviews of the design. CTI 2024 conveys a similar impression. However, it is important to note that MML was not the only party that was available to review the design and/or provide input into compliance with SHTMs:

111.1. WW was responsible for checking that all of the ventilation parameters in the EM complied with SHTM 03-01. In his evidence at the February 2024 hearing[297] Stewart McKechnie confirmed that all parameters in the EM, whether they had been in the original EM or had subsequently been added by WW, would have been checked by WW against the applicable guidance. He explained[298] that WW had performed a line-by-line check of the parameters in the EM to confirm compliance. In his evidence at the February 2024 hearing[299], Ken Hall also confirmed that WW had its own quality standards and it was WW's role to check for compliance with guidance.

111.2. In his evidence[300], Darren Pike explained that he would expect MPX personnel to run a sample check against the BCRs and flag anything that was out of kilter. Given the allocation of design risk in the project, it is unsurprising that MPX would perform such a check. Mr Pike also accepted[301] that the design would be checked and approved by IHSL prior to being issued.

[297] Pages 22 and 23 of transcript
[298] Pages 84 and 85 of transcript
[299] Page 113 of transcript
[300] Page 9 of transcript
[301] Page 13 of transcript

111.3. NHSL had appointed an Independent Tester ("IT") whose role included carrying out inspections and providing regular reports setting out compliance issues[302]. Brian Currie explained[303] that the IT was obliged to familiarise itself with the Project Agreement and project documents and flag any inconsistencies – which it failed to do. In her evidence at the February 2024 hearing[304], Susan Goldsmith stated that she would have expected the IT the identify any issue where there was divergence between the contract and the published guidance. She stated[305] that NHSL had a process agreed with the IT giving NHSL assurance that its contractual requirements had been met. She expressed[306] surprise that the IT did not pick up the issue with ventilation in Critical Care.

111.4. NHSL ultimately appointed IOM to check the ventilation as installed. This appointment came very shortly before the hospital was due to open and many months after the ventilation in Critical Care had been constructed. NHSL could have instructed IOM to check the ventilation at an earlier stage.

111.5. NHSL apparently instructed an Authorising Engineer ("AE"), although their role was not examined in any detail during the evidential hearings. According to Donald Inverarity[307], the AE would have been a "key participant" in any discussions regarding deviations from the guidance. He continued[308] that determination of whether the ventilation is designed in accordance with SHTM 03-01 is "best performed" by an AE. In her evidence[309], Mary Morgan noted that the AE was much more heavily engaged during the remedial works than they had been previously. The AE provided a Design Assurance Statement[310] in relation to the remedial works. It is unclear to what extent NHSL sought input from the AE on this project prior to the remedial works being conducted. In any event, it is clear that if NHSL required design assurance, the appropriate party to provide that assurance was the AE.

[302] Bundle 4 for the February 2024 hearing at page 229
[303] Paragraph 182(vii) of his Statement for the February 2024 hearing
[304] Page 61 of transcript
[305] Page 71 of transcript
[306] Page 125 of transcript
[307] Page 42 of transcript
[308] Page 98 of transcript
[309] Page 258 of transcript
[310] Bundle 1 for the February 2024 hearing at page 3008

111.6. NHSL relied on advice from HFS regarding compliance with SHTMs. For example, NHSL sought advice from HFS regarding the application of SHTM 03-01 in relation to four bed room ventilation[311]. According to Mary Morgan[312], HFS also provided advice, support and scrutiny during the remedial works. NHSL could have sought further advice from HFS in relation to matters such as the Technical Schedule to SA1, but apparently chose not to do so.

111.7. NHSL relied on advice from its own Infection Prevention and Control Team ("IPCT") regarding compliance with SHTMs. For example, NHSL sought some limited advice from the IPCT regarding the application of SHTM 03-01 in relation to four bed room ventilation. This is considered in more detail later in this closing statement. NHSL could have sought further advice from the IPCT in relation to matters such as the Technical Schedule to SA1, but apparently chose not to do so. In her evidence at the February 2024 hearing[313], Susan Goldsmith recognised that there may not have been the right level of input from the IPCT.

111.8. NHSL engaged an independent expert, David Rollason[314] to provide advice on the ventilation requirements for four bed rooms for the purpose of proposed litigation by NHSL against IHSL.

112. When reviewing documentation related to the project, there is a danger in assuming that, just because an employee of MML was copied into correspondence or was present at a meeting, this means that MML was engaged in its role as technical advisor to provide technical advice on matters raised in that correspondence or during that meeting. It is important to recognise that MML acted, not just as technical advisors, but also as project managers; and that most of the MML employees involved in the project were not ventilation engineers. It is also important to recognise that MML acted upon the instructions of NHSL regarding the tasks that it was required to undertake.

[311] Bundle 13, volume 8 for the February 2024 hearing at page 2340
[312] Page 258 of transcript
[313] Page 54 of transcript
[314] Bundle 13, volume 9 for the February 2024 hearing at page 30

For example, although MML employees were copied into (i) email correspondence regarding the risk assessment prepared by NHSL in July 2017[315]; and (ii) email correspondence in April 2018 confirming the brief for air change rates in four bed rooms[316], those individuals from MML that were copied into this correspondence were not ventilation engineers and the correspondence does not suggest that MML was being asked to provide any technical input or advice on these issues. These matters are discussed in further detail below. For the avoidance of doubt, Graeme Greer explained in his evidence at the February 2024 hearing[317] that he, Mo Brown[318], Kamil Kolodziejczyk and Kelly Brown were on the project management team.

113. At paragraph 72 of CTI 2024, it is noted that "Engineers (including Colin MacRae) and project managers (including Mr Greer) attended meetings and were copied in to key correspondence regarding the development of the design." Although it is correct to say that MML employees, including Mr Macrae and Mr Greer, attended some meetings and were copied into some correspondence, it would be incorrect to assume that all key MML personnel were present at all relevant meetings or were copied into to all relevant correspondence. In the following sections, particularly the section on the four bed room issue, these submissions attempt to provide a precise summary of MML's involvement.

114. A further factor to bear in mind when considering MML's role in reviewing the design is the danger of approaching matters with the benefit of hindsight where the sole focus is on one particular issue. The reality was that MML was conducting its reviews in the heat of a complicated project, that was running behind time, and with a tsunami of information being submitted to it for review.

115. It is submitted that these factors should be borne in mind when considering MML's role in reviewing the design. In the following section, MML sets out its position in relation to its role during the progression of the project.

[315] Bundle 13, volume 8 for the February 2024 hearing at page 449
[316] Bundle 1 for the February 2024 hearing at page 2042
[317] Page 91 of transcript
[318] Although the transcript records that Mr Greer referred to "Rob Brown", the person he was referring to is named Mo (or Maureen) Brown.

Reference Design Stage

116. The terms of MML's appointment included, amongst the Technical Advisor Scope[319], an entry to "Check Reference Design for compliance with all appropriate NHSL and legislative guidelines and requirements (list as pre-agreed with NHSL) and identify any derogations". It should be noted that, contrary to the wording at paragraph 269 of CTI 2023, MML's obligation was not to "ensure" compliance. The agreed estimate was that MML would allocate 5 man days for this task with a total value of £2,605. Comparison with other elements that fell under MML's area of responsibility shows that this was a very modest sum, suggesting that this was envisaged to be a relatively small task. The allocation of 5 man days with a total value of £2,605 would have been clear to NHSL.

117. At the April 2023 hearing[320], Richard Cantlay explained that this task involved obtaining confirmation that the reference design had been developed in accordance with the applicable guidance and an understanding of any non-compliances or derogations. He described the task as a process of getting to the point of obtaining the written confirmation from the reference design team. That process is evidenced by the email sent by MML dated 28 February 2012 requesting the compliance statement[321]. The email attached a "Reference Design Compliance Statement Requirements Schedule" which had presumably been prepared by MML as part of the process described by Richard Cantlay. The design compliance statement and derogations list dated 16 March 2012[322] contained comments on multiple pieces of guidance. Although the one concerning SHTMs was a simple statement of confirmation, some of the other entries made reference to derogations from the guidance. MML would have had to consider these derogations. It would accordingly be wrong to view the process as no more than MML asking for confirmation of compliance and the reference design team confirming that there had been compliance: the task involved an understanding of multiple different guidance documents and the extent to which they had been derogated from.

[319] Bundle 2 for the April 2023 hearing at page 86
[320] Pages 54 to 56 of transcript
[321] Bundle 4 for the April 2023 hearing at page 322
[322] Bundle 4 for the April 2023 hearing at page 324

118. Richard Cantlay's evidence at the April 2023 hearing[323] was that the task mentioned in the Technical Advisor Scope was not to be an independent check of the reference design by MML. Such a detailed review would not be required because a competent design team had been appointed to do the design work. To put this explanation in context, it is relevant to note that the total fee to the reference design team was £1,715,000[324]. H&K's fee alone was £300,000. As Stewart McKechnie noted in his evidence at the April 2023 hearing[325], the EM itself (which represented only one part of the reference design) contained 50,000 boxes and would have required months to check for compliance. Given the time and cost allocated to MML's check of the reference design, it is apparent that the Technical Advisor Scope did not contemplate a full design audit.

119. It may be relevant to note that the Technical Advisor Scope formed part of a contract entered into in March 2011, before the formal appointment of the reference design team by Contract Control Order No 290961/02[326] dated 11 July 2011. The Technical Advisor Scope was accordingly a prospective assessment of the work that, it was anticipated, would be performed. The final box under the heading "Procurement of NPD Co including Competitive Dialogue" (of which the entry "Check Reference Design" formed a part), states "All items above assume contract to be based on Standard PPP Form Contract." The contract was not a standard form PPP contract. In her evidence at the April 2023 hearing[327], Susan Goldsmith stated that the inclusion of a reference design was a departure from a normal PPP. It is therefore unclear to what extent this provision regarding checking the reference design remained relevant given the form of contract that was ultimately entered into.

120. In any event, the reference design team had an obligation to check the reference design against the applicable guidance. The reference design team, including H&K, produced a reference design compliance statement and derogations list dated 16 March 2012[328]. This stated, amongst many other entries, "We have followed SHTMs and also HTMs when there is no Scottish equivalent." Although Michael O'Donnell noted[329] that a

[323] Page 55 of transcript
[324] Bundle 2 for the April 2023 hearing at page 177
[325] Page 76 of transcript
[326] Bundle 2 for the April 2023 hearing at page 174
[327] Page 17 of transcript
[328] Bundle 4 for the April 2023 hearing at page 324
[329] Paragraph 30 of his Statement for the April 2023 hearing

further updated EM was subsequently produced in September 2012, he did not suggest that this would have affected the previous confirmation that SHTMs had been followed. He did not suggest that the EM had been revised after March 2012 in a manner that was inconsistent with SHTMs. Insofar as the EM potentially failed to comply with SHTM 03-01 in relation to rooms in Critical Care, H&K was unaware of that issue. In any event, in his evidence[330], he stated that in order to make the compliance statement, checks were made in relation to the guidance notes. Given that these guidance notes did not change between March 2012 and September 2012, the results of any checks would have been the same. He went on to state[331] that he did not think any design work had taken place between February 2012 and September 2012. Accordingly, had H&K been asked to provide a further design compliance statement and derogations list after producing the revised EM in September 2012, it is a reasonable assumption that it would have been in the same terms as the document provided in March 2012.

121. At paragraph 88 of CTI 2024, it is stated that when "the reference design documentation was produced, MML had confirmed that the documentation complied with published guidance, including SHTM 03-01." This is presumably a reference to the process by which MML obtained a compliance statement from the reference design team. For the avoidance of doubt, MML did not itself confirm that the reference design complied with SHTM 03-01.

122. In light of the design compliance statement and derogations list provided by the reference design team, MML proceeded on the basis that the EM prepared by H&K had been checked to ensure that it complied with the applicable guidance including SHTM 03-01. As CTI 2023 suggested at paragraph 269, there was little more MML could, or should, have done.

123. Brian Currie was specifically asked[332], under reference to the Technical Advisor Scope, whether MML should have picked up the inconsistencies in the EM during the reference design period. Although he considered it to be "unfortunate" that MML did not pick up the inconsistencies, he did not go so far as to conclude that MML should have done

[330] Page 85 of transcript
[331] Pages 86 and 87 of transcript
[332] Paragraph 36 of his Statement for the February 2024 hearing

so. He noted that MML had obtained the compliance statement from the reference design team and may have been reassured by that. His evidence is entirely consistent with the position set out by MML in the preceding paragraphs.

Period to Financial Close

124. MML's role during the procurement phase, including the evaluation of tenders has been set out in detail earlier in this closing statement.

Financial Close to Settlement Agreement 1

125. According to the Technical Advisor Scope in MML's appointment[333], MML's role as Technical Advisor following Financial Close was primarily "Management of [RDD] process on behalf of authority…" Graeme Greer described[334] the role as providing project management support and ad hoc technical support to NHSL's reviews of IHSL's design. He noted[335] that IHSL had been employed to undertake the design and design check and that NHSL did not ask MML to duplicate that work. During this period, MML's appointment did not include any requirement to check IHSL's design for compliance with guidance or the BCRs.

126. On 4 June 2018, Graeme Greer sent an email to Brian Currie expressing concerns about SA1 significantly altering the Project Agreement risk allocation[336]. The email also confirmed the limits of MML's role in relation to reviewing design submissions and providing design assurance. It stated: "Furthermore, I don't think the Board is in a position to fully confirm compliance with the BCRs, the burden of responsibility should always remain with Project Co. As we are not the designers, Mott MacDonald would not be in a position to provide that design assurance to NHSL." During the remedial works, MML sent an email to NHSL dated 4 May 2020[337] in response to a request that MML provide a design assurance statement. The email stated that "Our Advisory Services are inconsistent with providing a Design Assurance Statement, and as such I

[333] Bundle 2 for the April 2023 hearing at page 87
[334] Paragraph 9 of his Statement for the February 2024 hearing
[335] Paragraph 11 of his Statement for the February 2024 hearing
[336] Bundle 13, volume 5 for the February 2024 hearing at page 1272
[337] Bundle 3 for the February 2024 hearing at page 943

hope you can understand we are unable to do so. Any assurance regarding design compliance… we believe should be provided by Project Co. MML assists the Board in providing Advisory Services, not design or design assurance… our scope clarifies that we are unable to validate, check, endorse, sign off or approve the design… We cannot confirm that Project Co's design will meet the requirements of Part A without undertaking design, and we cannot be Designer and client Advisor at the same time." Although this later piece of correspondence dates from during the remedial works, it is consistent with the role played by MML throughout the project.

127. A similar issue arose in relation to the AHU Remedials Cover Sheet[338]. Although the redacted version included in the Inquiry Bundles makes it look like MML had signed off on the compliance of the AHUs (and a question[339] was put to Stephen Maddocks on this basis), it is apparent from a review of the unredacted version of this document that MML did not sign it. This document had been sent to MML by email from Ronnie Henderson on 21 May 2020. MML responded by email dated 29 May 2020 that "you will appreciate MML would not be able to sign off or approve the AHU's".

128. MML did not receive any response from NHSL to any of this correspondence that suggested that NHSL had a different understanding of the limits of MML's role.

