SCOTTISH HOSPITAL INQUIRY

Royal Hospital for Children and Young People/ Department of Clinical Neurosciences

CLOSING STATEMENT ON BEHALF OF NHS LOTHIAN (NHSL)

Hearings covering the period from financial close to the opening of the Hospital

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1. INTRODUCTION

1. NHSL thanks the Inquiry for this opportunity to make submissions covering the period from financial close until the opening of the RHCYP/DCN (the "**Hospital**").

2. Counsel to the Inquiry have made available their Closing Statement. There is much in the Closing Statement with which NHSL agrees. However, there are some elements on which NHSL wish to comment. This is not necessarily to contradict what is said, but rather to give additional context. There is a risk that by addressing issues in discrete silos, the connections between events are not clearly understood. By way of example, the commercial imperative of entering into Settlement Agreement 1 (SA1) and the timing of the Stage 4 HAI-SCRIBE cannot be seen in isolation.

3. Nor is it NHSL's intention to provide a commentary on all of the evidence that has been heard or otherwise provided to the Inquiry for the construction phase. Instead, NHSL would refer the Chair to the various documents in which NHSL has set out its position on specific issues. These are set out in Appendix A. Accordingly, for a full understanding of NHSL's position, it is necessary to read this response in conjunction with those documents.

4. In the main body of its closing submission, NHSL address certain themes that arose during the February 2024 hearing. These submissions will be made under the following headings:

    - Summary
    - Importance of context
    - IHSL, Multiplex and Wallace Whittle

- SHTM 03-01, Design Review and Mr McKechnie
- Contractual structure and funding
- Settlement Agreement 1
- Role of Mott MacDonald
- Role of Infection Prevention and Control
- Stage 4 HAI-SCRIBE
- Environmental Matrix revisited
- Conclusion

5. In Appendix B, NHSL will address the list of topics appended to Direction 6.

6. In Appendix C, NHSL will address the proposed answers to Terms of Reference 1 to 12 set out in the Closing Statement.

7. In Appendix D, NHSL will comment on proposed recommendations.

2. SUMMARY

8. NHSL wishes to acknowledge at the outset its role in the collective failure that resulted in the delayed opening of the Hospital. Regardless of where responsibility lies under the Project Agreement, there were missed opportunities to identify the error in the ventilation rates in critical care and some of those missed opportunities involved NHSL personnel.

9. The fact that the error remained undetected by everyone involved for so long is difficult to explain. One possible explanation relates to the fact that environmental parameters for ventilation systems are relevant to a range of different disciplines, such as engineering, architectural, clinical and infection control. This may have led to an ongoing assumption during the Project that someone else was responsible for ensuring that the parameters themselves were correct. If that is right, the establishment of the Ventilation Safety Group should mitigate this risk in the future, albeit the possibility of unintended derogations from SHTM 03-01 may still arise.

10. All that said, NHSL's position remains as set out in the summary section of its Closing Submission provided to the Inquiry after the hearings covering the period from commencement of the Project to financial close. NHSL intended the ventilation system at the new Hospital to fully comply with all relevant guidance, including SHTM 03-01. This should have been overwhelmingly obvious to IHSL, Multiplex and Wallace Whittle from the terms of the Board's Construction Requirements. It was also for IHSL to ensure that their Project Co's Proposals met the Board's Construction Requirements. Responsibility and risk for any errors in the environmental matrix incorporated into the Project Agreement (the "**IHSL Environmental Matrix**") and the Room Data Sheets lay with IHSL. That was a fundamental aspect of the risk allocation provisions in the Project Agreement.

11. It also remains NHSL's view that the proximate cause of the failure to construct critical care areas with the correct ventilation rates was not the terms of the draft environmental matrix provided to tenderers at the outset of the procurement process. In large projects, such errors are bound to occur. Rather, it was the fact that IHSL, through Multiplex and Wallace Whittle, considered the ventilation rates specified in the draft environmental matrix for critical care to be compliant with SHTM 03-01.

12. Stewart McKechnie's views on the proper interpretation of SHTM 03-01 were not shared by anyone else who gave evidence to the Inquiry. Nobody who was asked even suggested that Mr McKechnie's views were a possible interpretation. On this, Mr McKechnie stood entirely alone as an "*outlier*". Mr McKechnie constituted a single point of failure. Moreover, there has been no explanation why Mr McKechnie's outlier views on SHTM 03-01 were able to continue unchallenged by anyone within IHSL, Multiplex or Wallace Whittle for the duration of the Project. Indeed, the failure by Mr McKechnie to provide a proper justification for unilaterally making a change to guidance note 15 without drawing attention to the change was egregious. Had the change to guidance note 15 been disclosed to NHSL, or challenged internally within Wallace Whittle or Multiplex and escalated, the problems with the ventilation rates in critical care would have been identified. The change to guidance note 15 was by far the clearest of all missed opportunities.

13. It is not accepted that a "*misunderstanding*" as to whether the environmental matrix was a fixed brief or a document on which no reliance could be placed is "*at the heart of the matter*", as suggested at paragraph 7 of the Closing Statement. Ambiguities arise in

complex construction contracts all the time. In such circumstances, it is for the design and build contractor to identify any such issues and resolve them. It was therefore incumbent on IHSL and, through them, Multiplex and Wallace Whittle to flag up any derogations from guidance, even if such derogations were thought, incorrectly, to form part of a "fixed brief". This point was accepted by Mr McKechnie on each occasion he gave evidence and by Darren Pike of Multiplex (see below). Accordingly, had Mr McKechnie considered 4ac/hr in critical care to be a derogation from SHTM 03-01, he would have flagged it to the client, notwithstanding its inclusion in the environmental matrix.

14. It is the failure by IHSL, Multiplex and Wallace Whittle either to provide a compliant design or to flag up the non-compliances in the ventilation rates in critical care that is at the heart of the matter.

15. The evidence indicated that the NHSL Project Team were fully engaged throughout the Project. It is unfortunate that Brian Currie has been unable to provide further assistance to the Inquiry. NHSL agree with paragraph 25 of the Closing Statement by inviting the Chair to have regard to the absence of Mr Currie's evidence when assessing the evidence. NHSL also agree with the Closing Statement that the delay in the Hospital's opening was nothing to do with the Board's governance of the Project.

3. IMPORTANCE OF CONTEXT

16. In order to understand events properly, they must be put into both their contractual and factual context. After financial close, it was for IHSL under the Project Agreement to deliver a state-of-the-art hospital that complied with the Board's Construction Requirements, including relevant guidance, by the contractual completion date of 3 July 2017. By contrast, NHSL's role under the Project Agreement was limited: reviewing and, where appropriate, approving Reviewable Design Data (RDD) for operational functionality. To that end, NHSL had in place a team of professional advisers that was suitable for its limited role post financial close. This is an important point: there has been no evidence to suggest that, having regard to its role under an NPD contract, NHSL did not have in place appropriate professional support for the duration of the Project.

17. The Project itself did not proceed smoothly. From NHSL's perspective, IHSL and Multiplex performed extremely poorly. Settlement Agreement 1 (SA1), which coincided with practical completion, was signed on 22 February 2019. The extent of the delay in completion, and the fact that the technical schedule to SA1 comprised 80 items, gives some indication of just how unsatisfactory IHSL's and Multiplex's performance had been. [1]

18. After financial close, the NHSL Project Team found itself increasingly drawn into matters that went far beyond reviewing and approving RDD. This was not how the Project Agreement was meant to operate. Had the NPD contract intended or required the employment by NHSL of enhanced professional support, such as a shadow design team, then such a team would have been put in place. As it was, extensive NHSL resource was diverted from normal operations in order to address the numerous problems that arose on the contractor's side during the Project.

19. At times, the Closing Statement appears to suggest that the NHSL Project Team should have identified errors in Multiplex's design. This is to fundamentally misunderstand how the Project Agreement operated. While it is accepted that, during the construction phase, the NHSL Project Team became increasingly involved in construction matters, that was out of necessity. The fact that NHSL and its personnel were being drawn into construction matters in a way that was not envisaged by the Project Agreement is a key part of the context to which the Chair is invited to have regard.

4. IHSL, MULTIPLEX AND WALLACE WHITTLE

20. In circumstances where it was for IHSL and Multiplex to design and build a facility that complied with guidance, it is striking that the Closing Statement does not undertake any meaningful analysis of the role of IHSL, Multiplex and Wallace Whittle in creating the circumstances that gave rise to the delay in opening the Hospital. Putting aside issues of contractual interpretation, it will be recalled that:

[1] See NHSL's Narrative for Item 6.4 of Annex 1 dated 16 July 2021 in relation to the contractual programme of works and various revised completion dates.

20.1. IHSL/Multiplex, having been appointed preferred bidder, refused to continue to develop detailed design prior to financial close with the result that far more design was put into the RDD process than was intended. In this context, the reference at paragraph 350 of the Closing Statement to NHSL's "*decision to depart from the original project requirements (including the requirement for a full set of room data sheets at financial close)*" is unfair and overlooks the fact that NHSL did not, in reality, have a choice. However, NHSL broadly agrees with the Closing Statement in concluding that the quantity of design that was left over to be developed after financial close was excessive. But that was not a choice that NHSL wanted to make; it was forced on them.

20.2. IHSL, Multiplex and Wallace Whittle did not flag up the fact that the design for critical care derogated from SHTM 03-01. Any derogations from guidance or any ambiguities in the Board's Construction Requirements should have been brought to NHSL's attention, regardless of what was perceived to be the client's brief. This point was acknowledged by Mr McKechnie (see below).

20.3. A fundamental change was made to guidance note 15 of the IHSL Environmental Matrix without that change being brought to the attention of NHSL, MML or, it would appear, Multiplex. It was the only such change not to be highlighted. Mr McKechnie's justification for not highlighting the change was incoherent. Had the change been brought to NHSL's and MML's attention, the issues caused by Mr McKechnie's outlier interpretation of SHTM 03-01 would have come to light at an early stage.

20.4. Mr McKechnie's outlier views on the proper interpretation of SHTM 03-01 were not, apparently, reviewed internally. His decision to change guidance note 15 was not challenged. Multiplex's and Wallace Whittle's internal processes apparently allowed Mr McKechnie to constitute a single point of failure.

