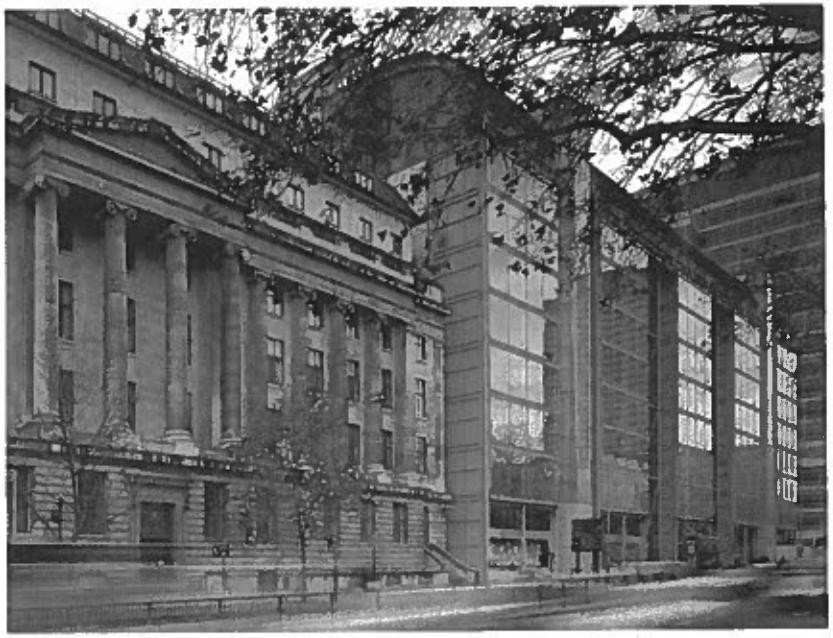
wellcome trust



Wellcome Collection Development Project

Design & Access Statement

13th February 2013

Report Title: **Design & Access Statement**
Job Name: **Wellcome Collection Development Project**
Reason For Issue: Planning Application Submission

Prepared by: .....

Name: **Gabi Code**

Position: Project Architect

Approved by: .....

Name: **Paul Baker**

Position: Director

Rev No	Comments	Date
01	Design & Access Statement	04/09/2012
02	Planning Application DRAFT	13/02/2013
03	Planning Application	26/02/2013

Job No: **820.10**
File Reference: **R19**
Date created: **04/09/2012**

Client

Wellcome Trust

Wellcome Trust
Gibbs Building
215 Euston Road
London NW1 2BE, UK.
T +44 (0)20 7611 8888.

Team

Architect
Wilkinson Eyre Architects
33 Bowling Green Lane
London EC1R 0BJ
T +44 (0)20 7608 7900

Structural Engineer
AKT II
100 St John Street
London EC1M 4EH
T +44 (0)20 7250 7777

Services Engineer & Lighting Design
Max Fordham
42-43 Gloucester Crescent
London NW1 7PE
T +44 (0) 20 7267 5161

Acoustic Consultant
Buro Happold Ltd
Camden Mill
230 Lower Bristol Road
Bath BA2 3DQ
T +44 (0)1225 320600

Fire Engineer
Buro Happold Ltd
Camden Mill
230 Lower Bristol Road
Bath BA2 3DQ
T +44 (0)1225 320600

Quantity Surveyor
Turner & Townsend plc
7 Savoy Court
Strand
London WC2R 0EX
T +44 (0) 20 7544 4000

Planning Consultant
Porta Planning
3 Selhurst Close, Woking,
Surrey GU21 4EX
T +44(0) 845 165 6222

Health & Safety CDM Co-ordinator
Turner & Townsend plc
7 Savoy Court
Strand
London WC2R 0EX
T +44 (0) 20 7544 4000

Access Consultant
Making Access Work
64 Havelock Road
Brighton BN1 6GF
T +44 (0) 1273 502934

Catering Consultant
Coverpoint Foodservice Consultants
The Barn, 11 Waltham Court
Milley Lane, Hare Hatch
Reading RG10 9AA
T +44 (0)118 940 5266

Wayfinding Consultant
Holmes Wood
Studio 27, 38 Burns Road
London SW11 5GY
T +44 (0)20 7326 9970

Emergent AV Limited
Church Road Studios
Teddington
Middlesex, TW11 8PB
T: +44 (0)20 3239 3775

Other Consultants

Crowd Modelling
Buro Happold SMART Solutions
Camden Mill
230 Lower Bristol Road
Bath BA2 3DQ
T +44 (0)1225 320600

MAX FORDHAM Turner & Townsend akt II porta COVERPOINT earnscliffe EMERGENT Holmes Wood Buro Happold

WilkinsonEyre.Architects

Contents

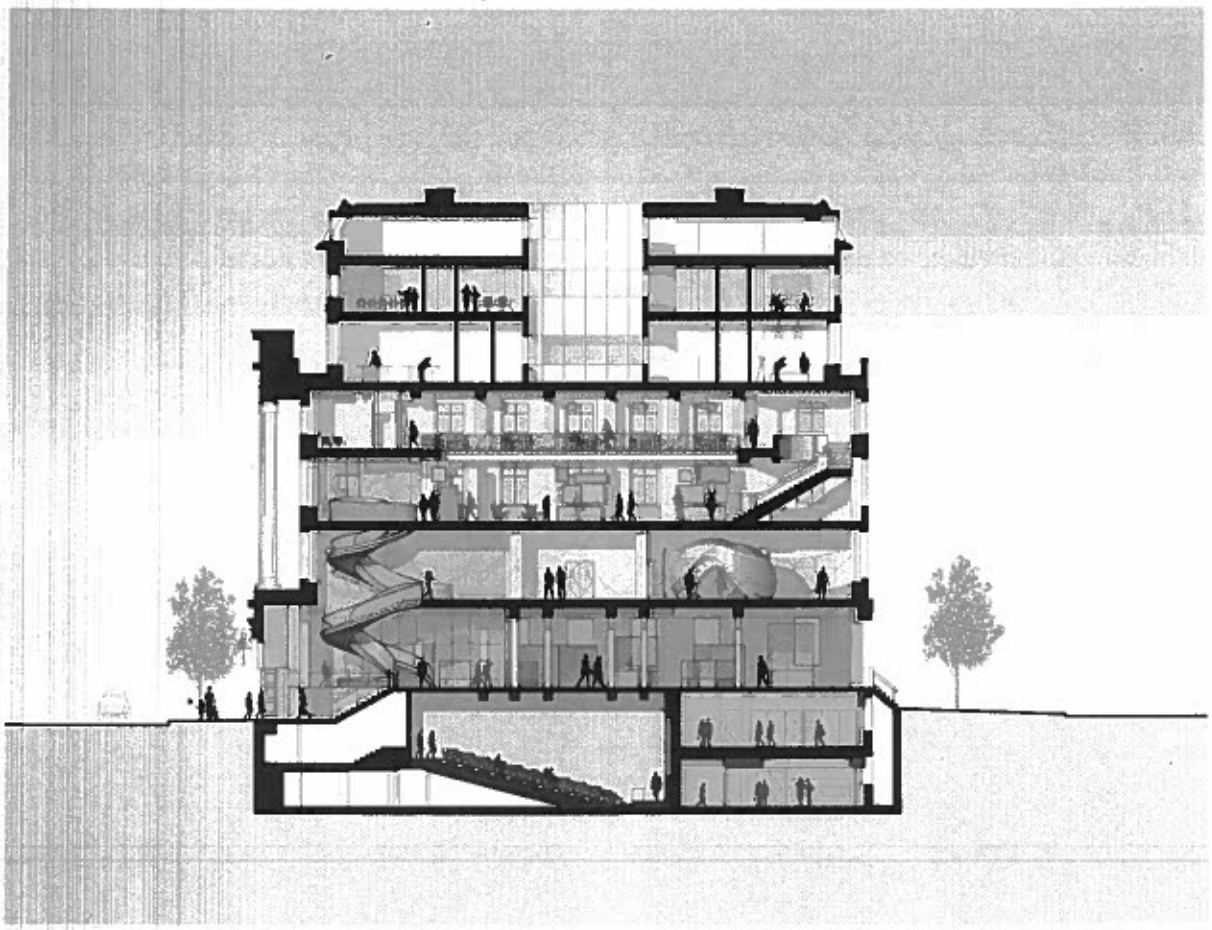
Appendix

Accompanying Documents

Please cross refer with the following documents:

- Planning Statement (Porta Planning)
- Planning & Noise Report (Buro Happold)
- Heritage Statement (Turley Associates)

1.0 Introduction



A home for the Incurably Curious

This Design & Access statement has been prepared to support the Full Planning Application for the refurbishment and redevelopment of the Wellcome Collection building at 183 Euston Road.

Since January 2012 the Design Team, led by Wilkinson Eyre Architects have developed the design from the Feasibility Report (produced by Edward Williams Architects) via in-depth workshops and consultations with the Wellcome Trust. The culmination of these workshops and the subsequent design development has resulted in an integrated design solution addressing the requirements of the brief whilst taking into account the constraints of the existing building and fabric.

The following report provides an outline of the background and key objectives of the Wellcome Collection Development (WCD) project, followed by an analysis of the site and the existing building. The main body of the report then concentrates on a description of the design proposals. This report should be read in conjunction with the drawings and other relevant documentation.

2.0 Background

2.1 Brief

In 2007 the Wellcome Trust launched Wellcome Collection, based in the Trust's former headquarters at 183 Euston Road. The venue enables the public to explore the connections between medicine, life and art, offering visitors contemporary and historic exhibitions and collections, lively public events and debates, and access to the world-renowned Wellcome Library.

Since its opening in 2007 there have been over 2 million visits to the venue. There have been eighteen major temporary exhibitions and a weekly events programme, for which the venue has received much critical acclaim. The original business plan for the venue predicted visitor numbers of c.100,000 per annum, a figure which was exceeded within the first year; last year the venue received over 490,000 visits.
The success of Wellcome Collection has brought with it a number of operational challenges for a building that was designed to cope with far fewer visitors. The vacation of the top two floors of the building by the Wellcome Trust Centre for the History of Medicine at UCL in August 2011 has presented the Trust with the opportunity to review the distribution of other activities in the building, to expand the public offer and to improve ancillary services such as catering so that the visitor experience keeps pace with demand.

A busy day in the main atrium at Wellcome Collection

Visitors queuing for the 'Brains' exhibition at Wellcome Collection, May 2012

A busy day in the main atrium at Wellcome Collection

Visitors queuing for the 'Brains' exhibition at Wellcome Collection, May 2012

3.0 Context

Henry Wellcome & Septimus Warwick at the Trollope & Colls Warehouse

The Wellcome Research Institution 26th January 1932

Wellcome Collection: Home for Incurably Curious

The Wellcome Trust Gibbs Building at 215 Euston Road, completed in 2004

3.1 Site History

Initially conceived as the Wellcome Research Institution, 183 Euston Road was designed by Septimus Warwick, an architect of many public buildings in England and Canada, with Sir Henry Wellcome taking a close interest throughout the design and construction process.

The Wellcome Building was intended to house the non-commercial research activities of Sir Henry Wellcome. The Wellcome Research Institution occupied the fourth and fifth floors and contained laboratorie for research into tropical medicine. Wellcome intended to find another site for his Library on Euston Road and on the building's opening in 1932 the main Library reading room was in fact The Hall of Statuary. Wellcome designed the ground, first, second and third floors to contain large open-plan exhibition galleries, to house his historical and scientific collections which he hoped would form the foundation of his 'Museum of Man'. The library moved in to the Wellcome Building in 1941 and opened to readers in 1949. It was completely refurbished ar modernised in 1960.

In 1989 the Wellcome pharmaceutical company moved to other premises and the Wellcome Foundation took over the building as its new headquarters. To make room for all the new staff, Bentley House the opposite side of Euston Road was refurbished to accommodate th library stacks. As the Wellcome Trust expanded, a new headquarters the charity had to be found

The Trust vacated the Wellcome Building in July 2004 to a new buildi the Gibbs Building, next door at 215 Euston Road, designed by Hopki Architects .

In 2007 the Wellcome Trust undertook a major refurbishment and wa relaunched as Wellcome Collection home for the Incurably Curious.

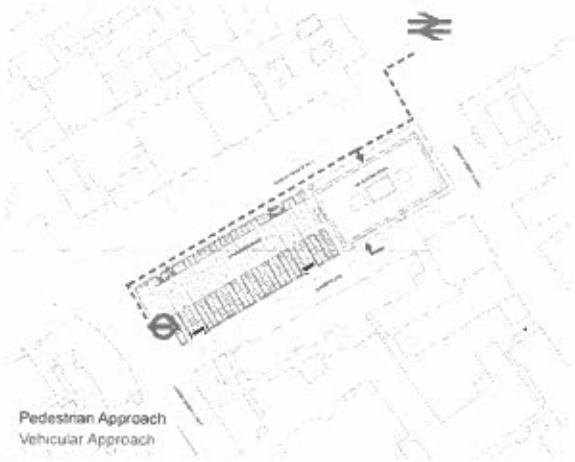
3.2 Site Location

The Wellcome Building is located at 183 Euston Road, London NW1 2BE, at the Northern edge of the Bloomsbury Conservation Area. The Local Planning Authority is Camden Council. The building is not listed, nor is it located in a heritage area.

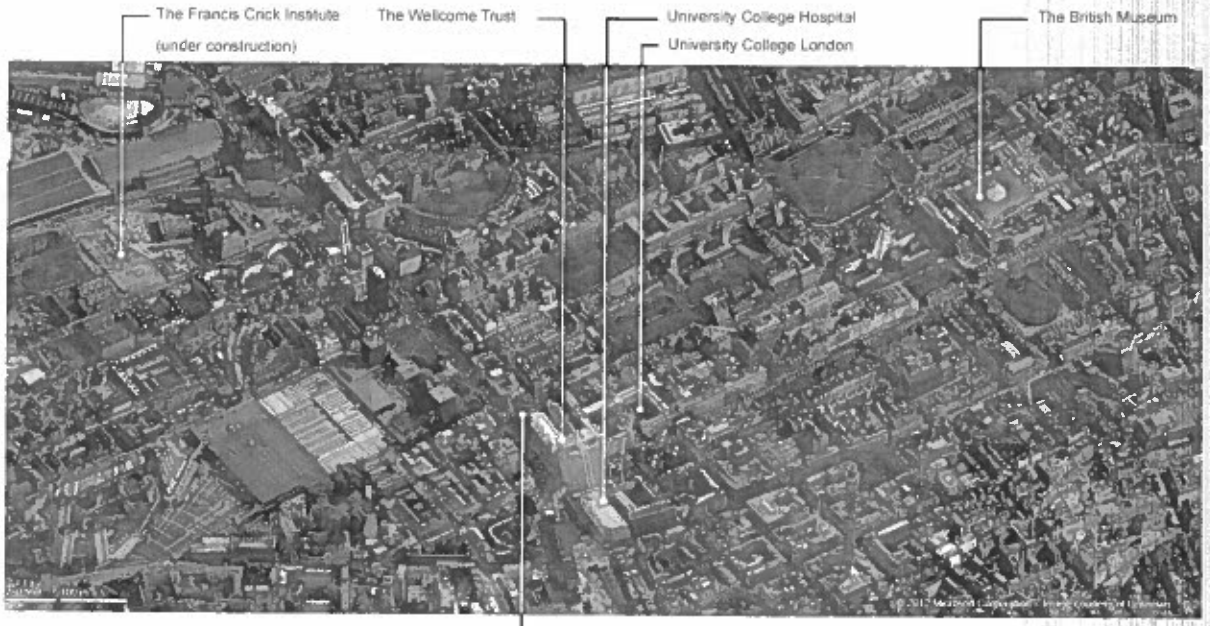
3.3 Approach

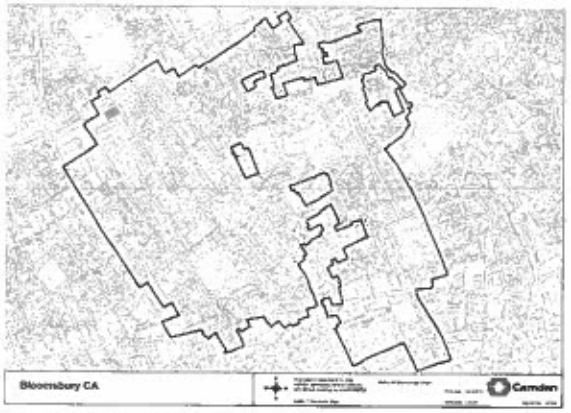
The main pedestrian approach to Wellcome Collection is via Euston Road. The building is accessed via the original main entrance doors on the North face of the building on Euston Road.

Vehicular access to Wellcome Collection building is via Gower Place to the South. The loading bay and car park access for both 215 & 183 Euston Road are located on Gower Place. There is no vehicular access to the North side. There are public bicycle parking stands on the North & South side of the building as well as in the basement for staff. None of the existing facilities will be affected by the development.

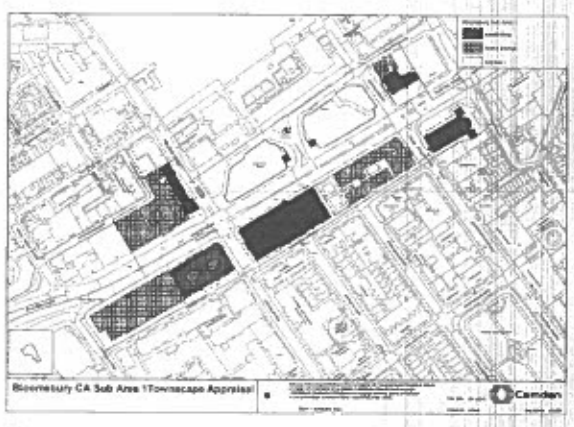


Approach Diagram

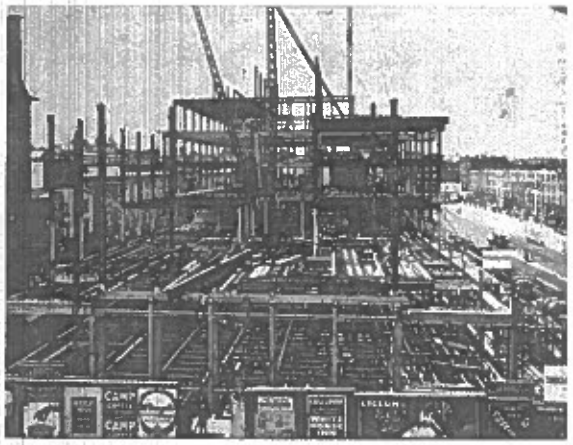




Bloomsbury Conservation Area

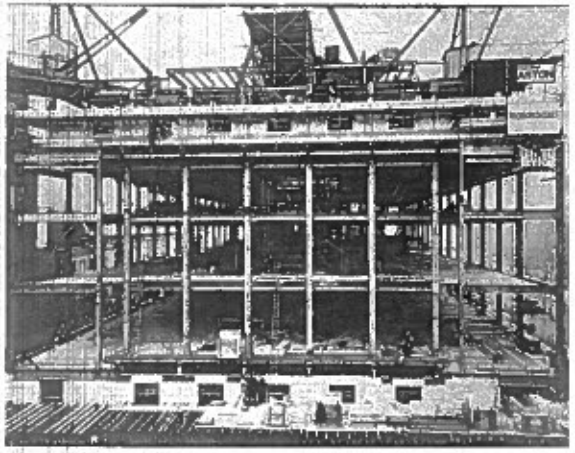


Bloomsbury Conservation Area -Sub Area 1



The Wellcome Research Institution during construction

Research Labs at The Wellcome Research Institution



The Wellcome Research Institution during construction in 1931 - showing steel frame with a hollow clay pot flooring system and stone facings to facade.

