Golden Jubilee Foundation Expansion Programme - Phase One
10001729
Stage 3 - Report
Ophthalmology Department

Cameron Malcolm

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Verification

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Abbreviations

AEC	AECOM, Project Managers & Joint Cost Advisors
CUR	Curtins, Civil & Structural Engineers
GJNH	Golden Jubilee Foundation/NHS Golden Jubilee National Hospital, Client
IBI	IBI Group, Architect
KCSNE	Kier Construction Scotland and North East, Contractor
KD	KD Health, Space Planners
LSA/SAA	Land Service Ammunition/Small Arms Ammunition
PSCP	Private Sector Competitiveness Project
TUV	TUV-SUD, Mechanical & Electrical Engineers

1 Executive Summary

1.1 Introduction

The intention of this report is to provide the Golden Jubilee Foundation a collated record of the outputs of the HFS Framework Stage 3 appointment, to assist in the development of their FBC submission to SGHSC on 13th Nov 2018. The report has been developed through partnership working between AECOM, Kier and the PSCP Design Team.

Throughout the development of the Stage 3 proposal, the Project Team has consistently referred to the Clinical Brief and site masterplan to inform the development of the design solution for the site. This has been bolstered by ongoing engagement with both clinical and non-clinical stakeholders to test the suitability of the technical design. This report provides an overview of the design developed in response to the Client's Brief, the commercial assessment of this and the alignment of the proposals with the Board's key constraints identified in their Initial Agreement.

1.2 Commercial Proposal

The commercial proposal detailed further in section 3 and 4 of this report, identifies the Client's original identified budget and the forecast outturn capital cost of the proposal developed during Stage 3. This is further detailed within the Cost Plan in Appendix 2. This has been developed in conjunction between Kier and the Joint Cost Advisor (AEC).

1.3 The Technical Proposal

The procedure for the management of the design has been set out in the Design Quality Plan and is contained in Appendix 7 . These procedures have been adopted and regularly reviewed to ensure that they are being complied with and operating effectively.

The design proposals as set out in this Stage 3 Submission comply with current SHTM's and Golden Jubilee Policies at the time of submission except where stated in the draft derogations schedule in Appendix 14 .

Engagement with NHS throughout the design development process has been of paramount importance to deliver the requirements of the Brief. A Schedule of Accommodation has been developed and maintained throughout to track the design development and increases / decreases in GIFA. This Schedule of Accommodation is contained in Appendix 14 .

Throughout the process we have engaged consistently with End Users to ensure the design develops to their needs and that they are fully informed throughout the process. A summary of Senior User Sign Offs is contained in Appendix 5 .

1.4 Programme

During Stage 3 the master programme was reviewed in detail and further developed for the delivery of the Phase 3 works. The further development of this programme was a collaborative effort and was informed through dialogue with the full team (including the Design Team), to ensure buy in from all contributing parties. At the time of submitting this report, the Stage 4 Construction Programme Appendix 6 , has been issued to the client. They have asked for the programme to be reviewed by a third party and this is currently under way. The final

programme will be agreed in due course and will form part of the contract. Business Case Objectives

2 Business Case Objectives

2.1 National Drivers for Change

The Golden Jubilee Foundation Board's 2020 strategy and Local Delivery Plan (2016 – 2017) identified the development of new elective care capacity as a key priority. The Scottish Government 'Health and Social Care Delivery Plan' published in December 2016 confirmed:

"By 2021 we will complete investment of £200million in new elective treatment capacity and expand the Golden Jubilee National Hospital. Overall this investment will ensure that there is a high-quality and adequate provision of elective services to meet the needs of an ageing population".

The Board has advised there is a requirement that some of the additional elective care capacity is available prior to 2021 (to meet the substantial increase in demand for cataract surgery by 2019/2020). To address this challenge the programme of investment has been separated into two phases, Phase 1 will be delivered in 2019/20 to meet the more urgent demands for cataract surgery with Phase 2 delivered during 2021.

A detailed capacity and demand analysis exercise was carried out during 2015 to assess the predicted demand on elective/scheduled care services over the next ten years in Scotland. GJF worked in partnership with the Scottish Government and a number of NHS Boards to examine projected population increases, the effect of an increasing older population and the resulting increase in demand for health and care services. In particular, volumes of cataract and hip and knee replacement surgery have increased by at least 90% since 2002; with this significant growth rate is expected to continue.

This growth in activity is set against the backdrop of increasing capacity challenges in NHS Scotland leading to difficulties in meeting waiting times and an increased use of private sector capacity. The existing capacity and demand modelling is being refreshed to reconfirm the activity requirements for elective surgical care between now and 2035.

The Foundation has advised that its key objectives are;

(a) To create sufficient elective care capacity for the West of Scotland region to meet the predicted need for elective care by 2035

(b) To provide innovative patient centred models of care that are both efficient and sustainable

(c) Reduce or eliminate routine use of the private sector

(d) Reduce the chances of cancellation of elective surgery

(e) Enable delivery of current and future Government waiting time guarantees on a sustainable basis

To deliver increased efficiency and productivity, adopting the principles of Better Care, Better Health and Better Value as set out in the Scottish Government "Health and Social Care Delivery Plan" published in December 2016.

2.2 Proposed Outcomes

To assist the Golden Jubilee Foundation Board in meeting the objectives identified under 2.1, it has been identified by the Board that the new integrated unit, to be delivered under Phase 1 of the Golden Jubilee Foundation Expansion Programme, will include a minimum of six procedure rooms and a large suite of outpatient/pre-operative assessment space to support the delivery of a minimum of 18,450 procedures and 24,600 outpatient consultations/pre-operative assessments per annum.

The proposed outcomes identified by the Golden Jubilee Foundation Programme Board, have ultimately informed the Clinical Brief and design developed and contained within this submission.

2.3 Client's Brief

The PSCP appointed KD Health, Health Planners (KD), to assist Golden Jubilee Foundation/NHS Golden Jubilee National Hospital (GJNH) in the development of their Clinical Brief for Phase 1 of the expansion programme. The Clinical Brief was formally approved by the GJF Board on 9th October 2017. A copy of the approved Clinical Brief can be found in Appendix 1 of this Report.

"In the absence of an existing Technical Briefing Document, a work-stream was set up early in Stage 3, to review and agree the Technical Briefing requirements for the new facility. This has become the reference point for the development of the technical design and the output can be found in Appendix 20 of this report.

2.4 Timescales for Approvals

Please refer to the Project Programme in Appendix 7 . The following key milestone dates are identified:

(f) Stage 2 Proposal Submission Date – 2 February 2018

(g) OBC Submission Date to CIG – 31 May 2018

(h) OBC Approval Date – 25 July 2018

(i) Stage 3 Commencement Date – 29 November 2017 (1:50 design)

(j) Stage 3 Proposal Submission Date – 29 October 2018

(k) FBC Submission Date to CIG – 13 November 2018

(l) FBC Approval Date – 10 December 2018

(m) Instruction to progress to Construction Stage – 22 January 2019

3 Economic Case

3.1 Project Budget

The project affordability limit was identified through early engagement the Golden Jubilee Foundation and tested with the PSCP on appointment via benchmarked costs per m2 for similar projects (excluding abnormal costs). The GIFA discussions and movements were influencing the pressures on the project budget noted at circa £7.5m ex VAT. The project

proposals have been developed with full cognisance of the project budget as one of the key constraints to ensure the project is deliverable for the Board.

3.2 Cost & Risk Estimates

The target cost has been developed using the most competitive compliant tender returns from the market testing process. The PSCP & Aecom have jointly reviewed all tender returns to check for compliance and to check for best value for money. The PSCP direct fees for Stage 4 have been agreed in line with the HFS Framework procedures and guidelines. A risk register has been agreed between all parties to allocate risk as appropriate and a sum has been allowed within the target cost. A value engineering exercise was complete, and the agreed options have been included in the agreed target cost.

