



# FOUR ——— FIVE LOCHSIDE AVENUE

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Edinburgh Park

Outline Specification  
December 2020

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## 1.0 History

### 1.1 Original Building

The original building was constructed in 1998, and the general construction comprises:

- in situ concrete frame
- precast plank upper floors and roof
- precast concrete cladding panels
- aluminium double-glazed curtain walling
- single ply membrane roof
- composite metal clad rooftop plant room

### 1.2 Redevelopment

The project involves the comprehensive refurbishment of an existing office building to bring it to Cat A standard, with the following key elements of work :

- Removal of one redundant stair core and repositioning of the existing central lift and toilets core to improve the usefulness of the floor plate.
- Replacement of the existing entrance porch with a 3-storey extension that includes a new reception space, access stair, and a large feature meeting room on each upper floor.
- Comprehensive renewal of building MEP services.
- Replacement of the existing flat roof system with a new Bauder system.
- Curtain walling refurbishment and external cleaning.
- Complete decorative refurbishment internally.
- Provision of high-quality changing facilities for cyclists and runners.
- Replacement and expansion of external cycle storage facilities.

Upon completion, the building will offer Cat A office space across three storeys and will be suitable for a single or multiple occupier.

### 1.3 Design Standards

The alteration and refurbishment of the building is designed to comply with the requirements of the Building (Scotland) Regulations 2004 as amended in October 2019 and is informed by the British Council for Offices (BCO) Guide to Specification 2019.

### 1.4 Energy Performance

The refurbishment is designed to achieve an EPC rating of B.

### 1.5 Building External Fabric Insulation

The new extension has been designed to the following U value standards in compliance with the current Technical Standards

- External Walls 0.25 W/sqm K
- Glazing 1.6 W/sqm K
- Ground Floor 0.2 W/sqm K
- Roof 0.15 w/sqm K

## 2.0 Access Statement

Existing vehicle and pedestrian access routes to the building remain as existing, as does disabled parking.

The building entrance is clearly signalled by the prominent extension, and the existing approach is enhanced by a gently sloping incline leading to the main entrance, where there is an accessible door paired with a revolving door.

Internally a large central passenger lift provides step free access to all tenant spaces.

There are 2 accessible WCs on each floor an enlarged wc cubicle within each male and female toilet core on every floor, and there is an accessible shower within the communal changing and showering area on the ground floor.

### 3.0 Building Structure

#### 3.1 Superstructure

The building comprises an "L Shaped" 3 storey reinforced concrete structure. The ground floor slab is a combination of a 150 mm thick ground bearing slab on 200mm of hard core and a precast suspended slab 250 mm thick including structural topping.

The superstructure comprises of reinforced concrete frames at 6.0 and 9.0 m centres supporting a combination of 150mm/250mm thick precast suspended slabs at first and second floors and 200mm/300 mm thick precast suspended slabs at third floor. Reinforced concrete columns are 450 x 450 mm square and are generally spaced at 9m centres along the overall length. The building is braced by reinforced concrete cores with fire escape enclosures acting as shear walls.

Typical 450 mm raised floor zone inclusive of tile.

The plant room situated on the roof of the 3rd floor comprises steel frames at 9.0 m centres. The roof of the plant room is an insulated cladding system supported by steel purlins. There is a ladder and cable mansafe system to provide safe access to the central valley gutter.

The new extended floor slabs will be of composite concrete 'holorib' slabs on steel frame.

New 3-storey steel-framed entrance extension has been constructed to accommodate a new reception at ground floor, staircase and meeting rooms to upper floors.

The extension floors comprise composite steel/concrete reinforced slabs. The roof finishes comprise of proprietary cladding systems supported on steel purlins. External elevations will be treated in a mixture of proprietary horizontal cladding supported on steel frame columns, with curtain walling restrained by the structural steelwork.