129. It became apparent during the February 2024 hearing that some of those within NHSL's senior management were proceeding on the basis of a fundamental misunderstanding of MML's role. In particular, in her evidence[340], Susan Goldsmith stated that her understanding was that MML was "providing assurance to the Board" that IHSL was delivering the hospital that would meet the BCRs. She continued that MML's "responsibility simply was to ensure that [the BCRs] were delivered by IHSL". Ms Goldsmith's understanding of MML's role is incorrect. It did not appear to be shared by those who had a better understanding of the scope of MML's appointment, such as Brian Currie and Ronnie Henderson. It is inconsistent with the documentation set out in the preceding paragraphs. It is inconsistent with the risk allocation in an NPD

[338] Bundle 1 for the February 2024 hearing at page 3233
[339] Page 69 of transcript
[340] Page 46 of transcript

project. Although Ms Goldsmith expressed[341] a concern that the issue with the Critical Care ventilation had not been identified by MML, that concern was presumably motivated by her inaccurate expectations of the role that MML had been engaged to perform. Given her stated understanding of MML's scope it is understandable that she would have been critical of MML's performance: however, with an accurate understanding of MML's appointment, such criticisms ought to fall away. In his evidence[342], Timothy Davison expressed his expectation that MML would have picked up the issue with Critical Care ventilation: however, as he conceded[343], he was not involved in the detail of MML's appointment, so he is not best placed to comment on whether MML ought to have identified this issue. Indeed, given his level of seniority and lack of engineering expertise, it is unrealistic to suppose that Mr Davison has the technical expertise to form a reasonably informed view on what ought to have been expected of a technical advisor in the particular circumstances of this project.

130. In any event, Ms Goldsmith appeared to recognise that there was some uncertainty about the scope of MML's appointment. In her evidence at the February 2024 hearing[344] she drew a distinction between technical advisors who were appointed to provide advice as part of a team; and technical advisors who were appointed to provide formal, professional advice supported by professional indemnity insurance. She suggested that for future projects NHSL was working on providing clearer instructions about the basis of such appointments. The available documentation suggests that MML's appointment fell into the first of Ms Goldsmith's two categories. As Timothy Davison noted in his evidence[345], MML was commissioned to work as an integral part of NHSL's project team.

131. During the period post Financial Close, MML did conduct reviews of design submissions made by IHSL. However, as Graeme Greer explained[346], any such reviews were conducted within the framework of the RDD process. These were "collaborative sample review[s] in the context of the operational functionality risk allocation"[347].

[341] Page 9 of transcript
[342] Page 165 of transcript
[343] Page 222 of transcript
[344] Page 48 of transcript
[345] Page 165 of transcript
[346] Paragraph 9 of his Statement for the February 2024 hearing
[347] Paragraph 10 of his Statement for the February 2024 hearing

132. The RDD process is a contractual mechanism set out in the Project Agreement. The relevant provisions are to be found at Schedule Part 8[348]. Clause 4.5[349] stipulates that the return of any RDD endorsed by NHSL as Level A, B or C "shall mean that the relevant Submitted Item may be used or implemented for the purposes for which it is intended but, save to the extent expressly stated in this Agreement including, without limitation, as specified in Appendix 1 Table A to this Schedule Part 8 (Review Procedure), such return or deemed return of any Submitted Item shall not otherwise relieve Project Co of its obligations under this Agreement nor is it an acknowledgement by the Board that Project Co has complied with such obligations." Appendix 1 Table A[350] states that Level A or B endorsement of Room Data Sheets confirms that "the Board is satisfied that the design and other information in the relevant room data sheets satisfies Operational Functionality". Similar provisions are made in relation to various types of drawings. The EM is not included in Appendix 1 Table A. The fact that the qualification related to Operational Functionality applied in relation to some aspects of the design, but not in relation to the EM, perhaps reflects the fact that the EM contained parameters that went well beyond Operational Functionality. The concept of Operational Functionality has little obvious application in relation to the EM.

133. It is therefore clear from the unambiguous terms of the Project Agreement that endorsement of the RDS or EM as Level A, B or C in accordance with the RDD process meant no more than that IHSL could use them for the purpose for which they were intended: it did not otherwise relieve IHSL of its obligations under the Project Agreement. So far as the RDS were concerned, endorsement at level A or B, meant that NHSL was satisfied that they satisfied Operational Functionality. However, any endorsement of the EM did not even go so far as to confirm that it satisfied Operational Functionality. At paragraph 75 of CTI 2024, it is stated that "the only contractual effect of NHSL's approval was to confirm that the approved item satisfied NHSL's requirements for Operational Functionality." Although this statement is correct in relation to some elements of RDD, such as the RDS, it is incorrect in relation to the EM.

[348] Bundle 5 for the April 2023 hearing at page 1491
[349] Bundle 5 for the April 2023 hearing at page 1498
[350] Bundle 5 for the April 2023 hearing at page 1500

134. This understanding of the RDD process is consistent with the evidence of Brian Currie[351]. He explained that he repeatedly explained to MPX and IHSL that NHSL would be reviewing IHSL's design in terms of the RDD protocol in relation to Operational Functionality only, albeit during the process of review issues were identified that went beyond Operational Functionality.

135. In addition to the explanations provided by Mr Currie, MML provided several reminders to IHSL and MPX during the RDD process regarding the risk allocation. On 15 April 2016, MML sent a message to MPX[352] attaching comments on the EM. The message stated "IHSL are also reminded that the reference design has no relevance to the current contract, and IHSL are to comply with the Project Agreement and in particular the BCRs and PCPs. Any non-compliance with the BCRs and PCPs should be highlighted to the Board." On 17 October 2016, MML sent an email to IHSL[353] which concluded "Whilst the Board has noted general and specific comments above, the Board reminds Project Co that unless the Board has already accepted a derogation, it is Project Co's obligation to comply with the BCR's/SHTMS [sic] etc, and the Board not commenting, does not remove that obligation on Project Co."

136. It was apparent during the course of the February 2024 hearing that witnesses from MPX and WW had a fundamental misunderstanding about the nature of the RDD process. In his evidence[354], Darren Pike stated that he understood RDD approval "to be confirmation that the design… met the requirements of the contract". He went on to state that he understood NHSL to be approving that ventilation parameters such as air changes and pressure regimes "met their brief". He made similar comments in his statement[355], although he did not back any of them up with reference to any of the contractual documentation. In his evidence at the February 2024 hearing[356], Ken Hall stated that his understanding was that NHSL and MML were reviewing the design, including the EM, "to ensure that it was meeting the client's requirements". Stewart

[351] Paragraph 30 of his Statement for the February 2024 hearing
[352] Bundle 13, volume 5 for the February 2024 hearing at page 1097
[353] Bundle 14 for the April 2023 hearing at page 339
[354] Page 11 of transcript
[355] Paragraphs 9, 20 and 55 of his Statement for the February 2024 hearing
[356] Page 129 of transcript

McKechnie stated[357] that, in the RDD process, the technical advisor "scrutinises the proposals for their compliance with the design brief or contractor's proposals". He also suggested[358] that, if NHSL did not comment on an entry in the EM, "this was taken as acceptance by NHSL of that entry". In his evidence[359] he clarified that, by this, he meant that, if NHSL did not comment, he took this as NHSL confirming that this was the brief.

137. At one point in his statement[360], Stewart McKechnie seemed to accept that the RDD process involved NHSL checking that the design met Operational Functionality. He then went on to suggest that Operational Functionality "covered performance, control and maintainability of system". However, in his evidence at the February 2024[361], he explained that he only recently looked into the phrase; that he did not see its relevance to engineering systems; and that it was not concerned with ventilation parameters. Similarly, Darren Pike conceded[362] that Operational Functionality did not include output parameters to be achieved by the ventilation system.

138. Against the background of the clear contractual provisions regarding the RDD process, and the repeated reminders from NHSL and MML, it is concerning that senior personnel employed by the contractor appeared to be unfamiliar with the terms of the contract and to have an entirely erroneous understanding of this important feature of the contract. The nature of the RDD process is not a matter of opinion where each witness can form their own view: it is determined by the contract.

139. At paragraph 77 of CTI 2024, it is stated that NHSL and MML "approached the RDD process with an attitude which more closely reflected the design risk allocation of the Project Agreement". The approach taken by NHSL and MML to the RDD was entirely consistent with the terms of the Project Agreement. The approach taken by MPX/WW was inconsistent with the terms of the Project Agreement, apparently because key personnel had not familiarised themselves with the contractual provisions regarding the

[357] Paragraph 21 of his Statement for the February 2024 hearing
[358] Paragraph 40 of his Statement for the February 2024 hearing
[359] Pages 27 and 28 of transcript
[360] Paragraph 27 of his Statement for the February 2024 hearing
[361] Page 6 and 7 of transcript
[362] Page 15 of transcript

RDD process. At paragraph 86 of CTI 2024, it is noted that development of the EM "proceeded in a generally unsatisfactory way", with WW being frustrated by difficulty getting NHSL's agreement. WW's reported frustration and any resulting unsatisfactory progress was the result of the inaccurate understanding that MPX/WW had of the RDD process. Similarly, at paragraph 92 of CTI 2024, it is stated that "the operation of the RDD process in relation to the environmental matrix and the ventilation design was unsatisfactory. The parties approached it at cross-purposes." MML agrees with this observation: however, it is important to understand that parties were at cross-purposes because MPX/WW did not understand the contractual provisions regarding the operation of the RDD process. Had MPX/WW conducted themselves in accordance with the contractual provisions, the RDD process would have proceeded in a more satisfactory manner. Nevertheless, it would not have altered the outcome in the present case: WW would still have produced a finalised design that failed to comply with SHTM 03-01.

140. In any event, notwithstanding his erroneous understanding of the RDD process, Darren Pike accepted[363] that the RDD process did not remove the design obligations from MPX, and that it still had an obligation for the design to meet the employer's requirements. He conceded[364] that IHSL was responsible for ensuring that the EM, including the air change parameters for Critical Care, was compliant with the BCRs and SHTM 03-01 (unless there was a derogation).

141. At paragraph 4.4 of PPP8, it is suggested that the RDD process involved "approval of the final design". Having regard to the provisions in the Project Agreement concerning the RDD process, this conclusion is plainly incorrect. Similarly, the document entitled RHCYP/DCN Critical Care Ventilation Systems Review by Stephen Maddocks dated 13 December 2023[365] appears to proceed on the basis of a fundamental misunderstanding regarding the RDD process and the limited nature of any endorsement provided by NHSL. At paragraph 3.2.8 it is suggested that 4ac/hr "was agreed" and notes that there was "no adverse comment by NHSL or its advisors on the content of these room data sheets." A similar comment is made at paragraph 3.4.1

[363] Page 16 of transcript
[364] Pages 28 and 29 of transcript
[365] Witness Bundle volume 1 for the February 2024 hearing at page 3

regarding an "agreement to the lower AC/HR". These comments reflect a misunderstanding of where design risk lies in an NPD project, and the limited nature of any approvals provided by NHSL. Mr Maddocks does not appear to have had access to the evidence led before the Inquiry regarding the limited nature of the reviews conducted by NHSL and MML. Nor does he appear to have analysed the contractual provisions regarding the RDD process.

142. NHSL used the RDD process as an opportunity to make comments on submissions made by IHSL. RDD submissions by IHSL would be received by MML's project management team. They would then be disseminated to all stakeholders, including those within NHSL. MML's technical personnel and other stakeholders conducted reviews of the RDD as part of this process. The consolidated comments of all stakeholders would then be fed back to IHSL. Although MML would manage the process and provide its own comments following its own spot checks, MML was not the only party conducting a review for the purposes of the RDD process. Nevertheless, any such reviews and comments must be understood within the contractual context: design risk remained with IHSL and the endorsement of any RDD did not alleviate IHSL of its obligation to comply with the Project Agreement, including its obligation to comply with the BCRs.

143. In order to manage the RDD process, parties had agreed a schedule for submission of design proposals by IHSL. Graeme Greer explained[366] that IHSL continually failed to adhere to this schedule. This led to the review team being overburdened with material. Brian Currie described[367] times when there was a "tsunami of information" which made it a "very demanding process" that went on for months, if not years, due to the "sheer volume of design information that was coming in". Had the design proposals been submitted in an orderly fashion in accordance with the agreed schedule, the review process would have been easier. Although it remains unlikely that MML would have identified the potential issue with the ventilation design in such a scenario (given the limited nature of the reviews being undertaken) it is at least conceivable that there would have been a different outcome.

[366] Paragraph 19 of his Statement for the February 2024 hearing
[367] Paragraph 142 of his Statement for the February 2024 hearing

144. Throughout the project, MML's role did not involve conducting a line-by-line check to ensure compliance with the guidance. Graeme Greer explained[368] that MML undertook sample reviews of aspects of the design but that IHSL was responsible for the design of the project. He noted in his evidence at the April 2023 hearing[369] that this was due to the risk allocation in an NDP project; it came back to who was best placed to take the risk in such a project. However[370], it was beneficial to NHSL for MML to do some level of review to assist in IHSL developing their proposals. In his evidence at the February 2024 hearing[371] he explained that a lighter approach had been taken in other NPD projects, but that NHSL wanted "some eyes on the Project Co design" due to issues at the Royal Infirmary of Edinburgh. He noted in his evidence at the April 2023 hearing[372] that this level of review was in keeping with discussions that he had had with Brian Currie of NHSL, who had asked why they would employ MML to do the design if someone else had already been employed to do it. Mr Greer confirmed that NHSL was aware that MML was doing a sampling exercise rather than an audit. He recalled[373] discussions with NHSL regarding MML conducting a line-by-line review in addition to a review by WW: NHSL's position was "why… pay twice for the same work product". In his evidence at the February 2024 hearing[374], he explained that the extent of MML's role had been discussed extensively with Brian Currie. This understanding is consistent with the evidence of Ronnie Henderson at the February 2024 hearing[375] who confirmed his understanding that MML was "reviewing for operational functionality" and was not undertaking a "design assurance review function" or acting as a shadow design team[376]. He also confirmed his understanding that the EM was difficult to review in its entirety and that MML was doing sample reviews[377].

145. Willie Stevenson[378] spoke to the reviews he conducted on the drafts of the EM produced by IHSL. He described this as a "sample review or spot check" not a "line-by-line check or audit". He noted that it would not have been practical to conduct such a

[368] Paragraph 8 of his Statement for the April 2023 hearing
[369] Page 22 of transcript
[370] Page 25 of transcript
[371] Page 96 of transcript
[372] Page 27 of transcript
[373] Paragraph 11 of his Statement for the February 2024 hearing
[374] Page 97 of transcript
[375] Page 57 of transcript
[376] Page 58 of transcript
[377] Page 65 of transcript
[378] Paragraphs 14 and 23 of his Statement for the April 2023 hearing

detailed check given the timescales involved. He stated that they would take care not to make suggestions that might lead to MML becoming designer by default as that was not MML's role. In his evidence[379] he noted that there were over 1,100 lines in the EM and that a full line-by-line review of just the electrical information would take 2.5 days if he was uninterrupted and everything went smoothly: however, on the mechanical side there would be a lot more information to check. After the Preferred Bidder was appointed, he noted[380] that they would still perform sample checks which was because design responsibility lay with IHSL. Colin Macrae also stated[381] that it was not MML's role as Technical Advisor to do a line-by-line check of the EM – it was IHSL's responsibility to produce a compliant design. He would undertake "sample reviews" of each version of the EM produced by IHSL. The spot checks were aimed at ascertaining that the design development was progressing. He noted[382] that the level of review he undertook on this project was in line with the reviews he used to undertake on other projects. He stated[383] that he would be careful to avoid offering design solutions as MML was not the designer. In his evidence he suggested[384] that, after the preferred bidder was appointed, his reviews got "more focussed". He described[385] this as looking for anomalies, although it was done at a "fairly high level". He noted that a line-by-line review would be time consuming and very onerous. David Stillie advised[386] that doing a full check of the design from the architectural perspective would have been a huge job: once the design was developed there was a huge volume of information which would make it "well nigh impossible" to do a line-by-line check. To adopt the words at paragraph 320 of CTI 2023, to detect the sort of issue which arose with the EM would require a disproportionate duplication of technical expertise at undue cost. As CTI note at paragraph 58 of the CTI 2024, the only way that the problems would have been detected would have been with "a full technical audit".

