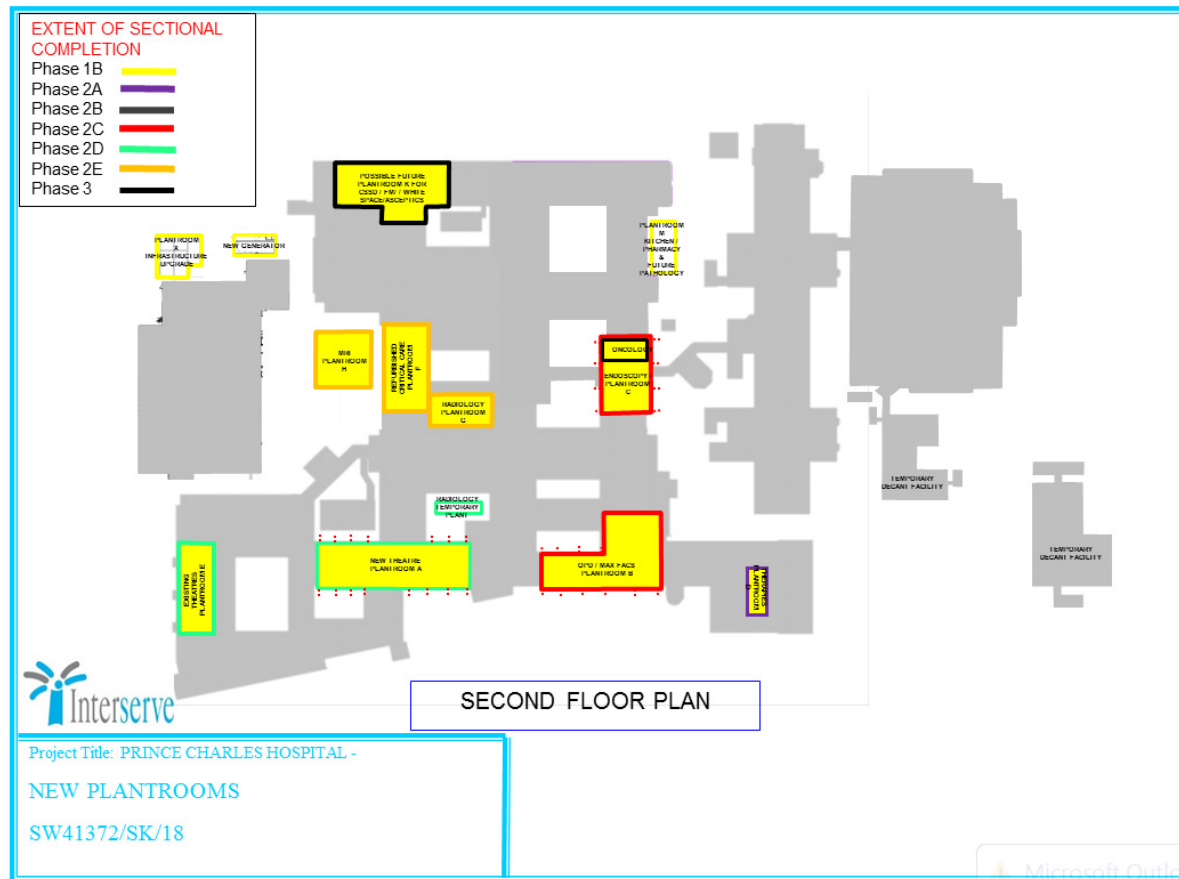


Sectional Completion Plantrooms



### 4.10 Preferred Option - Provision of Supplementary Decant Accommodation

Temporary accommodation has been provided under a separate contract for services and departments displaced during the remodelling works

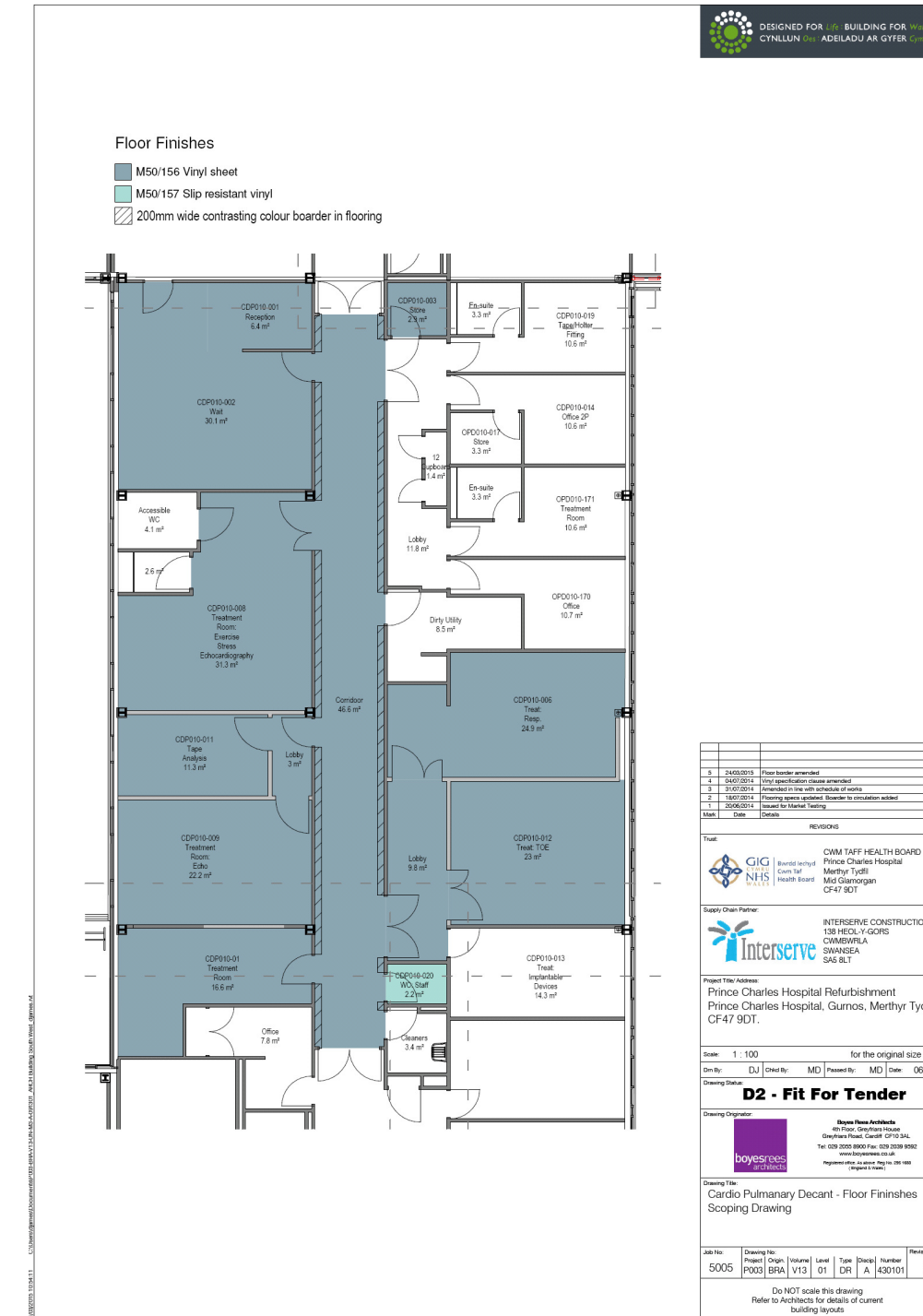
### Temporary Decant Accommodation for Out Patients in Rhydney Block



### Temporary Decant Accommodation for Physiotherapy.



### Temporary Decant Accommodation for FF Cardio Pulmonary



## Decant Requirements in addition to Current Allowances

In addition to the decant accommodation illustrated earlier in this section additional requirements have been identified more recently as a consequence of the revised phasing strategy:

1.	Office space displaced by the creation of the new BT / comm room first floor.	The new comms room was part of the OBC as an enabling contract to be completed prior to the main works commencing. New strategy has removed the enabling stage. Circa 7 desks in three offices used by Urology and Orthopaedics. Offices at the entrance to the current pharmacy when vacated would be available but there is a period of 9 months from the need for these offices and when they become available. Will required a 9 month temporary location as yet undefined. Potential to move the temporary Unit 3 from Phase 2 into Phase 1b and if commenced immediately would be available when these spaces are required. Potential to use the 1st floor medical records office created in phase 1a but this will displace other users in the future and accommodation will be required for these at a later stage.
2.	Clinical coding	Originally planned to be moved into the current vacant space in Pathology. This space will no longer be available. This unit is programmed to be removed late 2019. Potentially move to a temporary unit to somewhere else on site or off site.
3.	Neurophysiology	Will have to move earlier than planned. Hand therapy move to fractures space in Cynon remodelled to provide ADL Kitchen and Bathroom. Will though not be space available for consulting room. There may be a need for temporary Neurophysiology accommodation.
4.	Anaesthetic Office and on-call rooms	Losing Theatre 7 requires EBME items to be relocated to support use as an Anaesthetic office. On call rooms near critical care to old on call rooms next to SEAL.
5.	Medical Day Unit	Since OBC the Health Board have confirmed the continued need to accommodate the Medical Day Unit at PCH. As the current area has been assumed in the plans an alternative location is required.
6.	A& E Offices and clinical audit	Option - a temporary modular building
7.	ICT Store	Potential to relocate to Williamstown but as yet unconfirmed, some alternative PCH accommodation may be required.
8.	EBME	Move to pharmacy area with the EBME storage currently in theatre 7 also moved to enable use for Anaesthetic office.
9.	CDU ( drainage works from first floor )	Potential to undertake the works in multiple phase will impact on the services. Potential of moving a ward to RGH and using ward for CDU or moving fractures on site at PCH to maintain PCH CDU during works.

10.	Minor Injuries (propping may be required to support first floor works)	Phase works following draining works and use CDU for CDU and minors with reduced service. Potential move CDU to ward area and Minors uses CDU following drainage works in CDU and /or fractures on site as in 9 above.
11.	Fluoroscopy Room	Phase 1 radiology change mammography room to fluoroscopy room. Needs to be made bigger and will required some of fractures to be taken to provide the space required.
12.	Scopes and OPD	More information required on this item to asses requirements
13.	Transfusion Suite	This is a phasing issue as the unit has to be removed in phase 2 works but the new unit is constructed in phase 3. If there is any delay in the approval of phase 3 then there is a potential that accommodation will be required for the suite.
14.	Aseptic	Future white space or off site
15.	Domestic supervisors office next to switchboard	Switchboard arrangements have changed since OBC with Cym Taff wide 24 hour cover now being from PCH. The existing room laid out with worktop hot desks for 7 workstations, needs to be reviewed for fit.
	<b>Note</b>	Potentially there is additional accommodation required to accommodate 1, 2, 6, 15. This could be sited on car park 1 and be used to accommodate these decant requirements through the phasing of the works.

These additional decant requirements are not currently included in the design or target cost.

The FBC cost forms include allowances for these works.