A detailed breakdown of the target cost is included in Appendix 2 which details all additional employer's risks, exclusions, agreed value engineering & clarifications.

4 4.0 Value for Money Assessment

4.1 Target Cost

The target cost has been agreed at £10,136,596.39 with exclusions as noted on the target cost submission. The target cost has been fully market testing through the stage 3 process to provide best value for money in line with the HFS Framework procedures and guidelines. A detailed breakdown of the target cost is included in Appendix 2 which details all additional employer's risks, exclusions, agreed value engineering & clarifications.

4.2 Value Management Tracker

All key decisions within the design development process have been made to provide best value to the Golden Jubilee Foundation. Best value does not mean lowest cost but is an overall judgment about cost against benefit. A copy of the Value Management Tracker can be found in Appendix 15 .

The focus at this stage has been on how the needs of the Client have been responded to during the Stage 3 design process. In particular how this process has added value through innovation, a thorough investigation into the needs of the Client and the options which have been considered to address these needs. The Value Management Tracker details the proposed design and operational solutions considered throughout the Stage 3 technical design, identifying the potential benefits and constraints and recording the decisions made by the Client body regarding their implementation on the project.

4.3 Risk Report

A copy of the Stage 3 Risk Register can be found in Appendix 3 . A summary of the top-rated risks identified in the Risk Register is provided below:

Ref	Risk description	Risk Owner	Time Scales longevity	Risk target			Current Mitigation and risk level			
				Likelihood (initial)	Impact (initial)	Risk score (initial)	Current controls in place	Likelihood (initial)	Impact (initial)	Risk score (initial)
Site Issues										
1.2	UNFORESEEN GROUND CONDITIONS Ground conditions during construction phase discovered.Unforeseen ground conditions lead to variations and the requirement for remedial works to enable construction works to progress. Potential addition time, cost and quality implications.	NHS	Jul 2019	2	3	6	SI and GPRS surveys undertaken. Enabling works package to be undertaken which will assist in de-risking impact of unforeseen ground conditions prior to main works commencement.	4	3	12
1.5	UNFORESEEN GROUND CONTAMINATION Discovery of contaminated land requires significant remedial works. Time/Cost impact.	NHS	Jul 2020	2	3	6	It is known that full site remediation was carried out previously. Site surveys have been undertaken and site contaminants identified. A management report has been commisioned to identify the remediation strategy required. Small pocket(s) of asbestos identified through site surveys.	4	3	12
1.8	WORKING IN A LIVE SITE PLANNED DISRUPTION Delays and reputational damage associated with disruption working in a live site.	PSCP	Jul 2020	2	4	8	Detailed programming and phasing of works to mitigate disruption to live site. And ongoing communication with Health Board will take place.	3	4	12
1.12	PHASE 1 WORKS IMPACT ON LIVE HOSPITAL MAIN ENTRANCE Business continuity risk and building user safety risk	NHS	Jul 2020	2	4	8	Review of alternative entrance strategy underway. Site access plan in place that mitigates potential impact on existing main entrance.	3	4	12
1.15	UNEXPLODED 2ND WORLD WAR BOMBS Discovery of unexploded bombs during site excavation. Programme delay and cost associated with disarming and removing bombs discovered. Health and safety risk associated.	NHS	Jul 2020	2	4	8	UXO surveys undertaken during Stage 1. Agreed protocol in place should unexploed bombs be encountered. Probing will be required prior to any ground works on the site. UXO probing included in enabling works scope.	3	4	12
1.16	TEMPORARY POWER & WATER CONNECTIONS Closest source of power to the construction site is 75 m and through the live hospital building. Potential risk of disruption and stoppages.	NHS	Jul 2020	2	4	8	Dialogue required with Estates Team in advance of works commencement to plan access routes and controlled shut downs to coordiante connections.	3	4	12
2. Utility/Services Issues										
2.7	Achieving HFS/NHS thermal modelling requirement for the building. Outcomes may result in change in current thinking's on proposed fabric and m&e specifications.	PSCP	Dec 2018	2	4	8	Detailed simulation exercise will be required. CIBSE 2020 forecast weather data advised as required. Thermal modelling data issued to HFS for comment.	3	4	12
3. Procurement and Commercial Issues										
3.1	CAPEX ESTIMATION ERROR The estimated cost of construction may be incorrect. Failure to present the works within the required affordability cap will impact on OBC and FBC approval.	PSCP	Dec 2018	3	3	9	Ongoing affordability checks carried out throughout the design process. The works are to be a 100% market tested at financial close, enabling confirmed cost for delivery of the works. VM to progress through design stages. Market returns are elevated from original Cost Plan. VE exercise underway.	4	3	12
4. Design Risks										
4.12	CLEAR IDENTIFICATION OF DEROGATIONS Failure to identify agreed derogations at the outset, lead to dispute of scope of works in construction delivery phase.	PSCP	Jul 2020	1	3	3	PSCP to produce a derogation schedule for NHS agreement and sign off for inclusion within the Stage 4 contract information.	4	3	12

5 Technical Solution

5.1 Meeting Specific Client Requirements (Clinical & Technical)

Following sign off of the 1:500 and 1:200 design at Stage 2, this enabled the 1:50. The same user group that was engaged at the previous design stages were involved in the development of this detailed stage of the design, which enabled a consistent approach to be maintained and clear back to the Clinical brief and previous design stage rationale.

The 1:50 design commenced in February 2018 and took place over a series of workshops with the user group. Following a period of review, this design was formally signed off on 24 August 2018. The signed off 1:50 design pack is included in Appendix 5.

5.2 Design Stage and Quality

5.2.1 Design Stage

The Project has been developed in alignment with the site wide masterplan developed in the early part of 2017, under a separate commission by the Golden Jubilee Foundation Board. The design has been developed to its current stage in close consultation with both clinical and non-clinical Client User Groups.

The 1:500 design phase was concluded in October 2017 in line with the identified programme, however following a request by the Golden Jubilee Foundation Programme Board, to review the orientation of the building, the 1:500 design continued to develop in parallel with the 1:200 design which commenced in November 2017.Ultimately this resulted in final sign off of the 1:500 layouts on 14 December 2017.

Further revisions to the design were undertaken to reflect design development of the 1.50 loaded drawings together with coordination of the structure and engineering services and a further sign off of the 1:50 design by the client took place on the 24/08/18.

In addition to the architectural engagement with Clinical Users, the following meetings have also taken place, to inform the emerging technical design solution;

(a) Estates workshop

(b) ICT workshop

(c) Security workshop

(d) ACR workshop

(e) HAI-Scribe workshop

(f) AEDET Workshops

(g) HFS/A&DS Engagement

5.2.2 Design Quality

Through the implementation of the Golden Jubilee Project 1 – Ophthalmology Design Management plan a structured working environment has been created in which design excellence can flourish to the benefit of our client, their patients and the surrounding community.

A quality plan has been developed (appendix 7) which distinguishes the tasks which are required to ensure that adequate information is identified and then made available to the appropriate recipients to review the works in accordance with the contract. Frameworks have been put in place and a collaborative atmosphere has been created to allow this process to be undertaken such that the design is developed on programme and is cost effective.

5.3 Stage 3 Design Proposals

An executive summary statement from each of the primary consultants identifying the design strategy, including associated reports and drawings are contained in Appendix 5

5.3.1 Architectural Executive Summary

The design of the Integrated Ophthalmology development has been undertaken in close collaboration with the Golden Jubilee National Hospital and has been developed to ensure that the key objectives identified for the project identified in the SCIM Design Statement from March 2017 and the Clinical Brief developed by KD Health during the initial stages are satisfied.