146. The focus of reviews conducted by MML was primarily in relation to changes that had been made to the design. Graeme Greer noted[387] that the remit was to undertake sample

[379] Pages 21 to 23 of transcript
[380] Page 24 of transcript
[381] Paragraph 18 of his Statement for the April 2023 hearing
[382] Paragraph 58 of his Statement for the April 2023 hearing
[383] Paragraph 19 of his Statement for the April 2023 hearing
[384] Page 24 of transcript
[385] Page 25 of transcript
[386] Page 41 of transcript
[387] Paragraph 26 of this Statement for the February 2024 hearing

reviews with a particular focus on specific changes highlighted by IHSL. This is consistent with Ken Hall's evidence at the February 2024 hearing[388] that his experience of the RDD process was that only changes would be reviewed. This is significant in the context of the air change rates for the rooms in Critical Care as they did not change from the reference design EM.

147. Although MML's role was primarily to review design submissions in relation to Operational Functionality in accordance with the RDD process, MML did identify matters that went beyond Operational Functionality, which were then raised with IHSL. In his evidence at the February 2024 hearing[389], Graeme Greer explained that if there were "readily apparent, clearly obvious issues", these would be flagged for compliance with guidance. In his evidence at the February 2024 hearing[390], Ronnie Henderson explained that, if MML spotted things that were clearly wrong or clearly an issue, they would be flagged. He noted that MML would provide advice on compliance with SHTM 03-01 "if it was identified"[391]. Although this led to a passage of evidence that suggested some degree of reliance by NHSL on MML in relation to compliance with guidance, this passage must be viewed in the context that Mr Henderson was clear[392] that MML did not provide design assurance and[393] that any comments made by MML that went beyond Operational Functionality only occurred when MML spotted things that were clearly wrong. In his evidence at the February 2024 hearing[394], Stewart McKechnie also noted that what happened during the RDD process went beyond Operational Functionality. This reflects the fact that MML would make comments on issues that it had identified: it does not undermine the contractual provisions regarding the limited nature of any approval under the RDD process and the allocation of design responsibility. Insofar as MML provided comments that went beyond Operational Functionality, it was going further than the Project Agreement, and the terms of its own appointment, required.

[388] Page 142 of transcript
[389] Page 103 of transcript
[390] Page 58 of transcript
[391] Page 59 of transcript
[392] Page 57 of transcript
[393] Page 58 of transcript
[394] Page 10 and 11 of transcript

148. MML's position regarding the level of checking of the EM that would have been feasible was supported by some of the evidence given by Stewart McKechnie. His evidence at the April 2023 hearing[395] was that there were 50,000 entries on the EM[396] so there was a limit on what could be done by way of reviewing the matrix: he would only look at the "key parameters". He stated[397] that, to check every single parameter in the EM for compliance with guidance would have taken "months of work" and it would be almost like reinventing the EM. He described[398] the task as "impossible". Similarly, when it was suggested to Ken Hall at the April 2023 hearing[399] that IHSL ought to have carried out a detailed review of the EM he considered that this would "not have been possible", a "very difficult job" and a "highly unreasonable request". It is unclear to what extent Mr McKechnie's evidence on this matter at the April 2023 hearing is consistent with his evidence at the February 2024 hearing. At the latter hearing[400] his position was that all parameters in the EM would have been checked by WW against the applicable guidance. He confirmed[401] that this was a "line-by-line" check. Based on his evidence[402] there can be no doubt that Mr McKechnie accepted that it was WW's responsibility to ensure that the parameters complied with the guidance. Given his conflicting evidence at the two hearings, it is less clear whether WW actually performed a thorough check to confirm that WW was complying with this responsibility. Against the background of Mr McKechnie's untenable claimed interpretation of SHTM 03-01; and his inexplicable failure to highlight the change to Guidance Note 15, this does raise concerns about whether the error in the EM was caused by WW's failure to conduct a thorough check of the EM for compliance with SHTM 03-01 rather than any genuine difference of opinion on the appropriate interpretation of SHTM 03-01.

149. In any event the evidence from MML witnesses concerning the practicability of performing a line-by-line check is consistent with the evidence of Peter Henderson from HFS who stated[403] "For an external body to carry out a full check for compliance with

[395] Pages 15 and 76 of transcript
[396] As NHSL noted in its response to paragraph 7.8 of PPP8, the EM is a 2,350 line document with 25 columns, giving 58,750 entries
[397] Pages 76 and 77 of transcript
[398] Page 83 of transcript
[399] Pages 139 and 140 of transcript
[400] Pages 22 and 23 of transcript
[401] Pages 84 and 85 of transcript
[402] Page 23 of transcript
[403] Paragraph 45 of his Statement for the April 2023 hearing

all relevant guidance it would require the employment of a full shadow design team. (This level of involvement could potentially diminish the level of liability of the original designer)." Similarly, Thomas Rodger of NHS Scotland Assure noted[404] that Assure would review only a sample of RDS "as we are not a shadow design team". Similarly, he stated[405] that Assure would not undertake a full line-by-line check of an EM because Assure is not a shadow design team. The clear implication of his evidence[406] was that, unless a body is appointed as a shadow design team, it would be unreasonable to expect it to do more than a sample review of design submissions. MML was not employed to be a full shadow design team. Although Ken Hall's statement[407] suggested that MML were "resourced almost like" a shadow design team, that does not mean that they were one. At the February 2024 hearing[408] Ronnie Henderson confirmed his understanding that MML was not acting as a shadow design team. In her evidence at the April 2023 hearing[409], Janice MacKenzie of NHSL stated that she would not agree with the suggestion that MML was a shadow design team as she did not think they were there to design. Willie Stevenson[410] expressed the view that MML was definitely not a shadow design team and had no design responsibility whatsoever on the project. David Stillie stated[411] that he did not at any time consider that MML were anything like a shadow design team. At the April 2023 hearing[412], Graeme Greer explained that MML definitely did not have a design team working on the project. He noted that this was due to the risk allocation in an NPD project; it came back to who was best placed to take the risk in such a project. In his evidence at the April 2023 hearing[413], Richard Cantlay explained that the term "shadow design team" is not terminology that he would associate with a revenue funded project due to the arrangements concerning where design risk sits.

150. The evidence from MML witnesses concerning the practicability of performing a line-by-line check is also consistent with the evidence of Lindsay Guthrie. She described[414]

[404] Paragraph 132 of his Statement for the February 2024 hearing
[405] Paragraph 205 of his Statement for the February 2024 hearing
[406] See also paragraph 239 of his Statement for the February 2024 hearing
[407] Paragraph 43 of his Statement for the April 2023 hearing
[408] Page 58 of transcript
[409] Page 19 of transcript
[410] Page 13 of transcript
[411] Page 41 of transcript
[412] Page 24 of transcript
[413] Page 51 of transcript
[414] Paragraph 185 of her Statement for the February 2024 hearing

an exercise during the remedial works in which she and Dr Inverarity, supported by personnel from MML, conducted a line-by-line check of the ventilation parameters in the EM. In particular, this check concerned "supply, extract, air change rate, air pressure". It should be noted that this would not have been a complete check of EM, which included many parameters beyond the four that were checked by Ms Guthrie. She described the process as being "very time-consuming", requiring significant concentration. It took "several meetings, lasting several hours over several weeks". Plainly a full line-by-line check of all of the parameters in the EM would have taken significantly longer; and a complete check of the entirety of the design longer still. MML cannot reasonably have been expected to conduct such a check without clear instructions to do so, which would no doubt have had significant consequences in terms of the time and cost of performing such a review.

151. MML's position regarding the nature of the checks conducted by it appeared to be disputed by Liane Edwards who spoke[415] to very detailed comments coming back regularly. She did not consider MML to be conducting light touch, sample reviews. However, Ms Edward's role related to architectural matters, not to M&E. The specific examples provided by her (such as the size and number of screws or the colour of cladding) had no bearing in M&E matters. The evidence from MML witnesses regarding conducting sample reviews related primarily to M&E matters, particularly the EM, not to architectural matters. Accordingly, Ms Edwards' recollections regarding the detailed nature of MML's review of matters that she was involved in have no obvious bearing on the extent of MML's reviews of the EM. Similarly, although Paul Serkis commented on the level of detail in MML's review of documents submitted by IHSL, this related specifically to the PCPs, not to the EM. Although he claimed[416] that NHSL/MML were "changing the fundamentals… altering the basis of the bid which they had accepted", in his evidence[417] he could not provide any examples: in any event, this comment did not seem to relate specifically to M&E aspects and/or to the EM.

[415] Page 23 of transcript
[416] Paragraph 46 of his Statement for the April 2023 hearing
[417] Page 44 of transcript

152. In his evidence[418], John Ballantyne asserted that he saw MML as checking PCPs to ensure compliance with the BCRs but did not provide any explanation of the basis upon which MML would be undertaking such a task. He claimed that MML was reviewing submissions line-by-line, but it is unclear how he would be in a position to comment on what MML were doing as he was not part of MML's team and was not privy to the terms of MML's appointment. In his evidence[419] Darren Pike claimed that RDD submissions were "pretty thoroughly checked". Ken Hall gave similar evidence at the February 2024 hearing[420]. Although that may have been their perception based on the number of comments NHSL provided, they were not involved in conducting the check and were not privy to the terms of MML's appointment, so are not best placed to comment. In any event, the volume of comments being made by NHSL may be more of a reflection of the quality of the design than on how thorough the review was.

153. It is possible that the NPD form of contract was apt to cause some confusion regarding the rights and responsibilities of the parties (unless parties took the time to familiarise themselves properly with the terms of the contract). Although the form of contract involved a transfer of design risk to the private sector for all matters other than Operational Functionality, the Health Board would inevitably retain a clear interest in the developing design and would want to make comments on that design even if those comments went beyond matters of Operational Functionality. Such comments might then by misinterpreted by Project Co as the Health Board accepting some responsibility for the design. Similarly, in the present case, the perception of IHSL may have been that NHSL/MML were doing thorough reviews of the design, but that was not the reality of the situation and it was not what the contract envisaged. These misinterpretations and misperceptions seem to have arisen primarily because key personnel within MPX and WW had not familiarised themselves with the contractual documentation. Rather, they appear to have proceeded on the assumption that the contractual structure for the project was the same as it had been in other projects that they had undertaken. Although the use of a new contractual structure might therefore have been the source of some confusion, it ought not to have posed a problem if parties had taken the time to familiarise themselves properly with the terms of the contract.

[418] Pages 55 and 56 of transcript
[419] Page 13 of transcript
[420] Page 130 of transcript

154. At paragraph 7.2 of PPP8 it is provisionally concluded that "The RDD process involved a thorough review of the Environmental Matrix. Mott MacDonald on behalf of the Board provided detailed comments…" The suggestion that MML conducted a "thorough" review of the EM is potentially misleading. As noted above, MML was not required to, and did not, conduct a line-by-line review of the EM for compliance with SHTM 03-01. Although comments were produced, these were not the product of a comprehensive review of every single entry in the EM. When the comments were provided to IHSL, the correspondence would remind IHSL about its contractual responsibilities, including its obligation to comply with the BCRs (examples of which are considered earlier in this closing statement).

155. The issue with the ventilation in Critical Care was not readily apparent from a review of the EM. Michael O'Donnell did not spot the error when he signed off on the EM. He stated[421] that "the cover guidance notes and room function reference sheet probably gave a reassurance to anyone upon initial view that important parts of the guidance are captured, resulting in no actual digging into the individual cells…" In his evidence[422] he noted on reflection that the RFRS may have "blinded him" from seeing the entry in the department sheets. In his view, someone reviewing the EM would probably have looked at the RFRS and "gone with that". Having regard to these considerations, it is understandable that somebody conducting a sample review or spot check of the EM would not notice the error.

156. The issues with the ventilation in Critical Care would also not have been readily apparent from a review of the RDS. The volume of this documentation coupled with the limited nature of MML's sample reviews meant that MML would have been unlikely to notice this issue. In any event, as discussed later in this closing statement, the clinical activities in the RDS had been altered from the ADB template. In Graeme Greer's opinion[423], the clinical activities set out in the RDS might have caused a reviewer to form the understanding that these RDS did not relate to bedrooms in which

[421] Paragraph 29 of his Statement for the April 2023 hearing
[422] Pages 79 and 80 of transcript
[423] Paragraph 35 of his Statement for the February 2024 hearing

Critical Care activities were to be conducted. This would have made any discrepancies in the air change rates harder to spot.

157. In September 2017[424], during the course of the RDD process for the EM, WW "requested a review line by line" of the EM by MML. During Stewart McKechnie's evidence at the February 2024 hearing[425], it became apparent that he expected MML to lead a line-by-line review so that MML would agree that the parameters recorded in the EM were the client's brief. This reflects a complete misunderstanding of where design risk sat, and the limited nature of MML's role in reviewing the EM. The suggestion by WW appears to have been an attempt by WW to shift design responsibility from itself back onto NHSL. In any event, WW had confirmed that it had already carried out a line-by-line check of the EM. WW's line-by-line check would have been one of the best opportunities for the errors in the EM to have been identified: however, there was no such identification, presumably because of WW's claimed interpretation of SHTM 03-01 or because the review was not carried out as thoroughly as WW have claimed. MML confirmed that there was "no requirement" for the line-by-line check proposed by WW. MML's rationale for making this observation was entirely reasonable: if a line-by-line check had already been conducted by WW, the party responsible for undertaking IHSL's mechanical and electrical design work, there was no need for another one. In any event, given the risk allocation and the nature of the RDD process, it would have been inappropriate for MML to conduct a line-by-line review.

158. At paragraph 93 of CTI 2024 it is suggested that this was a missed opportunity and that the actions of MML on behalf of NHSL in declining the review is "more difficult to defend in the wider circumstances of NHSL having put the environmental matrix into circulation in the first place". Given all of the evidence set out above regarding the onerous nature of a line-by-line review, this suggestion by WW was not a genuine practical opportunity. As CTI 2024 notes at paragraph 58, "a full technical audit" would have been required in order to identify the issue. Any such audit would have been expensive and time-consuming. It would have involved a fundamental change to the terms of MML's appointment or for an independent engineer to be instructed. Perhaps more importantly, undertaking a review in order to "agree the parameters that we had

[424] Bundle 13, volume 2 for the February 2024 hearing at page 1048
[425] Page 81 of transcript

recorded in the matrix was the client's brief" would have involved completely altering the risk allocation in the project. The ramifications of such an alteration were not explored in evidence, but taking this course would presumably have involved SFT and the Scottish Government given that it would essentially have involved a different contractual model. Although CTI suggest that the approach by MML on behalf of NHSL may be "difficult to defend", the reality is that there was no practical alternative but to decline WW's invitation. It was no more a "decision to trust the designer to comply with the guidance" than with any other element of the project where the contractor had been engaged to design in accordance with the BCRs. As CTI 2024 notes at the end of paragraph 93, "This issue links in to the wider theme of whether the NPD model is suitable for healthcare projects." The proposed line by line review was incompatible with this form of contract.

Alteration to Guidance Note 15

159. IHSL issued revision 2 of the EM on 4 December 2015[426]. On the opening page of the document it states "Document highlighted items amended inline [sic] with NHS comments." This statement suggests two things: (i) amendments have been highlighted; and (ii) any changes relate to NHSL's comments.

160. It is apparent that this version of the EM contains several changes, which are generally highlighted in red. Some of the highlighted changes relate to the Guidance Notes[427]. Graeme Greer set out his recollection[428] that it had been discussed and agreed by IHSL that changes made to the EM would be highlighted in red, which would be in accordance with good industry practice. Ronnie Henderson also explained[429] that there was an agreed protocol that all changes to the EM would be highlighted in red. In his evidence at the February 2024 hearing[430], Ken Hall agreed that highlighting the changes would be good industry practice. Even Stewart McKechnie accepted in his evidence at the February 2024 hearing[431] that there was an agreed protocol that changes would be

[426] Bundle 13, volume 5 for the February 2024 hearing at page 959
[427] Bundle 13, volume 5 for the February 2024 hearing at page 961
[428] Paragraph 24 of his Statement for the February 2024 hearing
[429] Paragraph 34 of his Statement for the February 2024 hearing
[430] Page 118 of transcript
[431] Page 37 of transcript

marked up. This is consistent with the words on the opening page which implied that amendments had been highlighted.

