



One Eton Street

RICHMOND
UPON
THAMES



Office Tenant Handbook

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1.0 INTRODUCTION

1.1 LOCATION

The site of the proposal is located within the Central Richmond Conservation Area and sits on the northern corner of the junction between Lower George Street and Eton Street.

The Lower George Street elevation is located in Richmond's key shopping frontage, forming an important link with 'The Square'. The part of the building fronting Eton Street is classified as a secondary shopping frontage.

2.0 SUMMARY OF OFFICE ACCOMMODATION

The office accommodation (Grade A) comprises approximately 2,794sqm gross external floor area over three floors.

- i. The office accommodation is entered through a main reception area located on Eton Street.
- ii. 2no. 10 person passenger lifts are installed providing access to all office floors from the reception area.
- iii. Landlord plant areas have been located at basement level and roof level concealed behind the roofline. Tenant plant areas are located at roof level behind the roofline. (Refer to separate M+E report prepared by BAMD)
- iv. Deliveries to the office unit(s) is through the service entrance on Eton Street. (Refer to Appendix G 'Servicing and Waste Management Strategy' prepared by Steer Davis Gleave).
- v. Planning Permission was granted on 14th September 2009.
- vi. The building has been assessed for environmental credentials and achieves a BREEAM 'excellent' rating. The building incorporates a range of measures to increase energy efficiency, provide renewable energy on site and reduce carbon emissions.
- vii. Gross Internal Area: 2794sqm/30074sqft GIA (Subject to final survey).
(Refer to Appendix B)
- viii. Net Internal Area: 2598sqm/27965sqft NIA (Subject to final survey)
(Refer to Appendix B)
- ix. Ceiling Heights: First, Second and Third Floor (outwith sloped soffit) - 2700mm
(Measured from finished floor to underside of suspended ceiling).

3.0 BUILDING SHELL AND CORE ELEMENTS

3.1 EXTERNAL WALLS

- i. The external fabric of the building is specified to achieve a minimum life span of 25 years.
- ii. All external walls are of cavity construction and achieve a minimum thermal transmission coefficient (u-value of 0.35 W/m²K) in accordance with Part L of the current building regulations.
- iii. The internal leaf of the cavity walls is skim coated and painted plasterboard fixed back to blockwork or concrete construction. The blockwork is either 100-140mm flush pointed with a compressive strength of 7 N/mm².

3.2 INTERNAL WALLS

- i. The basement is designed with both a cavity drain system and waterproofing of the concrete retaining walls. The basement is designed to provide a level of dryness suitable for a retail environment (BS8102 – Grade 3).
- ii. Internal office walls are constructed from skim coated and painted plasterboard fixed back to blockwork or concrete construction. The blockwork is either 100-140mm flush pointed with a compressive strength of 7 N/mm².
- iii. Walls are decorated within the main office accommodation with one mist coat and two full coats of vinyl emulsion paint.
- iv. The perimeter basement walls are insulated to achieve a u-value of 0.20W/m²K (Calculated in accordance with BS EN ISO 13370: 2007).
- v. The basement tenancy division between retail and office ancillary accommodation (compartment walls) are either 'paint quality' blockwork or 'good finish' concrete construction.
- vi. All blockwork is either 100mm-140mm dense block flush pointed with a compressive strength of 7 N/mm².
- vii. The Compartment walls around stair cores are designated as fire compartmenting walls in accordance with the building regulations and the landlord fire strategy. Refer to Appendix F 'Preliminary Fire Strategy Drawings'.
- viii. Vertical and Horizontal movement joints are either pre-compressed filler and pointed with sealant or fire resistant sealant to compartment walls.

3.3 ETON STREET RECEPTION ENTRANCE

- i. Ceilings
 - a. Suspended Gypframe Casoline plasterboard with skimmed and white emulsion painted finish incorporating lighting with a central lowered ceiling feature in the double height space.
- ii. Floors
 - a. Jura Limestone flooring on screed, 2-3mm joints, and 25mm thickness. Emco entrance mat with brush and rubber alternating strips in mat well.
- iii. Walls
 - a. Polished Marble – Nero Riga stone cladding to feature panel behind reception desk.
 - b. Crown cut American Black Walnut veneered timber panels to lift lobby wall on MDF softwood substrate.
 - c. Walls are either constructed from plasterboard fixed back to either blockwork or the concrete walls with dabs. The plasterboard is finished with a skim coat and decorated with 1 primer and 2 finishing coats of emulsion paint.
 - d. Walls also incorporate Mirrors with polished arris edging.
- iv. Joinery
 - a. Sliding glass automatic doors to main entrance with suspended electrical overhead door heater. Doors, and frames as main curtain walling specification.
 - b. Reception counter features a white polished marble front with integral top and American Black Walnut veneered worktop. An under-counter lamp and storage cupboards and drawers is provided. Feature lighting is provided at the front base of the desk.
- v. Lift car finishes
 - a. Lift car interiors are as follows: Jura limestone floor, foil backed opaque glazing and mirrors with wall mounted brushed stainless steel control panels. The ceiling is finished as a white polyester powder coated with shadow gap and 5no. down-lighters.