4.0 Analysis

4.1 Existing Building

Architecturally, the building is of neoclassical design and fairly typical of its day. Dating from 1932 the original building comprises structural steel frame that is 6 storeys tall with 2 levels of basement. The central circulation core, which houses 4 lifts and a staircase, is a steel cross-braced structure that provides lateral stability to the building.

The external finish of the building is limestone and the typical floor construction between the upper ground and the fifth floor is king tiles supported by filler joists at regular centres. The sixth floor, which was added in 1992, comprises 150mm thick lightweight reinforced concrete slab on profiled metal decking supported by composite steel beams. The roof leve plantroom also carried out in the same period is similar in construction with slight variations. The isolated workshop and tank room levels located on the South-West corner of the building consist o a similar floor construction.

4.2 Consultations

As part of the briefing process Wilkinson Eyre and the Design team have conducted in-depth Briefing workshops with the relevant workstreams within the Wellcome Trust in order to establish a fixed brief. These workshops have been conducted throughout each of the design stages since Stage C.

Pre-consultations have been held with Planning and Conservation officers from Camden LB on a number of occasions. The meetings have been generally positive and we have addressed all the comments and issues highlighted throughout the process. These will be discussed in more detail later in the report.

During the initial design process we have also met with local interested parties including Bloomsbury Conservation Area Advisory Commitee (BCAAC) and Twentieth Century Society (C20th). These initial meetings included discussions and site visits and both parties welcomed the early consultation. The main focus of the discussions were regarding the works to the main entrance which was seen as an improvement to the existing condition and are discussed in more deta later in the report.

Notes from the consultations with BCAAC & C20th held to date can be found in the Appendix.

5.0 Proposals

5.1 Concept

The WCD project involves the proposed redevelopment of parts of Wellcome Collection with the aim of expanding and enriching the main visitor offer whilst easing congestion and improving visitor facilities to accommodate ongoing anticipated growth in visitor numbers. The Project aims to increase public spaces by over 700sqm (NIA). An area schedule can be found in the Appendix.

Key features of the proposals include:

• Works to the main entrance on Euston Road to enhance environmental control and accommodate increase in visitor numbers

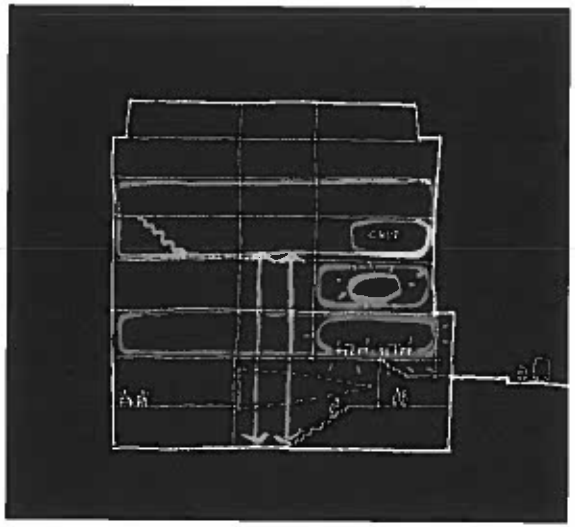
• Additional facilities to support the increased visitor numbers include expansion of the Atrium, a new stair between ground and second floors and enhancements to the central stair and lift core in order to improve the visitor experience and improve circulation to the upper floors.

- Creation of new thematic exhibition gallery on the first floor
- addition of an East Lobby at first floor to maximise potential floor area and create new portal to galleries.
- Provision of a new Youth Events Space on the first floor to support a wide range of activities including workshops, performances and discussion events.
- Reconfiguration of the Wellcome Library at second and third floors to create a directly accessible public browsing zone encompassing the iconic Reading Room and provision of a new entrance, improved circulation and new reader facilities for users of the Research Library.
- Creation of an 80 Restaurant and associated kitchen on the second floor to complement the existing offer on the Ground Floor.
- Relocation of photographic studio and imaging suites to the fourth floor
- Creation of space to house the Wellcome Hub - a new interdisciplinary research centre - and other offices at fifth floor level
- Accommodation for the Science Media Centre, an independent entity that briefs journalists on topical scientific issues. The new layout will provide open plan office space as well as a dedicated press briefing room.
- Transfer of staff occupying office areas on the first, third & fourth floors into the Trust's adjacent headquarters at 215 Euston Road to make way for the new activities outlined above.
- Associated improvements to public facilities such as increased W.C. provision.

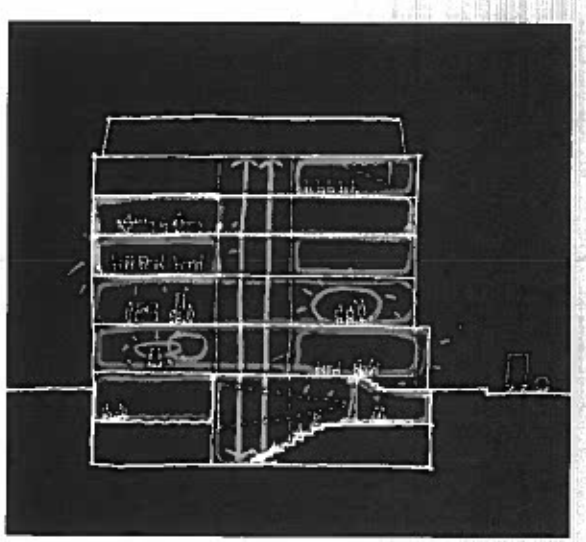
These key features result in a number of amendments which will have a direct impact on the elements affecting Planning, namely:

- Alterations to the main entrance - refer to Section 5.2 of this report
- Lightwell Infills - refer to Section 5.3 of this report
- Amendments to Roof Plant - refer to Section 7.0 of this report

Key Challenges



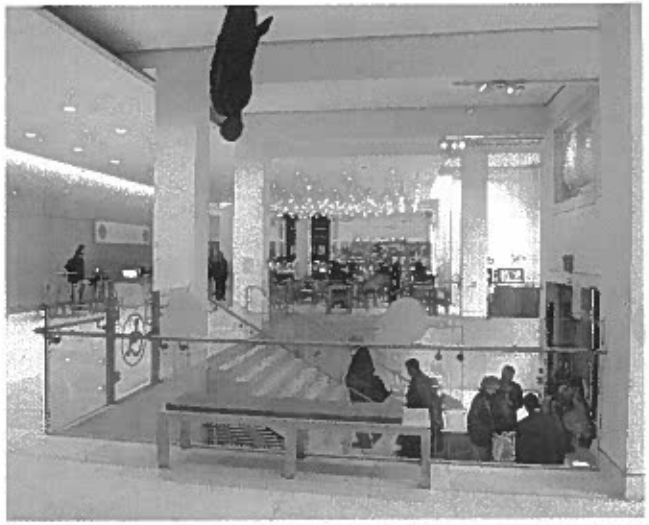
Existing: Principal public functions take place between Basement Conference Centre and First floor Galleries



Proposed: Range and location of public functions increased.

Original bronze entrance doors with fully glazed sliding doors beyond.

Existing symmetrical North facade to Euston Road with its prominent portico above the Main Entrance.



Security position within Lower Entrance Hall

Proposed North facade to Euston Road with enhanced proportions & symmetry to the Main Entrance - 1:50 Physical model

5.2 Scale & Appearance

The original Wellcome Building is of neoclassical design and has a prominence on Euston Road. However the fifth and sixth floor addition completed during the 1989 refurbishment detract from the original grandeur of the front facade and the proximity of the adjacent all-glass Gibbs building confuses visitors as to which property is accessible and open to the public.

The main public entrance is off the busy Euston Road - through a set of bronze faced double doors and an inner set of fully glazed sliding doors. This leads you into the Lower Entrance Lobby with a set of stair which take you up to the Atrium housing the Information Point, Cafe, Shop and the Ground Floor Gallery. Unfortunately, due to the increasin numbers of visitors coming to Wellcome Collection these doors are rarely in the closed position at busy times of the day which often result in uncomfortable working conditions for the staff working in the Entranc and Atrium. It also creates challenging environmental conditions for the adjacent gallery spaces. It was felt by the Design Team that in order to ensure the success of the wider WCD much tighter environmental control was required.

Various options were studied from wind lobbies to revolving doors. The location of the existing entrance stairs and the current layout of the basement level with its restricted head room restricted the options available. Lobby doors were not seen as appropriate, as due to the anticipated number of visitors they would not provide the level of control required, so the option taken forward was to introduce two new revolving doors.

The idea of modifying the openings on either side of the bronze doorw to create three openings of equal character and status was explored and supported by the BCAAC. It is believed that this configuration will improve accessibility and also strengthen the clarity and identity of the entrance.

The proportions of the facade suggested a symmetrical solution and the 4 door wing manual revolving doors are shown set back from the building facade line flanking the existing central opening. The finish to the doors is proposed to be 'bronze' to match existing entrance doors. is important that the proportion of the 2 new openings reflect that of th existing door for a number of reasons: to encourage visitors to use the new revolving doors & also to help reinstate the original grandeur of th portico that has been lost in previous developments.

In order to maximise the use of the revolving doors there is a need to introduce subtle wayfinding with integrated lighting, retained within the existing envelope of the building, which is being developed by the Design Team. Appropriate signage to the central door will clearly need to indicate this as the accessible entrance. A high visibility, push button control will be located to one side of the entrance to provide power assisted opening.

Night security shutters will be provided to address the concerns discussed with LB Camden Planning Officers in an aim to minimise the recess in the facade when the building is closed. These shutters will also be 'bronze' finish to match the existing central door and will provide a 'closed' facade to Euston Road when the building is not open.

The thresholds to the new doors will match the existing central door and regrading of the existing pavement will be required in order to achieve the threshold level. Initial discussions have been held with Transport for London (TfL) regarding the pavement modifications and this is discussed in more detail in the Access Strategy section of this report. It is not anticipated that tree pit levels and kerb levels will require adjustment.

Due to the nature of the building and its use there has previously been a need to treat the windows whether it be blackout, UV filters or standard blinds. All windows also have applied tinted film and secondary glazing fitted to mask the noise from adjacent Euston Road. As part of this development a number of windows will require additional treatment such as UV film, blinds & full blackout, including the new Thematic Gallery on South side of the building at first floor. This can be seen on the Proposed Elevations.

The full height wall proposed to the first floor Thematic Gallery windows will be set back to create a sense of depth, as suggested by the Planning Officer, and the windows will be treated with a translucent film which will be determined in due course. Additional lighting was considered but it is preferred to retain the existing external lighting strategy so as not to highlight the internal amendments.

Existing Approach along Euston Road from the West

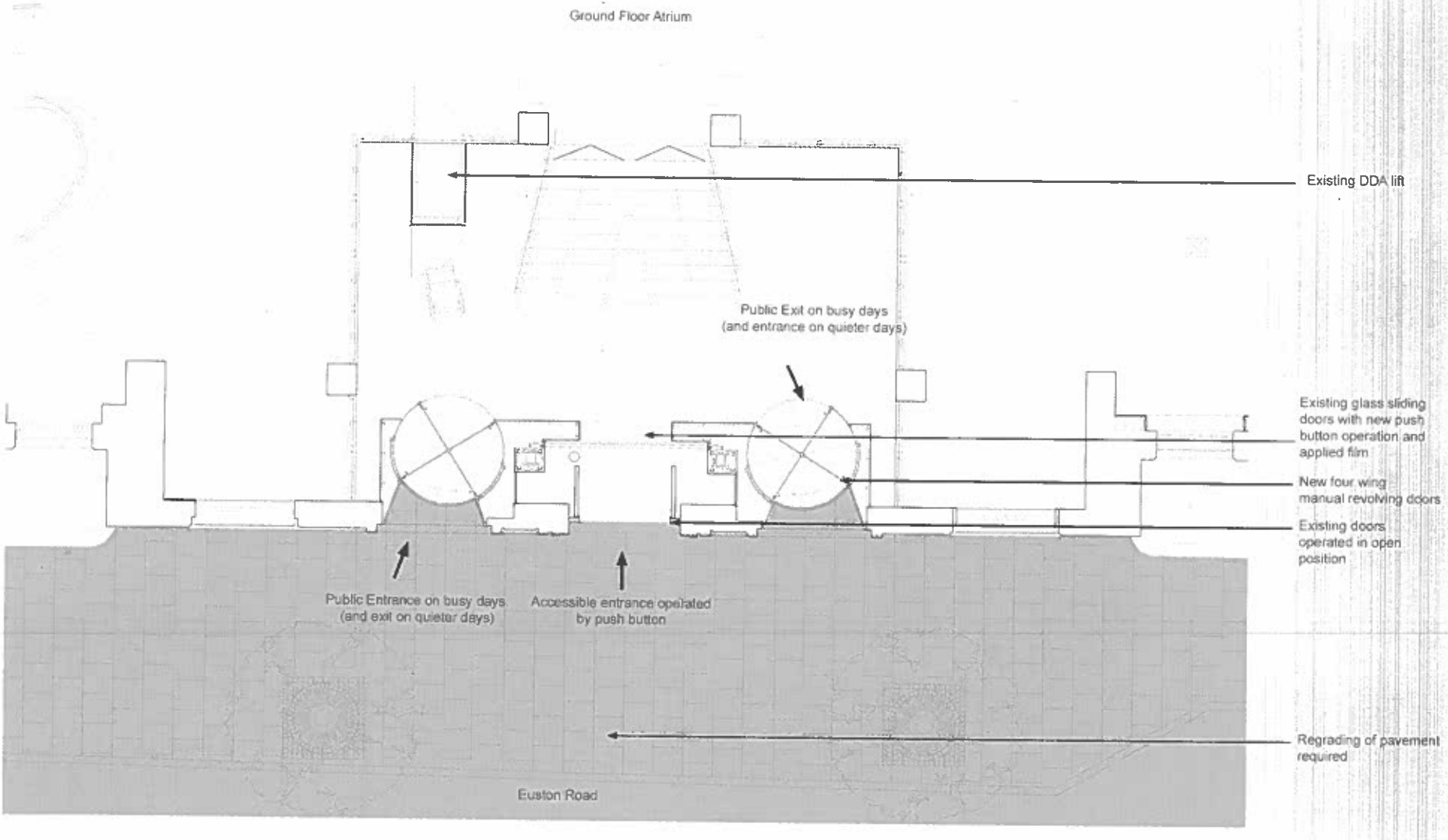
Existing Front Entrance

1: 50 Physical Model - Proposed Approach along Euston Road from the West

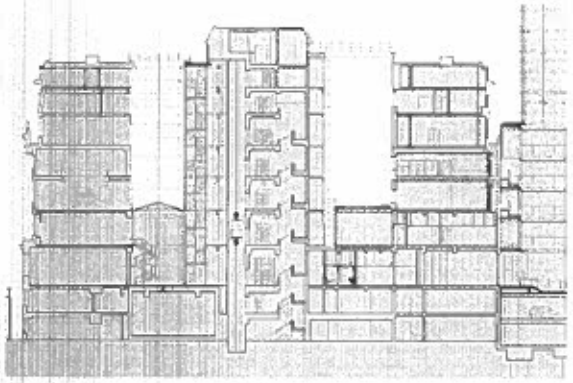
Jim Eyre sketch of front entrance as discussed with Bloomsbury Conservation Area Advisory Committee showing existing entrance flanked by 2 no. entrances of similar proportion.

1: 50 Working Model - Proposed Approach along Euston Road from the East

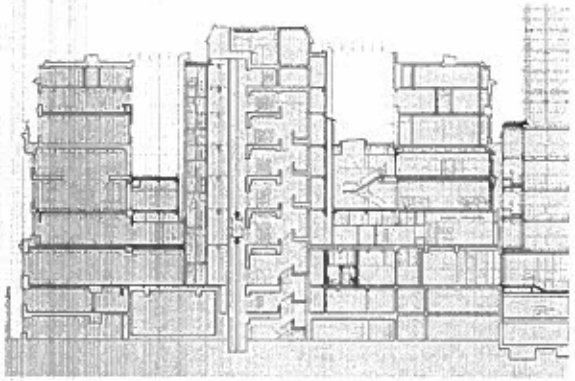
Wilkinson Eyre Architects



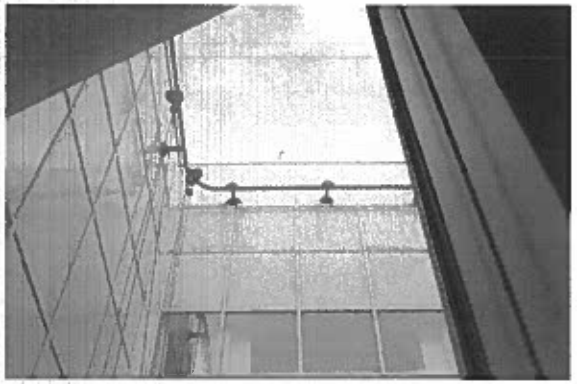
Proposed Main Entrance Plan showing operation of 3no doors including cental pass doors: The design team and crowd dynamics consultants have recommended that both revolving doors are used for entrance and exits on typical days and can be dedicated one way for busier days only; adequate signage will be required for busy days.



