

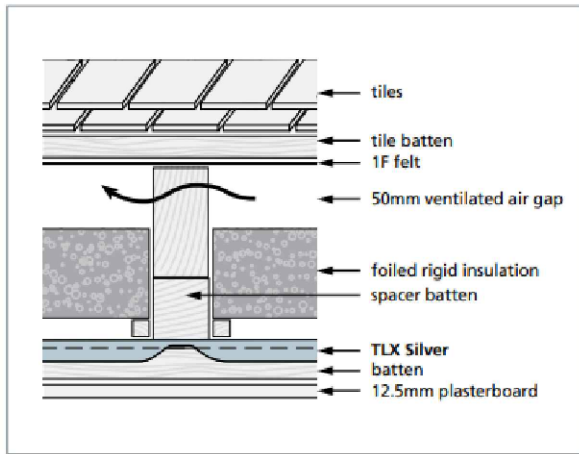


EXISTING REAR ELEVATION
SCALE 1:100



PROPOSED REAR ELEVATION
SCALE 1:100

TLX Silver below rafter, rigid board between rafter, 1F



ROOFS WITH 1F NON-BREATHABLE FELT, CLOSED BOARDS OR NO FELT

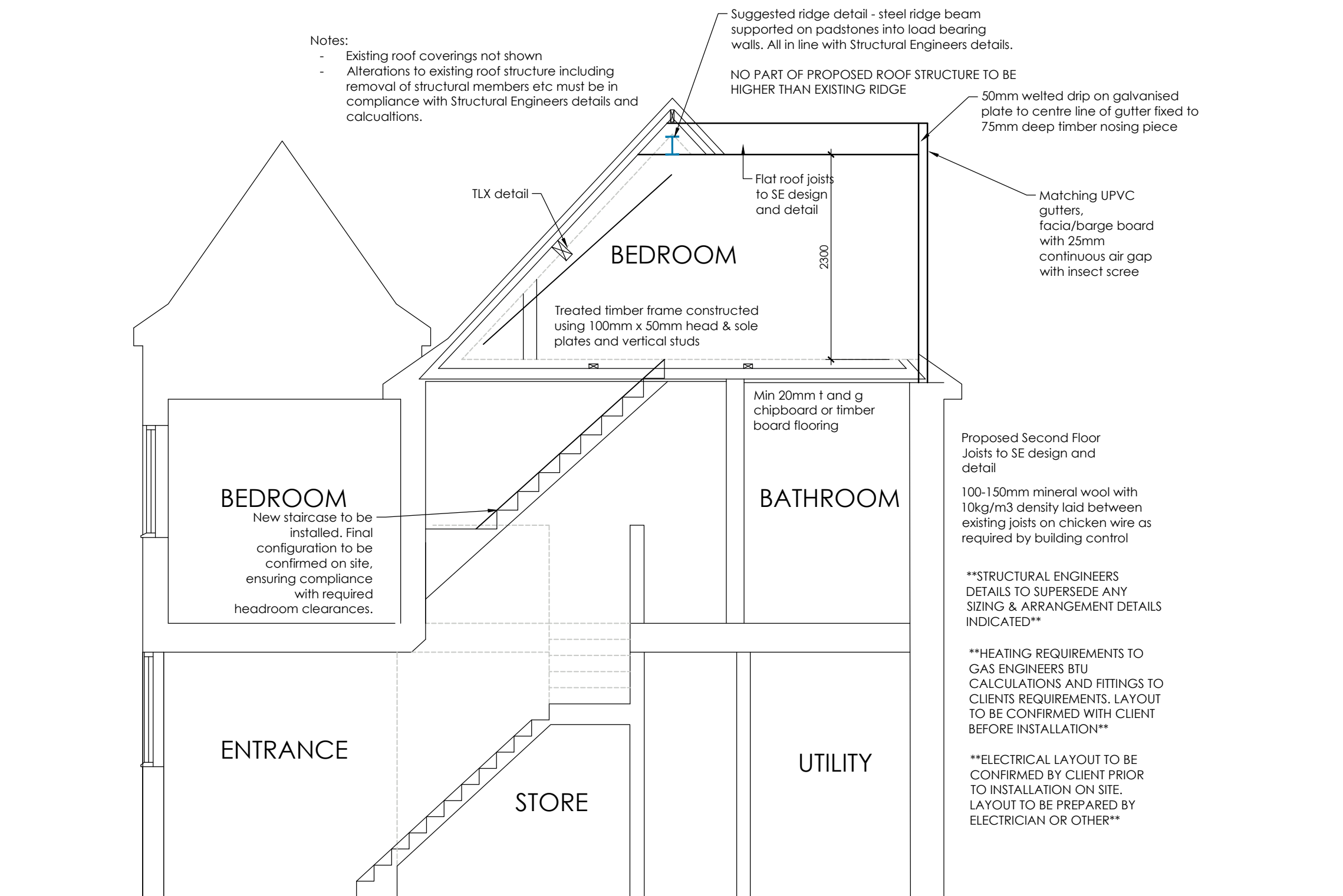
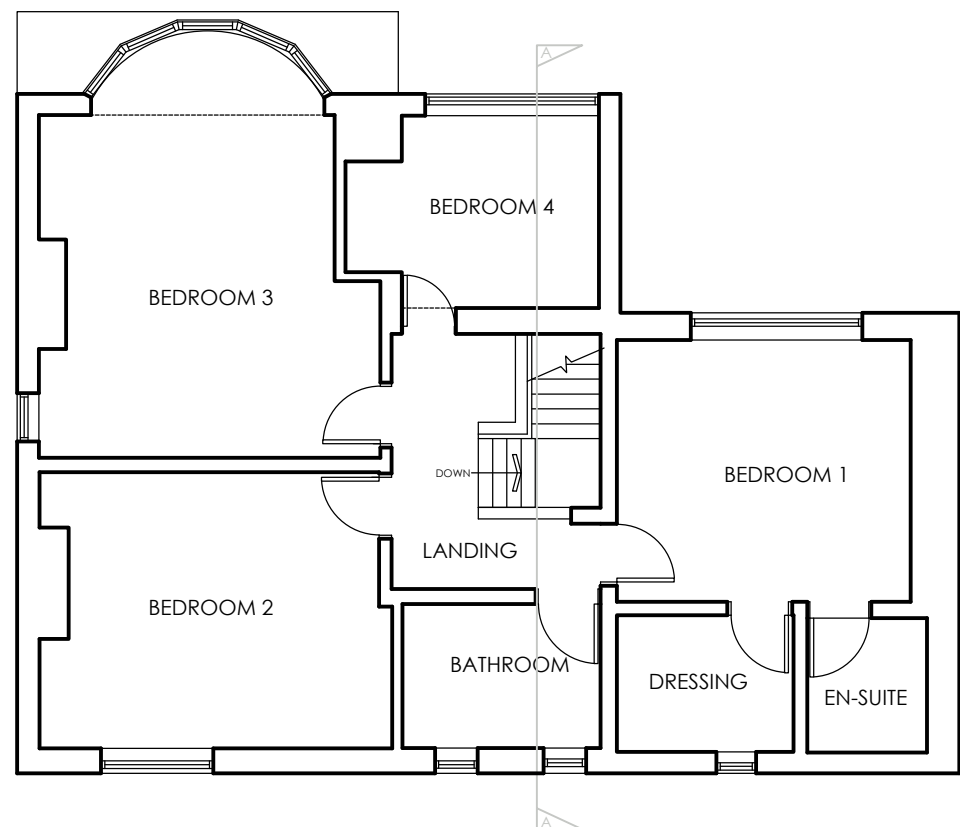
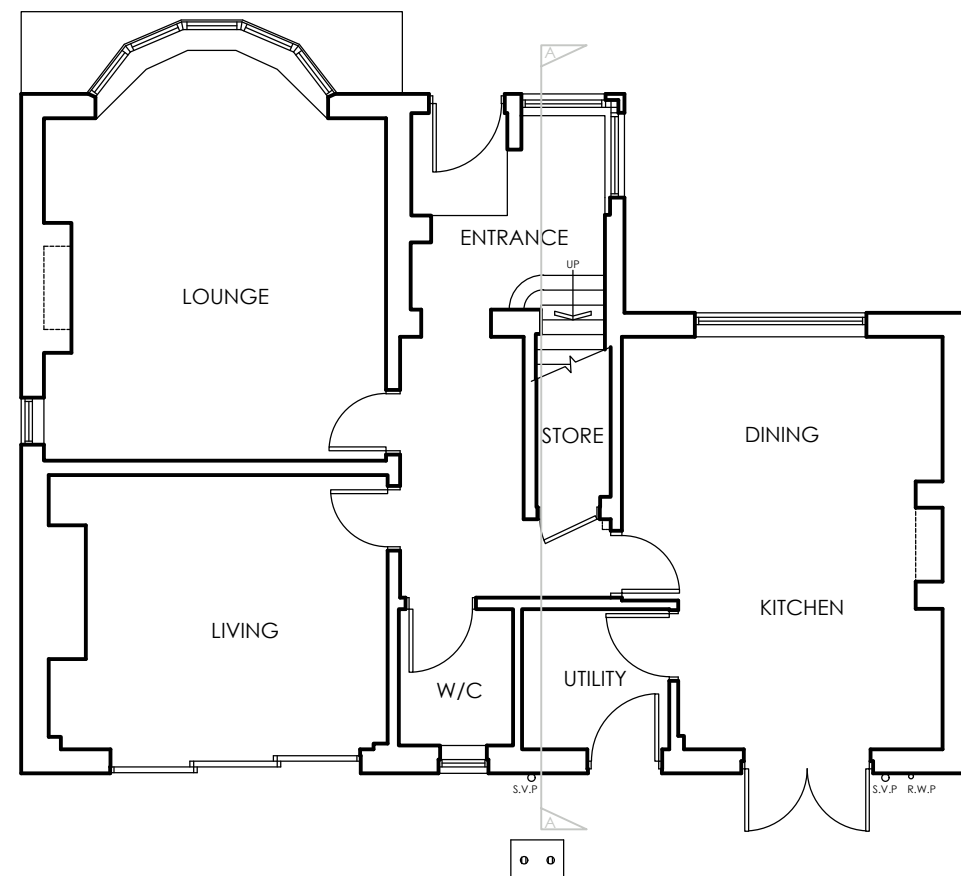
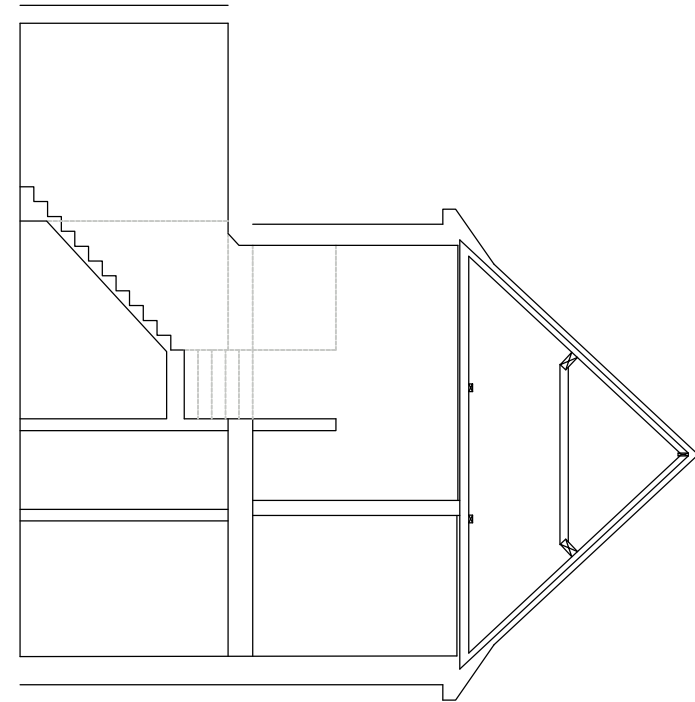
