

## CONSTRUCTION NOTES

### CONSTRUCTION DESIGN & MANAGEMENT REGULATIONS

The contractor is to be aware the clients will appoint them as Principle Contractors under the Construction (Design and Management) Regulations 2015. The Principle Contractor will be required to produce and implement a Construction Phase Plan for the works. This plan will need to be in place before works commence on site. For those contractors not aware of the legislation it is strongly recommended that they make use of the CITB CDM 2015 guidance and consider using the downloadable CITB, CDM Wizard app to assist in the preparation of the Construction Phase Plan.

The Principle Designer, prior to commencement of works will provide all available preconstruction information to assist the Principle Contractor in their role. The Principle Contractor will also during the progression of the contract provide as and when requested by the Principle Designer suitable information in a format to be agreed to be incorporated within the Health and Safety file to be handed to the client at the end of the project.

### TEMPORARY WORKS & EXCAVATIONS

The Contractor shall be responsible for designing all necessary temporary works as required and shall ensure that the method/timing/sequence of the works shall in no way adversely affect the proposed structure.

No one shall enter an excavation deeper than 1.2m without adequately designed temporary shoring being in place. The Contractor should ensure that care is taken during excavations to eliminate risks due to underground hazards including contamination. Access to unattended trenches is to be protected at all times.

### UPGRADE TO CREATE SEPARATING FLOOR CONSTRUCTION

22mm floor grade chipboard\* over proprietary GYP-FLOOR SILENT system with SIF Floor Channels and Gyproc Plank over existing 200mm x 50mm C16 joists at 400mm C/C's, with minimum 100mm Isover Acoustic partition mineral wool roll (APR1200) within cavity, 15mm Gyproc Fireline overboard to existing ceiling and skim soffit where service void is not required, all installed in strict accordance with the manufacturers instructions and subject to sound testing post completion. Where new service void required in stall 19mm Gyproc Plank on proprietary hangers off joists and finish with 12.5mm foil backed plasterboard and skim finish. Ensure 30mm x5mm restraint straps at not more than 2.0m C/C's installed and noggins between joists as required. In wet areas such as kitchens and bathrooms use moisture resistant grade plasterboard. The construction is to create a **60 minute** fire resistance throughout. The completed floor construction is to undergo a sound test to confirm that performance complies to the required standard.

Install new first floor joists below new separating partition to create double joists in parallel as per the Structural Engineer calculations and drawings. Install 60 minute Fire Stops between Shop and Third Floor apartments and roof (where required) to all penetrations where services run through the building.

\*Where traditional floorboards exist install 6mm plyboard over (marine ply to wet areas such as bathrooms)

### UPGRADE TO MASONRY SEPARATING WALLS, NEW SEPARATING WALLS & INTERNAL PARTITIONS

Where walls replace existing fenestration the new construction is to match the existing cavity wall as exposed on site using Fletton brick to external leaf, cavity as existing and minimum 100mm 7kN dense blockwork to innerleaf. New masonry to be keyed in to existing, cavity to be filled with mineral wool / XPS or other material as to match existing. Internal separating wall infills to be constructed using minimum 7kN block work with cavity as to match the existing. *All external finishes to match the existing construction.*

Interior masonry separating walls to be finished as per the Construction Details drawing to achieve the acoustic properties required between the new apartments and the Party Walls adjacent. Use moisture resistant plasterboard / plaster finish in all wet areas such as bathrooms and kitchens etc. throughout.

Exterior separating walls to be finished as per the Construction Details drawing to achieve the required thermal upgrade per AD: L1B Table 4.3 "Upgrading Retained Thermal Elements". Minimum U-Value requirement: 0.30W/m<sup>2</sup>K

All Separating and Party Walls (A, B, D & E) to have a minimum 60 minutes Fire Resistance and 53dB acoustic performance - refer to British Gypsum specification. Internal partitions (C) to provide minimum 30 minute fire resistance and 45Rw(dB) airborne sound acoustic performance.