3.4 FENESTRATION

- i. Metal
 - a. High quality Schuco windows incorporating both the FW50+SG and AWS60 systems in dark grey RAL 7021 matt polyester powder coated finish.
 - b. System complies with CWCT performance standards and relevant British or equivalent European Standards.
 - c. Double-glazed units are high performance clear and toughened where required for safety reasons.
 - d. Configuration and thickness of double-glazed units to provide sound reduction to achieve internal levels not exceeding NR38 (leq), with a glazing G-value nominally between 0.32 & 0.4.
 - e. Frames to be fully thermally broken and all casements and frame sections achieve minimum U value of 2.0W(M²K) and 1.4W(M²K) centre pane.
 - f. All openable windows are lockable with keys controlled by building management.
- ii. Timber
 - a. High quality softwood timber windows with oak staining to main Eton Street and St James' Cottages facades.
 - b. Windows feature keyed restrictors where applicable and are operable. As with metal windows Double-glazed units are high performance clear and toughened where required for safety reasons.
 - c. Configuration and thickness of double-glazed units provide sound reduction to achieve internal levels not exceeding NR38 (leq), with a glazing G-value nominally between 0.32 & 0.4.
 - d. Frames and casements to feature stainless steel hinges and achieve minimum U value of 2.0W(M²K) and 1.4W(M²K) centre pane.
 - e. All openable windows are lockable with keys controlled by building management.

3.5 BUILDING SIGNAGE

- i. All signs throughout the building are in satin stainless steel and glass consistent with the ironmongery system. Level indicators are provided on all stairs.
- ii. Fire exit and other statutory signs internally and externally are provided as required by statutory regulations.
- iii. Illuminated signboards are located in the reception and also at 1st, 2nd and 3rd floor office level entrance.

3.6 FLOORS

- i. Raised Floor:
 - a. Kingspan Access Floors RG3 fully accessible raised floor system, achieving 3/A/3/2 to BSEN 12825 standard in a 600 x 600mm module, with a minimum 115mm under floor void height. The landlord will make an appropriate allowance for the tenant's own supply and fitting of floor boxes or grommets. The landlord will make an appropriate allowance for a high specification carpet to be supplied and fitted by the tenant.
- ii. WC areas:
 - a. High quality matt finish ceramic tiles throughout (Architectural Ceramics – Pietra di Brera) on Lytag screed 75 – 150mm nominal thickness.
- iii. Stairs:
 - a. High quality 500 x 500mm carpet tiling to stairs and landings, Interface Floor – Knit One, Purl One – Linen Stitch – 306400. Laid on Lytag screed 75 – 150mm nominal thickness. Escape only designated areas of stairs will feature painted screed in Grey Glidden Endurance anti slip paint finish.
 - b. Reception area stairs to be Jura Limestone, 40mm thickness with 2-3mm joint width.
- iv. The landlord service areas are provided with anti-slip paint floor finish.

3.7 CEILINGS

- i. SAS powder coated metal suspended ceiling tile system with 750 x 750mm perforated modular tiles on SAS Alugrid Q 15/16 grid, featuring shadow trims, all laser levelled with painted plasterboard margins throughout. Integrated lighting, VRV system and diffusers, sounders and emergency signage
- ii. Sealed fire barriers are installed above the suspended ceiling to comply with Building Regulations.

3.8 ESCAPE STAIRCASES

- i. The staircases are in-situ concrete. The stairs treads, risers and landings are finished with an anti-slip floor paint incorporating high visibility non-slip nosings.
- ii. The stair handrails and balustrades are provided on both sides of the stair flights and landings. These are polyester powder coated finished.

3.9. EXTERNAL DOORS

- i. Fire Exit Door(s) (DG.016) to St James's Cottages are 44mm exterior grade plywood solid core doors with applied timber facings externally.
- ii. Fire Exit Door (WG.007) to Eton Street is polyester powder coated aluminium with Opaque glazing.
- iii. Ironmongery/Accessories: Push pad/bar, Kick/push plates and pull/lever handles.

3.10 INTERNAL DOORS & ASSOCIATED JOINERY

- i. Doors are solid core full height flush doors with crown cut American Black Walnut veneer in with matching lippings.
- ii. All fire check door assemblies are FD30S or FD60S with smoke seals where required. Door sets comply with BS 476: Part 20 & 22 and are self-closing with all necessary fire signs to the local fire officer's / Building control approval.
- iii. Intumescent strips are provided in the housing behind hardwood lippings. Vision panels are clear non-wired glass with fire resistant glazing as necessary.
- iv. Duct access doors in office areas are painted timber solid core doors. Ironmongery to include hydraulic jamb closures, and budget/ mortice dead locks and bolts.
- v. Skirting to office areas painted MDF section
- vi. Window boards are to be painted MDF.
- vii. All door ironmongery is heavy-duty type in brushed stainless steel finish. Plant room ironmongery will have SAA finish
- viii. All ironmongery to the window system is in brushed stainless steel finish and features removable handles/ lockable lever furniture, with keyed restrictors where applicable.
- ix. Pull handles and push plates are provided to doors with lever sets to secondary areas and all primary doors have mortice locks with interchangeable suited key barrels. Doors are fitted with overhead closers where required.

3.11 CORE AREAS

- i. Ceilings
 - a. Ceilings within core circulation areas are Gypframe Casoline plasterboard, with a skimmed plaster finish.
- ii. Floors and Screed
 - a. There are Lytag screed 75-150mm nominal thickness with high quality Interface Flor carpet tiling - Knit One, Purl One – Linen Stitch – 306400.
- iii. Walls
 - a. Walls are constructed from plasterboard fixed back to either blockwork or the concrete walls with dabs. The plasterboard is finished with a skim coat and decorated with 1 primer and 2 finishing coats of emulsion paint.
 - b. Walls also incorporate mirrors with polished arris edging.
- iv. Staircases
 - a. Staircases are constructed from reinforced concrete, with a Lytag screed 75-150mm nominal thickness with high quality Interface Flor carpet tiling - Knit One, Purl One – Linen Stitch – 306400.
 - b. Escape only stairs are painted screed in Grey Glidden Endurance anti slip paint finish.