From the outset the Scottish Government requirement for additional high quality elective care capacity has been the key driver for the development and the ability of the design to facilitate the delivery of efficient, flexible, innovative and integrated clinical services in an open and welcoming environment has been assessed at regular intervals with improvements made in the layout to ensure that this is optimized.

The Design Principles incorporated in the Clinical Brief identify the requirement for an Integrated Ophthalmology Unit that delivers safe, effective person-centred care in a functionally effective and efficient environment that is also open, light, welcoming, friendly, secure, accessible and calming with views to the outside.

The agreed layout achieves these requirements by locating the two key elements of the unit, the Outpatients zone and the Surgical Procedures zone in adjacent elements of the building, arranged around a central courtyard space, with clearly identifiable and differing forms and architectural treatment for the two zones. Access via the Main Entrance for the public is in a prominent position at the junction of the two zones, minimizing internal travel distances and making a clear separation of routes for the two patient groups immediately upon entrance to the building.

The Outpatients zone is accommodated within a distinctive, curved, single storey block located to the South East of the existing Hospital Main Entrance while the Surgical Procedures zone is immediately to the South, in a two-storey block. At the Western junction of the two elements a single storey link corridor joins the new building with the existing Hospital provided an enclosed route for staff, FM Services and in the event of an emergency only, patients to access the Hospital via the existing Orthopaedic Outpatients Department.

The proposed development provides the rooms listed in the agreed Schedule of Accommodation in an arrangement that meets the user's key requirements for the shortest possible travel distances for patients with observation by staff of these busy areas, particularly in the case of the Outpatients area, facilitated by the layout of the department. The layout of the paired Ophthalmic Theatres and the adjacent Admissions & Discharge area have also been the subject of detailed design development to enable the efficient and safe delivery of surgical services for the large numbers of patients who will use the facility.

The courtyard around which the curved form of the Outpatient zone is wrapped will provide natural light to the surrounding accommodation and an attractively landscaped heart to the development, visible from the Education and Information Room, several the Outpatient Consultation Rooms and most importantly Waiting area for Admissions & Discharge where patients awaiting surgical procedures may be required to wait for some period of time. Although the provision of natural light within the building will have a significant benefit for patients and staff, care has been taken to ensure that the levels of lighting can be controlled where necessary to suit the clinical requirements of specific spaces or to avoid glare and discomfort for pre-surgical patients. The naturally ventilated Outpatients zone will be provided with ventilation by way of a large opening lights incorporated into the windows with external fixed louvres. Internal blinds will cover the fixed lights to control lighting levels for ophthalmic examinations while ventilation into the room can take place via the opening lights with light ingress limited by the fixed louvre element. Meanwhile the glazing to the Main Waiting area

and the Admissions & Discharge Waiting area will both incorporate decorative manifestation at high level to reduce the risk of glare for patients undergoing treatment procedures.

The form of the building will provide shelter to the courtyard in what is a fairly exposed site that is open to the prevailing winds from the South West. This will support the provision of more decorative planting than in the areas that surround the building perimeter and, if required, will provide staff and patients with valuable external space.

The Surgical Procedures zone will be flat roofed with Staff Changing and Rest facilities at First Floor level adjacent to the Outpatient zone. The Staff Rest Room has been located to the East of the building to provide views out to the East towards Glasgow City Centre and the adjacent River Clyde. The accommodation at First Floor level is linked to the Ground Floor by way of two stairs, one at the East and one at the West where a small lift will also be located. These stairs will enable staff to move quickly to and from the staff zone to all the clinical areas at ground floor level. This area will also incorporate a substantial Plant-room accommodating a significant area of mechanical and electrical engineering plant and equipment. A large area of open flat roof, above the Ophthalmic Theatres and located to the South of the Plant-room will accommodate several air handling units and condensers. These will be screened from view from Ground level on all sides by open louvre screens

Although the Integrated Ophthalmology development is to be a key development undertaken by the Golden Jubilee National Hospital delivering vital clinical services to a large number of the Hospital's patients, it was felt that use of matching materials would not be appropriate for a new development of very different scale and form. As a result a more distinctive external palette of materials has been selected as shown on the following elevations, which has been selected in parallel with the Board.

To emphasise the curving form of the Outpatients block rain screen cladding incorporating narrow flat dark coloured panels installed vertically will wrap around the exterior. Large windows incorporating louvered ventilators and framed with bright coloured perimeter trims will provide interest along this public elevation to the building. The two-storey element of the surgical block will be clad in composite insulated panels of a similar appearance to the rain screen cladding thereby visually uniting the two elements of the building. Meanwhile the single storey element closest to the River Clyde will be clad in a buff/brown brick providing a contrast with the dark cladding, both in terms of texture and colour.

5.3.2 Civil Structural Executive Summary

The site sits alongside the River Clyde with localised risk of coastal and surface water flooding. As a result, a 1 in 1000-year flood event was highlighted in the Masterplan as requiring a design response. This requirement could have potentially led to a floor level within the extension which would be higher than the surrounding Hospital. This change in level while protecting against potential flooding would have made the physical communication between the Appurtenance and the Hospital more difficult. In response a Flood Risk Assessment (reference [1]) was commissioned to assist in informing the conversation with planning. After receiving this technical documentation in February and listening to the evidence put forward by the design team regarding the potential loss of functionality the planning department decided to waive this condition.

The C&S engineer (CUR) commissioned and issued a Detailed UXO Risk Assessment.(reference [2]) The findings led them to conclude there was a "Medium" to "High Risk" that items of unexploded German air-delivered and anti-aircraft ordinance could have fallen within the proposed site boundary. Also, the risk from Allied LSA/SAA had been assessed as "Medium" to "High Risk." Due to the presented risk level intrusive surveys were

carried out in the presence of specialist support as part of the normal "Site Investigation" work to a maximum bomb penetration depth No UXO were discovered as a result of this detailed analysis of the site. It is worth noting that the same specialist support will ensure that UXO awareness briefings of all personnel conducting intrusive groundworks, such as piling are carried out during the construction process.

(CUR) completed and issued a Phase 1 Environmental Report during stage 2 (reference [3]).

(CUR) scoped the required ground investigations during stage 2 and this was carried out during the early part of stage 3.

It is assumed that the existing piles which are believed to have been installed through the new site are of a similar layout and size as the piles shown on record drawings under the existing building. The Phase 2 intrusive Site Investigation has included invasive work to uncover the heads of the installed piles for KCSNE to survey – none of which were found.

The site was previously earmarked for future expansion therefore existing hospital services in ground all run outside of our site boundary. The critical nature of the health services provided by the existing hospital means there would potentially be severe consequences if incoming utilities were disrupted, particularly electrics, medical gas, water supply, mains gas etc.

The stability of the new works is to be provided by a combination of shear walls, located around stair, lift core and bracing bays, located within solid walls around the building perimeter.

New piled foundations are proposed with reinforced concrete pile caps and ground beams to support the superstructure. A new ground bearing slab is proposed with damp proof and a gas membrane.

A new steel frame structure with cast in situ concrete floors is proposed for the building and typically a concrete slab roof with waterproofing to architect's specification. A single pitched truss roof is proposed over the outpatients' department and the patient waiting areas/corridor.

Edge protection will be required to all areas of accessible roof. Cleaning and maintenance should typically be able to occur from below both of facades and gutters using cherry pickers at ground level and poles from roof level.

Internally, balustrades will be provided at stairs and landings which are proposed to be fixed to the steel frame rather than to the concrete slab.

New pavements will be required to tie in with existing and provide access routes to the building entrances and around the building for maintenance.

No changes to the existing roads and parking are proposed.

