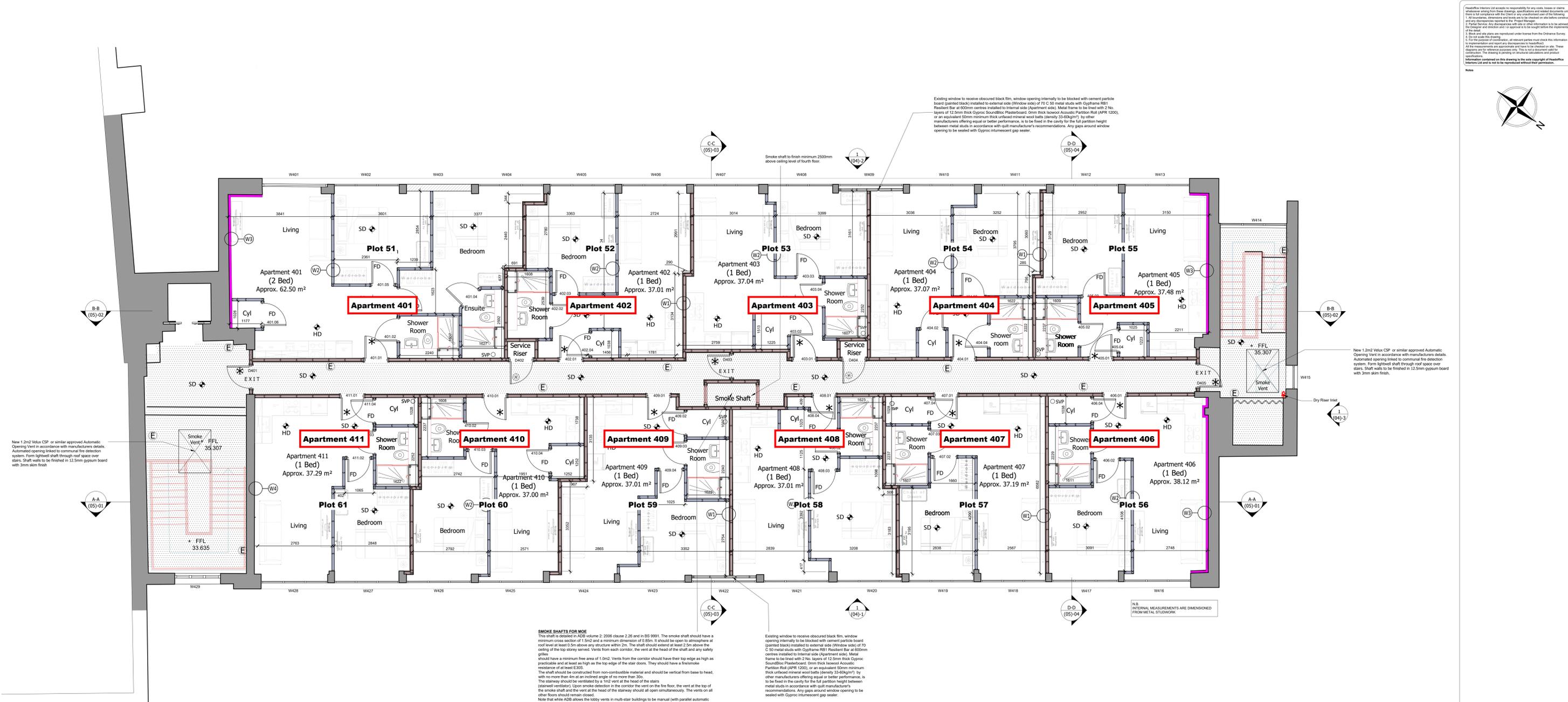


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All measurements are approximate and to be checked on site. These drawings are for information only. This is not a contract document. The drawing is prepared in accordance with the Building Regulations and the Building Control Authority's requirements. The drawing is prepared in accordance with the Building Regulations and the Building Control Authority's requirements.

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New 1.2m2 Velux CSP or similar approved Automatic Opening Vent in accordance with manufacturers details. Automated opening linked to commercial fire detection system. Form lightwell shaft through roof space over stairs. Shaft walls to be finished in 12.5mm gypsum board with 3mm skim finish.

New 1.2m2 Velux CSP or similar approved Automatic Opening Vent in accordance with manufacturers details. Automated opening linked to commercial fire detection system. Form lightwell shaft through roof space over stairs. Shaft walls to be finished in 12.5mm gypsum board with 3mm skim finish.