3.12 WC ACCOMODATION

The toilet accommodation is in the form of unisex cubicle, with designated disabled cubicles and showering facilities located in the basement and on each office level.

- i. Ceilings
 - a. These are either suspended Gypframe Casoline plasterboard with skimmed and white emulsion painted finish or 1200 x 300 metal perforated ceiling tiles (colour RAL: 9010) with plasterboard margin to provide access as required for landlord's and tenant's services.
- ii. Floors and Screed
 - a. Lytag screed 75-150mm nominal thickness with and matt finish Architectural Ceramic – Pietra di Brera Blanco Titanio [Ivory White] floor tiles.

- iii. Walls
 - a. Walls are constructed using Gypframe studwork with insulation in the cavity to provide sound attenuation and two layers of Gyprock moisture resistant wall board primed / sealed. These are then finished in matt finish Architectural Ceramic – Pietra di Brera Blanco Titanio [Ivory White] floor tiles. In areas exposed to high moisture such as the rear of showers and wcs the tiling will be laid on Wedi Systems – tile backer board jointed and sealed along with Wedi dowel fixings.
 - b. Mirrors are fixed back to moisture resistant MDF duct access doors. With polished arris edging.
- iv. Sanitary Ware
 - a. Basins are white ceramic Saneux Panoramic (6650) wall mounted units, with Sanuex chrome waste and soap dispenser. Taps are wall mounted Hangrohe Axor Uno2 mixer.
 - b. WC's are white Saneux Poppy (7718) ceramic bowls with concealed cisterns clad in ceramic tile cladding with removable panels to give access to services.

3.13 CLEANERS FACILITIES

- i. A cleaner's tap is provided on every floor as part of the disabled cubicle.

4.0 ROOF CONSTRUCTION AND MAINTENANCE ACCESS

- i. The main roof is designated as an 'access' zone. Stair Core 2 provides direct access to the main roof from the basement. Stair core 2 can be accessed via St James's Cottages.
- ii. A 1200mm clear stair width is provided to the roof level plantroom.
- iii. A continuous 1100mm, minimum, parapet extends around the perimeter of the roof. A secondary means of escape is provided directly into Core 1.
- iv. Tenant plant space is located on the main roof. Future tenant plant will be subject to approval from the Local Planning Authority. For further information on mechanical services refer to Appendix A 'Planning Consented Drawings and Conditions.
- v. Maintenance access to terraces to be carried out by trained operatives in accordance with the O&M manual. Refer to Appendix J 'Cleaning and Maintenance Strategy'.

5.0. ENVIRONMENTAL SERVICES

5.1 MECHANICAL & PUBLIC HEALTH SERVICES DESIGN CRITERIA

The criteria scheduled below is generally based upon the relevant services sections of the CIBSE design guidance and British Council for Offices Guide 2009.

Office/Landlord Areas

External conditions	Winter	-3°C dry bulb (saturated) -3°C wet bulb
	Summer	29°C dry bulb (35°C roof plant) 20°C wet bulb
Internal conditions	Offices	24 +/- 2°C Summer 20 +/- 2°C Winter
	Secondary Stair	18°C minimum Winter
	Toilets	20°C minimum Winter
	Reception & main stairs	20°C minimum Winter
Infiltration		1 air changes / hour (winter), 0.5 (summer)
Occupancy		1 person per 10m ² of net office space
Sensible heat gain		90W/person
Latent heat gain		50W/person
Ventilation	Offices	12 litres per second fresh air per person plus 120 litres per second per floor Meeting Room allowance
	Toilets	10 air changes / hour extract, supply at 90% (from office floor systems)
	Tea Points	15 litres / seconds per tea point
	Plant Areas	To meet requirements of equipment manufacturers and statutory codes, include for combustion air
	Smoke Extract	10 air changes / hour (basement plantroom area)
Equipment load		25W/m ² of net office space and in risers with central plant diversified for 15W/m ² <i>On each of the office floors an additional cooling allowance has been provided on the central plant of 10W/m² over 20 % of the nett lett area</i>
Lighting load		12W/m ² of net office space
Cat B / Cellularisation		Perimeter zones of maximum 6m wide x 4.5m

Arrangements		depth and internal areas maximum 50-80sqm for each FCU / control zone based on notional setting out point (in accordance with BCO2009 recommendations)
U Values		To comply with current Building Regulations and Carbon Emission Calculations
		Ground floor slab U value 0.22 W/m ² K
		External wall U value 0.34 W/m ² K
		Roof U value 0.25 W/m ² K
		Glazing U value 1.37 W/m ² K (0.61 G value)
External Noise		Refer to Appendix G.
Background noise		Offices (open plan) NR38 max
		Entrance Lobby NR40 max
		Toilets NR45 max
Domestic cold water storage (potable)	Throughout	20 litres/person/day – 12 hour storage (peak)
Domestic hot water Storage	Throughout	4.5 litres/person
Retail Area (Shell & Core Provision Only)		
External conditions	Winter	-3°C dry bulb (saturated) -4°C wet bulb
	Summer	29°C dry bulb (35°C roof plant) 20°C wet bulb
Internal conditions	Retail Space	22 +/- 2°C Summer 20 +/- 2°C Winter
	Secondary Stair	20°C minimum Winter
	Toilets	20°C minimum Winter
Infiltration		1 air changes / hour (winter), 0.5 (summer)
Relative humidity		No control
Occupancy		1 person per 7m ² of net space
Sensible heat gain		90W/person
Latent heat gain		50W/person
Ventilation	Retail Space	10 litres per second fresh air per person
	Smoke Extract	10 air changes / hour (basement)

