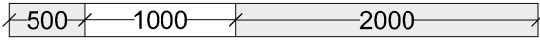


EXISTING GROUND FLOOR (Scale 1:50)

SCALE BAR - (mm)

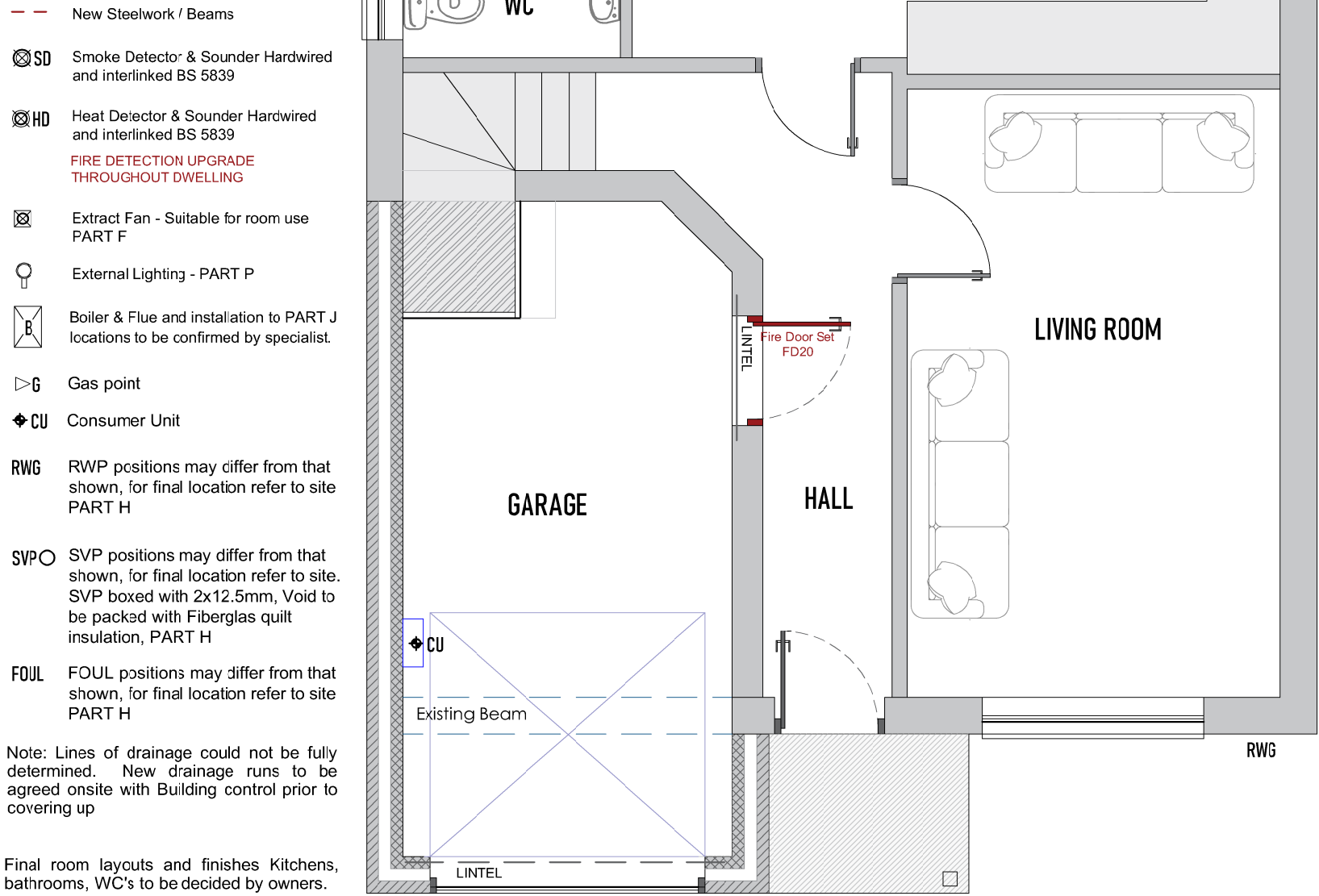


STRUCTURAL DESIGN TO BE UNDERTAKEN
PRIOR TO WORKS COMMENCING

New and altered structural elements such as beams, steelwork and bearings must be designed by a qualified structural engineer and complete calculations are to be provided justifying adequacy for purpose.

