Scottish Hospitals Inquiry
Witness Statement of Frances Wrath

This statement was produced by the process of sending the witness a questionnaire with an introduction followed by a series of questions and spaces for answers. The introduction, questions and answers are produced within the statement.

Personal Details and Professional Background

1. Name, qualifications, chronological professional history, specialism etc – please provide an up-to-date CV to assist with answering this question. Please include professional background and role within NHS GGC, including dates occupied, responsibilities and persons worked with/ reporting lines.

A See Appendix C - CV for experience prior to joining Project Team in April 2007 and subsequent roles within team.

Site Selection

2. Describe your involvement in the site selection process in respect of QEUH/RHC.

A I was not involved in site selection. In my previous post as part of SGH estates I had provided copies of all groundwork surveys, drainage surveys etc we had in respect of SGH site.

3. Describe the risk assessments, if any, that were carried out? What was the outcome? What consideration, if any, was there in respect of proximity to Shieldhall Sewage Treatment Works? What consideration, if any, was there in respect of the Shieldhall Recycling Centre? What concerns, if any, did you have regarding site selection? What action, if any, did you take in respect of such concerns and what was the outcome?

A I was not involved in this exercise it would have been led by Alan Seabourne and Peter Moir I assume as part of planning process.

Procurement

4. Describe the funding PFI changes, your involvement, why the changes were made, who signed off on the changes and what the escalation process was in respect of the Board authorising these changes.

A I was not involved in the PFI project and its procurement process. I think my first involvement with the project team was helping with the equipment schedule and generally helping source information on existing site surveys.

a) Please describe how you helped with the equipment schedule and explain how you sourced information on existing site surveys?

A The initial equipment schedule – for tender documents – was generated from ADB codes on standard room layouts, I think. It's almost 20years ago and it was just one of the jobs I had at the time, however, I think I checked equipment schedule, and the costs accounted, for all rooms in the anticipated room schedule. It's really a case of checking each room included on the schedule of accommodation has Group 1-5 equipment accounted and prices included for all equipment to be supplied, and specialist equipment supplied and fitted by Board. This figure formed part of tendering documents.

As I had been based at Southern General for a number of years prior to secondment to new hospitals team, I initially had the role of clearing the footprint for the new hospital site. Part of this required a search through Estates department archives for old drawings, surveys and video footage of the main services to the Southern General site; particularly those located adjacent to new hospitals site. These included mine workings, asbestos, wildlife habitats, ground conditions, ground contaminations, water, gas, high voltage, low voltage, medical gases, sewers, burns and water courses. All updated where appropriate to reflect works undertaken to clear site footprint.

5. Were the risks and the resource implications of changing the procurement model from PFI to traditional (design and build) adequately assessed, in particular:

a) the impact on commissioning.
b) the impact on independent validation; and

c) ensuring sufficient resources to manage and maintain the hospital post-handover?

A I was not involved in procurement process changes. That was Alan Seabourne, Peter Moir, Heather Griffin (PM Adult), Mairi McLeod (PM Children) and technical advisors. When change from PFI to traditional (Design & Build) for hospital development was made I was PM Laboratory Building.

Employer's Requirements

6. Describe your involvement, if any, in the preparation of the Employer's Requirements (ERs).

A I was not involved in preparation of hospital ER's I was part of team – with specialist laboratory staff and technical advisors -who compiled Lab ERs.

a) Please describe the process of compiling Lab ER`s?

A The Lab ERs were generally compiled by Laboratory directorate team with input from those compiling new hospital ER'S. I provided schedule of accommodation, equipment schedule and liaised with design team to provide model floor plans and room layouts.

b) What, if any, guidance was required to be complied with in respect of the Labs. How was it intended that guidance compliance would be ensured?

A In addition to standard SHTM's and Building notes which cover various aspects of laboratory accommodation. The Boards laboratory team were experts in their fields and knew exactly what space, service connections and environmental conditions were required for each of their labs.

I had been involved previously with team on other laboratory refurbishments within Southern General and Victoria Infirmary and knew their strengths and how to work collaboratively with them.

c) Who was responsible for providing the requirements for the Clinical Output Specifications and who approved the COS for inclusion in the ERs?

A As far as I am aware PM's Adult and Children were responsible for coordinating clinical groups who compiles COS's.

d) Who was responsible for confirming what the relevant NHS Guidance was for the project

A Technical advisors, Peter Moir, Alan Seabourne, Clinical Physics, IPC and HFS all provided input on relevant guidance. Ultimately it would rest with project Director and Ass project Director I assume; I was not involved.

e) How did sustainability and energy targets impact on the design

A Again, I assume Alan Seabourne and Peter Moir took advice from number of sources primarily technical advisors and HFS.

f) Question for Witness; Are you aware from experience how sustainability and energy targets impact on the design.

A No, apart from a very broad overview of ensuring where possible design is sustainable and meets ongoing energy targets. Increasing building insulation, using energy efficient fittings, where possible avoiding oil and gas and use of solar panels and green energy. I have very limited practical experience of sustainability in MEP design.

g) Questions for Witness: Was weight was attached to achieving a BREEAM excellence rating in respect of the build?

A I'm not sure I can answer that. I was only aware that all new builds had been set the target by the Scottish Government that they should achieve, when possible, a BREEAM excellence rating.

h) Describe your involvement and understanding, if any, in the removal of the maximum temperature variant? **(please refer to Bundle 17, Document No.26, Page 1063)** Why was the decision taken and by whom? What risk assessments, if any, were taken prior to making this decision? What was the impact, if any, in removing the maximum temperature variant?

A No involvement - didn't know such a decision had been made.

i) Describe your involvement and understanding, if any, in the decision to use chilled beams. Why was the decision taken and by whom? What risk assessments, if any, were taken prior to making this decision? What was the impact, if any, in using chilled beams?

A As previous answer.

j) Who provided the specification for environmental data relating to air change rates, pressure differentials and filter requirements

A This I think was undertaken before I became an integral part of new hospitals team i.e. I was still project managing site clearance and not an integrated part of team, I was not involved in assessing or providing data. I only ever saw completed ERs which had tables detailing out this information for tenders.

k) Who was responsible for HAI-SCRIBE assessment regarding the proposed site development, design and planning and new construction?

A As before I was not part of any HAI-SCRIBE assessment and therefore can only provide a guess as to who was responsible.

Tender and appointment of Main Contractor

7. Describe your involvement, if any, in respect of the selection process whereby Multiplex were selected as the preferred bidder.

A As part of the project team I checked sections of all three bidders' documents. We were never provided with any costed section of the tenders – they were reviewed by Alan Seabourne, Peter Moir, Board finance, David Hall & Douglas Ross of Currie and Brown. I generally reviewed SOA's equipment lists and general design requirements against tender documents, ER's and any clarifications requested during tendering period. Much as I would as a QS (but without checking financial value) I checked if there were any amendments or anything requiring clarification within the bidders' documents these were passed onto Project Directors Group including Currie & Brown. We met on a daily basis

and reported on progress. Currie and Brown as project QS's then approached each bidder for clarification etc in line with tendering requirements.

a) Why were Multiplex awarded the contract following the competitive dialogue process? What distinguished Multiplex from the other bidders to make them the preferred bidder?