20.5. IHSL and Multiplex failed to deliver the Hospital by the contractual completion date. Multiplex stopped paying liquidated damages at some point during the period of delay. That gave rise to a potential for IHSL's insolvency. If that happened, the Project would have failed, giving rise to uncertain consequences in terms of delay and

costs. The result was that NHSL had no real choice except to bail out IHSL by agreeing to practical completion, notwithstanding construction work was not complete.

21. It is submitted that the Closing Statement, by focussing predominantly on NHSL's role in certain decisions, underplays the causative potency of the conduct of those involved on the contractor's side of the Project Agreement. While NHSL has acknowledged its role in the collective failure, there has been a complete absence of any such acknowledgement on the contractor's side. This is hardly reflective of the "partnership model" that was often referred to by Counsel to the Inquiry during the most recent hearings. It is submitted that lessons can only be properly learned if the consequences of the actions of IHSL, Multiplex and Wallace Whittle are fully understood. In particular, the Chair is invited to have particular regard to the role of the common denominator between the new Glasgow and Edinburgh hospitals: Multiplex.

22. It is a matter of note that the NHSL Project Team dealing with the remedial works, both ventilation and non-ventilation issues, was largely the same as the Project Team during the design and construction of the Project. The remedial works progressed efficiently and collaboratively. NHSL considers one of the key differences in terms of the scope for collaborative working is that (i) the managed services firm for IHSL changed from HCP to George Street Asset Management, and (ii) the contractor was changed from Multiplex to IMTECH under IHSL's new managed services firm. The result was that IHSL were being pro-actively managed and were working with a fully engaged contractor (IMTECH), enabling significant progress to be made over a short period of time. This was markedly different and a welcome improvement to the approach of IHSL's team during construction.

5. SHTM 03-01, DESIGN REVIEW AND MR McKECHNIE

23. Mr McKechnie's interpretation of SHTM 03-01 was an outlier. No other witness who was asked about the proper interpretation of SHTM 03-01 even suggested that Mr McKechnie's interpretation was tenable. The importance of Mr McKechnie's role cannot be overstated. However, it is equally significant that Mr McKechnie's interpretation of SHTM 03-01 appears not to have been challenged or subject to design review at any level within IHSL, Multiplex or Wallace Whittle. It might strike the Chair as extraordinary that a single engineer's unique view on the proper interpretation of SHTM 03-01 should be allowed to

go unchallenged by IHSL, Multiplex and Wallace Whittle for the entire duration of the Project. This is not commented upon in the Closing Statement.

24. Mr McKechnie gave evidence to the effect that, where clinicians suggest something that he knows to be contrary to guidance, he would raise it, regardless of what a particular contract might say.[2] Mr Pike also confirmed that any non-compliances in the environmental matrix should have been flagged to NHSL, regardless of its contractual significance.[3] Derogations from guidance, deliberate or inadvertent, should therefore have been flagged to the client. The only reason this did not happen during the Project was due to Mr McKechnie's very particular view of the meaning of SHTM 03-01.

25. Mr McKechnie's view on the need to flag non-compliances with guidance reflects IHSL's obligations under the Project Agreement. In terms of the paragraph 2.3(k) of section 3 of Schedule Part 6 to the Project Agreement (the BCRs), IHSL was required to take into account the guidance and advice within *inter alia* SHFN 30 and HAI-SCRIBE. SHFN 30 (Part B: HAI-SCRIBE) sets out the responsibilities on various entities, including at paragraph 2.12 those of the "Lead Contractor/Contractors". This includes the obligation of "*coordinating and advising the Infection Prevention & Control Team to assist in identifying potential risks and control measures prior to and during construction*". IHSL and its subcontractors should, therefore, have identified potential risks, including derogations from SHTM 03-01. This point is not addressed in the Closing Statement.

26. Instead, the Closing Statement identifies situations where individuals from the Project Team and MML had, between them, enough information to identify that critical care spaces were not being treated differently to other areas in terms of pressure regimes and air changes. But it should be recalled that these individuals were reviewing the materials from the perspective of their own particular roles; they were not the designers tasked with the responsibility to design and build a hospital that complied with guidance. Ronnie Henderson's comment that "*the dots weren't joined*" (paragraph 123 of the Closing Statement) is no doubt borne out of a regret that, in hindsight, something that was hiding

[2] Transcript for hearing (Stewart McKechnie) on 4 May 2023, p60; and transcript for hearing (Stewart McKechnie) on 29 February 2024, pp52 to 55.
[3] Transcript for 28 February 2024 (Darren Pike) at p30.

in plain sight was not spotted. Even so, Mr Henderson was not the designer and was not considering it from that perspective.

27. But "*the dots*" to which Mr Henderson refers were in documents produced, revised and promulgated by Multiplex and its subcontractors. The Closing Statement, for instance at paragraph 93, appears to suggest that IHSL, Multiplex and Wallace Whittle were somehow tied into Mr McKechnie's untenable interpretation of SHTM03-01 and therefore exempt from further criticism. The suggestion appears to be that NHSL or MML should have insisted on a line-by-line review of the IHSL Environmental Matrix, notwithstanding NHSL was, as the client, reliant on advice and MML had a restricted role which did not include acting as a shadow designer or undertaking a "*technical audit*". Indeed, Mr McKechnie had given evidence that a line-by-line review had already been undertaken.[4]

28. It is submitted that IHSL, Multiplex and Wallace Whittle should have had in place their own processes for design review and audit; they were, after all, the designers. Had Multiplex or Wallace Whittle undertaken a full design review that was independent of Mr McKechnie, it would surely have identified the non-compliance with SHTM 03-01 in relation air changes in critical care. Such a non-compliance would then have been flagged to NHSL, regardless of the terms of any "*fixed brief*".

29. It would have been prudent for Multiplex to do so in advance of procuring the air handling units required to deliver their / Wallace Whittle's design. The air handling units were being installed on site from October 2016 at the latest. The ventilation capacity for the Hospital had therefore been fixed at a very early stage and indeed prior to discussions with NHSL around the ventilation requirements for multi-bed rooms, which were ultimately resolved in SA1.[5] It later transpired that the air handling units installed by Multiplex did not have the capacity to deliver the required number of air changes to meet guidance. This sequence of events may explain why, from October 2016 onwards, IHSL, Multiplex and IHSL were focused on retaining 4ac/hr without any distinction being drawn between critical care and non-critical care areas. If that is correct, it explains why, during discussions leading to SA1, no distinction was made between critical care areas and other areas.

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[4] Transcript for 29 February 2024 (Stewart McKechnie) at p79. See also email dated 21 February 2017 from Wallace Whittle to Multiplex confirming compliance with SHTM: Bundle 13, volume 2, p635 and pp678/679; Bundle 13, volume 2, p1048.

[5] See Graeme Greer's witness statement at paragraph 50 which states that AHUs were being installed on site from at least October 2016 and that, accordingly, the ventilation capacity had been fixed at a very early stage.

6. CONTRACTUAL STRUCTURE AND FUNDING[6]

30. TOR 2 is broadly stated and includes a requirement to inquire into a range of contractual issues, including "*the procurement, … contractual structure adopted for the financing and construction of the buildings, to determine whether any aspect of these arrangements has contributed to such issues and defects*".

31. The Closing Statement concludes that the NPD contract did not play a meaningful part in the delay. However, the Closing Statement also questions the "*revenue funded model*" on the basis that the transfer of risk from the public sector was "*more theoretical than real*" (Closing Statement at paragraph 199). Those positions appear to be contradictory. In any event, NHSL invites the Chair to conclude that the procurement method and the contractual structure for the Project contributed to the delay in opening the Hospital.

32. This was the first acute hospital project to utilise the new NPD model. Scottish Futures Trust (SFT) provided standard generic procurement documentation, including a *pro forma* project agreement, and prescribed an overall procurement approach to be taken, using the competitive dialogue process. Once IHSL were awarded preferred bidder status, a period of development was entered into to agree the final details of the contract and specification. A considerable amount of design development was also required to ensure the Project Co's Proposals met the Board's Construction Requirements. However, as discussed above, during the preferred bidder stage Multiplex decided to freeze design development until the contract had been awarded. As a result, the design was not as developed as it should have been at financial close. This was addressed by placing any outstanding design into the RDD process. Such an approach gives rise to significant risk for NHSL and IHSL. By way of example, ventilation parameters need to be known early on since they will dictate *inter alia* the size of pipes, which in turn will dictate the size of roof voids. Leaving ventilation design open at financial close increases the risk of delay, for instance, if architectural and engineering design turn out to be incompatible.

[6] A detailed analysis of the material impact that the contractual funding structure had on the delivery of the Project can be found in NHSL's Response to PPP10 (Contractual Funding and Funding Structure).

33. Another example, noted above, relates to the installation by Multiplex of air handling units that were not capable of delivering a ventilation system that complied with guidance before their ventilation design had been completed. Any discussions thereafter were necessarily predicated on what the installed air handling units could actually achieve. Multiplex could not offer to achieve compliance with guidance for critical care with the air handling units they had installed. Indeed, all witnesses who were asked indicated that there was no specific discussion around the ventilation requirements for critical care during the construction period. The installation of air handling units before design was fixed should have been at IHSL's and Multiplex's risk; however, for reasons discussed below, IHSL and Multiplex ultimately did not bear the responsibility of that risk.

34. Risk arose under the contractual structure in other ways. IHSL was liable to commence debt repayments to senior lenders after the contractual completion date in July 2017, even if it was missed. However, IHSL would not begin to receive payment for the new facility until it was available to the Board, although under the terms of IHSL's contract with Multiplex, IHSL could seek damages from Multiplex to replace lost income which could be used to service its debt obligations to senior lenders. In January 2017, IHSL formally notified the Board that it would be unable to complete the facility by the contracted date of July 2017. Prior to this date, there had been no acknowledgment by IHSL that the facility was unlikely to be completed by the contracted date. [7]

35. At some point Multiplex stopped paying damages to IHSL. As a consequence, IHSL faced financial distress and insolvency. If IHSL became insolvent, they would be in default of the contract, which may have led to its termination, leaving the Board to then complete the facility or find another party willing to take over the contract. However, prior to the Board being in a position to exercise any termination rights under the Project Agreement, the Board was obliged under the terms of a direct agreement with IHSL's senior lenders to give them prior notice of an intention to exercise the termination rights. Following the service of such a notice, senior lenders would have had extensive rights to step-in and seek to resolve the default. This scenario, or any alternative approach such as Court action, would have resulted in a timescale for completion of the facility that would have been completely

[7] See NHSL's Narrative for Item 6.4 of Annex 1 dated 16 July 2021 in relation to the contractual programme of works and various revised completion dates.

unknown. Further, even if the Board was in a position to pursue termination under the terms of the Project documents, the facility would only revert to NHSL following agreement or determination of the applicable compensation payable to IHSL / senior lenders. The compensation would likely to have been in excess of £150 million, a sum that would have had to be funded from the Scottish Government's capital programme. Avoiding this scenario became a key driver of SA1 and the quantification of the settlement sum that it entailed.

