

# BUILDING SPECIFICATION



## 1.0 INTRODUCTION

### 1.1 Size/Configuration

Floor to height of FCL (Target heights to be confirmed in final agreement to lease measured surveys)

### 1.2 Tenancy Occupation

Floor	FFL	FFL to FCL (mm)
Basement	+09.18	varies
LG Floor Office	+14.73	3300
Ground Floor	+18.54	2700
1st Floor	+22.95	2700
2nd Floor	+26.78	2700
3rd Floor	+30.60	2700
4th Floor	+34.42	2700
5th Floor	+38.24	2700
6th Floor	+42.07	2700

The building is designed to be let on a floor by floor basis. The central heating ventilation and air

conditioning plant shall serve all of the office areas

### 1.3 Occupational Densities

Element	Target Occupational Density
Air conditioning (comfort cooling)	1 person per 8m2
WC provision	1 person per 10m2. Note: provision based on 60:60 male/ female population ratio
Means of escape	1 person per 6m2 TBC

### 1.4 Means of Escape

Each office floor plate has three means of escape

## 2.0 STRUCTURE

### 2.1 Superstructure

The existing superstructure comprises a 7 storey RC frame with an additional storey of plant at roof level, occupying part of the building footprint. The typical structural grid is 6m x 6m.

Typically, office floors consist of 325mm deep RC waffle slabs spanning onto wide RC band beams of the same

depth. Survey drawings indicate that the waffles are approximately 225mm deep with a 100mm topping in accordance with standard waffle moulds. The ribs are in the region of 125mm wide and arranged at 900mm centres in both directions.

Ground and roof slabs are solid reinforced concrete spanning between RC down-stand beams of varying depths (maximum downstand depth = 800mm). The lower ground floor slab is a flat slab, spanning directly onto the basement columns.

An RC mansard structure encloses the building from the 5th floor to roof level.

Existing internal columns vary in size throughout the building, from 550mm x 550mm at basement level, to 350mm x 350mm at 6th floor. Column heads are required to the heads of the basement columns to avoid punching through the flat slab.

### 2.2 Substructure

A double storey basement occupies the entire building footprint. Existing structural details are unknown but the basement is assumed to be formed using an RC retaining wall that is propped laterally by the lower ground and ground floor slabs. This assumption is

based on limited visual site inspections.

The arrangement and construction type of the existing foundations are currently unknown, but no change in their loading will occur as a result of this development.

### 2.3 Proposed Structural Works

The proposed development includes the following key structural proposals:

- Strengthening of the central roof, using new steel downstand beams face fixed to the existing columns within the ceiling voids, to enable the support of new plant equipment. The structure of the new acoustic enclosure to this plant will be a steel moment frame, fixed into the concrete slab below.
- New slab openings to improve access to the roof above cores 2 and 3. The currently convoluted route will be improved by creating openings in the structural slab, to be framed out using new steel beams within the core walls. Partial demolition of the redundant lift core 3 lift motor room will improve accessibility across the roof.
- Replacement of basement sump pumps and repair of below ground drainage runs will improve the existing network and meet the refurbished building's requirements.
- General builder's work is required across the site, including modification to existing risers, improving the

coordination of services across the building.

### 2.4 Floor Loading Allowances

Original design live loads are unknown, but the following loads have been used in the design

Roof	Access & Maintenance	1.50kN/m2
	Plant	5.00kN/m2 (Typically)
Typical Floor	Office	2.50kN/m2 (+ 1.00kN/m2 Partitions)
Ground Floor	Circulation	3.00kN/m2
Lower Ground	Car Park	2.50kN/m2
	Office	2.50kN/m2 (+ 1.00kN/m2 Partitions)
Basement	Plant	7.50kN/m2

## 3.0 GENERAL OPERATION

### 3.1 Deliveries

There is currently no vehicle access to the site. Delivery vehicles currently park on Fetter Lane and goods are dropped off in Reception. This strategy will remain.

### 3.2 Storage

Dedicated storage for Office use has not been provided by the Landlord and will form part of the fit out by the tenant. Waste bins are currently stored in the undercroft which is accessed from Fetter Lane. A new bin store will be constructed in this location. The waste strategy will be operated by the on-site management team.

### 3.3 Fit out works

The Landlord will provide reasonable access for the CAT B contractor during the course of the tenants' fitting out works. Access for deliveries and fitting out to be subject to the restrictions imposed by the Local Authority and identified in the Agreement to Lease. Access to the property will be from Fetter Lane.

### 3.4 Statutory Signage

Statutory signage will be provided by landlord in common areas.

# BUILDING SPECIFICATION

## 4.0 FINISHES

### 4.1 Façade

Street façades - Ground Floors:  
East façade (Fetter Lane) – Continuous curtain wall glazing system with GRC over clad columns, fluted aluminium cladding and curved GRC cladding.