A See above. I had no involvement in awarding contract to Brookfield it was a long process involving Project Director/Ass Director, Project QS, GGC Board and Scottish Government departments including Legal office.

b) Are you aware from your involvement in the project why Brookfield were awarded the contract?

A No as previously stated I was involved in assessing if the tenders received met the criteria of the contract ER's etc and if any qualifications or deviations to the ER's had been included instead. I can only assume that following the long and complex evaluation process the contract was awarded to the tender which best met the weighted criteria (based on cost, design, legals etc)

Ventilation Derogation

8. Explain your understanding of the ventilation design strategy contained in the Contractor's Tender Return Submission (11 September 2009) **Please refer to Bundle 18 Volume 1, Document 8, Page 205**. Was the ventilation system to be a mixed mode ventilation system (dependent on a non-sealed building) or a mechanical ventilation system (dependent on a sealed building)?

A Sorry very limited knowledge of ventilation, therefore, I hesitate to even try and guess an answer. It was not an area I was involved in.

9. Was the design and/or specification of the ventilation system as recorded in the Building Contract, in particular in the M&E Clarification Log **(please refer to Bundle 16, Document No. 23, Page 166**) compliant with NHS Guidance? **A.** No involvement in designing or specifying ventilation requirements.

a) If not, please explain:

(i) Why this design was proposed; and

(ii) Why this design as accepted.

A As previous response.

b) If you are of the view that it was compliant, please explain why, with particular reference to SHTM 03-01 2009 (Ventilation Design) **Please refer to Bundle, 16 Document No. 5, Page 342.**

A As previous response.

10. The Inquiry is aware of the agreed ventilation derogation recorded in the M&E Clarification Log. **Please refer to Bundle 16, Document No. 23, Page 166.**

a) What was the scope of the agreed ventilation derogation recorded in the M&E Clarification Log?

A No knowledge of this at all. Not an area I was involved in – nor would I expect to be.

b) When did you first become aware of it and how?

A No knowledge of this at all. Not an area I was involved in – nor would I expect to be.

c) Was the agreed ventilation derogation restricted to general wards only?

A As previous.

d) If so, how is this interpretation evidenced within the documentation (such as the M&E Clarification Log) and where is the specification located for areas that required specialist ventilation and isolation rooms?

A As previous.

e) Who else from the GGC project Team and Board were aware of the Ventilation derogation?

A This area would be the responsibility of Peter Moir and Alan Seabourne/David Loudon with specialist input from technical advisors and other specialists.

f) What action, if any, did you take to escalate your knowledge the derogation to the Board? If you did not take any action, why not?

A I was not aware of this derogation and therefore cannot action something I am unaware of.

g) How was the agreed ventilation derogation signed off by the Board?

A No knowledge of this at all – I would assume that all derogation would have to be presented to overall project Board and agreed therein.

11. When did you first become aware of the ZBP Ventilation Strategy Paper dated on or around 15 December 2009? **Please refer to Bundle 16, Document No.21, Page 1657**

A Sorry not aware of strategy at all – not my area of involvement.

a) What action, if any, did you take when you became aware of this document and why? If you did not take any action, please explain why not.

A See above.

b) What concerns if any did you have on reading this document?

A See above

12. What risk assessments (if any), whether in compliance with the standards in HAI Scribe or otherwise, did GGC carry out or have carried out in respect of the change in the ventilation strategy that appears to follow the ZBP Ventilation Strategy Paper dated 15 December 2009? **Please refer to Bundle 16, Document No.21, Page 1657.**

A Sorry no involvement in ventilation strategy. I thought HAI Scribes did not come into operation until 2011/12. It was not an area I was involved in. I dealt with Laboratories at this time.

13. Was the Ventilation Derogation recorded in the Full Business Case? Who was responsible for doing this? If not, why not? If you were aware that it had not been recorded in the Full Business Case please explain what action, if any, you took.

A My involvement in FBC was very, very limited I checked schedule of accommodation, equipment register and business case for laboratory building.

Design and Construction and Role in the QEUH/RHC Project

14. When did you first become involved in the design of QEUH/RHC. Please describe your role and responsibilities.

A I was seconded to Project Team from April 2007 following a re-organisation of the Boards Capital Planning teams. My job title was Acute Services Review Programme - Capital Planning Manager and reported to both Peter Moir as Head of Major Projects and Ass Project Director and Alan Seabourne as Project Director. Initially I was not part of the QEUH/RHC design, and my role was as to Project Manage site clearance of proposed new hospitals site.

15. The Inquiry understands that you were the Technical Lead from around 2007. Describe in detail this role.

A I was seconded to Project Team from April 2007 following a re-organisation of the Boards Capital Planning teams. My job title was ASR Programme - Capital Planning Manager and reported to Peter Moir as Head of Major Projects and Ass Project Director. He was the in-house Technical Lead for the Board with David Hall Currie and Brown providing technical advice/backup. Initially I was brought in to project manage the clearance of the existing SGH site ready for the new hospital. However, after a year/18months I swapped jobs with Hugh McDerment who had initially been appointed to be the PM directly involved in new hospitals projects. I assumed that this was because I had been involved in hospital project management for over 15 years and had previous working relationships with most of the adult services transferring from SGH and Victoria Inf. I had previously undertaken a similar role for the Carillion PFI design –

providing advice and support to clinical teams on room layouts, and equipment location and specification. I became part of user group teams for both adult and children's hospitals. I was sometimes introduced or referred to in these meetings as "technical lead" in the same way Karen Connelly was facilities lead and Fiona was nursing lead. My role was to provide advice and assistance to clinical teams when laying out department designs, room layouts and equipment requirements. Sometimes this meant interpretating a layout drawing by marking out on floor proposed layouts or space dimensions. Other times it was to prompt service, based on my experience – an example being how do you use this equipment, how is it serviced, how much space is needed around it? or at present you use machine A do you intend to continue using and if so, where? Simply sometimes is to interpret drawings for someone who is not comfortable with taking a 2D layout and interpretating into a 3D visual. This role continued and included my involvement in equipment procurement. During the currency of the hospital project when I was not required for this role I was also project Manager for Laboratory (design to on-site stage) and specialist group 5 equipment installations e.g. imaging equipment, aseptic and decontamination suite.

16. Explain how the Clinical Output Specification (COS) for the design of the Wards was confirmed and signed off. In doing so describe the purpose of the clinical output specification, and your involvement.

A Clinical Output Specifications were already in place by the time I became involved in New Hospitals Project. PM for Adult and PM for Children's were responsible for these.

a) From your experience, do you know how the Clinical Output Specification for the design of the wards was confirmed and signed off?

A No, I think it was 2008/09 before I became involved in the New Hospitals project. Prior to that I was involved in clearing the site for the new hospital and Acute Strategy work at other sites in Glasgow. This was when tender was being compiled I think and COS's were already in place.

17. Explain the purpose of the guidance relied upon by the design team and why this was important.

A Not quite sure what question is here. By the time I became involved there was COS's, Employers Requirements, national guidance and statutory regulations all in place. This is standard for all projects and has subsequently been further developed by Scottish Government.

a) Do you know the purpose of the guidance relied on by the design team?