#### 3.2 Substructure

Existing foundations consist of reinforced concrete pile caps supported by 750 and 900mm diameter RC piles cast down to rock level. The new cores and extension are supported from new RC pile caps and ground beam arrangement which will, in turn, be supported by steel, concrete infilled, mini piles.

Ground floor slab at the east side of the building, above grid 2, comprises suspended precast concrete slabs with structural screed. Ground floor slab at the west part of the building and the extension has been constructed as ground bearing.

#### 3.3 Imposed Floor Loadings

The office floor slabs are designed to accommodate the following uniform imposed load :

- Live load existing (office spaces): 4kN/m<sup>2</sup>
- Live load new internal floor and extension (office spaces): 2.5kN/m<sup>2</sup>
- Live load new internal floor and extension (corridors): 3.0kN/m<sup>2</sup>
- Partitions: 1kN/m<sup>2</sup>
- Ceilings and services: 0.5kN/m<sup>2</sup>
- Raised Floor: 0.5kN/m<sup>2</sup>
- Plant room (enclosed): 7.5kN/m<sup>2</sup>
- Plant room (open): 5.0kN/m<sup>2</sup>
- Other areas for access: 1.5kN/m<sup>2</sup>

### 4.0 Mechanical and Electrical

#### 4.1 Space Heating & Cooling

High efficiency heat recovery VRV/VRF system in the offices.

The system provides heating and cooling in the open plan office areas with plant having +20% spare capacity in order to suit the fitout.

VRV/VRF is also provided in reception, lift lobbies, and meeting rooms.

##### External Design Temperatures:

Winter: -5 °C db 100% RH (fabric), - 8 °C db 100% RH (air systems)  
Summer: 24 °C db, 20°C db

##### Internal Design Temperatures:

Office Areas/ Reception: 20 °C db ± 2°C db Winter  
Lobbies/Meeting Rooms: 23 °C db ± 2 °C db Summer

#### 4.2 Ventilation

Two packaged air handling units within the internal plant room for fresh air provision. 100 % fresh air introduced to the building via ductwork within the sealed pressurised floor void.

Mechanical extract from toilets & shower/changing facilities: Make-up air via natural air transfer from adjacent areas.

Fresh air provision provides 1.6 l/s/m<sup>2</sup> (12 l/s/p based on 1/8m<sup>2</sup>) with plant having an additional 10% spare capacity.

#### 4.3 Water Services

Cold water booster set complete with break tank located within internal plant room.

Boosted mains cold water supply provided throughout building.

Sub-metered capped connections provided at high level on each floor to accommodate fit-out.

Domestic hot water to toilets and shower/changing facilities via electric unvented hot water storage cylinders.

#### 4.4 Foul Drainage (Above Ground)

New stacks to serve toilets and shower/changing areas, as well as condensate from VRF units.

Capped connections provided at high level on each floor to accommodate fit-out.

#### 4.5 Automatic Controls/BMS

BMS system to provide control and/or monitoring of:

- Air handling units
- Toilet extract fans
- Cold water booster pumps and break tank
- Domestic hot water plant
- Water sub-meters

VRF systems provided with central intelligent master controllers on each office floor with local user controllers installed in each zone.

VRF systems will interface with BMS to provide common fault signals.

#### 4.6 Power Installations

External substation provides the main LV supply to an MCCB switchboard located in an adjacent external enclosure.

The MCCB switchboards supplies the building and car park.

The distribution strategy allows for dual tenancy occupation within each floor.

Split way lighting and power tenant distribution boards, comprising lighting and small power final circuits have been provided in each electrical services riser on all floors

All tenant DBs are metered to enable independent monitoring of the general lighting and small power usage.

All electrical meters are connected to the BMS system to enable central data collection and billing.

A minimum of 25% spare ways have been provided in all tenant final circuit distribution boards to suit future tenants fit outs.

Allowance of 25W/m<sup>2</sup> in DB's / infrastructure to suit future tenant fit outs.

Final circuit distribution boards complete with metering have been provided for the landlord services.

