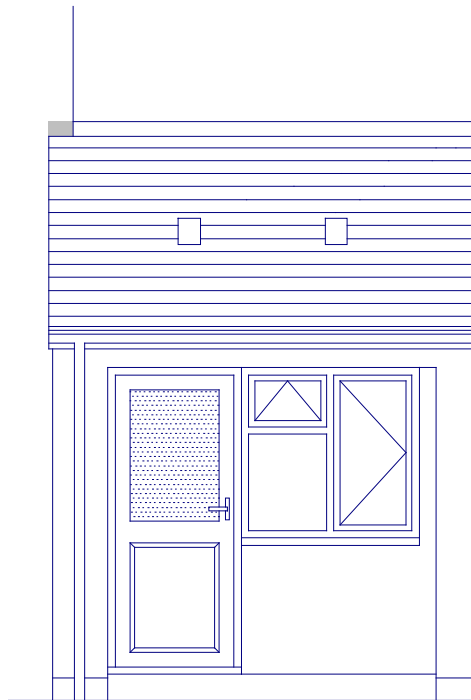


SGT Building Design

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Specification

Garage Conversion
at



Job No. 1026

Specification to be read with drawing nos. 1026-01 & 1026-02

FOUNDATIONS

Support to garage door infill to be 2 no. 100mm x 150mm RC lintels bearing onto existing foundations. Minimum 150mm bearing to be provided. Existing foundations assumed to be adequate for minimal loading being applied.

EXTERNAL WALLS (Solid Construction)

215mm **Celcon Solar** blocks (*BBA Cert No. 95/3096*). External finish to be white painted pebbledashing to match existing formed with 2 No. 8mm thick coats of render (mix - 1:2:9, cement:lime:sand) in accordance with BS5262:1991. Internal finish to be 52.5mm Celotex PL4040 insulated plasterboard (40mm insulation + 12.5mm plasterboard) with 5mm plaster skim. U-value of wall - 0.28 W/m²K.

New walls to be bonded to existing using **Furfix** stainless steel profiles (*BBA Cert. No. 91/2682*). **Hyload** damp proof course (*BBA Cert. No. 86/1770*) to be provided at least 150mm above external ground level linked to existing house dpc. All laps to be a minimum of 100mm, sealed using **Hyload** contact adhesive. Brickwork or dense concrete blockwork to be used below dpc level.

Mortar mix to be Class III to BS 5628:Part 1:1978 or 1:1:6, cement:lime:sand.

UPGRADING OF EXISTING EXTERNAL WALLS

Existing single skin brickwork (100mm thick) to be upgraded as follows (also refer to proposed floor plan). Breathable felt to line internal face of existing brickwork taken up and stapled to existing wall plate. Ensure felt this is installed with external face of felt facing brickwork. 100mm x 50mm studwork tight against felt. 50mm x 100mm timber sole plate on dpc on single course of brickwork off existing concrete floor slab. Link breathable felt to dpc below sole plate. Infill studwork with 100mm Celotex GA4000 PIR insulation board and fix Celotex PL4025 insulated plasterboard (25mm insulation + 12.5mm plasterboard) over and finish with 5mm plaster skim.

UPGRADING OF EXISTING FLOOR

Retain existing concrete floor construction (assumed to be adequate as no sign of defects). Minimum 50mm sand cement screed (to level of existing house floor to rear hallway) over 50mm Celotex GA 4000 PIR insulation board laid over minimum of 2 coats of **Synthaprufe** liquid damp proofing applied to existing floor slab and linked to all dpc's both new and existing. Floor to wet room shower area to be laid to fall to shower drain.

UPGRADING OF EXISTING ROOF CONSTRUCTION (Cold Deck)

Refer to section drawing for additional details.

175mm (100mm + 75mm) of Celotex GA4000 PIR insulation board to be provided between existing 50mm x 225mm flat roof joists and ceiling joists to front pitch. Existing firing pieces fall to the rear and provide in excess of a 50mm clear air path except for the last three joists. Notch the existing counter battens over these last three joists to provide air path over and install 3 no. mushroom vents to existing roof at rear of garage to provide cross ventilation. Install 2 no. tile vents to the existing pitched roof at the front to provide air flow on two opposing side across whole of roof area.

Ceiling finish to be 12.5mm plasterboard with a 5mm Gypsum plaster skim.

INTERNAL WALLS/PARTITIONS (Studwork)

50mm x 75mm vertical timber studs @ 400mm centres with top and bottom plates and intermediate noggins. 75mm **Rockwool** insulation between studs and 12.5mm plasterboard and 5mm plaster skim.

ABOVE GROUND DRAINAGE

Waste plumbing to be Osma MUPVC solvent weld system or similar complying with BS 4514:1983, laid in accordance with BS 5572:1994.

