

SPECIFICATION

ONE
CREECHURCH
PLACE

SPECIFICATION



4 PIPE FAN COIL AIR CONDITIONING



LG7 COMPLIANT LED LIGHTING



FINISHED FLOOR-TO-CEILING HEIGHT – 2.75M (5.45M IN GROUND FLOOR RECEPTION)



RAISED FLOOR (150MM)



PLANNING GRID – 1.5M



8 X 24 PERSON PASSENGER LIFTS,
1X 2,500KG GOODS LIFT, DEDICATED CYCLE LIFT, DEDICATED CAR LIFT



29 SHOWERS AND 500 LOCKERS



500 BICYCLE SPACES



5 CAR PARKING SPACES



BREEAM EXCELLENT



WIRED SCORE PLATINUM

CONFIGURATION AND DESIGN CRITERIA

Loads

The structure is designed to accommodate the following uniformly distributed and concentrated imposed loads:

Imposed loading		Uniform
Concentrated		
Offices: General	3.50 kN/m ²	2.7 kN
Partitions allowance	1.00 kN/m ²	
Allocated plant and equipment areas	7.50 kN/m ²	4.5 kN
Servicing: Toilet areas	2.50 kN/m ²	2.7 kN
Basement plant and equipment areas	7.50 kN/m ²	4.5 kN
Storage	7.50kN/m ²	4.5 kN
Floor finishes (false floor)	0.55 kN/m ²	
Services		0.15 kN/m ²
Ceiling		0.15 kN/m ²

Dimensional Description

The following nominal internal dimensions are provided to the areas of the office accommodation, subject to completion of the fit-out works in accordance with the Category A specification:

Floor to ceiling heights (all dimensions clear height)

Basement Level 2:	4.500m
Basement Level 1: (excluding area below loading bay)	3.750m
Ground Floor:	5.450m
First – Seventeenth offices:	2.750m

Integrated Floor Zone

On typical floors the integrated M&E and structural floor zone is 1,150mm.

This comprises the following:

Office Floor

Raised floor (including tile):	150mm
Floor slab:	130mm
Structural beams:	725mm
Structural tolerance:	45mm
Lighting zone (including tile):	100mm
Total	1,150mm

Occupational Densities

Based upon population per m² of net internal area (NIA) occupational densities are as follows:

Lifts:	1:8m ²
(The population density used for the design of the lifts assumes a 20% absenteeism)	
Plant and mains sizing:	1:8m ²
Means of escape:	1:6m ²
WC provision (calculated on a floor-by-floor basis):	1:8m ²
(The population density used for the design of the toilets assumes an 80% utilisation factor.)	
Male: Female ratio (based on floor-by-floor calculations):	60:60
One unisex disabled toilet (with handed layout on alternate floors) and two ambulant toilets are provided on each floor. Standards for WC provision meet those set out in BS6465 Part 1: 2006 (+A1 2009)	

SPECIFICATION (CONTINUED)

Car Parking and Cycle Provision

5 car parking spaces are provided, 2 of which are designated disabled. 55 basement motorcycle spaces are provided. 500 bicycle spaces are provided. Parking is accessed via a car lift within the loading bay. A separate bicycle lift is accessed via Creechurch Place.

Refuse Disposal

The loading bay has been designed to accommodate a portable compaction skip and a bin store.

Design Life

The building is to be designed for the following maintained service life in accordance with BS 7543 and BS ISO 15686.

Structural frame:	60 years
External masonry walls:	60 years
External cladding/curtain walling:	30 years
(Double glazed units: 25 years – powder coatings, 30 years – anodising: 30 years)	
External seals and gaskets:	20 years
Roof coverings:	25 years
Internal walls:	25 years
Lifts:	25 years
External works and hard landscaping:	25 years
Mechanical and electrical services: in accordance with CIBSE guide M table 13.A1	

Foundations and Substructure

Piled foundations with secant pile walls around the perimeter of the site are proposed alongside bearing piles and pile caps located internally.

The substructure is formed of concrete up to the ground floor level. This comprises 350mm thick RC flat slabs at ground floor and Level B1 and 400mm thick RC flat slab at Level B2. RC concrete columns are located beneath the superstructure columns. Concrete walls are provided around lift shaft openings to support the floor slabs.

The waterproofing system for the formation level substructure will be designed as Grade 3 space, in accordance with BS8102:2009 Table 2.

Superstructure

The proposed superstructure of the building comprises a steel frame with Fabsec cell beams and steel columns supporting a composite slab on structural metal decking.