# 1 PROPOSED FOURTH FLOOR PLAN (LEVEL 04)

Scale: 1:50

### Key

**FIRE KEY**

- FD FD30 (30 minute rated fire door)
- FD30S (30 minute rated fire door fitted with self-closing device & smoke seals)
- FD30 (self-closing with vision panels)
- FD30 (Keep locked)
- FD30 (Keep locked)
- FD 30 SC - complete with push bar and / or paddle release system
- # Break glass for FIRE ALARM

**FIRE KEY CONT.**

- Fire extinguisher position
- Emergency Lighting
- EXIT Exit Signage
- SD Smoke Detector
- HD Rising Heat Detector
- Primary Fire Escape Route
- Area of fire compartmentation / protected area

**NOTE**

All electrical installation work to comply with the current edition of the IEE Wiring Regulations. Existing wiring to be checked & modified / upgraded as necessary.

New electric consumer unit feed & individual meters to each room to be repositioned as & installed by a competent specialist. Any VEDs upgrade to be assessed and undertaken by a competent contractor. Contractor to allow for full management of installation.

N.B. Upon completion, Contractor to undertake compartmentation testing between party walls & from as required under Part E of Building Regulations.

N.B. Upon completion, Contractor to arrange compliance sound testing to ensure compliance is achieved.

**METAL STUD FRAME CONSTRUCTION**

135mm overall thick partition between plasterboard external faces to be formed from Gyproc 'Rivestel' system or equal proprietary metal stud acoustic separating partition and plasterboard lining system by other manufacturers, comprising Gyproc R18 S 10 C Stud spaced at 600mm centres with Gyproc R18 Rivestel Bar at 100mm centres to one side. Metal frame to be fixed with 2 No. layers of 12.5mm thick Gyproc SoundBloc Plasterboard. 50mm thick Insulated Acoustic Partition Roll (APR 1200), or an equivalent 50mm minimum thick unfaced mineral wool batts (density 33-60kg/m<sup>3</sup>) by other manufacturers offering equal or better performance, is to be fixed in the cavity for the full partition height between metal studs in accordance with manufacturer's recommendations.

Linings on both sides are to comprise an inner layer of 12.5mm thick Gyproc SoundBloc plasterboard fixed vertically into metal stud and an outer layer of 12.5mm thick Gyproc SoundBloc plasterboard fixed horizontally. Outer plasterboard layers are to be finished over scrim and plaster skim finish.

Separating walls to be taken up to underside of least existing floor soffit and fire stopped with Gyproc intumescent gap sealer or compressed mineral wool as required.

Partition construction to achieve a sound reduction value of 62dB and a minimum one-hour (60 minutes) fire resistance.

**METAL PARTITION WALLS REF (W1) -**

100 mm min. overall thick comprising: 10mm Gyproc T10 S 10 C Stud spaced @ 600mm centres and fixed on both sides with 12.5mm thick Gyproc WallBoard, scrim and plaster skim. Sound resisting partitions to have min 50mm thick acoustic gap between studs (density in excess of 10kg/m<sup>3</sup>).

Alternatively all internal stud partitions may be finished with 15mm thick Gyproc SoundBloc plasterboard and skim finish to both sides without sound attenuating gill in-situ.

All above to achieve 40dB minimum sound reduction.

**EXTERNAL WALL TREATMENT REF (W3) -**

Internal face of all existing external walls to be lined with 130mm thick Superfloc SFNC external wall insulation system comprising 20mm thick G.L.T. Gyproc Living Channel fixed to internal face of existing external walls. 20mm thick Superfloc SFNC is to be fixed to living channels below a second layer of 20mm thick G.L.T. Gyproc Living Channel as detailed, followed by a second layer of 20mm thick Superfloc SFNC to be fixed to living channels. Third layer of 20mm thick G.L.T. Gyproc Living Channel is then to be installed, followed by 12.5mm thick Gyproc WallBoard, scrim and plaster skim.

All finishing methods are to strictly comply with Superfloc Manufacturer's installation details.

Thermal upgrade of all existing walls to achieve U-value of 0.30 W/m<sup>2</sup>K or better.

**SMOKE SHAFTS FOR MOE**

This shaft is detailed in ADB volume 2: 2006 clause 2.26 and in BS 9991. The smoke shaft should have a minimum cross section of 1.0m<sup>2</sup> and a minimum dimension of 0.8m. It should be open to atmosphere at roof level at least 0.5m above any structure within 2m. The shaft should extend at least 2.5m above the ceiling of the top storey served. Vents from each corner, the vent at the head of the shaft and any safety gills should have a minimum free area of 1.0m<sup>2</sup>. Vents from the corridor should have their top edge as high as practicable and at least as high as the top edge of the stair doors. They should have a fire/smoke resistance of at least E30S.