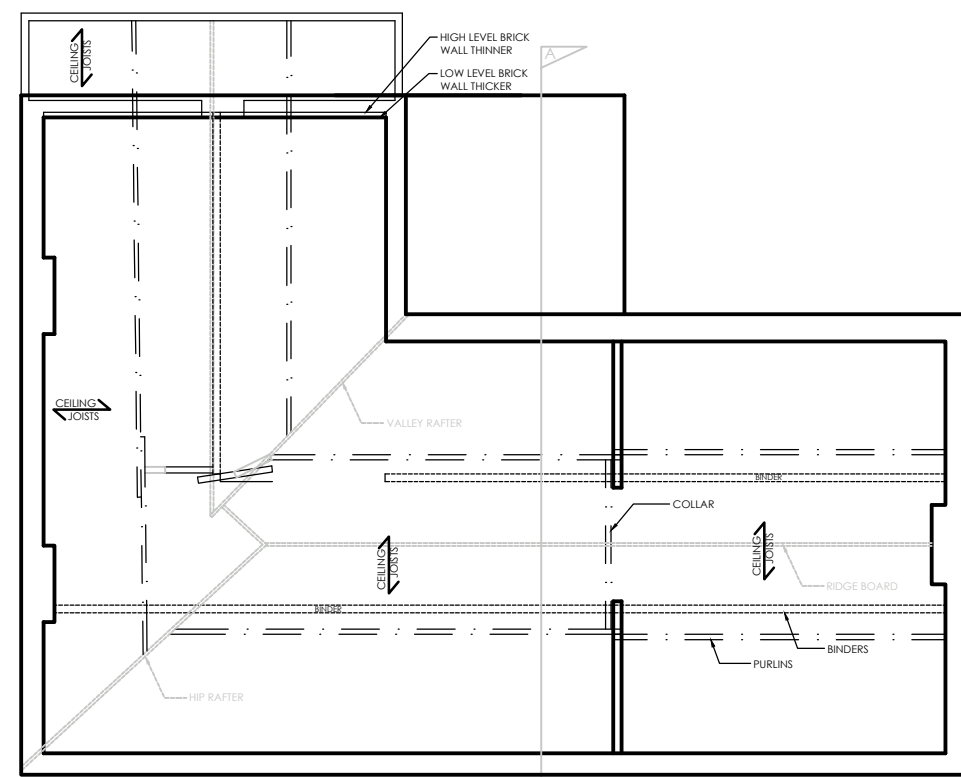
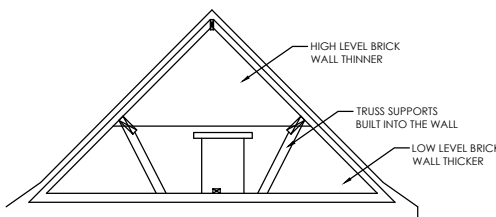
The rafters may need battening out to greater depth in order to accommodate the amount of insulation required. Rigid insulation board such as PIR or Phenolic board is fitted between the rafters, ensuring there is a 50mm ventilated space above, and a 30mm space below the board. Boards can be held in place with small timber battens, clips or other fixings. Sealing the gap between the side of the board and the rafter is recommended to prevent air movement. TLX Silver is fitted across the bottom of the rafters. Each layer should overlap the previous layer by 50mm, and the overlap sealed with a suitable tape. TLX Silver is held in place with 38mm timber battens and a sheet of 12.5mm plasterboard added.