#### **4.7 General & Emergency Lighting**

Suspended linear LED fittings are provided throughout the office in compliance with LG7 standards. Prospective tenants will be able to adjust the locations of the light fittings to suit their fit-out design (partitions, etc.) and to provide additional lighting as required to suit their office layout.

A fully networked lighting control system has been provided throughout the building comprising of presence/daylight sensors throughout the office to allow for daylight dimming and for dimming fittings where there is no occupancy detected. The lighting control system is sufficiently flexible to enable adjustments as required during the operation of the building and to allow the future integration of cellular offices.

An emergency lighting installation has been provided throughout in compliance with BS 5266-1 for a three-hour non-maintained system.

Illuminated escape signage is provided on all escape routes and final exits and to align with the means of escape strategy.

Emergency luminaires have utilised LED lamps throughout.

#### **4.8 Communications Installations**

Fully addressable Fire Alarm installation as a category L1 system in compliance with BS 5839 -1. The fire alarm system is an open protocol system.

The fire alarm system will be connected to an alarm receiving centre via a monitored (Redcare) telephone line to provide automatic notification of any alarm activation.

Passenger lift to return to the ground floor on fire condition.

Disabled refuge alarm and disabled toilet alarm systems provided.

Containment provided in office tenant's risers for routing of future office tenant telecoms/IT wiring (no below floor containment or cabling as part of Cat A works).

There is containment for Audio visual in the meeting rooms.

#### **4.9 Standby Generation**

No standby generator is included although a location can be provided.

#### **4.10 Lift Installation**

1Nr 17-person passenger lift provided.

The lift car finishes will generally be as follows:

- dark grey finish steel doors
- grey laminate wall panels and black skirting
- offset wall mirror in dark silver finish
- brushed stainless steel handrails
- flooring to match Reception floor
- white painted steel ceiling with linear PCB LED lighting

#### **4.11 Protective Installations**

Lightning protection system installed in the building.

Door access system is provided to the main reception entrance, the entrance to the male and female showers, the external bike store, the meeting rooms and the third-floor plantroom. Handset receiver provided at the reception which link to the car park entrance gate and main entrance side door, cabling provided within each office floor for the potential installation of handset receivers.

Speed-lane type turnstiles at reception.

CCTV cameras provided to cover the external areas of the building, the main reception, the bike store. CCTV equipment is power over ethernet (PoE), with the equipment and recording device located within a comms rack on the third-floor plantroom. CCTV viewing is via display screen at the reception desk.

An intruder detection system is installed, with door contacts to the ground floor doors and PIR detectors within the ground floor entrance/circulation spaces. The system shall be capable of linking to outstation for monitoring.



#### **4.12 Fire Fighting Installations**

Smoke vent with fire service control at the external door at top of staircase.

#### **4.13 Low Carbon & Sustainable Design**

The following low carbon and sustainable technologies will be provided:

- High Efficiency Heat Recovery VRF Heat Pump Systems
- AHU – plate heat exchanger
- LED lighting
- PV for electricity generation
- 11 dedicated electric vehicle charging points

### **5.0 Reception and Lift Lobbies**

#### **5.1 Reception**

Walls: Paint finish generally with a slatted timber veneer feature panelling behind the reception desk and a smaller section of slatted panelling on the opposite wall.

Floor: Barrier matting beyond the revolving door and pass door leads to concrete effect luxury vinyl floor tiles in the main reception area. A strip of ceramic tiling divides the main reception from the lift lobby.

Speed gates are to be installed.

Ceiling: Grey paint finish to exposed metal composite decking with exposed services and feature suspended halo lighting

Reception Desk: Two-person desk with timber finish generally.

#### **5.2 Lift Lobbies**

Walls: Paint finish generally.

Floor: Concrete effect luxury vinyl floor tiles to ground floor, and carpet tiles to upper floors.