161. In this version of the EM, Guidance Note 15 had been altered by the insertion of the words "for isolation cubicles" after the words "10ac/hr Supply" in the section related to Critical Care Areas[432]. This change was not highlighted in red. This change was not related to the NHSL comments.

162. This change is significant for three reasons:

162.1. The fact that WW made this change to the EM makes it clear that WW did not regard the EM as a document it was obliged to comply with; the insertion of the qualifying words represented a major change which was directly related to the proper interpretation of the guidance. As CTI note at paragraph 84 of CTI 2024, WW's conduct is "difficult to reconcile with their position that the environmental matrix was a fixed client brief".

162.2. The precise ventilation requirements for Critical Care were plainly being considered by WW at the time this change was made. The consideration given to Guidance Note 15 by WW clearly represented an opportunity to identify the potential issue.

162.3. WW did not highlight this change. The lack of highlighting is considered in the following paragraphs.

163. The lack of any highlighting is surprising. Other changes made in this version of the EM were highlighted in red. For example, changes made to Guidance Notes 19, 21, 24 and 26 were all clearly highlighted in red. This highlighting included such minor issues as the insertion of the word "the" in Guidance Note 21. This highlighting made the changes readily apparent. In the absence of any such highlighting of the change to Guidance Note 15, there was no reason for MML or NHSL to suppose that any change had been made. Indeed, given that the change did not relate to any of NHSL's

[432] Bundle 13, volume 5 for the February 2024 hearing at page 961

comments, any change to Guidance Note 15 would not have been anticipated. The change would only have been detectable had NHSL or MML carried out a line-by-line comparison of this version of the EM against previous versions. Given that NHSL and MML would have had a reasonable expectation that all changes had been highlighted, there would have been no reason for such a line-by-line comparison to have been conducted. Indeed, given that the opening page of the document suggests that any changes relate to NHSL comments, a review of the entire document for any further changes ought to have been entirely unnecessary. Although NHSL and MML did not identify that the change had been made, it is unreasonable to have expected either NHSL or MML to have picked up this change in absence of any highlighting.

164. The lack of any highlighting of this one change is particularly surprising given the significance of this change (which involved changing the Guidance Note from being compliant with SHTM 03-01 to being non-compliant). Had the change been highlighted, it would have provided an opportunity for NHSL and MML to consider the issue further. In his evidence at the February 2024 hearing[433], Stewart McKechnie agreed that if the change had been highlighted, NHSL and MML would have had the opportunity to clarify whether 10ac/hr should be confined to isolation rooms in Critical Care. In his evidence at the February 2024 hearing[434], Ken Hall also accepted that, as the change was not highlighted, NHSL was denied the opportunity to make a choice between 4 and 10 air changes for the rooms in Critical Care. Given that NHSL sought a facility that was compliant with SHTM 03-01, had it been asked to make such a choice, it is reasonable to infer that it would have confirmed that 10ac/hr was required for all Critical Care Areas, not just isolation rooms. Had the change been highlighted, it is likely that the delay in the opening of the hospital would not have occurred.

165. Stewart McKechnie explained[435] that this alteration was made "purely for clarification to align with SHTM 03-01 guidance as we felt the original text was vague". In his evidence at the February 2024 hearing[436], he refused to accept that this change narrowed the scope of Guidance Note 15, despite the fact that it plainly did. However, he did

[433] Page 39 of transcript
[434] Page 127 of transcript
[435] Paragraph 41 of his Statement for the February 2024 hearing
[436] Pages 31 and 32 of transcript

eventually concede[437] that the change removed a conflict, although a few answers later he seemed to renege from that position.

166. It is implicit in Mr McKechnie's explanation that he considered the Critical Care entry in Guidance Note 15 to be important and that it was in need of "clarification". However, this recognition of the importance of this part of Guidance Note 15 is difficult to reconcile with a report prepared by Mr McKechnie in April 2022 entitled "Critical Care Department Briefing Review[438]. According to Mr McKechnie[439], this document was prepared for the specific purpose of assisting this Inquiry. As is clear from the title, the document was specifically concerned with the Critical Care Department. According to section 1.0, the report reviews the H&K EM "and accompanying Guidance notes". At section 3.2 of the report, express consideration is given to those Guidance Notes, including Guidance Note 15. However, Mr McKechnie quotes only from the part of Guidance Note 15 that relates to "HDU Bed Areas". He does not mention the part of Guidance Note 15 that relates to "Critical Care Areas". In a document that is said to "examine the Client's briefing for the Critical Care Department", and which makes specific reference to Guidance Note 15, it is difficult to understand why Mr McKechnie would entirely omit the section of Guidance Note 15 that specifically dealt with Critical Care Areas.

167. In his evidence at the February 2024 hearing[440] Mr McKechnie was unable to offer a satisfactory explanation for not highlighting the change. At one point he seemed to suggest that only "technical changes" were to be highlighted. This explanation is not consistent with highlighting the addition of the word "the" in Guidance Note 21 and ignores the fact that the change to Guidance Note 15 was a technical change. At another point he suggested that WW was "tidying up" the document rather than making a change to it. However, the change was plainly more significant than merely "tidying up". He ultimately expressed a wish that it had been highlighted: which suggests that he accepted that it should have been.

[437] Page 36 of transcript
[438] Bundle 1 for the February 2024 hearing at page 757
[439] Paragraph 74 of his Statement for the February 2024 hearing
[440] Pages 37 and 38 of transcript

168. WW's position in response to PPP8[441] was that WW's "understanding was that it needed only to highlight any changes to the tabulated information…" It is unclear where this understanding came from given that it was not spoken to by Mr McKechnie in evidence. In any event, it is plainly inaccurate: even a cursory glance at the EM[442] shows that changes made to other Guidance Notes had been highlighted. As matters presently stand, it is submitted that WW has not provided any satisfactory explanation for its failure to highlight the important change made by it to Guidance Note 15.

169. In his evidence at the February 2024 hearing[443], Mr McKechnie claimed that MML had commented on the change and was "well aware of it". He suggested[444] that comments had been made by Graeme Greer on this change. He was taken to correspondence dated 22 September 2015[445] which he said[446] supported the change to the Guidance Note. However, even from a cursory review of this correspondence, it is apparent that it had no relevance whatsoever to the change that had been made to Guidance Note 15. In any event, it is not immediately apparent whether Mr McKechnie was relying on this correspondence as being the basis for the claim that MML was aware of the change. Rather his evidence[447] appeared to relate to statements submitted to the Inquiry. It became apparent that he was relying on paragraph 24 of Graeme Greer's statement for the February 2024 hearing. However, on being taken to this paragraph, Mr McKechnie conceded[448] that Mr Greer had only noticed the change in Guidance Note 15 in the second half of 2019. He withdrew his claim that Graeme Greer had any knowledge of the change at the time it was made. It is concerning that Mr McKechnie made this baseless claim in his sworn evidence and sought to justify it by reference to documents that actually offered no support whatsoever to his position.

170. Similarly, at paragraph 8.2.1 of its Closing Submission following the April 2023 hearing, WW claimed, under reference to paragraph 83 of Graeme Greer's statement for the April 2023 hearing, that the change to Guidance Note 15 was noted by others at

[441] Bundle 12, volume 1 for the February 2024 hearing at paragraph 9.3.3
[442] Bundle 13, volume 5 for the February 2024 hearing at page 961
[443] Page 39 of transcript
[444] Page 40 of transcript
[445] Bundle 13, volume 2 for the February 2024 hearing at page 55
[446] Pages 44 and 45 of transcript
[447] Page 40 of transcript
[448] Pages 59 and 60 of transcript

the time. In fact, paragraph 83 of the statement simply narrates that the change was made: it says nothing about when Mr Greer became aware of it. The timing of Mr Greer's awareness was then clarified at paragraph 24 of his statement for the February 2024 hearing, from which it is readily apparent that he was not aware of the change until after the issue with Critical Care ventilation came to light in July 2019. In his evidence at the February 2024 hearing, Graeme Greer explained[449] that Kelly Bain (one of MML's project management team) spotted the change after the ventilation issue in Critical Care came to light in July 2019. He stated[450] that he had investigated the change and could not find any meeting notes or emails where the change had been discussed.

171. For the sake of completeness, it should also be noted that Brian Currie[451] refuted any suggestion that, during the construction period, he was aware of Mr McKechnie's claimed interpretation of SHTM 03-01.

172. In his evidence at the February 2024 hearing[452], Ken Hall also attempted to justify the lack of highlighting by reference to WW seeking clarification from MML in relation to isolation cubicles. He seemed to imply that there was no need for WW to highlight the change because MML had been made aware of it in correspondence. It became apparent[453] that this was a reference to the correspondence dated 22 September 2015[454]. However, this correspondence had no relevance whatsoever to the change that had been made to Guidance Note 15. It is surprising that Mr Hall sought to explain away the change to Guidance Note 15 by reference to this correspondence.

173. The alteration to Guidance Note 15 was not the only important change made by WW to the EM that was not highlighted. WW also failed to highlight that it had removed the entry for HDU from the RFRS in the EM prepared for Financial Close[455]. In his evidence at the April 2023 hearing[456], Mr McKechnie described this as tidying up as WW was "taking ownership" of the EM. This change was not in response to a comment

[449] Page 98 of transcript
[450] Page 101 of transcript
[451] Paragraph 53 of his Statement for the February 2024 hearing
[452] Pages 120 and 123 of transcript
[453] Page 124 of transcript
[454] Bundle 13, volume 2 for the February 2024 hearing at page 55
[455] Bundle 4 for the April 2023 hearing at page 222
[456] Page 140 of transcript

from NHSL. Had this change been highlighted, it might have provided another opportunity for NHSL and MML to challenge WW's treatment of rooms situation in Critical Care.

Single Bedrooms

174. The issue with the ventilation in single bedrooms arose initially with the issuing by IHSL of derogation request WW015[457]. WW015 is dated 26 July 2016. It was issued to MML by email on 1 August 2016[458]. WW015 sought to derogate from SHTM 03-01 by decreasing the air change rate in single bedrooms from 6ac/hr to 4ac/hr. The document referred to mixed mode ventilation with natural ventilation being available from opening windows.

175. This request clearly did not apply to single bedrooms that were Critical Care Areas. In the first place, the proposed reduction was from 6ac/hr rather than from 10ac/hr. As Graeme Greer noted[459], it was not immediately apparent to him that this document applied to rooms in Critical Care due to its reference to 6ac/hr. Secondly, the proposal concerns rooms with openable windows, which would not apply in Critical Care.

176. The understanding that WW015 did not relate to single bedrooms in Critical Care is consistent with the documentation highlighted by Ronnie Henderson[460]. Janice MacKenzie's recollection[461] is that any discussion regarding the derogation for single bedrooms was never in the context of single bedrooms in Critical Care.

177. The matter raised in WW015 ultimately became item 13 in SA1. Item 13 is discussed in more detail later in this closing statement. For the reasons set out there, it is quite clear that the solution that was ultimately agreed in relation to the single bedrooms had no application to those rooms in Critical Care. In any event, regardless of the correct legal interpretation of SA1, it would not have been apparent to MML when reviewing the proposed change to single bedroom ventilation that it had any application to Critical

[457] Bundle 13, volume 2 for the February 2024 hearing at page 544
[458] Bundle 13, volume 2 for the February 2024 hearing at page 545
[459] Paragraph 37 of his Statement for the February 2024 hearing
[460] Paragraphs 36 and 37 of his Statement for the February 2024 hearing
[461] Paragraph 31 of her Statement for the February 2024 hearing

Care given that (i) it involved a change from 6ac/hr to 4ac/hr rather than from 10ac/hr; and (ii) it involved rooms with openable windows and/or ensuites, which would not be consistent with it applying to those rooms situated in Critical Care.

Four Bed Rooms

178. Before considering the evidence concerning MML's role in the four bed room issue in detail, it is important to understand WW's role. In his evidence at the February 2024 hearing[462], Stewart McKechnie confirmed his understanding that NHSL was relying on WW "to ensure that the solution complied with SHTM guidance". The importance of this confirmation was such that, at the invitation of the Chair, the question was put to Mr McKechnie twice, with the same answer being elicited both times. This concession is consistent with the risk allocation in the project. Notwithstanding the fact that correspondence was exchanged between parties including NHSL and MML, and that representatives of NHSL and MML attended various meetings, the fundamental obligation to ensure that the solution being proposed complied with SHTM 03-01 lay with WW. This is the basis upon which MML was proceeding during these discussions: it was not MML's role to ensure that the solution complied with SHTM 03-01. MML had not been appointed to provide design assurance. As with other aspects of the project, if MML had identified a departure from SHTM 03-01, it would have flagged this: but it was not MML's role to check that the solution being proposed by WW was compliant with the guidance.

179. The issue of ventilation in four bed rooms seems to have arisen in late 2016 or early 2017[463]. Graeme Greer's position in his evidence at the February 2024 hearing[464] was that this issue had developed from consideration of the single bedroom ventilation issue discussed in the preceding section. The driving factor for the change in pressure regime in the four bed rooms seems to have been input from NHSL clinical staff who considered there to be a need for balanced or slightly negative pressure (rather than

[462] Pages 104 and 105 of transcript
[463] Although paragraph 102 of CTI 2024 states that NHSL took advice from HFS in June 2016, Ronnie Henderson's evidence (at page 68 of the transcript under reference to the document at Bundle 13, volume 8 for the February 2024 hearing at page 2340) was that the document was incorrectly dated as June 2016 and that the correspondence took place in June 2017.
[464] Page 132 of transcript

positive pressure) in four bed rooms so as to enable cohorting of infectious patients. The relevant rooms had apparently been identified by NHSL's clinical team. MML did not provide any input into the selection of rooms.

180. According to Janice MacKenzie's evidence at the February 2024 hearing[465], NHSL initially sought advice from Colin Macrae of MML regarding the appropriate pressure regime for four bed rooms. Ms MacKenzie explained that any such correspondence took place before Ronnie Henderson contacted the IPCT. This means that this correspondence took place by mid-January 2017 at the latest, which would be before the list of affected rooms had been confirmed. Ms MacKenzie was unsure whether Mr Macrae was aware that any of the rooms were in Critical Care. When discussing this issue, she suggested that Mr Macrae may have seen the risk assessment at some point: however, that document was not produced until several months after this correspondence with Mr Macrae. There is accordingly no evidence that, when this correspondence took place, Colin Macrae was aware that any of the rooms under discussion were in Critical Care. There is no evidence that, after this initial advice from Colin Macrae, MML was ever asked to provide any formal advice or design assurance regarding the compliance of the proposed solution for this issue with SHTM 03-01. In questioning of Susan Goldsmith, CTI put to her[466] that MML had "signed off that good industry practice means balanced or negative for these rooms". There was never any such sign off by MML.

181. On 20 January 2017, Ronnie Henderson sought advice from the IPCT regarding the application of SHTM 03-01 in relation to four bed room ventilation[467]. According to Lindsay Guthrie's evidence[468], this is the only record of any input from the IPCT being sought or provided in relation to this issue.