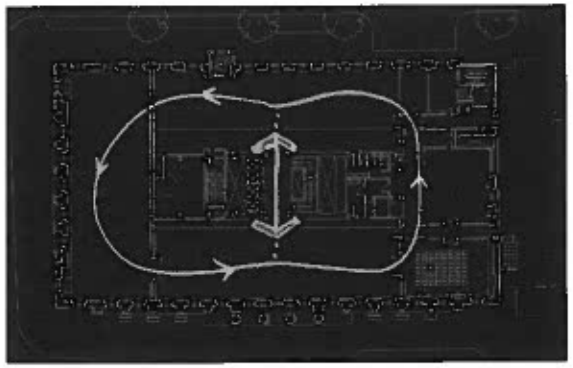
Existing Section through lightwells



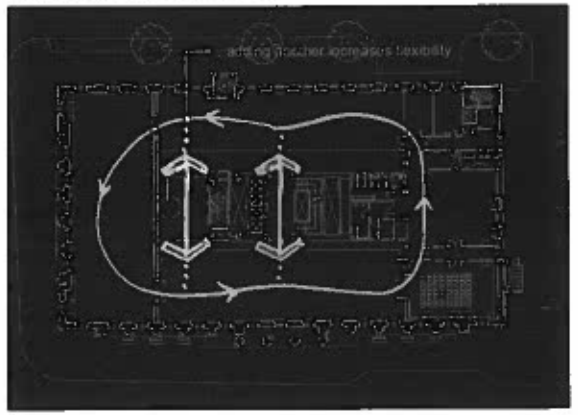
Proposed Section through lightwells



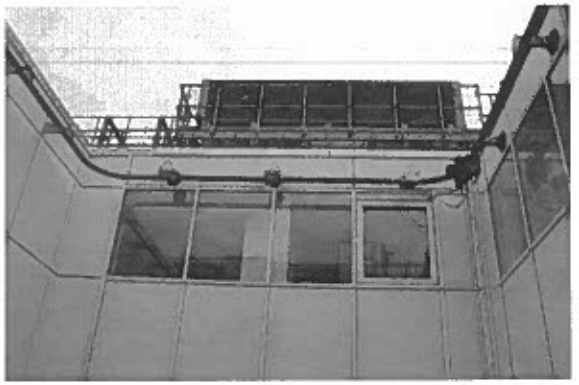
Existing West lightwell



Public circulation Loop on first floor



Analysis of Feasibility Scheme - Infill to lightwell adds flexibility



Existing East lightwell

5.3 Layout, Vertical Circulation & Building Use

The building is laid out in a 'loop' around a Main Core comprising the original staircase, a bank of four retro-fitted lifts (3 passenger and 1 goods lift) and 2 lightwells (East & West), which originally extended down to basement level, and now house an escape stair in the East lightwell which was added in 2007. This creates a circular layout at eac floor, on which the existing fire escape strategy is based, which provide uninterrupted accommodation up to 11 metres wide with a continuous service zone around the Main Core.

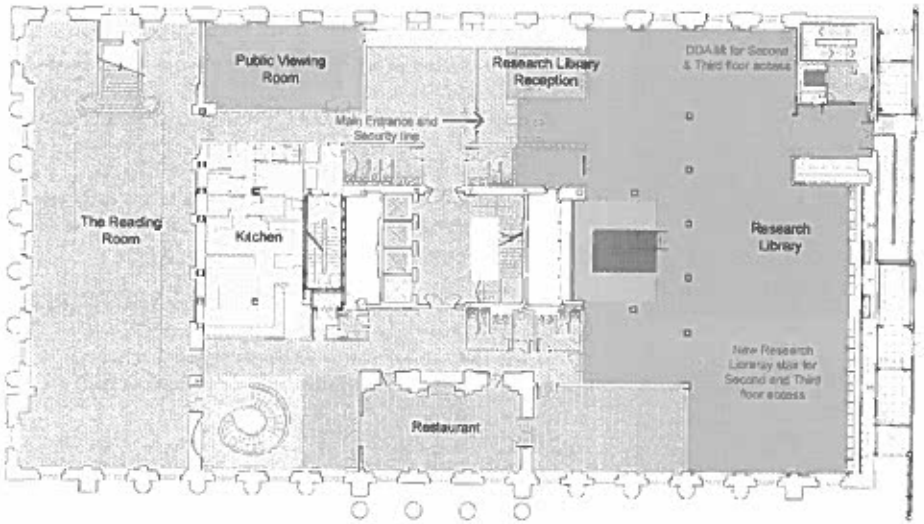
In principle, the layout of the building will remain unchanged with the main extent of the works, in terms of footprint, focusing on the infill of the East and West lightwells up to third and fourth floor respectively in order to maximise potential floor area and increase flexibility to the existing building.

The East lightwell will create a new lobby access to existing and new gallery spaces on the First Floor as well as accommodating additional kitchen space for the new Restaurant on the Second Floor.

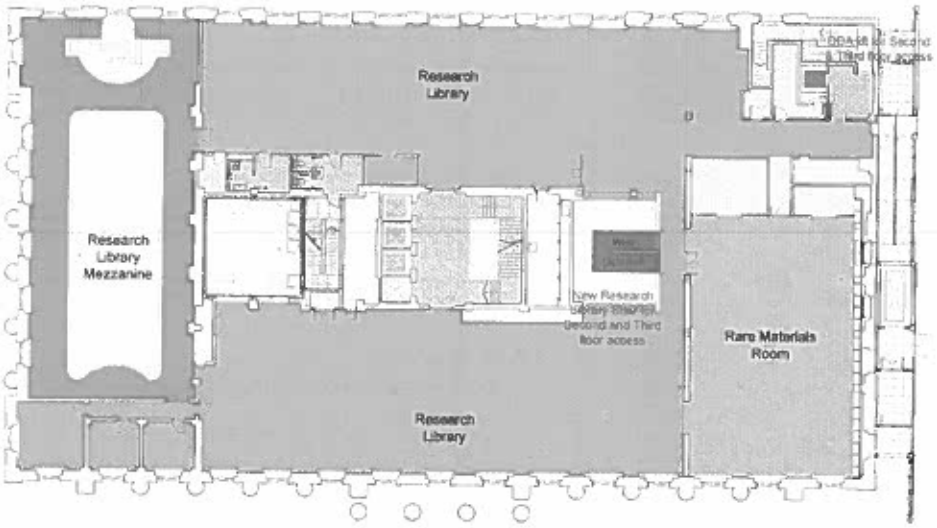
A new focal point in the Research Library will be created by putting in rooflight at Level 4, above a new double height space within the footpr of the West lightwell which houses a new stair linking the second and third floors of the library. This ensures that the library is housed in an enclosed space with minimal security points, which is currently unavailable. The existing fire fighting lift in the South East core provide alternative DDA barrier free access between the second and third floo of library which is discussed in the Access Strategy.

Considerations in the design of the lightwell infills have included:

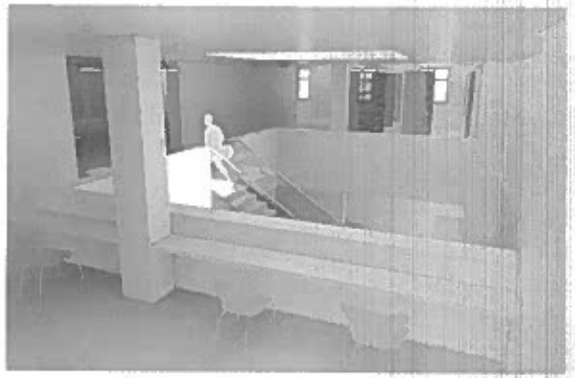
- design must satisfy loading issues which suggest lightweight solution and requirements for good acoustic separation.
- cleaning and maintenance to lightwells
- optimise sightlines between reception/reserve and open acce areas in the Research Library
- good adjacency between stair and DDA compliant lift in the Research Library
- lightweight and efficient structural design for new West Lightwell stair
- correct choice of decking for floors and roof to suit requiremer for acoustic performance, fire resistance and dynamic respons
- modifications of existing cladding system
- additional ductwork finishes to recede into existing lightwell cladding



Second floor Research Library proposed plans - improved circulation strategy with new staircase and DDA lift access

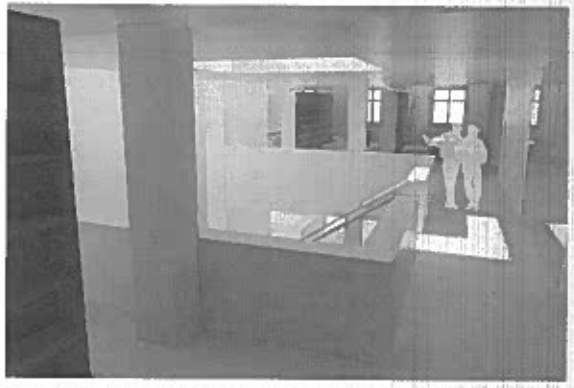


Third floor Research Library proposed plans - improved circulation strategy with new staircase and DDA lift access

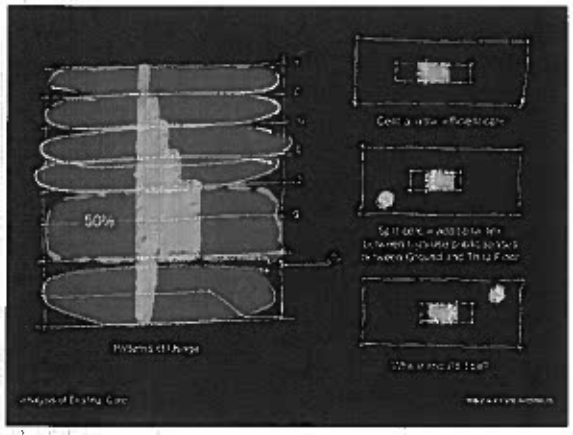


West Lightwell Third Floor - looking North

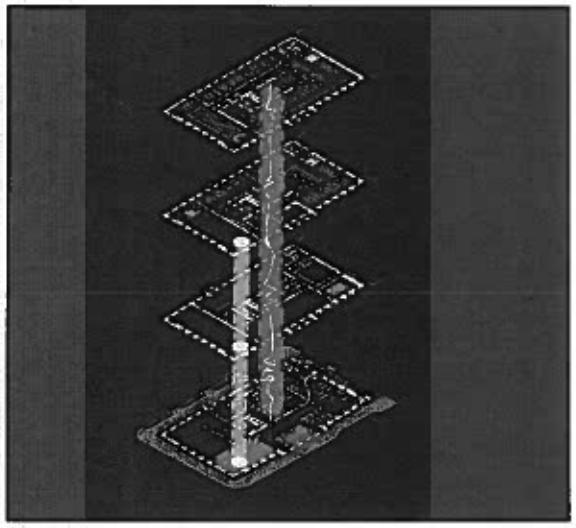
West Lightwell Second Floor - view from Reception Desk



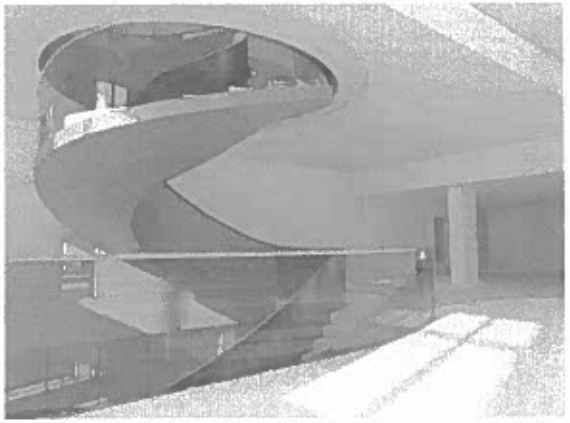
View across proposed West lightwell from third floor towards Research Library Reception desk at second floor



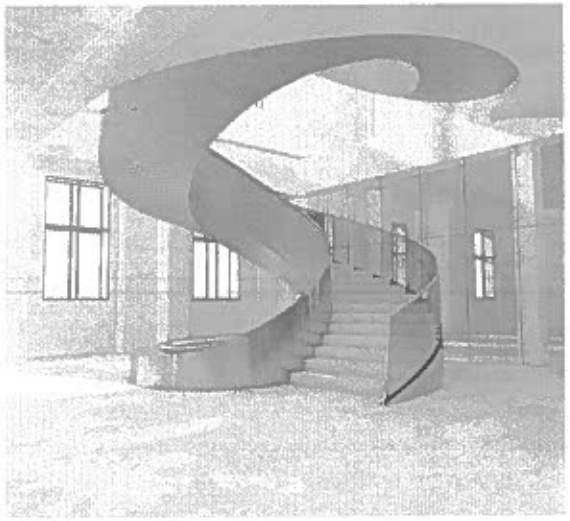
Vertical Circulation study



Introduction of a new stair between ground and second offers improved capacity and good visitor flow between public areas. The relationship and proximity to the Main Core is critical for visitor usability



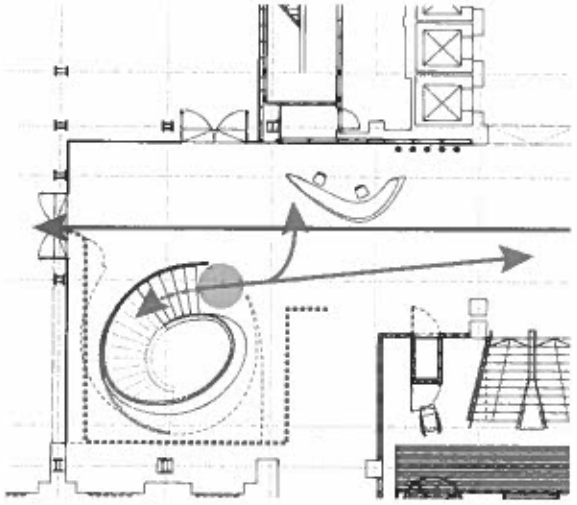
Introduction of a new stair between ground and second floor - as seen from First Floor Galleries



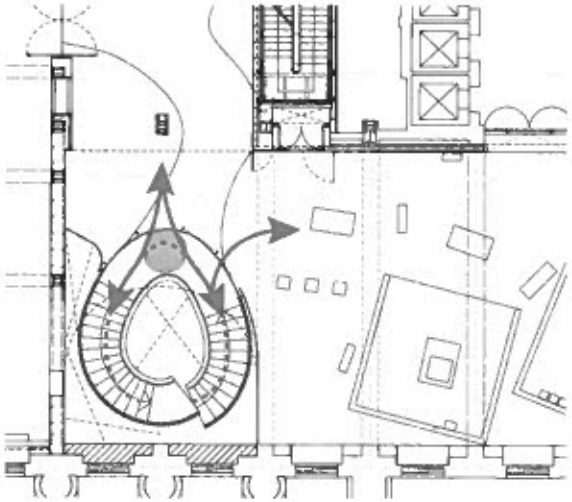
Introduction of a new stair between ground and second floor - as seen from Ground Floor atrium

As part of the analysis of vertical circulation and building usability undertaken by the Design Team Wilkinson Eyre have proposed a new feature staircase be introduced between Ground and Second floor in order to improve visitor circulation and open up the upper floors of the building to the public. Early studies were undertaken to locate the new stair appropriately in relation to the main core and passenger lifts. The relationship between the new stair and the lifts is critical and the 2 elements need to work together seamlessly to improve capacity and ease visitor flow.

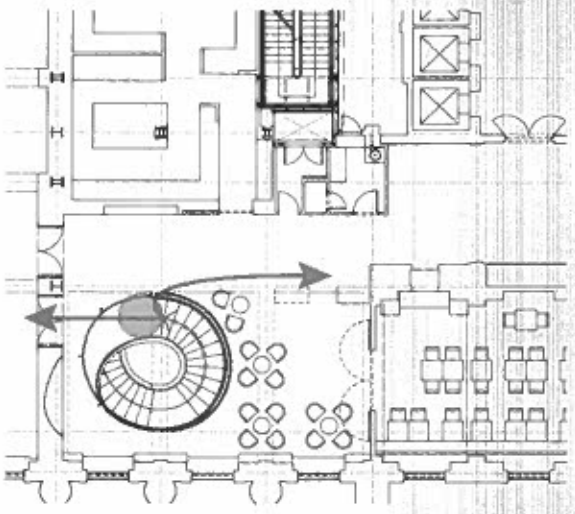
The new staircase will serve ground floor and entice new ambulant visitors up to the increased gallery spaces on the First floor Carrying c up to the Second floor visitors will be delivered to the new Restaurant and the Reading Room. The delivery and landing points for each floor have been setout carefully to maximise the visitor awareness of the 'offer' available and also to help ease congestion. This results in flight of up to 16 risers and one half landing between each full landing. This layout has been developed in detail with the access consultant and Wellcome Trust and we believe it fulfils both the brief and Part M requirements whilst not compromising the landing points, a critical par of public usability. The stair is discussed in more detail in the Access Strategy.



Ground Floor - access from/to Main Entrance, Main Core & Temporary Gallery



First Floor - access from/to Medicine Man, Medicine Now & Thematics Gallery



Second Floor - access from/to Restaurant & Reading Room

Dynamic Stair plans showing critical landing points in relation to the existing building layout

Introduction of a new stair between ground and second floor offers improved capacity and good visitor flow between public areas - as seen from Ground Floor Atrium

6.0 Materials

6.1 Quality of Materials & Finishes

The Wellcome Trust has a strong ethos and brand. Much of the success of the Wellcome Trust can be traced back to the thoroughness adopted for each of their endeavours, whether it be science based research or built projects.

This strong desire to retain a quality identity is reflected throughout The Wellcome Trust's buildings in the materials they select and the designs that are adopted and developed over time. Quality and durable materials are very important to The Wellcome Trust and their visitors and this is apparent in their buildings. An attention to detail is critical and the material selection for 183 Euston Road addresses these requirements by utilising a mixture of quality existing materials and exciting, unique new materials that are sympathetic to the existing fabric whilst still considering the sustainable and environmental aspirations of the client and the Design Team.

As part of the quality control process the successful contractor will be required to submit samples for approval at the necessary stages, ie: Tender and pre-construction. Critical sample approvals and mockups of specific details will include all external materials such as the stone around the main entrance and bronze finishes to the new revolving doors, amongst others.

6.2 External Finishes

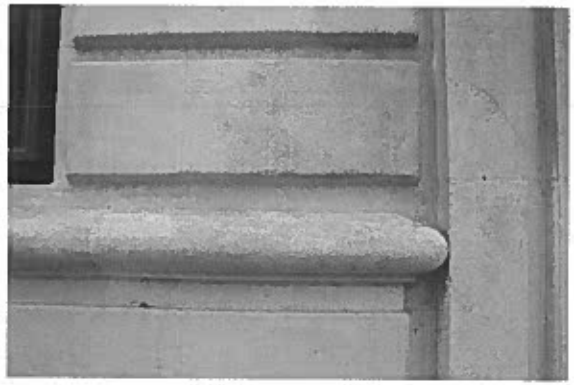
When addressing the issues around the main entrance the existing finishes and key architectural features need to be considered. It is essential to understand the original intentions so that any alterations are sympathetic. As discussed in Section 5.2 the 2 new doorways will be instated with equal character and status to strengthen the clarity and identity of the entrance.

The existing stone architrave will be extruded across the 3 doorways to enhance the main entrance and all stonework around the new entrances will be reinstated with limestone cladding to match the existing finish and quality of detail. It is intended to install the new revolving doors with a 'bronze' anodised aluminium to match the adjacent existing door in order to further enhance the identity of the entrance.

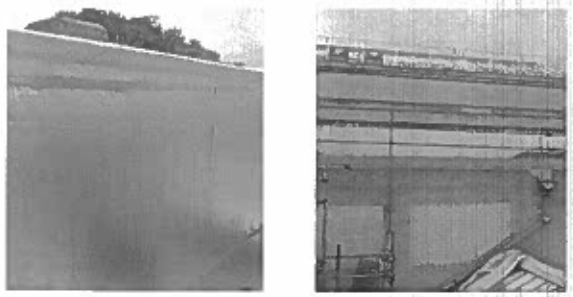
The remainder of the external facade remains unchanged with some minor alterations to window treatments due to the requirement of blackout spaces., which have been discussed previously. All additional items of plant and ductwork on the roof will be painted a receding colour as discussed further in Section 7.0.