Courtyard façades:  
Continuous curtain wall glazing system with GRC panel and fluted aluminium panels to the courtyard facade

### 4.2 Insulation value

'U' values are as existing

### 4.3 Floor Finishes Zone

All office areas are fitted with metal raised access floor which will finish 10mm below FFL in preparation for the tenant to lay their final floor finish. The pedestals shall be adjustable to provide a finished floor level within ±2.5mm deviation from the defined finished floor level.

The raised floor zone will be a maximum of 140mm – the overall raised access floor to FFL is to be 150mm.

WCs are finished in porcelain tiles.

The reception is floor is finished in polished concrete with brass movement joints, timber flooring planks and inset carpet. The cycle centre to the sub basement floor consists of coloured heavy-duty epoxy resin floor paint to the floors and walls to include graphics.

### 4.4 Ceilings

Reception:  
The ceiling is to be painted plasterboard with 4 centred plasterboard coffers.

Office Floors:  
Suspended metal ceiling planks with plasterboard margins with linear lighting  
Common Areas:  
Suspended plasterboard ceilings with downlights.

### 4.5 Walls/Columns

All steel columns are provided with a fire retardant coating of intumescent paint. All column finishes applied by the tenant must not compromise the fire rating.

Existing columns linings are made good and painted white. Internal reception, rear GF & LGF concrete columns are to be stripped back to the concrete finish, shock-crete applied, and columns fixed and filled as required.

Any internal common part walls constructed by the Landlord are plasterboard on metal studwork painted white in tenant office areas.

No penetrations are to be made through the walls and slabs without the express approval from the Landlord, such approval not being unreasonably withheld. All penetrations to be made good by the office tenant.

Expansion and construction joints are to be provided as necessary to new internal walls, details to be agreed - such agreement not to be unreasonably withheld.

Walls to WCs comprise of painted plasterboard finish with tile skirting.

Wall linings to reception include charred timber with metal trim, back painted glass and includes 4 joinery wall items.

Lift Lobby wall finishes are to remain.

### 4.6 Acoustic Insulation

Where the tenant's intended use would exceed the noise limits stated in the table below, additional sound insulation is required to separating floors to prevent the disturbance of the adjacent spaces will be required with the installation of which being the responsibility of the tenant. These limits are intended to prevent noise originating within the tenant's demise from exceeding a limit of NR25 dB LLF,max in the adjacent spaces.

Tenant's Internal Maximum Reverberant Noise Level Limits:

Octave Band Centre Frequency (Hz)	63	125	250	500	1000	2000	4000	8000	dBA
Office unit reverberant sound pressure limit (LLF,max)	91	81	79	80	84	86	89	82	93

Any alteration/installation of mechanical plant must not increase the transfer of noise due to building services plant to internal occupied spaces adjacent to the Office's demise greater than NR35 dB Leq,1min.(dB)

### 4.7 Signage

All internal signage will require landlord's approval.  
All external signage will require landlord's approval and planning consent.

### 4.8 External Works

The landlord is responsible for the hard landscaping of their ownership line along Fetter Lane and courtyards and passageways up to the boundary with Mercers in Barnard's Inn which will be complete at Practical Completion of the building. All courtyard finishes to be developed and approved by the landlord and the local authority.

Paving finishes along Fetter Lane will be reinstated.

Soft landscaping and planting to the courtyards are to be provided by the landlord. Any deviation or replanting to be agreed with landlord. Such agreement not to be unreasonably withheld. RMA will provide the Landscape specification.

### 4.9 Cycle Provision

The scheme will provide the following cycle provisions:  
102 long stay cycle spaces  
9 Brompton lockers  
Including 4 x power sockets for electric bikes.

The provision for recharging stations for electric cars is also provided.

This provision is in excess of the BREEM requirement for a total of 79 spaces and also the BCO requirement for a total of 93 spaces.

In additional there is new shower facilities that provide 11 individual shower cubicles in a separate Male & Female configuration. Further there is a new drying room, and overspill locker space.

### 4.10 Asbestos

During demolition works to the existing building all asbestos will either be removed from site or encapsulated on site. The tenant will, if required, be provided with surveys and records to confirm the areas of removal and the areas of encapsulation of all asbestos containing materials.

## 5.0 BUILDING SERVICES

### 5.1 Introduction

The purpose of this specification is to set out the performance parameters for the design of the engineering systems at Barnard's Inn, 86 Fetter Lane, London.

The outline parameters for the MEP design shall reflect the following assumptions;

The office areas will be fitted out to Cat A standard with a maximised available height within office areas.  
New fresh air mechanical ventilation provided to all areasThe heating/cooling strategy is still being developed, VRF condensers generating the heating and cooling Will be used

The office area will be designed to allow for each floor to be split into one tenancy per floor with sub-dividing/sub-letting via service charge (no separate supplies).