182. On 31 January 2017, WW sent an email[469] attaching a document headed Bedroom Ventilation Key Considerations[470]. In relation to four bed room ventilation, the

[465] Page 227 of transcript
[466] Page 11 of transcript
[467] Bundle 13, volume 7 for the February 2024 hearing at page 37
[468] Pages 137 and 138 of transcript
[469] Bundle 13, volume 1 for the February 2024 hearing at page 19
[470] Bundle 13, volume 1 for the February 2024 hearing at page 20

document suggested a compromise solution involving "increasing the ensuite and WC ventilation rates". The reference to ensuites would have suggested that any rooms in Critical Care were not included within this proposal, as none of the rooms in Critical Care had ensuites.

183. On 9 February 2017, MML was amongst the recipients of an email[471] from WW attaching a document headed Multi Bed Rooms – Ventilation Amendment Proposal to Achieve Room Balance[472]. The email also attached general arrangement layout drawings showing the location of the rooms[473]. However, it is not at all clear from the copies of the drawings included in the Inquiry bundle whether any of the rooms were in Critical Care. The Ventilation Amendment Proposal itself did not expressly state that any of the rooms were in Critical Care. In any event, MML was not asked to review the rooms that had been identified by NHSL or to provide any advice on whether the proposed solution complied with SHTM 03-01 for all of the identified rooms.

184. A Bedroom Ventilation Update Meeting took place on 24 February 2017[474]. The only attendee at this meeting from MML was Kamil Kolodziejczyk, one of MML's project management team: Colin Macrae was not in attendance. Ronnie Henderson thought[475] that this was the meeting where clinicians tabled the rooms that they required to be balanced. A document marked up at that meeting[476] shows that 20 rooms were considered, of which 14 were marked as "Essential" and six were marked as "Not Essential". In her evidence at the February 2024 hearing[477], Janice MacKenzie could not remember whether she told people at this meeting that some of the rooms were in Critical Care: her recollection was that they quickly went through the list using the codes for each room. Although he was not present at the meeting, Graeme Greer's evidence at the hearing in February 2024[478] was that this meeting was when the decision on the 14 rooms was taken and that this decision was not then revisited until after the ventilation issue came to light in July 2019. Although Mr Greer was correct in his

[471] Bundle 13, volume 1 for the February 2024 hearing at page 21
[472] Bundle 13, volume 1 for the February 2024 hearing at page 25
[473] Bundle 13, volume 1 for the February 2024 hearing at page 22
[474] Bundle 13, volume 1 for the February 2024 hearing at page 34
[475] Page 82 of transcript
[476] Bundle 13, volume 1 for the February 2024 hearing at page 35
[477] Page 218 of transcript
[478] Page 150 of transcript

understanding that the 14 rooms identified at this meeting were the same 14 rooms that were included within SA1, fuller consideration of the chronology shows that there was further discussion in March 2018 about the selection of rooms. This is addressed later in this closing statement.

185. In May/June 2017 it became apparent that there was a dispute between IHSL and NHSL about whether the proposed change in pressure regime for the four bed rooms represented a Board Change[479]. By this stage, the appropriate technical solution for the proposed pressure cascade had been agreed; the issue between the parties was who should bear the cost of making the change.

186. In July 2017, NHSL prepared a risk assessment in relation to the four bed room ventilation issue[480]. MML had no direct involvement in its preparation. In her evidence at the February 2024 hearing[481], Janice MacKenzie suggested that the statement in the risk assessment about non-compliance with SHTM 03-01 had come from the correspondence with Colin Macrae (which for the reasons set out above must have taken place before mid-January 2017). The risk assessment itself is concerned only with the pressure cascade in the selected rooms: it does not mention air change rates at all.

187. The risk assessment was circulated by email dated 6 July 2017[482]. Nobody from MML was a direct recipient. Three members of MML's project management team were copied into the email, but not Colin Macrae. MML was not instructed to do anything in this email. In particular, MML was not instructed to review the risk assessment, the selected rooms or the ventilation parameters. It was not instructed to consider whether the proposal for four bed rooms complied with SHTM 03-01. In his evidence at the February 2024 hearing[483], Graeme Greer was not sure whether the risk assessment was passed to any other people within MML.

[479] Bundle 13, volume 1 for the February 2024 hearing at page 51
[480] Bundle 13, volume 8 for the February 2024 hearing at page 451
[481] Page 227 of transcript
[482] Bundle 13, volume 8 for the February 2024 hearing at page 449
[483] Page 143 of transcript

188. An updated risk assessment was prepared in January 2018[484]. Again, MML had no direct involvement in its preparation. In her evidence at the February 2024 hearing[485], Janice MacKenzie could not recall whether this document was ever sent to MML. No documentation has been produced suggesting that this document was sent to MML. The fact that NHSL did not think that MML required to be copied into this document supports the impression that, at the relevant time, NHSL was not relying on MML's technical advice in relation to the appropriateness of the proposed change to the ventilation in four bed rooms.

189. In her evidence at the February 2024 hearing, Janice MacKenzie described[486] it as "very disappointing" that nobody picked up that some of the rooms identified in the risk assessment were in Critical Care. However, she acknowledged that it was "an incredibly busy time". Ms MacKenzie went on to suggest, in response to a leading proposition put to her by CTI[487], that MML, with input from NHSL Estates, should have been translating the requirement to cohort patients into "a detailed ventilation specification". This exchange reflected a fundamental misunderstanding not only of MML's role in the project, but also of the risk allocation between NHSL and IHSL. It was IHSL's responsibility to put together a ventilation specification for the proposed change to four bed room ventilation. If NHSL had any expectation that MML would have input into that specification, or review it for compliance with SHTM 03-01, NHSL could have instructed MML to do so. It did not. Insofar as the risk assessment was concerned (which was the matter being discussed when the question was posed), MML was not instructed to review it. The first draft of it was simply copied to project management staff. The revised version does not appear to have been sent to MML at all. In any event, according to Ms MacKenzie's evidence at the February 2024 hearing[488], it was Ronnie Henderson, rather than her who was predominantly liaising with MML. As Graeme Greer noted[489], it was Brian Currie who managed MML's scope. Accordingly, Ms MacKenzie is not best placed to judge whether MML ought to have been providing advice on this matter.

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[484] Bundle 6 for the February 2024 hearing at page 14
[485] Page 11 of transcript
[486] Page 210 of transcript
[487] Page 211 of transcript
[488] Page 212 of transcript
[489] Pages 169 and 170 of transcript

190. In early 2018, NHSL considered raising legal proceedings against IHSL. It is apparent from correspondence related to the dispute[490] that, at this stage, the proposed litigation concerned all 20 four bed rooms in the hospital rather than the restricted list of 14 rooms that had been identified as essential in February 2017.

191. For the purposes of this litigation, Graeme Greer prepared a draft affidavit. Although reference was made to this document during the questioning of witnesses at the February 2024 hearing, the Inquiry was not taken to the terms of the affidavit. The affidavit is primarily a factual chronology setting out the history of the dispute. Although it sets out the Board's position, it is not offering any technical view on what SHTM 03-01 required. NHSL had engaged an expert in the form of David Rollason to provide that.

192. In early 2018, MML produced a four bed room tracker[491]. This included all of the 20 four bed rooms that were initially discussed at the meeting on 24 February 2017. The document is described at paragraph 116 of the CTI 2024 as "a MML table": while that description is technically correct, it may give the misleading impression that MML had created the content of the document. Although the document has the MML logo on it, it is clear from the title that it comprises "extracts from" the IHSL EM and the preamble states that it is a tracker collated using information from IHSL's EM. In his evidence at the February 2024 hearing[492], Graeme Greer explained that this was a project management document, not a document prepared by the technical team. It was produced for the purpose of being provided to Mr Rollason, the expert instructed by NHSL in relation to its proposed litigation against IHSL. Mr Greer explained that, in the version of the document that is contained within the Inquiry Bundle, some of the cells are hidden; however, the original version of the document included all of the EM. He noted[493] that the original intention was to summarise all versions of the EM for Mr Rollason. In his evidence under reference to this document[494], Ronnie Henderson confirmed that MML's role had not changed from providing a light-touch sampling

[490] Bundle 13, volume 9 for the February 2024 hearing at page 92
[491] Bundle 13, volume 5 for the February 2024 hearing at page 1244
[492] Pages 153 and 154 of transcript
[493] Page 156 of transcript
[494] Page 106 of transcript

review. He suggested that this document may be something that MML was managing on NHSL's behalf rather than an engineering review[495]. In one question to Ronnie Henderson[496], CTI suggested that MML had "added" information about HDU to this tracker. In another question to Janice MacKenzie[497], CTI suggested that MML had populated the air changes and pressure rates in the tracker. This line of questioning reflects a misunderstanding of the source of the information in the tracker. According to the clear terms of the document, and the evidence from Graeme Greer, the information in the table had been taken directly from IHSL's EM; it had not been produced by MML. On a proper understanding of the evidence, it is clear that this document was no more than an extract from IHSL's EM which had been prepared by the project management team as part of the process of providing instructions to Mr Rollason.

193. On 22 March 2018, IHSL wrote to NHSL with a settlement proposal[498]. This included a document headed "4 Bedded Ventilation Options". Although this document does not appear to be in the Bundles, Matthew Templeton[499] describes the options as follows:

193.1. Option 1: a proposal that had previously been discussed at length to achieve a negative or balanced pressure in 14 rooms.

193.2. Option 2: negative or balanced pressure in 14 rooms at 4ac/hr.

193.3. Option 3: negative or balanced pressure in 20 rooms at 4 ac/hr.

194. From Mr Templeton's description, the precise difference between option 1 and option 2 is unclear; however, it might be inferred from consideration of WW's Ventilation Amendment Proposal as it stood prior to March 2018[500] that option 1 included air change rates that were lower than 4ac/hr.

[495] Page 106 of transcript: MML noted the evidence as being "rather than" not "other than"
[496] Page 107 of transcript
[497] Page 16 of transcript
[498] Bundle 13, volume 9 for the February 2024 hearing at page 100
[499] Paragraph 68 of his Statement for the February 2024 hearing
[500] Bundle 13, volume 1 for the February 2024 hearing at page 40

195. These options were discussed at a meeting on 28 March 2018. According to a meeting note[501] and Matthew Templeton's evidence[502], the meeting was attended by three representatives of NHSL, but not by anyone from MML. At this meeting NHSL agreed to progress on the basis of ventilation option 2 (which included 14 rooms at negative or balanced pressure at 4ac/hr). From the available documentation, this seems to be the first point at which the air change rate for the affected rooms was discussed and agreed. This discussion and agreement took place without the presence of MML. This is perhaps understandable given that the agreement was in accordance with the air change rates that were in the EM. Prior to this meeting, NHSL does not seem to have made any express stipulation about the air change rates that were to apply in the rooms: that would have been a matter for IHSL to determine in accordance with its obligations under the Project Agreement.

196. On 18 April 2018, Ronnie Henderson had an exchange of emails with Ken Hall[503]. Mr Henderson stated that "we are seeking 4 Air Changes to all 14 rooms". Mr Hall responded "4ACH is the brief". This correspondence seems to be confirmation of the agreement reached at the meeting on 28 March 2018 rather than any new instruction. In his evidence[504] Mr Henderson explained that, despite this reference to the air change rate, the focus was really on the pressure regime. The email exchange on 18 April 2018 was copied to Kamil Kolodziejczyk and Douglas Anderson of MML. Mr Kolodziejczyk was one of MML's project management team. As Graeme Greer explained in his evidence at the February 2024 hearing[505], Douglas Anderson was an electrical engineer. The email was not copied to Colin Macrae. MML does not appear to have been asked to provide any advice regarding the applicable air change rate. This is perhaps understandable as the correspondence was confirming the air change rates that already appeared in the EM rather than proposing any change.

197. On 14 May 2018, WW issued version 6 of the document entitled General Ward – Ventilation Amendment Proposal to Achieve Room Balance[506]. In this version of the

[501] Bundle 13, volume 9 for the February 2024 hearing at page 110
[502] Paragraph 70 of his Statement for the February 2024 hearing
[503] Bundle 1 for the February 2024 hearing at page 2042
[504] Page 129 of transcript
[505] Page 92 of transcript
[506] Bundle 13, volume 2 for the February 2024 hearing at page 1268

document, the proposed solution for all of the rooms, including those situated in Critical Care, made reference to ensuite ventilation. This suggests that, even at this late stage, WW was unsure that some of the rooms were situated in Critical Care.

198. On 5 July 2018, Ken Hall sent an extract from the EM showing the affected four bed rooms to Kamil Kolodziejczyk and Ronnie Henderson[507]. However, consideration of the extract from the EM[508] shows that the department names had been removed from the extract. The rooms and departments are referred to by their code numbers, the meaning of which would not necessarily have been readily apparent to the reader. This matter is addressed later in this closing statement. The email was not sent to Colin Macrae.

199. The final version of the WW document entitled Multi Bed – Ventilation Amendment Proposal to Achieve Room Balance was issued in June 2018[509]. On 26 July 2018, Janice MacKenzie signed the document off as RDD at level A[510]. In her evidence at the February 2024 hearing[511], she stated that her understanding is that this document would have been thoroughly reviewed by MML. This understanding seems to have been, at least in part, because it was a relatively short document. It is important to note that, regardless of the thoroughness of the review being conducted by MML, any such review was to confirm that the proposed design solution satisfied Operational Functionality. The purpose was not to confirm whether the proposed design solution was consistent with guidance such as SHTM 03-01.

200. Based on the available evidence, it is not clear to what extent MML was, or ought to have been, aware that any of the four bed rooms under discussion were in Critical Care. In his evidence at the February 2024 hearing[512], Graeme Greer confirmed that he did not know that some of the rooms under discussion were in Critical Care. Nevertheless, he thought that it was known to MML[513], and in particular to Colin Macrae[514], that some

[507] Bundle 13, volume 2 for the February 2024 hearing at page 1337
[508] Bundle 13, volume 2 for the February 2024 hearing at page 1340
[509] Bundle 10 for the February 2024 hearing at page 179
[510] Bundle 10 for the February 2024 hearing at page 182
[511] Page 27 of transcript
[512] Page 133 of transcript
[513] Page 132 of transcript
[514] Page 134 of transcript

of the rooms were in Critical Care. However, on further questioning[515] he conceded that this was no more than an assumption. In any event, in forming this view, Mr Greer appears to have proceeded on an erroneous understanding of how matters had developed. It is apparent[516] that he based his conclusion on his understanding that Colin Macrae was present at the meeting on 24 February 2017 when the fourteen "essential" rooms were identified. It is perhaps understandable that Mr Greer assumed that Mr Macrae was at this meeting. However, Mr Greer (who was not taken to the attendees list during his evidence) was mistaken in his understanding on this matter. Consideration of the attendee list[517] shows that the only person from MML that was present at that meeting was Kamil Kolodziejczyk, one of MML's project management team. Even if Mr Kolodziejczyk had some awareness, through his attendance at this meeting, that some of the 14 rooms were in Critical Care, as he was not a ventilation engineer, it would not necessarily have been apparent to him that this would have had any significance in terms of compliance with SHTM 03-01. In any event, it would be erroneous to assume that attendees at the meeting on 24 February 2017 would have become aware that some of the rooms were in Critical Care. As set out above, Janice MacKenzie[518] could not remember whether she told people at this meeting that some of the rooms were in Critical Care. Although Ronnie Henderson was at this meeting, he was not aware that some of the rooms were in Critical Care. This is discussed in more detail below. Graeme Greer's own view[519] was that the rooms were identified by codes rather than a description of their location and that it would not have been readily apparent which department each room was located in. Accordingly, the basis for Mr Greer's view that MML was aware that some of the rooms were in Critical Care, does not seem to be supported by the available evidence.