TLX Silver is a vapour barrier. This structure gives no risk of surface or interstitial condensation.

The depth of rigid insulation needed will depend on the rafter spacing and the type of board used. Phenolic board has a lower thermal conductivity than polyisocyanurate (PIR), and will generally save 5 - 10 mm of space.

TLX Silver below rafters, 1F felt with Phenolic Foam (0.020), 38mm batten

	U = 0.18 W/m ² K		U = 0.16 W/m ² K		U = 0.15 W/m ² K		U = 0.13 W/m ² K	
	Insulation Thickness (mm)	Rafter Depth (mm)	Insulation Thickness (mm)	Rafter Depth (mm)	Insulation Thickness (mm)	Rafter Depth (mm)	Insulation Thickness (mm)	Rafter Depth (mm)
Rafter Centres 400 mm	90	170	110	190	120	200	150	230
Rafter Centres 600 mm	80	160	100	180	105	185	130	210



SECTION A-A
SCALE 1:50

INTERNAL LIGHTING

Provide fixed internal lighting to the loft conversion in accordance with Part L of the current Building Regulations and Approved Document L Volume 1 Dwellings, Section L1B.

All new fixed internal light fittings installed within the loft conversion shall be low energy fittings with a minimum luminous efficacy of 75 light source lumens per circuit watt.

Lighting within the loft conversion shall be provided with local controls to allow independent switching of lighting within the converted spaces.

Where new external fixed lighting is provided as part of the works, it shall be fitted with appropriate controls to limit energy use in accordance with Approved Document L.

HEATING

Extend all heating and hot water services from the existing system. Provide new thermostatic radiator valves (TRVs) to radiators where appropriate.

All gas-fired work to be designed, installed, tested and certified by a Gas Safe registered engineer in accordance with the Gas Safety (Installation and Use) Regulations 1998.

All plumbing work to comply with the Water Supply (Water Fittings) Regulations 1999.

All electrical connections and controls to comply with BS 7671 (IET Wiring Regulations).

All accessible pipework to be insulated in accordance with Approved Document L.

MEANS OF ESCAPE - Fire doors

Form a protected escape stairway by providing half hour fire resistance to all partitions. Ceiling to be upgraded to provide half hour fire resistance or modified half hour fire resistance as appropriate. Stairway to be protected at all levels - from the loft room/rooms then leading directly to an external door at ground level (no inner rooms allowed). All doors on to the stairway must be FD20 rated fire doors to BS 476 or the European equivalent BS EN 1634 (fitted with intumescent strips rebated around sides & top of door or frame). Where applicable, any glazing in fire doors to be half hour fire resisting and glazing in the walls forming the escape route enclosure to have 30 minutes fire resistance to at least 1.1m above the floor level or stair pitch line.

