

Technical specification

met

Met Building

Technical specification

The CAT A Refurbishment and extension to The Met Building provides prime office accommodation, suitable for use by a single or multiple occupiers.

The works associated with the redevelopment and extension consists of the following:

- New Feature accommodation stair to the rear service yard serving the Podium Floors and Podium Roof Terrace
- New Roof Terraces at Podium Roof level and above the service yard.
- An Enclosed Roof Terrace at Tower Roof Level with a Glass Sliding Roof.
- Refurbished Entrances at the Podium and Tower Reception
- Remodelled Plant Areas at Podium and Tower Roof level

The refurbishment of the existing office creates a Grade 'A' commercial office. This is achieved by following the following overall design considerations:

- Legible building that “communicates” with its surroundings
- Provision of external useable terraces
- Good horizontal visual connectivity across office floor plates
- Consistent floor-to-floor height apart from ground floor
- Modular servicing strategy
- Cycle storage within the basement and dedicated lift access from the services yard

- Provision of showers and locker rooms within the basement
- Superloos provided on each level
- The provision of new lift cars and extension of one lift to the Podium Roof and one lift to the Tower Roof

The mechanical, electrical, and plumbing systems have been replaced to ensure compliance with Building Regulations Part L-2013 utilising low carbon/low energy technology. Heating, ventilation, and air conditioning systems incorporate heat recovery.

All plant and associated equipment have been selected to reduce energy consumption, to minimise waste and pollutants and to be adaptable. Where possible materials have been chosen to have minimal environmental impact during production, use and subsequent disposal.

Water services incorporate leak detection and boosted water pumps incorporate variable speed drives to match occupancy usage.

1. OCCUPANCY

1.1 Design Occupancy Densities

WC provision – 1:10 m²

Lifts: Passenger Lifts based on 1:8 m² with 80% utilisation (equivalent to 1 person per 6.4m²)

Air conditioning: 1:8m²

Means of escape: 1:8m²

Water storage calculation: 6m²

Terminal cooling load & outdoor air allowance: 1:8m²

2.0 STRUCTURAL GRID

2.1 The building is of a concrete frame construction formed by a combination of RC slabs and clay pot floors. These are spanning between beam strips which are in turn supported off RC columns and the concrete shear core. The previous modification works were done in steel framing and metal deck slabs forming the new areas of the building. The structure is formed off piled footings for both the original structure and the previous modifications and remedial works.

The existing structure is retained as part of the 2021/2022 Cat A refurbishment works.

3.0 FLOOR LOADINGS (IMPOSED LOADS)

3.1 **Roof maintenance access only**
1.75 kN/m²

3.2 **Plant areas**
4-7 kN/m²

3.3 **Terraces for occupiers' access**
4 kN/m² - (3 kN/m² with allowance for roof top planters)

3.4 **Office areas (office + partitions)**
2.5 + 1.0 kN/m²

3.5 **Staircases**
typically 2.5 kN/m²

3.6 **Dead loads**
Dead loads include the self-weight of the structure plus an allowance 0.75 kN/m² for the suspended ceiling, M&E services and raised access floors.

4.0 FLOOR HEIGHTS

4.1 **Basement**
2.4m (WC/Shower areas) – 3.19m (Cycle Storage area max.)

4.2 **Ground floor**
2.8m (Dropped Ceilings) – 3.38m (exposed existing structure)

4.3 **Offices Level 1 to 3**
2.45m – 2.56m

4.4 **Tower Floors - Ground Floor**
3m – 5.6m

4.5 **Tower Floors - Offices Level 4 -12**
Approx 2.55m

4.6 **Integrated Floor Zone – The Podium**
Offices Ground Floor: 150mm O/A Raised Access Floor
Offices Level 1 to Level 3 Raised floor: 60-150mm O/A (generally 30-120mm clear)

4.7 **Integrated Floor Zone – The Tower**
Offices 4 to 12 Raised floor 25 – 75mm Est.

4.8 **Services Zone below floorplate – The Podium**
20-60mm.

4.9 **Services Zone below floorplate – The Tower**
20 – 50mm.

5.0 STRUCTURE

5.1 **Basement construction**
The basement slab is formed from a 500mm thick concrete raft and RC retaining walls to the perimeter of the building. The ceiling is formed by the RC slab forming the ground floor slab which in turn spans between the perimeter retaining wall and the concrete columns and concrete shear core centrally.