36. In these circumstances NHSL agrees that, ultimately, the transfer of risk was theoretical. In circumstances where the existing estate was not fit for purpose (i.e. the Sick Kids at Sciennes and the DCN at the Western General), neither NHSL nor the Scottish Government would stand by and watch the Project fail while IHSL went into insolvency, leaving protracted disputes to be litigated. Multiplex, by refusing to pay liquidated damages to IHSL for the delay in completion, brought about IHSL's financial distress, thereby necessitating NHSL to "bail out" IHSL by entering into SA1. Accordingly, the entering into SA1 was a direct result of the NPD form of contract and the funding structures associated with it.

37. In summary, the NPD procurement and contractual structure: (i) allowed Multiplex, at the preferred bidder stage, to put an unforeseen amount of design into the RDD process, thereby increasing risk; (ii) allowed Multiplex to put considerable pressure on IHSL and, in turn, NHSL by refusing to pay liquidated damages once the Project was in delay; (iii) gave Multiplex, with whom NHSL did not have any contractual leverage, an unwarranted position of strength in negotiations; and (iv) complicated negotiations and settlement due to the multiplicity of interested parties. These points are addressed in detail in the oral evidence that Susan Goldsmith gave to the Inquiry.[8] Ms Goldsmith reflected, "*We didn't really have any levers at all, or any leverage with Multiplex*" who had adopted "*a very tough commercial position*". Ms Goldsmith also observed, "*at our end we had Scottish Futures Trust who were really the guardians of the NPD contract and had an authority from Government about what we could and couldn't do with this contract*." Ultimately, Ms Goldsmith considered healthcare infrastructure projects require flexibility and that simply is not available within an NPD structure.

[8] Transcript for 6 March 2024 (Susan Goldsmith) at p19 to p29.

38. There is a further point. The switch from a capital-funded project to a revenue-funded project meant that the reference design, as prepared by Hulley & Kirkwood, was not used in the contractual context for which it was prepared. Although the Project, as initially envisaged, would have been a design and build project, the chain of events which resulted in an error in a reference design document being built out would probably have been picked up early on, if the Board had not been required to go down an alternative procurement route.

7. SETTLEMENT AGREEMENT 1 (SA1)

39. SA1 was a commercial agreement and some of the commercial drivers that gave rise to SA1 are discussed in the previous section. The effect of SA1 was to formalise agreement on a wide range of disputes that had arisen and been resolved in the course of the Project. Although SA1 coincided with practical completion under the Project Agreement, there were still outstanding works. A Stage 4 HAI-SCRIBE was not undertaken prior to SA1 for the simple reason that there would have been no point. The Hospital was still a construction site. However, as discussed more fully below, there was never any intention to start receiving patients prior to the completion of a Stage 4 HAI-SCRIBE.

40. The works relating to items 7 and 13 of the technical schedule had been agreed and completed well in advance of the SA1 being executed. The agreement of item 7 resulted in an inadvertent derogation by NHSL in terms of air change rates for the multi-bedrooms in critical care. The circumstances that gave rise to that situation are set out in the Closing Statement. As discussed below, infection control was involved in resolving the dispute around pressure regimes in multi-bed rooms, albeit the consequential derogation in terms of air change rates in critical care was not identified. The agreement of item 13, however, did not, in NHSL's view, result in a similar derogation in relation to single rooms in critical care for the reasons set out in the Closing Statement.

41. At paragraph 161 of the Closing Statement, reference is made to the "*air of unreality*" that applied to the manner in which ventilation solutions were dealt with in SA1. This is not understood. SA1 simply recorded the ventilation solutions that had been agreed between the parties, the agreed technical solutions having been approved in terms of Schedule Part

8 (Review Procedure). SA1 was a product of how the parties chose to settle the dispute but always under the auspices of the Project Agreement.

8. ROLE OF MOTT MACDONALD (MML)

42. MML was appointed by NHSL as Technical Advisors and Project Managers for the Project. They were not appointed to perform a shadow design function or to undertake a technical audit. This was not required due to the transfer of risk under the Project Agreement.

43. A Contract Control Order (CCO) dated 26 February 2015 specified MML's services for the construction phase of the Project.[9]This CCO refers to the benefits of "*continuity of service from pre- to post FC services*". It also refers to the MML team being "*the continual presence we believe is required to support NHSL*". The core MML team was to be "*substantially collocated*" with the NHSL Project Team in order to "*continue to be part of an integrated delivery team with NHSL*". Appendix A to the CCO sets out a detailed scope of the activities to be undertaken by the core team and the support team. These services include wide ranging support and advisory functions and, potentially, "*Design Reviews*" comprising (i) reviews of RDD items, (ii) technical reviews, and (iii) ad hoc design support. The services to be provided under the CCO also include, "*Assistance with assessment and negotiation of any claims from SPV*".

44. Reference is made to the CCO, which was extended through the lifetime of the Project by further CCOs, for three reasons. Firstly, it clearly establishes the services to be provided by MML during the construction phase in an entirely orthodox manner. It is not accepted, as is suggested at paragraph 51 of the Closing Statement, that there was "*lack of clarity in relation to the role of technical advisors*". The role of MML was comprehensively set out in the CCO and understood by NHSL.

45. Secondly, the CCO supports the evidence of the witnesses to the effect that MML personnel were "embedded" within the NHSL Project Team. They were sitting in the same room and so could discuss matters as and when they arose. For that reason, it cannot be assumed that an absence of written documentation means that advice was not being sought and given.

[9] See document A34607079 submitted by MML to the Inquiry

The point made at paragraph 450 of the Closing Statement under reference to the advice NHSL received from solicitors is not comparing like with like. Solicitors were not embedded with the Project Team and so any advice would require to be formally instructed. A similar point can be made about the advice sought by NHSL from David Rollason Associates. One of the effects of embedding professional advisers is that there may be a degree of informality in communications. Even so, it is also acknowledged that advice on material matters should be formally recorded.

46. The third reason for referring to the CCO is to highlight the broad range of services MML were supplying. While MML correctly identify they were not undertaking a design assurance function, MML were providing technical advice in relation to proposed designs, which included "*reviewing the design outputs*" (Bundle 13, volume 5, p1272). There is no inconsistency in NHSL relying on MML's input as technical advisors and MML not becoming responsible for a design that it has reviewed. For instance, an adviser would not assume responsibility for a particular engineering design by reviewing whether or not the proposed outputs of the design complied with guidance.

47. MML were deeply involved in drafting and negotiating the technical elements of what came to be included in the technical schedule to SA1.[10] To the extent that the Closing Statement or MML suggest that, because MML were not providing a design assurance function, they are not implicated in the ventilation errors that formed part of the technical schedule, then NHSL strongly disagrees any such suggestion. NHSL were aware that MML were not providing a design assurance function, but that does not mean NHSL did not or should not have relied on technical advice from MML, including on compliance with guidance. Any such suggestion is not accepted. What else are technical advisors for? As Graeme Greer confirmed in evidence, MML were involved in advising NHSL in terms of compliance with published guidance.[11] In this regard, it is of note that Colin McRaedid not give evidence in relation to his involvement during the construction phase. Mr McRae was MML's lead M&E advisor on ventilation.

[10] An indication of MML's involvement in SA1 can be seen from the SA Timeline and Stakeholder Engagement document at Bundle 10, p111ff.
[11] Transcript of 27 February 2024 (Graeme Greer) at p103 and p105, albeit Mr Greer is not consistent in his evidence: see p107.

9. ROLE OF INFECTION PREVENTION AND CONTROL

48. At paragraph 13 of the Closing Statement, it is acknowledged that NHSL's infection prevention and control team ("IPCT") were heavily involved at the early stages of the Project. However, in the same paragraph it is suggested that "*the extent of their involvement post-financial close, the advice they gave on aspects of the project (if any), and the information basis on which they did so is unclear and not formally recorded*"; and, in particular, it is suggested that "*IPC do not appear to have been consulted on the final technical solution agreed for the multi-bed rooms, or on the other ventilation technical solutions recorded in SA1*". It is then commented that there was a failure to fully implement the "partnership" model of working, set out in SHFN 30.

49. NHSL refute any suggestion that there was a lack of involvement of IPC in the Project post financial close. As set out, for example, in Dr Inverarity's witness statement at paragraphs 24-37, the main IPCT representation on the Project was the lead HAI-SCRIBE Nurse, Janette Richards (now Rae) with additional input from Dr Pota Kalima (Consultant Medical Microbiologist). Regrettably, neither of those two individuals gave evidence to the Inquiry, but it is clear that Janette Rae, in particular, was intimately involved in the Project during the period after financial close until her retirement in December 2018. After retirement, Ms Rae's role was taken over by Sarah Jane Sutherland with additional assistance from Lindsay Guthrie and Dr Inverarity.

50. Janette Rae was an experienced IPC Nurse who had developed a particular understanding of the infection control nursing issues encountered during new building and refurbishment projects[12]. It was above and beyond the usual arrangements for health boards at that time to create a dedicated post for an IPC Nurse to work specifically on construction projects but that is what NHS Lothian did for this, and other, projects. Ms Rae was appointed to this dedicated post from 2014 until her retirement in 2018.[13] Like other advisers, she was "embedded" in the Project Team and was often physically based in the same offices throughout the Project, allowing her to attend relevant meetings and be on hand to give advice. Again, the co-location within the Project Team was seen by most as a positive development but may also go some way to explaining why there is less recorded input than

[12] Paragraph 33 of Dr Inverarity's witness statement.
[13] Paragraph 9 of Lindsay Guthrie's witness statement.

the Inquiry might have expected. It is however clear that she was in attendance at many meetings and therefore available to give IPC input.[14] It is also clear from Dr Inverarity and Ms Guthrie's statements that, when appropriate, she sought second opinions on IPC issues from them, Dr Kalima, HFS or HPS as required – including, for example, in relation to the ventilation strategy in the Lochranza unit (Dr Inverarity's witness statement paragraph 74 *et seq*).