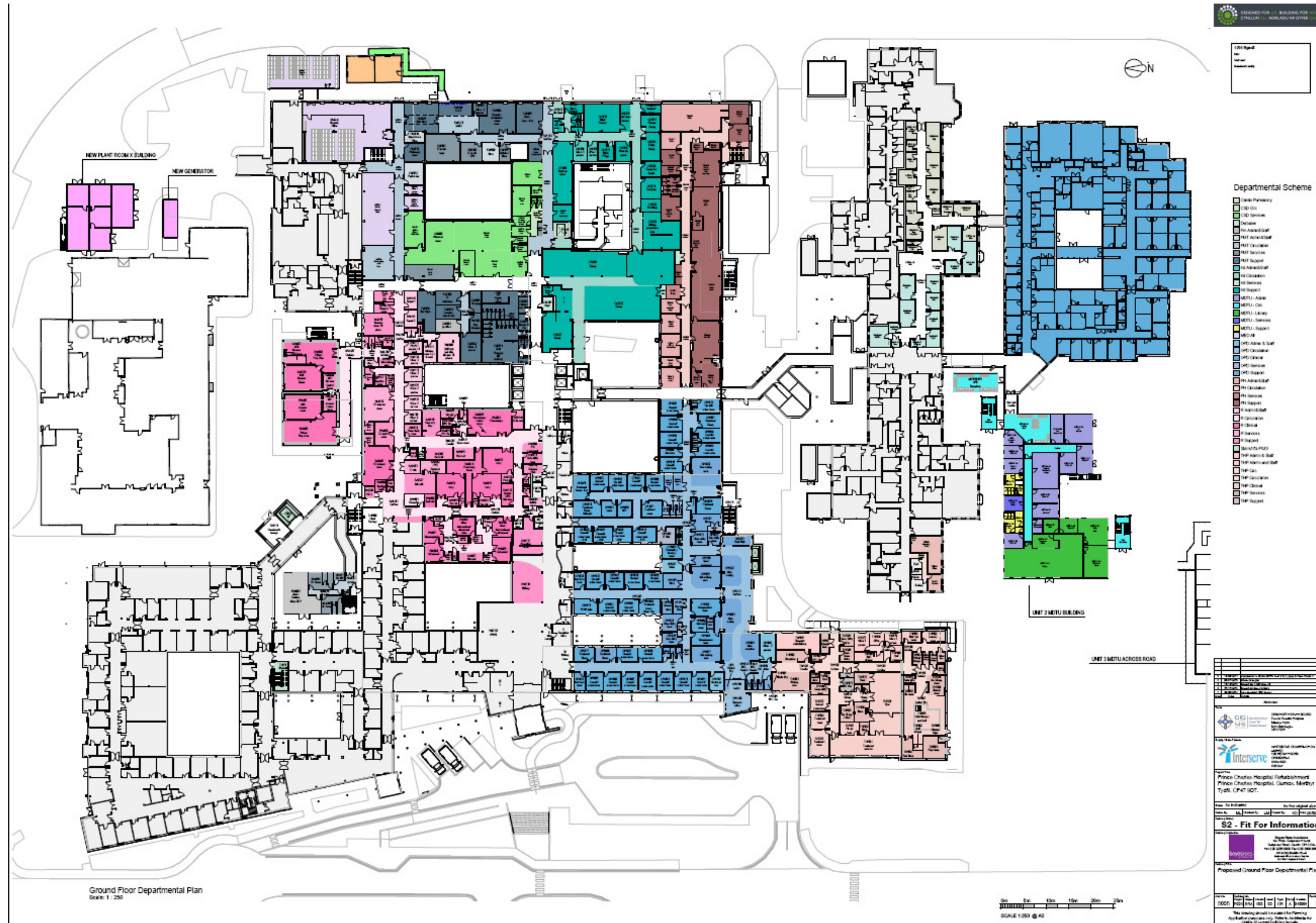
## 4.11 Preferred Option - Construction Programmes & Sequence

The works have been phased and programmed in order to minimise clinical service impact and to maintain safe access and egress for all hospital staff, patients and visitors.

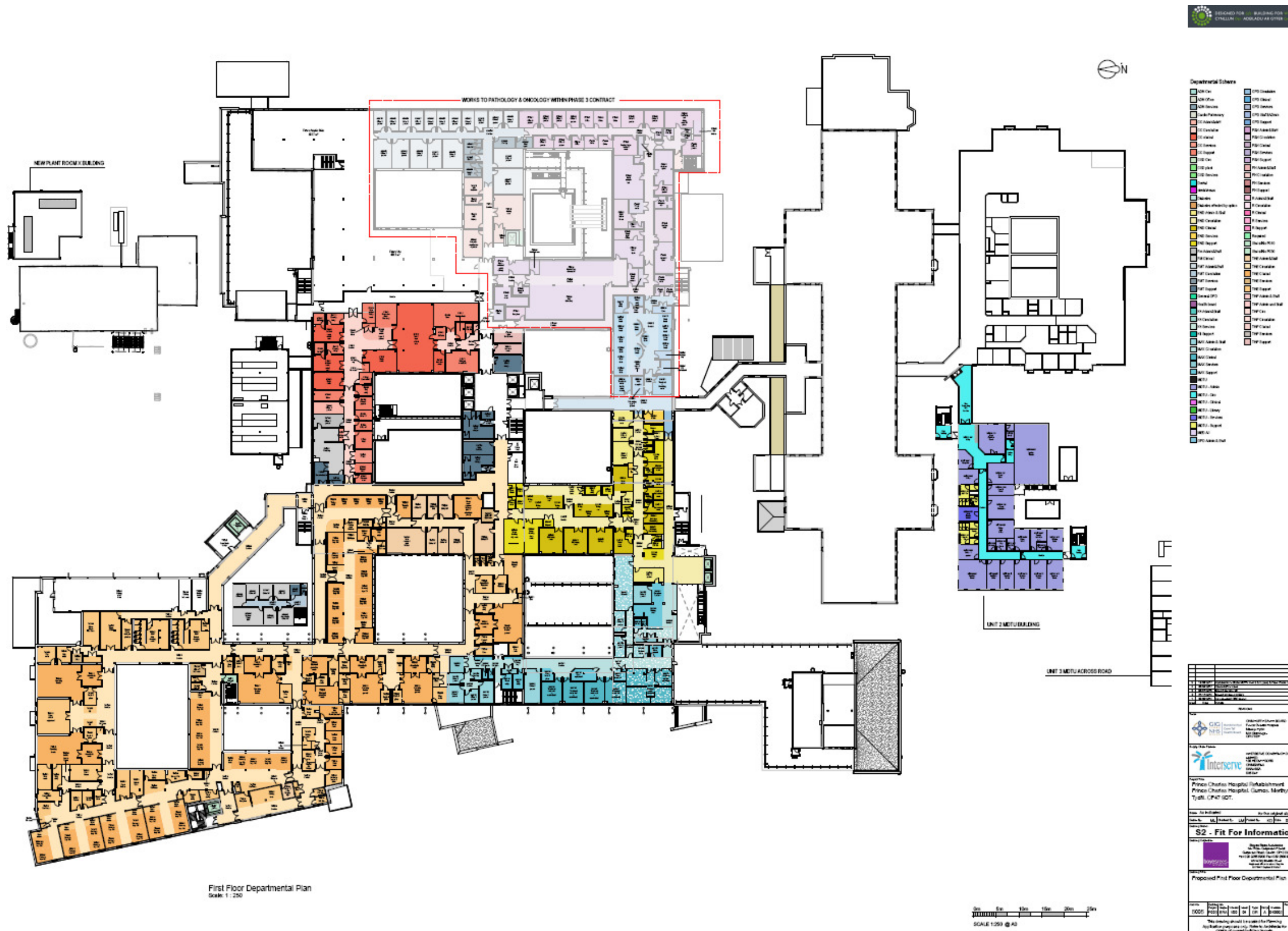
A copy of the programme can be found in Appendix A12

## Section 5 - Preferred Option Departmental Drawings

# Preferred Option Ground Floor layout



# Preferred Option First Floor layout



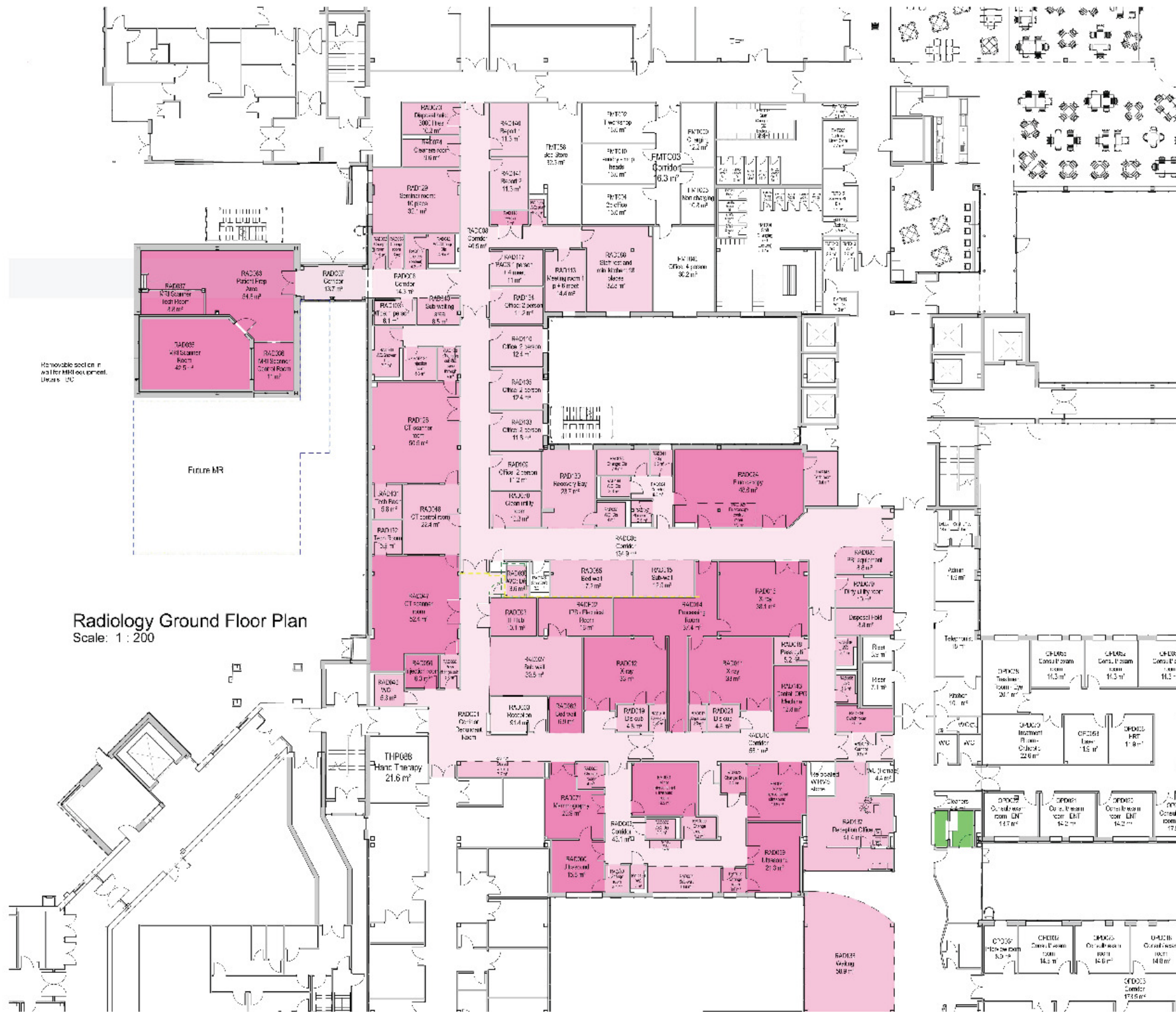
## Preferred Option Drawings

Over the next few pages are sample drawings of certain of the clinical departments. Complete lists of drawings and Specifications for all design disciplines are included in the appendices at the back of this document.

- Appendix A.9 Architectural Drawings and Specifications
- Appendix A.10 M&E Services Drawings and Specifications
- Appendix A.11 Civil and Structural Drawings and Specifications

The drawings are all available on the disc.