Existing foundations to be assessed by SE and BCO and agreed for suitability, or upgraded where necessary

Condition of existing building to be further assessed for suitability. Existing beams and lintels should be determined by S.E and assessed / replaced where required



PROPOSED GROUND FLOOR (Scale 1:50)

SCALE BAR - (mm)



- New Steelwork / Beams
- SD Smoke Detector & Sounder Hardwired and interlinked BS 5839
- HD Heat Detector & Sounder Hardwired and interlinked BS 5839
- FIRE DETECTION UPGRADE THROUGHOUT DWELLING
- Extract Fan - Suitable for room use PART F
- External Lighting - PART P
- Boiler & Flue and installation to PART J locations to be confirmed by specialist.
- Gas point
- Consumer Unit
- RWP RWP positions may differ from that shown, for final location refer to site PART H
- SVP SVP positions may differ from that shown, for final location refer to site, SVP boxed with 2x12.5mm. Void to be packed with Fibreglass quilt insulation, PART H
- FOUL FOUL positions may differ from that shown, for final location refer to site PART H
- Spotlights

Note: Lines of drainage could not be fully determined. New drainage runs to be agreed onsite with Building control prior to covering up

Final room layouts and finishes Kitchens, bathrooms, WC's to be decided by owners.

- Raise floor to account for new Kingspan insulation and floating floor and deck to achieve 0.26W/m2K - 70mm (Minimum)
- Currently uninsulated walls to be insulated to meet 0.17W/m2K - See Detail
- Insulate Roof - Currently uninsulated to be insulated to meet 0.15W/m2K Insulation: Rockwool over ceiling joists
- Build out front wall to form larger return.
- Plasterboard and skim garage and paint.
- New sockets and spot lights to owners design
- Box in or relocate consumer unit Part P
- Create store cupboard under stairs

360mm Wall with 150mm Cavity wall see specification. 0.17W/m²k

Proposed U-value justified with area weighted U-value calculation
Less insulation in floor will be compensated in walls to maintain level threshold without step from the house to the converted garage/new lounge.

STRUCTURAL DESIGN TO BE UNDERTAKEN
PRIOR TO WORKS COMMENCING

New and altered structural elements such as beams, steelwork and bearings must be designed by a qualified structural engineer and complete calculations are to be provided justifying adequacy for purpose.

Existing foundations to be assessed by SE and BCO and agreed for suitability, or upgraded where necessary

Condition of existing building to be further assessed for suitability. Existing beams and lintels should be determined by S.E and assessed / replaced where required

Note: Lines of drainage could not be fully determined. New drainage runs to be agreed onsite with Building control prior to covering up

Final room layouts and finishes Kitchens, bathrooms, WC's to be decided by owners.

Minimum Thermal Elements

Wall Insulation - 0.18W/m²k
Roof Insulation - 0.15W/m²k
Floor Insulation - 0.18W/m²k
Windows & Doors - 1.4W/m²k

See Specifications & Details L1B - CONSERVATION OF FUEL AND POWER IN EXISTING DWELLINGS

PLANNING NOTES

The materials of the extension (such as bricks, tiles, rendering, timber, etc) should whenever possible match those of the existing property and be of the same colour, texture and size. If matching materials are not available, the materials should be as close a match as possible.

Windows and doors should be of the same proportions, design and materials of the existing house and should be in line with the existing openings.

SPECIFICATION

These plans shall not be acted upon until they have been approved in accordance with clause 14 and 12(2)(b) of the Building Regulations 2010. Should the owner or builder commence work without the above approval they do so at their own risk.

Dimensions given on foundations are only indicative for normal conditions. Should it be necessary to provide underpinning, raft foundation piled foundation or other construction the builder shall contact the Building control surveyor as soon as possible. All goods and materials unless otherwise specified shall be in accordance with the latest British Standard and Code of Practice.

The terms Builder or Contractor shall mean the person responsible for the construction. Deviations from the approved drawings can be made but only with the consent of the client and Building Control Officer.

Planning permission from the local authority is required for this project and contractor is to check the boundaries of the site and is not to build on land not owned by the client without obtaining the neighbors consent.

No trial holes have been taken on site and the builder must acquaint himself with the ground conditions of both the site and adjoining areas. Existing foundations to be assessed for suitability and extra loadings where required.

All dimensions given whether figured or scaled are to be checked and verified on site by the contractor prior to commencement of work. Figured dimensions are to take preference over scaled dimensions.