51. The Project Clinical Director's evidence is that the Project Team had a collaborative and positive working relationship with IPC; that the IPC Nurse was the main conduit between the Project Team and the wider IPCT; and that the IPC Nurse attended the majority of the design meetings and if unable to attend would submit comments. The Project Clinical Director's evidence clearly indicates that IPC were involved in technical aspects of the project, where appropriate, including the ventilation issues pertaining to single bed, multi-bed and haematology, which eventually formed part of SA1.[15]

52. In that regard, there is a specific criticism that the IPCT were not consulted in relation to the negotiation of SA1. That is incorrect. The technical solutions agreed in relation to the ventilation systems had been discussed with Ms Rae, the broader Clinical Management Team and the Project Clinical Director, who signed off on the risk assessment in July 2017 and re-visited the same risk assessment in January 2018. The technical solutions did not change from January 2018 so there was no apparent need for further re-assessment.

53. It is important to put the timing of the negotiations of SA1 into context. SA1 was signed in February 2019 but, as above, the technical solutions to the issues in dispute in relation to the ventilation system were in fact agreed between NHSL and IHSL in 2018 and had been constructed before the finalisation of SA1. As noted, there was IPCT involvement in those discussions[16] and a risk assessment produced and reviewed by IPC representatives, although it is accepted that, as with other parties to those negotiations, the IPC representative was asked to focus on pressure issues. The implication of the compromise

[14] Reference is made to the NHSL Narrative for Clinical Design Review (6.10) and, in particular the IPCT timeline submitted as part of that Narrative (6.10_0038) provided to the Inquiry in November 2021. See alsothe internal exchange of emails in March 2019 reviewing IPC involvement Bundle 5: pp27-39 and the witness statements of Lindsay Guthrie, Dr Inverarity and Sarah Jane Sutherland.
[15] See paragraphs 11, 20, 30, 31 and 33 of Jancie MacKenzie's witness statement.
[16] *Ibid.*

solution in terms of compliance with guidance was not understood. If it had been understood, or made explicit by the designers proposing them, then the IPCT would have had the opportunity to fully consider the proposed derogation from the standards in SHTM 03-01 at a far earlier stage.

54. However, when it came to the final agreement of SA1, it was essentially a commercial negotiation to try to ensure that the Project could be completed. The agreed technical solutions for the ventilation system were not revisited in detail and it would not be expected that the IPCT would be involved in framing the commercial agreement. SA1 resulted in the "handover" of the incomplete building in commercial terms, but it did not mean that NHSL accepted that it was ready for patient occupation. It was known at the time that the building was not finished and further testing would be required once construction activities were complete. That was not a situation which NHSL would have wished for, but, given the circumstances at the time, it was viewed as the least bad alternative. In practical terms it meant that NHSL accepted that it would start making payments before it could carry out the Stage 4 HAI-SCRIBE procedure that it would ordinarily insist on completing before "handover". Again, the reason that situation arose was in part due to the difficulty in fully transferring risk to the private sector through the NPD funding model where normal commercial realities can be distorted by the overriding imperative of securing important healthcare infrastructure. It is not a choice that NHSL wanted to make, especially as it meant it was impossible for the IPCT to complete the Stage 4 HAI-SCRIBE in advance.

10. STAGE 4 HAI-SCRIBE

55. At paragraph 22 of the Closing Statement, it is correctly recognised that the problems with the ventilation system were identified before patients were admitted to the Hospital as a result of NHSL's implementation of the HAI-SCRIBE procedure. However, within that paragraph and the preceding paragraphs (16 and 18) it is described as a "belated" implementation of the procedure as "*the standard HAI-SCRIBE procedures were not followed before handover"* and that *"NHSL failed to follow the HAI-SCRIBE procedures"* and *"had the HAI-SCRIBE procedure been completed before SA1 was signed, there is the possibility that the issues with the ventilation system would have been detected sooner than they were (in February 2019 instead of June 2019). Therefore, the failure to follow the*

standard procedure can be viewed as a missed opportunity."[17] On the other hand, it is also acknowledged in paragraph 18 that, by that point in time, the system had already been built (in late 2018), so while earlier detection might have mitigated the disruption to some extent, it would still have been necessary to carry out remedial works.

56. There appears to be criticism of NHSL for not carrying out the Stage 4 HAI-SCRIBE procedure before SA1 was signed, but that fails to take account of the commercial nature of the "handover" in SA1 as opposed to the intended date of patient occupation some five months later. Although, SHFN 30 Part B (October 2014) refers at paragraph 3.35 to the Stage 4 HAI-SCRIBE review as being a "Pre-handover check", the guidance makes it clear elsewhere that the review is to be undertaken before operation, i.e. before patient occupation. [18] That criticism would be fully justified if NHSL had decided not to undertake a Stage 4 HAI-SCRIBE at all, as that could have meant that patients were moved into the Hospital without the requisite checks having taken place, but that is not what happened. It was always the intention of NHSL to undertake the necessary validation checks before patient occupation. Any suggestion that this was not the case is not accepted.[19]

57. The criticism, in places, fails to appreciate the full context of the situation NHSL found itself in and what it was possible to do[20]. In his evidence, Ronnie Henderson explains that the ongoing post completion works at this time meant that the building fabric and the various engineering systems, including ventilation air handling units, were being altered such that it would have been impossible to undertake either a HAI-SCRIBE or validation because there was no complete and clean built environment. This was explained to IPCT during a walk around with the Project Team in March 2019. Dr Inverarity's evidence is that, following this walk around, he concluded from an IPCT perspective that the building was not yet sufficiently complete to undertake a Stage 4 HAI-SCRIBE.[21]

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[17] Similar criticisms are also made elsewhere, for example at paragraphs 38-43, 52-53,

[18] Paragraph 3.35 of SHFN 30 Part B: HAI-SCRIBE (October 2014) identifies the time for undertaking the Stage 4 HAI-SCRIBE as "once a Project (new build or refurbishment) is **ready for operation**". Paragraph 3.1 says: "The assessment process has been developed into a series of question sets for each of the four stages of development. It will be noted that, although the framework and process for each stage is broadly similar, the construction and refurbishment stage poses particular problems arising from dust and other pollutants which could potentially impact on nearby facilities for ongoing patient care. Much of the content of the question sets for the post-construction stage will refer to decisions already taken but should be revisited to allow responses to verify that they were correctly implemented and maintained in optimum condition."

[19] See for example email correspondence in Bundle 5: pp32, 33 & 44.

[20] Reference is made to paragraphs 51 – 54 of Ronnie Henderson's witness statement.

[21] Reference is made to paragraph 113 of Dr Inverarity's statement.

58. In his witness statement at paragraph 124 Dr Inverarity disagreed that SA1 represented an important missed opportunity to spot and address further issues with non-compliant ventilation before the end of the construction phase. He explained it would represent a missed opportunity to detect non-compliant aspects of ventilation design but by then the ventilation system had already been installed. Other aspects of construction work for instance in the theatres were not complete by the time of signing SA1 so it would not be possible to fully assess how their ventilation systems performed. Non-compliant and unsuitable ventilation performance can only properly be determined once the room being ventilated is completely built, cleaned and the ventilation system is installed and running.

59. At paragraphs 125 and 126 of his statement and in his oral evidence Dr Inverarity stressed the distinction between and the timing of "commissioning" and "validation". The applicable guidance at the time was SHTM 03-01 (2014) Part A and section 8 of the guidance deals with the commissioning and validation of specialised ventilation systems. *"Commissioning - Commissioning is the process of advancing a system from physical completion to an operating condition. It will normally be carried out by specialist commissioning contractors working in conjunction with equipment suppliers. Commissioning will normally be the responsibility of the main or mechanical services contractor.*" Validation is defined on page 114 as "*A process of proving that the system is fit for purpose and achieves the operating performance originally specified. It will normally be a condition of contract that "The system will be acceptable to the client if at the time of validation it is considered fit for purpose and will only require routine maintenance in order to remain so for its projected life.*"

60. In terms of SHTM 03-01, independent validation should take place before a Stage 4 HAI-SCRIBE as it informs how the question about ventilation being fit for purpose can be answered. As noted, it is necessary to do Stage 4 HAI-SCRIBE prior to patient occupation, when the environment is clean, and it is highly desirable that this is before "handover" of the building. Dr Inverarity, Lindsay Guthrie and Sarah Jane Sutherland all said in oral evidence in response to a hypothetical question from Counsel to the Inquiry that they would never agree to allow patient occupation without a Stage 4 HAI-SCRIBE having been completed. That was never suggested by NHSL. It was always going to happen, just at the appropriate point when all construction works were complete.

61. In the event IPCT involvement in the Stage 4 HAI-SCRIBE ensured that the Hospital would not be approved for patient occupation before a validation exercise had been undertaken by an independent tester against the requirements of SHTM 03-01.. It would have been impossible to instruct IOM (or another independent tester) to validate ventilation systems and provide reports in relation to compliance with guidance as at February 2019[22], because the building was not complete and it would not be completed unless and until a compromise such as SA1 was entered into. If it had been possible to do the Stage 4 HAI-SCRIBE before handover, it would have been done. As above, IPCT view was that it was impossible to undertake the Stage 4 HAI-SCRIBE at March 2019, which was post SA1[23]. The building was only completed because SA1 was agreed.

62. The real risk and lesson to be learnt from this aspect of the Project is that prior to entering SA1, the independent tester appointed under the Project Agreement, Arcadis, should have, in relation to its testing of the ventilation system, confirmed compliance with Guidance, or otherwise. However, Arcadis was originally testing to what IHSL regarded as the contractual requirements and not the SHTM 03-01 requirements. Its findings or interpretation of the raw data gave a false assurance to NHSL before SA1 was signed. Going forward, an independent expert tester should always commission and validate a ventilation system against the requirements of SHTM 03-01 rather than any interpretation of the contractual requirements that might contain agreed derogations from the guidance. In that way the tester will identify any non-compliance and the parties can assess whether it is an expected divergence from the guidance, as a derogation that has been agreed in the contract, or an unexpected divergence that requires to be remedied.