# Preferred Option Radiology Department Layout



Radiology Ground Floor Plan  
Scale: 1:200

**1:200 Signoff**

Date: \_\_\_\_\_

Drawn by: \_\_\_\_\_

Checked by: \_\_\_\_\_

10	RAD001	X-ray room	11.5 m <sup>2</sup>
11	RAD002	X-ray room	11.5 m <sup>2</sup>
12	RAD003	X-ray room	11.5 m <sup>2</sup>
13	RAD004	X-ray room	11.5 m <sup>2</sup>
14	RAD005	X-ray room	11.5 m <sup>2</sup>
15	RAD006	CT scanner	40.5 m <sup>2</sup>
16	RAD007	MRI scanner	40.5 m <sup>2</sup>
17	RAD008	Waiting area	11.5 m <sup>2</sup>
18	RAD009	Waiting area	11.5 m <sup>2</sup>
19	RAD010	Waiting area	11.5 m <sup>2</sup>
20	RAD011	Waiting area	11.5 m <sup>2</sup>
21	RAD012	Waiting area	11.5 m <sup>2</sup>
22	RAD013	Waiting area	11.5 m <sup>2</sup>
23	RAD014	Waiting area	11.5 m <sup>2</sup>
24	RAD015	Waiting area	11.5 m <sup>2</sup>

**Client:** GIG CYMRU NHS WELSH HEALTH BOARD

**Project Name:** Prince Charles Hospital Refurbishment

**Location:** Tydfil, CF47 9DT

**Contractor:** Interserve

**Project Title:** Prince Charles Hospital Refurbishment

**Scale:** As indicated for the original size of A3

**Drawn by:** KM Checked by: LM

**Project No.:** S2 - Fit For Information

**Drawn by:** Boyes Rees Architects

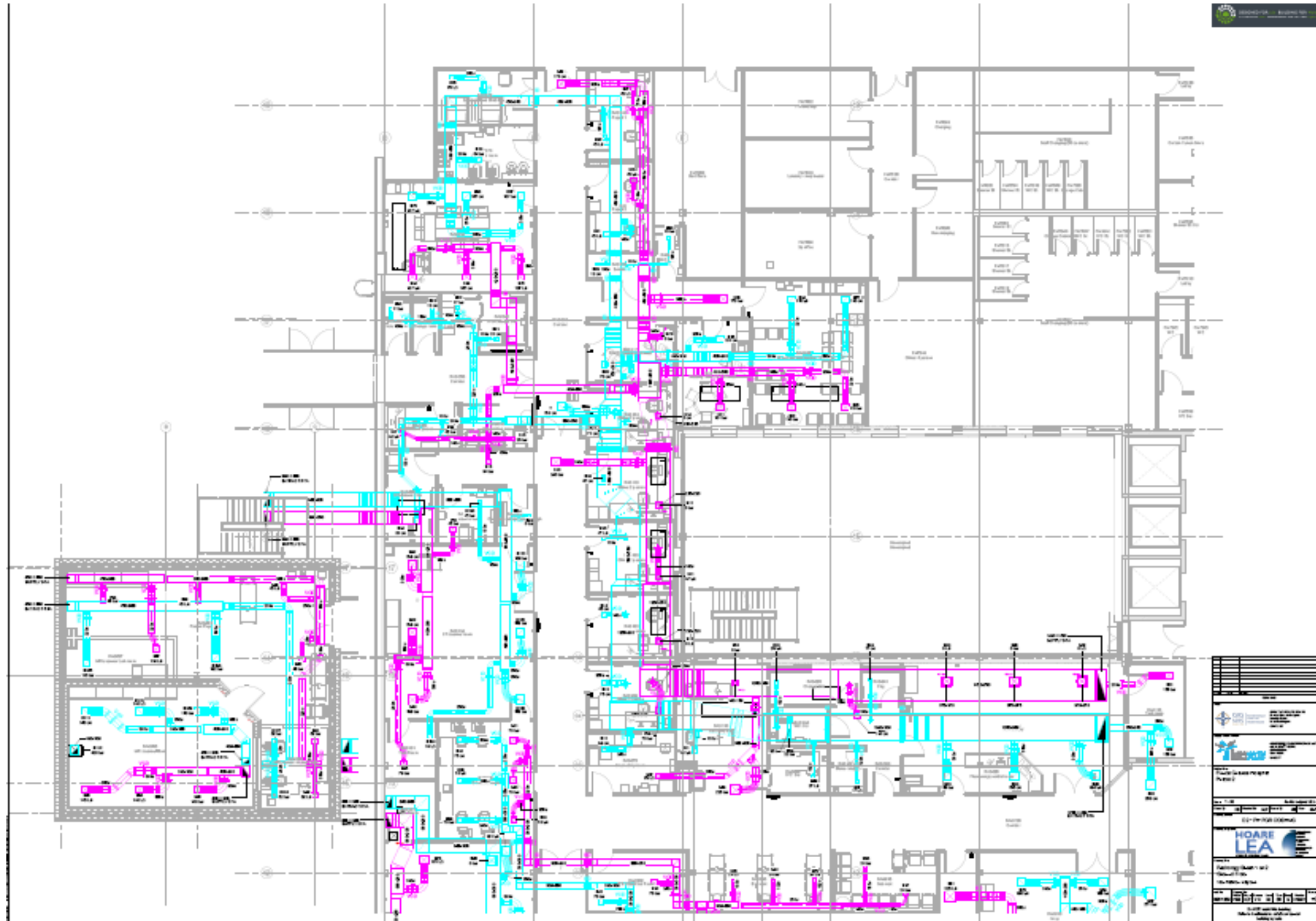
**Project No.:** RPA V14

**Revision:** 16

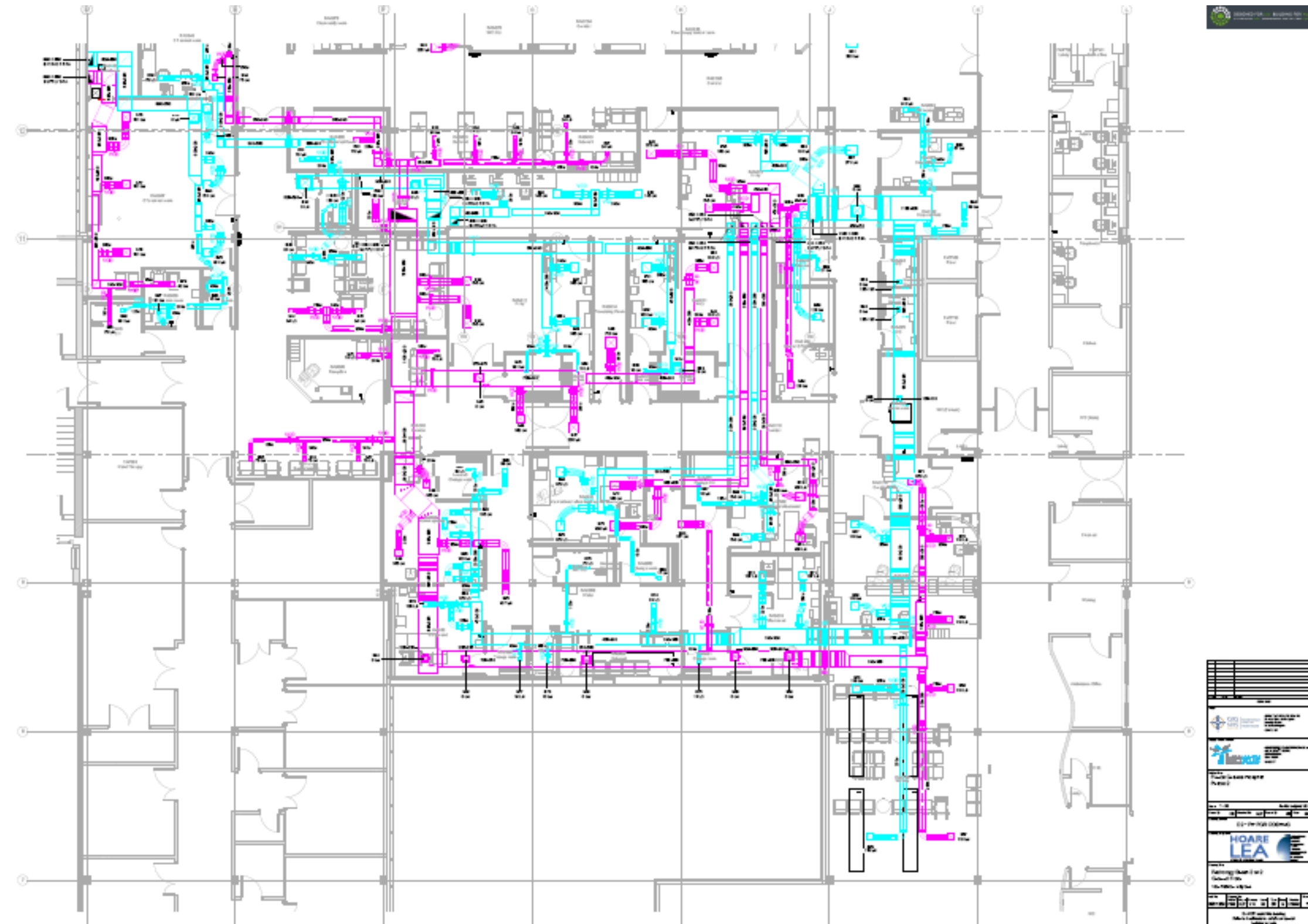
**Date:** 30/08/14

**Scale:** Do NOT scale this drawing. Refer to Architects for details of current building layouts.

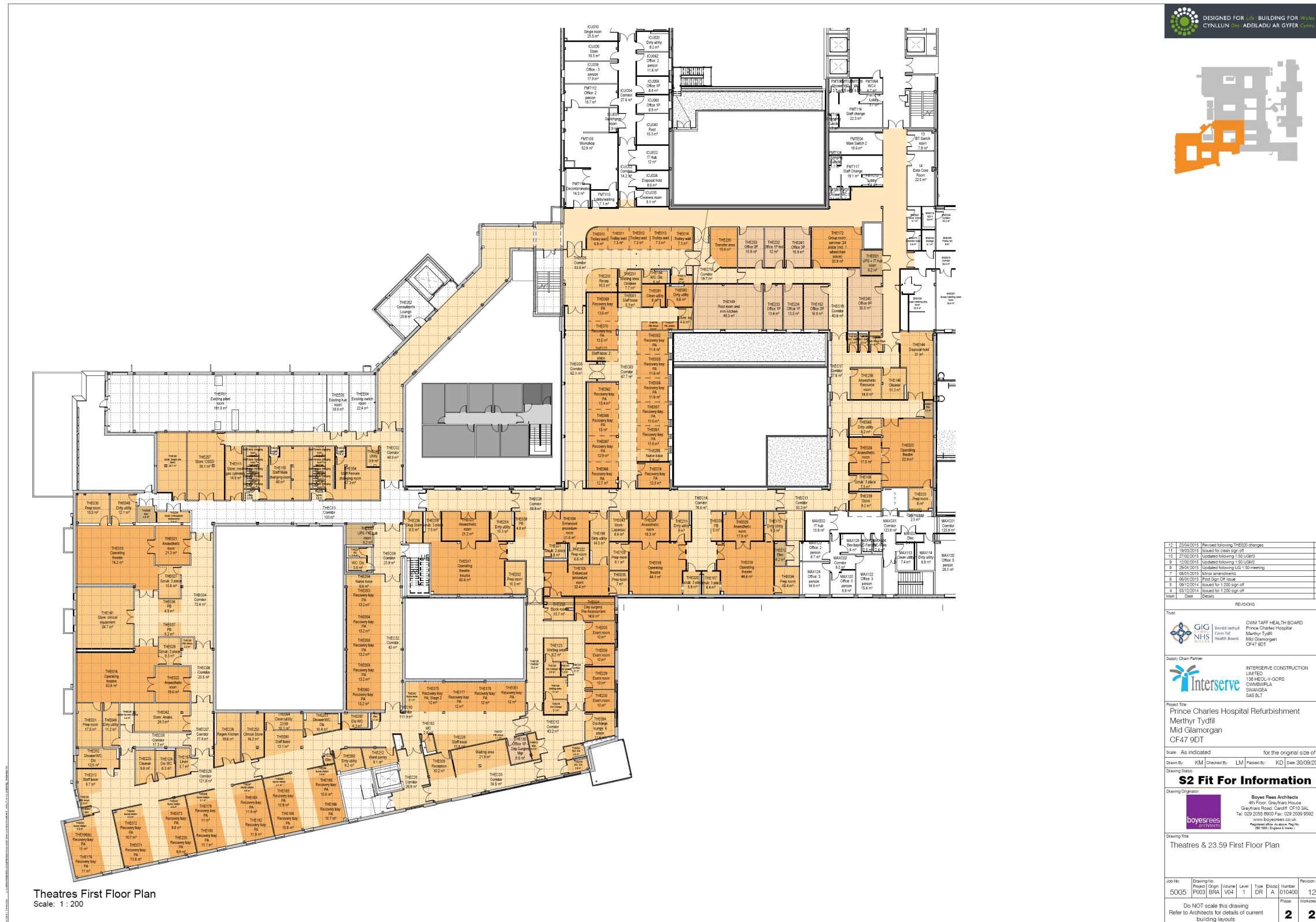
# Preferred Option Radiology Department Ventilation layout (1 of 2)