Equipment load	15W/m ² of net space
Lighting load	20W/m ² of net space
Cooling allowances	140 W/m ² at perimeter 70 W/m ² internal areas
U Values	To comply with current Building Regulations and Carbon Emission Calculations
	Ground floor slab U value 0.22 W/m ² K
	External wall U value 0.34 W/m ² K
	Roof U value 0.25 W/m ² K
	Glazing U value 1.37 W/m ² K (0.61 G value)
External Noise	Refer to Appendix G

5.2 ELECTRICAL SERVICES DESIGN CRITERIA

Lighting Design Approach

The Lighting design is in accordance with CIBSE Design Guides and British Council for Offices Guide 2009.

The lighting for the Office spaces, has been designed in the spirit of LG7. The lighting type and room reflectance allows for the distribution of light around the office to meet the recommendations of the guide:

- 70% of task lighting level illuminating the ceiling.
- 50% of task lighting illuminating the walls.
- 20% of the task lighting illuminating the floor.

Lighting

Open plan office Area.	350 - 400 lux (average at working plane). Uniformity 0.8 Unified Glare Rating ≤19
Reception	300 lux (average at floor level) Unified Glare Rating ≤22
Toilets	200 lux (average at floor level) Unified Glare Rating ≤25
Lobbies and General circulation.	150 lux (average at floor level) Unified Glare Rating ≤28
Stairs	150 lux (average at floor/tread level) Unified Glare Rating ≤25
Stores and plant rooms	200 lux (average at floor level) Unified Glare Rating ≤25

Water treatment for the system is introduced manually via a chemical dosing set installed across the secondary circulating pumps. In addition the circuit serving the dry air cooler is also provided with glycol to protect the plant/pipework from freezing during winter months

5.4 WATER COOLED VARIABLE REFRIGERANT VOLUME (VRV) HEAT RECOVERY HEATING/COOLING SYSTEM

The building is provided with heating and cooling via Daikin water cooled variable refrigerant volume (VRV) heating and cooling systems, connected to the landlords closed loop ground source system. These systems have been provided to serve both the office and retail demises.

Office Demise

Each of the office floors (1st-3rd floors) are provided with their own dedicated Daikin water cooled VRV systems to provide heating and cooling to the office demise.

The water cooled VRV condensers are 3 pipe configuration to allow simultaneous heating/cooling to the office demise. The VRV condensers are located within a dedicated riser within stair core 2 to serve the respective office floor.

From the VRV condensers refrigerant pipework shall run within the ceiling void to serve ceiling void mounted ducted VRV fan coil units.

From the VRV fan coil units air is distributed via ceiling concealed swirl diffusers connected to the SAS ceiling.

Return air to the fan coil units will be provided via dedicated SAS perforated ceiling tiles with the ceiling void being utilised as a return air plenum.

Each fan coil unit is provided with a remote return air sensor to provide temperature control to an open plan office environment. The controls are configured such that in the future a wall mounted controller/sensor can be provided should cellurisation of the floor be required.

The office VRV systems are controlled via a Daikin I-Touch controller on each floor and linked to the Building Management system.

Retail Demise

The Retail demise is provided with water cooled VRV systems as follows:

Whilst the retail demise is only be provided to a shell & core standard, the demise is designed to be provided with heating and cooling via water cooled VRV systems (connected to the closed loop ground source system).

All works associated with the water cooled VRV systems will be undertaken by the future retail tenant (refrigerant pipework, fan coil units, power/controls wiring) with the exception of the supply and installation of the water cooled condensers only which are linked to the landlords closed loop ground source system and are installed as part of the original base build provision

The retail demise water cooled VRV condensers are located within the basement retail plantroom area

All works associated with the water cooled VRV condensers (refrigerant pipework, fan coil units, power/controls wiring) apart from the installation of the water cooled condenser itself will be undertaken by the tenant as part of their fit-out.

5.5 LANDLORDS HEATING SYSTEM

The landlords demise and office toilet accommodation is provided with LTHW heating generated via water/water heating only heat pumps (connected to the landlords closed loop ground source system). The LTHW Heating system will generally serve the following:-

- Wall mounted radiators
- Trench heating to office reception
- Landlords basement Supply Air Handling Unit

The Water/water heat pumps are located within the basement

Water treatment for the landlords heating system is introduced manually via a chemical dosing set installed across the secondary circulating pumps

The office reception will be provided with an electric Overdoor heater to the main entrance doors and a low level electric kick space heater within the reception desk.

5.6 RETAIL DEMISE HEATING SYSTEM

Whilst the retail demise only being provided to a shell & core standard, the demise is designed to be provided with an LTHW heating system generated via water /water heat pumps(connected to the closed loop ground source system).