201. Consideration of another contemporaneous document suggests that there was a lack of appreciation on the part of MML that some of the rooms were in Critical Care. In June 2017, MML prepared a Design Issues Report[520]. This document was originated by Kamil Kolodziejczyk and Kelly Bain, checked by Colin Macrae amongst others, and

[515] Page 137 of transcript
[516] Page 134 of transcript
[517] Bundle 1 for the February 2024 hearing at page 2046
[518] Page 218 of transcript
[519] Paragraph 85 of his Statement for the February 2024 hearing
[520] Bundle 13, volume 5 for the February 2024 hearing at page 1217

approved by Graeme Greer[521]. It is plain from section 2.2.2.2 of this document[522] that MML's collective understanding at this stage was that the four bed rooms under discussion had ensuites. As none of the rooms in Critical Care had an ensuite, it follows that MML's understanding (including the understanding of Colin Macrae) at this stage appears to have been that none of the 14 rooms was in Critical Care.

202. It is also important to note that Ronnie Henderson, who agreed that he had a "good solid working knowledge of SHTM 03-01"[523], was plainly familiar with using Table A1[524], and appears to have been present at all of the relevant meetings and party to all of the relevant correspondence, did not "join the dots" that some of the rooms were in Critical Care[525]. At the relevant time he did not know that the room code B1 related to Critical Care[526]. His lack of appreciation that any of the rooms was in Critical Care is consistent with the evidence of Stewart McKechnie at the February 2024 hearing[527], who did not recall any discussion at all that four of the rooms were in the Critical Care department. Given that Mr Henderson did not appreciate that any of the rooms were in Critical Care, it is reasonable to conclude that it was not set out clearly, either in correspondence or in any meeting, that any of the relevant rooms were in Critical Care. That being the case, it is unreasonable to expect MML to have picked this up. Although Ronnie Henderson suggested in evidence[528] that he would have expected MML to pick up on the fact that some of the rooms were in Critical Care, he did not provide any explanation for why he would have expected MML to have picked this up when he had not.

203. Even if Colin Macrae was present at some meetings (other than the meeting on 24 February 2017) at which the four bed room issue was discussed, it would be erroneous to assume that his presence at such a meeting would have involved him becoming aware of, or giving advice on, the selection of rooms or on the ventilation parameters that were to be applied. Colin Macrae may have been more concerned with how WW's proposed solution would go about achieving balanced/negative pressure rather than with (i) the

[521] Bundle 13, volume 5 for the February 2024 hearing at page 1218
[522] Bundle 13, volume 5 for the February 2024 hearing at page 1226
[523] Page 15 of transcript
[524] Page 26 of transcript
[525] Page 71 of transcript
[526] Paragraph 30 of his Statement for the February 2024 hearing
[527] Page 99 of transcript
[528] Page 81 of transcript

location of the affected rooms; and (ii) whether that proposed pressure regime was consistent with SHTM 03-01 in the first place. The compliance of the ventilation parameters with guidance remained the responsibility of IHSL. Other technical ventilation matters would presumably have been under discussion at this stage such as how the parameters were to be met from an engineering perspective in terms of ductwork and air handling units. It is quite possible that his involvement would have been primarily concerned with those matters rather than with the location of the affected rooms or the selection of the ventilation parameters.

204. At paragraph 117 of CTI 2024, it is stated that the fact that rooms were in Critical Care "ought to have been readily apparent to anyone familiar with the project through the use of plans identifying the rooms' location and the "B1" department code used to identify the affected rooms". So far as the plans are concerned, this is presumably a reference to the general arrangement layout drawings[529] attached to the email from WW dated 9 February 2017[530]. As is noted above, it is not at all clear from the copies of the drawings included in the Inquiry bundle whether any of the rooms were in Critical Care. So far as the B1 department code is concerned, the evidence does not support the conclusion that it ought to have been "readily apparent to anyone familiar with the project" that it referred to Critical Care. Graeme Greer's view[531] was that, if a room was identified using a code, it would not have been readily apparent which department the room was located in. Similarly, Ronnie Henderson's evidence[532] was that, at the relevant time, he did not know that the room code B1 related to Critical Care. It therefore seems that, contrary to the submission advanced by CTI, those with an intimate knowledge of the project were not necessarily familiar with the department codes.

205. Accordingly, having regard to the available contemporaneous evidence, it is far from clear that MML was, or ought to have been, aware that any of the rooms under discussion was in Critical Care.

[529] Bundle 13, volume 1 for the February 2024 hearing at page 22
[530] Bundle 13, volume 1 for the February 2024 hearing at page 21
[531] Paragraph 85 of his Statement for the February 2024 hearing
[532] Paragraph 30 of his Statement for the February 2024 hearing

206. Even if MML was, or ought to have been, aware that any of the rooms under discussion was located in Critical Care, it does not necessarily follow that this would have raised any red flags in relation to compliance with applicable guidance and/or the suitability of the change being proposed at that stage. This is for three reasons. Firstly, as Stewart McKechnie confirmed in his evidence at the February 2024 hearing[533], NHSL was relying on WW, not MML, "to ensure that the solution complied with SHTM guidance". Secondly, the focus of the change was on the pressure regime not on the air change rate. Thirdly, MML's understanding was that all of the rooms, regardless of their location, were normal bedrooms. The second and third reasons are developed in the following paragraphs.

207. As the four bed room issue developed throughout 2017, the focus was entirely on the pressure regime in the affected rooms. As Ronnie Henderson noted in his evidence[534], there was a very narrow focus on the pressure regime. The change to the pressure regime was based on input from clinical experts and was the subject of a risk assessment. The IPCT view regarding the pressure regime in Critical Care[535] was that, although a balanced or slightly negative pressure is not compliant with SHTM 03-01, such an approach would not increase the risk of infection spread. In his evidence[536], Donald Inverarity agreed that neither positive nor balanced/slightly negative pressure is necessarily wrong. It therefore seems that, had the IPCT been consulted, it would not have opposed the change. Having regard to these factors, particularly the existence of a clinical justification, Stephen Maddocks confirmed in his evidence at the February 2024 hearing[537] that he would have been comfortable with there being a non-compliance with SHTM 03-01 in relation to the pressure regime. It follows that, even if MML had been, or ought to have been, aware that the change to the pressure regime for four bed rooms applied to rooms in Critical Care, it would have been reasonable for MML to have been comfortable with the proposed change notwithstanding its inconsistency with SHTM 03-01 in relation to Critical Care Areas. There is no obvious reason why the proposal ought to have raised red flags for MML.

[533] Pages 104 and 105 of transcript
[534] Page 85 of transcript
[535] Bundle 13, volume 8 for the February 2024 hearing at page 555
[536] Page 162 of transcript
[537] Page 55 of transcript

208. The focus of the proposed change was not on the applicable air change rates for the affected rooms. The proposed change to the ventilation parameters did not involve any change to the air change rates in the affected rooms. Those air change rates were to be as set out in the EM. So far as NHSL and MML were concerned, H&K had confirmed that the reference design EM complied with SHTM 03-01 and IHSL had taken on responsibility to develop the EM in accordance with its obligation to comply with SHTM 03-01. There was no reason for NHSL or MML to review the air change rates for the affected rooms. The applicable air change rate was raised briefly by Ronnie Henderson in the email exchange on 18 April 2018[538], but even at that stage, his focus was on the pressure regime. His concern in raising the air change rate was to ensure that the rates were not being reduced from those in the EM: he was simply seeking confirmation that the air change rates remained as set out in the EM (which was understood to comply with SHTM 03-01). As the proposal did not involve any change to the air change rates in the EM, there was no obvious reason for the air change rates to be checked. In any event, Mr Henderson did not seek any technical input from MML on this issue before confirming the applicable rate with MPX. Accordingly, even if MML had been, or ought to have been, aware that the affected rooms included rooms in Critical Care, it would have been unreasonable to expect MML to have raised any red flags in relation to the air change rate.

209. Turning to the third reason, as Graeme Greer explained in his evidence at the February 2024 hearing[539], his understanding was that all of the rooms were effectively normal bedrooms, as opposed to Critical Care Areas. This was supported by the fact that all of the discussions concerned a change from 6ac/hr to 4ac/hr (as had been the case with single bedrooms), rather than from 10ac/hr (as would be required for a Critical Care Area). It was also supported[540] by the fact that the room function for each of these rooms in the EM was "Multi-Bed Ward" rather than HDU (HDU having been deleted from the RFRS Sheet by WW). Mr Greer explained that his impression that these were all normal bedrooms found further support when he considered the RDS that had been produced for these rooms. He noted that the clinical activities on these RDS were for normal bedrooms, notwithstanding their location in the Critical Care department. These

[538] Bundle 1 for the February 2024 hearing at page 2042
[539] Pages 132 and 133 of transcript
[540] Page 155 of transcript

activities were not the same as the clinical activities in the template ADB sheet for Critical Care multi-bed rooms[541]. In his view, there had been a conscious change when these RDS had been prepared to make them normal bedrooms.

210. During his evidence, Mr Greer was not taken to the specific RDS for the relevant rooms or to the template ADB sheet to vouch his explanation. Nevertheless, it is clear when one reviews the available RDS for the project that the clinical activities for the relevant four bed rooms in Critical Care had indeed been changed from those in the template ADB sheet for multi-bed rooms in Critical Care to those of a normal bedroom. The ADB template for multi-bed rooms in Critical Care[542] has clinical activities including "Accommodating a patient needing continuous medical and nursing care using piped medical gases, vacuum and life-support systems". The room number on the template ADB sheet is B1609. The bundles do not contain a complete set of the RDS as they developed during the project. Nevertheless, the available RDS for four bed rooms in Critical Care show that the clinical activities had been changed from those in ADB sheet B1609. The Financial Close RDS for room B1-031, "4 beds Low Acuity"[543] includes a room reference B1609-01, suggesting that it is derived from ADB sheet B1609. Nevertheless, the clinical activities have been changed from the template ADB sheet. Although some of the activities are similar, there is no longer any reference to accommodating patients needing continuous medical and nursing care: however, "Rest and relaxation" has been added as an activity. The same changes have been made to the Financial Close RDS for room B1-063, "4 beds High Acuity"[544]. As Brian Currie noted[545] the air change rate on these RDS has also been altered from the ADB template.

211. The bundles also contain an RDS for room B1-009, another four bed room in Critical Care[546]. This RDS is dated 11 July 2017 and would therefore seem to have been produced during the RDD period, after the four bed room issue had arisen, but before the conclusion of SA1. Again, the clinical activities do not refer to accommodating

[541] Paragraph 34 of his Statement for the February 2024 hearing
[542] Bundle 10, volume 2 for the April 2023 hearing at page 1112
[543] Bundle 1 for the February 2024 hearing at page 1597
[544] Bundle 1 for the February 2024 hearing at page 1617
[545] Paragraph 123 of his Statement for the February 2024 hearing
[546] Bundle 5 for the February 2024 hearing at page 1111

patients needing continuous medical and nursing care. However, they do include "Rest and relaxation" and "Patient may take meals or refreshments in bed or by the bed".

212. It is therefore apparent that, if someone were to review the RDS for these rooms, it would not have been immediately apparent that these were Critical Care Areas. Rather, these rooms would seem to be normal bedrooms, with no obvious reason to treat them differently from the other four bed rooms in the hospital. In Graeme Greer's opinion[547], the clinical activities in the RDS might have caused a reviewer to form the understanding that these RDS did not relate to Critical Care bedrooms. It follows that, notwithstanding the fact that some of the rooms were situated in Critical Care, closer examination of those rooms by reference to their RDS could have caused a reviewer to form the reasonable impression that the room was not a Critical Care Area requiring 10ac/hr.

213. This understanding of the significance of the RDS is consistent with the evidence of Donald Inverarity. In his evidence[548] he noted that, in Critical Care, patients are often either unconscious or sedated. He explained[549] the sort of clinical activities that would be expected in Critical Care, including invasive procedures such as chest drain insertion which would be more in keeping with an operating theatre. It was the possibility of such activities being performed that justified the need for the recommended air change rates. In his evidence[550] he explained that lower air change rates may be acceptable in wards where there are no aerosol generating procedures. Lindsay Guthrie gave evidence[551] to similar effect. In her view[552], the parameters that apply to a room are partly based on the type of activity being delivered in that room. The RDS for the relevant rooms in this project suggested clinical activities that were far removed from those described by Dr Inverarity and Ms Guthrie for Critical Care Areas.

214. It is unclear how the clinical activities in the RDS came to have been altered from those in the template ADB sheet. This matter was not explored in evidence.

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[547] Paragraph 35 of his Statement for the February 2024 hearing
[548] Page 82 of transcript
[549] Paragraph 92 of his Statement for the February 2024 hearing
[550] Page 148 of transcript
[551] Page 47 of transcript
[552] Page 66 of transcript

215. Graeme Greer drew support for his conclusion that not all bedrooms situated in the Critical Care department would necessarily be classed as Critical Care Areas from a review of the changes made by Bidder C to the EM[553]. He noted that some, but not all, of the rooms in Critical Care were changed to 10ac/hr by Bidder C. He also noted[554] that paragraph 2.60 of SHTM 03-01: Part A[555] stated that specific requirements for individual spaces are included in ADB sheets. A review of the ADB sheet for multi bed rooms in Critical Care[556] shows that the air change rate is 6ac/hr, not 10ac/hr. These factors undermine the suggestion that simply because a bedroom is situated within the Critical Care department, it is necessarily viewed as a Critical Care Area for the purposes of Table A1 of SHTM 03-01.

216. Further support for Graeme Greer's evidence on this point comes from a consideration of the revised version of SHTM 03-01 issued in February 2022[557]. Table A1[558] draws a distinction between a "General Ward (level 0 and 1 care)", which requires 6ac/hr and "Critical care areas (Level 2 and 3 care)" which requires 10ac/hr. Level 1 care is defined as "Patients at risk of their condition deteriorating, or recently relocated from higher levels of care, whose needs can be met through normal ward care with additional advice and support from the critical care team"[559]. Level 2 care is defined as "Patients requiring more detailed observation or intervention, including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care"[560]. It is apparent from the revised table that a Critical Care Area is defined not by reference to the location of the room but by reference to the level of care required by the patient. Such an approach is consistent with Graeme Greer's review of the clinical activities in the RDS in order to understand the level of care being provided in the relevant room. Having regard to the activities set out in the RDS for the four bed rooms in Critical Care, the level of care being provided would appear to be level 1, in

[553] Page 135 of transcript
[554] Page 136 of transcript
[555] Bundle 1 for the February 2024 hearing at page 1063
[556] Bundle 10, volume 2 for the April 2023 hearing at page 1113
[557] Bundle 1 for the February 2024 hearing at page 2263
[558] Bundle 1 for the February 2024 hearing at page 2431
[559] Bundle 1 for the February 2024 hearing at page 2487
[560] Bundle 1 for the February 2024 hearing at page 2488

which case it would be appropriate, for the purposes of the revised SHTM 03-01, to treat the space as a normal bedroom rather than as a Critical Care Area.

217. The views expressed by Darren Pike regarding the meaning of Critical Care Area in SHTM 03-01 are similar to those of Graeme Greer. In his evidence[561] he noted the lack of a definition for those areas and commented that he would look to use SHTM 03-01 in conjunction with other briefing documents. He considered that Critical Care Area would apply to bed areas, unless there was a specific output which was different. In the present case, the clinical activities in the RDS would appear to be a specific output that was different from a Critical Care Area.

218. Accordingly, even if MML had been, or ought to have been, aware that the affected rooms included rooms in the Critical Care department, it would not follow that MML ought to have appreciated that the affected rooms were Critical Care Areas requiring 10ac/hr. For this reason, in addition to the others set out above, it would have been unreasonable to expect MML to have raised any red flags in relation to the proposed solution to the four bed room issue.

MML's Role in Relation to SA1

219. In his statement for the February 2024 hearing[562], Graeme Greer explained MML's role during SA1 negotiations. So far as reviews of technical design submissions were concerned, he explained that the same RDD framework was applied and that NHSL did not instruct any alteration to the level of design review MML was to provide.