Plant space will be provided to allow office tenant fit-out installations to include heat rejection of comms rooms and satellite antennae.  
Shared multi service riser space will be provided for tenant fit-out installations.

### 5.2 Design Standards

All engineering systems will be designed to provide a high quality building to facilitate the business operational needs of the prospective tenants.

All mechanical & electrical engineering systems will be installed generally in accordance with all relevant British Standards, Building Regulations, latest BCO recommendations, Codes of Practice, Local Authority and Statutory Authority Regulations, CIBSE Commissioning Codes, IET Regulations and Planning Conditions.

Engineering systems will generally be designed for a life expectancy in accordance with CIBSE Guide M. Materials are to be selected in accordance with the document 'Good Practice in the Selection of the Construction Materials' published by British Council of Offices and BPF.

## 5.3 Design Criteria

### 5.3.1 External Design Conditions

Winter: - 4°C, 100% relative humidity  
Summer: + 30°C db 21°C wb

Heat Rejection Equipment:  
Summer: +35°C

And should be capable of operating at a reduced output up to 40°C

### 5.3.2 Internal Design Conditions

Heating:  
General office areas: 20°C ± 2°C, relative humidity uncontrolled  
Toilets: 20°C ± 2°C, relative humidity uncontrolled  
Cooling:  
General office areas: 24°C ± 2°C, relative humidity uncontrolled

All temperatures quoted are air temperatures (dry bulb) in accordance with BCO guidelines, as measured at the control sensor position.

Outside the normal external temperature conditions, the internal temperatures may fall outside the specified limits. Note that the plant will continue to operate to the extreme operating temperatures stated, but at reduced capacity.

### 5.3.3 Occupation Density

1 person/8m<sup>2</sup> for general office floors  
1 person/6m<sup>2</sup> for means of escape

### 5.3.4 Ventilation Standards

General office areas supply: 1.5 litres/sec/m<sup>2</sup> (12l/s/p @ 1/8)  
Toilet extract: 10 air changes per hour extract 8 air changes per hour supply

### 5.3.5 Design Internal Heat Gains

People: 90 W/person (Sensible) 50 W/person (Latent)  
Lighting: Offices 12 W/m<sup>2</sup>  
Small Power: 25 W/m<sup>2</sup> to office areas on floor plus 10 W/m<sup>2</sup> additional capacity on central services

### 5.3.6 Hot and Cold Water Systems

Cold water storage: 15l/person/day based on 1/10m<sup>2</sup>  
Hot water storage: as required for Cat A sanitaryware / appliances / showers

### 5.3.7 Electrical Power Provision

Small Power: 25W/m<sup>2</sup> across net lettable space (diversified to 15W/m<sup>2</sup> at the main LV panel)  
10W/m<sup>2</sup> across net lettable space, spare capacity in riser to cover tenant IT equipment rooms etc  
Lighting (office): 12W/m<sup>2</sup> across net lettable space  
Mechanical Plant: To suit selected systems

Floor void to office floor plates to be minimum of 100mm.

Power and Lighting circuits will be separately metered via either split or separate distribution boards per floor.

### 5.3.8 Standby Generation

Life safety backup by generator provided, but this provides no back up to occupier's installation.

### 5.3.9 Lighting

Offices: 350-400lux maintained illuminance at 0.75m working plane  
Reception Area: 200lux maintained illuminance at floor level  
Stairs: 150lux maintained illuminance at floor level

Uniformity: 0.7 office task areas

Lighting designed in accordance with CIBSE LG7 design intent. High efficiency fittings to be used throughout with LED lighting fittings to be used throughout front of house areas. Lighting control will be provided to detect occupancy and automatic daylight dimming to perimeter areas. Emergency lighting will be provided via local self-contained emergency battery pack to comply with BS 5266.

### 5.3.10 Comms

Incoming room with dedicated risers shared between tenants.

### 5.3.11 Controls/Fire Alarm/Access Control

Fire alarms designed to BS 5839 with minimum L2 coverage subject to the building fire strategy.

Access control provided to all perimeter doors with wireways provided to all core doors for future fit-out by the tenant.

### 5.3.12 Noise Criteria

Building services noise should be controlled to meet the following noise ratings in Category A Fit-Out condition, these criteria are drawn from BCO Guide 2014 and CIBSE Guide A.

Speculative Offices	NR38
Reception	NR40
Circulation Spaces	NR45
Toilets	NR45

### 5.3.13 Energy & Sustainability

The key benchmarks for the buildings energy & sustainability performance shall be:

Compliance with planning requirements.  
Compliance with Part L of the Building Regulations.  
Achieving a BREEM "Very Good" rating.