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REPORT

Tenants Requirements for the Bromley Health & Wellbeing Centre

April 2019



NHS
Bromley
Clinical Commissioning Group

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Tenants Requirements for the Bromley Health & Wellbeing Centre – Bromley Clinical Commissioning Group

Document control

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1 Introduction

This document sets out the User Brief for the Design Team for the proposed Bromley Health and Wellbeing Centre.

Vision

The vision which underpins the Bromley Health & Wellbeing Centre. This is aligned fully with a number of national policies and strategies including;-

- Five Year Forward View;
- Healthy Lives, Healthy People: Our strategy for public health;
- Transforming Community Services;
- The NHS Outcomes Framework;
- Quality, Innovation, Productivity and Prevention (QIPP) programmes.

In addition to facilitating the Strategic Goals of local Commissioners and the health economy wide clinical case for change, the centre aligns particularly with national health policy goals around strengthening primary care, reducing over reliance on hospital care and improving the care of patients with long term conditions, enabling them to remain in the community.

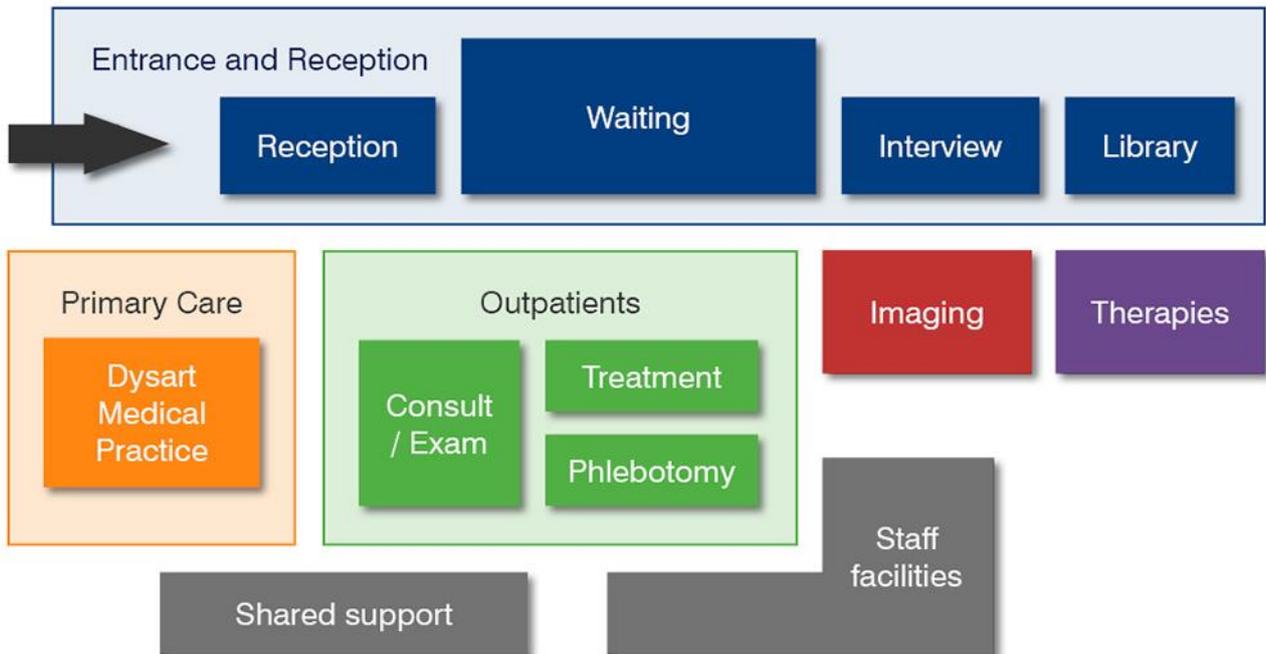


Figure 1 - &WBC High Level Adjacency Diagram

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In this context, the Centre will deliver the following for the local population:-

- Services to meet specific needs of the local population;
- A health infrastructure to support people living longer, healthier lives;
- Improved access to services in the community and closer to home;
- Better quality and more accessible Primary Care premises;
- Collaborative working to develop partnerships;
- Improved quality and fit for purpose care pathways;
- Maximised value of available resources;
- High quality integrated care;
- Improved health outcomes for the local population;
- Earlier identification and better management of long term conditions;
- Improved patient choice and independence around health and wellbeing.

The Centre will provide accommodation for services including or likely to include those shown below. Further details of the clinical services to be provided in the Centre are set out in Section 2.

Table 1 - Services anticipated to be accommodated

Service	Example
Primary Care	Relocation of local Dysart Medical Practice, Primary Care Access Hub
Secondary Care	Outpatients, Physiotherapy
Community Health	Diabetes, Podiatry, Dietetics
Endoscopy	Endoscopy Procedures
Public Health And Wellbeing	Sexual Health clinics, Smoking Cessation

Location

The Bromley H&WBC is proposed to be located at the Adventure Kingdom site currently identified on the plan shown in Appendix B.

Demand and Capacity

The functional content and size of the Centre have been based upon the output from a dynamic activity modelling exercise. This has incorporated demand projections provided by the CCG and agreed throughout and utilisation assumptions. These are detailed in Section 2 and Appendix B.

This document provides a specification that will achieve the clinical deliverables according to best practice and ensure the adaptability of the facility to take account of future service changes.

2 Services Description

2.1 Range of Services

The H&WBC will provide the following services:

Primary Medical Care Services

- Dysart Medical Practice;
- Primary Care Access Hub.

Secondary Care

- Diabetes;
- Diabetic Retinopathy;
- Cardio-Vascular disease service;
- Public Health/wellbeing;
- Midwifery Services – Parent-craft, Ante-natal & Post-natal;
- Podiatry.

Secondary care outpatients, therapy and diagnostics

- Physiotherapy;
- Domiciliary and clinical services;
- Phlebotomy;
- Ultrasound
- Echocardiography.

Endoscopy Suite

- Endoscopy procedures.

Mental Health

- Employment support & Rehab;
- Improving Access to Psychological Therapies Programme (IAPT).
- IAPT evening sessions for commuters;

Public Health

The Centre may offer Public Health and wellbeing services, possibly including:-

- Smoking cessation;
- Sexual health;
- Weight management;
- Counselling.

In addition it is anticipated that the Centre will be the focus for a wide range of health and wellbeing activities in association with the local voluntary sector and the zoning of accommodation should facilitate such use including outside normal operational hours.

2.2 Operational details

Operational Hours

The H&WBC will be open from 08:00 – 20:00, Monday to Friday and from 08:00 – 13:00 on Saturdays and Sundays. Services will be available to both registered and unregistered patients.

It is envisaged that most patients will access services at the facility via booked appointments. Services will be scheduled throughout the day to take into consideration people's work patterns and lifestyles. This will also enable the volume of people accessing the H&WBC to be managed, typically, over a 65 hour per week.

Staffing Levels

It is envisaged that the number of clinical, administrative and support staff present in the overall facility at any one time will be in the order of 60 people (see Table 1). Where patients have a booked appointment to see a clinician for a consultation or examination, there may be other professional colleagues and escorts in attendance with rooms sized accordingly.

Multidisciplinary care will be provided within the facility, depending on the specific health needs of the patient. Staff will therefore expect to be mobile and operate throughout the facility. Staff will be present in the Centre either on a full-time or sessional basis. The brief has been prepared on the following planning assumptions on full time presence:

Reception

Space is required for reception staff at ground floor covering the main entrance. In addition, there will be dedicated reception points for primary care services and (shared) for outpatients, therapies and endoscopy. NOTE: this is only a possible configuration at present as there is not yet a design for the building. This requirement will be reviewed during the design process.

Security

Security staff will be present during normal opening hours and it is envisaged they will have a base provided at the main reception. This role may include other support functions. The H&WBC will be monitored by CCTV, the extent of which will be determined by the layout of the facility.

Primary Medical Care

For Dysart Medical Practice typically 6 General Practitioners and up to 3 Practice Nurses will be present during operational hours. A Practice Manager and administrative support staff will be present during operational hours

Typical staff numbers likely to be present across the range of services to be provided in the H&WBC are shown in Table 1.

Approximately 600 patients (not including escorts) will attend the Centre daily.

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Table 2 - Typical staff requirements H&WBC

Service	Accommodation		Typical Staff Numbers Present per Room					
	Room no	No.	Medical	Nursing	AHP	Admin	Other	Total
Primary Care	Consult.							
	Treat.							
	Group							
	Office w/s							
	Interview							
Sub total								
Outpatients	Consult.							
	Treat.							
	Group							
	Interview							
	Weigh/Measure							
Sub total								
Imaging	Plain Film							
	U/Sound							
	Office w/s							
	Reception							
Sub total								
Therapies	Interview							
	Activity							
	Treatment							
	Office w/s							
	Reception							
Sub total								
Main Entrance, Shared support	Main reception							
	Interview							
	Library							
	Café							
	Seminar							
	Centre Manager							
Sub total								

2.3 Primary Medical Care

Activity Levels

It is anticipated that by 2020 Dysart Medical Practice will have a list size of approximately 14,000 patients. In assessing future capacity requirements the methodology set out in HBN 11 01 has been applied. The assumptions within this approach are set out in Appendix A. Whilst these are subject to review and may be amended it is not anticipated that accommodation requirements will alter significantly. Thus while the consulting/examination rooms to be provided are greater than the output from the activity model this is to –

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- Allow for timetabling constraints (compared to level scheduling assumptions within annualised activity model);
- Provide flexibility for future increases in demand and model of care shifts.

Range of Services

The Primary Medical Care services form an essential component of the H&WBC, delivering a high quality approach that optimises service efficiency and clinical outcomes. The service will provide GP and Nurse-led consultations, examinations, assessments, reviews and treatments including:

- Minor procedures & Minor operations;
- Immunisations;
- Wound management;
- Family planning;
- Smoking cessation;
- Diabetic service – both primary care and advanced;
- Sexual health, primary care and Tier 1;
- Phlebotomy Urology, including gonadorelin enhanced services;
- Cervical screening including services as part of Tier 1 sexual health;
- Chlamydia screening including services as part of Tier 1 sexual health;
- Contraception services including Tier 1 sexual health;
- Child health surveillance;
- Antenatal maternity care;
- Supporting people with learning difficulties;
- Glucose intolerance service;
- CHD Nurses;
- COPD;
- Vascular checks;
- Promotion of self-care;
- Counselling;
- Gold Star Framework for Palliative Care;
- Weight management;
- Health living and lifestyle checks;
- Travel checks;
- Well person clinics;
- Carers' support.

Service Requirements

Patients attending the H&WBC for Primary Medical Care will initially report to ground floor reception for registration or self-register.

The Primary Medical Care accommodation is detailed in Section 7.

Consultations, examinations and treatments will be carried out in a consult/exam (CE) room or treatment room. Clean and dirty utility rooms will be shared by the practices. Other clinical support functions within the outpatient zone may also be used by Primary Care Services and should be located to facilitate this (see Section 6, Functional Relationships).

Scheduled administrative accommodation for the Primary Medical services includes a dedicated Practice Manager's office, and an area for administrative support staff.

2.4 Community Health and Secondary Care

Activity levels

Projected outpatient, diagnostic and therapy services attendances in 2020 are shown in Appendix A. These are based upon a 3% growth in the relevant population from the baseline year – 2017. Population growth from 2017 – 2022 is projected to be 2%. It is envisaged that increased demand in the H&WBC beyond 2017 will be accommodated through extended sessional working.

Range of Services

Community health and secondary care outpatient, diagnostic and therapy services to be provided in the H&WBC are shown in Appendix A. It is likely that the range of outpatient specialties and sub-specialties will change over time and accommodation should be planned accordingly for generic use wherever possible.

Service Requirements

Outpatients and those attending for therapies will initially report to the ground floor reception or self-register and wait within the adjacent waiting area until called via an electronic call forward system. (e.g. <http://www.intouchwithhealth.co.uk/outpatient-efficiency-gains/patient-calling/>). In keeping with LEAN principles, it is envisaged that appointments will be scheduled to minimise patient waiting times and numbers. Flexibility to change the range and mix of services offered within the H&WBC over time is a key project objective and the accommodation for community health and secondary care outpatient services will be generic and interchangeable in both short and long term use.

Mental Health

Mental health services to be provided in the H&WBC will include the Bromley IAPT services and group sessions, typically involving up to 12 people. These activities will take place in generic consulting and group rooms. Projected activity levels are shown in Appendix A.

Endoscopy Suite

Surveillance and early diagnostic endoscopy services will take place within the H&WBC. The schedule of accommodation has been developed to undertake circa 6,000-8,000 procedures per annum. There would be no activity taking place that would require general anaesthetic.

Therapies

Therapy activities taking place within the H&WBC will include –

- Speech and language therapy (activity shown under outpatients in Appendix A);
- Falls;
- Musculoskeletal community treatment and assessment service (MCATS);
- Exercise classes.

The accommodation provided for therapy services reflecting the modelled activity and treatment times estimated by the current service provider. The service may also have timetabled access to generic consulting suites and group rooms.

3 General Design Principles

3.1 A Healing Environment

Evidence based design initiatives have demonstrated the value of a healing environment. The benefits include reduced staff turnover, reduced staff errors, reduced patient anxiety and better clinical outcomes.

These approaches can be broadly grouped under the following categories;

- Easy wayfinding;
- Access to natural light and pleasant outlook;
- Patient Control over the environment;
- Positive distractions including artwork;
- Social support;
- Reduction of environmental stresses;
- Standardisation.

3.2 Patient Privacy and Dignity

The protection of patients' and relatives' privacy and dignity is of paramount importance. Particular consideration will be given to the needs of specific groups e.g. those having particular ethnic, cultural or religious beliefs, the elderly, those who are particularly vulnerable and those receiving bad news. An appropriately designed reception area which will facilitate confidential exchange with the patient is required. Particular consideration should also be given to those patients having intimate procedures and should achieve the following:

- No sight of the interior of rooms containing these patients by passers-by;
- A feeling of security and control over their environment in these patients, particularly control over access to the room by others;
- Easy and dignified transfer of patients from one surface to another e.g. wheelchair to couch;
- Minimal need for staff to enter and leave the room whilst a patient is present.