Ceiling: Grey paint finish to exposed metal composite decking suspended timber slatted raft and integrated linear lighting.

Doors: Toilet doors to have horizontal grain oak veneer finish.

Lift doors to have dark grey steel finish.

Suite entrance doors to be solid timber veneer finish.

Suite doors to have electro-mechanical locking with card reader on lobby side.

### **6.0 Central Meeting Rooms**

Walls: Paint finish

Floor: Carpet tile

Ceiling: Grey paint finish to exposed metal composite decking with exposed services and feature suspended halo lighting

Doors: Solid veneer finish. Doors to have electro-mechanical locking with card reader on lobby side.

Glazed screen to be proprietary aluminium framed double glazed in black powder coated finish.

### **7.0 Central Stair**

Walls: Paint finish generally with feature wall lights.

Floor: Concrete effect vinyl floor finish. Contrasting black nosings to stair treads.

Ceiling/soffits: Natural concrete finish to landings, half-landings and flight soffits.

Grey paint finish to plasterboard finish at underside of roof at second floor level.

Balustrades / handrails: Black painted steel framing with black powder coated perforated aluminium infill panels.

Square section oak timber handrails.

Doors: Doors to each floor to be horizontal grain oak veneer finish with vision panel. Ground level exit door to have panic bar ironmongery.

## 8.0 Core Toilets

Walls: Full height ceramic tile finish generally, with areas of mirror.

Floor: Ceramic floor tile.

Ceiling/soffits: Paint finish plasterboard with recessed linear light over vanity unit and recessed spotlights elsewhere.

Cubicles: Laminate faced cubicle system and matching IPS panelling.

Sanitaryware: Floor mounted back to wall WCs with brushed stainless-steel manual dual flush buttons set into IPS.  
Doc M sanitaryware and grab rails in accessible toilet.  
Corian trough WHB unit with sensor operated brushed stainless-steel taps and soap dispensers.

Fixtures and fittings: Mirror over WHB unit, spur point for future installation of electric hand drier.

## 9.0 Existing Escape Stairs

Walls: Renewal of paint finish generally and making good where affected by damage or replacement of wall lights.

Floor: Renewal of vinyl sheet flooring to landings, stair treads and skirtings as required.

Ceiling: Renewal of paint finish to top floor ceilings and any existing plasterboard bulkheads.

Stair structure: Renewal of paint finish to stringers and underside of treads and landings as required.

Balustrades/handrails: Renewal of paint finish to balustrades and handrails as required.

Doors: New internal doors to be laminate finish with mechanical push pad security.  
Final exit doors at ground level to be serviced and remain as existing.

## 10.0 Shower/Changing Area

Walls: Painted plasterboard generally, except where noted.  
Full height ceramic tile finish within shower cubicles.  
Full height ceramic tile finish within accessible toilet/shower

Floor: Raised access sub-floor generally, with screed on built up insulation within shower cubicles and accessible toilet/shower.  
Slip resistant concrete effect luxury vinyl floor tile finish generally.  
Slip resistant vinyl sheet floor finish with coved skirting to drying room.  
Slip resistant ceramic floor tile within shower cubicles and accessible toilet/shower with flush shower trays.

Ceiling/soffits: paint finish plasterboard with recessed spotlights.

Cubicles wall construction sides with solid grade laminate fronts and doors. Matching IPS panelling within WC cubicles.

Sanitaryware: Floor mounted back to wall WCs with brushed stainless-steel manual dual flush buttons set into IPS.  
Matching WHBs with tiled splashbacks and wall mounted mirrors.  
Doc M sanitaryware and grab rails in accessible toilet.

Recessed thermostatic shower valves with wall mounted rain heads in general shower cubicles and DDA compliant shower head, rail and seat in accessible shower.

### Fixtures and Fittings:

- Laminate finish vanity shelf and wall mounted mirror in each changing room.
- 20 Z style lockers in each changing area with metal bodies and solid grade laminate doors.
- Shower rail and curtain in accessible shower.
- Wall mounted soap dishes and dispensers.