11. ENVIRONMENTAL MATRIX REVISITED

63. NHSL has addressed in some detail the contractual status of the draft environmental matrix produced by Hulley & Kirkwood and then the IHSL Environmental Matrix that was produced by IHSL during the preferred bidder phase: see NHSL's response to the Inquiry's PPP2 and to NHSL's Closing Submission from June 2023 covering the period from the commencement of the Project to financial close at paragraphs 25 to 54.

[22] Reference is made to paragraphs 18, 51 – 54 of Ronnie Henderson's witness statement.
[23] Paragraph 113 of Dr Inverarity's statement.

64. The evidence has clearly demonstrated that, during the construction phase of the Project, the IHSL Environmental Matrix was not treated as a "fixed brief". This is contrary to the mantra that has been adopted by IHSL, Multiplex and Wallace Whittle. Had it been a fixed brief, then any proposed changes to it by NHSL would have constituted a Board Change and would have required a Board Change Notice. Other than in relation to the multi-bed room issue, this is not how either party approached changes that were made to the IHSL Environmental Matrix. A fixed brief would not go through the RDD process. Mr McKechnie found it "*extremely confusing*" that the IHSL Environmental Matrix was being returned with so many comments from NHSL and MML[24], even though it had been adopted by Wallace Whittle. That Wallace Whittle did not consider the IHSL Environmental Matrix to be a client brief is clearly demonstrated by the fact that Mr McKechnie made the change to guidance note 15 without drawing it to the attention of NHSL or MML. It is also demonstrated by the fact that Mr McKechnie confirmed that he had reviewed the design solutions for single bedrooms and multi-bed rooms against SHTM 03-01 rather than against the IHSL Environmental Matrix. In any event, Mr McKechnie also accepted that Wallace Whittle would have checked the parameters in the IHSL Environmental Matrix against guidance and "*if there was any clarification required on a particular aspect, we would have raised that through Multiplex*".[25]

65. Ken Hall of Multiplex discussed this at the end of his evidence.[26] He was asked why he had drafted a derogation to change the air change rates from 6ac/hr to 4ac/hr for single rooms when the IHSL Environmental Matrix already referred to 4ac/hr. The requested derogation was from "Compliance with SHTM". Mr Hall's response made little sense. See Bundle 13, Volume 2, pp538, 545ff. Whatever corporate position IHSL and Multiplex may have adopted, it is clear that, in the course of the Project, the IHSL Environmental Matrix was not treated as a fixed client brief.

66. There were also several examples referred to in the evidence of IHSL/Multiplex being expressly reminded of the need to comply with Board's Construction Requirements and not with the reference design: see Bundle 13, volume 5, p1097/1098, Bundle 13, volume 1, p7/8, Bundle 13, volume 1, p12, and Bundle 13, volume 2, p649. The Closing Statement

[24] Transcript 29 February 2024 (Stewart McKechnie) at pp15 to 20.
[25] Transcript 29 February 2024 (Stewart McKechnie) at p23.
[26] Transcript 28 February 2024 (Ken Hall), at p190ff.

refers to an "air of unreality" in relation to NHSL's and MML's attitude to the IHSL Environmental Matrix. This is not understood. In the context of a complex building contract, the parties' relationships must be dictated by the terms of the contract. This is what the parties expect, and this is what interested third parties expect, such as funders. And that is what happened in this case. NHSL, correctly it is submitted, viewed the IHSL Environmental Matrix as part of the Project Co's Proposals. There would be an "air of unreality" were NHSL to treat the IHSL Environmental Matrix as having, like Schrodinger's cat, two statuses simultaneously: a fixed brief and part of the Project Co's Proposals.

13. CONCLUSION

67. NHSL acknowledges its involvement in the collective failure that gave rise to the circumstances which meant that the Hospital could not open in July 2019. NHSL were focussed throughout on delivering a state-of-the-art hospital to serve the public which, after a difficult Project, was due to be delivered in July 2019. It is a matter of regret that, as a result of failures which could and should have been avoided, this did not happen, causing distress and inconvenience to members of the public. For this, NHSL apologise.

APPENDIX A: NHSL KEY DOCUMENTS

The key documents in which NHSL sets out its position on various issue include:

1. NHSL's Closing Submission from June 2023 covering the period from the commencement of the Project to financial close (June 2023)
2. NHSL's General Response Paper to the Inquiry's Provision Position Papers
3. NHSL's response to the Inquiry's Provision Position Paper 1: "The Reference Design utilised for the Royal Hospital for Children and Young People and Department for Clinical Neurosciences"
4. NHSL's response to the Inquiry's Provision Position Paper 2: "The Environmental Matrix for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences"
5. NHSL's response to the Inquiry's Provision Position Paper 3 (Volumes 1 and 2): "The Procurement Process for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences"
6. NHSL's response to the Inquiry's Provision Position Paper 4 on the Project Agreement
7. NHSL's response to the Inquiry's Provisional Position 6 on Commissioning and Validation
8. NHSL's response to the Inquiry's Provision Position Paper 7 on Non-ventilation Issues
9. NHSL's response to the Inquiry's Provisional Position Paper 8 on How the potential issue in the critical care department of the Royal Hospital for Children and Young People and the Department of Clinical Neurosciences could have been detected during the Construction phase.
10. NHSL's response to the Inquiry's Provisional Position Paper 9 on Governance Structures
11. NHSL's response to the Inquiry's Provisional Paper 10 on the Contractual and Funding Structure.
12. NHL's Overview of the Settlement Agreement (SA1) Narrative
13. NHSL's Paper Apart: Mott MacDonald Ltd Appointment as Technical Advisors to NHS Lothian (19 August 2022)
14. NHSL's narrative on the ADB and RDS

15. NHSL's narrative on Operational Functionality
16. NHSL's Chronological Table of Clinical Input into the Design
17. NHSL's Changes to Procurement Timetable Timeline
18. NHSL's Narrative for Item 6.4 of Annex 1 dated 16 July 2021 in relation to the contractual programme of works and various revised completion dates.

APPENDIX B: LIST OF TOPICS

1. In Appendix B, NHSL will address the list of topics set out in Practice Direction 6, predominantly under reference to the commentary provided on the topics in Counsel to the Inquiry's Closing Statement.

1. The development of the design of the ventilation system for critical care rooms and isolation rooms in the period after financial close (February 2015)

2. No additional comment. Reference is made to NHSL's response to PPP8.

1.1 The input (if any), provided by Clinicians, Infection Prevention and Control (IPC), Estates, and Technical Advisors, in relation to the design of the ventilation system for critical care and isolation rooms, in the period after financial close.

3. There was suitable input by clinicians, IPC, Estates and MML in relation to the design of the ventilation for critical care and isolation rooms in the period after financial close. Reference is made to the relevant sections in the main body of NHSL's submission.

4. Under the Project Agreement, NHSL only had a limited role in reviewing Project Co's design through the RDD process. NHSL had put in place an appropriate team for that role. Any input from the client side in relation to technical solutions being offered by the contractor must be viewed in that context. When issues arose, clinicians, IPC and MML provided input, as appropriate, from their own particular perspectives. What they did not do, and were not required to do, was to review the contractor's design to ensure it complied in all respects with the applicable guidance. As noted above, it was clearly the contractor's responsibility to flag up any non-compliances with guidance, whether deliberate or inadvertent.

5. Topic 1.1, as framed, focuses on input from the client side. NHSL respectfully submit that the conduct of the contractor should also be examined and, in particular, why it was that Mr McKechnie was allowed to become a single point of failure.

1.2 The development of the Environmental Matrix in relation to critical care and isolation rooms, including changes made to guidance note 15.

6. The IHSL Environmental Matrix was not treated by any party as a fixed brief. Reference is made to the section 11 headed "Environmental Matrix Revisited" in the main submission above.

7. The IHSL Environment Matrix at financial close did include an inherent ambiguity. It was incumbent on IHSL, Multiplex and Wallace Whittle to bring that ambiguity to NHSL's attention. They did not do so. Instead, Mr McKechnie changed guidance note 15 without flagging that change to NHSL. Nor, in making that change, was he challenged by anyone on the contractor's side. The change does not appear to have been subject of any review. It is unclear if anyone in Multiplex was aware of it: Darren Pike was not. Reference is made to the section 5 headed "SHTM 03-01, Design Review and Mr McKechnie" in the main submission above.

8. It is a matter for the Chair whether Mr McKechnie's explanation as to why the change to guidance note 15, unlike any other change made to the IHSL Environmental Matrix, was not highlighted in red. His explanation, that he was tidying up the guidance notes, does not explain why it was not highlighted in red. The Chair is invited to have regard to the timing of the change (November 2015) and whether or not the extent to which the contractor had developed and started to implement the design may be of relevance.

9. In relation to the continued presence in the IHSL Environmental Matrix of air change rates for critical care areas that were not compliant with SHTM 03-01, this was not known to NHSL. At no time did NHSL intend to derogate from 10ac/hr for critical care areas.

10. The Closing Statement refers to "the scrutiny applied by NHSL and MML to the contents of the environmental matrix" (paragraph 87). It should be recalled that neither NHSL nor MML were required to assess Project Co's design for compliance. Any scrutiny undertaken was on a specific issue for a specific reason; it was not about design compliance.

11. Fixing NHSL with some form of duty to identify non-compliances with guidance is not supported by the Project Agreement. This is particularly so when both during the procurement phase and the construction phase NHSL had received specific assurance, first from MML and then from IHSL, that the design complied with SHTM 03-01. NHSL were resourced to fulfil their functions under the Project Agreement. That did not include a shadow design function or some sort of "technical audit". In this context, the "wider point" made in the Closing Statement at paragraph 91 and at the end of paragraph 93 itself has an "air of unreality" about it: NHSL appears to be criticised for not designing a compliant hospital.

12. It is submitted that Counsel to the Inquiry are too willing to look beyond the terms of the Project Agreement in order to fix responsibility on NHSL and others involved on the client side where no such responsibility lies. It is submitted that the Closing Statement, by focusing on the client side, fails to place sufficient weight on the obligations incumbent on IHSL and Multiplex to design and build a compliant Hospital and to draw non-compliances with guidance to NHSL's attention, particularly where the environmental matrix was internally inconsistent and therefore ambiguous. It is of note that the Closing Statement is devoid of any recommendations for changes that might be made to processes on the contractor's side. The "partnership model" includes all parties, not just those on the client side.