All works associated with the LTHW Heating systems will be undertaken by the tenant, with the exception of the supply and installation of the water/water heat pumps only which are linked to the landlords closed loop ground source system and are installed as part of the original base build provision

The retail demise water/water heat pumps are located within the basement retail plantroom area

5.7 OFFICE MECHANICAL VENTILATION SYSTEM

Fresh air/extract from the office floors (1st, 2nd and 3rd floors) is provided via Daikin heat recovery VAM type units located within the ceiling void. The fresh air is ducted the rear of the VRV fan coil units, Extract air is via a bellmouth on the VAM units and utilises the ceiling void as an extract air plenum. Intake and extract shall connect to the external façade via louvres located above the windows.

Mechanical extract is provided to the stair core 2 toilet accommodation via ceiling mounted extract air valves connected to a roof mounted twin toilet extract fan complete with auto-changeover

Mechanical extract is provided to the 1st floor stair core 1 toilet accommodation via ceiling mounted extract air valves connected to ceiling mounted twin toilet extract fan complete with auto-changeover

Mechanical extract is provided to the 2nd and 3rd floor stair core 1 toilet accommodation via ceiling mounted extract air valves connected to ceiling mounted twin toilet extract fan complete with auto-changeover

Mechanical extract is provided to the ground floor disabled WC toilet via a wall mounted toilet extract fan discharging into the loading bay area.

Make up air to the office toilet accommodation is provided via an air transfer duct between the toilet core and the office accommodation.

5.8 LANDLORDS MECHANICAL VENTILATION SYSTEM

The basement landlords demise is provided with mechanical supply and extract ventilation system to serve the following areas:

- Landlords plantroom
- Shared Plantroom
- Tea Point
- Office Storage/Plant
- Lobby

The basement mechanical supply and extract system also acts as a smoke extract system in accordance with Approved Document B of the Building Regulations

The fire rated duty/standby extract fans are located at roof level and the supply air handling unit will be located at high level within the basement shared plantroom.

Mechanical extract is provided to the basement WC/Shower and drying room accommodation via ceiling mounted extract air valves connected to a ceiling mounted twin toilet extract fan complete with auto-changeover

Mechanical extract is provided to the office VRV condenser riser located within stair core 2. This system operates via thermostatic control to dissipate heat generated from the VRV condensers, with make up air being drawn from the office ceiling void via an attenuated opening top the cupboard The associated extract fan is located at roof level.

5.9 RETAIL DEMISE MECHANICAL VENTILATION SYSTEM

Fresh air/extract to the ground floor retail unit is to be installed by the tenant as part of the future tenant fit out. The design of the building and associated energy strategy/Approved Document L2A compliance calculations and the targeted BREEAM credits is based on the fresh air/extract ventilation being provided via heat recovery VAM units connected to high level louvres provided at high level on the façade of the building.

Fresh air ventilation to the basement is to be provided by the tenant as part of the future tenant fit out (based on a central AHU located within the basement plantroom). This AHU will also need to act as a mechanical make up air system for the basement smoke extract system.

A fire rated fresh air duct from high level in the service yard to the basement retail plantroom is provided as part of the base build, with the duct being sized to suit the make up air requirements of the basement retail smoke extract system

The basement retail demise is provided with a smoke extract system in accordance with Approved Document B of the Building Regulations. The base build works shall include for the associated fire rated ductwork to the basement, duty/standby fans.

5.10 LANDLORDS BUILDING MANAGEMENT SYSTEM

The mechanical services plant/equipment serving the project are controlled via a comprehensive Trend 963 building management controls system (incorporating IQ3 outstations) to provide full control and integration of the M & E services installations, including all motor control centres, control panels, control valves/actuators, field mounted controls, interfaces to VRV systems and outstations to provide a complete system.

The Building Management System includes for comprehensive energy metering, including:

- Incoming water supplies via pulsed output meters linked to the BMS
- water checks meters via pulsed outputs linked to BMS
- Heat meters located on the LTHW heating and Ground source heat Pump installations
- Electrical distribution boards metered via MODBus metering/pulsed output meters fitted to these boards.

In addition to the building management system each office floor is provided with a Daikin I-Touch controller to provide office tenants with full control of their air conditioning and ventilation systems. The Automatic controls system will generally control the following items of plant:-

- Landlords LTHW water/water heat pump boilers
- Landlords LTHW circulating pump set
- Landlords LTHW Pressurisation Unit
- Ground source System Circulating Pumps
- Ground Source System Pressurisation Unit
- Ground Source System – Temperature and Pressure monitoring
- Ground Source System – Roof mounted Dry air Cooler
- Water loop Circulating Pumps
- Water loop Pressurisation Unit
- Landlords Basement Air handling units and extract ventilation plant
- Landlords VRV riser cupboard extract ventilation
- Landlords Toilet Extract ventilation plant
- Office water cooled VRV systems
- Office VAM Units
- Cold Water booster Set
- Cold Water Tank high/low level alarms
- Water conditioner
- UV disinfection plant
- Sprinkler System (monitoring Only)
- Basement drainage sump pumps (monitoring 1 foul pump, 1 storm water pump & 3 No. Newton Cavity Drain pumps)

5.11 EDF SUBSTATION AND INCOMING SUPPLIES

An EDF substation transformer is located in a plant room at Basement level

From this position the L.V Supplies from the substation are extended through to the adjacent L.V Switch room and containment to the retail switch panel.

The electrical supplies are provided as follows:-

Office Development **400 KVA**

Retail **350 KVA .**

5.11 LV DISTRIBUTION

Main LV Panel

The switch panel is installed in the basement LV switch room. From these panels, landlords, tenants and services emanate.