5.2 **Existing Building Structure Podium and Tower**
The building is of a concrete frame

construction formed by a combination of RC slabs and clay pot floors. These are spanning between beam strips which are in turn supported off RC columns and the concrete shear core. The previous modification works were done in steel framing and metal deck slabs forming the new areas of the building. The structure is formed off piled footings for both the original structure and the previous modifications and remedial works.

Any large structural openings are trimmed with steelwork or lintels to help form the opening whilst maintaining the stability of the structure left remaining.

5.3 Proposed Podium Accommodation Stair Foundations

The stair foundations are constructed from a 400mm thick RC raft which forms the base for the new stair bearing onto the ground below. This is tied into the existing slab to prevent any differential movement in the base.

5.4 Proposed Podium Accommodation Stair Structure

The new stair is steel frame construction with a central steel core supporting the new stairs. The façade is constructed from non-load bearing glass. This is tied into the existing building at each floor but will act independently from the main structure.

5.5 **Proposed Tower Rooflight Structure**
The new rooflight is of a steel construction

and acts as an independent box frame directly supported off the primary structure ensuring that no additional loads are transferred to the slab below. This steel frame also provides restraint to the parapet walls where the existing steel framing is removed. All large openings are trimmed and/or framed.

5.6 Below ground waterproofing

Formation at basement level of the new below ground pumping chamber is fully tanked and banded into the existing waterproofing substrate.

6.0 EXTERNAL FINISHES

6.1 External Cladding

All external cladding is designed in accordance to BS-8414-1:2015, BS-8298-4:2010 and BS9999.

Curtain walling and all associated cladding elements are in accordance with the Centre for Windows and Curtain Wall Technology (CWCWT) Standard for Curtain Walling.

Retained facades are cleaned and repaired.

6.2 New External Accommodation Stair

Circular structural steel tubular frame clad with curved double glazed panels, toggle fastened to structure. Steel frame and infill sections clad with insulated aluminium panels, painted. Double glazed skylight panels on top with UV coating.

6.3 External Terraces

Terraces at the Podium and Tower roof level are suitable for outdoor café seating use, informal meetings and recreation.

Finishes as detailed below, external power and gas, water supply, with suitable drainage and external lighting are provided.

Floors: Porcelain tiling.

Handrails: Stainless Steel.

Doors: Painted solid / Glazed in PPC metal framing.

6.4 Roofing

Existing flat roof areas are re-covered in a liquid applied membrane.

New high level flat roof areas are clad in single ply membrane over rigid insulation.

6.6 Fire Escape Stairs

Existing fire escape stairs are refurbished.

Walls and ceilings are made good and painted. Stair coverings and nosing have been replaced where required, to comply with building control requirements.

6.7 Exterior Doors

The main entrance doors to the reception areas of the Podium and Tower have been refurbished.

These existing glass revolving doors are formed from laminated/toughened glass of 2.5m height, 2.4m diameter. Entrance screens comprised of full height, laminated/toughened

mid-iron glazing including glazed pass doors and automatic opening glazed pass doors where required for disabled use.

A high quality, recessed entrance matting is provided and is installed in compliance with BS 7953 and set within a recessed stainless steel perimeter frame. Entrance matting is installed within the revolving door and a minimum of 2.4m from the reception face of the drum into the lobby area.

The roof plant room doors and other exterior doors are all steel sheet construction with polyester powder coated finish.

Doors from the office area to the fire escape staircases are solid core with glazed vision panels.

All other external doors are glazed in metal frames, finished PPC to match existing façade treatment.

7.0 INTERNAL FINISHES

7.1 Walls

Unless otherwise identified, shell & core and Cat A partitions including core walls, including and above the Basement are taped and jointed drylining with emulsion paint finish.

8.0 GROUND FLOOR OFFICE ENTRANCE AND LIFT LOBBY PODIUM & TOWER

8.1 Walls

The reception area walls are finished in full height porcelain tile, polished venetian plaster, or painted in emulsion. A timber feature wall is in both Tower and Podium lobby areas.

8.2 Floors

Floors are finished in large format porcelain tiling with inset high quality entrance matting.

8.3 Ceilings

The Tower lobby ceiling is painted plaster board on MF suspension system with integrated feature lighting.

The Podium lobby has suspended painted ceiling rafts, part concealing high level services, with the painted structural soffit exposed behind.

All entrance reception areas are illuminated by high quality feature energy efficient light fittings to achieve the luminance levels recommended by CIBSE and to complement the aesthetic and quality of the overall reception area design and finishes. Access panels are avoided as much as possible and acoustically installed to achieve the acoustic performance requirements.