Long-span steel beams have been adopted in order to maximise column free space. Typical bays have secondary beams spanning 14.0m and 16.9m supported by 10.5m primary beams.

At ground floor level the majority of the columns have been designed for vehicle impact.

BUILDING ENVELOPE

Office Cladding Double Skin

Unitised Façade System

Double skin aluminium, thermally broken, externally drained and ventilated unitised façade system combining inner inward opening vent with IGU and outer full height single glazed pane structurally bonded to an aluminium carrier frame profile. Intermediate mullion at 750/1,500mm centres on these units. Variations to the façade system include inner insulated spandrel panel and outer single glazed back painted pane structurally bonded to an aluminium carrier frame profile; external aluminium louvre panel and horizontal weather louvres with insulated backing panel.

Blinds (external with cavity)

Venetian blinds are included as integral to the cladding system and operate raising and lowering on a timed mechanism with full ability for tenant override control to be installed.

Facade Access

External Elevations

Are maintained via 3 fixed boom stationary swing arm building maintenance units located at roof level.

Power and water supplies will be provided for cleaning the external elevations. Latchways or other safety fall restraint systems will also be provided where required.

Internal Elevations

Internal glazed wall elevations will be designed to be accessible via an internal opening leaf of the twin skin system.

INTERIOR

Reception

Entrance Lobby

The entrance area is situated to the Northwest end of the building, accessed off Creechurch Lane. The building is entered via two 3m power-assisted revolving doors, each with a single leaf automated pass door to one side.

The entrance lobby also includes a facility to accommodate a lobby retail area which can be separated from the main lobby circulation route. The lobby shop can also be entered directly from the public pedestrian route off of Mitre Passage.

The walls in the reception area are clad full height in stone. At the base there will be a flush stone skirting. Where access is required to service risers, these will be discrete and frameless, and lift-off panels utilised wherever possible.

The main floor to the reception area will be non-slip, hard wearing grey honed natural stone. At the entrance to the building the floor is finished with a large mat well. Perimeter trench heater finished with an anodized architectural metal grille to match the external cladding colour will be provided along the perimeter glazing.

SPECIFICATION (CONTINUED)

Office Areas

The walls of the office areas are made up of the floor to ceiling height glazed perimeter cladding together with the painted plasterboard walls of the cores.

A fully accessible SAS 330 perforated linear metal ceiling system with division strips and including light fittings, smoke detectors, motion sensors, and diffusers has been designed for the office ceiling and will coordinate with the 1,500mm planning grid.

A fully accessible 600mm x 600mm raised access flooring system will be installed to provide a nominal service zone of 110mm.

Passenger Lifts

A double bank of lifts (low rise and high rise) totalling eight passenger lifts, work as a single group of lifts up to Level 9, after which, a single bank of four lifts (high rise) serve levels 10 – 17. The low rise passenger lifts will be of the 'machine room less' type. The passenger lifts will utilise 'destination hall call control'.

The passenger lifts will be designed to achieve an average waiting time of no more than 25 seconds with an up peak arrival rate of 15% of the population in a five minute period.

The lift cars will be 24 person (1,800kg) capacity and be fitted out with high quality durable finishes commensurate with the finishes in the lift lobby at ground floor level.

Goods Lift

The goods lift in Core 2 serves all occupied levels including the roof. This lift will be 1,500mm wide, 2,300mm high and 3,200 mm deep with a rating of 2,500kg capacity travelling at 1.6 metres per second. Landing doors will be at least 1,300mm wide by 2,300mm high.

Cycle Lift

One dedicated cycle lift will serve the transfer of cycles and cyclists from the ground floor entrance at Creechurch Place to the cycle facilities on the lower ground floor.

Shuttle Lift

One dedicated shuttle lift will serve riders and drivers from basement and lower ground up to the ground floor reception. The lift car will be 8 person (630kg) capacity and measures 1,400mm deep, 1,100mm wide with a travel speed of 1.0m/s.

Vehicle Lift

One dedicated traction vehicle lift will serve the transfer of cars and motorbikes from the ground floor entrance within the loading bay to the parking facilities at basement level. The lift car will be 72 person (3,000kg) capacity and measures 6,500mm deep, 3,000mm wide with a travel speed of 0.5m/s.

SERVICES INSTALLATION

Basis of Design

Temperature and Humidity

Outdoor design conditions:	CIBSE weather file for London Region
Air conditioning:	Summer: 29°C db, 20°C wb, Winter: -4°C (saturated)
Frost protection:	Plant protected to -8°C
Cooling plant selection:	Chillers selected for full load operation at 35°C db

Internal Design Conditions

Offices:	
Summer:	24°C ± 2°C db during occupied hours
Winter:	20°C ± 2°C db during occupied hours

No humidity control (provision made for the tenant to install humidification to achieve 30-40% average space relative humidity).