The contractor must provide the appointed Building control body with all statutory notices for inspections and must liaise with the statutory undertakers and comply with their requirements.

STRIP FOUNDATIONS

Strip footings shall be constructed of 25 N/mm concrete (sulphate resistant if necessary) with a min thickness of 250mm and a min width of 600mm to cavity and party walls, and a min of 450mm to internal load bearing walls. Foundations shall be founded on suitable sub-strata to the satisfaction of the BCO and below invert level of any drains within 1m of the building. Foundations with increased loading to be exposed for inspection by the BCO, to determine load-bearing capacity and underpinned if required.

SOLID FLOOR SLAB

To meet min U value required of 0.18 W/m²k (0.15W/m²k Proposed); Site preparation is existing garage slab. - See Kingspan floating floor details and latest manufacturers information 0.26W/m²k proposed see area weighted uvalue calculation.
Where existing suspended timber floor air / bricks are covered by new extension, ensure cross-ventilation is maintained by connecting 100/100mm dia UPVC pipes to terminate at new 65mm x 215mm air bricks built into new cavity wall with 100mm concrete cover laid under the extension. Ducts to be sleeved through cavity with cavity tray over.

WALLS

Uninsulated walls - see Kingspan details and latest manufacturers information 0.17W/m²k.(Upfitted)

EXTERNAL WALL TO FRONT- All walls below dpc level shall be built in brick. Cavity walls shall be 102mm outer leaf of approved facing brick or solid concrete block if Walls are to be rendered externally, 150mm DriTherm® Cavity Slab 34 insulation, Blockwork K= 0.150 (Standard Acrete) block inner leaf with 12.5mm plasterboard on dabs to give a U-value of 0.18W/m². Concrete block will be used to the inner skin under key load bearing points where necessary and to the agreement of the BCO.

DPC's No less than 150mm above external finished floor level. Movement joints to be provided in accordance with block and brick manufacturers recommendations. The cavity is to be concrete filled up to 225mm below dpc. Wall ties are to be stainless steel to BS EN845-1 and DD140-2 spaced at 750mm horizontally, 450mm vertically and 225mm vertically at reveals. Internal block walls are to be 100mm Toplite Standard block.

Partition walls are to be 100 x 50mm s.w. studs @ 400mm centres with 100mm Rockwool RW3 slabs between, with 12.5mm plasterboard and skim finish each side (Average sound reduction 42dB). Plaster bathroom and kitchen walls (if studs) with Duple wallboard.

Hydrol dpc's to be 150mm min above ground level to coincide with top of slab level and laid on mortar bed above and below, and to all cavity closures. Damcore insulating dpc to all cavity closures around openings. Tooth and bond new brickwork to existing, and maintain clear cavity where new joins existing, or bond new brickwork to existing using Furrix or Crocodile, stainless steel profile ties. Cavity trays to be installed where appropriate and in accordance with manufacturers details.

EXISTING PITCHED ROOF (Traditional Minimum 15° pitch)

Roof to achieve 0.15W/m2K minimum: 400mm Rockwool over ceiling joists

CAVITY TRAYS

Running horizontally within the cavity wall and are appropriate in such situations as:

- At the abutment of a flat roof with a cavity wall
- At the abutment of a lean-to roof with a cavity wall
- Above door or window openings
- Above the edge of a concrete slab or ring beam
- Above airbricks or meter boxes
- Above ducts, pipes or cavity liners which pass through an external wall.

When installing horizontal cavity trays over a roof abutment the line of the cavity trays should be approximately 150mm above the top of the finished roof line. This distance will vary slightly depending on how the roof line falls with the coursing on the face of the wall.
however, it must be a minimum of 75mm above the top of the finished roof line. The exposed area between the base of the cavity tray and the roof covering must then be fully protected by an appropriate external flashing

LIGHTING

Internal lighting shall incorporate a fixed light fitting that only takes lamps having a luminous efficiency greater than 40 lumens per circuit-watt e.g. fluorescent tubes and compact fluorescent lamps.

External lighting, which includes lighting within porches, should be as described above or should automatically extinguish when there is enough daylight and when not required at night.

HEATING AND HOT WATER

All flues and chimneys shall be installed and constructed in accordance with the provisions of Approved Document J, Heat Producing Appliances.

The heating system shall be controlled by the provision of either a room thermostat or thermostatic radiator valves, all in accordance with Approved Document L, Conservation of Fuel and Power.