Wall Type A (New internal separating walls): Two layers of Gyproc SoundBloc 12.5mm each side of Gypframe 70 S 50 'C' Studs at 600mm centres with Gypframe RB1 Resilient Bar at 600mm centres to one side. 50mm Isover Acoustic Partition Roll (APR 1200) in the cavity. For heights up to 4000mm. Full Specification and fitting instructions see British Gypsum referenceA316008 (EN)

Wall Type B (Party Wall at stairwell adjacent buildings): Make good existing masonry wall as necessary. Install minimum 63mm Gypsum Thermaline or 75mm Kingspan K118 on plaster dabs\*, fully taped per the manufacturer's instructions, with plaster skim finish to receive decoration. Wall to meet acoustic reduction 53dB. \*Alternatively fix 25x50mm timber battens to allow for deeper services void.

Wall Type C (Internal Partitions): One layer of Gyproc SoundBloc 12.5mm each side of Gypframe 92 S 50 'C' Studs at 600mm centres. Three layers of 25mm Isover Acoustic Partition Roll (APR 1200) in the cavity. For heights up to 4000mm. Full Specification and fitting instructions see British Gypsum reference A206232 (EN).

Wall Type D (Third Floor apartment to habitable accommodation; presumed thinner masonry wall) Make good existing plaster, masonry, wall as necessary. Install minimum 50mm Kingspan K118 on plaster dabs\*, fully taped per the manufacturer's instructions, with plaster skim finish to receive decoration. Wall to meet acoustic reduction 53dB. \*Alternatively fix 25x50mm timber battens to allow for deeper services void.

Wall Type D<sub>2</sub>: Remove existing finishes exposing masonry. Install 40mm Kingspan K5 PIR on plaster dabs\*, 35mm air gap minimum, 25mm Isover 1200 mineral wool insulation within Gyproc Framing bar and 2no. layers Gyproc Soundbloc and skim finish. \*N.B. Alternative arrangement to Type D only as site conditions dictate.

Wall Type E (First and Second Floor apartments to habitable accommodation, columns at stairs) Make good existing plaster, masonry, wall as necessary. Install minimum 25mm Kingspan K118 on plaster dabs\*, fully taped per the manufacturer's instructions, with plaster skim finish to receive decoration. Wall to meet acoustic reduction 53dB. \*Alternatively fix 25x50mm timber battens to allow for deeper services void.

The completed wall constructions are to undergo a sound test to confirm that performance complies to the required standard. All external window and door reveals to be lined with insulated plasterboard and skim finish to minimise risk of thermal bridging.

### UPGRADE TO ROOF INSULATION

To Third Floor ceiling check suitability of existing soffit to receive 100mm Kingspan K118 insulated plasterboard mechanically fixed through to timber rafters in strict accordance with the manufacturers instructions. Special care to be taken to ensure adequate seal to all protrusions (e.g. existing steel trusses and collars) to ensure both L1B and Part E compliance through testing post construction. Performance requirement 0.16W/m<sup>2</sup>K

### D.P.C

Provide DPC's at a minimum of 150mm above ground level. To all door and window openings, provide Thermabate cavity closer,DPC's as above fixed to frames. Lead flashings to chimneys/junctions of roof to wall etc. to be Code 5 lead; all properly stepped and trimmed etc. Cavity tray DPC's to be provided over all lintels located in cavity wall construction. Cavity tray to be provided at junction of roof to wall. All cavity trays to be installed in accordance with the manufacturers instructions.

### LINTELS

Lintels to cavity walls to be Catnic, Keystone or IG, steel insulated lintels, unless otherwise stated.

All lintels are to have a minimum of 150mm end bearing at each end or as required by the Structural Engineer and the manufacturers installation instructions. Cavity trays are to be provided with proprietary weep-hole ventilators to all external cavity walls.

### TIMBER

All timber to be minimum C16 (SC3) and treated to prevent insect or fungus attack. The treatment shall not adversely affect the applied finishes.