New foul drainage runs are required to connect the new building to the existing in ground site infrastructure. It is understood that the existing hospital drainage was future proofed for an extension and therefore drainage spurs are positioned in ground at manholes in proximity to the site for connection into.

Any new development site drainage should be designed in accordance with current best practice to provide adequate capacity so that the proposed surface water drainage network shall be designed so that flood water generated up to the 1 in 200 year plus climate change storm event shall be constrained within areas on site so not to cause damage to buildings, essential services or adjoining developments and services.

For this drainage strategy, it is currently assumed that infiltration won't be possible.

The extension surface water drainage will connect into the existing sewer system, via appropriate treatment and storage.

The Building is classified as RG2b (reference [4]) as the Hospital building less than 4 storey's in height.

The following is a list of contractor's design packages which will be included in the contract:

piling

curtain walling

concrete stairs

lift installation

SFS

5.3.3 Mechanical & Electrical Executive Summary

During stage 2 the "Building Services Strategy" report had been prepared (Document No. GJ1-TUV-ZZ-ZZ-SP-E-6000-0001) provides an overview of how the building services were intended to be incorporated within the new Ophthalmology Unit Appendix 5 . Then during stage 3 this strategy evolved into a full set of mechanical and electrical proposals

The design proposals within this works package show that the intention is to deliver comfortable environmental conditions and provide practical and value engineered solutions suitable to a medical environment, to meet the needs of the new facility.

The mechanical, electrical and public health services are designed to provide efficient, safe, secure services. These have been designed in accordance with the ACR's that were developed in collaboration with the Golden Jubilee Foundation, British standards, CIBSE guides and the NHS guidance documents (SHTM's, etc.).

The service routing and spatial co-ordination has been undertaken using Building Information Modelling (BIM), this is an interactive process and the team will continue to develop this through the construction stages to ensure the full benefits of BIM for both the Construction and Operating Stages.

5.4 Desktop Study & Reports

Several desktop studies were carried out during Stage 2 and stage 3 which can be found in Appendix 16 . A summary of these surveys is detailed below.

5.4.1 Mechanical & Electrical

As part of the investigation work, a full search of the existing site utilities was carried out to ascertain the location of all Scottish Water, Scottish Power, Scottish Gas Networks and British Telecom information.

This was done to establish the viability of utilising the existing services for the new facility as well as ensuring the new facility was not infringing on any existing utilities.

The findings and details from this search are contained within the "Existing Utilities" report (Document No. GJ1-TUV-ZZ-ZZ-SP-E-6000-0004) in Appendix 5 .

Following detailed review, the conclusion is that there are no utilities shown by any utility provider as being a hindrance to the proposed development. It will also not be necessary to utilise any existing utilities to supply this building due to being able to utilise the existing hospital infrastructure.

5.4.2 Civil & Structural

(a) UXO investigation: as mentioned in section 5.3.2 (CUR) has mentioned they have commissioned and issued a Detailed UXO Risk Assessment [3] along with appropriate responses to the risk form unexploded munitions Ref.

(b) (CUR) has completed and issued a Phase 1 Environmental Report

(c) (CUR) has scoped the required ground investigations and issued for tender.

(d) (CUR) have reviewed BGS records which indicate Made Ground deposits are underlain by Quaternary Superficial deposits associated with the river. Bedrock at depth consists of sedimentary layers of mudstone, siltstone etc. This has informed the substructure concept design strategy.

(e) While we are waiting on further news from the planners on their view as to whether there is a requirement to raise the building above the 1:1000-year flood event. Meantime (CUR) have been asked to undertake a Flood Risk Assessment of the site to better inform any potential further discussions.

(f) (CUR) has scoped the required ground investigations and issued for tender

(g) (CUR) have reviewed BGS records which identify the characteristics of the existing Hospital substructure and superstructure, so this can better inform the concept design.

(h) (CUR) have reviewed BGS records which identify that the site may have been piled in advance of some previously envisaged future construction Phase. This initial GPR survey has been undertaken but has proved inconclusive. As part of the future site investigation it is the intention to site scrape and uncover the pile heads (if they indeed exist) and locate their presence. This will better inform the detail design of the substructure.

(i) (CUR) have reviewed BGS records and identified the location of the foul and surface water sewer.

(j) (CUR) have on the back of these desktop studies carried out a Risk Assessment which identifies the following;

- Current Site Status
- Site History
- Geology
- Hydrogeology
- Hydrology
- Unexploded Ordnance
- Initial Ground Contamination Assessment
- Ground Engineering Considerations

The study has then informed the site investigation and survey activities referred to in section 5.5.3.

5.5 Site Investigation & Surveys

The following site investigations & surveys were carried out during Stage 2: A copy of the survey findings can be found in Appendix 16 .

5.5.1 Mechanical & Electrical

As noted in section 5.4.1, a full search of the existing site utilities was carried out to ascertain the location of all Scottish Water, Scottish Power, Scottish Gas Networks and British Telecom information and the findings and details from this search are housed in the “Existing Utilities” report Appendix 16 .

Multiple initial non-intrusive site surveys were also carried to establish the existing services solutions culminating with an intrusive survey of the site ceiling void of Level 1 which was carried out on the 30th November 2017.

For the survey of the 30/11/2017, refer to the 30th November 2017 Survey Report contained in Appendix 16 .

A further site survey on the sixth floor through the plant rooms and walkways to the stairwell was carried out on 6th December 2017 to review the existing services and the potential to connect into them and routing to the new extension.

Action: executive summary referring to Stage 1 and 2 including key assumptions: The following should be considered for inclusion

5.5.2 Environmental matrix Introduction

To give an overview of the environmental conditions being designed to within the building, an environmental matrix (GJ1-TUV-ZZ-ZZ-SP-M-6000-0002) has been produced that shows the conditions used to develop the current design.

The matrix includes details on the following:

(a) Temperature

(b) Heating

(c) Cooling

(d) Ventilation

(e) Safety Temperatures

(f) Lighting

(g) Clinical Risk Profile

This matrix has been presented to the GJF and all comments incorporated.

5.5.3 Civil and Structural Engineers

The following surveys are a response to the desktop studies referred to in Section 5.4.2 . Some of these have already been carried out or are in the process of being carried out and some are planned in the immediate future:

(a) Undertake the recommendations specified in the Detailed UXO Risk Report;

(b) Undertake an intrusive ground investigation;

(c) Undertake a GQRA as part of the ground investigation; and

(d) Undertake ground gas monitoring.

(e) CCTV survey: refer to the EEG survey of the drainage

(f) Topography and GPR survey

(g) Ecology survey

5.6 BREEAM Approach

As defined in the SCIM Guidance, 'The Scottish Capital Investment Manual requires that all new build above £2m are required to obtain a BREEAM Healthcare (or equivalent) 'Excellent' rating'. Following guidance sought from HFS, during the Stage 2 process, it has been established that HFS is willing to review the proposed BREEAM credits to be targeted for the new build facility, to enable a pragmatic approach to the design to be taken.

Hulley & Kirkwood (H&K) has been engaged as the BREEAM Assessor for the project and a BREEAM Pre-Assessment review was carried out on in January 2018 with a further update in September 2018.

(H&K) has developed a bespoke BREEAM tracker document. This document provides a more intuitive mechanism to evaluate, monitor and predict the BREEAM scoring.

The tracker allows credit headings to be allocated to appropriate members of the design team and allows credits to be categorised in terms of risk, cost, value and difficulty.