The controls for hot water storage vessels shall consist of a thermostat and a time switch. Hot water storage vessels shall be installed in accordance with BS 5615 and pipe work shall be insulated to BS 5422 in accordance with Approved Document L.

VENTILATION

Habitable rooms shall have ventilated openings of at least 1/20 of the floor area. In addition it shall be provided with a controllable trickle ventilator not less than 8000 mm². Kitchens shall have mechanical extract ventilation not less than 60 litres/sec and controllable trickle ventilator not less than 8000 mm². Sanitary accommodation shall have mechanical extract ventilation not less than 6 litres/sec and controllable trickle ventilator not less than 4000 mm². Bathrooms to have mechanical ventilation capable of extracting 15 litres/sec and controllable trickle ventilator not less than 4000 mm². Utility rooms shall have mechanical extract ventilation not less than 30 litres/sec and controllable trickle ventilator not less than 4000 mm². In kitchens, utility rooms, bathrooms and sanitary accommodation not containing operable windows the fan should have a 15 min overrun controlled by the light switch.

Where existing or proposed gas appliances are located in a dwelling the builder must ensure that a gas spillage test to BS5540 is carried out if he is installing any mechanical ventilation. Where a fan causes an appliance to spill the extract rate should be reduced to prevent any spillage.

The following measures are to be taken to limit infiltration:-

- Fitting draught-stripping in the frames of operable elements of windows, doors and roof lights
- Sealing around loft hatches

c) Ensuring boxing for concealed services is sealed at floor and ceiling levels, and sealing piped services where they penetrate or project into hollow constructions or voids.

DRAINS

Foul and surface water drains shall be 100mm Hep sleeve (or other approved) with flexible joints, laid to a min fall of 1 in 40 on 100mm granular bed. Inspection chambers up to 0.6m deep to be 190mm diameter. Inspection chambers up to 1.2m deep to be 450mm diameter. Inspection chambers over 1.2m to be 450mm diameter and fitted with access restrictor to 350mm. Drains under the building shall be encased in 150mm concrete. A reinforced concrete lintel shall protect any drains passing through walls over. All sanitary ware is to be UPVC, 100mm diameter SAVP with vent outlet 800mm above the highest window opening height. 38mm diameter waste pipes to washbasins, 50mm diameter to all other appliances. 75mm deep seal traps. All ground floor wastes are to discharge into back inlet gullies below grating level. Rainwater goods are to be UPVC, 100mm gutters, 75mm diameter drops.

GENERAL

All structural elements of structures to be protected to 30 minutes minimum.

Catnic lintels or other approved are to be provided to all door and window openings. Lintels to be checked with manufacturer for suitability to take loading over span required. All lintels in external walls to be insulated and dpc's with preformed stop and cavity trays to be provided above all lintels.

Walls are to be tied to all floor and roof joists at with galvanised m.s. straps.

Provide adequate flashings and cavity trays at roof abutments.

All New external windows and doors to be triple glazed 1.3W/m2k minimum

Windows to be purpose made softwood or UPVC by agreed Manufacturer to agreed specification and fitted into brickwork openings using proprietary straps to suit window frames. Heads to windows over 1200mm to be provided with head fixings into steel lintels using self tapping screws. Mastic seal window and door frames externally.

The following to be safety glass to BS6206:-

- Any glazing within 800mm of floor level.
- Any glazing in doors within 1500mm of floor level.
- Any glazing in side panels within 1500mm of floor level.

Any hot water pipes shall be insulated with a material not exceeding 0.035 W/mK and a thickness equal to the outside diameter of the pipe

All electric switches, sockets and lighting positions to be agreed with client prior to commencement of work.

All radiator and heating appliance positions and specifications to be agreed with client prior to commencement of work.

ACCESS

Switches and socket outlets for lighting and other equipment to be positioned between 450mm and 1200mm above finished floor level. All doors of means of escape to be min 775mm clear opening to facilitate wheelchair maneuvers.

FIRE SAFETY AND MEANS OF ESCAPE

Smoke detectors and alarms to be provided to circulation spaces within the dwelling at all levels BS5839.

They should be mains operated and interlinked. The supply shall comprise of an independent circuit from the distribution board.

Egress windows as first floor level and to inner habitable rooms, minimum opening: 450 x 750mm clear opening, 0.33m2 minimum opening.