6.3 Lightwell Finishes

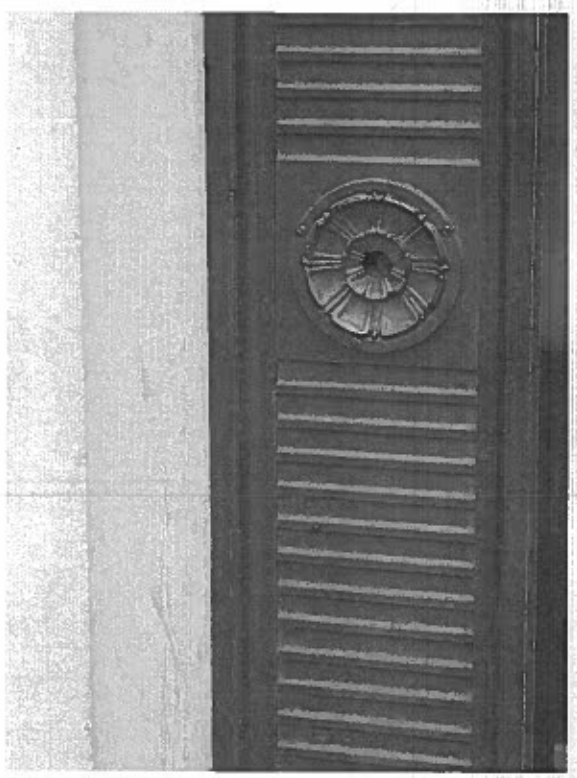
The existing aluminium rainscreen cladding to the lightwells is intended to be retained and cleaned to the floors above the new roof structures. The new ductwork located within the lightwells requires a finish that is weatherproof, easy to maintain and visually understated. Since the lightwells have minimal overlooking issues a white weatherproof tape, or 'Ventureclad', is intended to blend in to the surrounding cladding. Any new elements of cladding and/or louvres will be installed in powdercoated white to match the existing lightwells.



Existing limestone cladding detail at main entrance



Lightwell Ductwork finish - 'ventureclad' (in white)



Existing bronze reveal to main entrance

Existing glazing systems for reuse - Faram P500 @ Second Floor

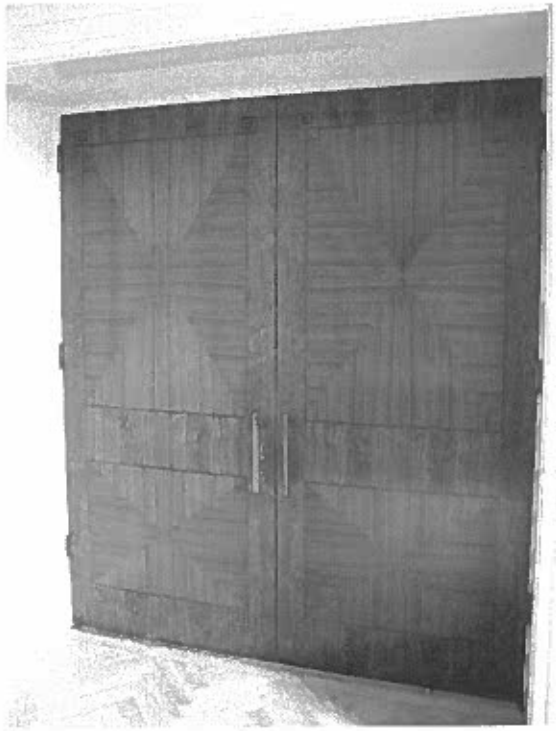
Existing glazing systems for reuse - Faram P500 @ Third Floor

6.4 Internal Finishes

Generally, the proposal is to replicate materials and systems that are used elsewhere in the existing building, where suitable. If the surrounding finishes are not suitable then a material sympathetic to the space will be introduced.

Many of the ceiling finishes are of high quality and can be replicated in the majority of new spaces. New floor finishes need to be durable and suitable for use on the existing screed substrate. A mixture of floor finishes proposed, most of which can be currently found within the existing building:

- Stone - Honed French limestone to match existing
- Timber – Engineered oak and/or maple (to match existing where appropriate) with a variety of stains to Restaurant and gallery spaces
- Poured finish floor - Polyurethane resin to Youth Workshop spaces
- Carpet – Heavy loop to match existing Research Library carpe
- Heavy Duty Vinyl



Existing doors to Private Dining Room - to be retained

The balustrades and handrails throughout the building belong to a family of glass and timber which will be continued. The exception to th concept is the new dynamic stair which is intended to be a standalone piece within the atrium of the existing Wellcome Collection building. B matching existing materials, such as stone, to the treads and risers, w can reflect the existing building and thus introduce the opportunity to use new materials such as sandblasted mild steel and spray-applied stainless steel to the main structure of the stair to create a unique feature element within the atrium.

6.5 Material Reuse

Max Fordham, in conjunction with The Wellcome Trust and Wilkinson Eyre have established a Sustainability Matrix based on the Wellcome Trust Environmental Strategy to establish a set of targets for the Project. This is discussed in more detail in Section 9.0. As part of the sustainability strategy we have identified a number of elements for reuse. Material reuse has many benefits such as reduced constructio waste, reduction in transport costs and fuel emissions, reduced impac on environment due to reduced embodied carbon from prolonged material use and potential for improved cost efficiency.

The primary materials that have been proposed and agreed for reuse include:

- Existing doors and associated fittings
- Existing P500 aluminium framed double glazed partition to office spaces
- Existing gantries at roof level
- Existing window blinds
- Stone floor tiles to Lower Level Entrance hall and Atrium
- Existing Furniture identified for reuse

In addition, there are numerous quality materials throughout the Wellcome Collection building that have not been identified for reuse which will be dismantled carefully and stored for reuse by the client.

7.0 Visual Impact

7.1 Main Entrance

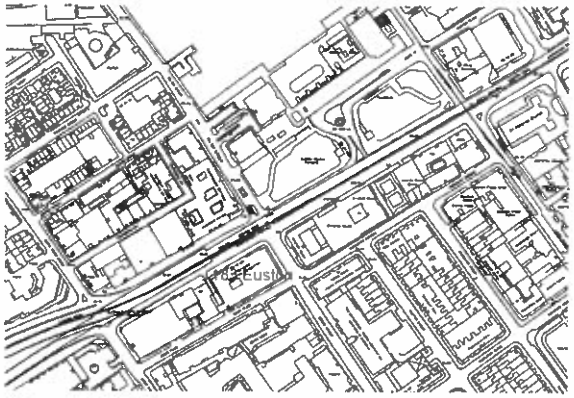
As discussed earlier in the report, it is deemed that the improved face of the main entrance will enhance the status of the front doors yet has minimal visual impact on the surrounding area.

7.2 Roof Plant

Due to the increase in capacity of certain spaces under the development project there are necessary amendments required to the existing plant. The majority of the large plant is currently located on the roof and therefore, the amendments required affect the plant at roof level.

This additional roof plant primarily involves equipment for ventilating specialist spaces in the building:

- Air handling unit to serve the new thematic gallery to be located on the North side of the roof.
- An extract fan to serve the new restaurant kitchen to be located on the North side of the roof.
- Kitchen supply air handling unit to be located on the South side of the roof.
- Six external condenser units to serve the new kitchen and are located on the East side of the roof.



Locations of views along Euston Road

1. View from corner of Euston Road and Gorden Street - Existing

1. View from corner of Euston Road and Gorden Street - Proposed

2. View from corner of Euston Road opposite Friends House View from corner of Euston Road and Gorden Street - Existing

2. View from corner of Euston Road opposite Friends House View from corner of Euston Road and Gorden Street - Proposed

3..View from corner of Euston Road and access to Euston bus station - Existing

3. View from corner of Euston Road and access to Euston bus station - Proposed

This equipment also requires additional ductwork to be distributed around the roof to risers located within the existing lightwells to serve the floors below. For routine access to both existing and new equipment existing gantries will be modified and extended to provide a complete route around the roof from an access door in the lift motor room. Since concerns were raised from LB Camden about visible new plant located on the North East corner of the roof during the initial pre-consultation Max Fordham have reviewed all of the existing plant throughout the building. Where possible the existing plant and systems are proposed to be upgraded to meet the new demand and where new chillers, AHUs or other ductwork is required it has been configured to minimise the visual impact by retaining the existing sight lines.

All plant and ductwork will be painted a dark colour to match adjacent plant and roof colours and the only element which will be visible from far down Euston Road (to the East) will be the new kitchen exhaust which is required to terminate a minimum level above finished roof leve In follow-up consultations LB Camden were satisfied with this minimal impact compared to the previous scheme.

Where necessary, acoustic attenuation shall be provided for all equipment to meet the requirements specified by the acoustic consultant.

4. View from Euston Road near bus station - Existing

4. View from Euston Road near bus station - Proposed

Detail of View 4 showing extent of new kitchen exhaust duct

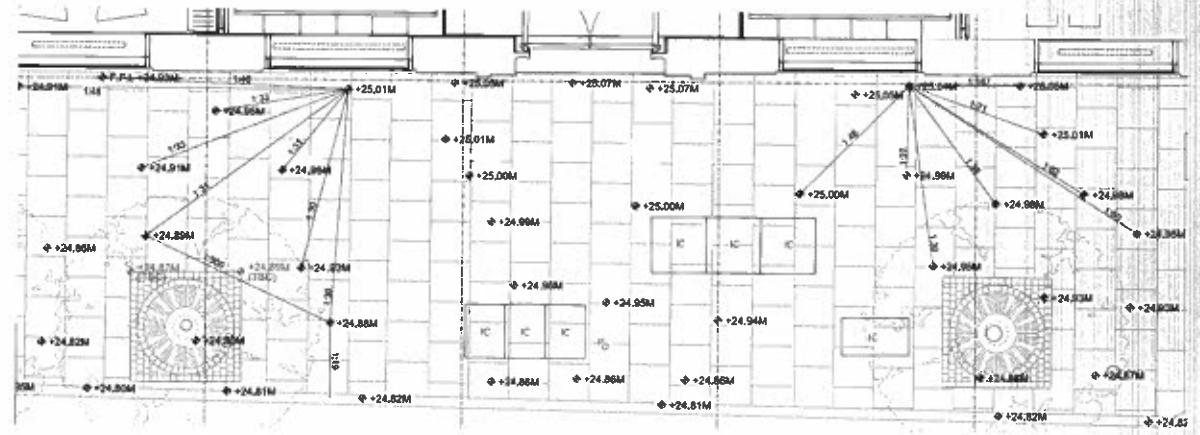
8.0 Access Strategy

8.1 Introduction

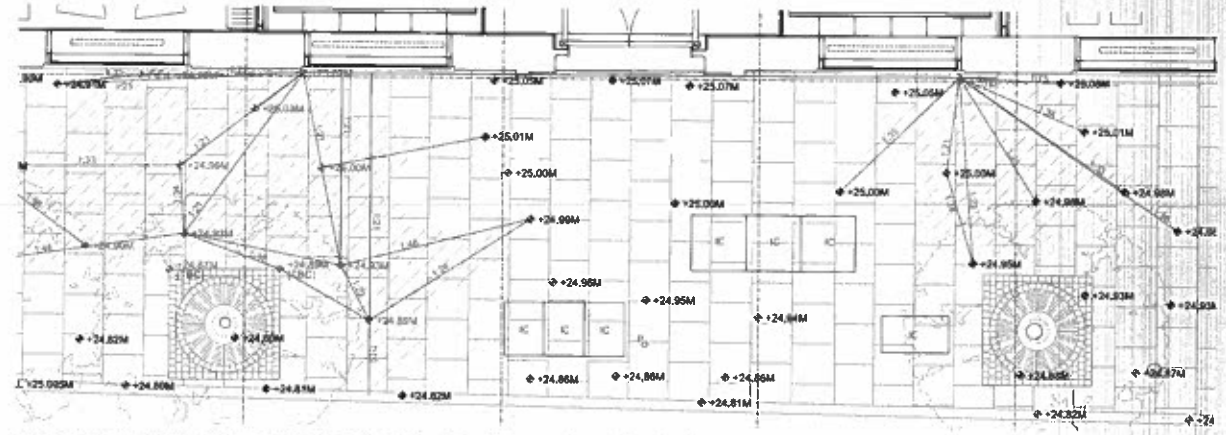
Since the fabric of the existing building is undergoing minor amendments under this development project the access, approach and associated facilities for visitors and staff to 183 Euston Road will primarily remain unchanged. The existing conditions have been discussed previously in Section 3.0 of this report.

The main element of external works impacting on access will be the main entrance with the introduction of the 2 new revolving doors either side of the existing entrance. Due to the steep level change across the face of the existing North elevation this creates a difference in levels between inside and outside at the proposed locations for the two new revolving doors. In order to achieve a threshold detail to match the one at the existing central door, as discussed with the Building Control officer, some re-grading of the existing pavement will be required as discussed in Section 5.2. The intention is to locally regrade the pavement in proximity to the two new entrances with existing paving slabs or new slabs to match.

The additional roof plant has been discussed previously in Section 7.0 of this report. Existing access to the roof is currently via Stair 1 from the main core at the Sixth floor up to the tank room at roof level. The existing roof walkways are a mixture of dedicated pathways and galvanised steel gantries - all amendments to the roof plant and the access required will be an adaptation of the existing condition and details which can be found in the drawings. The ongoing roof cleaning and maintenance will be based on the existing regimes already in place. All personnel will be required to use the dedicated fall arrest systems and be trained in the use of all specialist equipment.



Pavement Level Study - Existing Spot Heights



Pavement Level Study - Proposed Spot Heights and anticipated area of regrading in red

8.2 Access Strategy by Jayne Earnscliffe, Making Access Work

Statutory and regulatory background

This Access Review was prepared by access consultants Earnscliffe, Making Access Work. The following national legislation was used in the assessment of access provisions:-

- The Equality Act 2010 & the Equalities Act 2010 (Disability) (incorporating the duties of the Disability Discrimination Act 1995/DDA). The developers have ongoing obligations under the DDA as landlords, employers and service providers.
- British Standard 8300:2009 - Design of Buildings and their Approaches to Meet the Needs of Disabled People.
- Approved Document M of the Building Regulations 2004, Access to and use of buildings including Appendix C: Amendments to AD M.

Design philosophy

The design philosophy is based on the social model of disability and the principle of inclusive design which maximises access, choice and opportunities for disabled people. Inclusive design is the process by which the needs of everybody are considered and embedded in the proposals for the design, development and subsequent management of the built environment from the outset.

The key elements of inclusive design, which benefit everyone, are:

a) ease of use
b) freedom of choice and access to mainstream activities
c) embracing of diversity and difference
d) legibility and predictability
e) high quality.

Access has been considered in its broadest sense to reflect the needs of individuals with sensory, mobility and hidden impairments, learning disabilities, mental health needs, reduced or hypersensitivity to temperature, and limited reach and stature. The needs of others to whom the built environment can be disabling, including young families, elders and those for whom English is not a first language (including deaf British Sign Language users) are also considered. This approach facilitates an inclusive approach to access and ensures that opportunities for maximizing access to all areas of the WCDP (Wellcome Collection Development Project) can be identified throughout the design process.

Access Provisions

Entrances

The main entrance along Euston Road will comprise three sets of doors: the existing double bronze doors plus a new revolving door on either side. The existing central entrance offers 2m clear opening width. The gap between the existing shallow threshold step and pavement of approximately 10mm will be eradicated by modifications to the pavement levels by relaying of the paving slabs. The level difference between the Lower Entrance Lobby and street level at the Eastern-most revolving door threshold will similarly be addressed to obviate the need for a single step, which could be a trip hazard, and provide a level threshold.

The outer existing bronze doors will be held open whilst the inner glazed sliding doors beyond these will be provided with a high visibility, push button control, located to one side of the entrance to provide power assisted opening.

Manifestations will be provided at two heights on these fully glazed doors. The glazed four wing manual revolving doors will also bear manifestations and will offer clear openings of approximately 2m. These doors will be given prominence to encourage most use in order to ease the flow of visitors into the building and avoid congestion. However, appropriate signage to the central door will clearly indicate this accessible entrance. These outer doors will also be used for both entry and exit, although at exceptionally busy times they will be designated for single way traffic to ease visitor flow.

The main entrance doors lead onto the Lower Entrance Lobby, which has a stone floor finish which offers ease of access (Stair 9). This stair offers reasonable access to ambulant disabled users with acceptable risers and treads, and being 2690mm wide at the upper level, 3270mm at entrance level. The adjacent enclosed vertical lifting platform meets current standards (EN 81-41 and ISO 9386-1) being 960mm wide and 1450mm deep with an 800mm clear opening, having a clear landing space a minimum 1500mm2 and high visibility control buttons. The lift is attended by security staff at all times, ensuring that it returns to Lowe Ground Floor when not required at the upper level. Both the stair and l discharge into a spacious Atrium.

Ground Floor

Circulation

Horizontal circulation

Upon entering the Atrium there is access to a large lift lobby. Both this and the Cloakroom beyond are on a direct axis with the entrance and are therefore highly visible and easy to locate. There will be level access and thresholds throughout the Ground Floor, the existing slight change in floor level between the Gallery and Atrium being 'lost' with th repositioning of the Gallery wall.

The proposed Information Point will be located off to one side of the lif lobby, again clearly visible upon entering the Atrium. The curved desk will be between 720 and 760mm high from finished floor level and a knee recess will be provided to enable wheelchair users to park up close. Induction loop will be supplied, particularly important here given the noise generated by the nearby café. It is envisaged that any visito requiring assistance or information will be able to be served here with blocking access to the lifts. Information including daily events will be prominently displayed.

By following the curve of the desk round towards the Ground Floor Gallery entrance the new Dynamic Stair in the NE corner of the buildir will come into full view.

Vertical circulation

Locating the Dynamic Stair to one side of the Atrium will help minimise crowding at busy times around the Lower Entrance stair and lift landir and entrance to the Central Core, effectively keeping visitors away fro other principal circulation routes. A clearance of a minimum 1100mm v be provided between the Gallery wall and rear of the stair. The landing area of stone will match the surrounding stone floor.

This stair offers access to ambulant visitors between Ground, First and Second Floors, giving a highly visible and exciting route and sense of arrival into the First Floor Galleries and Second Floor Restaurant and Reading Room.

Whilst the new unique spiral stair will not suit all users, it will nevertheless offer a reasonable degree of accessibility. At the bottom landing the stair splays to give a generous landing, with a tread width of 1780mm. The stair narrows as it ascends reducing to a still acceptable 1400mm width when it arrives at the Second Floor.