### EXTERNAL DOORS AND WINDOWS.

To Church Lane elevation provide proprietary manufactured double glazed timber framed casement windows and doors, with minimum 'U-Values' of 1.40 W/m<sup>2</sup>K for windows and 1.40 W/m<sup>2</sup>K Band B for doors (<60% glazing), all to match the existing style. All to be fitted with suitable trickle ventilators (8000mm<sup>2</sup> to habitable rooms, alternatively suitable wall ventilators) and all opening casements to be fitted with lockable fasteners. All windows to have window boards. All windows and doors to be lapped 30mm minimum with cavity closers where fitted. New entry doors to comply with AD-Q of the Building Regulations, security for new dwellings.

To High Street elevation provide proprietary manufactured double glazed timber framed casement windows and doors, with minimum 'U-Values' of 1.40 W/m<sup>2</sup>K for windows and 1.40 W/m<sup>2</sup>K Band B for doors (<60% glazing), all to match the existing style. All to be fitted with suitable trickle ventilators (8000mm<sup>2</sup> to habitable rooms, alternatively suitable wall ventilators with noise suppression feature) and all opening casements to be fitted with lockable fasteners. All windows to have window boards. All windows and doors to be lapped 30mm minimum with cavity closers where fitted. Central sashes to each aperture to have opening to comply with escape window requirements.

To the windows on the second and third floor check existing central opening sash complies with escape window requirement. Provide operable secondary glazing to specialist design where existing windows are retained.

All glazing panels in critical areas as specified in Approved Document K to conform to BS6206 / BS12600 as required.

Fire escape windows to have clear unobstructed opening area of 0.33sq.m, with min. opening of 450mm wide or 450mm high making an opposing clear opening of 734m, with the distance from floor to bottom of opening, a height of maximum 1100mm, minimum of 800mm. Provide at least one escape window to each habitable room and to each inner room.

Install 1no. Smoke Ventilation roof hatch minimum 1mtr<sup>2</sup> openable area over communal stairs, double/triple rafters to trim hatch opening per engineer. Hatch to be connected to Fire Alarm system and to open automatically upon activation of Smoke Alarm. All to be fitted in strict accordance with the manufacturers instructions and the relevant British Standards.

### ABOVE GROUND FOUL DRAINAGE.

New SVP to be 150mm dia. u-PVC connected to underground foul water system and terminating at proprietary air admittance valve. SVP's to be fitted with and access panel at the base of pipe above ground level.

Sanitary fittings are to be connected to SVP with u-PVC pipework as follows:

WC: -100mm dia. waste;  
Bath: -38mm dia. waste with 75mm deep seal trap;  
Shower: -38mm dia. waste with 75mm deep seal trap;  
WHB: -32mm dia. waste with 75mm deep seal trap;  
Sink: -38mm dia. waste with 75mm deep seal trap.  
Branches between 1.7m and 3m to be 40mm dia.  
All to be fitted with rodding access (re-sealable anti-syphon traps where run exceeds 1.7m).

100mm dia. uPVC SVP's to be encased in 12.5mm plasterboard and skim fixed to timber framing. SVP's passing through habitable rooms to be insulated. SVP at head of run to be provided with 75mm dia. vent, to terminate through a patent roof ventilator tile (Redland ThruVent' or similar approved) min. 900mm above any opening window. Other stacks to be provided with patent relief valve min. 1000mm above the highest connection.

Waste pipework to be brown in colour and in uPVC to BS4514. Installations to BS5572. New foul and waste water to connect to existing SVP on Church Lane side of the building, to run through ceiling void between Ground and First Floor. Rodding access to be provided within ceiling at internal connections (2) and change of direction (1).