A I assume to ensure new build complied with latest clinical, statutory and best practice guidance.

b) Were you concerned at any stage regarding the non-compliance with SHTM. If so, please describe the actions you undertook in relation to the non-compliance with regulations.

A As far as I can remember – going back almost 20years now – I had no concerns as I was unaware of any SHTM non-compliances.

18. The Inquiry understands that designs and Room Data Sheets (RDS) were approved through the Reviewable Design Data (RDD) process. Describe your role, if any, in the RDD process and User Groups.

a) How were members selected to be part of a user group?

A Heather Griffin and Mairi MacLeod could answer this better. As far as I am aware each clinical service lead was approached to submit details of an appropriate team, reflective of the whole service to take forward design. Team leads were asked as far as possible to ensure continuity of representation throughout the process. It was also understood that each service would be responsible for cascading information within their own teams. Further specialists such as pharmacy, clinical physics etc were also approached for representation as appropriate. Standard membership for each group from project team was relevant PM, me, Jackie Barmanroy (Infection control), Karen Connelly (facilities), Fiona McCluskey (nursing) early design meetings also included adult or children's medical directors.

b) Were you responsible for a user group? if so, which?

A No, I was not responsible for any User group; I was part of the team.

c) How can you sign off on RDS unless you know the ventilation requirements to which the room must comply? How could you do that if you did not know about the derogation?

A On the RDS there is recorded ventilation rate, Lux levels etc in addition to the main body of the RDS which is the equipment to be supplied and fitted by contractor; supplied by client, fitted by contractor; and supplied and fitted by client or specialist contractor. This was the section I had to check in detail ;cross referencing with costed Equipment list and room layouts. The service requirements on the RDS's – ventilation and lux levels etc were checked by David Hall and technical team – I was told; and also provided with contract ER's sections which had tables detailing different requirements for each room type. I am/was unaware that there was any derogation which changed these requirements.

d) Who was checking what before your sign off and how did you satisfy yourself all was in order?

A All amendments to room layouts were signed off by service leads at users group meetings. These drawings and sketches were scanned and uploaded for architects to amend layouts and then re-issue. I held a hard copy of signed drawings and when amended re-issued I checked that this met agreed layout and signed off myself. If re-issue not as requested or more information required, we met again with user group to agree a layout which met user requirements. This process was repeated and repeated over a number of tears and drawing iterations. Sometimes changes requiring user sign off came as a result of a window or column position slight change when constructed which then impacted on equipment layouts in room. My role was to continually check that the layouts delivered met user requirements. It was a very stressful, taxing detailed job with I think about 40/45 different user groups and drawing iterations all at different

stages. The 1:50 schedule was very detailed and involved with very tight timescales.

e) Confirm who attended the user groups meetings from IPC, Estates, Clinical and the GGC Project Team for the following areas: Ward 4B – QEUH; Ward 4C – QEUH; Level 5 – QEUH; Critical Care – QEUH; Ward 2A & 2B – RHC; PICU RHC – RHC; All Isolation rooms

A Attendances were as previous answer. I do not have specifics of who was involved for each user group. Mairi McLeod and Heather Griffin arranged and would have details.

f) What steps, if any, were taken to ensure that an appropriately qualified source of IPC advice was an integral part of the Project Team?

A As far as I am aware IPC had nominated Annette Rankin and Pamela Joannidis (senior ICN nurses for South Glasgow and Children's hospitals respectively) as infection control link to rest of IPC team. They were involved in the initial meetings I attended. I think following contract award Jackie Stewart/Barmanroy was imbedded in project team again for advice and as a link to rest of IPC team.

g) How often were user group meetings scheduled to review design proposals and agree the design with the user groups

A Sorry meetings were arranged as required to discuss RDD proposals there was a schedule, and meetings were arranged well in advance by PM's. I do not have details of timetable.

h) How were designs and the RDS approved to proceed to construction.

A Room layouts were discussed with user groups and any amendments. were to be drawn up by architect. Once a layout had been agreed and signed off by group then it was my responsibility to ensure that final drawings reflected agreed amendments before continuing to construction. That's why my signature is on final 1:50 drawings as approved. They all reflected physical signed off drawings and amendments from service. RDS sheets were slightly different I checked

equipment listed as this was an output from ADB system – this provided equipment costs. Peter Moir employed a chartered engineer for around 12-18 months to help provide M&E input to Peter Moir, Alan Seabourne/David Loudon and David Hall. He checked M&E details on RDS's. I cannot remember any significant changes to service requirements – most of service requirements were as detailed in specialist ER's agreed prior to tendering.

i) The inquiry understands that you signed off on the RDS. Please explain how this came to be your responsibility and why.

A I cannot really remember why I was given this responsibility. It started with my checking schedule of accommodation, ADB equipment list etc for tendering ER's and once Laboratory started on site and design of new hospital RDD process started: given my previous experience I was probably the best person to oversee room layouts and RDS process.

j) Please explain how you assured yourself that each RDS met the requirements for the intended patient cohort.

A As previously answered - my focus was the ADB equipment and functions listed on RDS's and ensuring room layouts, RDS sheets and Equipment list (contractor and also Boards required procurement) all aligned and met user requirements. Tables in ER's services sections provided details of e.g. ventilation or Lux requirements for different room types. As far as I am aware these were as agreed with users in COS's and reflected SHTM requirements etc.

k) Please explain the checks and procedures you carried out prior to sign off. Were IPC involved in this process? If not, why not?

A I have previously answered that all user group meetings were attended by group (Heather Griffin or Mairi McLeod as Project Manager, Karen Connelly facilities, Fiona McCluskey nursing, Jackie Barmanroy IPC, David Hall and myself.) Heather and Mairi arranged, managed and minuted these meetings and send out all drawing or document packages for discussion or agreement. Although I managed the overall room layout process and kept on top of all drawings being

issued, amended, due for “sign-off” etc. Discussions with users was very much a team effort with Karen, Fiona, myself and Jackie providing advice and help as required. There were no meetings or discussions with users in respect of room layouts or equipment installations or procurement (from theatre lights to gel dispensers) when Jackie and on occasion other IPC staff were not involved.

l) Were any other technical advisors or contractors involved? If so, please explain their role.

A I’m not really sure what this question is asking. Generally, the 1:50 process would have David Hall taking notes for technical MEP purposes. From Brookfield it was the architects who attended. During RDD process when specialist equipment such as theatre lights or tables was being chosen by services for procurement by contractor technical advisors and MEP contractor representation was involved. Room layouts and RDS technical advisor input was led through David Hall. It’s such a long time ago that I cannot recall who

was present at what meeting – especially given that the RDD process with the user groups covered everything from room layouts, art installation, floor wall and ceiling finishes, specialist equipment installations, bedhead services, examination lights, alarm systems and IT installations. The attendance of technical advisors and contractor/sub-contractors would reflect the topic under discussion. All RDD meetings with user groups were arranged through Heather Griffin or Mairi Macleod.

m) How was the sign off process recorded? Who authorised/ instructed you to sign of the RDS?