Trap and branch sizes as follows:

Appliance Type	Trap & Branch Pipe Minimum diameter (mm)	Maximum length of run (m)
Wash Hand Basin	32 (<i>max. gradient 20mm/m</i>)	1.7
"	40	3.0
Shower	40	3.0

All appliances to be fitted with 75mm deep seal traps. Rodding access to be provided at all changes of direction.

Drainage runs and stack position as shown on plans.
Stub stack to be 110mm diameter **Osmasoil** system terminating above the flood level of the highest appliance.

Connections to existing drainage as detailed on floor plans.

Wet room shower to have a **Harmer** shower drain (suitable for floor finish) fitted in the floor and connected to new drainage run.

BELOW GROUND DRAINAGE (Foul Water)

110mm diameter **Osmadrain** PVC-U system to be used complying with BS 4660:1989 and laid in accordance with BS 8301:1985 and BS 5955:Part 6:1980. Pipes to be laid to a minimum gradient of 1:40 (1:80 where serving at least 1 w.c.) on a 100mm base of pea shingle. Trench to be backfilled to the top of the pipe with pea shingle then a 100mm layer of selected granular fill, free from stones larger than 40mm, to be placed before back filling with suitable as dug material. Access points to be provided as shown on plans.

Existing manhole to be fitted with a mechanically sealed airtight cover.

Drains to be bridged, where passing through walls/foundations with pre-cast concrete lintels (**not** pre-stressed type). At least 50mm clearance to be maintained all around the pipe.

SAFETY GLAZING

Glazing within 800mm of finished floor level in internal and external walls/partitions to be toughened or laminated safety glazing achieving a Class C standard when tested to BS 6206:1981.

Glazing within 1500mm of finished floor level in doors or side panels within 300mm of a door to be toughened or laminated safety glass achieving at least a Class C standard when tested to BS 6206:1981. If the width of a panel exceeds 900mm then that panel should achieve at least a Class B standard when tested to BS 6206:1981.

Glazing in small panes (maximum area 0.5m², maximum width 250mm) should comply with the above or may be annealed glass at least 6.0mm thick.

GLAZING

All new windows and external glazed doors to be PVC-U fitted with double glazed units with a minimum 20mm gap between panes and low-e glass (i.e. Pilkington k-glass). Maximum U-value of 1.6W/m²K.

ROOF LIGHTS

Roof lights to be **Coxdome** or similar polycarbonate type with a minimum U-value of 1.6W/m²K.

VENTILATION

Ventilation to habitable rooms to be provided by opening windows at least $\frac{1}{20}$ th of the floor area of the room. Some part of the ventilation opening to be at least 1.75m above floor level.

Ventilation to bathrooms/shower rooms to be provided by mechanical extract ventilation capable of extracting at a rate of not less than 15 litres per second operated intermittently.

Background ventilation to be provided to habitable room having a total area not less than 8000mm². (i.e. a trickle ventilator, which should be controllable and secure and located, so as to avoid undue draughts.)

Background ventilation to be provided to shower room having a total area of not less than 4000 mm², ie integral to the fan.

All mechanical extract ventilation to extract to external air.

LIGHTING

New lighting to proposed extension to be by way of energy efficient units having a luminous efficacy greater than 45 lumens/circuit watt and a total output of greater than 400 lamp lumens – e.g. dedicate fittings which will have separate control gear and will take only low energy lamps (pin based fluorescent or compact fluorescent lamps) or standard fittings supplied with low energy lamps with integrated control gear (bayonet or Edison screw base compact fluorescent lamps). **Not** GLS tungsten filament lamps or tungsten halogen lamps.

ELECTRICAL WORK

Provide electrical sockets and lighting to Client's requirements.

All electrical installations required to meet the requirements of Part P (Electrical Safety) **must** be designed, installed and tested by a person competent to do so. Prior to completion the Council should be satisfied that the requirements of 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.

A person who is a competent person registered with an electrical self-certification scheme authorised by the Secretary of State should preferably, undertake the proposed installation work. In this case, this person is responsible for ensuring compliance with BS 7671: 2001 and all relevant Building Regulations. On completion of the work, the person ordering the work should receive a signed Building Regulations self-certification certificate, and the relevant building control body (The Local Authority) should receive a copy of the certificate. The person ordering the work should also receive a duly completed Electrical Installation Certificate as or similar to the model in BS 76713 (see paragraphs 1.6 to 1.12). As required by BS 7671, the certificate must be made out and signed by the competent person or persons who carried out the design, construction, inspection and testing work.

CENTRAL HEATING

Extend existing central heating system to serve new radiators. Suitability/condition of existing boiler to be checked. Extended system to be fitted with a suitable control device (i.e. a room thermostat or thermostatic radiator valves).

Where the existing boiler is to be replaced, the replacement boiler should be a gas condensing boiler with a SEDBUK 2009 efficiency of not less than 88% together with appropriate controls.

Work to any gas appliance/gas heating system to be carried out by a **Gas-Safe** Registered Installer competent to do so.