3.3 Facilities for People with Disabilities

The H&WBC will be fully DDA (Disability Discrimination Act) compliant, providing facilities including:

- Vehicular drop-off at main or secondary entrance;
- Means of communication and access control from reception to main and secondary entrances;
- Step-free access to the H&WBC and throughout the facility;
- Low-level reception counters;
- Wheelchair storage area near main entrance;

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- Assisted WCs;
- Wheelchair-friendly corridor widths;
- A mobile hoist;

In order to meet the requirements of people with disabilities, the design team should refer to legislation and guidance such as BS5810:1997; The Chronically Sick and Disabled Persons Act 1970; The Chronically sick and Disabled Persons (Amendment) Act 1976; The Disabled Persons Act 1981; The Disabled Persons (Services, Consultation and Representation) Act 1986; The Building (Disabled People) Regulations 1987; Building Regulations 1991, Approved Document: Access and Facilities for Disabled People 1992 and HBN40 Volume 4 Designing for Disabled People.

4 Facilities Requirements

4.1 Clinical Facilities

Consulting/Examination (C/E) Rooms

All C/E rooms will be generic, capable of use by a range of clinics on a sessional basis. Each C/E room will require:

- Natural daylight (if feasible within the constraints of the building);
- A workstation or desk;
- A patient couch to be used flexibly either against the wall or in a peninsular position;
- Full access for wheelchair users;
- Suitable power, data and telecoms (including IT access);
- A clinical sink;
- Appropriate lighting for examinations;
- Separate waste storage facilities taking into consideration the need to segregate sharps, COSHH and clinical waste;
- An emergency call alarm linked to reception;
- A nurse call system control panel;
- All access, security, finishes, fixings and furnishings to be in accordance with 'General Requirements'.

The C/E room may be used for:

- Routine consultation and examination;
- Carrying out clean clinical procedures.

Treatment Rooms

Treatment rooms must meet relevant standards as set out in HBN and HTM guidance including appropriate ventilation and will be associated with both the clean and dirty utility rooms. The treatment rooms will be generic, used by a range of clinics on a sessional basis and will require:

- Natural daylight (if feasible within the constraints of the building);
- A workstation or desk;
- A patient couch to be used flexibly either against the wall or in a peninsular position (up to two members of staff may be working around the patient simultaneously so must be able to move freely and safely);
- Full access for wheelchair users;
- Suitable power, data and telecoms (including IT access);

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- A clinical sink;
- Appropriate lighting for examinations;
- Minor surgery lamp;
- Separate waste storage facilities taking into consideration the need to segregate sharps, COSHH and clinical waste;
- An emergency call alarm linked to reception (panic button);
- A nurse call button also linked to reception;
- All access, security, finishes, fixings and furnishings to be in accordance with General Requirements;
- An emergency call alarm linked to reception;
- A nurse call system control panel;

Treatment rooms may be used for:

- Routine consultation and examination;
- Carrying out clean clinical procedures;
- Carrying out sterile procedures – e.g. change of dressings.

Clean Utility Room

Clean utility rooms will be associated with the C/E/ and treatment rooms and will be used for:

- Reception and storage of sterile packs, syringes and needles;
- Storage of drugs including dangerous and scheduled drugs;
- Assembly of items for patients' treatments;
- Washing of hands;
- Accommodating two dressing trolleys.

Dirty Utility Room

These rooms will be associated with the C/E and treatment rooms and will be used for:

- Disposal of patient waste;
- Disposal of fluid waste;
- Storage of medical and surgical disposables;
- Urine testing.

Near Patient Testing

It is currently anticipated that pathology samples taken in the Centre will be collected by KCH NHFT transport and process in the Princess Royal University Hospital laboratories. A small near patient testing area is shown in the schedule of accommodation pending clarification by service providers as to whether any local testing may take place. Should this not be the case this area may be re-assigned.

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Group Room/Multi-purpose/Seminar Rooms

These rooms will be used for a range of Health Promotion and Wellbeing activities which may, subject to confirmation with the London Borough of Bromley (LBB), include weight management, healthy eating, mental health service group sessions, smoking cessation and voluntary groups. Activities will also include child health with occasional use of the associated interview room.

Typical numbers are 30 (parent/carers) per 2 hour session. At least one of Group Room is to be treated as a clinical area and will require a hand wash basin, appropriate flooring, both panic button and a staff call button linked to reception.

Endoscopy Suite

Two endoscopy procedure rooms are required plus associated space. There is no requirement for on-site decontamination facilities. There is a requirement for a facility to store endoscopes to be collected for decontamination off-site.

- A Hand washing sink is required in each room
- Preparatory worktop space is required in each room
- Non-slip Vinyl floor coverings to all rooms
- Electrical supplies for wall mounted monitor, Fridge and Moveable monitor for endoscope required in each room
- Electrical supplies and data to be provided for desk in each room in each room
- Wall mounted x ray view required in each room
- Suction required in each room
- A total of 14 recovery positions would be required for two procedure rooms, 9 positions for Stage 1 recovery and 5 positions for Stage 2 Recovery
- Waiting area should be calculated on the assumption of 3 patients per hour per endoscopy room
- Three preparation rooms should be provided for two endoscopy rooms
- Trolley parking bays are required
- Disposal hold is required, with clear sub division of floor space

Ultrasound

- One ultrasound suite is required. Some patients may require assistance with mobile hoists;
- Hand washing sink;
- Non-slip, antistatic vinyl floor covering, with coved vinyl skirtings;
- Data points for internet/PACS/RIS connection;
- Storage for consumables;
- Room environment = max 28 degrees C; humidity 30-80%.

Therapy Activity Area

An activity area is required for a range of group activities. This should be adjacent to the patient change facilities with close adjacency to the store for efficient storage and retrieval of equipment.

4.2 Non-Clinical Facilities

Main Entrance

General

The main entrance zone will provide access for all staff, patients and visitors attending the H&WBC. It comprises the following Main entrance and imaging reception;

- Main waiting area including child play area and vending machine;
- Patient WCs;
- Baby change;
- Baby feeding facilities;
- Kitchenette;
- Centre manager's office;
- Interview room;
- Group/multi-purpose/seminar rooms.

The group rooms should be easily accessible from to the main entrance and waiting area and may accommodate large numbers of users. For planning purposes it is assumed that people arriving for group sessions will be directed to the room and will not typically occupy space within the main waiting area.

Doors must be automated with a manual override and achieve the right mix between throughput, security, draught control and appearance for successful pedestrian access. If the entrance doors lead directly to the main street then a push button to open should be provided to prevent children exiting the building unattended.

All access, security, finishes and furnishings must be in accordance with NHS Standards.

Reception

When patients enter the building they will go either to the main reception or be directed to the related waiting area. The main reception should have good sight lines to and from the lift and stairs. Reception areas should be welcoming, well lit, and suitable for use by all and within the shared primary care reception there should be equal visibility for both practices. (See 'Welcoming entrances and reception areas' (NHS Estates 2004), 'Friendly healthcare environments for children and young people' and Health Building Note 23.

The reception may be operated in different ways to accommodate registration including self-check-in, appointment making, queries information giving and should facilitate confidential exchange with the patient. There should be minimum amplification of the conversation and an interview room will also be available if patients require greater privacy.

The reception must be provided with suitable power, data and telecoms as well as be in easy access to the repeater panels associated with the nurse call, staff alarm, fire alarm, security alarm and security cameras.

Administrative space

Areas will be provided behind the main reception for undertaking administrative tasks including printing, photocopying, scanning and faxing etc. This should be able to accommodate two people at any one time. For Primary Medical Care there will be dedicated offices for the Practice Managers and an area for administrative support staff. The Practice Managers' office can also be used for one-to-one sessions and small meetings of 2-3 people. A centre manager's office is provided and should be located close to the main entrance zone.

Medical Records

For Primary Medical Care, records will be held electronically. It is envisaged that minimal paper record storage will be required for a transitional period and space has been allocated within the primary care zone. Consideration should be given to how this space and any associated with the reception area could be reused as the H&WBC transitions to paperless. Exact requirements will depend on the storage system adopted.

Waiting Areas

The main entrance and waiting areas will provide the main seating accommodation for all services in the H&WBC. The waiting areas should be designed to protect the privacy of conversations. The building must be designed in accordance with NHS guidance on acoustics (HTM08). To this end an acoustics consultant must be appointed to advise throughout the design and construction/fit-out of the building. The waiting area should not provide direct views in to clinical areas.

The waiting area should be relaxing and informal in design, with access to daylight and external views where possible. Waiting areas should be clearly visible from reception and must be wheelchair accessible. Floors should be easy to clean, but not overtly clinical in nature. The use of colour on walls is important, as is the use of art as visual stimulation can often reduce anxiety.

Power sockets should be located at no more than 4 metres apart, to allow the use of cleaning equipment as well as future proofing the area. There should also be at least one data, telecom and television outlet in the room.

Provision is required to install a patient call system. This will be integrated with the IT solution for the facility. The H&WBC should be able to screen promotional health and centre focused messages.

All access, security, finishes, fixings and furnishings must be in accordance with General Requirements

Health Information Resource Service

The main entrance zone will provide space for patient information which will provide controlled access to web based information. This may be an open area within the main waiting space, and/or associated with a group room, with IT access whereby patients or relatives can enquire and obtain further information.

The design solution should support both fixed interactive information outlets as well as an area that contains leaflets and brochures with appropriate power, data and communication outlets. The design solution should provide easy access for all visitors and be socially inclusive whilst maintaining an element of privacy for those who wish to seek information on private matters.

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Appointment check-in

This area will contain self-check in terminals.

Staff and Support Facilities

All access, security, finishes, fixings and furnishings must be in accordance with NHS Standards.

Changing

Clinical staff should not wear their uniform to work and should instead change on arrival at the H&WBC. Therefore sufficient staff changing facilities will be provided for uniformed staff as well as, for example, those commuting by bicycle. Staff will also have access to a locker on a shared basis to store small personal belongings and to a shower facility. This area will be secure and for staff access only.

Staff Rest

A staff rest room with a beverage area is required. All kitchen facilities and equipment must be heavy duty commercial including provision a microwave, fridge and dishwasher. These are all to be wired into fixed fuse spur outlets. At least three additional power outlets, beyond the needs of the above appliances, must be provided with one outlet being at low level. The room must also be provided with suitable power, data, telecoms and TV outlets. Subject to the design solution, hot and cold beverage bays should be provided in the principal staff zones elsewhere in the building.

Seminar Room

The seminar room should be located to facilitate use by all H&WBC staff and bookable by service users, voluntary groups and others.

Sanitary Facilities

There will be toilets for the use of patients, including with disabled access as detailed in the schedule of accommodation. These will be provided in appropriate locations. Separate facilities for staff use will also be provided.

Mechanical extraction will be required, the air change rates will be dictated by the CIBSE codes, and if necessary filtered make-up air shall be provided.

WC (assisted)

This room must be DDA compliant.

Baby Change Room

Baby change facilities should be provided with access for both male and female parents.

Access to the room should be the same as for an assisted WC. A baby changer must be provided that supports a minimum static load of 113kg and complies with British Standards (BS EN 2221.2008). It must also be easy to clean and inhibit bacterial growth.

Baby Feeding Room

A room should be provided to be suitable for mothers who need to breast-feed or fathers who wish to feed their baby in privacy.

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Staff Shower and Changing

These rooms must be able to provide segregation between the wet and dry areas with temporary storage for staff valuables, clothes and washing accessories.

Cleaning

A cleaner's room will be provided that serves all clinical and non-clinical areas. The function of this room is to provide a base for domestic staff to operate from. The room will have hot and cold running water (bucket sink), storage space for cleaning materials and loose equipment. The area will also be used to store electrical equipment such as a vacuum cleaner. The room must be appropriately ventilated to enable mops and cleaning equipment to dry thoroughly between cleaning sessions. A janitorial unit must be provided. At least one low level power socket must be provided.

Telecommunications Hub and IT

See ICT specification – Appendix D.

Religious/Spiritual Facilities

No dedicated prayer/quiet room will be provided within the facility; however the group and interview rooms within the main entrance zone area may be utilised for such purposes if available.

5 Functional Relationships

Accommodation should be planned to achieve economies and flexibility in the use of space, most effective deployment and multi-disciplinary interaction of staff and a seamless experience for service users (e.g. a single main reception). For services which will be discrete for many users - imaging and rehabilitation - we have suggested separate reception points but this may be subject to review as the design stages proceed. The extent to which the proposed shared use of space can be achieved – or increased yielding further economies – will be dependent upon a design solution which seeks the optimum adjacencies available (see Figure 1) given site constraints and stacking.

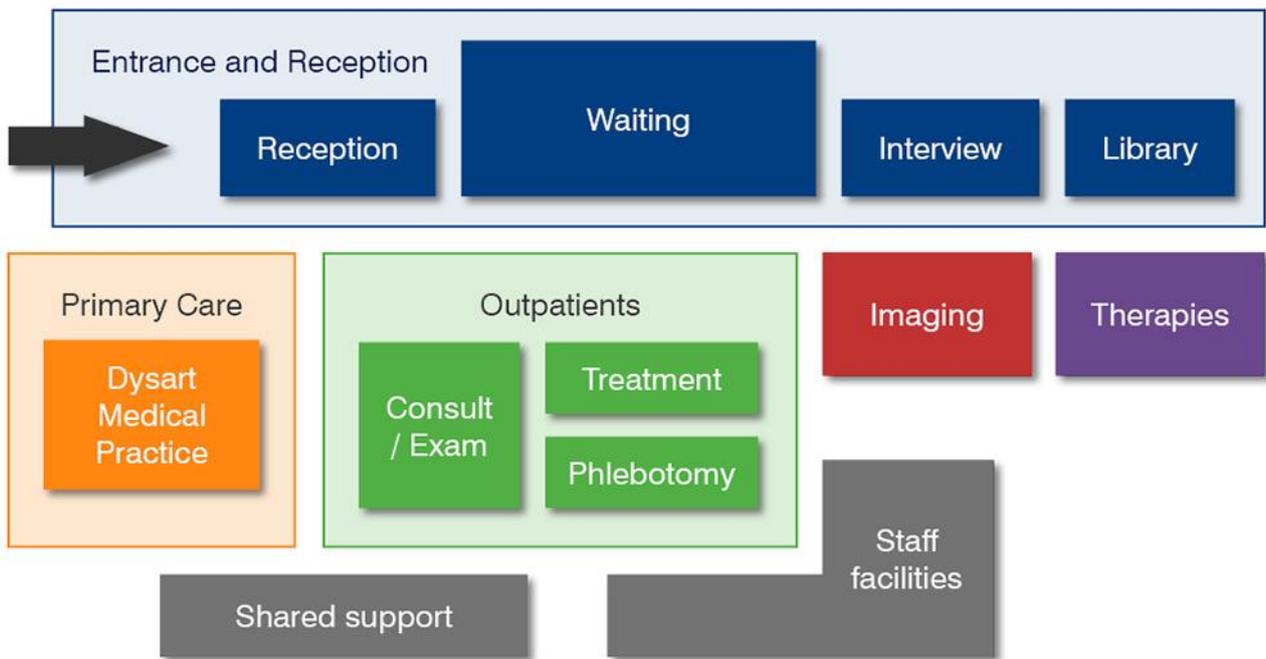


Figure 2 - H&WBC High Level Adjacency Diagram

6 Area Requirements

Target room by room and whole centre target areas are shown in the schedule of accommodation (SOA) below. Since the accommodation is to be provided within a fixed footprint, these areas may be modified during design development. Where this occurs functionality including compliance with control of infection requirements should be demonstrated at an appropriate scale.