ELECTRICAL INSTALLATIONS

All electric work required to meet the requirements of Part P (Electrical Safety) and should be installed by an electrician

who is registered with a Part P Self-Certification Scheme. A completion certificate to must be forwarded to the Local Authority within 30 days of installation.

GENERAL NOTE: ALL WORKS TO BE UNDERTAKEN TO LATEST BUILDING REGULATIONS, BRITISH STANDARDS AND MANUFACTURERS RECOMMENDATIONS

THE EXTENSION HOUSE

PLANNING & DESIGN SERVICES

54 St James Street, Liverpool, L10 0AB

TheExtensionHouseLtd@gmail.com

Tel: 07568 164 169

ALL WORKS TO BE UNDERTAKEN TO LATEST BUILDING REGULATIONS, BRITISH STANDARDS AND MANUFACTURERS RECOMMENDATIONS.

TOWN AND COUNTRY PLANNING ACT 1990 - Advice to be taken from the Local Authority by Client, Planning permission should be applied for and obtained by the owners prior to work commencing.

BUILDING REGULATIONS APPROVAL - Building control approval is required for this project. The contractor must provide the appointed Building control body with plans for assessment and all statutory notices for inspections and must liaise with the statutory undertakers and comply with their requirements.

- Full plans approval building control approval to be obtained by the owners prior to work commencing, or
- Building Notice for domestic extension projects only, additional inspections and notifications will be needed to ensure compliance throughout the build.

PARTY WALL ACT - Prior to commencing work the builder/owners shall ensure that neighbors have been given notice under the Party Wall Act 1996.

CDM REGULATIONS 2015 - The contractor/builder shall be fully aware of the latest Construction (Design and Management) Regulations 2015. The contractor shall notify the Health and Safety Executive where required. Client is responsible for the appointment of a competent contractor/builder.

GENERAL - All dimensions given whether figured or scaled are to be checked and verified on site by the contractor prior to commencement of work. Figured dimensions are to take preference over scaled dimensions.

PURPOSE	Planning and Building Regulations Only	SITE ADDRESS	
		35 Lucas Ave, Liverpool L16 2AA	
WORK	Garage conversion to dwelling house	Number 1	REVISION A
DRAWING	Existing and Proposed Plans and elevations	SCALE 1 - A1 1:50 Floor Plans	SCALE 2 - A1 1:100 Elevations



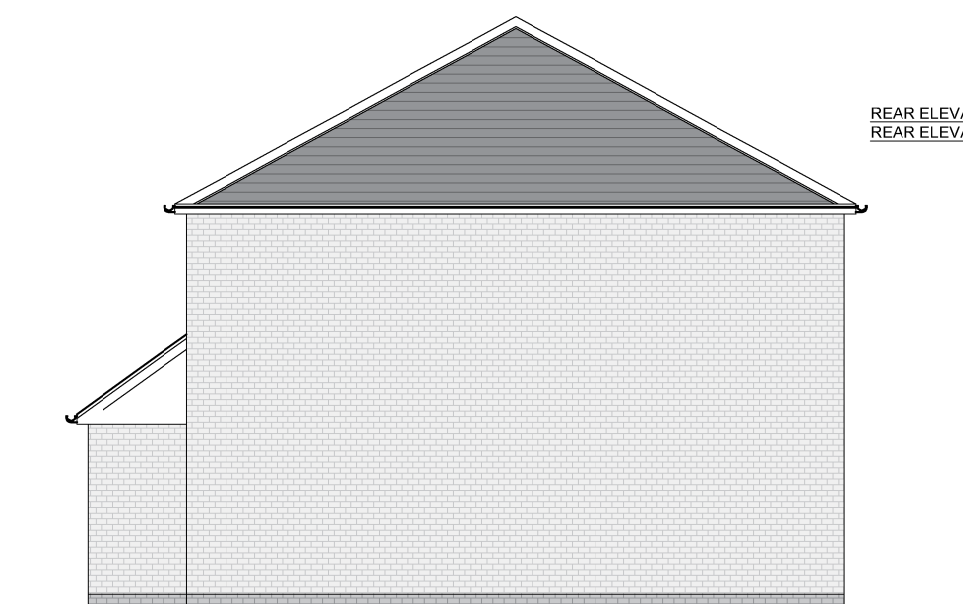
EXISTING FRONT ELEVATION (Scale 1:100)

SCALE BAR - (mm)