8.4 Fittings

Natural stone and porcelain clad Reception Desks are located at ground floor. Statutory signage is provided as required. High quality tenants name board and building identification signage is installed.

9.0 TOILETS AND TOILET LOBBIES

9.1 Walls

Walls are finished with full height ceramic or porcelain tiling. Toilet lobbies are lined with moisture resistant board, taped, jointed, and painted, with flush porcelain tile skirting.

9.2 Floors

Floors are finished in large format porcelain tiling throughout.

9.3 Ceilings

Moisture resistant board on MF suspension throughout, taped jointed and painted, with flush painted access panels where required.

9.4 Fittings

White glazed vitreous china/enamelled steel sanitary fittings, sensor mixer tap, waste, toilet roll holder, brush holder and coat hook finished black PPC. Soap dispenser and hand drier integral in mirror unit. Mirror panel opens for maintenance access.

10.0 STAIR CORE TOWER

10.1 Walls

Polished Venetian plaster.

10.2 Floors

Stair landings, treads and risers are finished in porcelain tile.

10.3 Ceilings

Ceilings & stair soffits are existing render made good and painted.

10.4 Fittings

Balustrades are solid panel veneered with handrails finished in black PPC steel. Statutory and landing signage / smoke detection is provided.

11.0 ESCAPE STAIRS GENERALLY

11.1 Walls

Existing made good or new linings, taped, jointed and painted.

11.2 Floors

Existing made good or new linings, taped, jointed and painted.

11.3 Ceilings

Existing made good or new linings, taped, jointed and painted.

12.0 BASEMENT SHOWERS/ CHANGING FACILITIES

12.1 Walls

Shower cubicles: Full height back painted glass.
WC cubicles: High quality full height ceramic tiling.
Communal areas: Painted.

12.2 Floors

Large format porcelain tiles on appropriate substrate are installed throughout.

12.3 Ceilings

White MR MF plasterboard ceilings throughout to suit high humidity environment with surface mounted light fittings.

12.4 Shower Fittings

- Glass shower doors.
- Anti-slip shower trays.
- High specification shower fittings.
- Towel hooks are provided in each shower enclosure.
- Fold down seat with shelf above.

12.4 WC fittings

- Vitreous chinaware / enamelled steel sanitaryware.
- Sensor flush system with concealed cistern.
- High quality sensor mixer taps and brassware.
- Illuminated mirror unit with integral soap dispenser and hand drier.

12.5 Vanity Fittings

- Large countertop with basin and sensor tap.
- Full width mirror.
- Hair driers.

12.5 Lockers

Modular lockers are fitted with full height hanging.

13.0 CYCLE STORAGE AREA

3.1 Walls

Blockwork and concrete walls skimmed and painted.

13.2 Floors

Existing concrete floor, made good and painted with a non-slip resin coating.

13.3 Ceilings

Structural soffit made good and painted.

13.4 Cycle Provision

Provision for the storage of 195 cycles is provided.

14.0 OFFICE AREAS GENERALLY

14.1 Walls

Painted.

14.2 Floors

Carpets are not provided to office areas but instead there is a cost allowance as a contribution to tenant's works, subject to client approval. The landlord will make contribution at £25/sqm for carpets to the Tenant.

14.3 Ceilings

15mm plasterboard on MF, taped, jointed, and painted.

15.0 LIFTS

15.1 The Lifts have been refurbished by

Summit Lifts and replaced with Raloe Lift Cars and Gear.

15.2 Capacity

Tower passenger lifts (3Nr): 1250kg / 15 person
Podium lifts (2Nr): 1000 kg / 13 person
Fire Fighting Lift Tower (1Nr): 2000 kg / 26 person

15.3 Lift speed

Tower passenger lifts: 2.5 m/s
Podium lifts: 1.0 m/s
Fire Fighting Lift Tower: 1.6 m/s

15.4 Finishes - Lift Cars for Tower Lifts 1, 2 and 3

Walls: Half height back painted low iron toughened glass.
Floor: Porcelain tile.
Ceiling: Metal panel painted white.
Skirting: Stainless steel.
Doors: Stainless steel finish.

15.5 Finishes - Lift Cars for Podium Lifts 1 And 2

Walls: Back painted glass panels are fitted above and below new dado rail.
Ceiling: PPC framed ceiling fitted.
Skirting: Stainless steel.
Doors: Stainless steel finish.

15.6 Finishes - Fire Fighter Lift

Walls: Stainless steel.
Floor: Heavy duty carborundum.
Ceiling: Sheet steel with white painted hinged panel.

Skirting: Satin stainless steel.
Doors: Brushed stainless steel.