Credits within the checklist have been broken down into four distinct risk categories:

(a) Anticipated Credits – Low risk, best value BREEAM Credits which form the basis of best practice design and which benefit the overall design with limited additional cost

(b) Target A Potential Credits - Medium risk, technically challenging credits above best practice design which have implications on project cost, procurement strategy and site space requirements

(c) Target B Potential Credits - These credits have high associated risk, due to uncertainty about aspects which are to be assessed or likely to be out of the control of the design team. These credits cannot be guaranteed

(d) Unlikely credits - credits which are deemed unobtainable/unlikely due to the nature of the site, the nature of the building operation or due to the project scope

The potential score sits at 58.19 - 'Very Good', a copy of the BREEAM objectives report is included in Appendix 10

5.7 BIM

The use of Building Information Modelling (BIM) creates a collaborative working environment for the project, with the full team sharing information through the Common Data Environment (CDE).

Golden Jubilee Project 1 – Ophthalmology has a requirement to achieve BIM Level 2 maturity and therefore, as well as all of the relevant BIM software being utilised, the full team will ensure they align to the BIM Execution Plan (BEP), LODM and all associated BIM Protocols, Guidance and Standards set for the project in accordance with the Employers Information Requirements

(EIR) and underlying principles of 1192 series of standards and specifications. As part of the BIM process the team will also assist the Employer and their Facilities Management Team to fully define the scope of any project specific enhanced BIM handover requirements e.g. COBie data.

BIM improves coordination across the disciplines, using 3D models and automated clash detection software, helping to greatly reduce issues at the Design Stages before reaching site and can also aid in the validation of quantities for sub-contractor packages. Furthermore, due to the nature of this project, BIM will assist stakeholders and the project team to better understand the scale and scope of the proposals against the existing building, due to being able to view the proposals in a 3D environment rather than solely 2D layouts. This experience can be further enhanced using 4D programming, virtual reality and 3D photo captures of the existing building using cloud scanning tools, among others. Appendix 17 .

5.8 AEDET

The Stage 2 AEDET workshop took place on 13 December 2017. The output of this workshop can be found in Appendix 12 . The stage 3 workshop took place on 30 October 2018.

5.9 HAI-Scribe

The Stage 2 HAI-scribe took place on 6 August 2018. A copy of the HAI-scribe is included in. Appendix 13 . The Stage 3 (pre-construction) HAI-scribe took place on 7 November 2018.

5.10 Derogations Schedule

5.10.1 Architect

The Scottish Health Planning Guidance - published on the HFS website has been used as the reference document for the current applicable healthcare technical guidance which the design is required to comply with. This is in accordance with the works information.

A derogation schedule has been prepared which references the current legislation and provides details of any derogation which has been applied to the design. The derogation schedule will be agreed with the GJF Board and this document will be referenced in the final construction stage Works Information.

A copy of the current iteration of the Derogation schedule is contained in Appendix 14 . This document is currently under board review.

5.10.2 M&E SM (TUV)

The “Derogations” report has been produced to demonstrate the building services derogations that will be required for the new facility. This can be found at Appendix 14 .

5.11 Strategy for Stage 3 Stakeholder Engagement

A detailed programme for the review and updating of 1.50 scale C Sheets showing room loading and component schedules had been established with the users during stage 2. This had been organized into 4 groups to suit the requirements of the task. A copy of this programme is included in Appendix 18

The development of the design during the Stage 3 process has focussed on working closely with the user representatives to develop and agree 1.50 Loaded Drawings for the entire scheme. The users were organised into 4 groups, each group being associated with a specific area of the development and a sequence of user review meetings was arranged on a fortnightly basis. An initial set of ADB Room Data Sheets based on assumed equipping was issued at the commencement of the process and these were used to generate C Sheets for each room type which incorporated a 1.50 scale loaded plan and wall elevations, a 3D image taken from the Revit model and a list of all equipment and groupings. Comments made at the meetings were noted on the drawings and these, together with subsequent user comments collated by the client's Clinical Lead, were incorporated into updated versions of each C Sheet for further review by the users. At the end of the process a set of C Sheets for all rooms together with a full Component Schedule was assembled and issued to the users for sign off with comments.

Two day-long workshops have subsequently been undertaken using Virtual Reality equipment to enable a range of user representatives to review specific areas of the loaded Revit model and this has enabled a much clearer understanding of the proposed room sizes and equipment layout. Sign off the 1.50 loaded drawings by the client was confirmed on 24 August 2018.

In addition to clinical users, there is also been ongoing dialogue with the GJF Estates team to review the emerging technical design proposals throughout stage 3.

5.12 Construction programme

The construction programme is currently in development. The attached extract from the latest programme indicates the anticipated duration. This is subject to a third party review. The final programme will be agreed in due course.

5.13 Methodology

The Construction Methodology Plan Appendix 19 is a dynamic document demonstrating how Kier will plan and construct the works, with due regard to safety, health and environmental matters. The methodology includes 3D logistic images of the site to help demonstrate the logistics in a more dynamic format.

The identification of project specific SHE issues and the way the construction phase will be managed will be set out within the Construction Methodology Plan. The plan sets out the organisation and arrangements that have been put in place to manage risk and co-ordinate the work on site. Kier Group Safety, Health and Environmental Considerations have all been considered when determining project specific requirements; the plan will be used to demonstrate the construction methodology to all the different stakeholders involved in the project.

The Plan will be reviewed monthly to ensure the methodology is kept up to date will the developments within the project.

On completion of the project the Plan will be archived as appropriate and will be issued to the Estates department for future reference.

6 Third Party Approvals

6.1 Detailed Planning Permission / Planning Conditions

The Project Team has been in regular dialogue with the West Dunbartonshire Council Planning Department, throughout the Stage 2 and 3 design processes.

A Full Planning Application was submitted by IBI Group via the online e-Planning Scotland portal on 5 June 2018 with two further supporting documents submitted subsequently once they became available. The Application comprised architectural plans, elevations, sections, a Design Statement, Flood Risk Assessment, Drainage Strategy, and Travel Plan together with Acoustic, Ecological, Site Investigation and UXO surveys.

Planning Approval was granted on 13 September 2018 with the Decision Notice issued on 14 September 2018. 17 Conditions are associated with the Approval and details of these are shown in the Condition Tracker in Appendix 21 A number of the Conditions are required to be satisfied prior to the commencement of development however the Planning Officer, [redacted] has confirmed that this will not be subject to strict enforcement by the Planning Authority. Information has been returned to the Planning Authority in respect of 7 of the Planning Conditions with further information due to be issued shortly.

6.2 Building Warrant Status

The Project Team has been in dialogue with the West Dunbartonshire Council Building Control Department, during the Stage 2 &3 design process.

A meeting took place between John Scott of GJNH, [redacted] of IBI Group and [redacted] of West Dunbartonshire Council Building Standards on 5th October 2017 to review the nature of the development and whether it would be a 'stand-alone' building or an extension as this would impact on the extent of requirements for thermal calculations to accompany the Building Warrant application. The programme for the application was discussed and the probable requirement for progressive applications for Building Warrants was identified due to the relatively short pre-construction period. It was agreed that further liaison would take place as the design progressed.

During Stage 3 a further meeting took place on 20 June 2018 with representatives of IBI Group, Curtins, TUV SUD and Atelier Ten in attendance. The proposed staged building warrant process was reviewed together with proposed details of the development including Fire Strategy, mechanical & electrical services and drainage design.

The proposed sequence for the staged Building Warrant process is as follows;

(a) Warrant 1 (9th October 2018) - Piling, Groundworks, Foundations & GF Slab and Below Ground Drainage

(b) Warrant 2 (1st March 2019) - Structural steel frame, Upper Floors, Metsec & External Envelope, Windows, and Stairs etc.

(c) Warrant 3 (21th May 2019)- Fire, Sanitary, Energy, Heating/Vent, Lift, Above Ground Drainage etc.

(d) Warrant 4 (1st November 2018)- Landscaping/external works

6.2.1 SER Certification

The building is to be certified by Curtins under the SER registration.