The stair risers will be a consistent 167mm from ground to First floor and 168mm from First to Second floor with average treads of 364mm at the mid point. Where steps abut the inner balustrade they will be at their narrowest at an acceptable 215mm (measured 270mm distance in from the edge allowing for body and foot position) and 364mm at the centre-point.

Contrast nosings will be provided to the stone treads and handrails fitted to both sides of the flight. The continuous polished metal handrail along the inside edge will be recessed at a constant height of 900mm. The curved outer glazed balustrade will have a polished metal handrail 'planted' on top. Owing to the engineering requirements of the stair the handrail will vary slightly in height by less than 70mm along its length. Given that this is the height differential between handrails on landings and treads of an ambulant stair this is deemed acceptable.

At Ground Floor level the stair will provide integral bench seating, with a profile that deters walking on. The curve of the stair will prevent people knocking their heads on the understair.

The existing main stair (Stair 1) located opposite the bank of passenger lifts at the heart of the building in the Central Core will remain in use. Its shallow risers, generous treads, comfortable handrails and contrast nosings and landing skirting offer reasonable accessibility, particularly to those who won't use the Dynamic Stair.
Lighting will be increased to the Central Core and Stair 1 and new, high visibility signage provided to enhance accessibility. This may comprise a feature lighting structure that is visible from all levels.

The bank of four existing passenger lifts, each measuring an acceptable 1270mm wide x 1360mm long, will be upgraded to Part M standard, with high visibility, suitably located lift call buttons and floor indicators, increased lighting, floor directory signs, extended door opening times, audio announcements, upgraded control buttons, rear mirror and high visual contrast between the car floors, walls and fixtures. Visitors will have use of Lifts 2, 3 and 4 which travel to each floor, whilst Lift 1 will connect Ground with Fifth and Sixth Floor secure/staff areas.

Café and Bookshop

The location and layout of the existing Café and Bookshop are to remain as they are.

Gallery

Two sets of double, single swing entrance doors into this large gallery space will offer a clear opening width of approximately 1m each leaf. As elsewhere in the building, the fully glazed doors will bear safety manifestations at two heights.

Cloakroom and Toilets

Both facilities will remain where they currently are. The cloakroom has a suitable wheelchair accessible counter with knee recess.

The nearby accessible toilet located off Corridor CG.10 meets current standards in terms of layout and cubicle dimensions and the location of the outward opening door maintains privacy to those requiring assistance on and off the pan.

As with accessible toilets elsewhere in the building, the alarm system is linked to a security point. Throughout the building, an accessible toilet is available within the recommended maximum 40m travel distance from all areas. In line with Part M of the Building Regulations, a choice of layouts suitable for left-hand and right-hand transfer will be offered throughout the building.

The existing First Aid room adjacent to the Accessible Toilet at Ground Floor is in a convenient location and has sufficient dimensions to accommodate wheelchair users. The male and female toilet blocks both include an ambulant disabled cubicle 800mm wide and 1500mm long, with outward opening doors, sufficient to accommodate grab rails.

Staff Areas

Back of house areas can be reached on the level through adequately wide doors.

First Floor

Circulation

Visitors will arrive by lift 2, 3 or 4, Stair 1 or Dynamic Stair. The Dynamic Stair arrives into the Medicine Now Gallery. Visitors can reach the Medicine Man Gallery to the East via the spacious, timber-floored East Lobby through glazed double swing doors, the Thematic Gallery also via this lobby or from the Central Core.

The Central Core doors from the Medicine Now Gallery fold back and will be held open and so do not present a hazard. The sliding doors between the Central Core and Thematic Gallery will be in closed position and will be provided with power assisted opening for ease of access.

Also located at this level is a Forum, accessed from the Medicine Now Gallery via wide double swing doors, from the adjacent Youth Event Space or via Corridor C1.17 which is suitably wide at 2m. The Youth Event Space is also accessed from this corridor via wide, recessed double doors. Doors throughout this floor offer ample clearance to wheelchair users. The floor finish in this area of epoxy resin will suit its multiple use, which may include wet activities, and will offer ease of access to all.

The existing door opening between Medicine Now Gallery and Corridor 1.17 measures over 1m and as such would be prohibitively heavy to open from a wheelchair and so will be replaced by a door and a half arrangement with the largest leaf at an acceptable 800mm. A similar arrangement is used from the same corridor into the Thematic Gallery. Where manual doors are difficult to open, door closers will be adjusted to reduce the opening force to no more than 20 Newton (approx 4.4 pounds).

It is worth noting that doors throughout the building will be adjusted for ease of opening and will be fitted with kick plates along wheelchair accessible routes as necessary. Where doors are replaced they will be provided with suitable, high visibility, easy grip ironmongery set at a height of approximately 900mm ffl.

Toilets

Toilets are conveniently located close to rooms that will have longest occupancy times, the Forum and Youth Event Space. They are

approached from Corridor C1.17 through a generously proportioned 3380mm wide lobby and facilities will include a dedicated wheelchair accessible Baby Change room generously proportioned at 1563mm x 2155mm, accessible unisex WC with outward opening door, and ambulant disabled cubicles in the male and female blocks, all with reasonable circulation within and on the approach. In common with new toilets throughout the building, the floor finish in the accessible toilets will be vinyl rather than ceramic tile to reduce risk of serious injury.

Gallery and Events Spaces

These spaces can be accessed with ease from circulation cores and have adequate internal circulation. Induction loop or infrared hearing enhancement will be provided in the Youth Event Space for the benefit of partially deaf users. In the galleries a radio collar microphone system is preferred as it allows the speaker and listener to move around the large area without going out of range The acoustic seals to the doors connecting the Forum and Youth Event Space are welcomed.

Staff Areas

Spaces such as the Green Room and Exhibition Preparation have adequate access being reached off suitably wide corridors, through adequately wide doors, and with sufficient internal circulation to accommodate wheelchair users.

Second Floor

Circulation

Again this floor can be reached by visitors by passenger lift, Stair 1 or using the Dynamic Stair. Additionally visitors using the Research Library will be able to travel between Second and Third Floor using a dedicated New Library Staircase (Stair 15) to ambulant disabled standard, with shallow 158mm risers and 250mm treads, or alternatively for those unable to use stairs, Lift 5. This lift is located in the South West corner of the building, immediately adjacent to the library on both levels. thus minimising the need to pass through security or 'check out' when using both floors. Consequently disabled people will have an equitable experience to non-disabled people and will be able to move freely between the Level 2 and 3 of the Research Library.

Doors from the lift lobby and approach corridors are to be removed to ensure independent use of the lift by disabled visitors and other users and make it more visible.
The Research Library will be tiled in carpet which will help reduce any noise and provide a relaxing, welcoming environment conducive to study. The tiles will offer a shallow dense weave that will not create resistance to the wheels of wheelchairs. The Reading Room will have an acoustic floor that absorbs noise to create optimum study conditions.

The existing Grand Stair (Stair 6) in the Reading Room that connects to the Third Floor will be retained. No upgrading is necessary as the stair provides a reasonable level of accessibility. It is envisaged that the majority of visitors will use Stair 1 or Lifts 2, 3 or 4, however.

Toilets

Two banks of toilets are proposed at this level. The block to the South of the Central Core will augment existing provision in this location by the provision of male and female toilets, each containing an ambulant disabled cubicle. Additional toilets will be provided to the North of the Central Core to meet the additional needs of users of the new Restaurant. Facilities will include a wheelchair unisex accessible cubicle, two ambulant disabled cubicles and a dedicated Baby Change cubicle a generous 2000mm x 2390mm. The accessible WC will be within 40m travel distance of most key destinations. Should this cubicle be occupied, access to an alternative accessible facility on another publicly accessible floor can be gained using one of the numerous passenger lifts.

Research Library, Reading and Public Viewing Rooms

These spaces are all easily reachable from the Central Core and Dynamic Stair. They have level thresholds with wide door openings and level access throughout. The wide and heavy doors between the Restaurant and Central Core will be held open to ensure ease of access.

Circulation areas such as the Lobby alongside the Restaurant and Research Library Threshold are generous. Current arrangements offer reasonable access in most areas. Task lighting is supplied at tables and is particularly helpful to visually impaired people who need to augment ambient lighting and control the direction of light. Lockers are located close to the Central Core in a spacious room, with access to the Research Library Reception Area through two entry gates each with wheelchair access with 900mm clear opening width.

Blackout and translucent blinds will be used in the Public Viewing Roor to control natural light to suit.

Restaurant

It is envisaged that the Restaurant will be spread over three zones The maitre d' point will be located outside of the restaurant proper to welcome and direct visitors. This point will be highly visible from the Dynamic Stair and second Floor Lobby.
The Restaurant will offer eighty covers of approximately two to four covers per table with a clear aisle running through the centre. An adjoining Private Dining Room will offer larger tables that can be set up banquette style seating. Again, circulation is adequate. Proximity to nearby toilets and a large dedicated baby change room is provided. Parquet flooring will be provided to the new Dining areas.

Third Floor

Circulation

This floor can be reached by staff from the Central Core and by visitor to the Research Library via the New Library Stair 15 or Lift 5. Stair 15 has glass balustrading with timber handrail and contrast safety nosing comprising aluminium extrusions with rubber inserts. As for the floor below, the existing doors between Lift 5 connecting corridor C3.11 and the Research Library will be removed, giving ease of access. The doo between the Research Library and Central Core will be fitted with pow assisted opening.

The Library and circulation areas will be tiled in carpet

Research Library

Circulation in the Research Library is acceptable, with wheelchair turning space outside the Central Core to the North and South, at the ends of rows of shelves.

Wheelchair turning into the Carrel block has been eased with the provision of a new door with vision panels from the Reading Room Mezzanine and Carrel Corridor. This aligns with the door to Study Car 3.43 to provide a straight access route. This room will double as a meeting room, as required, and a portable loop system will be availab

Desks, as elsewhere in the building, provide knee space of at least 700mm ffl to enable use by wheelchair users.

Rare Materials Room

This room has one entrance conveniently located directly opposite the New Library Stair with wide opening doors. An additional staff entrance is located off Corridor C3.11 to the South, with a door and a third arrangement for ease of access whilst affording access for large materials. The room has ample dimensions for ease of circulation with careful arrangement of furniture.

Toilets

Existing toilets at this level include a wheelchair accessible cubicle (right hand transfer) and unisex cubicles.

Fourth Floor

Circulation

Access will be from the Central Core stair and lifts. The doors on the North side of the Central Core will be fitted with power assisted opening. Corridor widths are acceptable with adequate turning space at corners. Door widths are acceptable at a minimum 800mm. There are no doors across corridors so ease of access is maintained. The wide door between Corridor C4.17 and Lift 5 approach Corridor C4.11 will be fitted with automatic door opening device for ease of access.

Facilities

All rooms within the scope of the WCDP have acceptable access to and within them.

Toilets

Toilets at this level include an existing wheelchair accessible cubicle (left hand transfer) and unisex cubicles reconfigured to provide a generously proportioned ambulant disabled with sufficient circulation to allow an outward opening door without compromising access, grab rails, integral sink and colostomy bag shelf.

Fifth Floor

Circulation

Access to this level will be via the Central Core stair and lifts 1-4. The East-West axial corridors to the North and South of the Central Core offer reasonable clear widths of over 1700mm for ease of access. Doors across corridors are on magnetic hold-open devices and therefore aid ease of access. All rooms within the scope of works, including the Wellcome Hub, offer reasonable internal circulation. The meeting rooms will be provided with induction loops.

Toilets

The existing toilets include an accessible cubicle (left hand transfer).

Sixth Floor

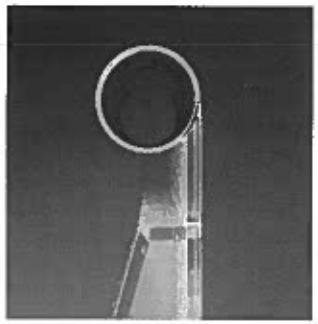
There are no works proposed on this floor within the scope of the WCDP although it is worth noting that there are additional toilets and shower facilities, including a wheelchair accessible cubicle, at this level.

Fire Strategy

Lift 5 is to fire evacuation standard. Areas of safe refuge exist in the Lift 5 lobby on all levels including Ground Floor, and in Stair 2 landings at first, second, fourth and fifth Floors. On Floor 3 a second refuge point is provided in the Southern WC lobby. Two-way emergency communication points are provided in all refuges with suitable high visibility signage.

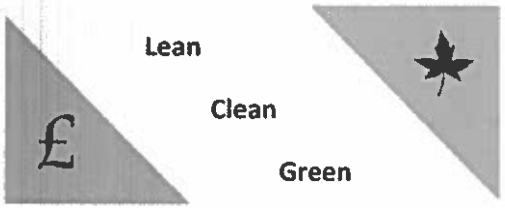
Xenon beacons will be fitted in toilet and lift lobbies where deaf visitors might find themselves alone. Deaf members of staff can carry vibrating pagers.

The client policy on managed evacuation will be reviewed during the course of the WCDP and personal emergency evacuation plans for deaf and disabled visitors (GEEPs – General Emergency Evacuation Plans) and staff (PEEPs – Personal Emergency Evacuation Plans) developed to reflect revised floor layouts and circulation.



Detail Study model of Dynamic Stair handrail @ 1:1

Existing Wayfinding at 183 Euston Road



9.0 Sustainability

9.1 Sustainability

As a tool for reviewing achievable sustainable and energy-saving targets throughout the project the Design Team, in conjunction with the Wellcome Trust, setup a Sustainability Matrix. The matrix uses the Wellcome Trust's existing Environmental Strategy as a base and has been developed and agreed through a series of Sustainable workshops.

Meeting primary sustainable targets can be more difficult on an existing building and the matrix provides a tool to scale each of the elements of sustainable design. The following areas have been identified as primary achievable targets relating to sustainability:

- Improved environmental conditions at the Main Entrance – Due to the increase in visitor numbers to the Wellcome Collection building there is increased pressure on the existing sliding entry doors. The direct impact is that the sliding doors are almost permanently open which, in turn, results in an uncomfortable working environment for staff working within the Lower Entrance Hall and the Ground Floor Atrium, ie: cold temperatures and noise. The options for resolving this issue are discussed in Section 5.0 of this report but the proposed solution aims to improve the overall environment within the Lower Entrance Hall and Ground Floor Atrium, and further up the building and through adjacent galleries, by reducing the use of the automatic sliding door and creating a permanent barrier between outside and inside – this is achieved by introducing two new revolving doors for everyday use and allowing the central door to be controlled by push button for DDA and pushchair access only
- Reuse of Materials and Furniture – The Design Team have analysed all of the quality materials and furniture currently housed within 183 Euston Road and, in conjunction with The Wellcome Trust, have identified elements for reuse throughout the new development
- Mechanical & Electrical Systems – The Lean, Clean and Green strategy has been adopted to deal with the existing M&E systems within the building as setout below.

The Sustainability Matrix can be found in Appendix 4 of this report.

9.2 Energy use

In order to minimise energy use (and carbon emissions), we propose t follow the 'Lean, Clean and Green' design hierarchy whereby the orde in which options are considered is as follows:

1. Lean - minimise building energy use by considering building form ("passive environmental control") in order to avoid or minimise the need for mechanical cooling and heating and artificial lighting.
2. Clean - minimise plant energy use by selecting the most appropriate efficient engineering systems and optimising syst performance ("active environmental control"), and
3. Green - Consider the use of appropriate on-site renewable energy technologies

Lean Measures

The Wellcome Collection Development project is the partial refurbishment of an existing building and so the scope for using the building fabric to reduce energy use is limited. However, the main entrance is being improved by installing new revolving doors, significantly reducing heat loss on the Ground Floor. A new rooflight v be formed in the West Lightwell, providing natural daylight to the Libra on the second and third floors.

Clean Measures

The following measures will be used to minimise plant & equipment energy use;

- replacement of the building's main gas boilers with new high efficiency plant
- demand based mechanical ventilation with variable speed fa and heat recovery where possible,
- energy meters on new electrical distribution boards and contr panels
- automatic light switching to reduce their use,
- high efficiency light sources such as LED are currently being considered for display areas,

Green Measures

On-site renewables have been evaluated for the Wellcome Trust in th past but were not considered viable for this particular building. The buildings central London location, limited and visually sensitive outdo space and the existing building structure would make meaningful use renewable generation technology extremely problematic.

10.0 Lighting & Wayfinding

There are minimal changes proposed to the external lighting strategy and generally the existing lighting will remain. Minor adjustments to the setout of the main entrance torchieres will be required to achieve central and symmetrical setout. This is discussed further in Section 5.0 and deemed an improvement to the enhanced proposal of the North facade.

As part of the development to the main entrance some feature lighting and appropriate wayfnding will be developed to encourage visitors to use the new revolving doors and increase the awareness of the Wellcome Building as a visitor destination.

Wayfinding throughout the Wellcome Building will be reviewed and replaced as part of the project.

Existing lights at Main Entrance

11.0 Phasing & Programm

An advance works package is due to start onsite in June 2013 which will comprise of the third, fourth and fifth floor fitout. The Main Contract is intended to start onsite in August 2013 and will be due for completior in Summer 2014. It is intended that the works will be undertaken in 4 phases whilst the building remains operational and open to visitors.

The phasing strategy and programme are included in the Appendix of this report.

Appendices

Appendix 1 - Pre-consultation Notes

Appendix 2 - Area Schedule

Appendix 3 - Finishes Schedule

Appendix 4 - Sustainability Matrix

Appendix 5 - Phasing Strategies

Appendix 6 - Project Programme

Appendix 1
Pre-consultation Notes

33 Bowling Green Lane +44 (020) 7608 7900 T
London +44 (020) 7608 7901 F
EC1R 0BJ www.wilkinsoneyre.com

WilkinsonEyre.Architects

Bloomsbury Conservation Area Advisory Committee (BCAAC) Meeting Filenotes

Date:	23.05.12
Project Name:	The Wellcome Collection Development Project
Job No / File Ref:	820/B01

Attendees/Distribution:

Jim Eyre (JE)	WEA	Hugh Cullum	BCAAC
Clare Matterson (CM)	WT	Tony Tugnutt	BCAAC
		Debbie Radcliffe	BCAAC

On 23rd May 2012 Clare Matterson and Jim Eyre met with the Hugh Cullum, Tony Tugnutt and Debbie Radcliffe of the BCAAC to introduce the project for improvements to the Welcome Collection. Plan drawings of the existing building were tabled and the reasons for initiating a series of improvements were outlined, following which a tour of ground, 1st, 2nd and 3rd floors followed. In particular the requirement to deal with four fold increase in visitor numbers since the opening of the buildings exhibition facilities following the last refurbishment in 2007 from circa 100000pa to 400000pa now is being seen with a potential to rise to as many as 1 million pa. It was explained that operationally the building's upper floors are not attracting their full share of visitor numbers and that consequently improvements to vertical accessibility are needed. A project has been devised which is intended to meet this objective to include a transformed destination using the main Reading room at 2nd floor.