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Table 3 - Accommodation requirements

Bromley H&WBC					
V9					
Activity	Provider	Room	No	Size	Total
Public Zone					
Entrance / Community Area					
	TBC	Lobby	1	10	10
		Interview Rooms	2	9	18
		Meet & Greet station	1	4	4
		Community / Meeting rooms	2	20	40
		Café	1	40	40
		Resource / Health Library	1	18	18
		Buggy Store	1	8	8
		Public WCs	2	2.5	5
		Public WCs - accessible	1	5.5	5.5
		Baby Changing Facility	1	5	5
GP Zone					
Dysart Practice					
Dysart Practice		Reception Desk	1	12	12
		Reception Back Office (4P)	1	24	24
		Interview room	1	10	10
		Self check-in terminal	2	1	2
		Waiting (36P)	1	58	58
		Consult / Exam rooms	9	16	144
		Treatment rooms	3	16	48
		Specimen WC	1	5	5
		Stores	1	10	10
		Clean utility	1	10	10
		Dirty Utility	1	8	8
		Student library / teaching room/ meeting room	1	35	35
		Practice manager office	1	10	10
		Admin staff open plan office (4P)	1	24	24
		Practitioner admin area (4P)	1	24	24
		Notes Store	1	16	16
Therapy					
Crystal Palace Physio Group					
		Self check-in terminal	2	1	2
		Treatment Rooms	5	16	80
		Activity / Gym	1	70	70
		Store	1	10	10
		Waiting (15P)	1	24	24
		Changing room - ambulant	2	2	4
		Changing room - independent wheelchair	1	5	5
Outpatients					
TBC					
		Reception / staff base (3P)	1	18	18
		Office (2P)	1	15	15
		Self check-in terminal	2	1	2
		Waiting (33P)	1	50	50
		Consult exam	5	16	80
		Ultrasound	1	16	16
		Ensuite WC & WHB	1	4	4
		Treatment	1	18	18
		Clean utility	1	8	8
		Dirty utility	1	8	8
		Interview / Counselling room	2	8	16
		Group room- multi purpose	1	32	32
		Weigh/measure	1	8	8
		Phlebotomy bay	2	8	16
Endoscopy					
TBC					
		Reception / staff base (3P)	1	18	18
		Office (2P)	1	15	15
		Self check-in terminal	2	1	2
		Waiting	1	10	10
		Changing room - ambulant	1	2	2
		Changing room - independent wheelchair	1	5	5
		Gowned Waiting	1	10	10
		Endoscopy procedure room	2	24	48
		Clean utility	1	12	12
		Dirty Utility	1	8	8
		Public WCs	2	2.5	5
		Public WCs - accessible	1	5.5	5.5
		Recovery (1 Trolley & 2 Recliners)	1	20	20
		Endoscope decontamination & store	1	20	20
		Beverage Bay	1	2	2
		Store	1	10	10
Shared Zone					
Shared public support					
		Public WCs	6	2.5	15
		Public WCs - accessible	3	5.5	16.5
Shared staff support					
		Rest room with Kitchen	1	40	40
		Staff change	2	15	30
		Staff WC	6	2.5	15
		Staff WC - Accessible	3	5.5	16.5
		Staff showers	1	4.5	4.5
		Beverage bays	2	4	8
		Hot desk zone	6	4.5	27
FM space					
		Disposal hold	1	20	20
		Cleaners rooms	4	8	32
		FM store	1	15	15
		Building Management office	1	12	12
			Net Total		1523.5
			Gross up factor	1.45	
			Gross Building Total		2209

7 Additional Design Considerations

Access

There will be a single main point of entrance to the H&WBC and a secondary entrance for deliveries and collection of waste. The building will also require emergency exits, which should be used for that purpose only. Staff access at night will be by key or other appropriate control systems. Transport involved in collection from the site will include local authority and/or private contractor refuse collection, supplies vehicles, couriers and the Royal Mail. Cycle racks should be provided, the number and location to be determined by the building solution.

Car Parking

There is a need an ambulance bay, patients drop off area, and a disabled car parking bay.

There are excellent public transport links, and easy pedestrian access to the Centre from Bromley South Station. However, there remains a need for earmarked and adjacent car parking provision for a small number of “essential user” NHS staff, including the GPs and visiting medical and other professional staff who may have on call commitments. This will need to be addressed in the overall design of the new site development.

Internal Traffic

Patients will move around the H&WBC either on foot or in a wheelchair, accompanied as necessary. It is not envisaged that there will be any requirement for trolley access.

Peak staff movement will be at the beginning and end of working periods (sessions) and at meal breaks.

Corridors throughout the facility will be used by people on foot, on crutches and in wheelchairs as well as for the movement of goods. It is therefore essential that appropriate and adequate wall and corner protection is provided.

Good signposting can do much to make patients and visitors feel less intimidated by the prospect of visiting a health centre. The principle of signposting should be in accordance with NHS Wayfinding guidance and the reception should also serve as a natural point for help and enquiries.

Goods and Sterile Supplies

A just in time approach to in ordering and stock management will be required, to ensure adequate supplies are held while controlling inventory consistent with LEAN principles. In order to reduce congestion on corridors, stock deliveries must be timed to avoid other delivery and collection times.

The handling of pathology specimens will be as per client protocols. Specimens to be sent to an external agency must be stored in appropriate containers within clinical areas and transferred to appropriate boxes and taken to reception for dispatch and collection.

The provider of services must ensure compliance with the control of infection standards set out in Appendix E.

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Collection of Waste and Linen

Waste for collection must be colour coded as follows:

- Yellow Plastic Bags: Clinical waste for incineration;
- Black Plastic Bags: Non clinical household waste;
- Yellow Plastic Sharps Containers: Sharps, needles and syringes.

Yellow plastic bags must be used in all areas that generate clinical waste, even if that area incorporates administrative offices. Domestic waste will be sorted by the user into recyclable or domestic waste bins provided. Once bagged and tied, waste must be held in the disposal hold room until it is collected by the waste contract provider. This room will be lockable and not accessible by patients or visitors.

The clinical waste bags produced will need to be labelled by service. Any sharps container must have the label correctly filled in or collection will not occur. The contractor will not enter the building to make collections. As part of the waste contract there must be a secure external containment area with suitable lockable bins where all waste streams are segregated from one another.

Inclusion within the contract enables the site to have compliant external bins at no cost.

There needs to be flexibility for the addition of an additional waste stream or modification to waste streams as legislation and guidance changes. Where applicable it is suggested that all clinically active rooms have a clinical waste bin and a recycling bin only in accordance with HTM 07-01 and HTM 05-03 Part A. Domestic waste bins to be placed in communal areas, reception/waiting areas and kitchen/beverage areas. This will emphasise the importance placed on adequate segregation of waste streams.

Confidential waste will be shredded by the user and placed in an appropriate bin.

Disposable linen will be used throughout the H&WBC.

Syringes, needles and all items with a cutting edge will be placed in a special container normally held in the clean utility room. This must be labelled with the department name and the date. When full it will be held in the dirty utility room and collected as required.

The provider of services must ensure compliance with the following standards:

- Waste Management: NHS Purchasing and Supply Agency - Total Waste Management;
- Environmental Protection Act 1990 (section 34);
- The Environmental Protection (Duty of Care) Regulations 1991;
- The Controlled Waste Regulations 1992; The Hazardous Waste Regulations 2005;
- Radioactive Substances Act 1993. Waste Electrical and Electronic Equipment (WEEE);
- Statutory Instrument 2005 No. 895 - The List of Wastes (England) Regulations 2005;
- Hazardous/Special Waste Regulations - guidance and background material;
- Total waste management - best practice advice on local waste management for the NHS in England.

8 Whole Site Policies

8.1 Security and Safety of Staff, Patients and Visitors

The issue of security within healthcare facilities setting is a significant factor for the safety of the H&WBC staff and patients and the prevention of theft and damage to NHS or personal property.

Security concerns both the reduction in the risk of personal attack and the prevention of theft. It is primarily a management responsibility but the planning and design of buildings can ease the task. Security measures to be adopted include:

- Security lighting;
- Marking valuable equipment; by provider organisations;
- Use of alarms in sensitive areas;
- Alarm systems with the ability/option to call Police for assistance;
- Removal of unlawful persons from the site by staff or police officers;
- Close liaison with local police;
- Use of ID badges for all staff;
- Locks to all doors within and between departments;
- Staff attack/panic (personal and/or clinical area/room based) alarms reporting to reception;
- External and if required internal CCTV with internal monitor at reception.

The secure by design principles must be followed, along with close liaison with the local Police Crime Prevention Officers and Local Security Management Specialist (LSMS). Fire and Safety Officers should also be consulted to ensure that conflict does not occur. A lockdown procedure will be required for the site that reflects potential internal and external threats. This must be produced in line with CFSMS guidance.

The provider organisations should each have a detailed policy covering all aspects of lone working. Solutions to reduce the risks involved in people working alone include personal attack alarm systems and the use of mobile communication systems. It is important that such systems are in place in vulnerable areas.

Security of Patient Records must be ensured. Records will be drawn from lockable storage units by authorised staff, and returned after use. Current paper-based and electronic systems will be used. It is hoped that an all-electronic system can be incorporated eventually.

Patient records are subject to the Data Protection Act.

The potential of theft from the H&WBC is significant. The security marking of items and specific measures must be considered.

All external fire escape routes should be connected to the H&WBC's security system, which will give an audible alarm on activation.

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Compliance with the following standards is required -

Health and Safety

- Health and Safety at Work Act 1974;
- The NHS Improvement Plan: putting people at the heart of public services, 2004 (DH);
- Standards for better health 2004 (DH);
- Management of Health and Safety at Work Regulations 1999;
- Workplace (Health, Safety and Welfare) Regulations 1992;
- Health and Safety (Display Screen Equipment) Regulations 1992;
- Personal Protective Equipment Regulations 2002 and the Personal Protective Equipment (PPE) Regulations 1992 (as amended);
- Provision and Use of Work Equipment Regulations (PUWER) 1999;
- Manual Handling Operations Regulations 1992 (as amended in 2002);
- Health and Safety (First Aid) Regulations 1981;
- The Health and Safety Information for Employees Regulations 1989;
- Employers' Liability (Compulsory Insurance) Regulations 1969;
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1985 (RIDDOR);
- Noise at Work Regulations 1989;
- Electricity at Work Regulations 1989;
- Control of Substances Hazardous to Health Regulations 1999 (COSHH).

Security

- Data Protection Act;
- Health and Safety Act;
- Freedom of Information Act;
- The Computer Misuse Act;
- NHS Direct Information Security Policy Statement.

8.2 Fire Precautions

Fire precautions form an integral part of all operational policies. Specialist guidance includes the Firecode series of documents produced by NHS Estates which must be fully complied with. It is critical that staff reduce the risk of fire by precautionary measures including the removal of rubbish, not overloading power sockets and maintaining tidy storage areas.

Fire and smoke detection systems will be located throughout the H&WBC. In the event of a fire, staff and patients will be able to evacuate or move to a place of relative safety.

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Programmable fire alarm monitoring panels will be located appropriately. In the event of a fire alarm being activated, complete evacuation must be undertaken and guidance on additional systems such as Evac Lifts (from a Fire Advisor) to support this MUST be implemented where clinical services are to be delivered above ground floor. Procedures in the event of a fire or a security threat will need to be established during the design development.

Compliance with the following standards is required -

Fire Safety:

- Health and Safety at Work Act 1974;
- Current Building Regulations Approved Documents (Part B);
- Regulatory Reform (Fire Safety) Order 2005;
- Firecode 05 suite of documents;
- Disability Discrimination Act (DDA) – BS 5588 Part 8.

8.3 Major Incidents

The Client's Major Incident Procedure outlines the response to either an external incident, or one occurring on its premises. If a major incident is declared, access to the H&WBC will be restricted and the normal activities of the facility will be largely disrupted. This procedure will be reviewed regularly by the Client. The service provider must take into account the requirements of the procedure and all staff working on site must be made aware of it. This will include the local lockdown procedure.

8.4 Incident Reporting

The CCG has a policy for the identification, reporting, managing and preventing clinical and nonclinical incidents. Once service providers have been identified, the Client will agree a protocol for the management and sharing of information on adverse incidents related to the services provided.

8.5 Complaints Procedure

The CCG operates a Complaints Procedure, which follows the framework of the NHS Complaints Procedure. Patients will be provided with information on how to make complaints and will have any source of complaint investigated by the appropriate Directorate. If complainants are unhappy at the outcome of the investigation, they may seek the convening of an independent review.

9 Building and Engineering Design Principles

The H&WBC will be developed from a Shell and Core facility being made available by the London Borough of Bromley within a new residential/office development of the site. (The Draft Shell and Core Specification will be developed at a later stage).

