

Occupational Densities

Office occupancy - 8m²/person

Office air conditioning - 8m²/person

Office means of escape - 6.99m²/person

Toilet - 10m²/person
(60:60 male/female split - typical)

Critical Dimensions

Typical slab to slab height 4.075m max
3.685m min

Floor to ceiling height 3.150m max
2.760m min

Office raised floor zone 150mm

Office ceiling zone 600mm

Office planning grid 1.5m x 1.5m

Structural grid 9.0m X 9.0m typically

Floor Loading (Typical Office Uses)

3.0kN/m² (live loads) + 1.0 kN/m² (partitions)

Air Conditioning

Based upon the above occupational densities, the air conditioning system supplies 12 l/s per person +10%.

Supply ventilation, heating and cooling connections will be extended from the shell and core services interfaces to serve the Cat A installations providing HVAC systems to the office space.

The Cat A installation will provide fan coil units located at high level, positioned to serve 6 x 4.5m zones in the perimeter zones and approx. one per 50 to 70m² within internal zones.

The heating/cooling system will be designed to allow occupant control of zoned areas within the occupied spaces in the building.

Office Temperatures

Office space:

Winter (mean):
22 degrees +/- 2 degrees

Summer (mean):
24 degrees +/- 2 degrees

Entrance/reception:

Winter (mean):
18 degrees minimum at 1.5m above floor level (not in vicinity of doors)

Summer (mean):
24 degrees +/- 2 degrees

Power

Office lighting demand - 10W/m²

Office small power - 25W/m²
(+10W/m² supplementary in the risers)

Office diversified small power - 15 W/m²
(+10W/m² supplementary in the riser and LV switchboard)

Tenant computer equipment rooms (CER) small power and associated cooling plant - 5kW/CER (1No CER per tenancy)

Standby Power

A landlord standby generator is located at roof level with a capacity of 100 kVA to provide secondary electricity supplies to the firefighting and life safety systems.

Space is provided at roof level for the future installation of a tenant standby generator. Room space to accommodate a bulk oil storage tank to serve this is located at mezzanine level.

Lighting

LED lighting provided throughout the office space at a 300 lux average at the working plane.

Citigen

Primary low temperature hot water (LTHW) and Chilled Water (CHW) for the offices will be provided from the Citigen plate heat exchangers. The LTHW system will distribute constant temperature circuits to the office Cat A systems and the Air Handling Units whilst the CHW system will distribute variable temperature circuits to the office Cat A systems and constant temperature circuit to the Air Handling Units. The Cat A secondary LTHW and CWH circuits will be arranged as 2 pipework risers within the central core (one within each tenancy) with branch connections at each floor to serve the Cat A installations. Each branch connection will be fitted with an energy meter (monitored by the BMS) to provide separate metering for each tenancy.

Loading Bay

Loading bay access is from Hayne Street.

The loading bay will be capable of accommodating a single 8.0m rigid vehicle or refuse wagon and provides for a 4.5m clear height.

Vehicles will reverse into the loading bay from Hayne Street and drive out in a forward direction.

The loading bay will be shared by the railway premises for access to their separate refuse store.

Lifts

The vertical transportation for the building has been designed to meet BCO 2014 Design Criteria.

Population - 1 person/10 m²
(1 person/8m² with 80% utilisation)

Average waiting time (up peak)
<30 seconds

Average time to destination (up peak)
<80 seconds

Handling capacity (up peak) 12%
in a 5min period

Goods Lifts - dual use
with passenger lift

Firefighting lifts - dual use
with passenger lift

Reception Finishes

The reception lobby will feature a Dinesen Anthracite Grey solid oak flooring with feature wall finishes composed of CorTen panels, deep matte black panels and light grey polished plaster. There will be a timber clad reception desk with space for two staff, and security barriers with three channels, one being wide enough for a wheelchair user. There is a bespoke artwork installation by De Makers Van in the reception lobby located around the Citigen pipes as they penetrate the reception lobby space. The reception space benefits from a generous ceiling height of 5.6m. The ceiling comprises white acoustically absorbing boards with black coffers where all the lighting, smoke detectors, sprinklers, access hatches and ventilation are provided.

Office Space Finishes

The office space will feature a fully accessible raised access flooring system on a concrete slab subfloor, drylined painted walls and a suspended accessible metal ceiling system between exposed painted structural steelwork.

Building Design Life

Cladding - 25 years

Steel frame - 60 years

Building services - services plant and equipment generally in accordance with CIBSE Guide M 2014 Maintenance Engineering and Management to the Ownership

Sustainability

BREEAM rating - Excellent

EPC Rating - B (targeted)

Building Amenities

110 cycle spaces

14 showers (7 male, 6 female and 1 accessible)

110 lockers

Connectivity

Wiredscore Platinum certification is targeted.

2 telecommunications entry points will be provided to the development. Each of these will comprise 4 incoming telecoms ducts available for use by Telecom Service Providers (TSPs).

Two communications risers serving Levels 01 to 05 will be provided within the core interconnected to the Building Entrance Facility (BEF) at Mezzanine Level. One riser will be located in each tenancy to facilitate the tenants' Telecom Service Providers connections from the BEF to their tenancy.

A Hyperoptic' fibre connection backbone will be provided comprising a central communications cabinet (for optical fibre switch) and a fibre optic backbone complete with switches to serve each tenancy with a UTP data cable and Hyperoptic socket.

Space will be provided to accommodate tenants' satellite communications dishes of maximum 600mm diameter at roof level.

Building Management System (BMS)

The Building Management System (BMS) will control and monitor the systems and services throughout the building, providing feedback on plant, system performance and the energy usage of systems to which it connects. The BMS will analyse this data to enable optimum use of the engineering facilities within the building with a minimum of human intervention and maximum energy efficiency.