### STAIRS.

Existing timber staircase retained to provide communal stairway from Ground Floor to Third Floor. Communal stairs soffit lining to be 20mm plyboard with 75mm Kingspan K118 over and skim finish to provide 60 minute fire protection and comply with Approved Document E of the Building Regulations. New bespoke stairs to Shop Basement, 180° winder / spiral  
Design Guide: Minimum 1000mm wide; as "private stair" to communal stairway and "general access stair" within shop.  
Basement to Ground Floor (Shop): 15no. 162mm Rise x 300mm Going, 28.4° pitch  
Ground Floor to First Floor (Communal): 16no. 205mm R x 237mm G, 40.9° pitch  
First Floor to Second Floor (Communal): 16no. 196mm R x 225mm G, 41.0° pitch  
Second to Third Floor (Communal): 15no. 187mm R x 225mm G, 39.8° pitch

**All stair dimensions to be confirmed on site prior to ordering.**

Handrail min. 900mm above pitch line and 1100mm above landing returns & to balcony. Balustrade / balcony rails to provide no opening to stairs sufficient to pass a 100mm dia. sphere & guarding to be able to withstand a horizontal force of 0.36kN/m.

Stair enclosure to be constructed to give minimum 60 minutes fire protection in accordance with AD: L1b and per Diagram 9.

N.B. Opening Vent required, see Third Floor plan.

### STRUCTURAL STEELWORK

All structural steelwork to be as designed and specified by the Structural Engineer. Refer to Structural Engineer's drawings for details.

All dimensions to be checked on site prior to ordering steel. All steelwork is to be mechanically cleaned by wire-brushing or shot-blasting and immediately coated with a single coat of high build zinc phosphate primer. No holes to be burned in any steelwork.

All exposed structural steelwork to be encased in two layers of 12.5mm plasterboard and skim plaster finish to provide minimum 1 hour fire protection.

### FINISHES.

Ceilings generally to be underlined with 12.5mm foil backed plasterboard and 'Multifinish' plaster skim finish. Walls to receive 1 coat 'Gyproc Hardwall', and 1 coat 'Multifinish' plaster skim finish. Use moisture resistant board and plaster in wet areas such as kitchens and bathrooms.

### HEATING.

Electrical panel heaters to each apartment room space and pressurized hot water cylinders.

Insulation of heating and hot water pipes - all pipes in an unheated space to be insulated with a material with a thermal conductivity not exceeding 0.045 w/mk and a thickness equal to the outside diameter of the pipe up to a max. of 40mm. All pipes within 1 metre of hot water cylinder to be insulated. Bathrooms to be fitted with anti scald devices to all baths, showers and wash basins.

### ENERGY EFFICIENT LIGHTING.

Energy efficient lighting is to be provided to 100% of all new, fixed light fittings and to be installed in areas where the lighting is used frequently. Actual positions to be advised. This lighting shall comprise a fixed light fitting or luminaire that can take only lamps with a luminous efficacy greater than 45 lumens per circuit-watt (circuit-watts being the power consumed in lighting circuits by lamps, their associated control gear and power factor correction equipment).

External lighting shall be fitted with a photo cell override and timer override switch, such that the lighting will not function in daylight, and when not required. The lighting shall have a luminous efficacy greater than 45 lumens per circuit-watt.

### PART P: ELECTRICAL INSTALLATIONS.

All electrical work required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Council should be satisfied that Part P has been complied with. This may require an appropriate BS 7671 electrical installation certificate to be issued for the work by a person competent to do so.

### MECHANICAL VENTILATION.

Mechanical ventilation capable of extracting moisture at a minimum rate are to be provided as follows:

Utility Room	30 Litres/second;
Kitchen	30 Litres/second (adjacent to hob);
Bathroom / W.C	15 Litres/second;
Sanitary (other)	6 Litres/second.
W.C. to feature	10 min over run.

Vents to be connected to outside air with suitable proprietary roof vent to roof slopes or to grills at eaves level.

### SMOKE DETECTORS

Provide fire detection and accordance with BS5839:6 2004Code of Practice for the Design, Installation and Maintenance of Fire detection and Fire Alarm Systems in Dwellings. Smoke detectors complying with BS5446 part 1 are to be provided to all circulation areas. These should be interlinked and connected to a separate fuse on the main circuit board labelled SMOKE ALARMS and in accordance with BS7671. Fire alarms to be designed and installed in accordance with BS5839 part 1:2002, commissioned and tested with the appropriate certificate issued on completion.