Life Expectancy of Building Elements

The facility shall be designed so that any failure of materials and components will minimise any adverse impact upon the operation of the facility and any repetitive failures.

Service Life and Residual Life

Construction will be of a high build quality with a strong regard for sustainability issues to minimise maintenance and life cycle costs. Standardisation and prefabrication of building elements could be considered if they are appropriate.

Design Objectives

- Create premises that are accessible for all users including those with disabilities and the design solutions offered are expected to be examples of good practice in design, to promote social inclusion;
- As the facility will be located within Bromley the Contractor must minimise the risk of undue intrusions of the construction on local residents and any tenants of an existing building and be part of a Good Contractors Scheme;
- Have imaginative and well-proportioned design of spaces, both internal and, where feasible, external and with circulation space that is well organised, and sufficiently generous, and in particular a main entrance that can be clearly “read” as such;
- Refurbish the new facility in a manner that will permit possible future adaptations / alterations;
- Provide flexible design that will facilitate changes in policy and technology and which allows expansion or contraction in the future, where appropriate;
- Provide eco-friendly design solutions in the new facility and provide suitable solutions in terms of design and choice of materials;
- Provide good environmental conditions throughout, including appropriate levels of natural light and ventilation;
- Provide attractiveness in design to inspire users and staff to ensure the design of the building/s enables them to sit comfortably within the surrounding environment;
- Respect and enhance the location, the environment and the community;
- The design of the facility must also meet all other requirements of these Tenants;
- Add value and reduce whole-life and FM costs;
- Create flexible, durable, sustainable and ecologically sound development;
- Minimise waste of materials and energy, in construction and in use;

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- Contribute to construction which is quick, safe and efficient;
- The acoustic performance of the building shall comply with Part E of the Building Regulations.

Weather Protection

To be specified in draft Shell and Core Specification.

Sound Insulation

Sound insulation to walls that separate consulting rooms from other rooms shall be designed to achieve an airborne sound insulation value of at least $R_w > 50$ dB. The Contractor shall take into account that poor sound insulation can be difficult to correct.

The design of the facility must demonstrate the following:

- As a minimum must comply with the requirements of HTM 08 – 01 Acoustics;
- That noise reverberation from windows, doors, ventilation fans, heaters, air ducts and partition walls is minimised;
- Sound insulation should be in place to reduce echo and restrict airborne noise;
- Resilient flooring should be used to deaden impact noise affecting other spaces in the facility.

Windows

To be specified in draft Shell and Core Specification.

Doors

Doors should comply with the following requirements:

- Designed to be sufficiently robust to withstand heavy usage with minimal maintenance and to maintain the safety and security of the facility;
- Designed to take account of the mixed age range of facility users, solid core doors are required;
- External doors must be watertight and weather-tight and be designed to be secure and as far as reasonably practicable;
- External doors must incorporate appropriate controls and/or fittings where appropriate to afford safe operation as well as locks;
- Internal doors must be suitable for their intended purpose and be sized to meet the anticipated traffic within the building;
- All doors must be designed to allow disabled access, with at least a 800mm wide opening allowing the appropriate turning requirements for wheelchairs;
- Disabled WC's to be able to be opened both ways;
- Locations and requirements for doors for building compartmentalisation must be agreed with Building Control;
- Doors that are part of the zoning requirements and are accessible by all must be able to be held back in the open position during normal operating hours and self-activated in case of emergency/fire as well as a manual override;

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- Doors leading in to the group room and other areas not compatible with permanent hold open devices should be fitted with door closers having a time limited hold open ability for buggy and disabled access;
- Doors that lead into restricted access areas must provide adequate entry control;
- Main corridor doors and where listed on the Room Data Sheets must include vision panel(s) to provide visibility suitable for users and wheelchair users;
- Doors must provide adequate sound reduction for the intended usage.

Ironmongery

Ironmongery should comply with the following requirements:

- All doors to rooms, stores etc., shall be lockable with a suited key system;
- The detail of the locking and suiting requirements to individual rooms must be agreed with the Client, an alternative locking system will be considered by the client.

All ironmongery shall be robust and heavy duty

- Double doors in circulation areas must have non-rebated meeting stiles;
- Letterbox – provision, location and type (anti-arson) must be agreed with The Client;
- Emergency release required for the all WC's, shower rooms, baby changing and patient changing areas;
- The issues of security and means of escape in case of fire must be taken into consideration by the Contractor when considering the type and fixing of locks.

Internal Walls

Internal walls should comply with the following requirements:

- They must have the appropriate level of sound reduction in accordance with the Legislation, Guidance and Codes of Practice
- All vertical services shall be flush with the walls including service access doors;
- All services in circulation areas must be flush with the wall;
- All horizontal services within clinical, admin and staff facilities must be contained within a dado rail, in accordance with all applicable regulations;
- All removable boxing-in must be washable;
- Pipe work, cables and equipment must be easily accessible for maintenance but, wherever possible, hidden from view and made tamper-proof;
- All internal walls will be constructed full height to the structural soffit with care taken with sound and fire resistant detailing around service penetrations.

Ceilings

Ceilings should comply with the following requirements:

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- Control of Bio-contamination is critical in the medical sector. Therefore any suspended ceiling must actively combat harmful fungi, mould and mildew, yeasts and bacteria;
- It must have an appropriate level of sound absorption for the Healthcare sector;
- Suspended ceilings are to be provided to all areas except in plant and staircase areas;
- Lighting must be flush with the ceiling grid where a suspended ceiling is used. In areas where a suspended ceiling is not used then services must not be visibly suspended from the ceiling and light fittings should be flush and sealed to the ceiling;
- Where possible all other services must be flush with the ceiling grid whilst maintaining access for maintenance and replacement of services.

Floors

Floors should comply with the following requirements:

- Floor finishes should be slip resistant, durable and easily cleaned;
- Coved flooring must be installed and no carpets must be used throughout the facility;
- Floor finishes should be non-slip in areas where water is used, i.e. toilets, changing rooms, showers and kitchens;
- Suitable barrier matting should be provided and maintained at external entrances to assist with the maintenance of cleanliness of internal floor coverings;
- Joins and seals between different floor finishes will be level and provide a continuous surface for wheelchairs.

Colour Schemes

Colour schemes should comply with the following requirements:

- Consideration should be given to the provision of suitable colour schemes and contrasts to assist people with visual difficulties and all selections should be determined as a result of consultation with The Client;
- Colour boards must be used to agree colour schemes with The Client;
- Subtle colour schemes and coding should be used to allow distinction between different departments and assist patient way finding;
- Colour schemes should be such to promote young adults and older children to feel comfortable in the facility;
- Colour schemes should be DDA compliant.

Finishes

Finishes should comply with the following requirements:

- Finishes should be as detailed in the Room Data Sheets and should be appropriate for their particular use;
- Wall finishes should be durable, easily cleaned and where required fire resistant;
- Finishes should be chosen with consideration of their acoustics and noise reduction capabilities;

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- External finishes should be durable, resistant to weathering suitable for people with disabilities and not able to be used for destructive purposes.

Sanitary Fittings

Sanitary fittings should comply with the following requirements:

- Low-level WC cisterns shall be concealed;
- WC seats shall be securely fixed to the pan;
- Size and fixing height of sanitary ware must be appropriate for its location (including taking into account the needs of disabled persons);
- No plugs required for wash hand basins in toilets;
- Each WC will require a wash-hand basin with non-touch taps and a WC with a non-touch flush valve;
- Robust and tamper proof mixer taps shall be fitted subject to contrary agreement with The Client. The type of basin enclosure / surface to be agreed with The Client;
- Wash hand basins shall be fixed to a solid structure. These may require centre leg supports in case of accidental damage by users sitting or putting undue pressure on basins etc. suitable noggins will be installed during construction to receive the fixings for all sanitary ware;
- All supply pipework and waste pipework will be installed in concealed but accessible ducts;
- Local isolation valves will be fitted to all sanitary ware;
- Thermostatic mixer valves must be installed on all hot water service supplies to prevent scalding;
- Mirror fixing height (measured from floor to bottom edge) must be appropriate for the intended users;
- Mirrors shall be shatterproof;
- Fixtures and fittings in the toilets areas must be sufficiently robust to withstand minor acts of casual vandalism;
- Showers must be self-draining and provide privacy for users

Signage

Internal and external signage shall comply with the following requirements:

- The facility shall have a main external sign, detailing the name of the facility and other pertinent information, which the Contractor is required to provide in consultation with The Client;
- External signage shall also include clear signage for visitors;
- Colour schemes should be used to help visually impaired users and staff to orientate themselves within the buildings, and to identify doorways, door handles, handrails, and changes in levels;
- Contrasts should be maintained and re-introduced in subsequent redecoration schemes;
- All rooms and facilities should have appropriate signing to define their purpose. The detailed requirements for individual rooms must be agreed with The Client;
- Means of escape, fire-fighting equipment, automatic fire detection systems and fire signage provisions must all be agreed with the Fire and Rescue Service.

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Heating and Thermal Comfort

Heating must be provided to all rooms and areas excluding the cleaner's store, services cabinets and plant areas. Heating shall comply with the following requirements:

- The systems shall be robust and durable as damage can lead to significant down time;
- Routing of heating pipes shall be coordinated with the building appearance and be routed such that major disruption to the facility is avoided further to minor failures or routine maintenance;
- Access to the piped services for maintenance and repair must be available without major disruption to the building structure and general circulation routes;
- Heating systems to all areas shall be sufficient to ensure an internal temperature of 20°C to 28°C during cold weather (down to -3°C) and incorporate controls capable of reducing the level of heat in individual rooms and areas by individual staff
- Surface temperatures of heat emitters and associated pipe work must be safe;
- Low surface temperature radiators or under-floor heating or reflective ceiling radiators shall be fitted in all areas used by children;
- Space heating controls must be easy to use by untrained staff, reliable and must be tamper-proof;
- Low surface temperature radiators should be installed and pipe work boxed in where patients, residents and visitors have access in accordance with HGN "Safe Hot Water and Surface Temperatures.

Ventilation

Ventilation systems shall comply with the following requirements:

- The location of fans/extraction outlets should consider the layout of furniture and equipment in the room and its use, e.g. not to be located over treatment couches where patients are likely to be partially dressed;
- All ventilation must be flushed with the ceiling as far as reasonably practical;
- All methods of ventilation must be integrated into the building whether natural, passive or mechanical and coordinated with the fire alarm where required;
- Ventilation of all internal spaces in the building shall be to the required standards and additional ventilation measures will be required in certain areas as identified in the Room Data Sheets in accordance with the Building Regulations Approved Document Part L2 (2002).

Hot and Cold Water Installation

Systems must fully comply with HTM 04-01 Water Systems – The control of Legionella and HGN "Safe Hot Water and Surface Temperatures". Where hot and cold water is supplied it shall comply with the following requirements:

- The Contractor must provide water services to outlet points, equipment of the correct type, sufficient rate and suitable temperature to meet the Performance Standards;

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- The Contractor must provide suitable systems of water storage and hot water production that comply with Industry Standards and complement the physical layout of the building and ensure energy efficient operation and meet the operation and requirements of the facility;
- The temperature of hot water supplies to showers and basins shall not exceed 41°C;
- The systems shall operate in a safe condition appropriate to the process, function and specific areas being served;
- Mains water shall be supplied direct to the kitchen as per the Room Data Sheets;
- All water services installations shall comply with BS6700 and BS6465 and be installed and commissioned in accordance with the provisions of the Health and Safety Commission;
- Code of Practice for the Prevention and Control of Legionellosis and disinfected to comply with Industry Standards;
- Where domestic hot water is supplied without local thermostatic control, all taps must be appropriately labelled and the water temperature should not exceed 55°C;
- There shall be a constant supply of hot water to beverage bays suitable for the making of tea and coffee as well as constant chilled drinking water. None of these supplies shall make use of bottled water.

Where clinical sinks are supplied they shall comply with the following requirements:

- In clinical areas taps should be elbow-, knee- or sensor-operated;
- Soaps and disinfectants should be wall mounted near the sink and should not be refillable but designed to take single cartridges;
- Paper towels should be conveniently placed;
- Foot-pedal operated bins should be placed by each clinical wash basin;
- Separate sinks should be provided in areas where contaminated wastewater or blood and body fluids are disposed i.e. dirty utility rooms, domestic store areas;
- Splash backs should be provided at all sinks;
- Seals around the sinks must be sealed to prevent water ingress.

Infection control

Detailed guidelines for infection prevention and control are set out in Appendix E. These follow the general principles given in 'The Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance' (the healthcare-associated infection (HCAI) Code of Practice). This code of practice sets out criteria by which healthcare organisations are to ensure that patients are cared for in a clean environment and where the risk of HCAs is kept as low as possible.

The control and prevention of healthcare-associated infection (HCAI) is a priority issue in terms of not only the safety and well-being of patients and staff, but also the resources consumed by potentially avoidable infections. It is important that the design of the building facilitates good infection prevention and control practices, and has the quality and design of finishes and fittings that enable thorough access, cleaning, disinfection and maintenance to take place.

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Access

Access to and from the H&WBC shall comply with the following requirements:

- There must be appropriate provision for access by an ambulances;
- There must be appropriate provision for approach and access for goods delivery and waste disposal vehicles with appropriate segregation from public and staff access routes;
- Pedestrian access routes must be obvious, pleasant and suitable for wheelchair users and people with other disabilities;
- All outdoor spaces must be provided with appropriate safe lighting indicating paths, ramps, steps etc.;
- There must be an appropriate fire planning strategy allowing for ready access and egress.