Evidence of the success of temporary exhibitions was tabled showing major queuing in the Euston Road to popular exhibitions such as the immensely successful 'Brains'.
BCAAC were clearly interested in the project and indicated their understanding and appreciation of the reasons for it while confirming that their remit does not extend to any internal alterations that are pursued.

The walkabout then took in the ground floor entrance area. There followed a discussion focussing on ideas on how revolving doors might be introduced to overcome problems with environmental controls for exhibition areas. WEA showed a sketch with the bronze central door retained and the side openings lowered to introduce revolving doors, set back from the façade. BCAAC asked if the revolving door could be kept central, but pushed further into the lobby. However it was explained that there is insufficient clearance from the existing stair, which itself is not feasible to relocate effectively due to headroom constraints below. WEA took the group over to the North side of Euston Road to look back at the composition of the central 4 column portico and how this has lost its clarity, partly due to the high level addition and partly due to the rather uniform rusticated base forming the ground floor façade. The idea of possibly modifying the openings on either side of the bronze doorway to create three openings of equal character and status was mooted by the BCAAC and its merits discussed. It was believed that this configuration would improve accessibility, but also strengthen the clarity and identity of the entrance. WEA agreed to investigate options along these lines. In any event BCAAC made it clear that they did not like the architectural treatment of the vertically extended pairs of windows (which are flush with the stone façade) either side of the entrance and were clearly open to an improvement in this area.

BCAAC welcomed the early consultation and inclusion in the Welcome Collections thinking about the project and it was agreed to meet again at a suitable time pre-planning application.

33 Bowling Green Lane +44 (020) 7608 7900 T
London +44 (020) 7608 7901 F
EC1R 0BJ www.wilkinsoneyre.com

WilkinsonEyre.Architects

Twentieth Century Society Meeting Filenotes

Date:	13.12.12
Project Name:	The Wellcome Collection Development Project
Job No / File Ref:	820/B04

Attendees:

Jim Eyre (JE)	WEA	Gabi Code (GC)	WEA
Chris Bunker (CB)	WT	Henrietta Billings (HB)	C20

Distribution:

Jayne Earnscliffe	MAW	Emma Andrews	PP
Alex Wood	HW		

On 13th December 2012 Jim Eyre, Gabi Code & Chris Bunker met with Henrietta Billings of the Twentieth Century Society to introduce the project for improvements to the Wellcome Collection. Plan drawings of the existing building were tabled and the reasons for initiating a series of improvements were outlined, following which a tour of Ground, 1st, 2nd 3rd and 5th floors followed. In particular the requirement to deal with four fold increase in visitor numbers since the opening of the buildings exhibition facilities following the last refurbishment in 2007 from circa 100000pa to 400000pa now is being seen with a potential to rise to as many as 1 million pa. It was explained that operationally the building's upper floors are not attracting their full share of visitor numbers and that consequently improvements to vertical accessibility are needed. A project has been devised which is intended to meet this objective to include a transformed destination using the main Reading room at 2nd floor.

Twentieth Century Society clearly understood the reasons for the amendments required under the project and expressed their appreciation for being consulted prior to the formal planning submission. They were interested in the development as a whole, in particular the amendments to the front entrance whilst confirming that their remit does not extend to any internal alterations that are pursued.

The walkabout took in the ground floor entrance area. Jim Eyre cited issues relating to environmental control and increased visitor numbers as reasons to amend the front entry sequence. WEA tabled visuals and a physical model with the bronze central door retained and the side openings lowered to introduce 2 new revolving doors, set back from the façade. It was also explained that there is insufficient clearance from the existing Lower Entrance Hall stair, which itself is not feasible to relocate effectively due to headroom constraints below, to locate the revolving doors further back into the building. They are not located any further forward in order to not impinge on the pavement. WEA explained that Camden LB Planning Officers had highlighted the need for night doors in order to reduce the recesses at the 2 new doors when the building is closed. WEA explained that Transport for London had been approached regarding the regarding of the pavement in order to achieve a level threshold and there were no major concerns.

The group viewed the building from the North side of Euston Road to look at the composition of the central 4 column portico and how this has lost its clarity, partly due to the high level addition and partly due to the rather uniform rusticated base forming the ground floor façade. The idea of possibly modifying the openings on either side of the bronze doorway to create three openings of equal character and status was mooted by the C20 and its merits discussed. It was believed that this configuration would improve accessibility, but also strengthen the clarity and identity of the entrance.

C20 agreed that the proposals were clearly an improvement to the buildings frontage and requested a pack of information for their review and comment. C20 agreed to send any comments to the team by mid-January 2013.

Appendix 2
Area Schedule

Level	Area Usage	Area m2- Existing	Area m2- Proposed	Difference
Sub Basement				
	Conference Centre	143	143	
	Exhibition	0	0	
	F+B Outlets	0	0	
	Library	0	0	
	Public Total	143	143	
	Offices/ Staff	606	606	
	Circulation/ Storage/ Plant	1233	1233	
	Overall GIA (Sub- Basement)	1982	1982	0
	GEA	2106	2106	0
Basement				
	Conference Centre	980	980	
	Exhibition	0	0	
	F+B Outlets	0	0	
	Library	0	0	
	Public Total	980	980	
	Offices/ Staff	97	97	
	Circulation/ Storage/ Plant	961	961	
	Overall GIA (Basement)	1039	1039	0
	GEA	2130	2130	0
Ground Floor				
	Exhibition	671	575	
	F+B Outlets	152	152	
	Library	0	0	
	Book Shop	233	233	
	Public Total	1056	960	
	Offices/ Staff	188	188	
	Circulation/ Storage/ Plant	756	845	
	Overall GIA (Ground floor)	2000	1993	-7
	GEA	2134	2134	0
First Floor				
	Exhibition	943	1347	
	F+B Outlets	0	0	
	Library	0	0	
	Public Total	943	1347	
	Offices/ Staff	519	58	
	Circulation/ Storage/ Plant	387	471	
	Overall GIA (1st floor)	1849	1868	19
	GEA	1985	2005	20
Second Floor				
	Exhibition	0	380	
	F+B Outlets	0	221	
	Library	1240	805	
	Public Total	1240	1412	
	Offices/ Staff	310	192	
	Circulation/ Storage/ Plant	223	375	
	Overall GIA (2nd floor)	1773	1886	118
	GEA	1910	2018	108
Third Floor				
	Exhibition	0	0	
	F+B Outlets	0	0	
	Library	931	1431	
	Public Total	931	1431	
	Offices/ Staff	292	0	
	Circulation/ Storage/ Plant	441	267	
	Overall GIA (3rd floor)	1664	1698	34
	GEA	1780	1824	44

Fourth Floor				
	Exhibition	0	0	
	F+B Outlets	0	0	
	Library	0	0	
	Public Total	0	0	
	Offices/ Staff	1210	1210	
	Circulation/ Storage/ Plant	319	319	
	Overall GIA (4th floor)	1529	1529	0
	GEA	1635	1635	0
Fifth Floor				
	Exhibition	0	0	
	F+B Outlets	0	0	
	Library	0	0	
	Public Total	0	0	
	Offices/ Staff	1181	1178	
	Circulation/ Storage/ Plant	362	365	
	Overall GIA (5th floor)	1543	1543	0
	GEA	1636	1636	0
Sixth Floor				
	Exhibition	0	0	
	F+B Outlets	0	0	
	Library	0	0	
	Public Total	0	0	
	Offices/ Staff	797	796	
	Circulation/ Storage/ Plant	751	752	
	Overall GIA (6th floor)	1548	1548	0
	GEA	1531	1531	0
Seventh Floor				
	Circulation/ Storage/ Plant	102	102	
	Overall GIA (7th floor)	102	102	0
	GEA	113	113	0

OVERALL				
	Area Usage	Area m2- Existing	Area m2- Proposed	Difference
GIA TOTAL				
	Conference Centre	1123	1123	0
	Exhibition †	1614	2308	694
	F+B Outlets *	152	373	221
	Library	2171	2236	65
	Book Shop	233	233	0
	PUBLIC TOTAL	5293	6273	980
	Offices/ Staff Area Total ‡‡	4200	4227	27
	Circulation/ Storage/ Plant	6532	6688	156
	OVERALL GIA	16025	17188	182
	OVERALL GEA	16962	17134	172

Key:

(Definition as from area 3 appraisal sub.)

Gross External Area (GEA): the floor area contained within the building measured to the external face of the external walls.
Gross Internal Area (GIA): the floor area contained within the building measure

Notes:
† Including Youth Events space and Forum in addition to primary galleries.
* Excludes staff kitchens + cafeteries; F&B Outlets include restaurant, cafeteria spaces
‡‡ Staff areas office space (including meeting rooms and associated staff areas, kitchens and dedicated circulation, i.e closed corrid

NB: Read in conjuction with coloured plans

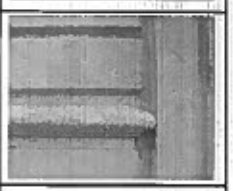
Appendix 3
Finishes Schedule

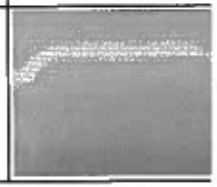
Wilkinson Eyre Architects
820/R29

External Finishes Schedule

Revision	Date	Reason For Issue
--	30.01.13	STAGE E
01	13.02.13	For Planning

All products have been presented to Wellcome Trust For Approval 04.12.12 and are subject to further detailed design at Stage F

Item	T-Sheet Ref	Description	Indicative Product/Supplier	Particulars	Colour	Finish	Location	Photo
	Cladding							
1	AM-01	Bronze reveals to Main Entrances	To be agreed	Removable bronze panels (half with lasercut pattern & acrylic backing) to match existing bronze finishes	Bronze	Bronze	Main Entry doors	na
2	EWS-01 / 50	Aluminium Rainscreen Cladding	AME (supplier & installer of existing system)	To match existing - bespoke back-vented recessed jointed aluminiu falt panel (honeycomb reinforced) rainscreen cladding system on backing wall and supporting structure	White - to match existing	Aluminium	Lightwells	
3	EWS-03	North Elevation stonework	tba	Limestone cladding (nom 200mm thick) on brick/block substrate to match existing	Stone	Stone - to match existing	Main Entrance	
4	LVR-01	Aluminium Weatherproof louvres	tba	Brise-soleil comprising of extruded aluminum elliptical sections with an anodized finish and end caps to match, including associated support structure, fixed back to primary structure using bespoke bracket system	White - to match existing	Aluminium	West lightwell	na
	Doors & Windows							
5	DRG-02	Manual Frameless Glazed Revolving Entrance Door	Boon Edam	2900mm high 4 wing 2200mm diameter framed manual revolving doorset and 2m clear 'throat' opening with clear laminated glass panels with interlayer and solid bronze anodised panels (tbc). All framing and lid in bronze anodised aluminium. Proprietory laminated glass night security shutters. Indicative product: Boon Edam 'Tourniket Type 1'	Bronze	Bronze anodised aluminium and glass	Main Entry doors	

6	EWS-02	Hinged Window with Bronze Frame	tba	Bronze anodised aluminium double glazed window with hinged access	Bronze	Bronze anodised aluminium and glass	Main Entrance	na
	Roof Covering							
7	RFS-01	Single ply membrane roofing	Bauder	Single-ply membrane on tapered insulation, fully adhered to profiled steel deck	charcoal grey	Elastomeric bitumen sheet	Lightwell rooves	na
8	RFL-01	Double Glazed Roof Light	Velux	Double Glazed roof panels silicone sealed held by continuous aluminum carrier frame system or aluminium edge clamped system fixed to primary and secondary timber & steel gridshell	tbc	Powdercoated aluminium and froseted glass	West lightwell roof	na
	Floor Finishes / Paving							
9	EXT-01	Reconstituted pavement slabs	tba	Paving slabs to match existing	To match existing	To match existing	Pavement outside of main entrance	
	Specialist							
10	ASE-50	Roof Gantry	To match existing	Metal deck on galvanised steel frame to match existing	Galvanised steel	Galvanised steel	Roof	
11	WPS-02	Venturecladd	Venturecladd tape	Waterproof tape applied to ductwork for protection against weathering	White	na	New ducts to lightwells	

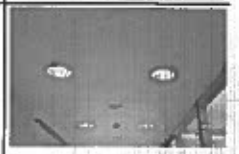
Notes:
Refer to door schedule for door details & finishes
Refer to window schedule for window details & finishes
Refer to separate document for Dynamic Stair finishes
All finishes subject to ongoing detailed design & coordination @ Stage F

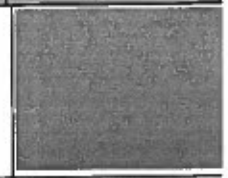
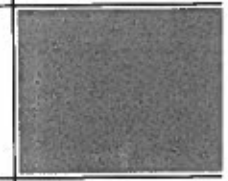
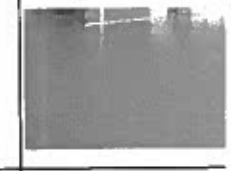
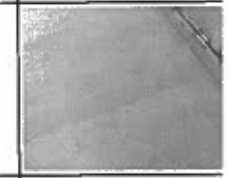
Wilkinson Eyre Architects
820/R29

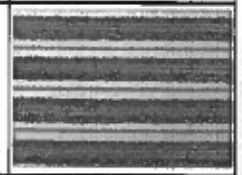
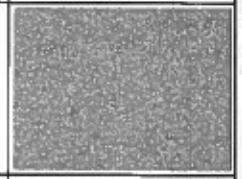
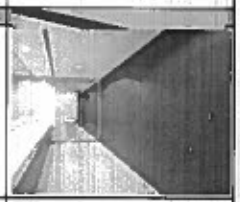
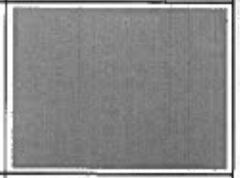
Internal Finishes Schedule

Revision	Date	Reason For Issue
--	30.01.13	STAGE E
01	13.02.13	For Planning

All products have been presented to Wellcome Trust For Approval 04.12.12 and are subject to further detailed design at Stage F

Item	T-Sheet Ref	Description	Indicative Product/Supplier	Particulars	Colour	Finish	Location	Photo
	Ceiling							
1	CLG-01	**Seamless Plasterboard Ceiling**	To match existing	Suspended seamless plasterboard ceiling	To match adjacent - off white	Paint to match existing	Gallery spaces & Research Library	
2	CLG-03/04	**Seamless Acoustic Plaster**	QuietStone – 'Quiet Spray' (Alternative: STO Silent A-Tec, STO Superfine)	visually to match existing plasterboard ceilings adjacent (CLG-01); Seamless; Potential issues with vulnerability to be addressed.	To match adjacent - off white	Trowelled or sprayed finish - tbc	Ceilings around dynamic stair; PDR	
3	CLG-05/06/07	**600x600 suspeded metal grid with lay-in tiles**	'Sonar' by Rockfon Ltd (Alternative: Tegular-Burgess)	600x600 panels to match existing @ 5th Floor; • Lay-in grid type	White	Varies depending on location	Various	
4	CLG08	**Metal Ceiling Planks** (Type 1 existing)	SAS International 'System 150'	Modular hinge down tiles in concealed grid	Powder coated to RAL 9010	Metal	Various	
5	FX-11	**Acoustic Baffles with integrated lighting**	Ecophon 'Solo' (Alternative: Soundsorba 'Cloudsorba')	Suspended fabric- covered recycled glasswool acoustic board	tba	Fabric	Youth Events Space	
6		**Acoustic Baffles**	Ecophon 'Solo' (Alternative: Soundsorba 'Cloudsorba')	Suspended fabric- covered recycled glasswool acoustic board	tba	Fabric	Hub	

	Floors							
7	**FL-01**	Carpet Tile	Milliken (for example)	'Juxtapose' - Tufted Textured Loop Pile with comfort backing - 457.2x 457.2mm	tba	na	Fourth & Fifth Floors	
8	**FL-02**	Carpet Tile (To match existing)	Forbo 'Westbond Flex'	Fusion bonded cut pile 500 x 500 carpet tile; 100% polyamide; heavy duty; wide colour range produced to order	Grey with black flecks to match existing	na	Research Library	
9	**FL-03**	**Reconstituted stone slab tiling**	30mm Limestone 'Muraeli' B5 - To match adjacent Atrium	556x537mm tile	To match existing	honed	Atrium @ Ground Floor & Dynamic Stair	
10	**FL-04**	**Polyeurethane Poured Floor**	Bolidt Polyeurethane Poured Floor (Alternative: Flowcrete 'Peran STB')	3-4mm thick Polyeurethane poured floor; 15-20 years life (can have additional top coat laid after 15 years; No joints	tba	PU finish	Youth Events Space and adjacent corridor	
11	**FL-05**	**Engineered Timber Flooring**	Maple by Ted Todd or Arden Hodges	14-20mm maple engineered board to match existing	To match existing	na	East Lobby & First Floor landing to Dynamic Stair/Medicine Now	
12	**FL-06**	**Engineered Timber Flooring - parcquet**	Caramelised Eurpoean Oak by Ted Todd or Arden Hodges	20mm nom engineered board laid in herringbone (or alternative to differ from Restaurant) in Oak natural (fumed or stained); Indicative Supplier: Arden Hodges or Ted Tedd (Alternative Option to salvage tumbled parcquet flooring to match Restaurant - under review)	Under review	Stained or sealed - under review	PDR and Reading Room Threshold	
13	**FL-07**	**Engineered Timber Flooring**	Caramelised Eurpoean Oak (fumed tbc) by Ted Todd or Arden Hodges	20mm nom engineered board laid 300mm wide planks up to 2.5m long in Oak natural (fumed or stained); Indicative Supplier: Arden Hodges or Ted Tedd	Under review	Stained or fumed - under review	Reading Room	

14	FL-08	Engineered Timber Flooring	Natural European Oak or Caramelised Oak by Arden Hodges or Ted Todd	20mm nom engineered board in Oak natural (fumed or stained tbc); Laid in 300mm wide boards up to 2.5m long	Under review	Stained or sealed - under review	Thematics Gallery, Hub & Club	
15	FL-10	Entrance matting/frames	Forbo 'Nuway' (Alternative: Emco 'Diplomat')	Fixed system (alternative: liftout)	tbc	na	Main Entrance	
16	FL-11	Safety Floor	Altro 'Stronghold' (Alternative: Noraplan 'Ultragrip'	3mm sheet PVC flooring qith added slip resistance: Levelling screed required	tbc	na	Kitchen	
17	FL-12	Linoleum	Marmoleum (Alternative: Rubber)	Sheet or tile flooring; Natural product; Wide colour range; Can be laser cut for patterns	tbc	na	Hub Multi-Use room; Photography Studios	
	Specialist							
19	PAN-01	WC Cubicles	Decra 'Burj' F/H partition system (Alternatives: Amwell 'Stratum' or Decra 'Chicane' or 'Stratum'		tba		All WCs	
20	STR-14	Dynamic Stair finish - outside face	Littlehampton Welding	8mm thick mild steel shot blasted to SA 2.5 with lacquered finish	na	mild steel, lacquered	Dynamic Stair - outside face	
21	STR-14	Dynamic Stair finish - insdie face	Littlehampton Welding	8mm thick mild steel shot blasted to SA 2.5 with spray-applied stainless steel, polished	na	stainless steel	Dynamic Stair - inside face	