A As previously answered the process was recorded in a number of ways. Meetings with users were recorded by minute/actions in addition to drawings physically signed -off by user group or drawing amendments and sketches issued to architect for re-drawing and re-issue. My checking of the RDS’s was to ensure that ADB equipment detailed matched that generated by room layouts and equipment detail and grouping matched overall costed equipment list. I think Alan

Seabourne asked me to sign-off RDS's as it was an integral part of 1:50 process and also overall Equipping list.

n) Who was the chartered engineer that you refer to? What input did they have in respect of M&E?

A Alastair Smith (I think was his name) was the engineer within the team who checked all M&E details on RDS's. He checked details provided on RDS sheets again those detailed in ER's. its such a long time ago but I think he ticked if ok; if further action or information required, he would not on sheet and discuss with David Hall and/or Peter Moir. I checked rest of RDS sheet

o) Describe your involvement in the design and RDD process for the Schiehallion unit, PPVL and BMT rooms and PICU in the RHC

A Involvement was as detailed in (a) above - My role was to provide advice and assistance to clinical teams when laying out department designs, room layouts and equipment requirements. Sometimes this meant interpretating a layout drawing by marking out on floor proposed layouts or space dimensions. Other times it was to prompt service, based on my experience – an example being how do you use this equipment, how is it serviced, how much space is needed around it? or at present you use machine A do you intend to continue using and if so, where? Simply sometimes is to interpret drawings for someone who is not comfortable with taking a 2D layout and interpretating into a 3D visual.

p) Describe your involvement in the design and RDD process for the spaces to house immunocompromised patients, Ward 4C, BMT Unit, Infectious Diseases and the Critical Care Unit in the QUEH.

A See previous answer (f).

q) Describe your involvement in the design and RDD process for Isolation rooms.

A See previous answer (f).

19. Please describe how the technical requirements (air change rates, pressure differentials and filter requirements) for the rooms were managed and approved, including your role and involvement.

A Sorry no involvement in setting these requirements. I became involved post setting when they were already incorporated into ER's – specialist services sections and Clinical Output Specs.

a) What was your understanding at the time of how the technical requirements from the rooms were managed? How were these determined and what, if an, guidance was relieved upon?

A I understood that the overall technical requirement – environmental requirements – had been discussed at an early stage of the design with clinical users and board specialists (IPC, Clinical Physics etc) and formed part of the project ER's. detailed COS documents for each service and technically in specific ER appendices for ventilation, water installations, electrical systems, PMGS etc. I cannot recall relevant Appendix numbers for each. I also understood that design was to be in accordance with relevant technical guidance available. I think we also included, provided by HFS, a couple of proposed SHTM's, based on English HTM's which were out for discussion, but which were due to be issued before the new hospitals would be completed. I think one of these was for PMGS.

b) Were you not required to have an awareness and understanding of the guidance in order to sign off the RDD? Please explain your answer.

A As I was responsible for ensuring that the room layouts/ADB equipment and Boards purchasing equipment lists all tallied. I understood that the technical/environmental details were as guidance and as detailed in ER's technical appendices. I did not require to know detailed discussions behind technical requirements. However, I and the rest of the team undertaking room layouts and RDS's should have been made aware of any derogations to guidance and changes to ER's specification.

20. What guidance was considered in the design of wards to accommodate immunosuppressed patients, what processes were in place to ensure guidance compliance? Were there any changes to the design during the design and build, if so, please describe any such changes, describe the impact, if any, on guidance compliance, and described the sign off process for any such changes, your involvement and how any changes were communicated to the Board. Was external advice ever sought in respect of design changes?

A See previous answer

21. Who was responsible for confirming filtration and HEPA requirements and who approved this from the GGC Project Team?

A Sorry I do not know. This would have been dealt with by David Loudon, Alan Seabourne and Peter Moir with David Hall and other advisors.

22. In respect of any derogations/ departures from guidance which senior IPC individual was responsible for signing this off?

A As above I can only assume the same team were involved.

23. Describe your involvement and understanding, if any, of the decision to remove carbon filters? What was the rationale behind this decision, who was involved and what advice, if any, was sought in reaching this decision? **A.** No involvement.

a) Please refer to Bundle 43 Volume 2 Document 16

Please describe your understanding of the importance of the removal of carbon filters in respect of limiting energy use? Was this a relevant consideration in the decision to remove carbon filters?

A There was nothing attached other than an email I sent to Shiona Frew with some M&E notes from meeting with LOR during tendering process. It looks like Shiona wanted a copy to upload to system and asked me if I had a set. As its 2009 I can only assume it was part of the meetings with the 3 tenderers. I sat in on M&E group I think as I had pulled together existing site information and was to be on hand of tenderers required any clarification. I'm sorry I cannot recall any

discussion to remove carbon filters, it's something I have limited knowledge of and would not venture an opinion on.

QEUH – Bone Marrow Transplant Unit

24. The Inquiry understands that the BMT service was to transfer from the Beatson following a change order request, issued by Jonathan Best in July 2013.

a) Following the Change order request **(please refer to Bundle 16, Document No.29, Page 1699)**, what actions, if any, did the GGC Project Team take to confirm the technical and environment requirements (in particular air change rates, pressure regimes and HEPA and air permeability requirements) for the BMT Unit?

A By 2013 I was almost completely involved in equipment matters – specialist group 5 installations and also confirming 1:50 layouts which user groups had signed off were delivered on site.

b) Question for witness; Did you have any involvement with the BMT unit in any respects?

A No as far as I can remember the decision to move the Beatson BMT unit was a late one and I was almost entirely focused on specialist group 5 equipment .

c) Question for witness: At the time, what actions did you understand the GGC Project Team take to confirm the technical and environment requirements (in particular air change rates, pressure regimes and HEPA and air permeability requirements) for the BMT Unit?

A Sorry I can't really answer. The rest of the team – project Director, deputy project director, project Manager, Nursing and infection control - in addition to technical advisors were still involved in the process at this stage.

d) What design review meetings were held to confirm with the user groups to confirm the requirements for the BMT Unit.

A No involvement in additional changed to ward proposed.

e) Was the design for the BMT Unit subject to the RDD process

A No involvement in changes – RDD process had checked initial 1:50 layouts.

f) If so, who was involved in the RDD process for the BMT Unit

A As above.

g) Who produced and approved the RDS for the BMT Unit

A Sorry no involvement.

h) What feedback regarding Air Change Rates and pressure differentials was received from Multiplex regarding the Change Order?

A No involvement.

i) Describe the IPC involvement in the design of Ward 4B, BMT who was involved and who signed off the final design and when.

A Cannot answer.

j) What ceiling types were specified and approved for use in Ward 4B? Who from the GGC Project Team approved this? Describe your involvement, if any? What was the impact, if any, of the choice of ceiling tiles? What concerns, if any did you have regarding the choice of ceiling tiles?

A No involvement in ward changes.

k) What concerns, if any, did you have regarding the final design specification of Ward 4B, and what action, if any, did you take in respect of these concerns?

A No involvement

l) Who took on your role for signing off of the RDS in respect of Ward 4B post change order?