# Preferred Option Radiology Department Ventilation layout (2 of 2)



# Preferred Option Theatres and 23.59 Department Layouts



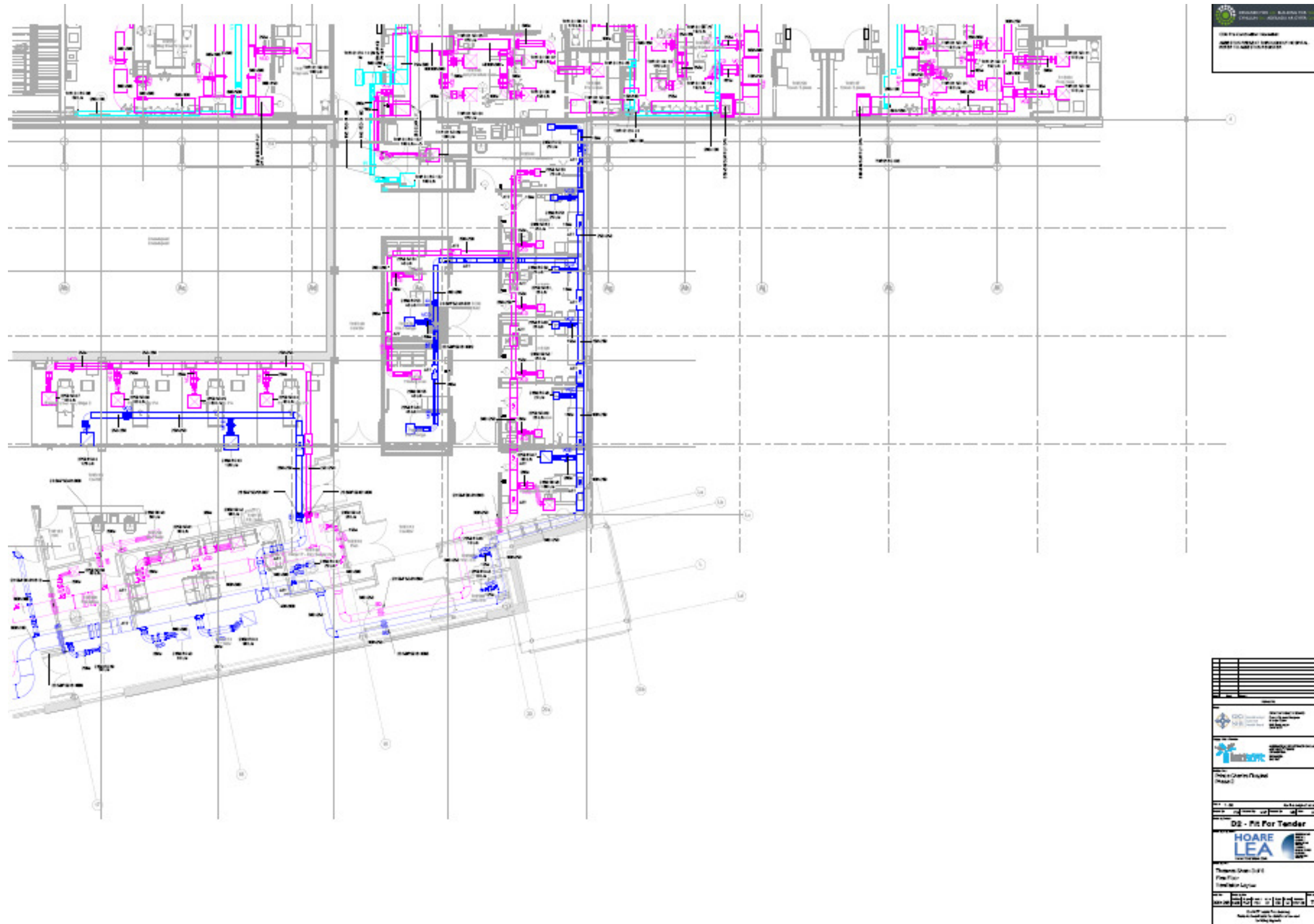
# Preferred Option Theatres and 23.59 Ventilation Layout (1of 5)



# Preferred Option Theatres and 23.59 Ventilation Layout (2 of 5)

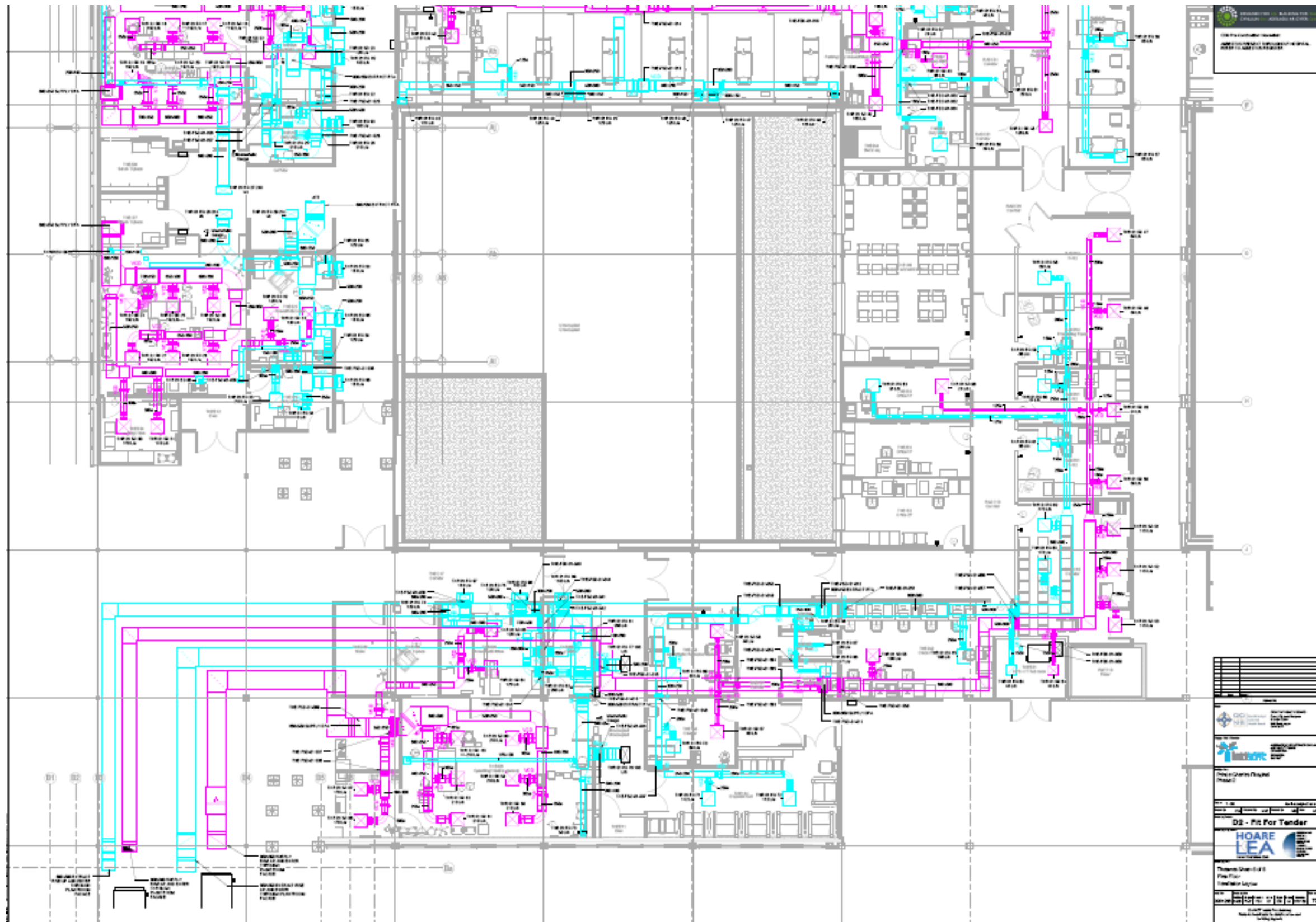


# Preferred Option Theatres and 23.59 Ventilation Layout (3of 5)





# Preferred Option Theatres and 23.59 Ventilation Layout (5 of 5)



# Preferred Option Critical Care Layout



Critical Care First Floor Plan  
Scale: 1 : 200



Ref	Description	Rev
1	Issue for information	1.0
2	Issue for information	1.0
3	Issue for information	1.0
4	Issue for information	1.0
5	Issue for information	1.0
6	Issue for information	1.0
7	Issue for information	1.0
8	Issue for information	1.0
9	Issue for information	1.0
10	Issue for information	1.0

**Client:** GIG NHS  
GIG NHS  
Health Board  
Merthyr Tydfil  
Health Board  
CF47 9DT

**Client Address:** INTERSERVE CONSTRUCTION LTD  
106 MEDLY-COOP  
CHIMWELLS  
SWANSEA  
SA5 8LT

**Project Name:** Prince Charles Hospital Refurbishment  
Prince Charles Hospital, Gwmos, Merthyr Tydfil.  
CF47 9DT.

**Scale:** As indicated for the original size of A3  
**Drawn by:** KM  
**Checked by:** LM  
**Reviewed by:** KD  
**Date:** 30/09/14

**Drawing Title:** S2 Fit For Information

**Drawing Origin:** **Boyes & Partners**  
10, The Old Rectory, Merthyr Tydfil, CF47 9DT  
Tel: 01443 860111 Fax: 01443 860112  
www.boyes.com  
Approved for issue by: [Signature]

**Drawing Title:** Critical Care First Floor Plan

Job No	Drawing No	Project	Client	Level	Type	Scale	Revision	Page No
3005	P303	HPA	14	01	DF	A	011400	12

Do NOT scale this drawing  
Refer to Grid-Coordinates for all points of interest  
building layout