Notes:
Refer to door schedule for door details & finishes
Refer to window schedule for window details & finishes
Refer to separate document for Dynamic Stair finishes
All finishes subjetc to ongoing detailed design & coordination @ Stage F

Appendix 4
Sustainability Matrix

WELLCOME COLLECTION DEVELOPMENT PROJECT SUSTAINABILITY MATRIX
J4560 - 20th September 2012

MAX FORDHAM

PAGE 1 OF 2 ENERGY CRITERIA

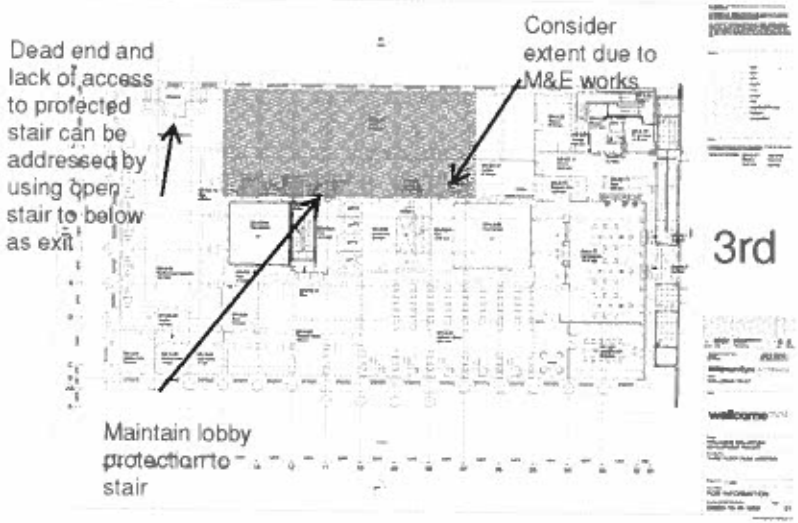
	Sustainability Criteria	Minimum Standard	Best Practice	Innovative	Pioneering	Notes
Building and operational targets	Proposed Building Regulations	2010 Part L Regulation	2013 Part L Regulation	2016 Part L Regulation	2019 Part L - 'Zero Carbon'	'Zero Carbon' not yet fully defined
	1 CO_2 Emission design target	No net increase in CO_2 emissions despite increase in intensity of use	20-40% improvement on Part L2A 2010 level	40-80% improvement on Part L2A 2010 level	0 kg $CO_2/m^2/yr$ "Carbon Neutral"	As 183 Euston Road is an existing building it is difficult to establish appropriate targets for energy consumption without first undertaking more work to establish where energy is being used.
	2 DEC rating	Meet Part L2B requirements	Maintain existing Operational Rating despite increase in intensity of use	Reduce rating to E-F rating	D-E Rating	
	3 Lighting Energy consumption	All new lighting to new gallery areas to meet Part L requirements	Introduce energy efficient gallery lighting Reduce lighting energy consumption Introduce more intelligent controls	30 kWh/m²/yr	<10 kWh/m²/yr	As an initial target the design team suggests that the DEC should simply be reduced from its current level of 237 as a result of the work.
	4 On site energy generation	Meet local planning requirements. Assess feasibility of incorporating renewables	>20% on site renewables	50 - 100%	> 100% on site generation or agreed off-site generation	CHP potential reviewed as part of Boiler refurbishment work
User and operational interaction	5 Controls, Metering and Monitoring	Seasonal Commissioning. Produce DEC, report to senior management	Commissioning company retained to monitor over 1st year. Post occupancy evaluation. Action plan to respond to annual DEC	Integrated monitoring and management structure with responsibilities for reading, reviewing, actioning changes defined. Anonymised external reporting. Departmental energy targets	Continual monitoring and fine-tuning. Formal external review. Results published to industry. Energy use reward/penalty system.	Evaluations show actual performance KPI's (eg in energy and water) are usually much greater than those predicted during the design stage. Often a result of poor commissioning, training & management. www.soflandings.org.uk
	6 User involvement	Facilities Staff trained at Building Handover. Building Log Book provided with O&M Manual	Facilities staff involved in commissioning. Non-technical user guide produced and all staff inducted. Energy use fed back to staff and visitors	BSRIA landing framework followed (see note). Interactive online user guide. Energy use on interactive display screen and online	Daily/Hourly energy use feeds into personal carbon trading tag (WSP's PACT scheme)	
Design considerations and strategies	7 Environmental design criteria	Limit areas provided with cooling to those with specific cooling needs	Conditions appropriate to needs of collection and as agreed with client. Consider working to Government Indemnity Scheme (GIS) conditions. (Archives - work to GIS conditions where National Advisory Service accreditation not required)	Work within a broad defined range of temp and RH (such as GIS conditions or those proposed by the Bizot Group). Allow set-points to change seasonally. (Archives - work within GIS conditions where National Advisory Service accreditation not required)	Work within GIS or Bizot Group's recommendations for all display areas, both permanent and temporary. Micro climates for very sensitive objects. Consider seasonal display of exhibits as RH changes throughout year (e.g. moisture sensitive objects not displayed in winter). (Archives - work within GIS conditions. Re-write BS5454)	Conditions proposed for new gallery space are to reflect the existing gallery spaces.
	8 Environmental design strategy	Full temperature and relative humidity (RH) control in most building areas. (Archives - full control of both temperature and RH)	Full environmental control to art exhibition and art handling areas only. Zoning between temporary and permanent display galleries. (Archives - thermal and moisture inertia along with air-conditioning plant to trim conditions)	Arrange building to allow environmental zoning between areas. Nat vent in non-art display areas. Buffer spaces between a/c and non-a/c areas to avoid need for doors. (Archives - passive control only using thermal and moisture inertia. No a/c plant, conservation heating only)	Zone display areas based on sensitivity of exhibits and for seasonal display	Current practice in building and extended as part of Wellcome Collection Development project.
	9 Methods of environmental control	Full air-conditioning plant using high energy sources of cooling/dehumidification and heating (eg air-cooled chillers and gas fired boiler plant). Constant volume mixing system. Heat recovery systems may be provided	Full a/c plant using higher efficiency sources of cooling/dehumidification and heating such as GSHP. Consider variable volume displacement system if appropriate and more efficient. Heat and moisture recovery systems. Consider evaporative cooling on exhaust air and condenser heat recovery	Displace (ai-room) temperature and moisture buffering. Conditions trimmed using low grade cooling and heating sources, long with desiccant dehumidification. Use variable volume displacement system	None or little mechanical a/c to general art display areas. Use of natural ventilation and coupled and de-coupled thermal mass and moisture buffers	
	10 Artificial lighting and controls	30W/m² max installed load. Indiscriminate use of lighting with combined display and ambient lighting. Predominately tungsten halogen sources. Individual dimming	25W/m² max installed load. Separate display, ambient and work lighting systems, individually controlled. Consider LED, metal halide & fluorescent sources for display lights. Automatic lighting control systems	15W/m² max installed load. Exclusively low energy sources. Dimming control working with daylighting strategy. Work lights controlled with occupancy sensors outside of gallery opening hours	20W/m² Typical installed load. Highly directional, very efficient sources - i.e. LED, plasma. Occupancy sensors throughout	Aim to reduce lighting energy consumption from current levles and potentially link to occupancy in areas that fall within WCD scope.

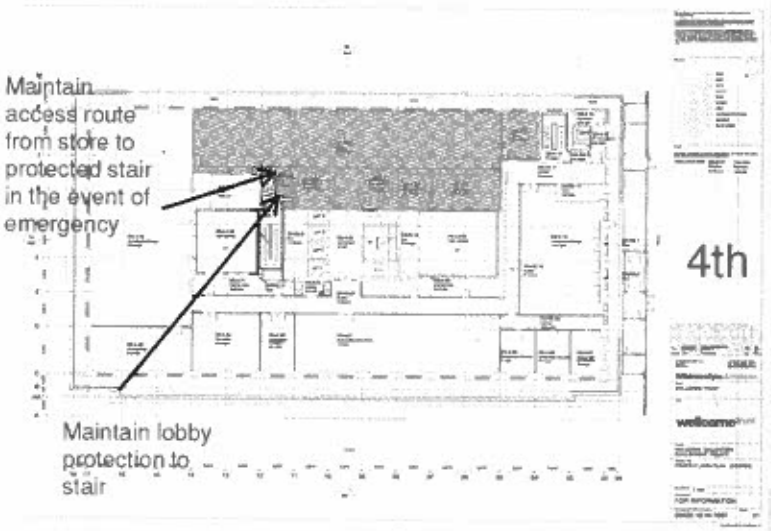
MAX FORDHAM

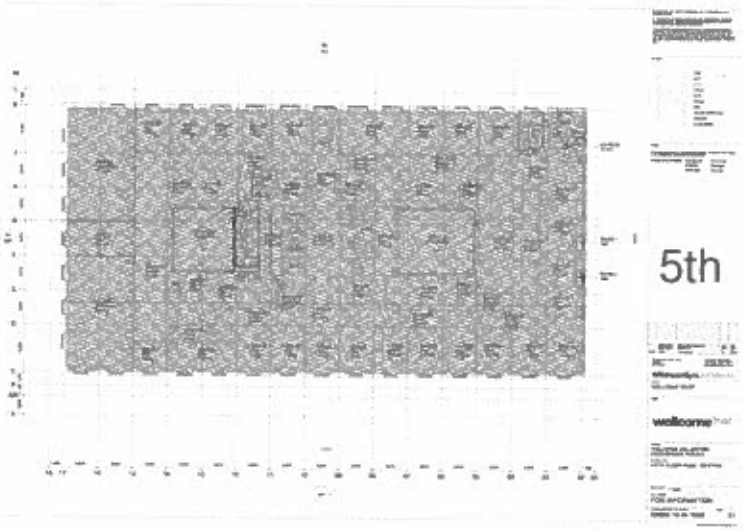
	Sustainability Criteria	Minimum Standard	Best Practice	Innovative	Pioneering	Notes
Construction materials	11 Embodied carbon in fabric	Embodied carbon not assessed. Preference stated for locally sourced materials	Structure engineered to minimise material mass. Cement replacements used, e.g. GGBFS in concrete heavy materials. Materials specified to be from local sources and provenance rigorously checked during construction	Detailed life cycle analysis of embodied carbon in structure including assessment sourcing and transportation energy. Results used for material selection. Structure engineered to work at 90% capacity [Wise]	Structure made from entirely low embodied energy materials, with known and mainly local provenance. Building serviceability regulations challenged [Wise]. Carbon Profiling technique utilised and used to inform building design and material selection [Sturgis]	Highly building specific and metrics not sufficiently standardised to allow benchmarks to be used as meaningful targets. Wise, June 2010, Building.co.uk. "What if everything we did is wrong" 2010. Sturgis Associates. "Redefining Zero".
	12 Building and materials re-use	Preference for standard sizes of elements such as steel beams/columns or precast units	Future flexibility of building considered. High grade materials designed for recyclability, e.g. Using lime mortar. Different material layers made identifiable or easy	Flexibility of future use demonstrated by typical conversion example designs. Avoid composite materials. Consider fastenings for easy dismantling	Flexibility and future use drives design. Label & log or e-tag main elements	
	13 Recycled and reclaimed Content	Passive options relating to use of materials with recycled content	Use materials with recycled content where premium is no greater than 10%	Use materials with recycled content where premium is not greater than 40%	Use materials with recycled content whenever viable and available	Only applies to relevant materials
	14 Material Toxicity	Minimise use of high VOC solvent paints, sealants etc and all ozone depleting materials including insulation. PVC cables exchanged for LSF	Non petro-chemical based insulation materials. All 'C' rated materials avoided	'B' and 'C' grade materials avoided. VOC-free paints and timber. Natural materials where possible. Eliminate PVC	Use only natural materials where products exist. 80% of materials 'A' or 'A+' rated	Ratings refer to BRE Green Guide
Water	15 Mains water consumption	> 5.5 m³/person/yr	4.5 - 5.5 m³/person/yr	1.5 - 4.5 m³/person/yr	<1.5 m³/person/yr	To be reviewed and target established.
Waste	16 Construction waste minimisation	Commitment to project SITE Waste Management Plan (SWMP) to identify waste streams and areas for segregation on site or local collection.	Establish waste streams during design, set key KPI's early on. Waste reviews on design team meeting agendas. Divert 75% by weight of non hazardous project waste from landfill	Implement Modern Methods of Construction throughout design. Account for site conditions impacting waste. Materials logistics plan.	Achieve zero net waste for project	see WRAP for guidance on SWMP's and waste minimisation strategies
	17 Operational waste recycling	Adequate space for storing recyclable waste	Managed recycling processes involving space for separating and collecting recyclables. Encourage occupants to recycle	Provide incentives for recycling. On site composting for biodegradable waste.	Waste stream feeds on or off-site anaerobic digestion for biogas production	
Transport Issues	18 Transport	Some covered cycle storage	Full cycling support provisions as part of travel plan. Utilise video conferencing. Access considered in site selection	Fully site specific travel plan covering site specific issues and awareness raising. Electric vehicle charging points. Utilise virtual video conferencing.	Accessibility drives site selection. Feed transport into personal carbon trading scheme.	Adequate provision of storage lockers, for change of clothes, helmet etc, can require a significant amount of internal space
Management	19 Stakeholder involvement and design process	Use of industry standards. Standard client briefing	Early consultation with stakeholders with the declared intention that this may affect design proposals. Stakeholders fully understand standards and design	Open design process with published response to stakeholder proposals. Design strategy tested with stakeholders. New boundaries set	Feed back results into industry standards	
	20 Construction site management	Main contractor has CCS or alternative certification. Energy use in construction metered	Main contractor has at 'pfs under CCS or an alternative certification. Main contractor operates EMS including monitoring and setting targets for energy use	Main contractor has CCS score 35 or more. Energy and water use targets are met and results published	A significant proportion of construction energy is generated on site with temporary renewables.	
	21 Sustainable procurement of consumables	Sourcing of office supplies and cleaning products considered	Sustainable procurement of office supplies and cleaning products and food and monitoring of consumption	Mostly paperless organisation. All consumables sustainably procured. Some food grown on site	Promote organic food grown on site, with the rest seasonal, local	

Appendix 5
Phasing Strategies

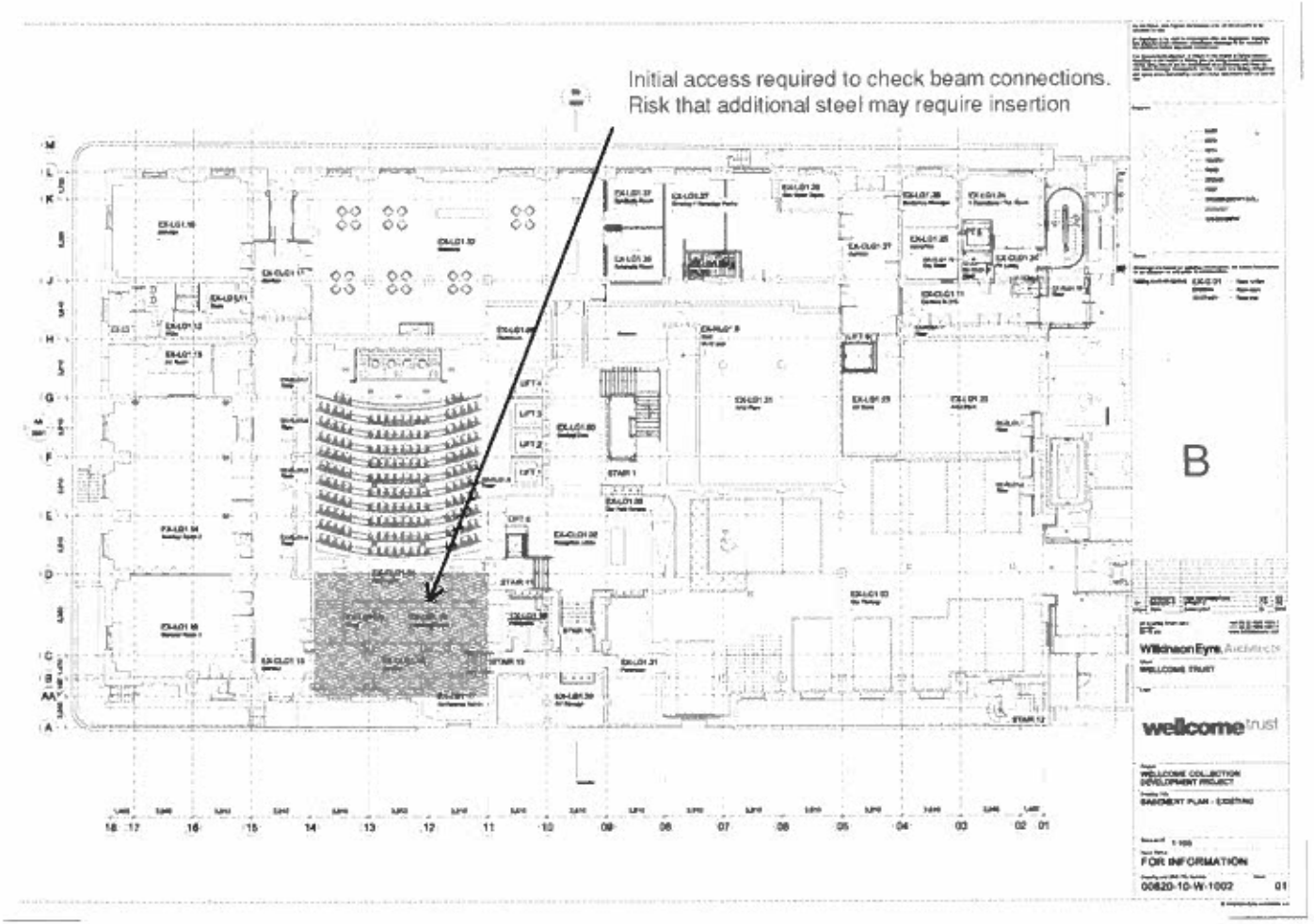
Enabling works
Floor 3-4-5: 20 June – 01 Aug 13