Lighting

Lighting systems shall comply with the following requirements:

- Lighting shall be designed to suit specific tasks or multi task areas in line with the room functions;
- The type of fittings shall be agreed with the client, all fittings should be robust, tamper proof and flush with ceilings or floors;
- Metal light switch and power points are required;
- The control and switching shall suit the operational requirements of the facility. The Client requires that lighting switches are rated at a minimum of 20Amp. for this grid type switches are required;
- Light fittings and lamp sources shall be robust and suitably secured;
- The Contractor must provide emergency lighting to ensure safe evacuation in an emergency and/or in the event of mains power failure, to be integrated with escape routes and doors. Emergency lighting must comply with BS 5266;
- Illumination levels and luminaires must be in accordance with the CIBSE Code for Lighting and in accordance with the Room Data Sheets and Industry Standards;
- Manual over-ride facilities must be provided to any automatic lighting controls;
- Tungsten lamps shall not be used;
- Emergency lighting must be provided for the minor surgery/treatment room, must form part of the Uninterruptable Power Supply and be installed in emergency escape routes as indicated by The Client's Fire Adviser;
- The Contractor must provide external lighting that provides a safe environment for people, traffic and the building. Light pollution must be minimised and kept within the limits as required by BS 5489 and nuisance as a result of lighting to the adjacent neighbourhood shall be avoided wherever possible.

Power Circuits

Power circuit systems shall comply with the following requirements:

- The power circuit system shall be designed to minimise interference to computers caused by electrical faults or failures;

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- Uninterruptable Power Supply will be required to the life critical and safety systems as well as the minor ops surgery unit. The DH HTM 06-01 (Health Technical Memorandum) 2007 - Electrical Services: Supply and Distribution (1993), emphasises that a hospital distribution system should provide security of supply with safety and flexibility in operation. A professionally designed, installed and maintained UPS/IPS system is therefore essential;
- The Contractor shall provide suitable RCBO/RCD protection against electric shock and circuit overload for all socket outlets;
- The Contractor shall provide the appropriate number and distribution of sockets detailed within the Room Data Sheets together with such other additional sockets as may reasonably be required for general maintenance and other functions such as cleaning;
- All sockets must be sited safely away from potential dangers.

Utilities Sub-metering

Services shall be designed to enable the management and charging of energy and services between the primary care and other areas.

Lightning Protection

The building shall be provided with suitable lightning protection systems in accordance with current Codes of Practice.

Fire Alarm System

The building must comply with Firecode and current Building and Fire Regulations and will take into account any recommendations made by the Trust's specialist Fire Officer. To enable swift and safe vertical evacuation and exit for mobility impaired / disabled users of the health facility a Fire Evacuation lift to standard B2999:2008 must be installed.

The Evacuation lift must have two independent supplies and we need to ensure that the area where the wheel chair services are to be located must be as close to the evacuation lift area as possible with suitable fire resistance and compartmentation provided as part of the design.

The alarm should be a minimum of L2 and must have visual alerts in the toilet and other public areas, i.e. corridors and waiting rooms.

There should be disabled refuge and call systems located on or adjacent to all fire exit stairs and the fire evacuation lift on the upper floor.

A fully digital addressable, open protocol, fire alarm system should be provided throughout the new development in accordance with HTM05 suite of documents, as applicable to primary and social care premises with DDA compliancy.

The new system shall be required to be interfaced with the Access Control system so that in the event of a fire emergency unhindered egress is afforded. Systems shall be designed to ensure that all necessary mechanical systems and incoming gas supply are shut down by the fire alarm in the event of fire.

A clear laminated fire plan indicating all fire zones and firefighting equipment shall be provided and installed in a conspicuous location adjacent to the fire alarm panel.

Tenants Requirements for the Bromley Health & Wellbeing Centre – Bromley Clinical Commissioning Group

Specialist Installations

The following specialist installations shall be provided where necessary and shall comply with the following requirements:

TV Installations

TV installations shall be provided that supply TV outlets in the locations set out in the Room Data Sheets, together with any signal booster equipment necessary to receive acceptable signals.

The Contractor shall ensure that the VCR/DVDR can be operated from outside the room it is located in. The installations shall be capable of receiving and distributing digital/analogue transmissions and shall comply with all relevant British Standards

ICT System

The Contractor shall ensure that the installation and testing of the computer networks capable of carrying data, voice and video to allow onsite usage is provided in the locations set out in the Room Data Sheets. The Contractor shall provide cabling to a minimum of CAT6. The installation shall comply with the requirements of BS EN 50174-2 and those of the selected equipment manufacturer. All cabling should be in separate compartment trunking. Fibre-optic cabling must be used if the distance to be covered is more than 90m or the cabling is exposed to the elements (See Appendix D for detailed specification of requirements).

Telephones

The Contractor is required to provide the cabling infrastructure and outlets for the telephone system in the locations set out in the Room Data Sheets. All equipment will be provided by the provider organisations. The contractor is responsible for ordering those lines required to commission the building including lift lines and Redcare line (See Appendix D)

CCTV and Security System

An Operational Requirements Survey based on the business case and proposed building design MUST be carried out by an LSMS to ascertain the requirements for any CCTV/ Security System to be installed. Based upon this report the design, type and requirements for the Alarm/CCTV system can then be stipulated.

Panic Alarms

Panic alarms required in all the rooms where staff and patients interact and immediately accessible by staff in any part of the room and must be hidden from view. (The Client (LSMS) to confirm system required). Staff need to be protected by security whilst still maintaining a welcoming environment for patients. During the H&WBC's normal hours of operation the panic alarm should register back to the reception desk on a control panel with call origination capabilities. However, after hours these alarms will need to be diverted to the police via an autodial facility. The positioning of panic alarm devices and autodial facilities must be agreed with The Client (LSMS).

Staff Call Systems

A staff (nurse) call system is required to all clinical rooms. The controls are to be situated in the reception area with a link to the Practice/Centre Managers' rooms and staff room. The specified nurse call system shall provide for the following call origination capabilities:

Tenants Requirements for the Bromley Health & Wellbeing Centre – Bromley Clinical Commissioning Group

- Patient station to control station;
- WC pull cord to control station.

To identify incoming calls, the Reception shall have the floor number, room number, single number and call level displayed on clear back lit display. There must also be a clear alarm alert indicator above the door of, or adjacent to the room in which the alarm originates.

Patient Check in/Call System

The patient call system located within the main reception/waiting area must provide a facility for patients to self-check in as well as those wishing to check in at reception. Therefore a simple check in system is required for use by both staff and patients. The hardware will be a group 2 item. The Patient Call module should allow individual GP's to view a list of their arrived patients. This view should provide staff with the freedom to call and re-call their patients directly and adjust their place in a queue. Once called, an announcement should be instantly displayed on a Patient Call screen in the patient waiting area. The call display should be able to be configured to show a patient's name or simply a number. There must also be the ability for staff to mark patients as seen or not seen.

Furniture and Equipment

Fixed furniture and Equipment

The Contractor shall supply fixed furniture as set out in the Furniture and Equipment schedule and Room Data Sheets. See Appendix C for groupings schedule. Furniture should be procured from sustainable sources where possible and be in compliance with relevant HTMs.

White Goods and Kitchen Equipment

White Goods and Kitchen Equipment can be provided as set out in the Furniture and Equipment Schedule. These will be group 2 items.

Loose Furniture

Where the provision of the loose furniture falls to the developer as stated within the Room Data sheets then the furniture and equipment shall comply with the following requirements:

- The facility shall have appropriate furniture and equipment which shall comply with Industry Standards;
- All soft furniture should be to Crib 5 standard;
- The responsibility for initial provision and maintenance of firefighting equipment as recommended by the Fire Officer is the Contractors;
- Fixtures and fittings shall be of a standard at least equivalent to that provided by a recognised and approved supplier to The Client;
- All blinds (Group 1) will be operated using a metal side winder operation and where possible, blinds to be fitted within the window recess areas;
- All blinds to be made of a washable, inherently fire retardant fabric;
- Contract quality, metal, hand drawn track systems to be provided to all areas where curtains are required.

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The Contractor shall provide all window coverings as set out in the Room Data Sheets.

Curtains where applicable should be fully lined. All vertical blinds are to be washable. Battens for the fixing of the window coverings are to be provided.

Waste

All forms of waste shall be sealed and stored in a place designated for storage until collection or disposal or if internal storage points are not possible, clinical waste will need to be taken to the external store at the end of each session. Careful design consideration should be given to the layout and proportions of the waste store/hold to ensure segregation of separate waste streams awaiting collection.

Other

The design should ensure compliance with the following standards:

- Sustainability and the Environment: It is an absolute requirement that a 'Very Good' BREEAM rating is achieved as a minimum standard;
- Way Finding: The NHS Identity Guidelines: Main Signage: the New NHS Wayfinding Design Guidelines, BS 5499 Parts 1 and 4, and the Health & Safety Regulations 1996, The Disability Discrimination Act 2005, Current Building Regs Approved Documents (Part M);
- Information Technology: Data Protection Act, Health and Safety Act, Freedom of Information Act, The Computer Misuse Act, NHS Direct Information Security Policy Statement;
- Planning Permissions: Town and Country Planning Act for England and Wales, any planning conditions;
- Building Regulations: Current Building Regulations Approved Documents;
- DDA: The Disability Discrimination Act 2005, Current Building Regulations Approved Documents (Part M);
- Health Building Notes;
- Health Facilities Notes;
- Health Guidance Notes ;
- Health Technical Memoranda;
- British Standards;
- CIBSE Design Guides;
- IEE Regulations;
- Acoustic requirements.

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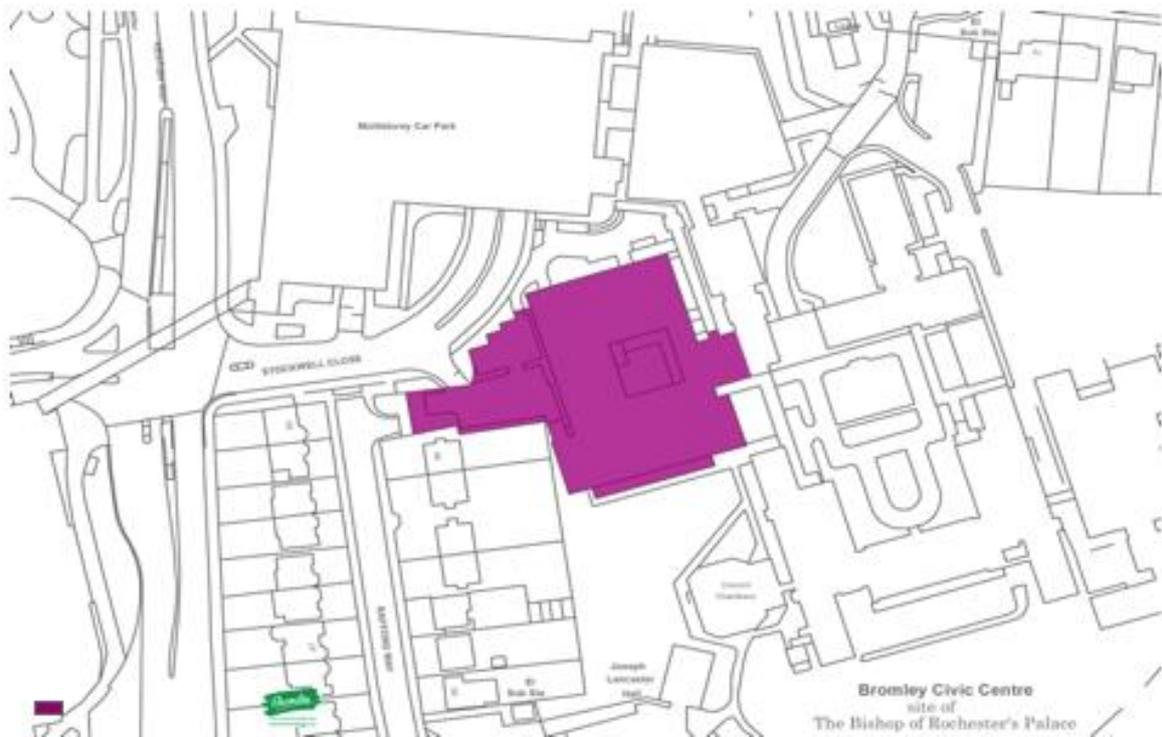
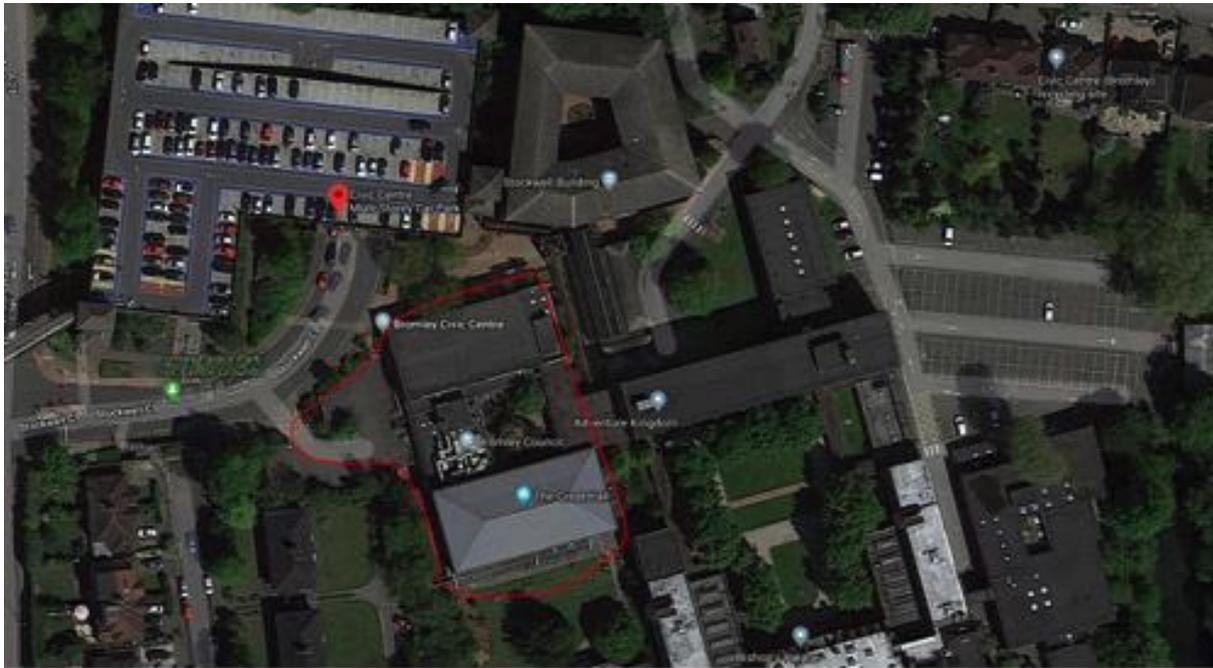
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Appendices