The shaft should be constructed from non-combustible material and should be vertical from base to head, with no more than 4m at an inclined angle of no more than 30°.

The stairway should be ventilated by a 'trick' vent at the head of the stairs (stairwell ventilator). Upon smoke detection in the corridor the vent on the fire floor, the vent at the top of the smoke shaft and the vent at the head of the stairwell should all open simultaneously. The vents on all other floors should remain closed.

Note that ADB allows the lobby vents in multi-storey buildings to be manual (with parallel automatic opening of the stairwell vent). BS 9991 recommends automatic operation in all buildings.

**APARTMENT ENTRY DOORSETS**

All apartment entry doors allowing direct access to each apartment shall be certified to meet the security requirements of British Standards publication PAS 24: 2011. Unhinged security requirements for doorsets and windows in the UK, through compliance either:

- via traditional UK PAS 24 test methodology; or
- via BS EN 1627: 2011 Resistance Class 3 (which references BS EN 1628, 1629 and 1630), with additional test criteria to address known control methods of entry into the UK (which are not covered for within the European Standards).

Note: Doorsets satisfying other standards that provided similar or better performance are also acceptable and these include:

- STS 201 Issue 2: 2013
- LPS 1175 Issue 7:2 (2014) Security Rating 2+
- STS 202 Issue 3 (2011) Burglary Rating 2
- LPS 2081 Issue 1 (2015) Security Rating B

Each apartment entry door shall be fitted with PAS 24 2011 DKT hardware, this being locksets hardware with key operation from the outside with non-key lockable hardware on the inside e.g. thumb-turn in order for occupants to facilitate unlocking the door from the inner face without a key where the doors are the only means of escape from each apartment. The lockable hardware shall be via cylinder locks to BS 10621 and certified to either BS Kitemark or BSI TRADA Q-Mark.

There will be a manual override facility internally on the front door to facilitate ease of evacuation/escape in an emergency from the building.

All apartment entry doors must be fire purpose and shall be certified to the relevant material standard i.e. BS 644:2009 (Intertek) and meet the performance requirements of and conforming to BS 6375 Part 1, 2 and relevant sections of Part 3.

All apartment entry doors installed with SED developments shall be certified under one of the following qualified third party Certification Authorities as previously described for Secured External Door EX201:

- Each apartment entry door shall be provided with door viewliner/hole suitable for timber doors as a means of viewing callers. Door viewiners are to meet the requirements with Door & Hardware Federation Technical Specification 002 (TS 002) and must be fitted between 1200mm and 1500mm high from the bottom of each door.
- Each apartment entry door shall be fitted with a door chain or door limiter meeting the requirements with Door & Hardware Federation Technical Specification 003 (TS 003). All such devices to suit fitting to timber doors and be installed in accordance with the manufacturer's recommendations.

All designed to BS 7592: 1997 and be BS1684 Certified.

Each apartment entry doorset frame is to be mechanically fixed to the structure of the building in strict accordance with the doorset manufacturer's installation instructions.

Lightweight steel twin stud framed separating/compartment walls are to incorporate resilient layers to reduce the rate of impact breaking through the wall and accessing the locking system for each apartment entry door. The resilient layer should expanded metal or similar resilient material fixed behind plasterboard linings. The resilient layer shall be fitted to the height for each apartment entry door and extend up to 600mm either side of the apartment entry doorset.

Each apartment entry door is to be a 30-minute (half-hour) fire rated doorset certified under BWF CERTIFIRE Scheme comprising a door leaf, a door frame fitted with intumescent fire seals, and fire rated intumescent all having the same minimum fire rating in order to maintain the overall fire integrity. All entry doors are to be fitted with self-closing devices.

**NEW FIRE RATED DOORSETS**

New and replacement fire rated doorsets are to be certified under BWF CERTIFIRE Scheme as offering either at least 30 minutes (half-hour) or 60 minutes (one hour) where noted.

Each fire-rated doorset to consist of a door leaf, a door frame fitted with intumescent fire seals, and the fire rated intumescent all having the same minimum fire rating in order to maintain the overall fire integrity.

Intumescent fire seals are to be fitted in a continuous uninterrupted gasket out into the entire frame where possible or in the head and sides of the door.

Where smoke seals are needed in addition to fire seals, these need to be intumescent fire seals fitted with integral nylon pie tooth strips appropriate to the required fire rating of the doorset.

Vision panels are to be fitted with glass panels offering at least the same fire resistance and integrity as the fire rating for the doorset.

Essential intumescent seals to all doors to include hinges, door closing devices, bolts and latches all manufactured to have a minimum fire rating equal to that for manufactured both fire-rated door leaf and door frames.