Each smoke alarm to be provided with a battery back up.

Where residual current devices are installed in the electrical installation the smoke alarms should be wired so that a fault in the general wiring will not interrupt the electrical supply to the smoke alarms.

Smoke alarms fitted in circulation spaces should be within 3m of doors of habitable rooms. Smoke alarms and heat detectors are to be interconnected so that the detection by one unit shall operate the alarm in all. Additional alarms to be provided in each Bedroom.

Automatic opening Smoke Vent over the communal stairs to be connected to the alarm installation as required. Smoke Detectors in communal areas to have sounders and be connected to the the alarm system as noted above. Final details of the system to be submitted to LABC for consideration and approval. Arrangements should be made for LABC to witness tests of the installation if so required. On satisfactory completion of the tests a certificate, confirming installation to BS7671, should be issued by a competent person and submitted to building control.

The owners/occupiers should be informed that the smoke alarm installation should be serviced and maintained in accordance with the manufacturers instructions.

Provide heat detectors in the kitchens.

### ESCAPE LIGHTING & SIGNAGE

Install emergency escape lighting to common circulation areas in compliance with BS5266:1-2005. These should be connected via protected circuit to a separate fuse on the main circuit board and labeled EMERGENCY LIGHTING.

The escape route should be clearly and distinctively marked within common areas in accordance with Health & Safety (Signs & Signals) Regulations 1996 and BS5499:1-2002

### BIN STORE

Bin store located to the rear of the site within existing provision.

### BUILDING CONTROL POST COMPLETION REQUIREMENTS.

**No later than 7 days after the final test is carried out**, a copy of the air pressure test results and associated equipment calibration certificate (by member of NDT or AT and T and MA) will be issue to the Building Control Authority at pre-completion.

**No later than 5 days after the work has been completed**, building control must be issued with a notice and standard format certification by an assessor who is accredited to do so that verifies:-

- The target CO<sub>2</sub> emission rate for the building;
- The calculated CO<sub>2</sub> emission rate for the building as constructed, and
- Confirmation as to whether the building has been constructed to the initial design stage SAP calculation and associated thermal performance specification, and if not a list is to be submitted for comparison to the initial design stage SAP calculation and associated specification.

**No later than 5 days after the work has been completed**, the Building Control Authority must be issued with a notice which specifies the potential consumption of wholesome water per person per day in accordance with Approved Document G1.

**No later than 5 days after the work has been completed**, the Building Control Authority must be issued with a certificate which shows compliance of the mechanical ventilation in accordance with Approved Document F.

**No later than 5 days after the work has been completed**, the Building Control Authority must be issued with a certificate which shows compliance of the separating walls and floors in accordance with Approved Document E.

**No later than 5 days after the work has been completed**, the building owner is to be provided with standard documentation containing information about how to achieve the most efficient operation of the building, the fixed building services and their maintenance.

All dimensions in millimetres unless otherwise stated. All levels in metres and are arbitrary.

The contractor must verify all dimensions with the Principal Designer on site before commencing any works. The contractor is responsible for the design and installation of all temporary works. They are to be designed and installed so as to ensure the integrity of the existing structure and not to interfere with the method/timing/sequence of the works shall in no way adversely affect the proposed structure. The Principle Designer must be notified of any suspected discrepancies or omissions. Any scaled dimensions to be confirmed by the Principal Designer. IF IN DOUBT, ASK.

All materials are to be of the best quality. All workmanship is to be carried out in strict accordance with the manufacturers instructions and the appropriate British Standard, or best practice where none apply.

This drawing is to be read in conjunction with Hawkins Eades Associates Drawing Nos. 4480/BR3.00 to 3.07, **THE STRUCTURAL ENGINEER'S CALCULATIONS, SKETCHES AND SPECIFICATION** and all other relevant drawings and proprietary details and installation instructions.