1.3 Issues that arose concerning the pressure regime. In particular, risk assessments relating to the pressure cascades in four-bedded rooms in various different departments of the hospital and whether implications for critical care rooms were considered.

13. NHSL broadly accepts the approach set out in Closing Statement to this topic. NHSL would, however, emphasise the requirement for IHSL, Multiplex and Wallace Whittle to identify any non-conformity with guidance, however that non-conformity arose or was understood on the client side. In that regard, the Chair is invited to have particular regard to paragraphs 118 to 119 of the Closing Statement and to consider why it was that the ventilation non-compliance was not picked up by Multiplex, notwithstanding Mr McKechnie's view of SHTM 03-01. To his credit, Ronnie Henderson from NHSL Estates was prepared to accept that he had the requisite knowledge to have spotted the non-compliance and expressed regret that it was not. His willingness to express regret

for the fact that the "*dots weren't joined*" stands in marked contrast to the evidence given on this issue by the witnesses, all professionals, from Multiplex, Wallace Whittle and MML.

14. It is accepted that the risk assessments that were produced in relation to pressure cascades in four-bedded rooms did not consider ventilation rates in critical care. This goes back to the point that input from the client side was restricted to particular issues and did not extend to overall design compliance.

15. It is not correct, per paragraph 110 of the Closing Statement, to say that there was no distinction drawn in the environmental matrix between multi-bed rooms in critical care and multi-bed rooms elsewhere in the hospital. The key point is that guidance note 15 applied to critical care areas. However, once guidance note 15 had been altered by Mr McKechnie, the point made in the Closing Statement is correct. That is precisely why the change made to guidance note 15 was so important.

1.4 Correspondence, including an email chain on 18 April 2018, where NHSL indicated that 4 air changes per hour were required for areas in the hospital. In particular, whether this requirement included the multi-bed wards in critical care and, if so, the basis for including those rooms

16. NHSL accepts the analysis set out in the Closing Statement around the email chain on 18 April 2018.

17. It is agreed that the discussions around the multi-bed rooms was a missed opportunity on both the client side and the contractor side. However, it is not accepted, per paragraph 139, that there was an understanding that all multi-bed rooms were to be treated in the same way with no special requirements for those in the critical care department. The evidence indicated that, at least from the client side, it had not been appreciated either that some of the rooms under discussion were in critical care or, if that had been appreciated, what the implications of that was for ventilation rates. There was no "understanding" that all multi-bed rooms were to be treated in the same way. Those involved from the client side had simply not been given cause to address their minds to the issue.

1.5 Correspondence sent by IHSL to NHSL on 31 January 2019 confirming that that the ventilation systems had been designed, installed and commissioned in line with SHTM 03-01 together with further correspondence on this issue in February and March 2019.

18. No additional comment beyond emphasising the importance of the confirmation by IHSL that there was compliance with SHTM 03-01.

2. The decision making and governance concerning the agreement reached between NHSL and IHSL on 22 February 2019 (Settlement Agreement No 1)

2.1 Why NHSL agreed to enter into the agreement.

19. This is covered in the main body of the submission under the heading "Settlement Agreement 1 (SA1)". Reference is also made to NHSL's response to PPP10.

20. NHSL accepts the point at paragraph 151 of the Closing Statement: the existence of ongoing construction works meant that it was not possible to undertake a Stage 4 HAI-SCRIBE prior to SA1. NHSL always intended to have the Stage 4 HAI-SCRIBE completed prior to patient occupation.

21. There is a lack of clarity in the guidance as to when the Stage 4 HAI-SCRIBE should occur, given that commissioning and validation can be distinct phases taking place some months apart. Validation can only occur when all construction works are complete and the hospital is as clean an environment as possible. The final clean tends to be just prior to, and indeed in readiness for, patient occupation. The Chair is invited to consider whether the relevant guidance requires to be re-visited to clarify (a) that commissioning and validation are, or at least can be, distinct phases and (b) when the Stage 4 HAI-SCRIBE should be undertaken and, in particular, whether this should be post-commissioning or post-validation and as close to patient occupation as possible. It was and remains NHSL's understanding that the Stage 4 HAI-SCRIBE could not take place prior to the signing of SA1 because there were ongoing construction works which meant that the ventilation system could not be validated and the hospital was not "clean" or ready for patient occupation.

2.2 Why the ventilation parameters set out in the agreement were deemed adequate and appropriate by NHSL and IHSL, with particular regard to their application to critical care rooms.

22. NHSL did not intend to derogate from the ventilation parameters stipulated in SHTM 03-01 for any critical care areas. By agreeing item 7 of the technical schedule to SA1, NHSL accepts that it inadvertently agreed to such a derogation in relation to those multi-bed rooms in critical care.

23. In relation to item 13 of the technical schedule, it is NHSL's position that this does not apply to single rooms in critical care. If it does, then that derogation was also inadvertent.

2.3 The input (if any) obtained by NHSL from Clinicians, IPC, Estates and Technical Advisors on the ventilation requirements to be included in Settlement Agreement No 1, for critical care rooms, in advance of the agreement being concluded.

24. Reference is made to the response to topic 1.1 above.

25. Under reference to paragraph 158 of the Closing Statement, the nature of Mr Greer's email to Brian Currie dated 4 June 2018 (Bundle 13, volume 5, p1272) is misstated. Mr Greer was expressing concern that the Board should not comply with IHSL's request that "*the Board [..] confirm that all BCR clauses have been met*". Indeed, any such confirmation would have been an innovation on the Project Agreement. NHSL understood the nature of MML's appointment and that MML were not offering design assurance. NHSL chose not to extend the scope of MML's appointment to provide design assurance.

26. Under reference to paragraph 159 of the Closing Statement, there is nothing inconsistent in NHSL relying on MML's technical advice in relation to designs proffered by IHSL and Multiplex. Reference is made to the section in the main submission headed "Role of Mott Macdonald (MML)".

2.4 Whether the design parameters for the ventilation system set out in Settlement Agreement No 1 were appropriate for critical care rooms.

27. No additional comment other than: (i) under reference to paragraph 167, NHSL did not chose 4ac/hr for rooms in critical care, and (ii) it is NHSL's position that item 13 of the technical schedule to SA1 does not apply to single rooms in critical care.

2.5 Whether the design parameters for the ventilation system in critical care and isolation rooms conformed to statutory regulation and other applicable recommendations, guidance and good practice.

28. No additional comment.

2.6 Whether NHSL agreed to a formal derogation from the requirements of SHTM 03-01 and, if so, whether any prior risk assessment was conducted.

29. No additional comment.

2.7 The procedure followed by NHSL for the approval of Settlement Agreement No 1. In particular, the consideration of the issue by the Finance and Resources Committee and the Board of NHSL.

30. In relation to MML's involvement in SA1, reference is made to the section headed "Role of Mott Macdonald (MML)" in the main submission.

31. Under reference to paragraph 181 of the Closing Statement, it is important to understand that there were no "limitations" on the advice being given by MML, if that is intended to suggest that MML were not providing advice in conformity with their appointment. Negotiations on the terms of SA1 had been supported by the Board's legal and technical advisers.

2.8 What assurances (if any) were sought by and/ or provided to the Scottish Government that: (i) it was appropriate for NHSL to enter into Settlement Agreement No 1; and (ii) that the specification complied with published guidance and best practice.

32. No additional comment.

2.9 Why NHSL agreed that the certificate of practical completion could be issued at the point Settlement Agreement No 1 was concluded.

33. No additional comment.

34. For context, reference is also made to the comments in the main submission relating to the requirement to "bail" IHSL out. This topic is also addressed extensively in NHSL's response to PPP10.

2.10 Whether the organisational culture within NHSL allowed individuals to raise concerns and issues in relation to the proposed agreement.

35. No additional comment.

36. For context, reference is also made to NHSL's response to PPP9.

3. The financing of the RHCYP/DCN

3.1 Whether the financing arrangements for the project contributed to issues and defects in the hospital. In particular, whether there was a perceived need for the building to be certified as practically complete as soon as possible to ensure the solvency of the project company.

37. This issue is addressed in the main body of the submission under the heading "Contractual Structure and Funding" and in NHSL's response to PPP10.

38. Under reference to paragraph 198 of the Closing Statement, this was not a standard situation and so "standard procedures" required to be adapted. The Stage 4 HAI-SCRIBE was not completed because the Hospital had not been completed at the time SA1 was signed. The Hospital was not fit for occupation by patients at that time. NHSL intended to complete the Stage 4 HAI-SCRIBE before the Hospital received patients. It would not have been possible to complete a Stage 4 HAI-SCRIBE before SA1 was

signed. Reference is made to paragraph 21 of this Appendix B in relation to further clarity that is required in the guidance in this regard.

4. The decision-making and governance structure for the project in the period after financial close

Particular emphasis will be placed on the decision making and governance concerning SA1, the instruction of IOM Limited, the consideration of the reports produced by IOM Limited and the escalation to Scottish Government

4.1 The decision making and governance processes NHSL had in place to oversee the project and whether they were adequately and effectively implemented.

39. No additional comment.

40. For context, reference is made NHSL's response to PPP9 on governance structures.

4.2 Whether the operational management and governance provided by NHSL was adequate and effective for the scale of the project.

41. The narrative provided in the Closing Statement on this topic is accepted.

4.3 The extent to which decision makers sought and facilitated input from clinical leadership teams, IPC, Estates, technical experts and other relevant parties when making key decisions to ensure that the built environment made proper provision for the delivery of clinical care.

42. This has been covered above at topic 1.1.

43. Evidence was not taken from the IPC nurse and the consultant microbiologist involved in the Project for most of its duration. In reference to paragraph 203 of the Closing Statement, it is accepted that Dr Donald Inverarity and Ms Lindsay Guthrie were not aware of SA1. But there is no basis for saying that IPC was not aware of the resolutions that were agreed during the construction phase to the ventilation issues that arose, which

were then formally recorded in the technical schedule. Nor is there any basis to suggest that the Stage 4 HAI-SCRIBE could be completed before SA1 was signed. The document at Bundle 5, pages 30-31 at paragraph 203 of the Closing Statement do not support the proposition advanced here.