Any contractor designed elements, or elements not fully specified by the architect and not noted in the list above, will not be certified until sufficient calculations and details are supplied to the certifying engineer or sufficient information is available for design to be undertaken and certified by Curtins. These elements will be certified as a different stage. Examples are curtain walling, cladding etc.

An alternative is for items to be specified, designed and certified for warrant purposes and if the contractor decides to change the specification of an element this will be subject to an amendment to the warrant.

Subject to the proposed certification plan, the SER Certifier needs to be provided with the relevant design documentation with sufficient time to review and certify at the required point in time.

The SER certifier needs to list all drawings used to certify the building. Therefore, the architect needs to supply to the certifier copies of the warrant drawings one week before the certificate is issued to ensure all elements are certified correctly

6.2.2 Draft Certification Plan

(a) Piling design by specialist contractor. Design to be reviewed by SER certifier prior to certification and relied upon.

(b) Concrete foundations by Curtins. Design to be checked and certified.

(c) Concrete ground bearing slab by Curtins. Design to be checked and certified.

(d) Steel superstructure by Curtins. Design to be checked and certified.

(e) Steel connection design by specialist contractor. Design to be reviewed by SER certifier prior to certification and relied upon.

(f) Handrails and parapets by Curtins. Design to be checked and certified.

(g) Cladding supporting secondary structure by Curtins. Design to be checked and certified.

(h) Lightweight steel trusses to pitched roof by specialist contractor. Design to be checked and certified.

(i) Glazing fixing details by Curtins. Design to be checked and certified.

(j) Window/curtain walling products to be reviewed by Curtins upon specification by architect. SER certifier to review and make informed decision on level of design calculations required by Curtins prior to certification.

(k) Stair design by Curtins. Form to be discussed with Kier and SER certifier to review and make informed decision on level of design calculations required by Curtins prior to certification.

7 Land Matters

7.1 Land required to be used in the new project

The redline boundary drawing for this project is shown in appendix 10. The location identified is in accordance with the site masterplan. Ancillary access protocol and reserved rights access has been identified in detail during Stage 3.

The red line boundary indicates the proposed boundary of construction activities including the erection of the building itself together with the associated external works, construction access, site compound and materials offloading and storage areas. The boundary also incorporates a room within the Eastern end of the existing Orthopaedic Outpatients Department which is required for services connections and access via the proposed link between the existing Hospital and the Integrated Ophthalmology development.

7.2 Requirements for transfer of properties by the Client

Section 3.0 of the "Building Services Strategy" report has been prepared (Document No. GJ1-TUV-ZZ-ZZ-SP-E-6000-0001) Appendix 5 which gives a full overview of how we require tying into the existing building services.

This report details that we require to tie into the following services:

(a) LTHW Heating Mains (See section 3.3 of GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

(b) Chilled Water Mains (See section 3.4 of GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

(c) Cold Water Mains (See section 3.5 of GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

(d) Medical Gases (See section 3.7 of GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

(e) Sector No.3E Switchboard (See section 3.11 of GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

(f) Sector No.4E Switchboard (See section 3.11 of GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

(g) Fire Alarm System (See section 3.15 of GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

(h) ICT Infrastructure (See section 3.18 of GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

(i) Lightning Protection network (See section 3.22 of GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

(j) Various BMS Connections (See GJ1-TUV-ZZ-ZZ-SP-E-6000-0001)

Section 12.0 of the *"Building Services Strategy"* report (Document No. GJ1-TUV-ZZ-ZZ-SP-E-6000-0001) also shows roughly the tie in locations for many of the services noted above. This document can be found in Appendix 5

7.3 Decant Strategy

To enable the Phase 1 works to commence on site in accordance with the identified dates detailed within the programme, the following areas of the site will require decanting.

The room on level 01 adjacent to the existing escape stair requires forms part of the proposed link corridor. This link corridor will provide FM access to the new building. This link will be for FM use only. There is a potential for rooms above this level 1 to be decanted for a short period to allow service to be installed however these rooms to be available.

8 Key Project Milestones

8.1 Project Development Milestones

(1) Stage 2 Proposal Submission Date – 2 February 2018

(2) OBC Submission Date to CIG – 31st May 2018

(3) OBC Approval Date – 25th July 2018

(4) Stage 3 Commencement Date – 29 November 2017 (1:50 design)

(5) Stage 3 Proposal Submission Date – 29 October 2018

(6) FBC Submission Date to CIG – 26 November 2018

(7) FBC Approval Date – 10 December 2018

(8) Instruction to progress to Construction Stage – 22 January 2019

9 Approvals and Conclusion

9.1 GJF Board approval

This Stage 3 Report submission is intended to provide the Golden Jubilee Foundation the detail required to inform the subsequent FBC drafting to enable submission to the Programme Board for approval and onward issue to Scottish Government for consideration. As detailed in the Stage 3 programme Appendix 6 , the date identified for the Golden Jubilee Foundation Board approvals is 13 Nov 2018.

9.2 SGHD Approval

In accordance with the Stage 3 programme Appendix 6 , the programmed date for submission of the FBC to the Scottish Government Health Directorate for consideration 13th Nov 2018. It is anticipated that this will be reviewed at the March CIG meeting, with approval following 11 Dec 2018.

9.3 Conclusion

In conclusion, the current proposals, as fully detailed herein, are affordable and deliverable within the identified constraints.

Furthermore, this Stage 3 Report submission and appended information has been developed in compliance with key outputs understood to be required to support the Golden Jubilee Foundation's Outline Business Case.

Should there be any clarifications or further details required on the content of this submission, the Project Team will assist the Golden Jubilee Foundation accordingly...

10 References/Bibliography

The following documents are cited in this report along with the Author, Document Type, Document reference number, Document revision, Publisher, Date of Publication:

[1] A Flood Risk Assessment (Author, Document Type, Document reference number, Document revision, Publisher, Date of Publication).

[2] Detailed UXO Risk Assessment (MP, Report, DA5616, 1st Line Defence Ltd, 30/11/2017).

[3] Phase 1 Environmental Report (David Mayne, Report, Document reference number, Document revision, CUR, Date of Publication).

[4] Citation for 5.3.2 Building Risk Group 2b

Clinical / Architectural Brief

Table 1 Clinical/Architectural Briefing document List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-KD-ZZ-ZZ-SP-P-F4080-0002	Rev 5.	Clinical Brief
2.	GJ1-GJF-ZZ-XX-PL-R-8060-0001	Rev 1	GJNH Policies
3.			
4.			
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Target Cost

Table 2 Target Cost Documents List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-AEC-ZZ-XX-CP-Q-4060-0003	1	Target Cost including risks, exclusions, clarifications and VE. This document is not available on Viewpoint however it can be found at the following address on the KCSNE contracts server O:\CONTRACTS - LIVE\10001729 Golden Jubilee\Project 1\Adjudication Project 1.
2.			
3.			
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Risk Register

Table 3 Risk Register Document List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-AEC-ZZ-XX-SH-R-4060-0002	8	Risk Register
2.			
3.			
4.			
5.			
6.			
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8.			