## Section 6 - Car Parking Summary

### 6.1 Proposals

## 6.1 Proposals

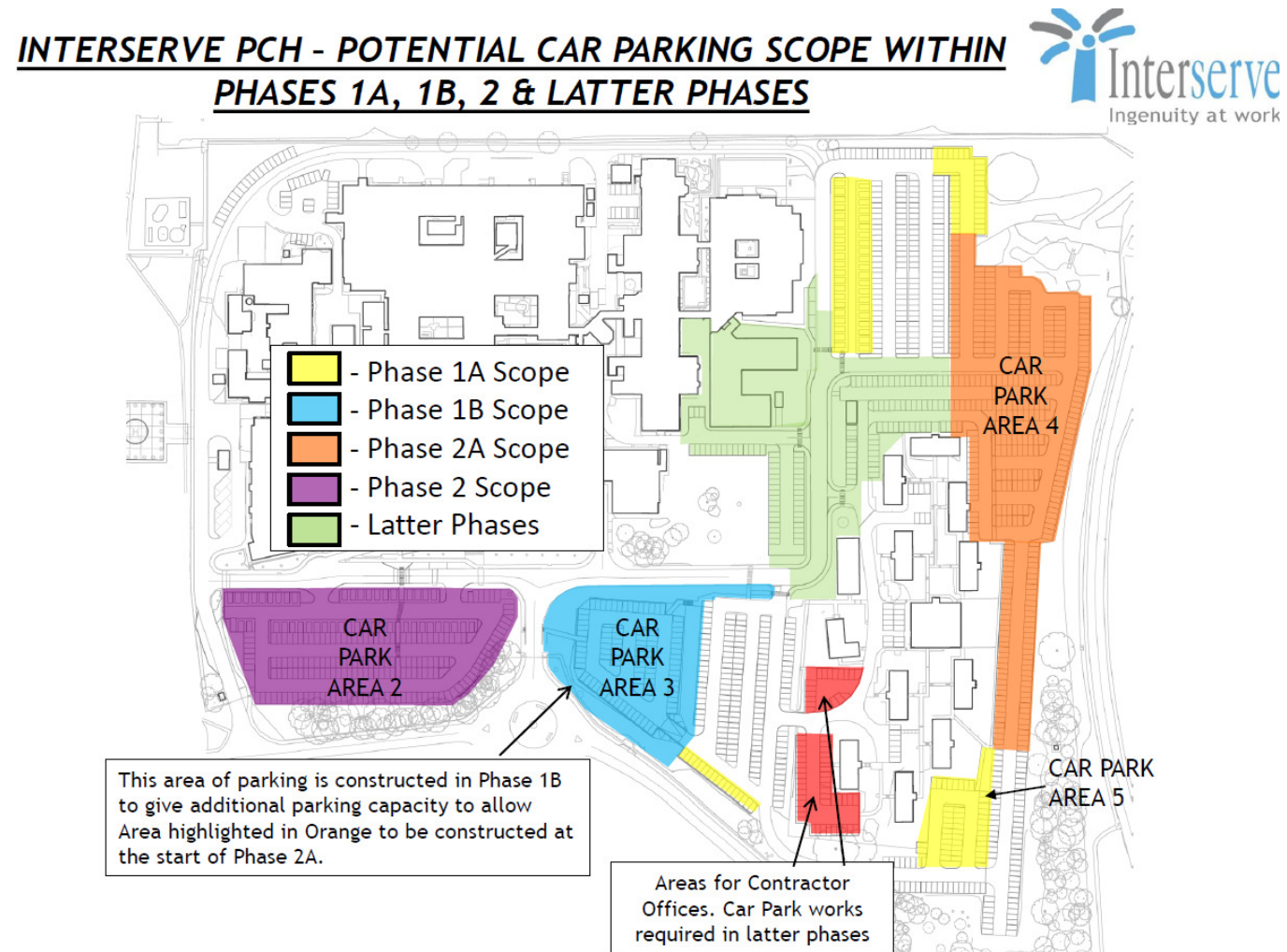
### Upgrading of Car Parking

In line with the revised contract strategy elements of the car parking and external works have been included in the last phase of the works. Parking is an issue at Prince Charles Hospital and the provision of the temporary kitchen on the Rhymney car park will remove disabled and general parking. Additional parking has been provided to offset the lost parking in phase 1a.

The principles are to maintain the current number during the phases and to provide temporary parking on the site.

Some elements of the site infrastructure and car parking are being undertaken within the phases of the works. phase 1b includes providing displaced parking to the site of the former helipad (Car park area 3 below) to maintain parking numbers as the early phase 2 works to the car parks will impact on the parking numbers (car park area 4 below).

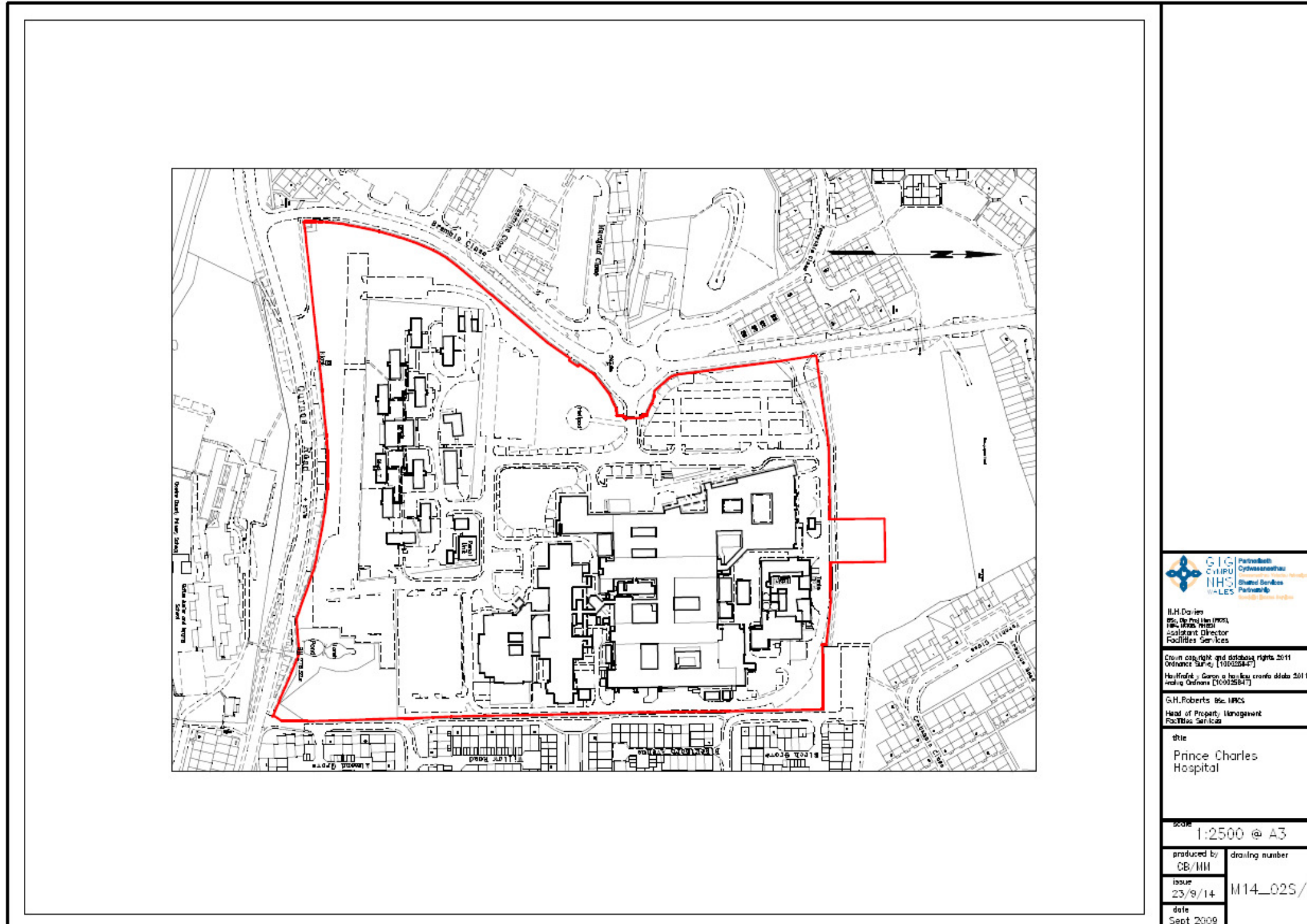
This parking is temporary as once the phase 2 parking is completed the area will revert to the contractor for site accommodation to deliver the phase 2 works. Car park area 3 will be completed in the later phases of the works. The attenuation tanks required for the final drainage out fall are to be placed below the temporary car park to reduce the impact in future phases.



## Section 7 - Site Ownership

## Section 7 - Site Ownership

The drawing below illustrates the boundary of Cwm Taf University Health Board land ownership at the Prince Charles Hospital site. This shows the land acquired since the OBC submission for the relocation of the helipad to the north of the site. All buildings inclusive of new build extensions and those associated with car park works to be undertaken in Scheme 3 are contained within this boundary. In partnership with MTCBC and Merthyr Valley Homes the playground has been relocated and provides an offsite facility which will be managed and owned by these partner organisations.



## Section 8 - Planning Permission Status

### 8.1 Details of Application

## 8.1 Details of Planning Application

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### MERTHYR TYDFIL COUNTY BOROUGH COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990 (as amended)  
The Town and Country Planning (Development Management Procedure)  
(Wales) Order 2012 (as amended)

## FULL PLANNING PERMISSION

To: Cwm Taf University Health Board c/o Boyes Rees Architects F.a.o. Mr K Dumbrill  
Greyfriars Road Cathays Cardiff

**WHEREAS** you submitted an application on the 29th September 2017 to develop: Prince Charles Hospital Gurnos Road Gurnos Merthyr Tydfil CF47 9DT short particulars of the application being as follows:-

Name of the Applicant	Description of Proposed Development
Cwm Taf University Health Board F.a.o. Mr T Burns Ynysmerig House Navigation Park Abercynon	Proposed entrance lobbies, extensions to Hydrotherapy pool, plant rooms, MRI building, double height atrium space and trauma lift (Full)

The Council in pursuance of its powers under the above mentioned Act and Order hereby **GRANTS PERMISSION** for the carrying out of the proposed development as described above and in accordance with the application and plans (if any) submitted with the application subject to compliance with the following conditions.

### CONDITIONS

Please see attached.

Date: 21st December 2017

Signed:   
(Head of Town Planning)

IT IS IMPORTANT THAT YOU READ  
THE NOTES ATTACHED TO THIS FORM

N1V  
Page 2 of 4  
P/17/0286

### CONDITIONS

- The development shall begin not later than five years from the date of this decision.  
**Reason** - To comply with Section 91 of the Town and Country Planning Act 1990.
- The development shall be carried out in accordance with the following approved plans and documents:
  - Site Location Plan - Main Site, received 29th September 2017;
  - Proposed Main Site Plan, received 29th September 2017;
  - Proposed Site Ground Floor Plan, received 29th September 2017;
  - Proposed Site First Floor Plan, received 29th September 2017;
  - Proposed Overall 1-200 Elevations, 1 & 2, received 29th September 2017;
  - Proposed Overall 1-200 Elevations, 3 & 4, received 29th September 2017;
  - Proposed Site Roof Plan, received 29th September 2017;
  - Proposed Aerial View of Site Showing Plant Rooms, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 01, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 02, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 03, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 04, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 05, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 06, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 07, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 08, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 09, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 10, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 11, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 12, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 13, received 29th September 2017;
  - 1-100 Existing-Proposed Elevation 14&15, received 29th September 2017;
  - 1-100 Proposed Elevations 19, 20 & 21 received 29th September 2017;
  - Workstream 1 Contract 2, Existing Below Ground Drainage, received 29th September 2017;
  - Phase 1B Works, Plantroom X, Drainage Layout, received 29th September 2017;
  - Contract 2, Workstream 1, Drainage Layout, Sheet 1 of 3, received 29th September 2017;
  - Contract 2, Workstream 1, Drainage Layout, Sheet 2 of 3, received 29th September 2017;
  - Contract 2, Workstream 1, Drainage Layout, Sheet 3 of 3, received 29th September 2017;**Reason** - To ensure compliance with the approved plans and clearly define the scope of the permission.
- Prior to the construction of the development, details/samples of the material finishes (wall and roof) shall be submitted to and approved in writing by the Local Planning Authority. The development shall be completed on-site in accordance with the approved details.  
**Reason** - In the interest of visual amenity and in compliance with the Merthyr Tydfil Local Development Plan 2006-2021.