44. It is not accepted that there were some "*key failings in decision making that arose from not ensuring all relevant disciplines were consulted in advance of decisions being made*". The only example given is SA1. SA1 was a commercial decision. It required technical and legal input, which NHSL duly received. IPC would not have been able to assist in relation to SA1, given its commercial nature. The ventilation system had already been constructed. Input from IPC, and Janette Rae in particular, had already been received.

4.4 The steps taken by NHSL's IPC team, in particular the lead infection control doctor for NHSL, to ensure that a validation report that complied with SHTM 03-01 was obtained.

45. Validation could not be undertaken until shortly before patient occupation of the Hospital. It is not accepted that there was a "*degree of confusion*" on the part of NHSL as to the level of inspection and testing that required to be conducted. There was a potential issue as to where responsibility lay for the validation testing as between NHSL and IHSL as owners of the building. NHSL were seeking clarity as RHCYP/DCN was the first acute healthcare project using an NPD model.

46. Brian Currie explained in correspondence dated 14 March 2019 that, "*patients will not occupy the facility until 9th July, 2019. It is our intention to carry out a pre handover check when all construction activity by IHSL/MPX completes in June*" (Bundle 5, p32). Mr Currie was clearly referring to a Stage 4 HAI-SCRIBE. It is accepted that, initially, there was a divergence of views as to the form of documentation that should be provided. However, when IPC made clear what documentation they were looking for, steps were taken to make sure that what they required was provided. This resulted in the instruction of IOM.

47. NHSL refers to its response to PPP6 which sets out its position on commissioning and validation more generally. See also paragraph 21 of this Appendix B in relation to further clarity that is required in the Guidance in this regard.

4.5 Contact between NHSL and individuals involved in the Queen Elizabeth University Hospital and whether this had any role in the key decisions made in the period after financial close, including the decision to instruct IOM Limited.

48. It is not accepted that the importance of an independent validation report was not appreciated by key decision makers in the Project Team. Independent testing was provided by Arcadis. NHSL always intended to undertake the necessary Stage 4 HAI-SCRIBE before patient occupation.

4.6 The reasons for the instruction of IOM Limited by NHSL to conduct testing of the ventilation system.

49. No additional comment.

4.7 The commissioning and testing carried out by IOM Limited and the consideration of the results by decision makers, and governance bodies, within NHSL.

50. No additional comment.

4.8 When concerns regarding the ventilation system at the RHCYP/DCN were escalated by NHSL to Scottish Government.

51. The issue was escalated to the Scottish Government on 2 July 2019.

4.9 Whether there was any deliberate suppression of concerns regarding the ventilation system by any party involved in the project.

52. NHSL was not involved in any deliberate suppression of concerns regarding the ventilation system.

4.10 The escalation of NHSL to Level 3 and subsequently to level 4 of the NHS Board Performance Escalation Framework.

53. No additional comment.

4.11 Changes made to the decision making and governance structure including: (i) the appointment of a Senior Programme Director; and (ii) the creation of the Oversight Board.

54. No additional comment.

4.12 Whether the organisational culture within NHSL encouraged staff to raise concerns and highlight issues in relation to the projects at appropriate times.

55. NHSL had appropriate policies in place which would allow concerns to be highlighted. There is no evidence indicating that any issue regarding organisational culture prevented relevant issues being raised.

4.13 Whether there were failures in the operation of systems and, if so, whether that was a result of failures on the part of individuals or organisations tasked with specific functions.

56. HAI-SCRIBE is about patient safety. Commercial arrangements under construction contracts are not relevant. SHFN 30 assumes that handover and patient occupation occur at the same time. That was not the case with the Project. There was no "*failure*" to comply with SHFN 30. A HAI-SCRIBE was completed prior to patient occupation. See also paragraph 21 of this Appendix B in relation to further clarity that is required in the Guidance in this regard.

4.14 Whether national oversight and support was adequate and effective.

57. No additional comment.

4.15 Whether there was effective communication between relevant organisations (including NHSL, Scottish Government, and NHS NSS).

58. No additional comment.

5. The decision making, and governance, around the decision not to open the hospital in 2019

59. No additional comment to the narrative provided for topic 5 and its related sub-topics (topics 5.1 to 5.4).

6. The changes to the ventilation system required by HVC Notice 107 and made prior to the opening of the hospital

60. No additional comment.

6.1 Why the brief, and agreed strategy, for the ventilation system for critical care rooms and isolation rooms (as at the point of SA1) was deemed no longer to be adequate or appropriate.

61. NHSL had always intended the ventilation system to fully comply with SHTM 03-01 unless it agreed to a formal derogation. This is made clear in the Board's Construction Requirements. NHSL did not knowingly agree to any such derogation for critical care rooms. Therefore, changes were made to ensure that the ventilation system in critical care rooms fully complied with SHTM 03-01.

62. It is not accepted, as is suggested at paragraph 258 of the Closing Statement, that the "*brief and strategy*" changed "*significantly*" during the Project to allow cohorting of patients. One of the issues that arose was whether or not multi-bed rooms should be treated as general wards (no pressure regime specified) or single rooms (balanced or negative specified) for the purposes of SHTM 03-01. Some cohorting was anticipated in some critical care multi-bed rooms. The fact that this would require a derogation from SHTM 03-01 in terms of the pressure regime was not raised by IHSL, Multiplex or Wallace Whittle. As noted earlier, there was a failure on the contractor's side to identify that, in terms of SHTM 03-01, critical care areas were subject to different environmental parameters to other areas.

63. In terms of IPC involvement, reference is made to the main submission. IPC, like others on the client side, either did not appreciate that some of the rooms intended for cohorting were in critical care or did not appreciate the fact that rooms in critical care were subject to a different environmental regime in terms of SHTM 03-01.

6.2 Whether lessons were learned from QEUH in relation to the ventilation system.

64. This issue is viewed from the perspective of NHSL. Of course, Multiplex is the common denominator between RHCYP/DCN and QEUH. Multiplex were therefore in a unique position to provide information and assistance in relation to the situation that was unfolding at the QEUH. No doubt, the Inquiry will wish to consider this point when examining the QEUH.

65. At paragraph 273 of the Closing Statement, it is suggested that the learnings from the Grant Thornton report have not been shared more widely within the NHS. The Grant Thornton report was made available on the NHSL website and at the SG Oversight Board.

6.3 The input (if any) from clinical leadership teams, IPC teams, estates teams, technical experts and other relevant parties prior to HVC Notice 107 being issued and Settlement Agreement No 2 being concluded.

66. No additional comment.

6.4 The reasons for NHSL issuing HVC Notice 107 and entering into Settlement Agreement No 2.

67. No additional comment.

6.5 The changes made to the design for the ventilation system for critical care rooms and isolation rooms.

68. No additional comment.

6.6 Remedial works undertaken to the ventilation system in relation to critical care and isolation rooms.

69. No additional comment.

6.7 Whether the remedial works have been adequate and effective. In particular, whether the ventilation system in critical care and isolation rooms is designed, and commissioned, in compliance with published guidance and best practice.

70. The opportunity was taken during the remedial works to enhance the design beyond what was contractually due under the Project Agreement. Thinking around infection control was developing as a result of the pandemic.

7. The decision making, and governance, around the decision to open the hospital

7.1 The basis for the Cabinet Secretary determining that the hospital should open.

71. No additional comment.

8. Whether the hospital provides a suitable environment for the delivery of safe, effective person-centred care

8.1 The material demonstrating that the ventilation system in critical care and isolation rooms provides a suitable environment for the delivery of safe, effective person-centred care.

72. No additional comment.

9. Changes in Policies, Procedures, Protocols and Governance Arrangements after the project

9.1 Whether NHSL, and the wider NHS, have implemented recommendations from previous reports (including the Grant Thornton report) and whether these are now embedded in the wider NHS.

73. No additional comment.

9.2 Whether there are systemic knowledge transfer arrangements in place to learn lessons from healthcare construction projects and whether they are adequate and effective

74. No additional comment.

9.3 Whether NHSL and the Scottish Government had an opportunity to learn lessons from the experience of issues relating to ventilation at the QEUH and whether they took advantage of that opportunity.

75. The statement at paragraph 303 of the Closing Statement that NHSL as an institution failed to act upon learning from QEUH is not accepted.

76. As is acknowledged by Counsel to the Inquiry, the Glasgow and Edinburgh hospitals were procured using entirely different routes: one was capital funded and the other was revenue funded. The implications of this difference are discussed in the main body of this submission. It is unfair and inaccurate to suggest that there was an institutional failure when (i) the nature of the lesson that should have been learned is far from clear, and (ii) the context for applying the lesson is entirely different. Presumably QEUH underwent a Stage 4 HAI-SCRIBE prior to handover. What, then, was the lesson that NHSL should have taken from the experience at QEUH? Especially in relation to information of which Dr Inverarity was made aware in March 2019 (i.e. after SA1)?

77. The fact is that it was the testing that was undertaken as part of the Stage 4 HAI-SCRIBE that brought the inadvertent derogation to light, as well as the non-compliance in relation to single rooms in critical care. The Stage 4 HAI-SCRIBE therefore worked. The Stage 4 HAI-SCRIBE could not have been completed earlier than it was due to the ongoing construction works.

9.4 The changes in relation to new hospital projects arising from the creation of Assure.

78. NHSL note the creation of Assure and shall observe progress with interest. NHSL's response to PPP9 details NHSL's position on Assure and any review should be reflective of any added value Assure adds to health boards.

9.5 Changes introduced by the most recent version of SHTM 03-01, including the creation of the Ventilation Safety Group.

79. No additional comment beyond following observation. In circumstances where the designer of a ventilation system has an incorrect understanding of what guidance actually means, it is not clear that, even under the revised version of SHTM 03-01, the problem with the ventilation rates in critical areas in the Hospital would have been identified, given that Mr McKechnie did not think a derogation was required. If the problem that arose with the Hospital was to have been identified, it required proper and robust review procedures on the contractor's side. The alternative -- requiring the client to retain a shadow design team -- is neither proportionate nor envisaged by design and build contracts (particularly in the NPD context).