Appendix B – Site Location



Appendix C – Equipment Grouping

General Description & Fittings List Checklist	1	2*	3*
General descriptions or specification notes			
Suspended ceilings with modular lighting to suit use/function	✓		
Carpet/vinyl floor finishes to suit use/function (include barrier matting)	✓		
Doors: durable, self-finished with suited locks, latches and handles to suit use/function	✓		
Glazed screens to be full height with doors to match	✓		
Wall protection: on corners	✓		
Wall protection: dado to YHC corridor areas	✓		
Door protection: ancillary and service entrances; kick plates to high wear areas	✓		
Skirtings: to provide protection and a hygienic finish/ joint between wall and floor	✓		
Staircase - no resonant vibration: balustrades/handrails - simple	✓		
Balustrades (e.g. balconies/edge protection) - pre finished with glazed panels	✓		
Walls and partitions to achieve min 45db (site tested)	✓		
Wall and ceiling finishes in waiting, foyer open areas to achieve low reflection time	✓		
Colour scheme to client approval (Dulux Diamond to walls)	✓		
Design against cross infection and Legionella	✓		
Lighting (general and feature - e.g. to reception counters, info areas, waiting rm)	✓		
Small power and dedicated supplies for building services and systems as required	✓		
Space heating, zoned to suit: avoid hazard and obstruction to use or placing of furniture	✓		
Natural ventilation by openable windows (day time and night time cooling) + trickle	✓		
Mechanical ventilation, only where required to suite use or function	✓		
Comfort cooling systems (minor ops and comms rooms) or as essential to use BMS - simple	✓		
CCTV to entrance, reception, waiting, foyer, staircase and circulation areas	✓		
Lightning protection	✓		
Cold water storage for standby operation	✓		
Plug in for mobile generator for essential supply	✓		
Intruder alarm system - zoned to suit use	✓		
Access control system: PC based with proximity readers or swipe card		✓	
Redcare	✓		
Panic/attack system	✓		
Patient call system - linked to IT system		✓	
Fire alarm system	✓		
Firefighting equipment		✓	
White goods		✓	
Room identification numbers and room names	✓		
Window blinds to all areas as necessary for privacy and to avoid direct sunlight and heat gain	✓		
Internal direction signs	✓		
Entrance and exits doors			
Automatic control to main entrance doors with intercom, access control and lock	✓		
Double doors to ancillary/service entrance with intercom, access control and lock	✓		
Security locks to external doors with panic push bars on inside of fire exit doors	✓		
Access control to all external doors (other than fire exit only)		✓	

General Description & Fittings List Checklist	1	2*	3*
Medical gas bottle storage	✓		
Medical gas by bottles			✓
Loose furniture i.e. desks, chairs, couches, trolleys, mobile lights, cabinets etc.			✓
Bins			✓
Notice/pin boards Coat hooks to doors			✓
Office, staff, meeting and training areas			
Loose furniture i.e. desks, chairs, tables, cabinets etc.			✓
Kitchenettes: sink, mixer tap, appliance spaces, worktop, base and wall cup'ds	✓		
General shelving - store rooms			✓
General shelving - offices			✓
Sundry equipment - white board, projection screen etc.			✓
Cabling for TV/Video to training/meeting rooms			✓
Showers/shower cubicles included in shared area	✓		
Safe			✓
WC, showers, changing, baby change, ancillary			
Mixed sex/public and staff WCs	✓		
Mixed sex/public and staff shower and change area	✓		
Water proof, seamless wall and floor finishes complete	✓		
Tamper proof suspended ceilings with recessed lighting etc.	✓		
Concealed building services	✓		
Space heating to avoid electric heaters or surface mounted radiators	✓		
Generally, outward opening doors, laminate finished	✓		
Staff small, medium and full height lockers			✓
Coat hooks, shelf and bench to shower and change area	✓		
Towel hook to shower/change	✓		
WCs to be back to wall or (preferred) concealed cisterns	✓		
Wash basins - WC areas: lever mixer mono-block or (preferred) vanity unit with inset basin and lever mixer mono-block	✓		
Shower cubicles complete, including fixed head spray, mixer and curtain + track	✓		
Change areas to include vanity basin with mixer tap and base unit, mirror and mirror light	✓		
Baby change to include vanity basin with mixer tap and base unit, fixed change table, mirror and mirror light	✓		
Coat hooks to all WCs	✓		
Mirror above all basins/vanity basins	✓		
Electric hand driers to WC and wash rooms	✓		

General Description & Fittings List Checklist	1	2*	3*
Soap, hand scrub dispensers			✓
Toilet roll holders			✓
Paper towel holders			✓
Bins: sharps, clinical, general, sanitary towel etc.			✓
Shelving to store rooms			✓

IT			
Structured cabling for voice and data	✓		
Telephone system			✓
IT Terminations	✓		
Patch panels	✓		
Containment for Voice/Data cabling	✓		
Containment for Security cabling	✓		
Three compartment trunking to work stations/above worktops and counters incl. reception	✓		
IT Equipment			✓
TV aerial and booster	✓		
External areas			
Illuminated external building name sign Illuminated external site sign	✓		
Site directional signage	✓		
External security lighting	✓		
Hard landscaping to draft planning application Soft landscaping to draft planning application CCTV (Internal/External)	✓		
Lockable clinical waste/bin stores	✓		
External tool store	✓		
Stand, building services connection and access to mobile unit	✓		
External cold water tap	✓		

Appendix D – ICT Infrastructure

ICT Infrastructure Requirements

Bromley Health and Wellbeing Centre

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1 Purpose and Scope

Throughout this document, the use of the phrase “communications room” signifies a dedicated room suitable for communications, network and/or server operations.

- a) Structured Cabling, including copper and fibre.
- b) All patch panels for the structured cabling, including RJ45 termination panels in cabinets, termination in floor boxes, termination in Dado trunking and all other RJ45 outlets.
- c) Cabling and server cabinets, including cable management, PDUs, and fan trays.
- d) Cabling for any audio-visual requirements.
- e) Analogue, digital and satellite signal reception devices.
- f) Incoming communications, e.g. voice and data.
- g) Specifically excluded from the scope at this stage are:
 - Active audio visual equipment e.g. whiteboards, projectors;
 - Proximity and/or swipe card readers;
 - General building management systems e.g. fire alarms;
 - Access control systems;
 - Catering systems;
 - All other loose ICT;
 - Containment.

2 Service Requirements

- a) 24 hours per day, 365 days per year access to NHS voice and data network and associated services.
- b) Services which are fully compliant with all Information Governance, IT Security and Data Protection Policies and other relevant HSCIC policies.
- c) Access to organisational information will be secure and structured manner.
- d) Clinical and management access to Integrated Care Records System including PAC’s image services, where appropriate.
- e) Access for all NHS staff from the supported organisations to all N3 Spine Applications.
- f) Disability access to ICT services will be available if specified and will be costed separately.

3 Assumptions

The following assumptions are made:

- a) On the ground or first floor there will be a main reception area which may be shared by different agencies.
- b) Technical representatives working for or on behalf of the tenant's to have shared access to the communications / server rooms. Secure access methods to be agreed.
- c) The individual tenants will provide their own network hardware, desktop equipment, servers, pagers, telephones and other communication devices, unless agreed otherwise.
- d) The tenants will install and manage the telephony service and systems. This may be a centralised system with costs and charges being apportioned between tenants.

4 Terminology

Appendix 1 contains a glossary of technical terms and acronyms.

5 Planning requirements

Design and planning principles

- a) The provision of an Ethernet network backbone utilising 1000BASE-T/1000BASE-TX (Gigabit Ethernet) cable that is capable of supporting speeds of 1000 Mbit/s.
- b) As a minimum, the cabling MUST conform to CAT.6 specification and certification.
- c) The network cabling is to provide connectivity to every data outlet within the building
- d) Each location where a data and/or telephony point is presented, there will be a minimum of Four active RJ-45 sockets. This will allow for connectivity of:
 - Workstation
 - Telephone
 - Other network device (e.g. network printer)
 - Spare
- e) The tenants will install and manage the LAN/WAN infrastructures with the exception of the structured cabling infrastructure and power, which is the responsibility of the Developer.
- f) Communication rooms MUST NOT be located in basement areas.

Detailed Design and Planning Requirements

The ICT facilities are expected to provide the services detailed below:

- a) The core network (voice and data) services must provide for a minimum of 40% expansion including peripherals such as printers and faxes.
- b) The LAN/WAN must be able to support services including but not limited to:
 - TCP/IP protocol including (EIGRP, LWAPP)
 - IP Telephony
- c) Where possible, IP Telephony is to be implemented providing core telephony services.
- d) Wiring systems must support a multi-product, multi-vendor environment.
- e) All communication rooms must be connected to separate, clean power circuits or phases, different for each room, offering a minor level of redundancy with power related problems.
- f) Uninterruptible power supply systems will be installed in the communication rooms to provide at least one hour of battery backup to all critical network and server room equipment. These will be provided by each of the tenants for their organisation's IT equipment in the communications room, unless this is shared infrastructure which will then be provided by the BHC/BCCG IT.
- g) Quad multi-mode fibre connections to be installed between each communication room to allow for cross-connectivity and reduce network bottlenecks and latency between rooms.
- h) For additional resilience, two CAT.6 interconnect UTP cables per cabinet between each communication room. Therefore the installation of four cabinets would require eight UTP cables, clearly identified and terminated on a patch panel.
- i) As a minimum a 25 pair multicore voice cable to be installed from the main DP to a dedicated 24 port voice panel in each communication room to allow for copper based services (e.g. PSTN, ISDN) to be distributed via the central cabling system.
- j) It must be possible to access the required clinical system(s) at the point of care.
- k) In areas where the required hardware that provides access to a clinical system is prohibitive (e.g. due to space restrictions), the use of mobile technology combined with a Wireless LAN is the recommended approach.
- l) Each area that provides diagnosis and treatment for patients should have access to required clinical system, if applicable, to assist in that process.
- m) Diagnostic images will be provided in digital format. This negates the

need for light boxes to be fitted, although there will be need to increase the work stations with diagnostic quality screens. These are to be installed in convenient areas.

- n) The installed LAN must be capable of transporting large image files (up to 200Mb) without any adverse effect to other users.
- o) Access to BAU applications and Email functionality via NHSMail must be available to all staff. This will include access to central file servers and localised directories as permitted by the individual's logon credentials.
- p) Provision of a double network point for each patient self-check system – two are required for the GP surgeries.
- q) Two double power points to be installed in the same locality as each patient check-in system.
- r) Provision for a ceiling mounted, double network point for a patient call system at each waiting area (including sub waits).
- s) Patient information and education should be provided electronically, where possible, in public areas, such as waiting rooms, receptions, etc.

Telephony Business Continuity

- a) Each tenant is advised to have one PSTN direct dial handset provisioned in their reception area for business continuity purposes. They are for emergency use only and the numbers are not to be made public. The cost for both rental and call to be billed to the services.
- b) The handsets must not be electrically powered or battery operated.

6 Environmental Pre-requisites

Communications/Hub Room Specification

This section describes the technical standards and requirements for the communication rooms.

Appendix 2 shows an example room layout.

- a) The number of communication rooms is to be determined by the size of the buildings, the 90m cable limitation and the density of staff.
- b) Each communication room must :
 - be of a MINIMUM room size of 3 metres by 4 metres by 3.5 metres high.
 - be able to accommodate 4 cabinets of 42U by 1000mm (depth) 800mm (wide) bayed as one unit.
 - have dual air conditioning units offering N+1 protection, providing the appropriate cooling for the potential output from 4 server cabinets. See section 7.2 for further information on air

conditioning requirements.

- have the flooring waterproofed with no service penetrations.
- not have a ceiling grid installed.
- have lighting with minimum lux levels conforming to BS6206 installed at the front and rear of each cabinet. Lighting MUST not be installed directly over a cabinet.
- have windows blocked out, if present.
- secured door entry.
- not have any water supplies (feed or waste) pass through the rooms.
- have a dedicated power feed to each room, running on their own circuit or phase.
- have a minimum of 12 double electrical sockets fitted, with a minimum of 8 units being installed to the rear of the cabinets and the remaining installed on the opposing front wall. See comment in Appendix 2
- have 4 double RJ45 data outlets installed on the opposing front wall. See comment in Appendix 2
- have the interconnecting fibre cables presenting at the top of “communication links” cabinet using a fibre connector panel. Ideally there should be a couple of metres of spare fibre to allow for the relocation of the fibre panel in the future.
- have a dedicated 24 port RJ-45 patch panel connected to the multi-core voice cable from the main DP. This is to be in the “communication links” cabinet and marked up appropriately.

c) Each communications cabinet must:

- be a minimum of 42U by 1000mm (depth) 800mm (wide).
- have mesh fronted doors.
- be fully earth bonded to a minimum of EN50174-2, EN50310 standards.
- bayed together to form a single unit.
- internal side panels removed.
- fitted on a static 100mm high plinth fixed to the floor.
- be fitted with dual roof fans on each cabinet.
- have cable containment both back and front.
- fitted with, as a minimum, an 18 way mixed socket PDU, mounted horizontally at the rear in the mid-point.
- have the front vertical supports recessed 150mm from front of cabinet.
- horizontal 1U cable tidies to be installed per two 24 way patch panels.
- vertical cable tidies to be installed every 6U on both sides and in all supplied cabinets.
- have no gaps left for expansion in the patch panels, all cables must be installed in a contiguous fashion.
- not exceed the maximum acceptable cabinet density of 432

cables, which will fully populate a 42U cabinet.

- d) Any NON ICT equipment MUST NOT be installed within the communication rooms.
- e) Any devices that generate a high level of electromagnetic field MUST not be installed near network cabling. This can have performance issues of the UTP Category 6 cable but more importantly corrupt network traffic.
- f) Where a UTP or fibre cable will be susceptible to damage from normal operational activity it MUST be protected by an appropriate covering. An example of this is where a UTP cable is exposed at floor level and is susceptible to damage by being trodden upon.
- g) All rooms MUST be constructed with walls and or partitions going from slab to slab to form a fire resistant barrier.
- h) Any object piercing this structure MUST be properly sealed to be fire resistant.
- i) Communication room's walls and soffit installations MUST be sealed, exposed brick work or unfinished surfaces are not allowed.