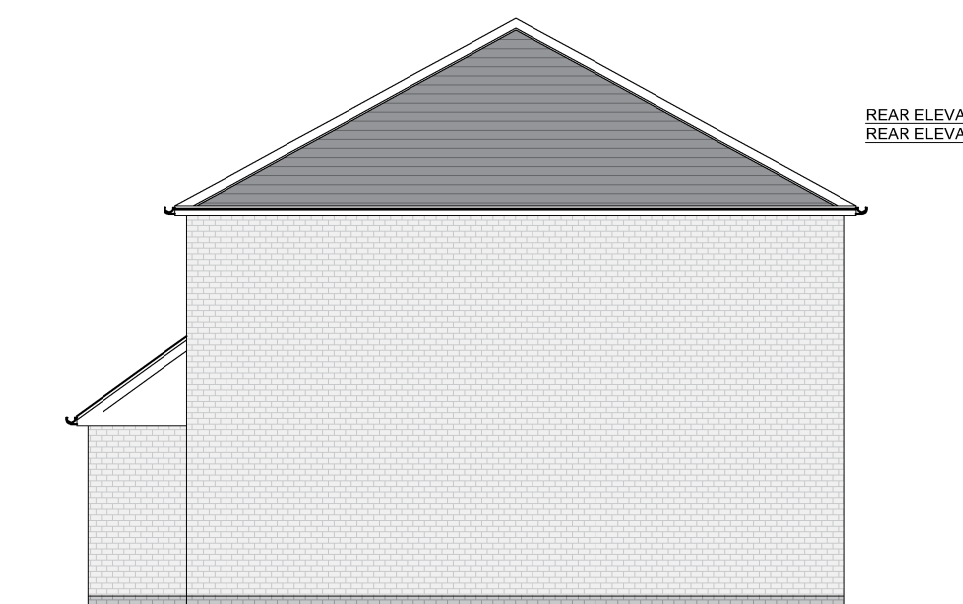
PROPOSED FRONT ELEVATION (Scale 1:100)

SCALE BAR - (mm)



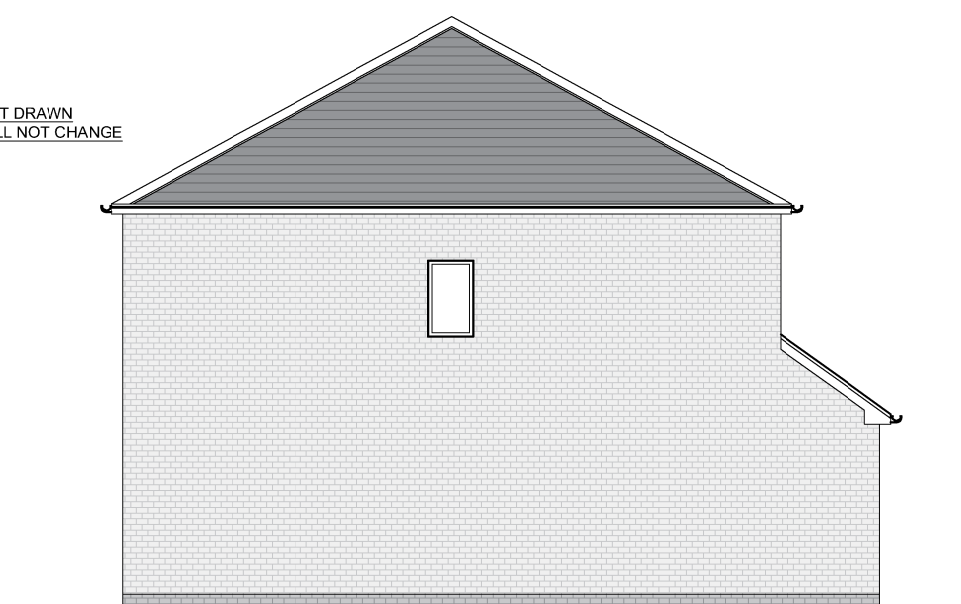
EXISTING SIDE ELEVATION (Scale 1:100)

SCALE BAR - (mm)