A Sorry I don't know. I left team and had no further involvement. I left all files and hard copy signed off drawings and paperwork behind with them and moved onto new role.

Ward 4C

25. The Inquiry understands that Ward 4B in the QEUH was originally intended to provide accommodation for Renal and Haemato-oncology. The 2009 NHS Clinical Output Specification for the Haemato-oncology ward confirmed "Please note the haemato-oncology ward area has a very specific function and a considerably higher than average requirement for additional engineering support/infrastructure. There should be no opening windows, no chilled beams. Space sealed and ventilated. Positive pressure to rest of the hospital and all highly filtered air >90%, probably best HEPA with adequate number of positive pressure sealed HEPA filtered side rooms for neutropenic patients as in the Beatson West of Scotland Cancer Centre." **Refer to Bundle 16, Document No.15 , Page 1595.** However minutes from the Quality and Performance Committee dated 2 July 2013 (**Bundle 34 Document 62 page 542) and** the Change Order Request in July 2013 by Jonathan Best **(Bundle 16, Document No.29, Page 1699)** confirm that the Bone Marrow Transplant (BMT) service would transfer to Ward 4B in the QEUH and the haematology patients that were originally planned to accommodate Ward 4B would move to Ward 4C.

a) Please confirm how this change was communicated to the project team and Multiplex and how this change was captured in the design and specification documentation.

A Sorry I think I heard about proposed change at a Friday team meeting, however, I was not involved in taking it further.

26. The Inquiry understands that 10 rooms were provided for Haemato-oncology patients (Rooms 66 to 75) in Ward 4C, these rooms had no HEPA filtration, 2.5 – 3 ACH per hour, included chilled beams; rooms were at a balanced or slightly positive pressure to the corridor and had suspended ceilings fitted in patient bedrooms and ensuites.

a) Who approved and signed off on this specification for the Haemato-oncology patients to be accommodated in Ward 4C?

A Generally, design was already completed before I became involved – included in COS and ER's I was concerned with providing help with 1:50 layouts and equipment requirements. There was always IPC, Medical Physics and Senior clinical staff involved in any meetings for review of these.

b) Question for witness; Do you know who signed off on the above specification.

A The project manager would have details of exactly who signed off COS ER's etc I'm sorry after almost 20 years I cannot really recall names.

c) Describe the IPC involvement in the design of Ward 4C, who was involved and who signed off the final design and when.

A Answer as previous.

Ward 2A/2B RHC

27. The Inquiry understands that Ward 2A/2B is the paediatric-oncology Unit and includes the Teenage Cancer Trust and the paediatric Bone Marrow Transplant (BMT) Unit - the department is known as the Schiehallion Unit.

a) Confirm your understanding regarding the intended use and purpose of the Ward 2A/ 2B, what guidance was considered in the design of these wards, what processes were in place to ensure guidance compliance?

A Yes, I understood this area (Schiehallion) was children's cancer area. COS was already developed before I became directly involved in design. Department clinicians and particularly Medical Physics Head for Children's Hospital were very vocal on requirements for the unit. My main involvement in design was the development of the specialist Radiotherapy area; which was a new development; with Professor Michael Bradnum, Head of Medical Physics.

b) What changes, if any, were made to the design during the design and build? Please describe any such changes, describe the impact, if any, on guidance

compliance, and described the sign off process for any such changes, your involvement and how any changes were communicated to the Board. Was external advice ever sought in respect of design changes?

A From memory there were no major changes to the design during the design and build – with the exception of concluding specialist design of Radiotherapy area other design changes were generally change in position of a socket or similar.

c) Describe the IPC involvement in the design of Wards 2A and 2B, who was involved and who signed off the final design and when.

A IPC to my knowledge were involved throughout process, as part of COS completion through1:500 specialty adjacencies, 1:200 department layouts and 1:50 room layouts and also where applicable equipment selection. As far as I am aware senior infection control doctors also consulted on various service installations such as water and ventilation.

d) Who from IPC was involved? In particular who was the senior infection control doctors that you refer to?

A As we are going back almost 20years I am afraid I cannot recall names – only that the doctors involved were the senior infection control doctors (head of service) for Victoria Infirmary, Southern general Hospital and Yorkhill Hospital.

e) What guidance was considered, referred to, and complied with in respect of Ward 2A/2B?

A I'm sorry it's been so long since this project compounded by the fact that I have not been involved in design/construction work since 2015 I am afraid I cannot even detail specific guidance SHTM number etc which would have been used for this ward.

f) What concerns, if any, did you have regarding the final design specification of Wards 2A and 2B, and what action, if any, did you take in respect of these concerns?

A No concerns.

g) Question for witness: Why did you have no concerns? What assurances were you given and by whom to allow you to have no concerns?

A I was not involved in the detailed MEP designs for these wards, and no-one had highlighted and derogations/changes from a standard design expected for this type of ward. Therefore, why would I be concerned?

h) Question for Witness: What steps did you take to ensure the demanding spec for 2A had been fulfilled before signing off on RDS?

A As previously stated in previous answers signing off on RDS sheets did not require detailed knowledge of specialised environmental specifications. I as tasked with ensuring ADB equipment detailed on RDS matched that detailed on room layouts which in turn matched overall equipping schedule. The ventilation and lux details on RDS were checked by engineer based on detailed design specification in ER's.

Isolation Rooms

28. How was the number and location of isolation rooms agreed? Who approved the final number and locations in the QEUH and RHC?

A I was not involved in deciding on number and locations of isolation rooms. That would have been a clinical decision agreed between Board, senior medical and nursing staff and IPC, Heather Griffin and Mairi McLoed would have been involved.

29. Who was responsible for producing the drawings and the specification for isolation Rooms; who approved these from the GGC Project Team?

A Not sure – but I think there may have been a sample isolation room included in tender documentation. This would have been agreed early doors with Clinical teams, IPC, medical planners, specialist advisors and Project director and adult/children PM's. I was involved in the 1;50 room layouts – which are setting the rooms out with power sockets, bedheads, equipment etc. these would have been based on tender ADB sheets. Layouts were discussed and agreed with

each clinical team and project team which included IPC, Facilities, medical physics, Adult/children PM as appropriate, technical advisors and myself. Once clinical team were happy with layouts, they signed drawings, and my job thereafter was to ensure that any future iterations of drawings maintained this layout. If changes were necessary e.g. because of actual construction issues then any alterations were presented, discussed and agreed with clinical teams.

30. What concerns, if any, did you have regarding isolation rooms and compliance with SHTM/HTM? What action, if any, did you take in respect of any such concerns?

A I was not aware of any concerns regarding isolation rooms.

a) The Inquiry has reviewed the RDS in excel format and note there is an entry under 'Design Notes' relating to Ward 2A isolation rooms, the entry states: WARNING NOTICE: This room is based on a theoretical design model; which has not been validated (see paragraph 1.8 of HBN 4 Supplement 1). Specialist advice should be sought on its design. The lamp repeat call from the bedroom is situated over the door outside the room.

(i) Was this note entered on the RDS? If so, why and by whom?