Design Information

Table 4 Design Information Document list

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1	GJ1-CUR-01-01-PL-S-XXXX-01	P01	PROPOSED BULK EXCAVATION PLAN
2	GJ1-CUR-XX-01-DE-S-3020-02	P05	PROPOSED GROUND FLOOR SECTIONS AND DETAILS
3	GJ1-CUR-XX-01-PL-S-3020-01	P07	PROPOSED GROUND FLOOR PLAN
4	GJ1-CUR-XX-02-DE-S-3020-02	P03	PROPOSED FIRST FLOOR SECTIONS AND DETAILS (LEVEL 02).pdf
5	GJ1-CUR-XX-02-PL-S-3020-01	P06	PROPOSED FIRST FLOOR
6	GJ1-CUR-XX-03-PL-S-3020-01	P06	PROPOSED ROOF AND PARAPET PLAN
7	GJ1-CUR-XX-FN-PL-S-2005-01	P08	PROPOSED PILE LAYOUT
8	GJ1-CUR-XX-FN-PL-S-2005-02	P06	PROPOSED FOUNDATION PLAN
9	GJ1-CUR-XX-XX-DE-D-5030-02	P02	DRAINAGE SECTIONS AND DETAILS
10	GJ1-CUR-XX-XX-PL-C-3060-01	P03	PROPOSED EXTERNAL WORKS
11	GJ1-CUR-XX-XX-PL-D-5030-01	P05	Drainage strategy layout
12	GJ1-CUR-XX-ZZ-DE-S-2010-06	-	EXTERNAL BRICK WORK DETAILS
13	GJ1-CUR-XX-ZZ-EL-S-2010-01	P05	PROPOSED STEELWORK ELEVATIONS
14	GJ1-CUR-XX-ZZ-EL-S-2010-02	P04	PROPOSED STEEL WORK ELEVATIONS
15	GJ1-CUR-XX-ZZ-EL-S-2010-05	-	EXTERNAL ELEVATIONS
16	GJ1-CUR-XX-ZZ-PL-S-3020-01	P04	STEELWORK FIRE PROTECTION
17	GJ1-CUR-XX-ZZ-PL-S-3510-0001	1	PROPOSED STAIR ARRANGEMENT
18	GJ1-HLA-ZZ-XX-PL-L-4535-0001	-	Proposed Landscaping General Arrangement - Outline Design
19	GJ1-HLA-ZZ-XX-PL-L-4535-0002	A	Proposed Hard Landscape Finishes

Document Number	Document name	Revision	Document Description
20	GJ1-HLA-ZZ-XX-PL-L-4535-0003	A	Proposed Softworks/Planting Plan
21	GJ1-IBI-XX-01-PL-A-2510-0001	6	Level 1 GENERAL ARRANGEMENT 1 of 2
22	GJ1-IBI-XX-01-PL-A-2510-0002	3	Level 1 GENERAL ARRANGEMENT 2 of 2
23	GJ1-IBI-XX-01-PL-A-2510-0004	5	LEVEL 1_INT PARTITIONS_ACOUSTIC PLAN
24	GJ1-IBI-XX-01-PL-A-2510-0010	4	Level 1- External Setting Out - 1 of 2
25	GJ1-IBI-XX-01-PL-A-2510-0011	2	Level 1- External Setting Out - 2 of 2
26	GJ1-IBI-XX-01-PL-A-3020-0002	11	Level 1 Proposed Layout Planning drawing
27	GJ1-IBI-XX-01-PL-A-3020-0010	2	Gross Internal Floor Areas.pdf
28	GJ1-IBI-XX-01-SH-A-2530-2011	3	Ironmongery Schedule Sheet 1 of 4.pdf
29	GJ1-IBI-XX-01-SH-A-2530-2012	2	Ironmongery Schedule Sheet 2 of 4.pdf
30	GJ1-IBI-XX-01-SH-A-2530-2013	1	Ironmongery Schedule Sheet 3 of 4.pdf
31	GJ1-IBI-XX-02-A-5530-0001	3	Level 1 Fire Plan
32	GJ1-IBI-XX-02-A-5530-0011	4	Level 2 Fire Plan
33	GJ1-IBI-XX-02-PL-A-2510-0003	5	Level 2 GENERAL ARRANGEMENT
34	GJ1-IBI-XX-02-PL-A-2510-0005	4	LEVEL 2_INT PARTITIONS_ACOUSTIC PLAN
35	GJ1-IBI-XX-02-PL-A-2510-0012	4	Level 2- External Setting Out - 1 of 2
36	GJ1-IBI-XX-02-PL-A-2510-0013	3	Level 2- External Setting Out - 2 of 2
37	GJ1-IBI-XX-02-PL-A-3020-0003	11	Level 2 Proposed Layout Planning drawing
38	GJ1-IBI-XX-02-SH-A-2530-2014	2	Ironmongery Schedule Sheet 4 of 4.pdf
39	GJ1-IBI-XX-XX-AS-A-2530-0001	5	Window Schedule & Elevations
40	GJ1-IBI-XX-XX-AS-A-2530-0010	3	External Door Schedule & Elevations
41	GJ1-IBI-XX-XX-EL-A-2510-0005	4	Planning Elevations
42	GJ1-IBI-XX-XX-EL-A-2510-0010	7	Elevations- External Setting Out - 1 of 4
43	GJ1-IBI-XX-XX-EL-A-2510-0011	5	Elevations- External Setting Out - 2 of 4
44	GJ1-IBI-XX-XX-EL-A-2510-0012	3	Elevations- External Setting Out - 3 of 4
45	GJ1-IBI-XX-XX-EL-A-2510-0013	7	Elevations- External Setting Out - 4 of 4

Document Number	Document name	Revision	Document Description
46	GJ1-IBI-XX-XX-M3-A-3510-0001	1	Stair 1
47	GJ1-IBI-XX-XX-M3-A-3510-0002	1	Stair 2
48	GJ1-IBI-XX-XX-PL-A-1510-1250	0	Location Plan
49	GJ1-IBI-XX-XX-PL-A-3010-0010	8	Detailed Roof Plan
50	GJ1-IBI-XX-XX-PL-A-3020-0100	1	Screed Plan
51	GJ1-IBI-XX-XX-SH-4020-0001	5	Finishes Schedule.pdf
52	GJ1-IBI-XX-XX-SH-A-4020-2001	3	Sanitary Schedule
53	GJ1-IBI-XX-XX-SH-A-4040-0001	2	ADB Component Schedule
54	GJ1-TUV-ZZ-01-PL-E-7010-1001	B	Level 01 Small Power Layout
55	GJ1-TUV-ZZ-01-PL-E-7010-1002	B	Electrical Proposed Connections into the Existing Hospital Services Level 01
56	GJ1-TUV-ZZ-01-PL-E-7080-1001	B	Level 01 Lighting Layout
57	GJ1-TUV-ZZ-01-PL-E-7100-1001	B	Level 01 Containment Layout
58	GJ1-TUV-ZZ-01-PL-E-7540-1001	B	Level 01 Security / Nurse Call & CCTV Layout
59	GJ1-TUV-ZZ-01-PL-E-7550-1001	.	Level 01 Fire Detection and Alarm Layout
60	GJ1-TUV-ZZ-01-PL-M-5100-1001	A	Level 01 Heating Layout
61	GJ1-TUV-ZZ-01-PL-M-5100-1002	B	Level 01 Cooling Layout
62	GJ1-TUV-ZZ-01-PL-M-5300-1001	B	Level 1 Medical Gas
63	GJ1-TUV-ZZ-01-PL-M-5700-1001	A	Level 01 Domestic Water Services Layout
64	GJ1-TUV-ZZ-01-PL-M-6540-1001	A	Level 01 Ventilation Layout
65	GJ1-TUV-ZZ-01-PL-P-5200-1001	A	Level 01 Above Ground Foul Drainage Layout
66	GJ1-TUV-ZZ-02-PL-E-7010-1001	B	Level 02 Small Power Layout
67	GJ1-TUV-ZZ-02-PL-E-7080-1001	B	Level 02 Lighting Layout
68	GJ1-TUV-ZZ-02-PL-E-7100-1001	B	Level 02 Containment Layout
69	GJ1-TUV-ZZ-02-PL-E-7540-1001	B	Level 02 Security / Nurse Call & CCTV Layout
70	GJ1-TUV-ZZ-02-PL-E-7550-1001	.	Level 02 Fire Detection and Alarm Layout
71	GJ1-TUV-ZZ-02-PL-M-5100-1001	A	Level 02 Heating Layout