220. The technical solutions for the single bedroom and four bed room ventilation issues had been agreed long before SA1 was concluded. In relation to the single bedrooms, Graeme Greer explained[563] that IHSL issued a document on 19 June 2017 noting that an agreed design solution had been reached. In relation to the four bed rooms, he noted[564] that the technical solution had been broadly agreed since around spring 2017.

[561] Pages 6 and 7 of transcript
[562] Paragraph 73 of his Statement for the February 2024 hearing
[563] Paragraph 88 of his Statement for the February 2024 hearing
[564] Paragraph 78 of his Statement for the February 2024 hearing

It is apparent from the documentation reviewed above, that further discussions took place in March 2018 at which formal agreement was reached that there was to be negative or balanced pressure in 14 rooms at 4ac/hr. However, the technical solution essentially remained as discussed in spring 2017. To the extent that issues related to ventilation remained outstanding during the SA1 negotiations, the primary concern was not a technical review: any technical involvement at that stage was dedicated to issues other than ventilation[565].

221. So far as the preparation of the Technical Schedule to SA1 was concerned, Graeme Greer stated[566] that MML collaborated with NHSL to produce a list of current issues. SFT then collated that list with IHSL's own list to produce a Technical Schedule. This was then reviewed and revised by NHSL with the assistance of MML and legal advisors. In his evidence at the February 2024 hearing[567] he described a collaborative approach between NHSL, MML and NHSL's legal advisers and stated that the process was similar to the RDD process. However, he was clear[568] that MML was not advising NHSL on whether the contents of the Technical Schedule complied with SHTM 03-01. So far as the technical solution for the four bed room issue is concerned, this was the solution as agreed by NHSL at the meeting on 28 March 2018. The task in preparing issue 7 of the Technical Schedule was to reflect this agreed solution, not to reconsider the matter. As Matthew Templeton noted[569], the draft Technical Schedule issued in June 2018[570] reflected what had already been agreed. Indeed, the works to implement that agreement had commenced in May 2018. According to Mr Templeton[571] the works were completed in around September or October 2018.

222. During the evidence of Jeane Freeman, CTI stated[572] that the Inquiry had heard evidence that the Technical Schedule to SA1 had been drafted by MML. This is repeated at paragraph 158 of CTI 2024 where it is expressly stated that "MML drafted the technical schedule to SA1." A similar statement is made at paragraph 266 of CTI

[565] Paragraph 66 of his Statement for the February 2024 hearing
[566] Paragraph 63 of his Statement for the February 2024 hearing
[567] Page 107 of transcript
[568] Page 107 of transcript
[569] Paragraph 43 of this Statement for the February 2024 hearing
[570] Bundle 13, volume 9 for the February 2024 hearing at page 5
[571] Paragraph 45 of his Statement for the February 2024 hearing
[572] Page 40 of transcript

2024. Having regard to Graeme Greer's evidence on this point, as set out in the preceding paragraph, that is an oversimplification of the process by which the Technical Schedule was prepared. The same line of questioning of Jeane Freeman also implied that MML was providing some sort of assurance in relation to the terms of the Technical Schedule. Again, that represents a fundamental misunderstanding of MML's role, which did not involve any design assurance regarding the contents of the Technical Schedule.

223. During the negotiations leading to SA1, Graeme Greer sent an email to Brian Currie on 4 June 2018[573] expressing concerns about SA1 significantly altering the Project Agreement risk allocation. The email also confirmed the limits of MML's role in relation to reviewing design submissions and providing design assurance. It stated: "Furthermore, I don't think the Board is in a position to fully confirm compliance with the BCRs, the burden of responsibility should always remain with Project Co. As we are not the designers, Mott MacDonald would not be in a position to provide that design assurance to NHSL." In his evidence at the February 2024 hearing[574], Mr Greer explained that Brian Currie escalated this within NHSL and had received comfort that the risk allocation was not changing. This is consistent with the evidence of Susan Goldsmith at the February 2024 hearing[575] who noted that concerns were mitigated by relying on NHSL's legal advisors who provided advice to ensure that there was no shift of risk to NHSL. In any event, NHSL do not appear to have questioned MML's stated position regarding its role in relation design assurance.

224. Graeme Greer described continuing concerns about risk allocation. He recalled[576] a discussion he had had with Brian Currie around 28 June 2018 about whether MML could take any further mitigation measures to protect the Board's position in relation to risk allocation. In his evidence at the February 2024 hearing[577], he provided more information about the options presented to NHSL: option one was for MML to carry on as before; option two was for MML's scope to increase to give additional assurance;

[573] Bundle 13, volume 5 for the February 2024 hearing at page 1272
[574] Page 108 of transcript
[575] Pages 36 and 37 of transcript
[576] Paragraph 70 of his Statement for the February 2024 hearing
[577] Pages 106 and 168 of transcript

and option three was for MML to do the design itself. Mr Greer recalled[578] Mr Currie commenting that due to IHSL's assurance of compliance, no greater level of review was required of MML: MML carried on in accordance with option one. In his evidence at the February 2024 hearing[579], Mr Greer noted that this decision was taken in the context of the serious commercial pressure on the project. These pressures were summarised in the evidence of Susan Goldsmith[580].

225. During his evidence, it was put to Mr Greer[581] that Ronnie Henderson had a "very different recollection" on this matter. The basis for this question was Mr Henderson's evidence[582] that NHSL relied on advice from MML in relation to the agreed resolutions. A similar question was asked[583] of Janice MacKenzie. Despite the manner in which these questions were framed, it is not immediately apparent that Mr Henderson's recollection, or indeed that of Ms Mackenzie, on this point was inconsistent with Mr Greer's evidence. As Mr Greer explained[584] MML did provide advice in relation to the agreed resolutions: however, what it did not provide was design assurance. In any event, as Mr Greer noted[585], Mr Henderson was not involved in all of the conversations that Mr Greer had with Brian Currie. It was Mr Currie who managed MML's scope. Neither Mr Henderson nor Ms MacKenzie was copied in to Mr Greer's email to Mr Currie dated 4 June 2018[586].

226. At paragraph 47 of CTI 2024 it is stated that "Members of NHSL's project team thought that MML had confirmed that the technical solution set out in SA1 was adequate and appropriate." MML is unclear about the basis for this statement: having reviewed the transcripts of the evidence and statements of those on the NHSL project team (Ronnie Henderson, Janice MacKenzie and Brian Currie), MML has been unable to locate any statement to the effect that any of these individuals thought that MML had confirmed that the technical solution set out in SA1 was adequate and appropriate. Although Mr

[578] Paragraph 70 of his Statement for the February 2024 hearing
[579] Page 109 of transcript
[580] Paragraph 32 of her Statement for the February 2024 hearing
[581] Page 169 of transcript
[582] Paragraph 27 of his Statement for the February 2024 hearing
[583] Pages 33 and 34 of transcript
[584] Page 170 of transcript
[585] Pages 169 and 170 of transcript
[586] Bundle 13, volume 5 for the February 2024 hearing at page 1272

Henderson stated[587] that NHSL relied on advice from MML in relation to the agreed resolutions and Ms MacKenzie agreed[588] with that statement, that falls some way short of confirmation that the technical solution was adequate and appropriate. Similarly, at paragraph 57 of CTI 2024 it is suggested that MML gave statements that it was "happy with the technical solution". MML is unclear of the evidential basis for this statement. At paragraph 11 of CTI 2024 it is stated that "NHSL considered it was getting technical advice and assurance from MML". A similar statement is made at paragraph 159: "there was nonetheless a belief that [MML] were providing assurance to NHSL about the technical solutions". Reference is then made to the evidence of Susan Goldsmith, Ms MacKenzie and Mr Henderson. Ms Goldsmith was not on the project team and (as discussed above) her evidence proceeded on the basis of a fundamental misunderstanding of MML's role. The cited reference to Ms MacKenzie's evidence is simply to her agreement that NHSL "relied on advice from [MML] in relation to the agreed resolutions", not to any suggestion that MML was providing "assurance". The cited reference to Mr Henderson's evidence seems to be to a passage in which he agrees that MML was "providing technical advice" to NHSL. His evidence regarding assurance was that MML was not undertaking a "design assurance review function"[589]. There is accordingly no compelling body of evidence that MML was providing any form of design assurance to NHSL.

227. At paragraph 49 of CTI 2024, it is stated that "On MML's analysis, there was no technical advice or assistance provided to NHSL on the solution set out in SA1 as MML could not agree to take on design responsibility." That is not a correct statement of MML's position. As Mr Greer explained[590] MML did provide advice in relation to the agreed resolutions: however, what it did not provide was design assurance.

IHSL's Confirmation of Compliance with SHTM 03-01

228. In early 2019, there was an exchange of correspondence between NHSL and IHSL concerning compliance with SHTM 03-01. On 31 January 2019, IHSL wrote to

[587] Paragraph 27 of his Statement for the February 2024 hearing
[588] Page 33 of transcript
[589] Pages 57 and 58 of transcript
[590] Page 170 of transcript

NHSL[591] stating "All ventilation systems have been designed, installed and commissioned in line with SHTM 03-01 as required…" The timing of this correspondence is significant because it came after the technical solution had been agreed in relation to the single bedroom issue and four bed room issue, but before NHSL entered into SA1. Taken at face value, it would seem to be confirmation that the ventilation system design (which would include ventilation in single bedrooms, four bed rooms, and Critical Care) complied with SHTM 03-01. It would have provided NHSL with comfort that SA1 did not involve any departure from the requirements of SHTM 03-01 except to the extent that NHSL had agreed any derogations.

229. In his statement[592], Darren Pike claimed that the words "as required" in the letter dated 31 January 2019 meant "except to the extent that the Board had stated a different requirement". Although Mr Pike's intention when he drafted the letter may have been to convey this meaning, it is plain from the words used that he did not do so. The obvious and natural meaning of the words "as required", is that compliance with SHTM 03-01 was a requirement of the Project Agreement and of the letter from the Scottish Government dated 25 January 2019[593] that prompted Mr Pike's letter; and that the design met that requirement. In his evidence[594], Mr Pike conceded that the letter had been read differently from his intended meaning. Although Stewart McKechnie was not party to this correspondence, he confirmed[595] that WW had been requested to confirm that its design was compliant with SHTM 03-01 "which we did". It therefore seems that WW's position was that the design complied with SHTM 03-01 without the need for the artificial qualification put upon that by Mr Pike.

SA1

230. Paragraph 6.2 of PPP8 states that SA1 "provided for 4ac/hr with a balanced pressure regime for single and multi-bed rooms in the Critical Care Department". Similar statements are to be found in the report obtained by NHSL from Grant Thornton

[591] Bundle 4 for the February 2024 hearing at page 9
[592] Paragraph 77 of his Statement for the February 2024 hearing
[593] Bundle 13, volume 1 at page 762
[594] Page 68 of transcript
[595] Paragraph 64 of his Statement for the February 2024 hearing

("GT")[596]. The GT report appears to have been very influential in relation to the views of senior management within NHSL such as Timothy Davison and Susan Goldsmith. GT's report states (at para 279) that SA1 contains "the formal sign off that the three four bedded rooms within critical care were to have 4 air changes per hour…" and (at para 280) that SA1 "inadvertently accepted 4 air change rates per hour within the single rooms located in critical care, in error"[597]. The GT report concludes (at paragraphs 18 and 19) that SA1 "derogated the responsibility for [IHSL] to comply with SHTM 03-01 and agreed an air change rate of 4 air changes per hour within critical care… [SA1] cemented the error contractually."[598]. These are not accurate statements regarding the effect of SA1. MML's position regarding the relevant provisions in SA1 and the correct interpretation of those provisions is set out in the following paragraphs.

231. Clause 1.3(i) of SA1[599] states that Dispute means:

> "all claims, disagreements and disputes between the Parties arising out of or in connection with the matters which are set out in the column entitled "Dispute" in Part 1 of the Schedule (Technical Schedule)…"

232. There are two entries in the Technical Schedule that are relevant for present purposes: item 7 concerning "4-bed ventilation"; and item 13 concerning "Single-Bedroom Ventilation air changes".

Item 7 – The Dispute

233. Item 7 in the Technical Schedule[600] gives a lengthy description in the "Dispute" column. It sets out NHSL's position that the ventilation pressure regime and the air change rates are "non-compliant." It notes that "the principal concern to the Board" relates to the proposed pressure regime.

[596] Bundle 10 for the February 2024 hearing at page 4
[597] Bundle 10 for the February 2024 hearing at page 34
[598] Bundle 10 for the February 2024 hearing at page 7
[599] Bundle 1 for the February 2024 hearing at page 2055
[600] Bundle 1 for the February 2024 hearing at page 2083

234. IHSL's narrated response is that "the design and installation meets the requirements of the Project Agreement…"

235. The Dispute column does not expressly state whether it concerns four bed rooms in Critical Care.

Item 13 – The Dispute

236. Item 13 in the Technical Schedule[601] also gives a lengthy description in the "Dispute" column. It states:

> "In relation to ventilation air change rates, the Board believes Project Co's design for the single bed ventilation is non-compliant with the [BCRs]… 4ac/h supply provided to the bedrooms instead of the required 6ac/h. The ensuite extract rate proposed in excess of 10ac/h where requirements of SHTM 03-01 is 3ac/h."

237. IHSL's narrated response is again that "the design and installation meets the requirements of the Project Agreement…"

238. The Dispute column does not expressly state whether it concerns single bedrooms in Critical Care, although it does make reference to the rooms having ensuites.

The Agreed Resolutions

239. Clause 1.3(i) of SA1[602] states that Agreed Resolution means:

> "the technical solution required to resolve the Dispute … and the obligations on each Party to meet (or procure the meeting of) that agreed technical solution all as detailed in the column entitled "Description of Agreed Resolution" in Part 1 of the Schedule (Technical Schedule)"

[601] Bundle 1 for the February 2024 hearing at page 2087
[602] Bundle 1 for the February 2024 hearing at page 2055

240. Clause 6.4 of SA1[603] states:

> "6.4 The Parties agree that the design of:
>
> 6.4.1 the works set out in Part 1 of the Schedule (Technical Schedule)…
>
> shall be deemed to have been submitted and reviewed in accordance with Clause 12 (The Design Construction and Commissioning Process) of the Project Agreement and that the Board has confirmed that Project Co is entitled to proceed with construction. Any such design shall be deemed to be an Approved RDD Item…"

Item 7 – The Agreed Resolution

241. The Description of the Agreed Resolution in relation to item 7[604] states:

> "The Reviewable Design Data noted below for this item has been given status Level B in accordance Schedule Part 8 (Review Procedure).
>
> The resolution of the Dispute submitted by Project Co through the Schedule Part 8 (Review Procedure) and agreed by the Board, is for 14 No 4 bed rooms to be balanced or negative to the corridor at 4 ac/hr…"

242. The Agreed Resolution relates to the RDD process under Schedule Part 8 of the Project Agreement. The mechanism by which the Agreed Resolution has come about is that IHSL is said to have submitted its proposal through the RDD process. This is consistent with the terms of clause 6.4 of SA1.

243. In accordance with Schedule Part 8 of the Project Agreement, Level B status means "proceed subject to amendment as noted" (para 4.3.1)[605]. As noted above, Clause 4.5[606] stipulates that the return of any RDD endorsed by NHSL as Level A, B or C:

[603] Bundle 1 for the February 2024 hearing at page 2068
[604] Bundle 1 for the February 2024 hearing at page 2083
[605] Bundle 5 for the April 2023 hearing at page 1498
[606] Bundle 5 for the April 2023 hearing at page 1498

> "shall mean that the relevant Submitted Item may be used or implemented for the purposes for which it is intended but, save to the extent expressly stated in this Agreement including, without limitation, as specified in Appendix 1 Table A to this Schedule Part 8 (Review Procedure), such return or deemed return of any Submitted Item shall not otherwise relieve Project Co of its obligations under this Agreement nor is it an acknowledgement by the Board that Project Co has complied with such obligations."