A Sorry I don't recall this message at all. I have no idea what it refers to. As my main focus in isolation rooms as in all other rooms was ensuring that equipment layouts, power sockets etc were laid out as "signed off" by clinical teams and that finishes etc complied with that detailed in contract ER's.

(ii) What specialist advice was sought relating to the design of these rooms?

A I was not involved in original design requirements for isolation rooms. However, I am aware that specialist infection control advice was sought and adhered to throughout project. Although I cannot provide proof/details I am aware that a senior infection control doctor who specialised in ventilation attended meetings for both adult and children's specialist wards – Schiehallion, haemato-oncology, transplant, renal etc.

(iii) From whom was specialist infection control advice sought? Who was the senior infection control doctor you refer to?

A Sorry after 15-20 years I cannot remember names. After all this time it tends to be the unusual or out of the ordinary you remember rather than what is after all a standard design/review process of meetings.

(iv) Question for Witness: What was the advice did they give in respect of compliance with SHTM guidance? How, if at all, was it ensure that this advice was complied with?

A Sorry I cannot answer. After all this time I cannot provide specifics.

(v) What was the final agreed design for isolation rooms and who approved this?

A See previous answer.

b) What ceiling types were specified and approved for use in isolation rooms? Who from the GGC Project Team approved this? Describe your involvement, if any? What was the impact, if any, of the choice of ceiling tiles? What concerns, if any did you have regarding the choice of ceiling tiles?

A Ceiling types for different areas were detailed in contract ER's and that was what I was to adhere to and agreed with service. I think these were based on HBN details and COS's and agreed with individual services before I became involved.

Horne Taps

31. Describe your involvement, if any, in respect of the decision to use Horne taps.

A I had no involvement in selection of Horne taps. I think from memory this involved, Project Director& Ass; external specialist advisors, IPC/ICT, Estates and facilities in addition to HFS and clinical input.

a) What concerns, if any, did you have regarding the use of Horne taps?

A See above.

b) What risk assessments were carried out in respect of the use of Horne taps?

A See above.

c) Who was involved in, and who signed off the use of Horne taps?

A See above.

d) Did you attend the meeting regarding the use of Horne taps in 2014? If so, why was the decision made to proceed with Horne taps?

A See above.

Handover, Commissioning and Validation

32. In respect of commissioning and validation please confirm the following:

a) Describe your role in the lead up to commissioning. What action, if any, did you take to ensure that the wards within RHC and the QEUH met the guidance requirements of SHTM.

A I had no role in commissioning and validation it was not part of my role within the project team.

b) Describe what commissioning of the water and ventilation system took place prior to handover, and your involvement, if any.

A Sorry cannot provide an answer as no knowledge of commissioning and handover processes at all.

c) Who was responsible for ensuring that commissioning of the water and ventilation system was carried out, and who signed off that it had been carried out? What concerns, if any, did you have regarding commissioning and validation being carried out prior to handover?

A As previous answer – I have no knowledge of process.

d) The Inquiry understands that NHS GCC decided to forgo the requirement to have an independent commissioning engineer. Who made this decision? What was the impact, if any, of this decision? In hindsight, do you think that it was the correct decision?

A As previous answer – I have no knowledge of process.

e) The Inquiry understand that no validation was carried out in respect of the ventilation system. When did you become aware of this? How did handover come to be accepted without the ventilation system being validated? Who was responsible for this and who signed off on this?

A As previous answer – I have no knowledge of process.

33. Describe your role in the lead up to accepting handover:

a) What action, if any, did you take to ensure that the wards within RHC and the QEUH met the guidance requirements of SHTM.

A I was not directly involved in the handover process for QEUH and RCH. For group 5 equipment areas i.e. Radiology, Aseptic etc; together with specialists such as Clinical physics and pharmacy we ensured areas met all clinical requirements and could be accepted and put into use. My only involvement in other areas was as part of the team who checked each room was completed as layout requested and picking up any minor snagging – such as damage to ceiling tiles, flooring or decoration. We were all pressed into service for this given the number of rooms involved. Appointed Site Inspectors were responsible for checking service installations etc.

b) How were you assured that the wards met the requirements of the specific patient cohorts?

A As far as I am aware user groups for each service, in addition to IPC, Estates/Facilities, Clinical Physics, and other specialists were involved from day 1. Each service contributed and "signed off" its COS; with input from all specialists such as clinical physics, Bacteriology/Infection Control doctors and nurses they required. The COS's together with model RDD's, equipment lists,

and I assume the various sections of the ER's formed the basis of the design. These documents formed the basis of Brookfield/Nightingales 1:200's, 1@50's and RDS's. These were then presented to the user groups until they agreed and "signed off" documents. Again, all appropriate specialists I believe were invited. Heather Griffin managed meeting arrangements and attendances for Adult and Mairi McLeod for Children's.

My role in this was to ensure that room layouts reflected what we as a group had agreed at user group meetings. My assurances came from the fact that, as far as I could see, all relevant parties involved in a department/area had been consulted and they're views acted on.

c) Did the room layouts reflect what was agreed at user group meetings?

A Yes. That was the whole point of the rather long, laborious process - of 2 or 3 iterations of drawings and associated meetings. To ensure that the room layouts delivered met the clinical and service requirements.

34. At handover, had a preoccupation L8 risk assessment been carried out? Who was responsible for ensuring that this was in place prior to patient migration? were you aware of a preoccupation L8 assessment having been carried out? Who instructed it? When did you become aware? Why did you not raise it as a concern that you had no seen this prior to patient migration, was this not within the remit of your role?

A I was not involved in handover process or patient migration. Ian Powrie, Peter Moir, David Louden and David Hall's team were the main parties to this. As I was not involved with Estates and Maintenance nor Project Manging the patient migration, I was not concerned I had no involvement. Once handover for Boards fitting out was underway (from memory I think that may have been January 2015) I was too busy with bringing, installing and commissioning specialist group 5 equipment.

35. Who oversaw contractual compliance? Who was responsible for ensuring that the paperwork was produced to confirm contractual compliance? What action, if any, did you take to ensure that paperwork was in place to ensure contractual compliance? Was validation of the ventilation system a contractual requirement? If so, who signed off on contractual compliance given the lack of validation?

A As previous answer Ian Powrie, Peter Moir, David Loudon and David Hall's team oversaw all aspects of compliance and handover. I have no idea who signed off contractual compliance; I would guess it was a combined agreement between Board directors, David Loudon, Peter Moir and Ian Powrie.

36. Refer to **Bundle 12, page 936 and 937**. In this you emailed Jackie Barmanroy to advise that 'All areas have been commissioned in line with contact ER's and all legislative requirements. The Board's estates Team have access to all commissioning data…'

a) What documentation did you have sight of in order to enable you to make this statement?