**Half-hour fire rated fire doorset**

30-minute rated fire doorsets (FD30) are to have timber doors at least 44mm thick in softwood timber frames. Intumescent fire seals fitted into doorsets are to be at least 15mm x 4mm in size.

Half-hour fire rated fire doorsets (FD30) are to be glazed with other Georgian window glass or proprietary fire protection glass offering at least 30 minutes fire integrity (EI), as advised by Building Control, to BS EN 13501-2 e.g. Pilkington Pyrostop or equivalent by other glass manufacturers offering the same performance.

At half-hour fire rated intumescent including fire door hinges may be in brass or stainless steel Grade 11 to BS EN 1915:2002. At least 3 No. hinges must be used for each door.

**SMOKE SHAFTS FOR MOE**

This shaft is detailed in ADB volume 2: 2006 clause 2.26 and in BS 9991. The smoke shaft should have a minimum cross section of 1.0m<sup>2</sup> and a minimum dimension of 0.8m. It should be open to atmosphere at roof level at least 0.5m above any structure within 2m. The shaft should extend at least 2.5m above the ceiling of the top storey served. Vents from each corner, the vent at the head of the shaft and any safety gills should have a minimum free area of 1.0m<sup>2</sup>. Vents from the corridor should have their top edge as high as practicable and at least as high as the top edge of the stair doors. They should have a fire/smoke resistance of at least E30S.

The shaft should be constructed from non-combustible material and should be vertical from base to head, with no more than 4m at an inclined angle of no more than 30°.

The stairway should be ventilated by a 'trick' vent at the head of the stairs (stairwell ventilator). Upon smoke detection in the corridor the vent on the fire floor, the vent at the top of the smoke shaft and the vent at the head of the stairwell should all open simultaneously. The vents on all other floors should remain closed.

Note that ADB allows the lobby vents in multi-storey buildings to be manual (with parallel automatic opening of the stairwell vent). BS 9991 recommends automatic operation in all buildings.

**EXISTING WINDOW TO RECEIVE OBSCURED BLACK FILM**

Existing window to receive obscured black film, window opening internally to be blocked with cement particle board (painted black) installed to external side (Window side) of 70 C SD metal studs with Gyproc R18 Rivestel Bar at 100mm centres installed to internal side (Apartment side). Metal frame to be fixed with 2 No. layers of 12.5mm thick Gyproc SoundBloc Plasterboard. 50mm thick Insulated Acoustic Partition Roll (APR 1200), or an equivalent 50mm minimum thick unfaced mineral wool batts (density 33-60kg/m<sup>3</sup>) by other manufacturers offering equal or better performance, is to be fixed in the cavity for the full partition height between metal studs in accordance with manufacturer's recommendations. Any gaps around window opening to be sealed with Gyproc intumescent gap sealer.

**INTERNAL PARTITION WALLS REF (W1) -**

100 mm min. overall thick comprising: 10mm Gyproc T10 S 10 C Stud spaced @ 600mm centres and fixed on both sides with 12.5mm thick Gyproc WallBoard, scrim and plaster skim. Sound resisting partitions to have min 50mm thick acoustic gap between studs (density in excess of 10kg/m<sup>3</sup>).

Alternatively all internal stud partitions may be finished with 15mm thick Gyproc SoundBloc plasterboard and skim finish to both sides without sound attenuating gill in-situ.

All finishing methods are to strictly comply with Superfloc Manufacturer's installation details.

Thermal upgrade of all existing walls to achieve U-value of 0.30 W/m<sup>2</sup>K or better.



Rev	Description	Date	By	Check
P1	Apartment numbers & door numbering updated following Client's comments	08.12.22	JA	JC
P4	Window opening blocking note added to windows where blocking not required	07.12.22	JA	JC
P5	Drawing updated to suit comments made in Fire Solutions Document	30.11.22	JA	JC
P2	Position & height of Cyl cupboard & entrance doors adjusted to suit comments made by HOD during DTM	28.11.22	JA	JC
P3	Final preliminary drawing	11.11.22	JA	JC

**headoffice3**  
design and build

Cartell House, 3 Hawthorn Park, Secorft, Leeds, LS14 1PQ  
Tel: 01132 577777  
www.headoffice3.com

Project Address  
The Old Building,  
41 Great Horton Road  
Bradford BD7 1AH

Client City Wide

Status Preliminary

Project The Old Building

Title Proposed Fourth Floor Plan (Level 04)

Scale at A0 Drawn JA  
1:50  
Date 11/11/2022 Checked JC  
Drawing No: P00056 - A/03/04-06-P5 Revision