# Specification

## 1.0 SUBSTRUCTURE

Structural frame supported on reinforce concrete piled foundations with typically 900mm deep reinforced concrete pile caps.

## 2.0 SUPERSTRUCTURE

Under croft car park: Existing ground bearing floor slab.

Ground Floor: Existing 325mm thick solid reinforced concrete slab supported on reinforced in-situ concrete columns with thickenings at internal columns.

First Floor: Existing 325 or 375mm thick troughed slab with edge and intermediate reinforced beam strips spanning between in-situ concrete columns.

Second Floor: New 150mm thick composite floor slab supported on composite steel beams spanning onto cellular steel and secondary beams supported on the existing structure.

Roof: Composite roof deck supported on cold formed steel purlins spanning between steel portal frames. The portal frames comprise 305mm deep rafters and 203mm columns.

Plant Room: New 150mm thick composite floor slab on composite steel beams spanning onto cellular steel secondary beams supported on steel columns.

Lift shafts: Reinforced concrete to the lower ground floor. Steel framing with block work infill above

Staircases: Reception to under croft car park floor in-situ reinforced concrete. All other stair cases are steel tray treads, steel strings and supporting structural steelwork which on the fire escape staircases also support roof and cladding.

## 2.1 KEY DIMENSIONS

Finished floor to finished ceiling heights:

Office Areas 2700mm

Toilet Areas 2500mm

Raised floor overall height:

Ground and first floor 230mm

Second floor 150mm

Floor planning grid office areas:

Typical planning grid 7200 x 9600mm

Ceiling grid 600 x 600mm

## 3.0 LOADING CRITERIA

The floor slabs are generally designed to accommodate a uniform live load of 3.5kN/m²plus 1.0kN/² for tenant partitions. The roof plant area is designed to accommodate a uniform live load of 7.5kN/m².

## 4.0 EXTERNAL CLADDING

Ground and First floor: External walls are finished in buff brickwork with red engineering brick features, tinted double glazed curtain walling system and single glazed glass planar assembles to the external fire exit stairs.

Second floor: Fenestration includes horizontal decorative high density laminated timber façade panels used to face insulated spandrel panels.

Main Entrance: Full height glazing system with external Brise Soleil. Circular automated entrance doors.

Roof plantroom screen: Polyester powder coated aluminium louvres on cladding rails to provide a permanent screen to the entire plant area.

## 5.0 ROOFING SYSTEM

The warm roofing system consists of a single ply PVC membrane roof covering on rigid urethane, cut to fall insulation on a vapour control layer on a profiled metal deck mechanically fixed to steel purlins.

The roof is fitted with a guided type fall restraint system for maintenance access.

An external paved perimeter roof detail is provided at second floor level and provides the feature set back detail.

## 6.0 FINISHES: RECEPTION

The main entrance to the building is through a fully glazed bi parting pair of circle slide automatic lobby doors.

Ceramic flooring tiling throughout the reception area. Walls plastered and fully decorated.

Reception desk: purpose made from white acrylic resin solid surface material, part M compliant, two receptionist capacity desk supplied with heating, power, data and LED lighting. Free standing feature panels are provided behind the desk for corporate signage.

Visitor waiting area: Coffee table, feature rug, three person sofa.

The floor finish is porcelain tiled with honed finish for slip resistance with entrance door barrier matting with double wiper closed construction.

Special feature lighting vertical, ceiling and skirting's polyester powder coated aluminium section containing an LED light source. Pendant lighting over visitor area.

Lift entrances have stainless steel doors and frames.

Main Staircase: Metal staircase with open riser and porcelain tiled treads. Glass balustrading either side of staircase flights, landings and around balcony areas at first and second floor level.

Lighting: Fully recessed feature lighting within walls and ceiling bulkheads, ceiling pendants and skirting lights. Feature wall lighting comprising: a decorative arrangement of varied size and depth boxes purpose made from white acrylic solid surface in varying thicknesses and translucent properties.

## 6.1 FINISHES: OFFICE AREAS

Office floors are finished using medium grade fully encapsulated steel raised floor ready to take carpet.

Ceilings: 600 x 600mm white polyester powder coated perforated metal tile fully demountable with tegular edge detail.

Walls: Painted White painted drylining

Lighting: 600 x 600mm recessed modular fluorescent luminaires

Air Conditioning supply and extract grills:

The office areas will be provided with internal manually operated roller blinds.

## 6.2 FINISHES: CIRCULATION AREAS

Atrium lifts and associated main floor landings are fully tiled to match the reception area.

External fire exit staircases: Fully decorated metal staircase with open risers and tiled treads. Brushed stainless steel balustrading and handrail with intermediate rails.

## 6.3 FINISHES: TOILETS

Typical units comprise of floors, walls, ceilings and internal finishes, toilet cubicle partitions, vanity units, mirrors, sanitary fittings, associated plumbing, lighting, power and concealed ductwork.

The quantity of fixtures provided based on the applicable codes and regulations, meet the requirements per net floor area for the building based on BCO Guidance and British Standards.

Walls: 300 x 600 x 9.5mm Limestone cream wall tiles full height with coloured polished glass wall panel features.

Floors: Porcelain slip resistant floor tiles and associated skirtings

Ceilings: White painted plasterboard and fully recessed continuous strip lighting

Lighting: Downlighters adjacent to mirrors above vanity units.

Vanity Tops: Corian or similar with 6mm toughened float splash backs.