Entrance / Reception:	Summer: 25°C ± 2°C Winter: 21°C ± 2°C No humidity control
Toilets:	22°C ± 4°C db (during occupied hours. No humidity control)
Stairwells and Circulation:	Heated only to 18°C db minimum. No humidity control lift

Casual Gains

Occupancy:	90 W/person sensible, 50 W/person latent 10 W/m ² (net lettable area)
Lighting:	
Equipment / Small Power:	
Base Provision:	25 W/m ² (net lettable area)
Additional capacity:	10 W/m ² (net lettable area, available on riser and at central plant)

Ventilation Rates

Office outside air:	1.50 l/s/m ² (net lettable area)
Office AHU filtration:	BS EN779 Primary G3, Secondary M6
Toilet ventilation:	10 air changes per hour extract/8 air changes per hour transfer air
Plantrooms:	2 – 6 air changes per hour
Storage areas:	1 air change per hour minimum

Infiltration

Offices floors:	Summer: 0.25 air changes per hour for 4.5m from perimeter Winter: 0.50 air changes per hour for 4.5m from perimeter
Entrance:	Summer: 1.00 air changes per hour Winter: 1.00 air changes per hour

SPECIFICATION (CONTINUED)

Energy

The building will target a BREEAM 2011 rating of 'Excellent'.

Water Storage / Break tanks

Domestic cold water storage:

Fluid category 1: 5 l/person based on an occupancy of 1 person per 8m² (net lettable area) with a 60% diversity applied.

Fluid category 2: 15 l/person based on an occupancy of 1 person per 8m² (net lettable area) with a 60% diversity applied.

Fluid category 5: Provision of tank for wash down facilities in basement areas.

Domestic hot water storage: Centralised water heaters to provide hot water to core toilet areas and showers throughout building.

Rainwater Drainage

Design intensity: 0.042 l/s/m² (150 mm /1 hour approx)

General Office Areas Base Power Provisions

Maximum load assessment for incoming UKPN connections are based on the following:

Lighting: 8 W/m² (net lettable area) for open plan Cat 'A' + 2W/m² for tenant additional lighting.

Small power: 25 W/m² (net lettable area)

Upgrade Power Allowances

Tenant busbars: 10 W/m² (net lettable area)
Central Plant:
10% on transformer supply capacity (minimum)

Basement Storage Area Power Provisions

Lighting: 8 W/m²

Small power: 5 W/m²

Plant Room Power Provisions

Lighting: 8 W/m²

Miscellaneous power

allowances plant: 40 – 60 W/m²

Lifts: 5 – 10 W/m²

Power Diversities

Office lighting: 0.90

Office small power: 0.80

Upgrade allowance: 1.00

Mechanical plant: 0.80

Lifts: 0.75

Fire detection/Alarms category: BS 5839 Type L1

Resilience

Space allocated for 2 tenants generators of 1,250 KVA prime rated each.

Illumination Levels – Offices

300 – 500 lux average, maintained level in open plan on working plane utilising regulating control gear.

Cavity reflectances:	Ceiling 80% Walls 60% Working plane 35% (average)
Workstation density:	1 per 8m ² luminance
Limit:	1,000Cd/m ² @ 65° cut off angle uniformity
Ratio:	Better than 3:1 across floor. Better than 0.8 over projected task area of 2m x 1m.
Specific power density:	1.5 W/m ² /100 lux maximum
Unified glare rating:	No greater than 19.
Working plane:	750mm AFFL Colour
Temperature:	Cool White (4,000K) colour
Rendering index:	RA 80-89

Illumination Levels – Other Areas

Generally in accordance with CIBSE recommendations.

Toilets:	100 – 200 lux with enhanced lighting giving approximately 500lux over vanity unit
Corridors and stairs:	150 lux average (100 lux min on stair treads)
Plant rooms:	150 – 200 lux with higher local levels to suit
Stores:	150 lux

Acoustic Targets

Noise levels are subject to completion of fit-out works in accordance with base build specification.

Area/Space:	Maximum NR
Office:	8
Toilets, stairs and corridors:	40 – 45
Reception foyer:	40
Plantrooms:	75

Plug and Play Connectivity

Dedicated fibre-to-the-building symmetric 1GB broadband connectivity, enabling superfast upload as well as download speeds connectivity on each floor through Hyperoptic's private London wide network.