N1V  
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- 4 Construction works relating to the development shall not take place other than during the following times:

Monday to Friday - 0800hrs - 1800hrs

Saturday- 0900hrs - 1400hrs

Not at any time on Sundays, Bank or Public Holidays unless otherwise agreed in writing by the Local Planning Authority.

**Reason** - To ensure that the noise omitted from construction works is not a source of nuisance to occupants of nearby residential properties, in compliance with the policies of the Merthyr Tydfil Local Development Plan 2006-2021.

- 5 All plant, machinery and equipment installed or operated in connection with the carrying out of this permission shall be so enclosed and/or attenuated that noise therefrom does not, at any time, increase the background noise levels as measured according to British Standards 4142:1997 at any adjoining or nearby residential property.

**Reason** - To protect residential amenity and in compliance with the policies contained within the Merthyr Tydfil Local Development Plan 2006-2021.

#### INFORMATIVES

1. The applicant is advised that surface water from the proposed development shall only discharge into the public surface water sewer.

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#### NOTES

Your attention is drawn to the following:-

Appeals to the Welsh Government:

- If you are aggrieved by the decision of the Local Planning Authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Welsh Government under Section 78 of the Town and Country Planning Act 1990 (as amended).
- If you want to appeal, then you must do so within **six months** of the date of this notice, using a form which you can get from The Planning Inspectorate, Crown Buildings, Cathays Park, Cardiff, CF10 3NQ. Alternatively you can use the Planning Portal (Wales) website ([www.planningportal.gov.uk](http://www.planningportal.gov.uk)) to complete your appeal.
- The Welsh Government can allow a longer period of an appeal, but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Welsh Government need not consider an appeal if it seems that the Local Planning Authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any Development Order and to any directions given under a Development Order.
- In practice, the Welsh Government does not refuse to consider appeals solely because the Local Planning Authority based their decision on a direction given by them.

Purchase Notices:

- If either the Local Planning Authority or the Welsh Government refuses permission to develop land or grants it subject to conditions, the owner may claim that he/she can neither put the land to a reasonable beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.
- In these circumstances, the owner may serve a Purchase Notice on the Council. This notice will require the Council to purchase his/her interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990 (as amended).

PLEASE NOTE: THIS NOTICE RELATES ONLY TO A PLANNING DECISION AND DOES NOT RELATE TO OTHER LEGISLATION INCLUDING ANY LEGISLATION UNDER:

BUILDING REGULATIONS  
LISTED BUILDING LEGISLATION  
HIGHWAY LEGISLATION

IF PLANNING PERMISSION HAS BEEN GRANTED IT IS ADVISABLE TO ESTABLISH WHETHER ANY OTHER FORM OF CONSENT IS REQUIRED AND TO OBTAIN SUCH CONSENT BEFORE COMMENCING DEVELOPMENT

**Please quote the application number in all correspondence.**



## Section 9 - Quality Assurance and Compliance

- 9.1 AEDET
- 9.2 BREEAM
- 9.3 Statement of Design Standards

## 9.1 AEDET

### Introduction

The AEDET assessment is a continuous subjective appraisal of where the building stands in comparison with best practice.

Healthcare building design frequently involves complex concepts which are difficult to measure and evaluate. The AEDET toolkit evaluates a design by posing a series of clear, non-technical statements, encompassing the three key areas:

- Impact
- Build Quality
- Functionality

The three areas are split into ten assessment criteria which are used to assess how well a healthcare building complies with best practice. The three evaluation areas and associated assessment criteria are outlined overleaf

### Impact

The ‘impact’ section deals with the extent to which the building creates a sense of place and contributes positively to the lives of those who use it and are its neighbours.

‘Impact’ is assessed under the following four criteria:

- Character and Innovation
- Form and Materials
- Staff and Patient Environment
- Urban and Social Integration

### Build Quality

The ‘build quality’ section deals with the physical components of the building rather than the spaces. This is therefore what might be thought of as the more technical and engineering aspects of the building. It asks whether

the building is soundly built, will be reliable and easy to operate, last well and is sustainable. It is also concerned

with the actual process of construction and the extent to which any disruption caused is minimised. ‘Build quality’

is assessed under the following three criteria:

- Performance
- Engineering
- Construction

### Functionality

The ‘functionality’ section deals with all those issues to do with the primary purpose or function of the building.

It deals with how well the building serves these primary purposes and the extent to which it facilitates or inhibits

the activities of the people who carry out the functions inside and around the building. ‘Functionality’ is assessed

under the following three criteria:

- Use
- Access

- Space

### Assessment Process

The AEDET process assesses each criterion by asking a set of questions that are then weighted and scored by the design team. Each question can either be weighted as High.

(2), Normal (1) or Zero (0), guidance within the assessment tool helps the design team and AEDET assessor assess the weighting. Once weighed the question is then scored as; Virtually Total Agreement (6); Strong Agreement (5); Fair Agreement (4); Little Agreement (3); Hardly Any Agreement (2); Virtually No Agreement (1); and Unable to Score (0)

As part of the development of the FBC for Prince Charles Hospital an AEDET review was undertaken. The latest review took place on Friday 26<sup>th</sup> May 2017, between 2pm and 5pm, in the Lecture Theatre, Education and Training Centre, First Floor, Prince Charles Hospital, Merthyr Tydfil. The session was facilitated by the NHS Wales Shared Services Partnership Specialist Estates Framework Manager

Workshop attendees included Health Board staff and members of the project team

The design was scored by the attendees in a facilitated exercise.

The workshop consisted of:-

- An introduction and overview by the Project Director
- A description of the AEDET process and aims by the Framework Manager
- A presentation of the design by Boyes Rees Architects
- Questions on the design fielded by the project team and then a facilitated review and discussion of the design of the remodelling works
- A scoring exercise by the attendees.

A copy of the AEDET results score sheet is below and the full AEDET results are in Appendix A4

Achieving Excellence Design Evaluation Toolkit (AEDET Evolution)						NHS			
Project details:		Title							
		Prince Charles Hospital Ground and First Floor Refurbishment Phase 2							
Workshop details:		Location		Date					
		The Lecture Theatre, Prince Charles Hospital		26 May 2017					
Results summary:									
		1	2	3	4	5	6	Average Score	Scored
A:	▶ Character and innovation				■			4.8	5 of 5 scored
B:	▶ Form and materials				■			4.7	6 of 5 scored
C:	▶ Staff and patient environment					■		5.3	10 of 8 scored
D:	▶ Urban and social integration								0 of 4 scored
E:	▶ Performance					■		5.0	4 of 4 scored
F:	▶ Engineering					■		4.6	5 of 5 scored
G:	▶ Construction					■		4.5	10 of 7 scored
H:	▶ Use					■		5.2	11 of 7 scored
I:	▶ Access					■		4.3	4 of 7 scored
J:	▶ Space					■		4.6	8 of 6 scored

NOTE: A filled traffic light dot [■] in the table above indicates a valid average score, a hollow dot [□] indicates that one or more statements have been marked as 'unable to score'.

## 9.2 BREEAM

### Introduction

Please refer to Appendix A5 for a copy of the BREEAM Design Stage assessment

BREEAM is the world's foremost environmental assessment method and rating system for buildings. The BREEAM process sets the standard for best practice in sustainable building design, construction and operation and has become one of the most comprehensive and widely recognised measures of a building's environmental performance.

The Prince Charles Hospital design team appointed and engaged with Greenbuild, the project BREEAM assessor early in the design stage; in order to maximise opportunities to integrate sustainable philosophies and the BREEAM methodology into the project.

BREEAM scheme covers ten categories of sustainability including:

- Management
- Health & Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use and Ecology
- Pollution
- Innovation

BREEAM is being assessed for the whole programme of works; there is not a separate BREEAM assessment for phase 2. The project was assessed against BREEAM 2008 but on the recommencement of works under the new strategy it was confirmed that the assessment was to be undertaken under BREEAM 2014. The opportunity to achieve very good against BREEAM 2014 on a fully designed scheme was discussed with NWSSP-SES as the opportunity to obtain certain credits had passed. It was agreed that the project could target a 'good+'. The current BREEAM assessment is contained in Appendix A.5

The BREEAM assessor held a BREEAM workshop where the design team and the assessor collaborated in producing a draft BREEAM pre-assessment. After the workshop the design team individually reviewed the pre-assessment against their existing design and provided commitment for the credits they would be targeting.

Sustainable measures that will be incorporated in the design process are:

#### Management

Stakeholder participation; the involvement of relevant stakeholders during the design process will ensure the building is fit for purpose and increase ownership.

Sustainable procurement; the involvement of a BREEAM Accredited Professional will ensure all opportunities to enhance sustainability within the project are exploited whilst engaging in the BREEAM process to make sure the performance targets are achieved.

#### Health and Wellbeing

Visual comfort; the lighting design considers the specification of artificial lighting in accordance with the latest CIBSE Code for Lighting to provide lighting in line with best practice for visual performance and comfort.

#### Indoor air quality

Safety and security; the design team have engaged and sought advice from the local police Architectural Liaison Officer or Crime Prevention Design Advisor on designing out the opportunity for crime, in accordance with the principles and guidance of Secured by Design.

#### Energy

Reduction of CO2 emissions; the design will embrace the Mean, Lean, Green carbon saving hierarchy. Firstly passive (Mean) design measures such as natural ventilation will be incorporated wherever appropriate to deliver significant carbon savings at relatively low, additional costs. Secondly, active (Lean) measures are included such as specifying energy efficient plant that supply, use and recycle energy efficiently. And lastly low or zero carbon (Green) technologies are considered which help reduce carbon emissions but are generally higher capital cost technologies.

Energy monitoring; the design will integrate separate accessible energy sub-meters, labelled with the end energy consuming use to facilitate the monitoring and reduce the consumption of energy.

Low or zero carbon technologies; a low zero carbon feasibility study should be carried out to establish the most appropriate University LZC energy source for the development to supply a significant proportion of the energy demand.

#### Transport

Travel plan; the development will promote sustainable travel and movement through the utilisation, promotion and ongoing adaptation of a Travel Plan.

Proximity to amenities; as part of the overall works programme key facilities such as cash machine will be provided on site which will reduce the requirement for staff, patients and visitors to make multiple off site.

#### Water

Water Consumption; the design will look to include low water use sanitary appliances to minimise the consumption of potable water.

Water monitoring; the design includes a water meter connected remotely to the developments BMS to ensure water consumption can be monitored and managed therefore encouraging reduction in water usage.

#### Materials

Life cycle impacts; the design will look to favour the use of construction materials with a low environmental impact over the full life cycle of the building.

Responsible sourcing of materials; the design will look to favour the use of construction materials with known Environmental Management Systems to reduce the environmental impact of the development on extracting and processing building materials.

#### Waste

Construction waste management; a Site Waste Management Plan will ensure resource efficiency via the effective and appropriate management of construction site waste.

Operational Waste; a dedicated storage space will be provided to facilitate the recycling of operational waste so that it can be diverted from landfill or incineration.

## 9.3 Statement of Design Standards

The design development commenced in line with the relevant HTMs and HBN Guidelines, British Standards and OBC documentation. As the design developed from the OBC certain aspects of the Clinical and Non-clinical design briefs were developed and clarified which lead to a number of changes from the original OBC plans.