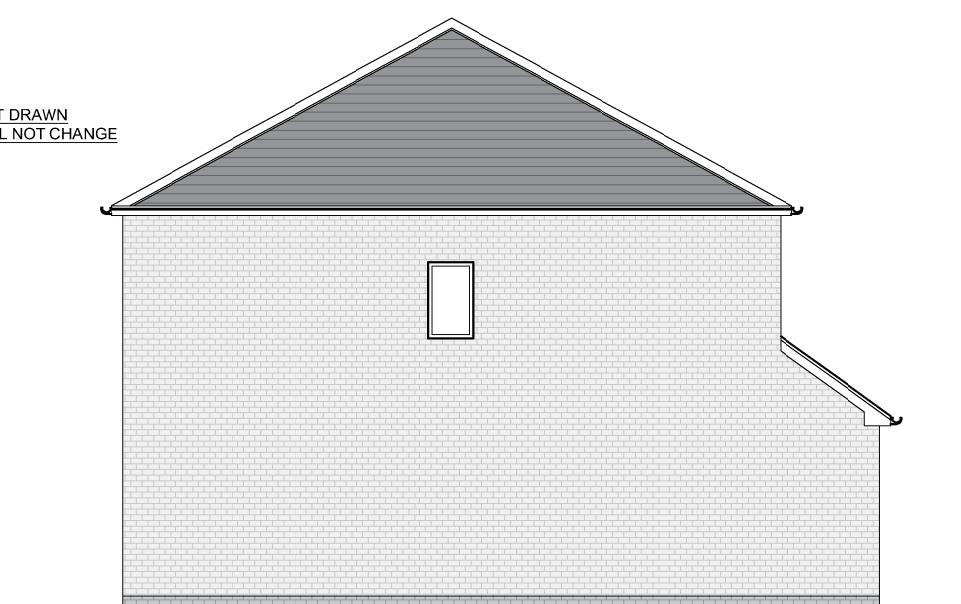
PROPOSED SIDE ELEVATION (Scale 1:100)

SCALE BAR - (mm)



EXISTING SIDE ELEVATION (Scale 1:100)

SCALE BAR - (mm)



PROPOSED SIDE ELEVATION (Scale 1:100)

SCALE BAR - (mm)

Timber Frame Wall - Masonry Finish

Timber Frame Masonry Wall



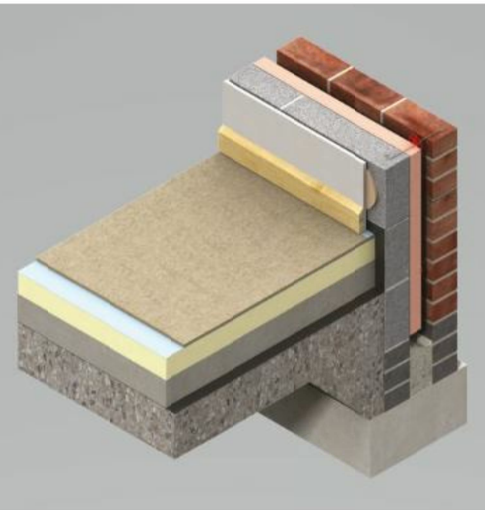
U-VALUE
0.17 W/(m²K)

Construction Summary

- Internal Finish
PLASTER SKIM
- Insulated Plasterboard
KOOLTHERM KT18 [37.5mm (12.5mm plasterboard internal finish)]
- Insulation
KOOLTHERM KT12 - (BETWEEN TIMBERS)
- > Thickness (mm)
100 mm
- Timber Studs
WALL TIMBER - 140mm TIMBER FRAME (15%)
- Residual Airspace
TIMBER STUD CAVITY; U/V, (LOW-E [dbl])
- Sheathing Board
OSB SHEATHING
- Breathable Membrane
KINGSPAN NILVENT BREATHABLE MEMBRANE
- Airspace
UNV. A/SPACE;
- Outer Leaf
BRICKWORK FACING

Solid Ground Floor - Floating Floor

35 Lucas



Construction Summary

- Floor Finish
SOFTWOOD T & G BOARDING
- Separation Layer
POLYTHENE SEPARATION LAYER
- Insulation
KINGSPAN THERMAFLOOR TF70 - (floating floor only suitable for domestic applications)
- > Thickness (mm)
70 mm
- Floor Slab
CONCRETE 1:2:4 2000 kg/m³
- Damp Proof Membrane
DAMP PROOF MEMBRANE
- Total thickness 239.4 mm

U-VALUE
0.26 W/(m²K)

See area weighted u-value calculation

Less insulation in floor will be compensated in walls to maintain level threshold without step from the house to the converted garage/new lounge.

Note: thicker insulation could be used towards the front of the garage as the floor slopes down towards the original garage door.