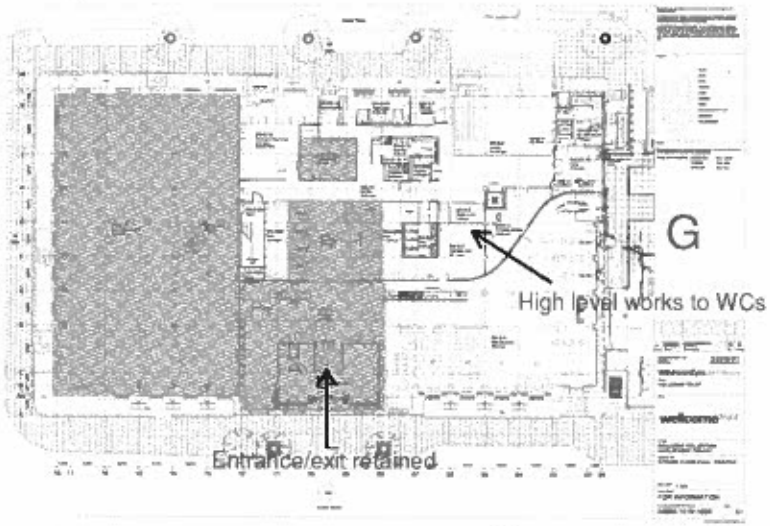


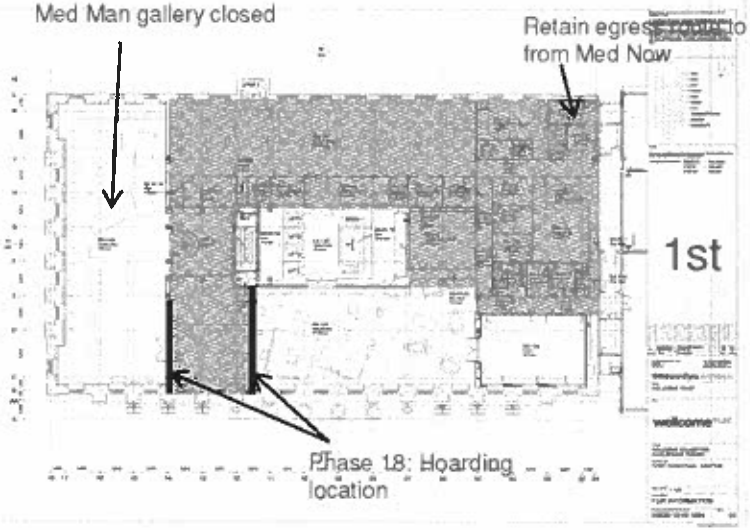


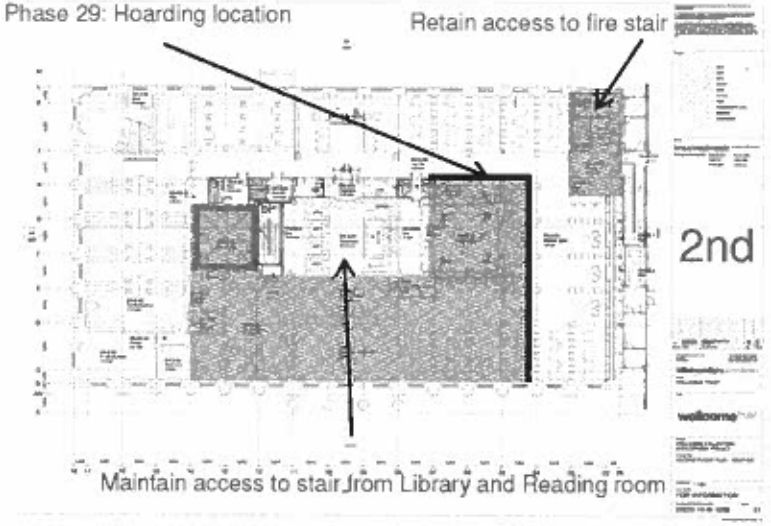
Main contract – Phase 1
8 Aug – 19 Sept (6w)

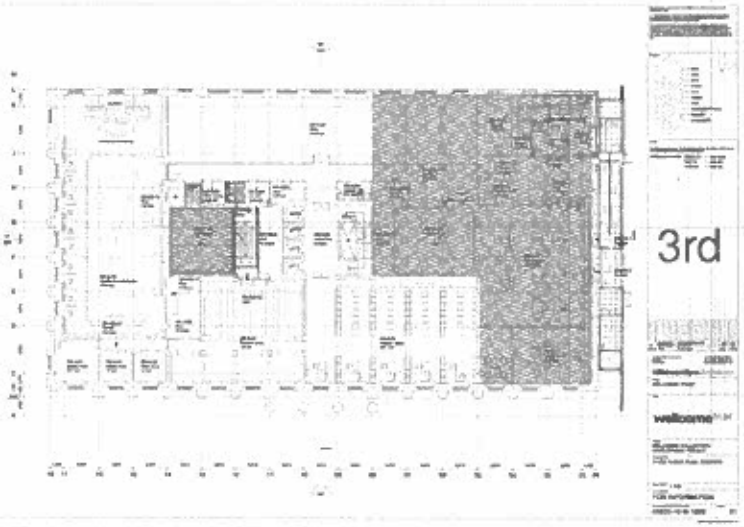


Main contract – Phase 1
8 Aug – 19 Sept (6w)

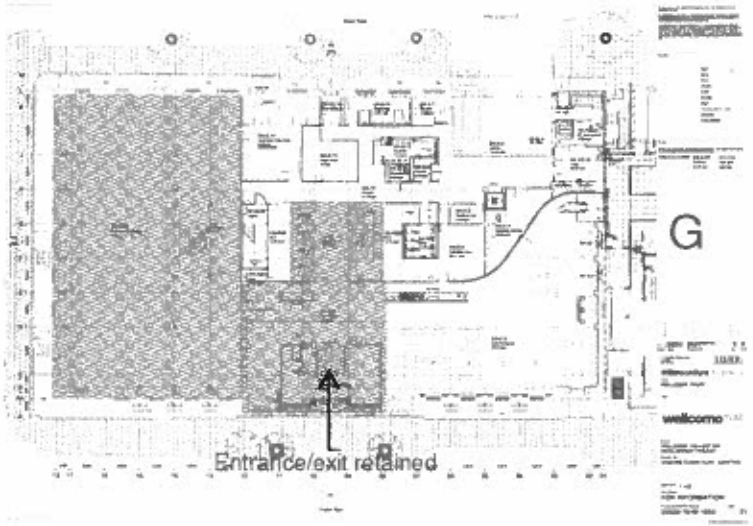


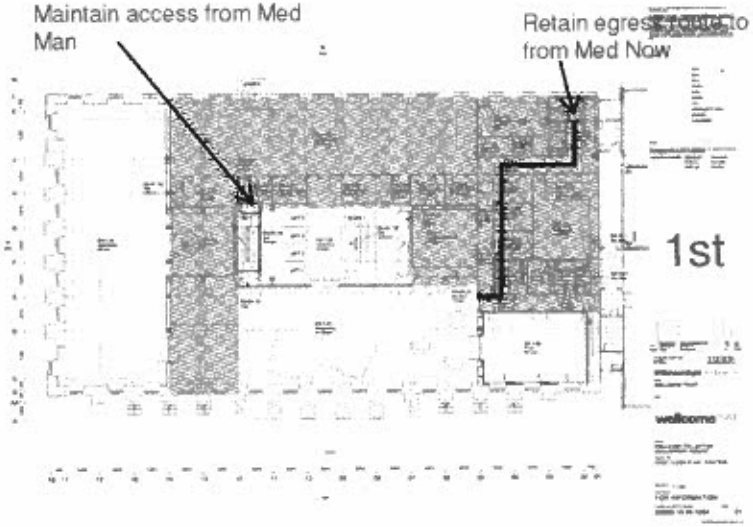


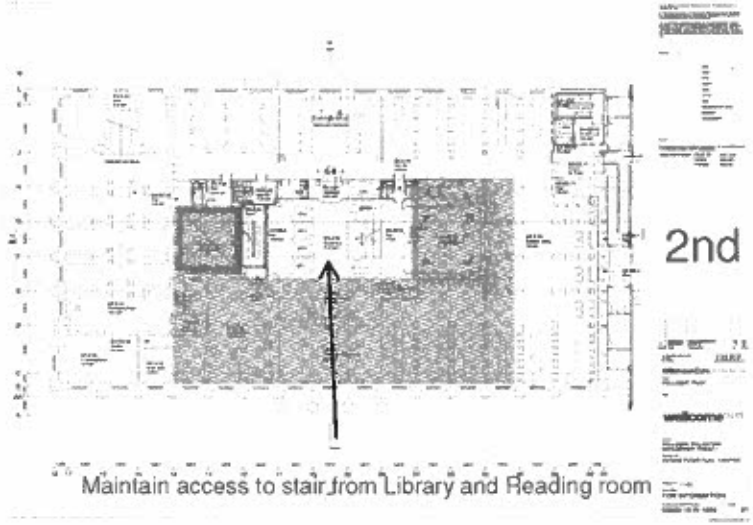


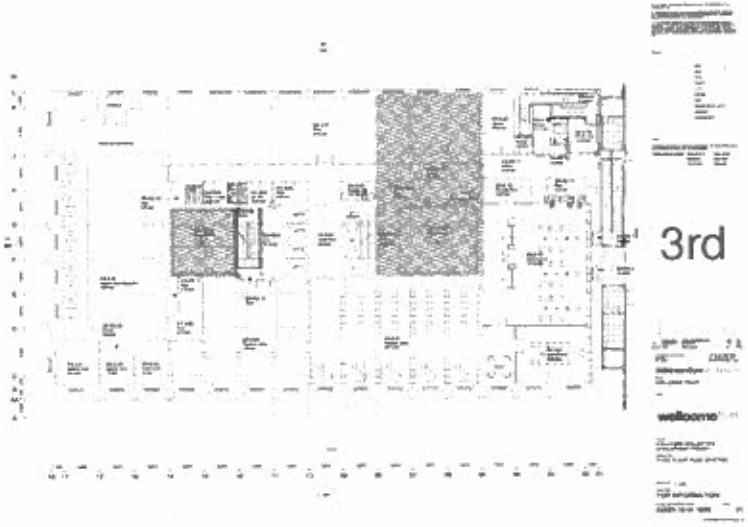


Main contract – Phase 2
19 Sept – 31 Oct (6w)

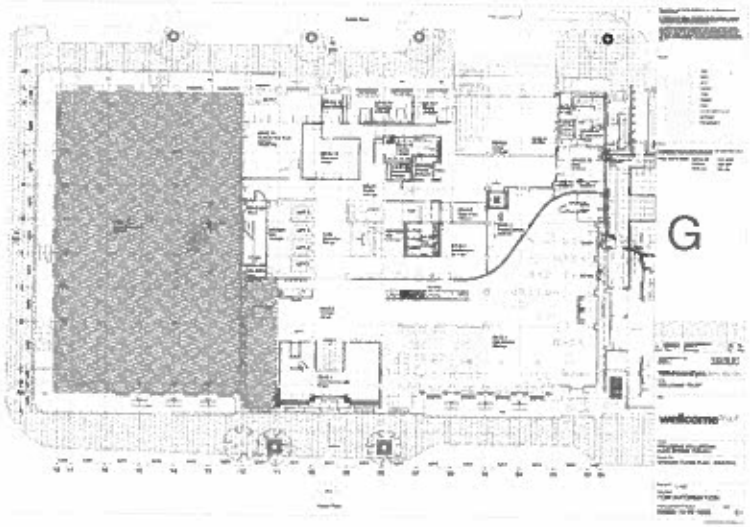


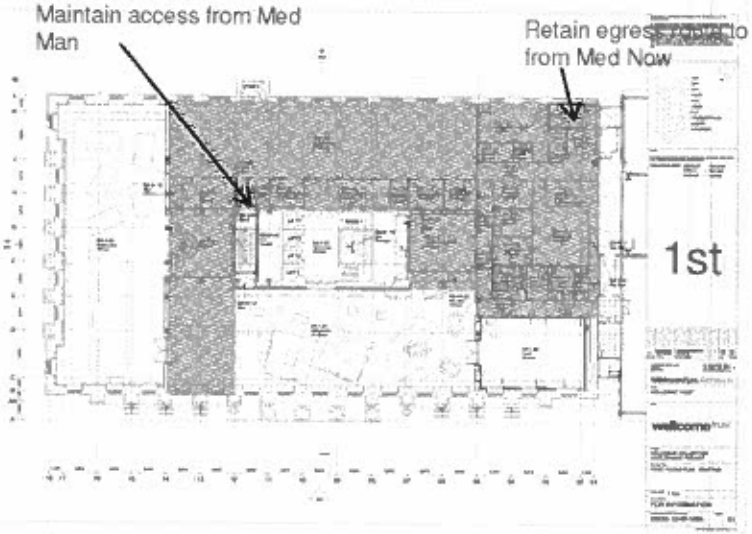


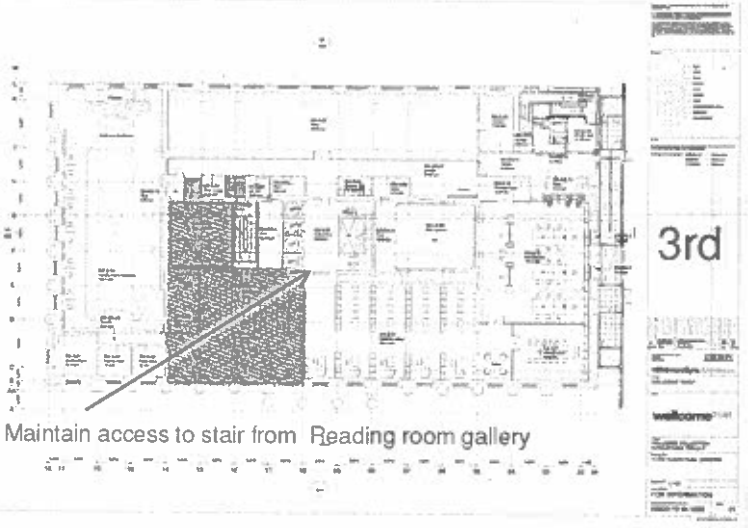




Main contract – Phase 3
31 Oct – 20 Dec (7w)

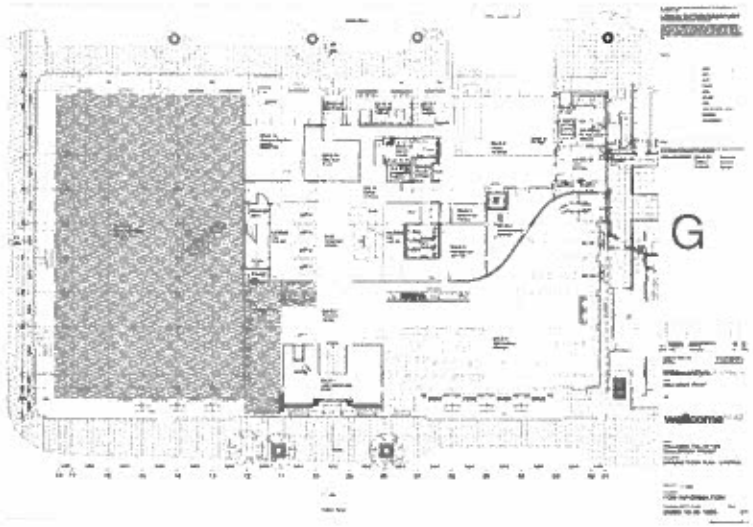


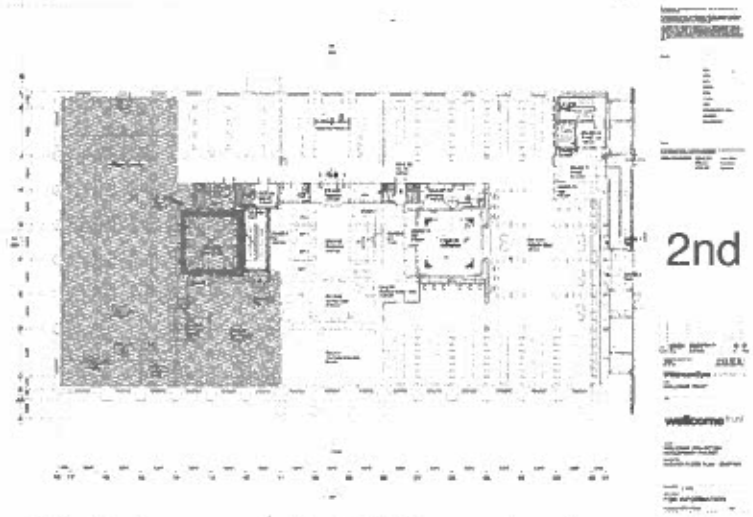




NB – Dining areas complete but kitchen remains under construction

Main contract – Phase 4
06 Jan– 28 Feb (8w)

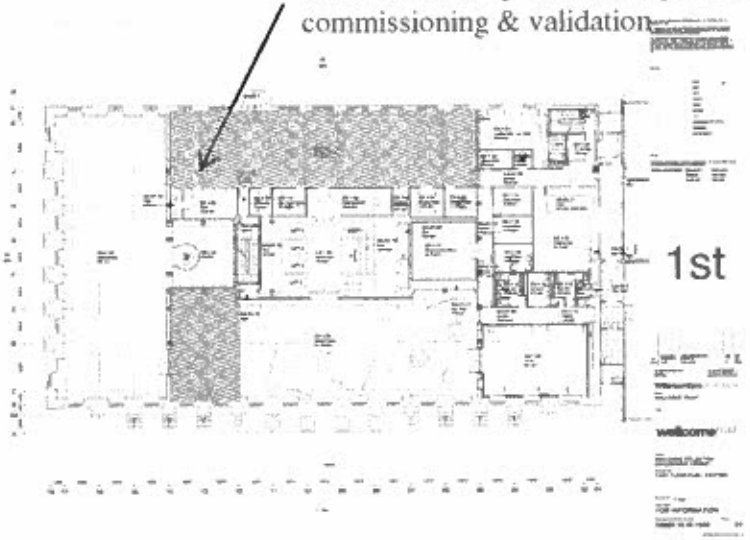


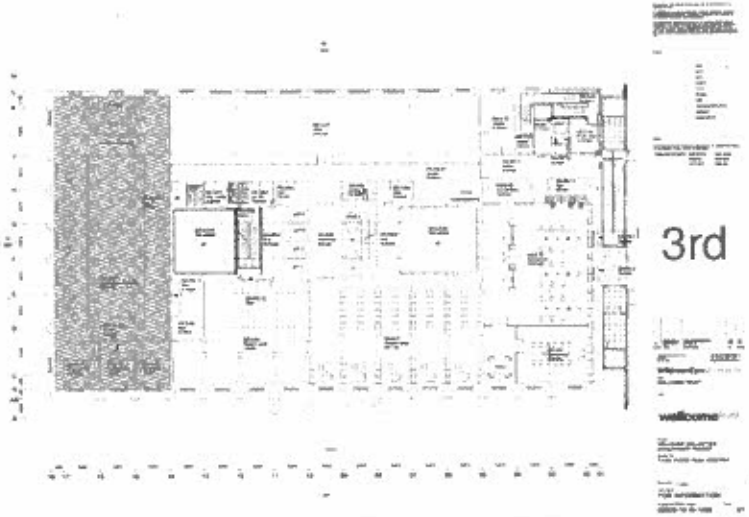


NB – Dining areas complete but kitchen remains under construction

Plus 5th floor kitchens

Thematic Gallery works complete M&E commissioning & validation





Appendix 6
Project Programme