BACKGROUND VENTILATION

Controllable background ventilation at least 1700mm above floor level to be provided to new habitable rooms and kitchens at a rate of min 8.000m³/h and to bathrooms at a rate of min 4000m³/h.

Background ventilators to be tested to BS EN 13141-1.

Background ventilator equivalent area and operation to be measured and recorded.

EXTRACT FOR SHOWER ROOM

Provide mechanical extract ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 l/s. Vent to be connected to light switch and to have 15 minute over run if no window in the room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

PURGE VENTILATION

Minimum total area of opening in accordance with Table 1.4 Approved Document F1.

Hinged or pivot windows with an opening angle of 15 to 30 degrees to have an openable area in excess 1/10 of the floor area of the room.

External doors and sash, hinged or pivot windows with an opening angle of equal to or greater than 30 degrees to have an openable area in excess of 1/20 of the floor area of the room.

Purge ventilation should be capable of extracting at least 4 air changes per hour per room directly to the outside.

Internal doors should be provided with a 10mm gap below the door to aid air circulation.

RAINWATER DRAINAGE

New rainwater goods to be new 110mm upvc half round gutters taken to and connected into 68mm dia upvc downpipes

ABOVE GROUND DRAINAGE

All new above ground drainage and plumbing to comply with BS EN 12056-2 for sanitary pipework. All drainage to be in accordance with Part H of the Building Regulations. Wastes to have 75mm deep anti-vac bottle traps and rodding eyes to be provided at changes of direction.

Size of wastes pipes and max length of branch connections (if max length is exceeded then anti-vac traps to be used).

Wash basin - 1.7m for 30mm pipe 3m for 40mm pipe.

Bath/shower - 3m for 40mm pipe 4m for 50mm pipe.

WC - 6m for 100mm pipe for single WC.

All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m.

Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.

Waste pipes not to connect on to SVP within 200mm of the WC connection.

Supply hot and cold water to all fittings as appropriate.

ROOFLIGHTS

Rooflights to be proprietary units, double glazed, installed in accordance with the manufacturer's instructions.

Units to achieve a maximum U-value of 2.2 W/m²K or better, measured as a whole unit value (including frame), in accordance with Approved Document L1B (England).

Rooflights to be double glazed with 16mm argon-filled cavity and soft low-emissivity (low-E) glass. Window Energy Rating to be Band C or better.

Rooflights to be fitted in accordance with the manufacturer's instructions, with rafters doubled up to sides and suitable flashings provided to ensure a weathertight installation.

Where rooflights are installed within 1500mm of a boundary, the roof covering (including the rooflight system) shall achieve a classification of BROOF(t4) in accordance with Approved Document B.

All junctions to be sealed and insulated to limit thermal bridging and maintain continuity of insulation in accordance with Approved Document L and Accredited Construction Details.

NEW AND REPLACEMENT WINDOWS

New and replacement windows to be double glazed with 16-20mm argon gap and soft coat low-E glass. Window Energy Rating to be Band B or better and to achieve U-value of 1.4 W/m²K. The door and window openings should be limited to 25% of the loft room floor area.

Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals.

Windows and door frames to be taped to surrounding openings using air sealing tape.

NEW AND REPLACEMENT DOORS

New and replacement doors to achieve a U-Value of 1.4W/m²K. Glazed areas to be double glazed with 16-20mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS EN 12600, BS EN 14179 or BS EN ISO 12543-1 and Part K (Part N in Wales) of the current Building Regulations.

Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals.

Windows and door frames to be taped to surrounding openings using air sealing tape.

GLASS BALUSTRADING

All balcony balustrades to be min 1.1m height. Balustrades to be toughened laminated glass (thickness to suit span) in accordance with Part K (Part N in Wales) of the Building Regulations and designed to resist the horizontal force given in BS 6180. No openings in any balustrading should allow the passage of a 100mm sphere and children should not readily be able to climb the guarding.

Project.

PROPOSED LOFT CONVERSION AY

73 HUDDERSFIELD ROAD

BARNESLEY, S75 1AF

Drawing Title:

SECTION AND ELEVATIONS

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Date.

SEPT 2026

Ref.

24-118

Client.

CHRIS HYDE

Scale.

1:50 & 1:100 @ A1

Dwg. No.

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Rev.

Date

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Description

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Description