A As I do not have access to emails or files from that time period I can only assume that Jackie had emailed me to ask if commissioning was underway – I was at that time solely involved in the installation of group 5 specialist equipment, particularly Radiology equipment. As I was not involved in the overall hospital commissioning, I would have asked David Hall of Currie & Brown, Peter Moir and Ian Powrie who were in overall charge/co-ordinating the commissioning etc. The phrase used in the email sounds like a phrase from communications from one of those 3. As Jackie knew I was not involved in hospitals commissioning but however on site with specialist equipment it looks like a general "what do you know" enquiry.

b) The statement in the email implies that the commissioning had been carried out, not that it was underway. Please confirm how you were able to advise that 'All areas have been commissioned in line with contact ER's and all legislative requirements'

A You are asking me to comment on an extracted email – with no contextual backup – after over 10 years have passed; from my knowledge of relationship with Jackie Barmanroy it looks like I am providing some general information to a colleague Both Jackie and I were fully aware that I had NO involvement in the commissioning process.

c) Question for witness: With the benefit of hindsight were you correct at the time to advise Jackie Barmanroy that all areas had been commissioned in line with contract ER`s and all legislative requirements? Please explain your position.

A I was not involved at all in the commission of the building, Jackie Barmanroy knew I wasn't involved. As I have only seen this email response, I have no idea what Jackie asked me – my response looks like a general one with no details which I would have given if someone asked what commissioning was undertaken? – "all commissioning in line with ER's and legislative requirements. After almost 10 years – and no involvement in New Hospitals – I still don't know if this is an accurate or inaccurate statement. I have only heard of the "problems" of "failures" of the building from the media.

d) How were you satisfied that all areas had been commissioned in line with contact ER's?

A As stated, before I was not involved with commissioning of building service/infrastructure. David Hall, Peter Moir, Ian Powrie his estates team and contractors commissioning team were involved.

e) Please explain how 'all areas had been commissioned in line with the contract ER's and legislative requirements' given the agreed ventilation derogation which provided for achieving air changes below the required level as provided for in SHTM 03-01 guidance at the time?

A As stated, before without access to original email/discussion with Jackie Barmanroy I can only assume that she asked if I knew if commissioning were underway. I was not involved in commissioning and testing that was David Hall, Peter Moir and Ian Powrie.

f) With the benefit of hindsight do you consider that 'all areas had been commissioned in line with the contract ER's and legislative requirements'? If so, why, and if not, why not?

A As stated, before I was not involved with commissioning and testing and could therefore not comment any further. Phrase used is a generic phrase which can be used when asked a general "is commissioning underway" or "what commissioning is underway" question. As Jackie was part of the project team like myself I assume she was asking a "what do you know" question rather than for an official response – as she was aware I was not part of commissioning team but was at that time only involved in specialist equipment installations.

g) Question for Witness: With the benefit of hindsight, do you consider that your email might have been interpreted as reading that commissioning had been carried out in line with the ER's and all legislative requirements? Please explain your position.

A No as my previous answer above. Jackie Barmanroy was well aware that I was not involved in the commissioning of the building. To me it looks like a "what do you know?" between colleagues. She was well aware that for an official or accurate view of the commissioning process she would have had to speak to Peter Moir, David Hall or Ian Powrie all of whom were located within the same office as both of us.

37. Describe your understanding of the planned preventative maintenance (PPM) which was in place following contractual handover on 26 January 2015. Describe what PPM was in place, if any. Who was responsible for ensuring that PPM was in place. What concerns, if any, you had regarding PPM. Any action you took in respect of PPM not being in place.

A I had no involvement in PPM programme – Ian Powrie was brought in to lead on this as senior Estates Manager for new site.

38. The Inquiry understands that you were involved in M&E Technical Review meetings. Describe your role, involvement and the purpose of these meetings?

A I was involved in a number of M&E meetings primarily in respect of equipment detailed on room layouts and ADB equipment list i.e. details of specialist equipment contractor to supply and instal and also group 5 equipment installations Board were providing. David Hall was the person who as technical advisor checked all MEP drawings and installation details for accuracy. Purpose of the meetings I attended were generally to discuss/review topics such as equipment connection (power, water and drainage connections) location of user panels (nurse call, PMG, security), pneumatic tube installations, large specialist equipment such as theatre lights, tables and surgeons' panels, and connections for specialist services (aseptic suite, decontamination unit). M&E meetings also attended with Clinal Physics colleagues to review renal water installations, shielding protection for imaging equipment and other specialist installations. I was not involved in general MEP installations that was managed by David Hall and Peter Moir with others on the team. When Ian Powrie joined team, once construction underway, he also joined David and Peter in managing MEP installations. The only involvement I had with ventilation was discussing Laminar flow units for theatres with surgeons. In respect of water, I attended meetings with contractor, technical advisors and Clinical physics colleagues for them to review their renal panel installations.

39. Describe Currie and Brown's role in these meetings.

A Currie and Broen led by David Hall, who was located within Board teams offices was the Lead Technical Advisor and I think represented the project Team on a number of these meetings. As part of the team conducting User group RDD meetings he was our link to technical advisors.

40. Please refer to **Bundle 43 Volume 2 Document 16** - This document is an email and an attachment in respect of the post-bid feedback given and sought from Laing O'Rouke. Under the heading 'Item 29 – Ventilation & Air Treatment Design Strategy' it states:

"Reliance on all air system to avoid wards overheating"

Reasons for avoiding natural ventilation are documented in our bid submission and natural vent was not well rec'd by the Board's Advisors during the Dialogue period. All-Air would be the only option when the new enhanced SHTM air change rates have to be adopted. A chilled beam system cannot be easily integrated with the enhanced air change rates stated in the new draft documents (this is from direct experience of having designed multiple hospitals across the UK using chilled beams). The "non-cooled" all-air option was also considered the low carbon first option, but flexible enough to deal with future increases in external climate (with the retrofitting of trimmer batteries from a free cooling chiller system if required).

A Sorry only email of minutes uploaded no attachment. I'm sorry I cannot really comment on this as I have very limited knowledge of what is being discussed. As its over 15 years ago I really have no recollection of the meeting itself. It was one of a number of meetings on different topics with 3 lowest tenderers.

41. Given the comment from Laing O'Rouke that all-air would be the only option when the enhanced SHTM air change rates had to be adopted, why was all-air not pursued?

A Sorry unable to answer – it is well out with my scope of knowledge.

42. Standing Laing O'Rouke's comments regarding chilled beams, how did these come to be used?

A Cannot answer this as previous answer it is not something I am qualified to provide an opinion on.

43. At the time was it accepted that the use of chilled beams would adversely impacted SHTM compliance? If not, why not given the comments by Laing O'Rouke.

A As previous answers I cannot even venture a guess.

44. Who from NHS GGC was responsible for ensuring that pre-handover commissioning and validation had been carried out in respect of the following:

Ventilation system

Electricals

Heating system

Air conditioning

Water system

What was your role, if any, in observing this and ensuring that it had been carried out? If you were not involved who was responsible and involved?

A I had no involvement with any of the MEP commissioning or validation. As far as I can remember Peter Moir, David Hall and Ian Powrie were responsible, in addition to technical advisors.

45. Please refer to page 12 of the 2006 'Policy on Design Quality for NHS Scotland' (**Bundle 3 Volume 1 Document 4**) there is a reference to an expectation that SG had that health boards would subscribed to the English ADB system. It says:

"In 2005, the Scottish Executive Health Department, in association with the NHS Scotland Property and Environment Forum (now Health Facilities Scotland) launched an initiative to support NHS Boards in the implementation of ADB throughout NHS Scotland by way of a national agreement in which SEHD would fund the first year's licence subscription to ADB and Health Facilities Scotland would provide ongoing training and user-network support. This is now in place and NHS Boards, having recognised the merits and cost effectiveness of the system, are expected to continue to subscribe annually on their own behalf."