The LV switch panel is floor mounted, front access, form 4 type 2. The main Panel is equipped with 20% spare MCCB's. The switchboard also incorporate electronic surge suppression.

A separate life safety panel is provided to serve the smoke extract ventilation systems. The life safety supply is supported by an 88kKVA standby generator located at roof level

Power Factor Correction

A 100 KVAR power factor correction unit is provided adjacent the main switch panel in the L.V switch room as a stand-alone item of equipment.

Metering

The Switchgear specialist is provided with a power monitoring and reporting system (PMS) to all meters.

Meters with pulsed output to the PMS system are provided within the Tenants distribution boards. Energy metering enables monitoring in accordance with the Building Regulations and for sub-billing in accordance with OFGEM and MID-003 requirements.

A separate metering section within the main panel for C / T Metering is also provided to meet EDF special requirements.

Tenants Distribution Boards

At each level in the Tenants riser, a composite Pan Assembly distribution centre is provided and consist of the following:-

Section A Tenants Lighting and Power Distribution Board
(This also includes Cleaners small power to the Office Floor)

Section B Tenants Mechanical Power Distribution Board (This section of the board serves the Daikin VRF and VAM systems)

Both sections are metered independently to comply with Part L 2A.of the Building Regulations

5.12 LIGHTING INSTALLATION

Tenants Office Lighting

The Lighting consists of 600 mm recessed Modular Luminaires within the SAS ceiling

Circulation Areas

Lighting to the circulation areas consists of linear recessed luminaires in toilet lobbies and recessed downlighters in general circulation areas

Stairs & Associated Lobbies

The lighting to staircases and associated lobbies are surface mounted circular luminaires.

Toilets, Cleaners Cupboards

The lighting in the lift lobbies are recessed compact fluorescent downlighters.

Lift Lobbies

The lighting in the lift lobbies are recessed compact fluorescent downlighters, and Perimeter Linear Lighting to the main Lift Lobbies and Toilet access lobbies

Entrance Lighting and Reception

Entrance Lighting consists of downlighters to the central area, Gimbal directional Lighting is provided to focus Lighting to the feature walls .The general Lighting is supported by LED Up lighting.

Plant rooms

Lighting to plant rooms are provided by IP54 rated, corrosion resistant linear fluorescent luminaires.

LIGHTING CONTROL

Tenants Office Lighting

The lighting management system to suit Cat A is set-up to operate as follows:-

- Central Switching to internal zones, with Presence detector override
- Group switching at main entrance points to each floor via a 3 gang switch for notional corridor switching and office floor lighting within three distinct groups.

Features:

- All office Luminaires are dimmable, therefore they can be set or pre-set at reduced levels- say 80%
- Daylight Linking; To hold off / ramp down perimeter row Luminaires if lighting levels are sufficient.
- Daylight Linking: Can be re programmed to suit rows/bands of Lighting.

Landlords Circulation Areas

All the circulation lighting shall be controlled via the Lighting Management system, Hard Wired Units are located adjacent to the landlords lighting and power distribution boards. Generally all lighting is controlled via Local PIR Control

Stairs & Associated Lobbies

The lighting control to the staircases is PIR control located at the entrance to each stair or associated lobby. This will also hold the Ground Floor Lobby lighting on.

First point of entry at ground floor energises associated stair, first point of exit from the stair will energise toilet lobby and Office notional corridor.

Toilets/ toilet Lobbies

The lighting in the toilets are switched via PIR's with time delay.

The lighting in the toilet lobbies are PIR control with extended time out control, to remain on if cubicles are engaged, this will also energise notional corridor

Lift Lobbies

The lighting shall be switched via PIR's

Entrance Lighting and Reception

ALL controlled via the reception Lighting Scene Set Switches and PIR.

Car Park/ Turn table Service area

PIR'S located adjacent entry exit routes to circulation and maintenance areas will initiate the lighting in those circulation areas , the lighting to the table will turn off after a preset time, to ensure motorists have time to enter/exit their cars.

Sweeps will be programmed at regular intervals to the Service Lighting to switch off, when designated PIR'S are in standby mode.

EMERGENCY LIGHTING

The installation complies with BS 5266 Pt.1-7, The C.I.B.S.E Codes for Interior lighting and the requirements of building control

Emergency lighting luminaires comprise of either single point self contained, non-maintained units or incorporating into the normal operational luminaire an inverter/changeover unit to operate the mains lamp at reduced output.

All emergency luminaires are ICEL certified and be provided complete with fixed LED indicators, A key switch is incorporated into the emergency lighting circuit at the appropriate switching centre to allow for a simulated mains failure to enable the system to be put under test.

Generally the test key switches are incorporated within the lighting management floor controllers located within each tenants riser.

The office emergency lighting consists of self-contained, non-maintained, conversion units within the office modular luminaires.

A separate emergency test facility is provided in the tenant's riser, which will be looped connected to each LCM box.

5.13 FIRE ALARM

The category of system is L2 but with capability to provide L1 on office floors in the future. The System meets the requirements of BS 5839-1

The fire alarm panel is located in the ground floor reception area. Smoke and heat detectors, manual

call points and sounders etc. are installed throughout all Landlord and office tenant areas of the building. Interface units are also provided for plant shutdown.

Manual call points are installed at all fire escape exit and at all building final exit doors.