This document cautions that this places limitations upon delivering compliant facilities to varying degree.

Issues of design standards and compliances have been informed and agreed by full engagement with Bureau Veritas Building Control, MTBC Planning Authority and Fire Advisors.

Any derogations against the current HTMs and HBNs are captured in the derogation schedules in Appendix A2. Also included are a list of the M&E design standards that were current at the time of design and a document outlining the implications of compliance with HTM 06 2017 against Target Cost and Design. The HTM was issued after the design was completed.

The quality of the design will be ensured by the review and final sign off process inherent in Interserve's Design Management Procedures. The process ensures that the proposals respond to the brief and this is verified with the Health Board through from initial concepts to the submission documents presented here, and on through construction to commissioning

## Section 10 - Capital Costs and Projected Cash Flows

- 10.1 Preferred Option
- 10.2 Non Preferred Option
- 10.3 Cashflow Spreadsheets

**Full Business Case**

Health Board : Cwm Taf University Health Board  
Hospital/Site : Prince Charles Hospital, Merthyr Tydfil  
Project Title : Phase 2 - Ground & First Floor Refurbishment Works (Contract 3)  
Project No : TBC  
Prepared by : Interserve/Gleeds  
Date : 22 January 2019

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**BASIS OF ESTIMATING**

Market tested in line with D4L procedures with framework Contractor

BIS PUBSEC Index Level : 1st Quarter 2018  
(NB: Post Contract VOP and inflation from  
1st Quarter 2018 are excluded)  
Equipment cost level: N/A  
Location factor: N/A  
Proposed start on site: Jun-19  
Proposed completion date: Apr-26

Full Business Case Capital Cost Summary

	Costs managed by						Total		
	SCP			Health Board			Net	VAT	Gross
	Net	VAT	Gross	Net	VAT	Gross			
<b>Works Cost</b>	112,595,847	22,519,169	135,115,016				112,595,847	22,519,169	135,115,016
<b>Fees:</b>									
<b>SCP:</b>									
Interserve Health Wales - Pre-construction	363,432	72,686	436,118				363,432	72,686	436,118
Design Team	-	-	-				-	-	-
Health Planner	-	-	-				-	-	-
Architect	1,269,088	253,818	1,522,906				1,269,088	253,818	1,522,906
Civil and Structural Engineer	372,391	74,478	446,869				372,391	74,478	446,869
Building Services Engineer	1,181,773	236,355	1,418,128				1,181,773	236,355	1,418,128
Principal Designer	303,240	20,648	323,888				303,240	20,648	323,888
Building Services Installer - pre-construction	186,932	37,386	224,318				186,932	37,386	224,318
Phases 3 & 4 Stage 3 Design Fees	1,809,212	361,842	2,171,054				1,809,212	361,842	2,171,054
Additional Stage 3 fees	126,087	134,634	260,721				126,087	134,634	260,721
BREEAM	21,049	4,210	25,259				21,049	4,210	25,259
<b>Health Board:</b>									
Project Manager				2,083,000	-	2,083,000	2,083,000	-	2,083,000
Cost Advisor				2,009,249	-	2,009,249	2,009,249	-	2,009,249
Supervisor				1,125,958	225,192	1,351,150	1,125,958	225,192	1,351,150
Project Director				540,000	-	540,000	540,000	-	540,000
In-house Project Sponsorship				1,309,772	-	1,309,772	1,309,772	-	1,309,772
Audit				147,000	-	147,000	147,000	-	147,000
Specialist Advisors: Asbestos Analyst				750,000	-	750,000	750,000	-	750,000
Specialist Advisors: VAT Advisor				60,000	-	60,000	60,000	-	60,000
Phases 3 & 4 (Stage 3): Project Manager				100,000	-	100,000	100,000	-	100,000
Phases 3 & 4 (Stage 3): Cost Advisor				200,000	-	200,000	200,000	-	200,000
Phases 3 & 4 (Stage 3): In-house Project Sponsorship				221,359	-	221,359	221,359	-	221,359
Phase 3 (Stage 3): Healthcare Planner				40,000	-	40,000	40,000	-	40,000
Previous years Stage 3 fees				8,453,215	-	8,453,215	8,453,215	-	8,453,215
<b>Non-works Costs</b>									
Land purchase costs and associated legal fees									
Statutory and Local Authority charges				225,000	45,000	270,000	225,000	45,000	270,000
Planning and Building Control fees				132,561	26,512	159,073	132,561	26,512	159,073
Other Non-Works Costs				6,451,376	1,290,275	7,741,651	6,451,376	1,290,275	7,741,651
<b>Equipment Costs</b>									
Group 2									
Group 3				10,958,700	2,191,740	13,150,440	10,958,700	2,191,740	13,150,440
Group 4									
Sundries									
<b>Contingencies:</b>									
Quantified risk contingency	3,435,706	687,341	4,122,847	11,177,010	2,235,402	13,412,412	14,612,716	2,922,543	17,535,259
<b>VAT Reclaim as CBC Assumptions</b>		(8,299,309)	(8,299,309)					(8,299,309)	(8,299,309)
<b>Anticipated Capital Cost Outturn</b>	<b>121,464,757</b>	<b>16,109,058</b>	<b>137,567,815</b>	<b>45,984,200</b>	<b>6,014,121</b>	<b>51,998,321</b>	<b>167,448,957</b>	<b>22,117,179</b>	<b>189,566,136</b>
Inflation to Target Price									
Inflation during Construction									
<b>Anticipated Capital Scheme Cost</b>									
Scheme Expenditure to Date									
<b>Anticipated Capital Cost Outturn</b>									

NOTES:  
Please note the above figures exclude post contract VOP and Inflation from 1st Quarter 2018, Including DAL3 Year 7 Staff Uplifts for PM, CA, ICL and IES.  
The VAT Reclaim is based on the CBC assumptions and response from Tim Glover to Huw Evans email dated 20.06.18 advising the calculation is not unreasonable.

Full Business Case

Summary of Supply Chain Costs

		VAT	Gross	
Refurbishment of Ground & First Floors	112,595,847	22,519,169	135,115,016	
<b>Total Cost of Buildings (Including external works)</b>	<b>112,595,847</b>	<b>22,519,169</b>	<b>135,115,016</b>	
<b>Total Cost of External Works</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Total Cost of Works</b>	<b>112,595,847</b>	<b>22,519,169</b>	<b>135,115,016</b>	
<b>SCP Fees: (Including SCP Fee)</b>				
Interserve Health Wales - Pre-construction	363,432	72,686	436,118	
Design Team				
Health Planner				
Architect	1,269,088	253,818	1,522,906	
Civil and Structural Engineer	372,391	74,478	446,869	
Building Services Engineer	1,181,773	236,355	1,418,128	
Principle Designer	103,240	20,648	123,888	
Building Services Installer - pre-construction	186,932	37,386	224,318	
Phases 3 & 4 Stage 3 Design Fees	1,809,212	361,842	2,171,054	
Additional Stage 3 fees	126,087	134,634	260,721	
BREEAM	21,049	4,210	25,259	
<b>Total Cost of SCP Fees</b>	<b>5,433,204</b>	<b>1,196,057</b>	<b>6,629,261</b>	
<b>SCP Quantified risk provision</b>	<b>3,435,706</b>	<b>687,141</b>	<b>4,122,847</b>	<b>2.91%</b>
<b>Total SCP Anticipated Target Out-turn Cost</b>	<b>121,464,757</b>	<b>24,402,367</b>	<b>145,867,124</b>	

Full Business Case

Summary of Health Board Costs

	Net	VAT	Gross
<b>Health Board Fees</b>			
Project Manager	2,083,000		2,083,000
Cost Advisor	2,009,249		2,009,249
Supervisor	1,125,958	225,192	1,351,150
Project Director	540,000		540,000
In-house Project Sponsorship	1,309,772		1,309,772
Audit	147,000		147,000
Specialist Advisors: Asbestos Analyst	750,000		750,000
Specialist Advisors: VAT Advisor	60,000		60,000
Phases 3 & 4 (Stage 3): Project Manager	100,000		100,000
Phases 3 & 4 (Stage 3): Cost Advisor	200,000		200,000
Phases 3 & 4 (Stage 3): In-house Project Sponsorship	221,359		221,359
Phase 3 (Stage 3): Healthcare Planner	40,000		40,000
Previous years Stage 3 fees	8,453,215		8,453,215
<b>Total Cost of Trust Fees</b>	<b>17,039,553</b>	<b>225,192</b>	<b>17,264,745</b>
<b>Non-works costs:</b>			
Land purchase costs and associated legal fees			
Statutory and Local Authority charges	225,000	45,000	270,000
Electrical Supply - Dual Supply			
Water Supply			
Gas Supply			
BT & Virgin Connections			
<b>Planning and Building Control fees</b>			
Planning Fee	26,311	5,262	31,573
Building Control	106,250	21,250	127,500
<b>Other Non-Works Costs</b>			
Y Prentiss Community Benefits	260,000	52,000	312,000
IT & Active Equipment Installation	650,000	130,000	780,000
Commissioning & De-Commissioning	730,000	146,000	876,000
Decant Costs	2,000,000	400,000	2,400,000
Surveys	203,913	40,783	244,696
Conject	57,463	11,493	68,956
Estates Support For Isolations & Issues	270,000	54,000	324,000
Clinical Clean	75,000	15,000	90,000
Temporary Signage	30,000	6,000	36,000
HTM 06 2017 - Additional requirements	350,000	70,000	420,000
Temporary Units 2 & 3 - Additional rental period	1,200,000	240,000	1,440,000
Additional 2nd Generator	625,000	125,000	750,000
<b>Total Cost of Non Works Cost</b>	<b>6,808,937</b>	<b>1,361,788</b>	<b>8,170,725</b>
<b>Equipment Costs:</b>			
Group 2		0	0
Group 3	10,958,700	2,191,740	13,150,440
Group 4		0	0
Sundries - Abatement for Transfer		0	0
<b>Total Cost of Equipment</b>	<b>10,958,700</b>	<b>2,191,740</b>	<b>13,150,440</b>
<b>Contingencies:</b>			
Quantified risk contingency	11,177,010	2,235,402	13,412,412
<b>Health Board Contingency Provision</b>	<b>11,177,010</b>	<b>2,235,402</b>	<b>13,412,412</b>
<b>Total Health Board Anticipated Out-turn Costs</b>	<b>45,984,200</b>	<b>6,014,122</b>	<b>51,998,322</b>

PROJECT CASHFLOW FORECAST

Proposed start on site: Jun-19  
 Proposed completion date: Apr-26

Year	Previous Years	1	2	3	4	5	6	7	8	9	Total
Financial year	2016-18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	
Works Cost	-	-	7,528,952	22,552,179	17,283,965	23,263,505	27,395,715	10,213,786	4,283,247	74,500	112,595,849
Fees	9,914,600	166,605	1,230,026	1,462,772	2,578,375	2,630,796	1,537,718	1,462,772	1,399,722	89,372	22,472,758
Non-works Costs	-	-	1,590,424	1,223,102	1,020,696	731,793	776,431	776,431	682,126	7,934	6,808,937
Equipment Costs	-	-	-	1,317,730	701,551	2,363,039	5,243,325	240,694	1,092,361	-	10,958,700
Quantified risk provision	-	-	1,178,185	2,774,728	2,231,856	2,792,008	3,176,428	1,569,534	882,998	6,979	14,612,716
<b>Sub-total</b>	<b>9,914,600</b>	<b>166,605</b>	<b>11,527,587</b>	<b>29,330,511</b>	<b>23,816,443</b>	<b>31,781,141</b>	<b>38,129,617</b>	<b>14,263,217</b>	<b>8,340,454</b>	<b>178,785</b>	<b>167,448,960</b>
Gross VAT	292,277	33,321	2,153,904	5,681,766	4,522,817	6,118,157	7,441,587	2,668,308	1,483,755	20,493	30,416,385
Less: Reclaimable VAT	- 101,277	- 11,662	- 550,568	- 1,605,134	- 1,294,803	- 1,717,781	- 1,949,428	- 741,446	- 321,895	- 5,215	- 8,299,209
Net VAT	191,000	21,659	1,603,336	4,076,632	3,228,014	4,400,376	5,492,159	1,926,862	1,161,860	15,278	22,117,176
<b>Total</b>	<b>10,105,600</b>	<b>188,264</b>	<b>13,130,923</b>	<b>33,407,143</b>	<b>27,044,457</b>	<b>36,181,517</b>	<b>43,621,776</b>	<b>16,190,079</b>	<b>9,502,314</b>	<b>194,063</b>	<b>189,566,136</b>