## 11.0 Tenant Floor Space

Walls: Existing wall linings repaired and skimmed, and white paint finish applied generally.  
Where required, existing timber/MDF skirtings to be renewed, and all skirtings re-finished.



Columns:

- All existing concrete columns to be painted white.
- All new steel columns to be painted white in 1-hour FR intumescent paint.
- New exposed steel beams to be painted grey to match ceiling in 1-hour FR intumescent paint.

Floor: New raised access flooring with air distribution grilles throughout the floors.

Ceiling: Grey paint finish to exposed soffits including existing precast concrete slabs and new metal composite decking.  
Exposed services and suspended linear light fittings.

Doors: Suite entrance doors solid veneer finish.

Riser Doors: New doors to be paint finish timber with concealed hinges and cam locking.

## 12.0 External Works

### Paving:

The existing paving in the vicinity of the new extension will be altered to provide level access to the new exit door from the central stair, and a new paved gently sloping ramp will be formed in front of the extension.

Cycle stair channels will be added to the existing flights of steps leading from the Lochside walkway at the rear of the building.

### Cycle storage:

A new enclosed, secure cycle store for 60 cycles will be installed at the front of the building. The new cycle store will incorporate lighting, electric cycle charging, and card operated door security.

Smokers shelter will be provided.

## 13.0 External Elevations

The concrete cladding panels will be pressure cleaned by a specialist contractor.

The curtain walling will be cleaned and have a protective coating applied by a specialist contractor with appropriate warranties. Existing opening lights to be serviced and repaired or adjusted where necessary.

Single ply membrane over insulation and profiled metal decking.

### New Extension Envelope:

Walls: Structural steel frame and cladding rails with Kingspan Benchmark system cladding .

Glazing: Clear double-glazed aluminium curtain wall units with extended aluminium cover plates.

### External doors:

Revolving door: Boon Edam semi-automatic revolving door in dark powder coated frame to match curtain walling

Pass door: Double glazed aluminium framed door integrated into the curtain walling. Door to have electro – mechanical locking with solenoid lock, controlled from reception desk and card reader on outside of building.

Emergency door: Steel door and frame with powder coated finish to match cladding and panic ironmongery.

## 14.0 Telecommunications

BT, Vodafone and Virgin media ducts and fibre located adjacent to the property.

Secured 5-star eWave telecommunications rating. Full report available on request.

## 15.0 Servicing and Waste

A 23 sq. metre waste storage enclosure is located near the building.

## 16.0 Maintenance Strategy

- It is anticipated that the new and existing windows/curtain walling will be cleaned from the outside of the building utilising a pole reach and wash system.
- There is existing hard paving around the whole perimeter of the building to facilitate this.
- There is direct stair access to the rooftop plant room, and from there to all areas of the roof, which is protected by a 1.1-metre-high perimeter parapet wall.

- All rainwater drainage is internal to the roof surfaces, so no maintenance access is required from outside the perimeter parapet wall.

## **17.0 Fire Strategy**

The building is a relatively simple low-rise structure, but key elements of the general fire strategy follow:

- New structural elements will have 1-hour fire resistance to match the existing structure.
- The building will have 1-hour fire separation between floors.
- There will be 3 means of escape for the upper floors and 2 means of escape from the rooftop areas – 1 stair and 1 rooftop hatch leading to the west escape stair.
- Ground floor office accommodation is based on occupancy of 1 person per 6 sq. metres, and 6.7 sq.metres per person on first and second floor.
- Category L1 fire detection and alarm throughout the building.

## **18.0 Roof Drainage Strategy**

- The existing roofs are drained via syphonic outlets distributed across the roof surface.
- This system is being retained with some adjustments to downpipe routes to accommodate the internal layout changes and additions.
- The roof of the new extension will drain via a separate downpipe to a new soakaway in compliance with SUDS design standards.



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