Flashing beacons are included in circulation and toilet areas to provide visual signals for the hearing impaired, in accordance with the recommendations of BS 5839-1 and for DDA compliance.

The system is a two stage system. Evacuation warning will be sounded throughout the Landlords and Tenants Offices, upon the detection of fire by any smoke or heat detector, or upon receipt of a "Fire" signal from the retail areas fire alarm installation.

Upon detection of Fire, by any smoke or heat detector, the fire alarm system will be arranged to operate the following:-

The operation of a single detector will initiate a first stage alarm, on the floor of initiation and adjacent floors either side, together with the Basement.

An alert signal will be activated on the remaining floors.

The activation of a second device or will initiate a full evacuation.

The activation of a manual call point will initiate a full evacuation, in all circumstances.

An interface will be provided to the Retail Unit, once a Full evacuation has been initiated in the Landlord and Tenants Offices, this will simultaneously initiate an alarm signal in the Retail Unit.

5.14 SECURITY SYSTEMS

CCTV Installation.

This will include both Internal and External PTZ and fixed cameras

Fixed Camera No 1 - Office entrance (external) linked to reception audio speech facility

Fixed Camera No 2 - Office reception internal

Fixed Camera No 3 - Loading bay entrance (external) linked to the reception audio speech facility

Fixed Camera No 4 - Rear of Loading Bay

Fixed Camera No 7- Exit to stairs 02

Fixed Camera No 8- Exit to stairs 04

Fixed Camera No 9- Reception Lift Lobby

The cameras images are colour, and of suitable quality and recording for use as criminal evidence.

Access Control System

The building is provided with an electronic access control system and at completion of the shell & core there are various landlords doors controlled, in addition the lifts are also controlled. The retail lifts require a valid card to call the lift car to the lobby, the passenger lifts are equipped with card readers and presentation of a card is required before a floor can be selected.

The system is managed from the basement BMS office. Card issue is also carried out from that location.

There is a network of containment installed to enable future expansion to the access control facilities on the landing doors leading to the tenanted areas.

At each Entrance to the Tenants area, a network of conduits, are provided which are terminated above the ceilings in a junction box and to an adjacent wall outlet, for the tenants future connection of a card / proximity activated Access Control System.

Intruder Alarm System

Intruder Alarm Provisions for future Tenant fit out are provided only.

5.15 INTERCOM SYSTEMS

Main Entrance

The main entrance is provided with 2 way video entry system with assistance call which will communicate between the Entrance area and the following:

- Office Reception desk
- Tenant 1a- First Floor
- Tenant 1b- First Floor
- Tenant 2a- Second Floor
- Tenant 2b- Second Floor
- Tenant 3- Third Floor

Loading Bay Delivery Entrance & Pedestrian Entrance

A 2 way Video Entry System is provided with separate initiation to the following:

- Office Reception desk
- Retail Unit
- Tenant 1a- First Floor
- Tenant 1b- First Floor
- Tenant 2a- Second Floor
- Tenant 2b- Second Floor
- Tenant 3- Third Floor

Disabled Persons Alarm Systems

A disabled persons alarm system is provided at each designated disabled toilet.

The units are repeated on a central control panel at the reception desk and linked to the BMS for alarm

Disabled Refuge Alarm System

A disabled person's refuge alarm is provided at each designated location on the stairs/lobbies

The system consists of a speech unit at the designated location and a central control panel at the Fireman's Entrance and repeated in the reception.

5.16 INCOMING WATER MAIN AND MAINS COLD WATER

Two new metered incoming water mains are provided into the building on the Eton Street boundary. (with the water meters located within the path outside the building on Eton Street) The first main is valved and capped for future extension by the tenant of the basement and ground floor retail unit. The second main serves the landlords bulk water storage tank located within the basement landlords demise.

From the basement level bulk water storage tank, the water is boosted around the building to serve all landlord areas (basement & Ground) and the office demises (1st -3rd floors) . No connection to the retail demise is provided from this boosted water system.

The boosted cold water system is provided with water treatment via UV disinfection and a hydromag type water conditioner

Valved and capped branches (and drainage) has been provided on each level for future tenants tea points within Core 1

5.17 HOT WATER SERVICES

Hot water is provided by localised electric hot water heaters. The heaters to all basins and sink are of the unvented type

Showers are electric, thermostatically controlled instantaneous shower units. To prevent the build-up of lime scale water supplies to all electric water heaters are provided with magnetic scale inhibitor's.

5.18 AUTOMATIC SPRINKLER INSTALLATION

The basement and the car stacker is provided with an automatic sprinkler system to life safety standard in accordance with Approved Document B. The sprinkler system is split into 2 zones, these being, landlords and retail demise.

The automatic sprinkler system is fed via 2 fire mains that enter the building within the basement demise. These supplies are from superior mains and therefore no water storage for the sprinkler system is provided.

6.o. MEANS OF ESCAPE & FIRE STRATEGY

- i. 'Conditional Notice Of Passing Of Building Plans' was received on 5th March 2010. For further information refer to Appendix J 'Conditional Notice Of Passing Of Building Plans'.
- ii. Escape Stairs are within protected shafts and are designed to comply with Part B of the current building regulations and BS9999. The clear width of the escape stairs is 1200mm with a minimum storey exit width of 1200mm. A wheelchair refuge space is provided within the lobby of the designated fire exits.
- iii. The periods of fire resistance to elements of structure and all compartment walls achieve 60 minutes.
- iv. The ground floor is a compartmented element. A 60 minute fire resisting vertical fire curtain will be installed by the retail tenant around the lift / stair and/or escalator(s).
- v. Fire shutters will be installed by the retail tenant at ground floor shop fronts to provide appropriate fire resistance and comply with Part B4 of the current building regulations.
- vi. The following occupancies based on a density of 12Sq.M per person for all floors combined is 216no. people as recommended by the British Council for Offices Guide 2005.
- vii. For further information on Means of Escape and Fire Strategy refer to Appendix F 'Preliminary Fire Strategy Drawings'.