-

Cost from FBC /

CASHFLOW FORECAST OF FUNDING SOURCES

Proposed start on site: Jun-19  
 Proposed completion date: Apr-26  
 Funding source: Department for Health and Social Services; Welsh Government

Year	Previous Years	1	2	3	4	5	6	7	8	9	Total
Financial year	2016-18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	
Works Cost	-	-	7,528,952	22,552,179	17,283,965	23,263,505	27,395,715	10,213,786	4,283,247	74,500	112,595,849
Fees	9,914,600	166,605	1,230,026	1,462,772	2,578,375	2,630,796	1,537,718	1,462,772	1,399,722	89,372	22,472,758
Non-works Costs	-	-	1,590,424	1,223,102	1,020,696	731,793	776,431	776,431	682,126	7,934	6,808,937
Equipment Costs	-	-	-	1,317,730	701,551	2,363,039	5,243,325	240,694	1,092,361	-	10,958,700
Quantified risk provision	-	-	1,178,185	2,774,728	2,231,856	2,792,008	3,176,428	1,569,534	882,998	6,979	14,612,716
<b>Sub-total</b>	<b>9,914,600</b>	<b>166,605</b>	<b>11,527,587</b>	<b>29,330,511</b>	<b>23,816,443</b>	<b>31,781,141</b>	<b>38,129,617</b>	<b>14,263,217</b>	<b>8,340,454</b>	<b>178,785</b>	<b>167,448,960</b>
Gross VAT	292,277	33,321	2,153,904	5,681,766	4,522,817	6,118,157	7,441,587	2,668,308	1,483,755	20,493	30,416,385
Less: Reclaimable VAT	- 101,277	- 11,662	- 550,568	- 1,605,134	- 1,294,803	- 1,717,781	- 1,949,428	- 741,446	- 321,895	- 5,215	- 8,299,209
Net VAT	191,000	21,659	1,603,336	4,076,632	3,228,014	4,400,376	5,492,159	1,926,862	1,161,860	15,278	22,117,176
<b>Total</b>	<b>10,105,600</b>	<b>188,264</b>	<b>13,130,923</b>	<b>33,407,143</b>	<b>27,044,457</b>	<b>36,181,517</b>	<b>43,621,776</b>	<b>16,190,079</b>	<b>9,502,314</b>	<b>194,063</b>	<b>189,566,136</b>

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For the Contractors confirmation of Target Cost refer to Appendix A.15

## Section 11 - Whole Life Cycle Cost Assessment

## Section 11 - Whole Life Cycle Cost Assessment

The entire report is included in Appendix A.14 but the summary sheet is shown below.



PRINCE CHARLES HOSPITAL MERTHYR - SW41372 - PHASE 2  
Cwm Taf University Health Board

ESTIMATED LCC  
16 August 2018

### 3. WLC Summary

Gross Internal Floor Area: 15,737 m<sup>2</sup>  
Discount Factor: 3.50% (3% yrs 31-60)

30 Year Totals	REAL				NPV			
	CAPEX	LCC	FM	WLC	CAPEX	LCC	FM	WLC
Total Cost	121,743,792	34,476,829	30,687,150	186,907,771	121,743,792	15,794,403	18,828,732	156,366,927
Cost per m2 gfa	7,736.15	2,191	1,950	11,877	7,736.15	1,004	1,196	9,936
Cost per m2 gfa average per annum	257.9	73.0	65.0	395.9	257.9	33.5	39.9	331.2
CAPEX ratio over concession period	100%	28%	25%	154%	100%	13%	15%	128%
CAPEX ratio over concession period average per annum	3.3%	0.9%	0.8%	5.1%	3.3%	0.4%	0.5%	4.3%

60 Year Totals	REAL				NPV			
	CAPEX	LCC	FM	WLC	CAPEX	LCC	FM	WLC
Total Cost	121,743,792	86,543,935	61,374,300	269,662,027	121,743,792	30,591,972	27,073,398	179,409,161
Cost per m2 gfa	7,736.15	5,499	3,900	17,136	7,736.15	1,944	1,720	11,400
Cost per m2 gfa average per annum	128.9	91.7	65.0	285.6	128.9	32.4	28.7	190.0
CAPEX ratio over concession period	100%	71%	50%	221%	100%	25%	22%	147%
CAPEX ratio over concession period average per annum	1.7%	1.2%	0.8%	3.7%	1.7%	0.4%	0.4%	2.5%

## Section 12 - Vat Recovery System

## Section 12 - VAT Recovery System

VAT has been applied at 20% for all elements of the FBC.

In relation to VAT Recovery the Health Board VAT advisor is to advise on the likely VAT reclaim percentage that HMRC will approve for the elements of the FBC.

It has been assumed that there will be 100% VAT reclaim for all Health Board direct consultant appointments and for Planning Authority/ Building Control fees.

The above assumptions have been incorporated within the FBC financial forms.

The VAT reclaim percentage has been reviewed during the OBC and has been applied to the FBC to be reviewed by the Health Board VAT advisors when the HMRC discussions have been completed.

## Section 13 - Reconciliation of Functional Comparison between OBC and FBC

### 13.1 Comparison of Departmental Areas OBC to FBC

## 13.1 Summary Comparison of Departmental Areas OBC to FBC

Prince Charles Hospital Reconfiguration  
Cwm Taff University Health Board

Prince Charles Hospital Phase 2	Briefed Area	Comments	As Drawn	
			OBC	FBC
Radiology	1641.9	5005-P003-BRA-V14-00-DR-A-011401-15	1712.14	1594.9
Endoscopy	732.9	5005-P003-BRA-V13-01-DR-A-011335-11	743.17	745.4
Cardio Pulmonary & Diabetes	310.9	5005-P003-BRA-V03-00-DR-A-010032-4	581.0	578.8
Outpatients	1711.3	5005-P003-BRA-V13-00-DR-A-011133 -11	1793.0	1815.8
Max Facs	610.5	5005-P003-BRA-V13-01-DR-A-011134-17	647.0	727.0
Therapies	1019.3	5005-P003-BRA-V13-00-DR-A-011132-16	985.5	982.3
MDTU	2088.5	Multiple	2191.8	1883.5
Theatres	3662.9	5005-P003-BRA-V04-01-DR-A-010400-12	3991.6	3959.1
Critical Care	753.6	5005-P003-BRA-V14-01-DR-A-011402-12	739.8	732.4
OPD Decant	0	5005-P003-BRA-V02-00-DR-A-010021-6	1182.1	1182.1
Cardio Pulmonary Decant	349.7	5005-P003-BRA-V13-01-DR-A-011131-2	349.7	349.7
Physiotherapy & Neurophysiology Decant	0	5005-P003-BRA-V03-00-DR-A-010031-2	570.0	570.0
<b>Department GROSS Total</b>	<b>12881.5</b>		<b>15486.7</b>	<b>15120.9</b>

A complete breakdown for each department is included in the Schedules of Accommodation OBC-FBC which is located in Appendix A1

## Section 14 - Risk Management

### 14.1 Reconciliation of commitment of quantified risk

## 14.1 - Reconciliation of commitment of quantified risk

Please refer to Appendix A.3 Risk Register.

### Risk Management Strategy

The project risk register is held by the University Health Board and reviewed and updated regularly.

The operational risk register is held by Gleeds Project Management. The team have ensured that these documents interface and all of the risks are being managed through the design process.

The OBC project risks previously identified, have been reviewed and allocated to the appropriate owner, where possible they have been quantified.

Each risk has an individual strategy to manage risk to reduce or eliminate the effect these risks will have on the project. More attention has been given to those risks with a high likelihood and/or impact on the project. The register has been colour coded to identify the high risk items so that they can be targeted and ensure the control measures identified; manage and reduce the risk during the works phases.

The management of the risks during FBC stage have generally followed the following process: -

- During the FBC period, the risk register was held by UHB and updated by the PM.
- The PM coordinated the control measures with the UHB risks and identified with the SCP how the Stage 4 construction risks are best managed.
- The risks were updated regularly by the Project team and have been formally reviewed on at least a monthly basis by the UHB, PM and TCA. All parties were tasked with minimising or eliminating risk, with the risk owner managing the risk once it has been correctly allocated.
- The Preferred Option underwent extensive measuring and BoQ were produced together with market testing for the following packages -

Ground works  
 External works  
 Steel frame  
 Composite floor decks  
 Roof coverings  
 Façade cladding  
 Masonry  
 Precast stairs  
 Steel stairs  
 Hand rails and balustrades  
 Temporary accommodation  
 M&E installation  
 Windows & external doors  
 Partitions and ceilings  
 Floor finishes  
 Doors, carpentry and joinery  
 Wall protection measures  
 Furniture and fitted equipment  
 IT & Data communications  
 Security screens and shutters

Decorations  
 Landscaping  
 Hard landscaping  
 Signage  
 Removal of temporary accommodation

In addition to the above, the following surveys were undertaken -

Asbestos  
 Below ground drainage  
 3-D laser scanning of existing buildings  
 Geotechnical Investigations  
 Dimensional Surveys  
 Topographical Survey  
 Drainage flow rate monitoring.

The value of Risk contingency, together with the current Risk identified, have taken cognisance of these exercises.

Any risks which remain at the end of the FBC process will remain on the risk register and agreement on ownership will again be reviewed and the revised document will form part of the FBC and Target price documentation and will then be processed in accordance with the NEC/Framework processes.

The responsibility for the risk is noted in the risk register columns as follows:

- Where the University Health Board is the owner of the risk is noted as 'UHB'.
- Where the SCP is the owner of the risk is noted as 'SCP'.

# Appendices

- A.1 Schedule of Accommodation
- A.2 Schedule of Derogations
  - A.2.1 Architect's SOA Derogation
  - A.2.2 Architect's Derogations Statement
  - A.2.3 Civil/Structural Derogation Report
  - A.2.4 M&E Derogation Report
  - A.2.5 M&E Design Standards
  - A.2.6 Implications to Design and Target Cost of HTM 06 2017
- A.3 Risk Register
- A.4 AEDET Assessment
- A.5 BREEAM Assessment
- A.6 Acoustic Reports
  - A.6.1 Environmental Noise Survey Report
  - A.6.2 Vibration Survey report
  - A.6.3 Plantroom X Noise Assessment Report
- A.7 Fire Strategy Report
  - A.7.1 Construction Phase Fire Strategy
  - A.7.2 Phase 2 Final Fire Strategy
- A.8 M&E Servicing Strategies
  - A.8.1 Electrical Servicing Overview
  - A.8.2 OPD Servicing Strategy
  - A.8.3 Endoscopy Servicing Strategy
  - A.8.4 Therapies Servicing Strategy
  - A.8.5 MAX FACS Servicing Strategy
  - A.8.6 Theatres Servicing Strategy
  - A.8.7 Critical Care Servicing Strategy
  - A.8.8 Radiology Servicing Strategy
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