16.0 MECHANICAL INSTALLATIONS

16.1 Ventilation parameters

Offices: 12 l/s/person.
Toilet facilities/Shower Block: Extract: 10 air changes/hour. Supply: Natural make up via office.
Basement: 3-4 air changes/hour.

17.0 HEATING AND COOLING SYSTEM

The existing common areas LTHW system comprises packaged natural gas fired boilers complete with their own automatic controls and flues. The LTHW system serves common area radiators and ground floor reception trench heating.

The VRV AC heat pump systems comprise of perimeter office indoor units in a perimeter enclosure and external AC condensers located at roof level interconnected by refrigerant pipework and control cabling. The VRV AC systems have their own central controller automatic controls interlinked with the property BMS.

The podium floors have additional centre core high level VRV units.

The perimeter enclosures housing the VRV AC

units also house local HRVU's – heat recovery ventilation units which provide tempered fresh air to the air inlet of each VRV AC unit. Extract air is drawn from the perimeter enclosures as part of the HRVU operation.
The podium floors have additional centre core high level ducted HRVU's.

18.0 FIRE SAFETY STRATEGY

The building operates a simultaneous evacuation policy and incorporates a category L2 automatic detection and alarm system, designed and installed in accordance with BS5839-1.

18.1 Sprinkler system - Extent Basement Only

Sprinkler protection is provided to the basement only as the existing and original fire strategy intent and current compliance standards for the area applications.

18.2 Dry riser system

The building is provided with a dry riser system local to the fire-fighting lift in the lift lobbies at each floor level for compliance with the fire strategy.

Landing valves are provided at each floor.

18.3 Fire Extinguishers

Portable fire extinguishers are provided as required by the fire strategy in landlord's common areas and as part of the tenant's Cat B fit-out.

19.0 PUBLIC HEALTH SERVICES

The drainage and plumbing services system consists of mains boosted water supply service, potable water storage tank, piping distribution, pumps, and drainage pipework.

19.1 Water distribution system

A potable boosted cold water distribution system is provided to supply all fixtures, water consuming equipment, hot water heating equipment and valved outlets for other building services.

The building has a domestic water supply fed from a centralised boosted domestic cold water distribution system.

Domestic hot water serving the office cores is provided from existing gas-fired direct water heaters with new water heaters to serve the basement showers.

20.0 DRAINAGE SYSTEM

Existing fully ventilated soil and waste drainage installations are provided to serve all floor levels above the basement level. The drainage system discharges by gravity into the Local Authority sewers. New soil and waste drainage from basement level is pumped back up into the combined drainage system.

21.0 SERVICES

21.1 Lighting

The internal office lighting is of energy efficient design, utilising LED luminaires lamps and LED technology.

A lighting control system is provided and includes a mixture of manual switching, presence and absence detection with daylight linked dimming where appropriate. Emergency escape lighting is provided to meet the requirements of BS5266.

21.2 External Lighting

Lighting is provided where necessary to allow safe movement of pedestrians throughout the building.

21.3 Emergency Lighting

The emergency lighting throughout the building complies with BS 5266 and consists of self-contained emergency luminaires provided with 3 hours battery back-up. Where required the emergency lighting is designed to meet the requirements of BS9999.

21.4 Power

The building is served by an LV power supply from a common UKPN sub-station feeding common main distribution from a switch panel located in the basement switch-room.

21.5 Natural Gas

An existing gas main enters the gas meter room to serve the existing heating and hot water

plant at roof level.

21.6 Utility Metering

All incoming utility services (electricity, gas and water supplies) are metered. Energy sub-metering is provided in accordance with CIBSE TM39.

21.7 Telecommunications

Incoming ducts are provided for the future installation of tenant's communications connections. Cable trays link the telecommunications room to the incoming ducts and IT risers. Risers include cable trays for tenant use.

21.8 Security/CCTV/Access Control

Landlords' security systems include a base door access control system interfaced to the fire alarm system incorporating proximity card readers, mag locks and green break glass override buttons, external/internal intercom, ground floor intruder alarm and a base CCTV system to provide cover on internal/external front doors.

Containment is provided from the basement comm's room to serve the 3no risers to the podium and tower floor levels.

21.8 Building management system

A new BMS landlord system is installed to provide the HVAC systems control, central plant control and metering. Each floor will operate with an AC manufacturer's central controller.

22.0 BICYCLE PARKING

Provision for the storage of 195 cycles is provided.

23.0 REFUSE

23.1 Storage

Refuse holding is provided in the service yard.