7.o. CYCLIST FACILITIES

- i. A landlord shared cycle store is located in the basement. The primary access is from Eton Street via a demarcated route in the service area with a secondary entrance via St James Cottages. The cycle store provides 42no. cycle stands.
- ii. The landlord provides 2no. showers and changing facilities which are shared with the retail element.
- iii. A separate dry room with heating and ventilation is provided with 42no. individual lockers. The size of a standard locker unit is (h x w x d): 1780 x 305 x 380 mm. The allocation of the lockers will be subject to agreement with the landlord.

8.o. SERVICE ACCESS AND SERVICE YARD

- i. The retail accommodation is serviced from the service yard accessed from Eton Street. The service yard can accommodate a Heavy Goods Vehicle (HGV) and a Light Goods Vehicle (LGV).
- ii. The service yard is finished with an asphalt wearing course which complies with BS EN 13108-4. A designated route for pedestrians/cyclists is demarcated with 'white lines'.
- iii. Metal Galvanised bollards separate pedestrian and vehicular traffic within the service yard.
- iv. The maximum clear headroom from vehicle standing level to underside of the structure is 4450mm.
- v. The service yard gates are manually operated. The gates are open during the hours of servicing between 08.00am – 18.00pm and remain closed at all other times.
- vi. A 9m diameter electric operated turntable is installed to allow the manoeuvring of service vehicles.
- vii. For further information on Servicing refer to Appendix E 'Servicing and Waste Management Strategy'.

9.o. REFUSE AREA

- i. A partially covered refuse area is allocated within the service yard. The landlord will provide a total of six 1100 litre plastic Eurobins. The refuse area is shared with the retail tenant. Refuse will be collected from within the site. A service vehicle can be accommodated within the service yard.
- ii. A designated compactor area is allocated within the service yard which will be shared with the retail tenant. A compactor will be installed as part of the base build shell and core. Refer to appendix D Turntable and Compactor Specification.
- iii. A mains water tap will be provided within the service yard.
- iv. For further information on Waste Generation and Waste Storage Requirements please refer to Appendix E 'Servicing and Waste Management Strategy'

APPENDIX A
PLANNING DRAWINGS/CONDITIONS

APPENDIX B
GAs & SCHEDULE OF AREAS

APPENDIX C LIFT SPECIFICATION

LIFT SPECIFICATION

The information provided below solely relates to the landlord goods and passenger lift.

L1&2: Office Passenger Lift

Contract Load:	800kg
Car size:	1320mm (width) x 1385mm (depth)
Shaft Plan Dims:	2074mm (width) x 1800mm (depth)
Car Headroom:	2000mm (minimum headroom)
Pit Depth:	1200mm
Door Width:	800mm
Headroom:	2950mm

Car Finishes:

Handrail	Brushed Stainless Steel
Floor	Tiled to match entrance floor
Ceiling	White powder coated metal
Wall	Mirror, Foil Backed Glass, Brushed Stainless Steel

Manufacture: Elite Elevators

L3&4: Retail and office goods / passenger lift

Contract Load:	1000kg
Car size:	1200mm (width) x 2000mm (depth)
Shaft Plan Dims:	1750mm (width) x 2500mm (depth)
Car Headroom:	2000mm (minimum headroom)
Pit Depth:	1200mm
Door Width:	1000mm
Headroom:	2950mm

Car Finishes:

Handrail	Brushed Stainless Steel
Floor	Black rubber tiles
Ceiling	White powder coated metal
Wall	Brushed Stainless Steel

Manufacture: Elite Elevators

APPENDIX D TURNTABLE AND COMPACTOR SPECIFICATION

TURNTABLE SPECIFICATION

The information provided below solely relates to the landlord goods and passenger lift.

Turntable

Refer to standard (manufacture?) drawings. TBC

Turntable specification:

Capacity: 30,000 Kg (Max)
Diameter: 9m diameter

Manufacture: Airgonomics

COMPACTOR SPECIFICATION

The information provided below solely relates to the landlords Compactor.

Dual Chamber Baler RR-25D

Rockside Recycling or similar approved.

Dual Chamber Baler:

Machine Weight (kg): 550kg max.
Machine Dimensions wxhxd (mm): 1550x2100x650
Motor: Electric
Control:
Sound Level: 70dba Refer to AAD acoustic report

Manufacture: Rockside Recycling

APPENDIX E
FIRE STRATEGY DRAWINGS

APPENDIX F
SERVICING & WASTE MANAGEMENT STRATEGY

APPENDIX G
ENV. NOISE LEVEL SURVEY & PLANT NOISE CRITERIA

APPENDIX H
BREEAM RETAIL & OFFICES 2006 DESIGN REPORT

APPENDIX I
CONDITIONAL NOTICE OF PASSING OF BUILDING PLANS

**APPENDIX J
CLEANING AND MAINTENANCE STRATEGY**