244. Accordingly, giving the agreed resolution for item 7 a Level B status, meant no more than that IHSL could proceed with the installation, but was not relieved of its obligations under the Project Agreement.

245. It follows that, having regard to the full terms of SA1, in particular the manner in which the Agreed Resolution for item 7 is expressed, IHSL was not entitled to proceed on the basis that it had been agreed that four bed rooms in Critical Care ought to have 4ac/hr. As the Agreed Resolution was to give this proposal Level B status under the RDD procedure, IHSL still required to comply with the other obligations under the Project Agreement. This included compliance with the BCRs. For the reasons set out above, it is clear that the BCRs required compliance with SHTM 03-01, which in turn required 10ac/hr for Critical Care Areas.

246. Paragraph 10 of CTI 2024 argues that in the Agreed Resolution "there was a lack of clarity in terms of whether the parties were setting out NHSL's brief … or agreeing a design solution to that brief". A similar statement is made at paragraph 30. There was no such lack of clarity. The fact that the Agreed Resolution was couched in terms of the RDD process (as is recognised at paragraph 160 of CTI 2024) made it abundantly clear that parties were not setting out NHSL's brief. The Agreed Resolution was treated as a design solution submitted by IHSL for which NHSL had provided limited approval in accordance with the contractual provisions governing RDD. At paragraph 161 of CTI 2024 it is suggested that there is "an air of unreality about treating the ventilation solutions in this way". In support of this, it is suggested, apparently under reference to a passage in Susan Goldsmith's evidence, that "the process leading up to SA1 therefore involved clarification by NHSL of their ventilation brief". MML has been unable locate

such a sentiment in the transcript of Ms Goldsmith's evidence. In any event, regardless of the process leading up to SA1, the Agreed Resolutions are plainly expressed by reference to the RDD process: one cannot simply ignore that due to some nebulous suggestion of unreality. This reference to the RDD process is entirely grounded in reality. The evidence of Susan Goldsmith at the February 2024 hearing[607] was that concerns about risk transfer in SA1 were mitigated by relying on NHSL's legal advisors who provided advice to ensure that there was no shift of risk to NHSL. The reference to the RDD process in the Agreed Resolutions was entirely consistent with NHSL's desire to retain the allocation of risk set out in the Project Agreement. Although CTI 2024 states at paragraph 162 that "on any view… SA1 set out the technical basis on which NHSL had agreed to installation of the ventilation system", and at paragraph 164 refers to "the agreed ventilation parameters", any such agreement was for the limited purpose of the RDD process: it did not absolve IHSL of responsibility for compliance with the BCRs, including the requirements of SHTM 03-01.

247. CTI 2024 comments on MML's role in relation to the Agreed Resolution. It recognises that, if the Agreed Resolution was not NHSL's brief (i) "It would be understandable for MML to refrain from taking design responsibility for the contractor's solution" (paragraph 11); and (ii) MML "could not assist with [it] without a change to their remit and a fundamental departure from the standard risk profile of the revenue funded model which places design risk with the project company" (paragraph 10). However, if the Agreed Resolution was NHSL's brief, it is suggested that "it would be reasonable for NHSL to expect assistance from the technical advisors that had been engaged since the reference design stage of the project" (paragraph 10). For the reasons set out above, it is clear that the Agreed Resolution was not NHSL's brief. Accordingly, as CTI state, it is understandable that MML had no design responsibility for the Agreed Resolution.

Item 13 – The Agreed Resolution

248. The Description of the Agreed Resolution in relation to item 13[608] states:

[607] Pages 36 and 37 of transcript
[608] Bundle 1 for the February 2024 hearing at page 2087

"The Board/Project Co agree this item is closed, and the agreed technical solution approved through Schedule Part 8 (Review Procedure) and, agreed by the Board and Project Co as resolving the Dispute is as set out in Disputed Works Schedule Appendix 1 Item 13."

249. Item 13 of the Disputed Works Schedule Appendix 1[609] sets out at section 1.0 the Detail of Change. This expressly refers to the provision in Table A1 in SHTM 03-01: Part A concerning single rooms which provides for 6ac/hr. IHSL then proposes to:

> "1. Decrease the mechanical air change ventilation rate within single bedrooms from 6 air changes per hour (6ac/hr) to 4 air changes per hour (4ac/hr); and
> 2. Increase the mechanical air change ventilation rate within single bedroom WCs from 3 air changes per hour (3ac/hr) to minimum 10 air changes per hours (10ac/hr)."

250. Item 13 does not specify which single bedrooms it applies to. There is no mention of Critical Care either in item 13 of the Technical Schedule or in item 13 of the Disputed Works Schedule Appendix 1. However, the express reference in the Disputed Works Schedule to the provision Table A1 of SHTM 03-01: Part A related to "single room" is a clear indication that item 13 concerns standard single bedrooms, not those that are Critical Care Areas which have their own specific provision in Table A1. Further, the fact that IHSL's proposal is to change from 6ac/hr rather than from 10ac/hr demonstrates that the provision relates to standard single bedrooms, not to those that are Critical Care Areas.

251. The foregoing analysis is based on an interpretation of Table A1 of the SHTM 03-01: Part A to the effect that the provision for "Critical Care Areas" covers single bedrooms in Critical Care. This interpretation was disputed by Stewart McKechnie. His claimed interpretation was that "Critical Care Areas" in Table A1 of the SHTM 03-01: Part A related only to isolation rooms. For the reasons set out above, Mr McKechnie's claimed interpretation of Table A1 is not a tenable interpretation. In any event, even if Mr

[609] Bundle 13, volume 2 for the February 2024 hearing at page 1307

McKechnie's claimed interpretation of Table A1 is correct, it would not follow that item 13 of the Disputed Works Schedule has any application in relation to single bedrooms in the Critical Care. Point 2 of IHSL's proposal makes reference to ventilation within "single bedroom WCs". This conclusively demonstrates that the Agreed Resolution in relation to single bedroom ventilation has no relevance to single bedrooms with Critical Care, as the single bedrooms in Critical Care did not have WCs (as Ken Hall confirmed in his evidence at the February 2024 hearing[610]).

252. In any event, the Agreed Resolution for item 13 is said to have been "approved through Schedule Part 8 (Review Procedure)". For the reasons set out above in relation to item 7, such approval meant no more than that IHSL could proceed with the installation, but was not relieved of its obligations under the Project Agreement.

253. Accordingly, even if the Agreed Resolution for item 13 applied to single bedrooms in Critical Care (which it did not for the reasons set out above), IHSL still required to comply with the other obligations under the Project Agreement.

254. It follows that, having regard to the full terms of SA1, IHSL was not entitled to proceed on the basis that it had been agreed that single bedrooms in Critical Care ought to have 4ac/hr. It is clear that the Agreed Resolution, as set out in the Disputed Works Schedule, had no application to those single bedrooms in Critical Care. Even if the Agreed Resolution applied to single bedrooms in Critical Care, as the resolution related to approval given under the RDD procedure, IHSL still required to comply with the other obligations under the Project Agreement. This included compliance with the BCRs. For the reasons set out above, it is clear that the BCRs required compliance with SHTM 03-01, which in turn required 10ac/hr for Critical Care areas.

Conclusion on SA1

255. Having regard to the full terms of SA1, in particular the manner in which the Agreed Resolutions for Items 7 and 13 were expressed, IHSL was not entitled to proceed on the basis that it had been agreed that four bed rooms and single bedrooms in Critical

[610] Pages 49 and 50 of transcript

Care ought to have 4ac/hr. IHSL still required to comply with the BCRs, including SHTM 03-01, in relation to these rooms. In order to comply with its obligations under the Project Agreement, as amended by SA1, IHSL required to provide 10ac/hr in all Critical Care Areas in accordance with SHTM 03-01.

Findings

256. In the following paragraphs, MML responds to the findings proposed in CTI 2023. CTI 2024 does not have a specific section setting out proposed findings. MML's response to the submissions made in CTI 2024 is to be found at the relevant section in the discussion set out above.

257. The Chair is invited not to make the finding suggested at paragraph 304 of CTI 2023. For the reasons set out above, on a proper reading of the Project Agreement, there was no ambiguity in relation to whether the ventilation system required to fully comply with SHTM 03-01. It is plain from numerous provisions, not just paragraph 2.3 of the BCRs, that compliance with SHTM 03-01 was required. In particular, on a full reading of paragraphs 8 and 8.1 (which were not subject to the qualification in paragraph 2.3 concerning any "specific and different requirement"), compliance with SHTM 03-01 was mandatory. The Chair is invited to make a finding to that effect.

258. The Chair is invited not to make the finding suggested at paragraph 305 of CTI 2023. MML accepts that the procurement documentation did contain some potential ambiguities and inconsistences. However, when the provisions are viewed as a whole, it is clear that the EM was not intended to be mandatory. In any event, the subsequent actions of the parties make it clear that there was no real confusion. The Chair is invited to make a finding to that effect.

259. The Chair is invited not to make the finding suggested at paragraph 307 of CTI 2023. Although the reference design team was ring fenced from the procurement exercise, there was no evidence to suggest that this meant that "the problem was exacerbated". There was no evidence that any of the bidders wanted to "discuss matters with the engineers that produced the Environmental Matrix". Had they been able to do so, there was no evidence that they would have discussed any of the matters mentioned towards

the end of paragraph 307. Any supposed effect of the reference design team being ring fenced is purely hypothetical. In any event, had bidders wished to clarify the matters mentioned towards the end of paragraph 307, they could have done so by asking NHSL or MML.

260. The Chair is invited not to make the finding suggested in the third and fourth sentences of paragraph 310 of CTI 2023. MML accepts that the procurement documentation did contain some potential ambiguities and inconsistences. However, when the provisions are viewed as a whole, it is clear that the EM was not intended to be mandatory. In any event, the subsequent actions of the parties make it clear that there was no real confusion.

261. The Chair is invited not to make the finding suggested in the final sentence of paragraph 310 of CTI 2023. The available evidence directly contradicts this suggested finding. Any supposed confusion regarding the status of the EM had no causative effect in relation to the problems that arose with the ventilation system. Stewart McKechnie's position is that "the EM did accord with SHTM 03-01" [611] and that 4ac/hr in Critical Care "did not appear to be a mistake" [612]. Accordingly, it would not have mattered whether the reference design EM was mandatory or not: IHSL/WW would not have made any changes to the relevant entries because they considered them to be correct. To adapt the language of the proposed finding, had the status of the document been made clearer, the problems would have occurred in any event due to Mr McKechnie's interpretation of SHTM 03-01.

262. The Chair is invited not to make the finding suggested at paragraph 311 of CTI 2023. The wording of the opening sentence is potentially misleading and does not accurately reflect the evidence. Although a "more intense review" could potentially have identified the issues, the available evidence suggests that a review of sufficient intensity to have identified the issues would not have been practical. The Chair is accordingly invited to make a finding that "The tenderers' confirmation that their design complied with the BCRs for the purposes of evaluation criterion C21 was taken as face value. The tender evaluation process was carried out in accordance with the agreed

[611] Paragraph 24 of his Statement for the April 2023 hearing
[612] Paragraph 26 of her Statement for the April 2023 hearing

methodology set out in the Final Tender Evaluation Manual and Supplementary Guide. It would have been wholly disproportionate and prohibitively expensive to conduct a review of the tender submissions that would have been of sufficient intensity to have identified the issues with the EM."

263. The Chair is invited not to make the finding suggested in the first sentence of paragraph 312 of CTI 2023. MML was not appointed to "design" the ITPD; nor was it appointed to "confirm" the reference design complied with published guidance. A more accurate wording would be "At the procurement stage, NHSL appointed technical advisers whose responsibilities included developing the technical components of the ITPD and checking the reference design for compliance with all appropriate NHSL and legislative guidelines and requirements."

264. In relation to the matters raised in paragraph 313 of CTI 2023, the Chair is invited to conclude that conducting a detailed review of the EM would not have been a reasonable option for the reasons set out above.

265. The matters raised in paragraph 313 of CTI 2023 are reflected to some degree in the Executive Summary at paragraph 9 of CTI 2023. However, paragraph 9 goes on to suggest that, had H&K "been asked to refresh the statement of compliance, there is a possibility that the errors could have been spotted." For the reasons set out above, there is no evidential basis to support the contention that the outcome would have been any different had a further statement of compliance been sought in September 2012.

266. MML accepts the position set out in the second and third sentences of paragraph 315 of CTI 2023. However, the manner in which this matter is set out in the Executive Summary at paragraph 8 of CTI 2023 is ambiguous. For the avoidance of doubt MML submits that the error in the cells of the EM was a genuine mistake. However, the fact that this was not detected by NHSL or MML before the contract was signed could not properly be considered to be a mistake because neither NHSL nor MML could reasonably have been expected to have detected the error.

Potential Recommendations

267. In the following paragraphs MML sets out its response to the proposed recommendations suggested in CTI 2024. This response is restricted to those matters that impact directly upon MML.

268. In response to paragraph 421 of CTI 2024, MML can see the merit in the suggestion of a symposium.

269. In response to paragraph 422 of CTI 2024, MML agrees that the introduction of the Ventilation Safety Group is an important improvement. However, MML note that this improvement is specifically focused on ventilation issues. There may be some merit in considering the implementation of similar safety groups in other design contexts, such as fire safety.

270. In response to paragraph 424 of CTI 2024, MML agrees that the establishment of Assure is a positive step.

271. In response to paragraph 428 of CTI 2024, MML does not agree that the Board is necessarily best placed to identify which output parameters of key building systems are essential for the particular clinical use. That may depend upon which funding model is being used for the particular project (and therefore the contractual risk allocation).

272. In response to paragraph 430 of CTI 2024, MML agrees that a standard form derogation for use throughout the NHS would be beneficial.

273. In response to paragraph 431 of CTI 2024, MML agrees that consideration should be given to merging the various procedures designed to ensure that health board projects meet appropriate standards. In any event, MML suggests that it would be helpful to have greater clarity about what all of the various procedures are intended to do – what matters fall within the scope of each of the procedures and what matters do not.

274. In response to paragraph 434 of CTI 2024, MML agrees that it would be helpful for health boards to have access to useful information about common project errors.

275. In response to paragraph 437 of CTI 2024, MML agrees that a short report should be generated following commissioning and validation confirming whether there is full compliance with published guidance.

276. In response to paragraph 451 of CTI 2024, MML suggests that this is an area that requires further consideration. For the reasons set out above, the role played by a technical advisor is rather different from that played by a solicitor: it may therefore be inappropriate to expect that the manner in which advice is instructed and provided is the same for both disciplines. There may well be circumstances in which formal advice is sought from a technical advisor. In those instances, MML agrees that there should be a clear record of the advice requested and the advice tendered. However, technical advisors often work collaboratively with their NHS client (as happened in the present case) in a way that is not always conducive to having instructions and advice formalised in writing. Such formalisation could undermine the collaborative approach, which in MML's experience has been an effective approach in many projects. A further layer of formalisation could add cost to the project and prolong the programme timetable. This is perhaps a matter that would merit further discussion at the symposium suggested at paragraph 421 of CTI 2024.

277. In response to paragraph 452 of CTI 2024, MML agrees that it would be beneficial to have a uniform policy or procedure for boards undertaking new build hospital projects in relation to obtaining and recording technical advice on key issues.

278. In response to paragraph 487 of CTI 2024, MML considers that it would be beneficial to have a fully populated template EM that is maintained and updated by the NHS. MML is not best placed to comment on whether the maintenance of such a template EM would be feasible.

Clyde & Co Scotland LLP

28 May 2024