Document Number	Document name	Revision	Document Description
72	GJ1-TUV-ZZ-02-PL-M-5100-1002	B	Level 02 Cooling Layout
73	GJ1-TUV-ZZ-02-PL-M-5570-1002	A	Mechanical Plantroom Layouts
74	GJ1-TUV-ZZ-02-PL-M-5700-1001	A	Level 02 Domestic Water Services Layout
75	GJ1-TUV-ZZ-02-PL-M-6540-1001	A	Level 02 Ventilation Layout
76	GJ1-TUV-ZZ-02-PL-P-5200-1001	A	Level 02 Above Ground Foul Drainage Layout
77	GJ1-TUV-ZZ-03-PL-E-5570-1001	.	Roof Lighting Protection Plan
78	GJ1-TUV-ZZ-03-PL-E-7080-1001	A	Level 03 Lighting Layout
79	GJ1-TUV-ZZ-06-PL-E-7010-1001	B	Electrical Proposed Connections into the Existing Hospital Services Level 06
80	GJ1-TUV-ZZ-RF-PL-P-5200-1001	A	Roof Level Above Ground Foul Drainage Layout
81	GJ1-TUV-ZZ-XX-PL-E-7080-1001	B	External Lighting and CCTV Layout
82	GJ1-TUV-ZZ-XX-PL-M-5100-1001	A	LTHW & CHW Proposed Connection into the Existing Hospital Services
83	GJF-TUV-ZZ-01-PL-M-5570-1001	A	Mechanical Proposed Connections into the Existing Hospital Services Level 01

Reports-

Table 5 Reports Document List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-CUR-ZZ-XX-RP-S-9075-00001	V03	GJ1 - Civil and Structural Strategy Report - Curtin's
2.	GJ1-TUV-ZZ-ZZ-SP-E-6000-0001	6	Building Services Strategy
3.	GJ1-TUV-ZZ-ZZ-SP-E-6000-0004	1	Existing Utilities
4.	GJ1-IBI-ZZ-XX-RP-A-9075-100.docx	1	Appendix 5.1
5.	GJ1-AEC-ZZ-XX-AT-R-5030-0001	1	Design Sign off
6.			
7.			
8.			

Project Programme

Table 6 Programme Document list

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-KCSNE-ZZ-ZZ-PR-W-8065-0009	D10.0.6	GJF Project 1 - Programme of Works
2.	GJ1-KCSNE-ZZ-ZZ-RP-W-8065-0001	1	Health Check Report
3.			
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Design Quality Plan

Table 7 Design Quality Plan Document List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-KCSNE-ZZ-XX-MS-W-4060-1001	2	Design Management Plan
2.			
3.			
4.			
5.			
6.			
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Project Execution Plan

Table 8 Project Execution Plan Document List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-AEC-ZZ-XX-AT-R-5030-0002	2	PEP
2.			
3.			
4.			
5.			
6.			
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8.			

Red Line Drawing

Table 9 Red Line Drawing List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-IBI-XX-XX-PL-A-4040-0001	1	Red lined Site Boundary
2.			
3.			
4.			
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BREEAM Pre-assessment Tracker

Table 10 Pre-assessment Tracker Document List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-H&K-ZZ-XX-SH-N-4075 -1001	2	Pre-Assessment Tracker
2.	GJ1-H&K-ZZ-XX-RP-N-4075 -1001	2	BREEAM Report
3.			
4.			
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6.			
7.			
8.			

Change Control Tracker

Table 11 Change Control Tracker Document List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	CE Register - 22-10-18	1	Compensation Event Tracker
2.			
3.			
4.			
5.			
6.			
7.			
8.			

AEDET

Table 12 AEDET Document List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-HFS-ZZ-XX-PRO-Z-4030-0002	1	20171213 AEDET Refresh GJNH Expansion Ph1 at FBC v0 4
2.			
3.			
4.			
5.			
6.			
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8.			

HAI-scribe

Table 13 HAI-Scribe Document List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	SHFN 30 HAI-SCRIBE	1	Question sets and Checklist
2.	GJ1-GJF-ZZ-ZZ-PRO-K-PM6040-0001	30-11-17	HAI-SCRIBE KIER SURVEY WORK
3.			
4.			
5.			
6.			
7.			
8.			

Derogations schedule

Table 14 Derogations Schedule List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-IBI-CC-XX-SH-A-4060-0001	2	Architectural and M&E Services Derogations
2.			
3.			
4.			
5.			
6.			
7.			
8.			

Value Management Tracker

Table 15 Value Innovation Management Tracker List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-KCSNE-ZZ-XX-SH-W-4075-1001	1	Value Management Tracker
2.			
3.			
4.			
5.			
6.			
7.			
8.			

Survey reports

Table 16 Survey report Tracker List

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-TUV-ZZ-ZZ-SP-E-6000-0004		Existing Utilities
2.	GJ1-TUV-ZZ-ZZ-SP-M-6000-0003		30th November 2017 Survey Report
3.			
4.			
5.			
6.			
7.			
8.			

BIM documents

Table 17 BIM Documents

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-KCSNE-ZZ-XX-TK-W-4060-0008	8	Model, Drawing and Document Naming Protocol
2.	GJ1-KCSNE-ZZ-XX-MS-W-4060-0012	4	BEP Appendix 12 - COBie Requirements
3.	GJ1-KCSNE-ZZ-XX-MS-W-4060-0006	3	BEP Appendix 6 - Modelling Protocols
4.	GJ1-KCSNE-ZZ-XX-MS-W-4060-0007	3	BEP Appendix 7 - NWC Export Protocol
5.	GJ1-KCSNE-ZZ-XX-MS-W-4060-0008	3	BEP Appendix 8 - IFC Export Protocol
6.	GJ1-KCSNE-ZZ-XX-MS-W-4060-0009	3	BEP Appendix 9 - Clash Detection Protocol
7.	GJ1-KCSNE-ZZ-XX-MS-W-4060-0013	3	BEP Appendix 13 - COBie Export Protocol
8.	GJ1-KCSNE-ZZ-XX-MS-W-4060-0014	2	BEP Appendix 14 - Plain Language Questions
9.	GJ1-KCSNE-ZZ-XX-MS-W-4060-0001	4	BIM Execution Plan (BEP)
10.	GJ1-KCSNE-ZZ-XX-MS-W-4060-0002	4	BEP Appendix 2 - LOD Matrix

User group meeting schedule

Table 18 User Group Meeting Schedules

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-IBI-ZZ-XX-SH-A-9075-1002	1	Proposed 1.50 User Group Process
2.			
3.			
4.			
5.			
6.			
7.			
8.			

Construction Methodology

Table 19 Construction Methodology document list

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-KCSNE-ZZ-ZZ-HS-W-6070-0001	A	Construction Phase Plan
2.			
3.			
4.			
5.			
6.			
7.			
8.			

Technical Briefing Document

Table 20 Technical Briefing Document

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-AEC-ZZ-XX-MI-R-4060-2001	1	ACR Meeting No. 01 + KCSNE comments - 27-11-18
2.			
3.			
4.			
5.			
6.			
7.			
8.			

Condition Tracker

Table 21 Condition Tracker Document

The table includes a list of attachments to this document

Document Number	Document name	Revision	Document Description
1.	GJ1-KCSNE-ZZ-ZZ-HS-W-6070-0001	F	Planning Tracker
2.	DC18122	1	Planning Consent
3.			
4.			
5.			
6.			
7.			
8.			