Air conditioning for Communication Rooms.

Each of the communication rooms must be fitted with a form of air conditioning, adhering to the following requirements:

- a) two air conditioning units must be installed in each communication room.
- b) each air conditioning unit must have of sufficient spare capacity to deal with maximum rated heat output from active electrical and ICT equipment, together with any solar gain.
- c) where possible the air conditioning units will have diverse electrical supplies to enable continued cooling in the event of individual breaker or cable failure.
- d) if the air conditioning units are ceiling mounted then these must not installed or positioned above or over the cabinets.
- e) no water or coolant pipe work is to run over the cabinets to or from the air conditioning units.
- f) during normal activity, each air conditioning unit should function at 45% of their overall load.
- g) in the event of a unit failure, the remaining unit should automatically increase its cooling output and maintain the required level of cooling.
- h) have a means of notifying the buildings manager of any air conditioning device problem or failure, externally to the communication room.

7 Wireless Connectivity

The modern world is moving towards a greater reliance on wireless technology, there

is a strong need for secured wireless access points (AP). Wireless networks are now an accepted part of the infrastructure requirements for the provision of modern healthcare systems. The AP's need to be distributed around the building to provide strong coverage in all of the main areas.

- a) The wireless AP's will be powered using Power over Ethernet (PoE) technology, negating the need for separate power feeds.
- b) There is a requirement for a double network point to be installed in each location.
- c) BHC/BCCG IT will nominate an authorised contractor to carry out a site survey to identify the best AP locations. This survey MUST be carried out at such a time during the build process that the internal build is substantially complete so as to enable a representative survey to be undertaken.
- d) Developer to provide 4 weeks' notice of the week in which the survey can be undertaken.
- e) Where outlets are positioned above the ceiling grid a label MUST be fixed to wall below the outlet. The label to be a minimum of 40mm * 20mm with the wording

8 Warranty

- a) A MINIMUM of a 20-year system warranty covering the installed cabling system(s) defined within this specification against defects in:
 - workmanship
 - components
 - performance against manufacturer specification and to provide follow-on support after project completion.
- b) Warranty submittal shall comply with the manufacturer's requirements for warranty to eliminate possible problems and delays.
- c) Bit Error Rate (BER) testing of the structured cable infrastructure to ensure 1000BASE-TX, 1000BASE-SX and 1000BASE-LX compliance.
- d) Copies of all warranty paperwork and test results to be made available to SLCSU for review and audit purposes.

9 Technical Standards

This section describes the technical standards and requirements for cable, fibre and sockets, including the installation standards required.

Technical principles

- a) It is the tenants' policy to integrate voice and data cabling. There will

therefore be no distinction made between the specification of voice and data cables, from the data cabinet, to the end user location.

- b) Category 6 UTP will be minimum standard installed by the Developer which meets or exceeds EIA/TIA TSB 36 standard for Unshielded Twisted Pair (UTP cable) and EIA/TIA TSB 40 for cross-connect hardware.
- c) The Developer must adhere to EIA/TIA Building Telecommunications Wiring Standards as follows:

[EIA/TIA-568B series for:](#)

- Commercial Unshielded Twisted Pair (UTP) Wiring Standard.
- Commercial Unshielded Twisted Pair (UTP) Wiring Standard for cross-connect hardware.
- Transmission Performance Specifications for Testing of UTP systems
- Centralised Optical Fibre Cabling Guidelines
- Commercial Building Telecommunications Wiring Standard.

[EIA/TIA-569-A for:](#)

- Commercial Building Standard for Telecommunications Pathways and Spaces.

[EIA/TIA-606 for:](#)

- The Administration Standard for the Telecommunications Infrastructure of Commercial Buildings

[J-SID-607-A for:](#)

- Commercial Building Grounding and Bonding Requirements for Telecommunications.

- d) The criteria contained within the EIA/TIA standards are subject to revision and updating as warranted by advances in network terminal equipment or wiring technology and the LIFTCO must ensure that the latest standard is applied prior to cable installation.
- e) If there are discrepancies between this specification including its supporting documents and EIA/TIA standards detailed above, the Developer will apply the latest EIA/TIA standard.
- f) All components of Category 6 UTP cable installation (such as data jacks, cross-patch panels and patch cables) must be certified for Category 6 installations. An end to end certification test must be used by Developer and the results of the test are to be provided to SLCSU in an electronic format. This format to be agreed.
- g) All UTP cable installed MUST enable 1000BASE-TX and Fast Ethernet.
- h) All multi-mode fibre cable installed MUST enable 1000BASE-SX and Fast Ethernet.
- i) All single mode fibre installed MUST enable 1000BASE-LX.
- j) The longest Category 6 run from hub to user equipment must be no more than 90 metres, excluding fly leads.

- k) The maximum total length of patch cables and fly leads at both ends of the link to be 10 metre or less.
- l) A minimum of 40% of expansion must be provided.
- m) There must be 4 terminated Fibre cable runs between all the communication rooms. The fibre cables should contain at least 16 cores of multimode 62.5/125 fibre optic, where the run is less than 251 metres. The fibre cables should contain at least 16 cores of Single mode 9/125 fibre optic, where the run is more than 250 metres. The required termination connectors to be confirmed.
- n) There must be two CAT.6 interconnect UTP cables per cabinet between each comms room. Therefore the installation of four cabinets would require eight UTP cables, clearly identified and terminated on a patch panel.
- o) The installed fibre Optic Cables will be designed to meet the requirements of structured cable networks in accordance with EN50173 or equivalent latest standard.
- p) All installed fibre cable will be suitable for use in the transmission of Gigabit Ethernet. Whether to install tight buffered or loose tube design will be left to the discretion of the Developer.
- q) All copper and fibre cable will adhere to the latest requirements to install LSNH (Low Smoke No Halogen) fire retardant standard cable in New Builds.
- r) Labelling will be capable of being altered in the event of the use of the data-point changing at a future date.

Performance Verification

- a) The certified cabling installer will perform Bit Error Rate (BER) testing of the structured cable infrastructure to ensure 1000BASE-TX, 1000BASE-SX and 1000BASE-LX compliance.
- b) The results of the BER test will be made available to SLCSU for review and audit purposes.

Wiring Map

- a) The wiring pin out MUST conform to the EIA/TIA 56B wiring standard.
- b) The installation MUST be completed in accordance with British Standards BS 6701 Parts 1 and 2, BS EN 50174 and IEEE Regulations (17th Edition). If any of these standards have been superseded at the time of installation, then the updated versions will be deemed to be expected standards.

10 Testing - Minimum Requirements

All cables must be tested to demonstrate compliance with the standards and specification to which they were bought. The manufacturer of the cabling system shall provide copper and optical fibre testing procedures that clearly describe the tools and settings to be used to ensure correct measurements of the system.

The use of certification tool is MANDATORY. These tools are capable of producing reports logging key information such as the time of the test the link, identification under test, the link length, the attenuation at the window tested and the acceptable link attenuation. The report shall also identify in which direction the testing was implemented.

It is expected that these reports will form the basis of the certification and warranty documentation.

Testing of ISO Class E

- a) 100 % of the installed horizontal links have to be tested. The testing procedure has to comply with the standard ISO/IEC 11801: 2002 for Class E, according to the procedure for "Channel or Permanent Link" or latest technical standard.
- b) The measurements shall be done using Level III or IV testing equipment. Channel testing shall be preferred.
- c) The testing equipment must be yearly calibrated by the manufacturer and the copy of the calibration certificate must be included in the documentation.
- d) The following parameters have to be tested:
 - Pair continuity (wiremap)
 - Pair length
 - DC Loop resistance per pair
 - Insertion loss (Attenuation) per pair
 - Next and Powersum Next for every pair combination
 - Fext and Powersum Fext for every pair combination
 - The ACR (ratio NEXT/ insertion loss) for every pair combination
 - Return Loss (impedance match, retransmitted signal)
 - Any standard tests that emerge over the lifetime of the structured cable infrastructure may be required after discussion with the tenants' BHC/BCCG IT representative.
- e) The complete test results of all the installed links or channels have to be collected in a certification file. It is required to have the test result in electronic format to facilitate the certification procedure.

Testing of Fibre

- a) The procedure shall comply with the ISO/IEC 14763-3 standard or its successor.
- b) The ISO/IEC 14763 standard specifies the implementation and operation of customer premises cabling.
- c) The part 3 of this ISO document (14763-3) details test procedures for optical fibre cabling designed in accordance with ISO/IEC 11801:2002 and installed according to the recommendations of ISO/IEC 14763- 2 (Planning and installation of customer premises cabling).
- d) For Multimode fibres, the test procedure is based on the use of the “one-jumper method” specified by Method 2 of IEC 61280-4-1. This procedure is used for testing links for which the connector loss is a significant portion of the total link attenuation. This is the case for LAN premises links.
- e) For single mode fibres, the test procedure to be applied is the same and is based on the use of the “one-jumper method” specified by Method 1a of IEC 61280-4-2.
- f) Fibre-optic Tests applied to links and exclude equipment and work area cord.
- g) OF Attenuation testing is used to verify the initial performance of the installed link.
- h) All 100 % of the installed OF links have to be tested and must pass the acceptance criteria.
- i) The attenuation of the link is measured using the insertion loss method. This method uses an optical source and an optical power meter to compare the difference between two optical power levels.
- j) When testing multimode optical fibre links with a Light Source and a Power Meter, this measurement kit has to be capable of operating at:
 - 850nm and 1300nm for multimode fibres (OM1, OM2 & OM3)
 - 1310nm and 1550nm for single mode fibres (OS1)
- k) The test scenario with a Light Source and a Power Meter shall be one of the following for each link:
 - Single direction @ 850nm and @ 1300nm for multimode fibres
 - Single direction @ 1310nm and @ 1550nm for single-mode fibres
- l) When testing with basic optical source and power meter, the operator will fill in a report logging:
 - the time of the test
 - the link identification under test
 - the link length and attenuation at the window tested
 - The report shall also identify in which direction the testing was implemented.
 - Acceptable link attenuation (To be calculated)

- m) The measured attenuation of the links shall have a lower value than the acceptable link attenuation calculated.

Documentation

The following documentation is to be provided to BHC/BCCG IT in electronic and hardcopy formats for review and audit purposes:

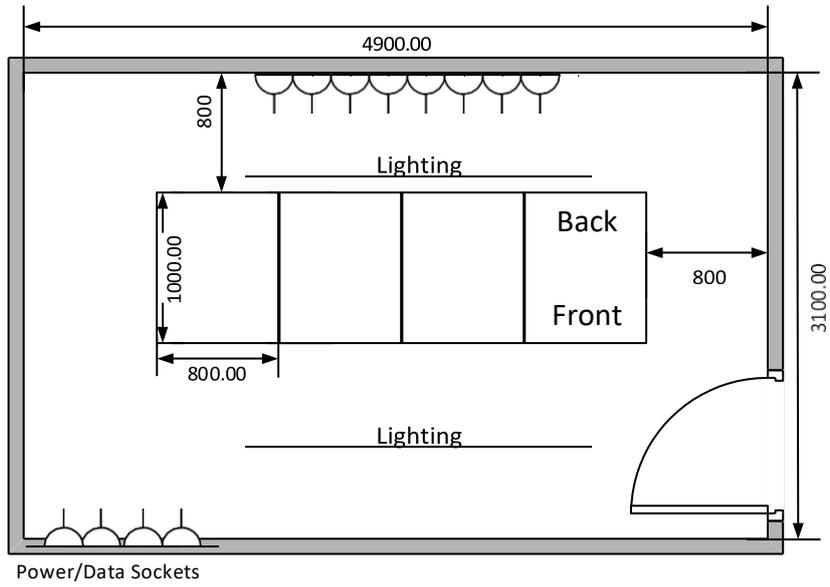
- a) Certification files (in Excel format)
- b) Plans “as built” (in AutoCad and PDF format) showing all outlet positions with outlet number and cable routes.
- c) Class E “Link and Channel Warranty” delivered by the Developer / Product manufacturer
- d) List of components used, (Manufacturer and Part number)

Appendix 1 – Glossary

- BER** Bit Error Rate: In telecommunication, an error ratio is the ratio of the number of bits, elements, characters, or blocks incorrectly received to the total number of bits, elements, characters, or blocks sent during a specified time interval. The error ratio is usually expressed in scientific notation; for example, 2.5 erroneous bits out of 100,000 bits transmitted would be 2.5 out of 10⁵ or 2.5×10^{-5} . Some software may display this as "2.5e-05".
- BHC/BCCG IT** Bromley HealthCare/Bromley CCG IT - based at Global House, 10 Station Approach, Hayes, Kent BR4 0DA. They provide the technical support for the Bromley Healthcare, Bromley CCG and Primary Care
- EES Circuit** Ethernet Extension Services (EES Circuit) - formerly known by BT in the U.K as LES Circuits (LAN Extension Services) is a point to point circuit available at speeds of 10 Mbps, 100 Mbps and 1000 Mbps.
- EIA** Electronic Industries Alliance is a membership organization founded in 1924 as the Radio Manufacturing Association. It sets standards for consumer products and electronic components. In 1988, it spun off its Information & Telecommunications Technology Group into a separate organization known as the Telecommunications Industry Association (TIA).
- EIGRP** Enhanced Interior Gateway Routing Protocol is a Cisco proprietary routing protocol loosely based on their original IGRP. EIGRP is an advanced distance-vector routing protocol, with optimizations to minimize both the routing instability incurred after topology changes, as well as the use of bandwidth and processing power in the router. EIGRP and IGRP are compatible with each other.
- BCCG** NHS Bromley Clinical Commissioning Group is responsible for commissioning most of the healthcare services for the people of Bromley. This means it is responsible for planning which services need to be in place and ensuring that there are a range of healthcare providers able to deliver care high quality care to patients when they need it.
- ISO** The International Organization for Standardization is an international standard-setting body composed of representatives from various national standards bodies. Founded on 23 February 1947, the organization produces world-wide industrial and commercial standards.
- LWAPP** Lightweight Access Point Protocol is the name of a protocol that can control multiple wireless access point at once.
- RJ45** Short for Registered Jack-45, an eight-wire connector used commonly to connect computers onto a local-area networks (LAN), especially Ethernets. RJ-45 connectors look similar to the ubiquitous RJ-11 connectors used for connecting telephone equipment, but they are somewhat wider.
- PACS** Picture Archiving and Communication System is the system which enables images such as x-rays and scans to be stored electronically and viewed on screens, so health professionals can access the information and compare it with previous images more efficiently.
- PDU** Power Distribution Unit is a device fitted with multiple outputs designed to distribute electric power, especially to racks of computers and networking equipment.