Did you have access to this resource? If so, what consideration, if any, was given to this?

A No, I did not, nor would I have expected to have access to ADB system itself. As far as I can remember the architects require access to system to generate appropriate codes for equipment designed - from a standard library – and our Procurement team would use the system - codes and descriptions to purchase equipment. I became involved with service users and procurement to alter/adapt

codes and/or descriptions if the generic code did not adequately reflect equipment requirements. This was generally required for more specialist pieces of equipment.

Declaration

I believe that the facts stated in this witness statement are true. I understand that proceedings for contempt of court may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief in its truth.

The witness was provided the following Scottish Hospital Inquiry documents for reference when they completed their questionnaire statement.

Appendix A

A34872080- Scottish Hospitals Inquiry- Hearing Commencing 9 May 2022 **–** Bundle 3 Volume 1 Document 4

A47069198 – Scottish Hospitals Inquiry- Hearing Commencing 19 August 2024- Bundle 12 - Estates Communications

A47851278 - Scottish Hospitals Inquiry - Hearing Commencing 19 August 2024 - Bundle 16 - Ventilation PPP

A49342285 - Scottish Hospitals Inquiry - Hearing Commencing 19 August 2024 - Bundle 17 - Procurement History and Building Contract PPP

A34872989- Scottish Hospitals Inquiry- Hearing Commencing 13 May 2025- Bundle 34 Document 62

A48235836 - Scottish Hospitals Inquiry - Hearing Commencing 19 August 2024 - Bundle 18 - Documents referred to in the expert report of Dr J.T. Walker - Volume 1

A37215538-Scottish Hospitals Inquiry**-** Hearing Commencing 9 May 2022 - Bundle 3, Volume 1, Document 4

A51652504 – Scottish Hospitals Inquiry- Hearing Commencing 13 May 2025- Bundle 43 Volume 2 Document 16

The witness provided the following documents to the Scottish Hospital Inquiry for reference when they completed their questionnaire statement.

Appendix B

N/A

Appendix C

Frances Wrath – CV Document (update of last CV completed 2001)

Education Tertiary Education

Caledonian University (Glasgow College of Technology)/ Glasgow College of Building and Printing) 1983-1987

Qualifications

Bachelor of Science Degree –Quantity Surveying (CNAA)

2, six months placements as part of degree award:

1985 – Millar & Co, Chartered Surveyors, Greenock - trainee QS

1886 – Glasgow District Council – dept of Architecture and related services – trainee QS

Employment History

GGC New Hospitals Project Team - Apr 2007-May 2015

ASR Programme – Capital Planning Manager (secondment)

Initially April 2007 – 2009

Reporting to Peter Moir and Alan Seabourne

Role was to project manage clearance of proposed site at SGH for new hospital including demolitions and service diversions. Providing details of existing infrastructure and new diversions to NSGH Project Technical team.

No real involvement in new hospitals design – just really attached to team

Role developed – 2008-2009

As role was a project manager for Acute Services Review became part of team looking at condition and occupation of various properties throughout GGC - Southern General, Victoria Infirmary, Gartnavel General and GRI.

Reporting to Alan Seabourne – occupation surveys undertaken of current Southern General, Victoria Infirmary and Western infirmary sites. Thereafter managed and directed external professional advisors to undertake conditional appraisal surveys of remaining SGH buildings, Gartnavel General and GRI sites

Role continued to develop when decision to traditional tendering process undertaken. Reporting to Peter Moir and Alan Seabourne and latterly David Loudon.

Initially primarily involved as Project Manager for new Laboratory development Also became more integrated with new hospital team primarily on schedules of accommodation and (ADB) equipment lists.

Subsequently became part of the team undertaking RDD process – primarily on finishes (floor coverings and decorations) and equipment issues/procurement.

As part of team, I tracked all changes on room layouts - as agreed with each service and signed off by them. I also maintained ADB equipment register and costs.

When Laboratory was completed, I moved onto managing installation of specialist group 5 equipment in Imaging, theatres, aseptic, pharmacy dispensary and Decontamination departments.

This work concluded early May 2025 and my secondment ended. I was transferred to capital Planning department.

Southern General Hospital – 1995 - Mar 2007 Assistant Estates Manager (Operations & Capital Planning)

Responsible for the management of the estate management function within the Estates department including the setting of budget levels, monitoring, reporting and advising on corrective action. To implement the appropriate corrective action in respect of delegated areas of responsibility.

Ensure that the Trust's assets are correctly identified and managed within the Estates remit and to provide reports on the status of assets including replacement costs.

Manage the Trust's asset management system.

Develop and implement policies and procedures for the Estates department in respect of departmental procedures.

Ensure the Trust's compliance with legislative issues is met and report to the Trust Board/ Management Executive on current position.
Provide professional advice to the Trust in respect of rateable values, capital charges, asset management, Vat reclamation, construction law, and other property management issues.
Provide and analyse management reports in respect of Estates/Property issues to the Trust.
Ensure that the requirements of internal and external Audits are implemented and advice Trust of any known impending breaches.
Development and management of design proposals for all capital works.
Manage and execute Trust's capital programme within available allocations, resources and programme.
Develop the departments computerised information systems to provide analysis of all aspects of the Estates function.
Monitor and report on the response analysis for breakdowns and planned maintenance, including the Helpdesk function.
Manage and develop the Estates helpdesk.

Southern General Hospital - 1993-95 Estates Officer – Estate Management
Responsible to estates Manager for the setting and monitoring of the Estates revenue Budget and all Capital expenditure.
Development and implementation of estates management policies.
Development of Estates maintenance procedures in conjunction with Estates manager and Maintenance Manager.
Development of reporting procedures for Estates.
Part of Trust Major Capital Projects Team.
Provided the Trust with Quantity Surveyor duties on all aspects of Estates Works.

Southern General Hospital - 1991-93 Estates Officer – Capital
Responsible to the Estate Manager for the execution, planning and costing of the Unit/Trust's capital programme.

Part of client Liaison team for Major capital Works prior to function being devolved to Trust level. Subsequent to devolved function part of Project team delivering Trust's major capital works.

Part of Trust team preparing competitive tendering documentation for the Estates function.

Provided the Trust with Quantity Surveyor duties on all aspects of Estates Works.

Harvey, Scott, Gynn and Duff - 1989-91

Senior Quantity Surveyor responsible for major developments, work comprised all aspects of construction costing and projects control from inception through to final account stage.

Fyfe Gerrard and Paton - 1987-89

1988-89 Glasgow office (2 years)

Sole Quantity Surveyor responsible to partners for all types of construction developments, work comprised all aspects of construction costing and projects control from inception through to final account stage.

1987-88 Greenock office (6 months)

Graduate Quantity Surveyor responsible to partners for all types of construction developments, work comprised all aspects of construction costing and projects control from inception through to final account stage.