**Targeted EPC rating B and BREEAM "Very Good"**

Sundry Toilet Items: Behind mirror soap dispenser and hand dryer. Full length mirrors behind basins, toilet roll holders in brushed stainless steel

Toilet partitions: High quality partitioning/full height particle board cubicle panels with American Black Walnut Veneer.

Cubicle Doors and over panels: 44mm thick particle board with American Black Walnut veneer.

The sanitary fittings and plumbing provisions for the toilet units are in white vitreous china.

## 6.4 FINISHES: DISABLED PERSON TOILET

Three disabled person toilet facilities are provided within the main core with direct access from the core corridor at each floor level.

300 x 600mm porcelain full height wall tiles, white painted moisture resistant plasterboard ceiling, 300 x 600mm porcelain tile floor with matching skirting.

White part M compliant sanitary ware, mirror and ironmongery.

## 6.5 FINISHES: CLEANERS CUPBOARD

A cleaner's cupboard is provided within the main core at each floor level incorporating a cleaners sink, hot and cold water and lighting.

The cupboards have the following finishes: White painted moisture resistant plasterboard ceiling, 300 x 600mm porcelain tile floor with matching skirting. White sink, bucket grating and hardwood pad.

## 6.6 FINISHES: SHOWER AND CHANGING ROOM

A Shower facility has 3 individual shower cubicles with white shower trays, basins and WCs is provided on the ground floor adjacent to the reception area. Direct access via the stairs to the lower ground cycle store.

Walnut laminated / particle board core lockers. White painted, moisture resistant plasterboard / 300 x 600mm tiles to walls, white painted, moisture resistant plasterboard ceiling, 300 x 600mm porcelain tile floor with matching skirting.

## 6.7 FINISHES: KITCHENETTE

A small kitchen is provided at ground floor to serve the receptionist and landlord's security personnel.

Formica worktop with mixer tap, inset stainless steel bowl and drainer. White laminate kitchen units with stainless steel handles and a fridge. Tiled splash back in brick pattern using 75 x 150mm. White painted moisture resistant plasterboard ceiling and walls, 300 x 600mm porcelain tile floor with matching skirting.

## 6.8 FINISHES: LIFTS

Brushed stainless steel internal and external doors. Mirror to rear wall upper, rear wall lower and side walls walnut veneer. Dado handrail left hand wall. Ceramic floor tiles to match reception. Plasterboard ceiling with stand manufacturers light fittings.

## 6.9 FINISHED DOORS, FRAMES AND IRONMONGERY

Core Doors - fire rated / non fire rated timber door sets, walnut veneer stainless steel ironmongery.

Core to Office Doors – metal framed glass fire rated doors with matching screen

Service Riser Doors – white laminate face fire rated doors and frames with concealed hinges.

## 7.0 MECHANICAL SERVICES

Design External Ambient Conditions:

Summer 29°C db/20°C wb

Winter -4°C saturated

Design Internal Conditions:

Office Air Conditioned Space: Summer 24°C ±2K db

Winter 20°C ±2K db

Humidity Control: No humidity control provided

Reception Air Conditioned Space: Summer 24°C ±2K db (local to reception desk)

Winter 20°C min (local to reception desk)

Humidity Control: No humidity control provided

Toilet: No Control 18°C min

Stairs: No Control 16°C min

Control Zones: Perimeter 6m wide x 4.5m deep, Internal 50m² to 70m²

Building Envelope Air Tightness: Not more than 3.5m³/hr/m² for buildings at 50Pa

Design Infiltration Rate: 0.25 air changes per hour

Outdoor Air Ventilation Rate: 1.5 l/s per m² (Equates to 12 l/s per person)

Occupancy Density: 1 person per 8m²

Design Cooling Loads: Occupants 75 W sensible/55 W latent per person

Small Power: 25 W/m² on-floor design +10 W/m² in riser & plant design = 35 W/m²

Lighting: 12W/m²

Refrigeration Air Cooled Plant: Ambient Temperature for Selection 35°C db

## 7.1 ELECTRICAL SERVICES

Electrical Installation in accordance with BS 7671

Power Supply: 400/230V 50 Hz AC +10% -6% voltage ±1% frequency

Power factor: Corrected value = 0.95 lagging

Artificial Lighting: Office area in accordance with CIBSE Lighting Guide LG7 to achieve a maintained illuminance of 400 Lux at the working plane.

Circulation areas achieve maintained illuminance of 200 Lux.

Fluorescent lamps utilise high frequency control gear.

External lighting: In compliance with CIBSE Lighting Guide LG6.

Lighting Control: Open plan areas are by means of lighting control in accordance with Part L incorporating daylight control and perimeter dimming.

Emergency Lighting: In accordance with: BSEN 1838 & BS 5266

Minimum standby time 3 hours

Open plan areas 1 lux

Escape routes 1 lux

Electrical Loads:

Small Power: 25 W/m² on-floor design + 10 W/m² in riser and plant design = 35 W/m²

Lighting 12 W/m²

Metering: Sub-meters for lighting, power and mechanical plant in accordance with Part L

Automatic Fire Alarm System: Designed to BS 5839, Part 1 Category L3

Earthing: In accordance with: BS 7671 and BS 7430

Lighting Protection: In accordance with: BS EN 62305

## 7.2 HEATING AND COOLING OFFICE

Office simultaneous heating and cooling provided by Variable Refrigerant Flow (VRF) heat pump system. It comprises of ducted VRF fan coil units located within the ceiling void and associated air cooled condensing units mounted on the roof. Ceiling concealed VRF fan coil units serving both internal and perimeter zones based on a standard Cat A office.