- TCP/IP Short for Transmission Control Protocol/Internet Protocol, the suite of communications protocols used to connect hosts on the Internet. TCP/IP uses several protocols, the two main ones being TCP and IP. TCP/IP is built into the UNIX operating system and is used by the Internet, making it the de facto standard for transmitting data over networks. Even network operating systems that have their own protocols, such as Netware, also support TCP/IP.
- TIA Telecommunications Industry Association that specifies minimum requirements for telecommunications cabling within an office. TIA has recommendations for topology and distances, media parameters which determine performance, connectors and pin assignments (to ensure inter-connectivity), and demands that the useful life of telecommunications cabling systems be in excess of 10 years.
- UTP Short for unshielded twisted pair, a popular type of cable that consists of two unshielded wires twisted around each other. Due to its low cost, UTP cabling is used extensively for local-area networks (LANs) and telephone connections. UTP cabling does not offer as high bandwidth or as good protection from interference as coaxial or fibre optic cables, but it is less expensive and easier to work with.

Appendix 2 - Example communication room layout



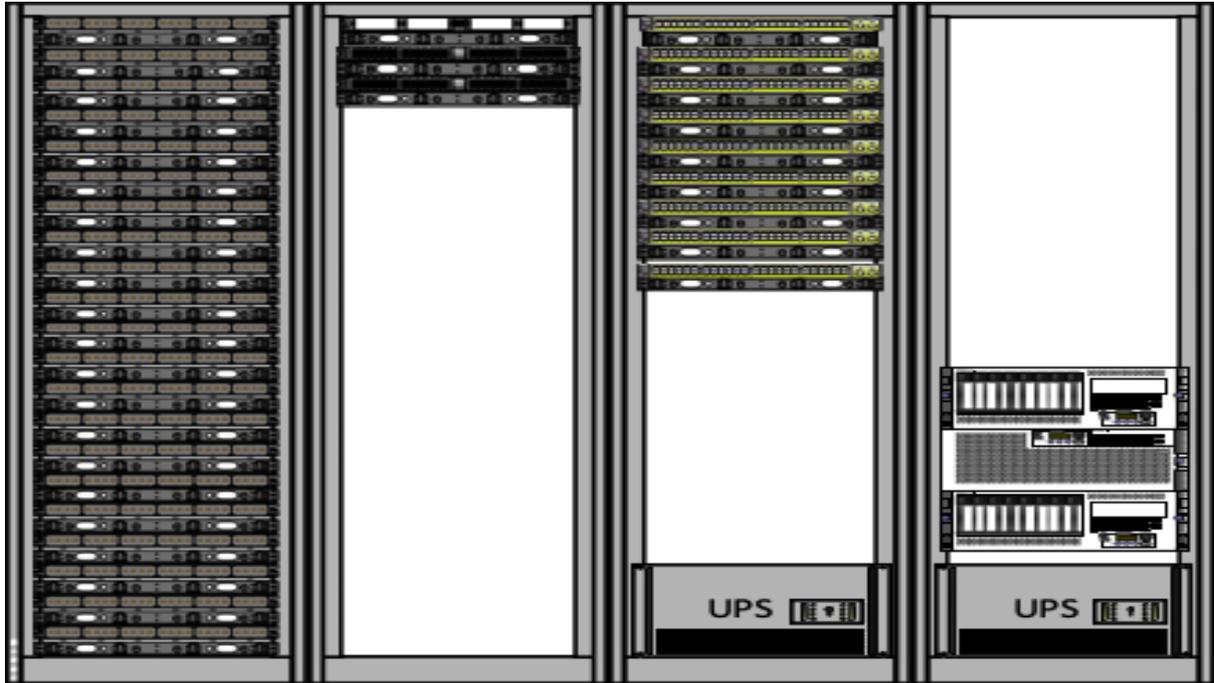
Appendix 3 - Example cabinet layout

Cabling points

Comms links

Active network

IT equipment



NB Equipment fitted is for representative purposes only

Appendix E – Infection Control & Prevention

Guidance for this section has been taken from the following:

- Health Building Note 00-03: (2013) Clinical and clinical support spaces,
- Health Building Note 00-10: (2013) Design for flooring, walls, ceilings, sanitary ware and windows Parts A-D
- Health Building Note 11-01: (2013) Facilities for primary and community care services
- Health Building Note 00-01: (2014) Designing Health and Community Care Buildings
- Health building Note 00-02: (2013) Designing sanitary spaces
- Health Technical Memorandum, 07-04: (2013) Water management and water efficiency
- Health Technical Memorandum 04-01(addendum):(2013) Management of pseudomonas aeruginosa in health sector
- L8 Approved Code of Practice Health and Safety Executive
- Health Technical Memorandum 04-01 (2006) The control of Legionella Part A and Part B
- Department of Health (2010) The Health and Social Care Act 2008 -Code of practice for the prevention and control of healthcare associated infections and related guidance.
- Health Building Note 00-09: (2013) Infection control in the built environment
- Environment Agency (2011) Hazardous Waste Regulations. Waste (England and Wales) Regulations 2011 and the Waste (Miscellaneous Provisions) (Wales) 2011 Regulations.
- British Association of Day surgery (BADS) Directory of Procedures 4th Edition

Design Principles:

- Use finishes that are impervious, smooth and seamless
- Hard flooring to be run up walls and floor cupboards for a short distance (20cms) to provide for easy cleaning
- Preferably floor mounted cupboards should be set above floor
- Eliminate or minimise dead legs and blind ends in water systems
- Consider hands free operation of utilities (e.g. sensor taps, automatic lights, movements sensors for toilet flushes)
- Provide sufficient space for activities to take place and to avoid cross-contamination (e.g. cubicle curtains and wash hand basins)
- Ensure proper segregation and management of waste
- Provide sufficient waste receptacle storage for both domestic and clinical waste in rooms that are easy to clean
- Design out horizontal surfaces (e.g. window sills, shelving) to discourage clutter
- Provide sufficient hand wash basins
- Plan for good separation of clean and dirty activities

1. Generic Rooms

Advice in the use of Generic rooms, designed to accommodate a range of activities rather than being tailored for a single function or range of specific functions are not included in this section.

There may be certain functions that may be carried out in a number of rooms and will depend on risk.

2. Risk based approach

The key principle used in this section is a risk-based approach to determine appropriate rooms/facilities for a range of procedures. Procedures have been allocated to facilities as follows:

- **No or very low risk** procedures take place in Consulting, Examination, Therapy rooms, etc.
- **Low risk** procedures require a treatment room.
- **Medium risk**, enhanced procedures require a procedure room.
- **High risk** procedures require an operating theatre.

3. Consulting / counselling / examination / therapy rooms

These rooms are not used for treatments e.g. where there may be accidental and minimal spillage of blood or body fluids

3.1 *Size, location and pattern of use*

Rooms should preferably be 16m² to allow access to three sides of the examination couch when required. Although in general practice it would be usual to align the couch against one wall leaving space for escorts and mobile equipment.

If the room is to be used only for consultations the room size may be reduced to 12-14m². A room of this size must not be used for any other purpose other than consultations. A room of this size should not have an examination couch in the room. A clinical hand wash basin is essential.

3.2 *Characteristics of the space*

- **Window:** External windows may be open able and have curtains, tracks or blinds; which should be easy to clean or easy to remove for laundering.
- **Finishes:** For ease of cleaning finishes should be jointless or with sealed joints, impermeable and easy to clean. Typically floors should be covered in sheet vinyl with coved skirting to at least 20 cm up the wall.
- **Artificial lighting:** Light fittings and illumination levels should be cleanable.
- **Furniture, fittings and equipment:** All furniture should have a washable impervious surface, not textured. All store cupboards should be enclosed with lockable doors to provide a clean environment. Furniture should be wipeable and easy to clean. A wall bracket is required for sharps bins at a height which is out of reach of children, but low enough to allow visual disposal of sharps.
- **Clinical Hand Wash basin:** to HTM 64 standard with wall-mounted liquid soap dispenser, paper towel dispenser, and alcohol hand rub dispenser.

4. Treatment room

The room is used for procedures which exclude the use of general anaesthetics but must be suitable for the conduct of advanced life support in the event of collapse.

4.1 *Size, location and pattern of use*

Rooms should be a minimum of 16m² or preferably 18-20m². If more than one, clustered in groups, or with other treatment rooms, supported by the other accommodation. Each room should provide workspace for a clinician and an assistant.

The couch or operating table must be accessible on all four sides.

4.2 *Characteristics of the space*

- **Window:** External windows should not be openable (no trickle vents), and have no curtains, tracks or blinds. Windows must be designed to preserve privacy ie obscure glazing. External blinds may be appropriate for solar control and remotely operated.
- **Ventilation:** The room must be mechanically ventilated and cooled, with a minimum of 10 air changes with a good standard of filtered air. Hepa filters are not necessary, but the room should be under positive pressure to 10 pascals.
- **Finishes:** Finishes should be jointless or with sealed joints, impermeable and easy to clean. Typically vinyl floors with coved skirting at least 20 cm up the wall. Walls and ceilings should be sealed smooth and capable of withstanding chemical disinfectants.
- **Artificial lighting:** Light fittings and illumination levels should be cleanable. Ceiling mounted operating lamp, or adjustable examination/operating lamp fitted should be easy to clean.
- **Furniture, fittings and equipment:** All furniture should have a washable impervious surface, not textured. All store cupboards should be enclosed with lockable doors to provide a clean environment. There should be no open cupboards or shelves. Furniture should be wipeable and easy to clean. A wall bracket is required for sharps bins at a height which is out of reach of children, but low enough to allow visual disposal of sharps.
- **Clinical Hand Wash basin:** to HTM 64 standard with wall-mounted liquid soap dispenser, paper towel dispenser, and alcohol hand rub dispenser. It must be easily accessible from both the consultation and examination areas. The curtain should be located to prevent it becoming contaminated from use of the clinical wash-handbasin.

5. Clean utility room/s

Of a standard size from 8m² - 12m² rooms depending on the equipment to be located in the room. Ideally a dedicated sterile store room would be directly accessible to the procedures treatment room.

5.1 *Characteristics of the space*

- **Window:** Not a necessity. If provided should be obscured glass with no curtains, tracks or blinds.

- Nature of the environment: Mechanical ventilation should be provided to the space. Twenty- five air changes per hour with 35 pascals are recommended for lay-up preparation rooms, but only six air changes for a normal clean utility.
- Finishes: Finishes should be joint less, impermeable and easy to clean. Typically vinyl floor finish with painted walls and impervious splash back to work surfaces are appropriate.
- Furniture: Furniture should be wipeable and easy to clean. Furniture should include storage for dressing trolleys and waste sack holders.
- Fittings: A clinical hand wash basin to HTM 64 standard (with wall-mounted liquid soap dispenser, paper towel dispenser, antiseptic hand solution dispenser and alcohol hand rub dispenser). A range of built-in closed cupboards. No open shelves.
- Equipment: This will include desktop and floor-mounted items.

6. Dirty utility room/s

The size and number of dirty utility rooms will depend on activity and layout. They should be of a standard size from 8m² - 12m². Ideally a dedicated dirty utility room would be directly accessible to the treatment room with a hatch rather than a door.

The location of dirty utility rooms should minimise travel distances for staff to reduce the risk of spillages and cross contamination, and to increase working efficiencies.

6.1 *Activities that occur in dirty utility rooms include:*

- Disposing of liquid waste;
- Urine testing;
- Clinical hand washing using a clinical hand wash basin with sensor taps;
- Storage of soiled linen, awaiting collection;
- Holding waste sacks prior to their removal to a disposal hold;
- Disposal of small amounts of liquid human waste; and
- Storage of disposable pots and liners.

The space required for holding waste sacks will depend on the local disposal policy. As soon as sacks have been filled they should be sealed and taken away (as soon as possible thereafter) to the associated disposal hold to await collection, to avoid cluttering and build-up of odours.

6.2 *Characteristics of the space:*

- Storage of disposable pots and liners.
- Window: Not a necessity. If provided should be obscured glass with no curtains, tracks or blinds.
- Nature of the environment: Mechanical extract ventilation should be provided to the space. Six air changes with negative pressure are recommended.
- Finishes: Finishes should be joint less, impermeable and easy to clean. Typically non- slip vinyl floor finish with painted walls and impervious splash back to work surfaces are appropriate.

- Furniture: Furniture should be wipe-able and easy to clean.
- Fittings: This will typically include a clinical hand wash basin (with wall-mounted liquid soap dispenser, paper towel dispenser), a sink and drainer (with wall-mounted taps and no overflow), a flushing slop sink, a range of built-in cupboards, shelves and urine testing cupboard.

7. Cleaner's Room

This room is used to deliver day-to-day cleaning services for a defined area. The recommended room size is between 8m² – 12m².

- Cleaning materials and equipment in daily use should be stored in this room.
- The room should be provided with a sink and slop-hopper or janitorial unit as well as a wash-hand basin.
- There should be unrestricted access to the sink and slop-hopper/janitorial unit
- Space should be provided for mops, buckets, a vacuum cleaner, scrubbing/polishing machine (for hard floors) and other appropriate cleaning equipment.

8. Hot and cold water

Should be at a minimum flow of 600C ± 2.5oC, with a return temperature of 50oC.

Allow for safe water temperature of 43oC at each outlet - to be obtained by use of automatic mixer units providing water at the predetermined temperature

Taps discharging directly into a drain hole can cause splashing, which could disperse contaminated droplets. The tap outlet flow should not discharge directly into the waste aperture.

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