9.6 Lessons learned to ensure past mistakes are not repeated

80. No additional comment.

APPENDIX C: TERMS OF REFERENCE

NHSL's response to the proposed findings set out in Closing Statement from paragraphs 332 to 418 is set out below.

Remit

NHSL are generally in agreement with the factual matters set out in paragraphs 332 to 340 of the Closing Statement other than at paragraph 336. For the reasons given in the main body of this submission, NHSL does not agree that the clarity of the brief before financial close was the reason for the ventilation issue arising. Similarly, NHSL has set out above its position that, while the HAI-SCRIBE Stage 4 process would have, and did, identify the shortcomings of the ventilation system when it was undertaken and it would have been preferable that that took place before handover, in the circumstances it was not possible to complete the HAI-SCRIBE Stage 4 before handover.

TOR 1

NHSL agree to the extent that part of the key building system at the hospital was "defective" insofar that it did not conform with the guidance contained in SHTM 03-01 as NHS Lothian intended that it should.

TOR 2

NHSL does not agree with the proposed findings. The change in the funding and contractual structure did directly contribute to the issues as detailed in NHSL's response to PPP10 and elsewhere in this submission at section 6.

NHSL's position in relation to the role of IPC and HAI-SCRIBE stage 4 is set out in sections 9 and 10 in the main submission.

TOR 3

NHSL agree with paragraphs 354, 359 and 360. NHSL does not agree with the proposed findings in paragraphs 356, and 358. In relation to paragraph 357, any "*independent technical review*" would have to be an "*independent design review*", otherwise it is difficult to see how the problems with the Project could have been avoided. MML was heavily involved in drafting

the SA1 technical solutions. NHSL fully appreciated that MML were not shadow designers and accordingly could not take on any design responsibility.

As detailed in sections 9 and 10 of the main submission, IPCT were involved in the Project throughout the construction period, including in relation to ventilation issues found in SA1.A Stage 4 HAI-SCRIBE could not have been undertaken at the time of signing of SA1.

TOR 4

NHSL agree there was no deliberate concealment or failure to disclose wrongdoing and NHSL had appropriate policies and procedures in place.

TOR 5

NHSL agree with paragraphs 369 – 379. In relation to the full audit of the proposed technical solution as detailed in paragraph 374, NHSL's view is that it would be disproportionate for an NPD style contract.

In relation to SFT's role at paragraph 378, the standard SFT style contract utilised was for the appointment of a joint independent tester, which it is submitted served to facilitate the private sector funding rather than looking out for the healthcare interests.

TOR 6

NHSL agree with paragraphs 380 – 391, subject to the following comments.

In relation to paragraph 382, there was not a degree of confusion on the part of NHSL as to the level of inspection and testing required, but rather who had responsibility for the validation testing as between NHSL and IHSL as owners of the building. NHSL were seeking clarity as RHCYP/DCN was the first acute healthcare project using an NPD model.

In relation to paragraph 383, Mr Henderson of NHSL was content with the documentation provided in relation to the commissioning of the ventilation systems, but validation was still to occur.

TOR 7

NHSL agree with paragraphs 392 – 403. It is of note that IHSL were unable to instruct their subcontractors to rectify the works on a satisfactory commercial basis. IHSL introduced Imtech and Hoare Lea to resolve the issue.

TOR 8

NHSL agree with paragraphs 404 – 408. In relation to paragraph 407 of the closing statement, it is of note that the strategy was put in place not only to seek to ensure that patient and families knew where to attend for scheduled appointments but also for urgent care in an emergency. Evidence has been provided to demonstrate the effectiveness of this strategy.

TOR 9

Not applicable to RHCYP/DCN project

TOR 10

NHSL responded previously in its closing submission submitted on 16 June 2023.

TOR 11

NHSL agree with paragraphs 411 – 413. It is of note that there is still no formal knowledge transfer arrangements in place to learn lessons from other healthcare construction projects.

TOR 12

NHSL agree with paragraphs 414 – 416 that there should be better sharing amongst health boards. But as separate legal entities Health Boards have their own legal risks and confidentialities to manage.

It is worth noting that while the health boards are separate entities, the entity that had a direct involvement in the construction of both the Glasgow and Edinburgh hospitals, and therefore the ability to transfer knowledge in relation to the problems with ventilation, water and drainage systems there, was the contractor, Multiplex.

In relation to paragraph 417, as noted above, there was no standard procedure in relation to the commercial handover of a building where there are ongoing building works. It was always

NHSL's intention to complete the Stage 4 HAI-SCRIBE at the appropriate point, prior to patient occupation, as indeed occurred.

APPENDIX D: RECOMMENDATIONS

NHSL are broadly supportive of the recommendations made by Counsel to the Inquiry and continue to agree with the suggestion that prior to the Inquiry making any recommendations it would be helpful to hold a round table meeting or meetings to discuss the possible proposed recommendations. It would be helpful to have a broad spectrum of attendees at such meetings including representatives from industry.

NHSL's response to CTI's potential recommendations for Lord Brodie to consider:

- **Risk assessment if funding route changes**

  NHSL agree with this recommendation, but it would also be for Scottish Government to undertake a risk assessment of what the consequences of changing the funding arrangements might be for a health board, as they are the decision makers in relation to funding.

- **Clarity in brief**

  NHSL agree with this recommendation but there needs to an awareness of the commercial position and the NPD programme position. It was the private partners, namely Multiplex, who 'downed tools' and stopped developing the design leaving NHSL no choice (and under increasing pressure) to include RDD within the contract in order for work to start on site to build the new hospital.

  NHSL identified output parameters by way of the Clinical Output Specifications, departmental adjacencies, room adjacencies and room layouts which were reviewed in detail by clinical and IPC teams and comprised the brief. NHSL retained responsibility for these operational functionality aspects of the Project only, see NHSL's Narrative on Operational Functionality.

- **Derogations – Requirement for Standard Form**

  NHSL agree with this recommendation and has already started implementing a more structured derogation process internally at a corporate level including the relevant safety groups. Such processes require all parties involved in the specification, design, construction and assurance to understand and agree when a

derogation from guidance is required. It is vital that the ability to interpret guidance is minimised through appropriate drafting of such technical guidance.

- **Duplication of Procedures**
  NHSL agree with this recommendation.

- **Information about common errors**
  NHSL agree with this recommendation.

- **Commissioning and validation for Revenue funded Projects**
  NHSL agrees the responsibility for commissioning and validation needs to be clarified in revenue funded projects. It should be acknowledged that (i) RHCYP/DCN was the first acute NPD project and clarity was sought on this point; and (ii) commissioning and validation are two distinct phases, that the latter should be undertaken in a "clean" environment as close to patient occupation as possible; and (iii) there is a lack of clarity in the guidance as to when the Stage 4 HAI-SCRIBE should occur given that commissioning and validation can be distinct phases some months apart.

  The Inquiry Chair should consider whether guidance requires to be re-visited to clarify (a) that commissioning and validation are distinct phases and (b) when the Stage 4 HAI-SCRIBE should be undertaken and, in particular, whether this should be either post commissioning but pre-validation and patient occupation or as proximate to validation and patient occupation as possible.

  NHSL agrees that, regardless of who bears the responsibility, a short report should be generated confirming whether there is full compliance with published guidance, as opposed to contract requirements, and suggests that should be done at both commissioning and validation stages. Any non-compliance flagged in the short reports can then be cross-checked against what exactly has been agreed in terms of any structured derogation process (should that be in place).

- **Role Specification**

  NHSL agree that a partnership approach should be adopted and suggests that it should be remembered that that should include the private sector representatives, but careful consideration also requires to be given to the specification of roles for different personnel to allow for appropriate resources to be available whilst also trying to avoid wasting scarce resources such as the IPC professionals.

  NHSL disagree that there was a lack of clarity of MML's role. This is covered in part 8 of the main submission above.

- **Training**

  NHSL agree with this recommendation but is mindful that this should apply to appropriate levels of professionals in both private and public sector. In order to build up experience in both public and private sector it is important to have a pipeline of healthcare projects.

- **Risk Assessment of the implications of non-compliance with guidance**

  NHSL agree with this recommendation.

NHSL are supportive that the following recommendations will be considered after the evidence is heard on QEUH, in the meantime NHSL's provisional views are set out below:

- **A review of hospital ventilation**

  NHSL agree with this recommendation and fully supports research into Hospital ventilation. It may also be helpful for NHSS Assure to widely update health boards and industry on the subjects and progress of research recently instigated.

- **Legislative intervention**

  NHSL agree with the recommendation but suggest that there should be a wider discussion/review on the relationship between the Building (Scotland) Regulations 2004 and the Scottish Health Technical Memorandums which should involve health boards, Scottish Government and industry. If any change is proposed it should be supported by a Code of Practice and an SHTM detailing a formalised derogation process.

- **The role of NHS Assure**

  NHSL notes the establishment of NHS Assure and observes its progress with interest. NHSL suggest that the role of NHS Assure should be part of the wider review suggested below including an assessment of added value within its role. It is suggested that in order to add value NHS Assure requires to do more than provide a check that health boards are following appropriate procedures.

- **A review of NHS Scotland Assure**

  NHSL agree with this recommendation. NHSL's position is set out in its response to PPP9.

- **The briefing of Projects**

  NHSL agree with this recommendation. It should be noted that NHS Assure promote the use of Environmental Matrices on projects. Direction as to the exclusive use (or otherwise) of the ADB database, Room Data Sheets and / or an Environmental Matrix, and who bears responsibility for the content of these documents, would be welcome. It should be recognised that even with an element of automated data transfers between databases, it is important that the design engineers understand the implications of said data and take ownership for the contents for the specific project under development, especially when proprietary systems are utilised.

- **Standardisation**

  NHSL agree with this recommendation. It should be noted that there is currently a Building, Design and Constructions Group looking at increasing the number of standardised rooms. This group is supported by NHS Assure and health board experts.

- **Procurement**

  NHSL note that the Inquiry has considered "procurement", but in effect it is exploring the funding and contract model, rather than the competitive dialogue model that was employed in the procurement stage of the Project. NHSL awaits to hear further evidence on this point.

- **Funding of Projects**

  NHSL agree with this recommendation. NHSL's views on NPD funding detailed in the main submission at section 6 and NHSL's response to PPP10.

- **Alternative Models**

  NHSL agree with this recommendation and would fully support further investigation on proposed alternative models.