

**General Notes**  
 Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc on or in the ground covered, or to be covered by the building.

**Structure**  
 Existing Structure  
 Existing structure including foundations, beams, walls and linels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Project Structural Engineer or Building Control Surveyor.

**New Structure**  
 Beams, Linels and Fire Protection  
 Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 30 minutes fire resisting construction with staggered joints. **Openings and Wall Returns**  
 All openings in walls to be provided with 150mm thick DPM to suit.

**Foundations**  
 600mm x 750mm trench fill foundations grade of ST2. All foundations to be a minimum of 1000mm below ground level, exact depth to agreed on site with Building Control Surveyor to suit site conditions. All construction in accordance with the Building Regulations 2010 A1/2 and BS 8004:1986 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions or difference in soil type be found or any trees in the vicinity of excavations, the Building Control Surveyor is to be contacted and the advice of a structural engineer may need to be sought.

**Ground Floors**  
**Solid Floor - Insulation Over Slab**  
 Solid ground floor to consist of 150mm consolidated well compacted hardcore 1200mm gauge polythene DPM, 100mm concrete, DPM to be lapped in with DPC in walls.

**External Walls**  
**Walls Below Ground**  
 All new walls to have Class A blockwork below ground level or alternatively semi engineering brickwork in 1:4 masonry cement or equal approved specification. Cavities below ground level to be filled with lean mix concrete maximum 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weep holes.

**Cavity Wall**  
 To meet minimum U-value required of 0.28 W/m2K. Provide horizontal strip polymer (hydrol) damp proof course to both leaves minimum 150mm above 'wet' level. All cavities to be installed at all reveals where cavity is closed 102.5mm thick brickwork outer leaf. Cavity width to suit insulation manufacturer's specification. All walls constructed with stainless steel vertical twist type retaining wall ties built in at 750mm centres horizontally, 450mm vertically and 225mm centres at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS 1243. Inner leaf to be insulated blockwork to achieve the U-value with the chosen insulation. Provide cavity trays over openings. All cavities to be closed at eaves and around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres. Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abut the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles. 12.5mm standard plasterboard dry lining on plaster dabs with lightweight plasterboard to finish. Attaching New Wall to Existing Wall  
 Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abut the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

**Thermal Bridging and Air Leakage**  
 Care should be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new walls.

**Roofs**  
**Flat roof**  
 To meet minimum U-value of 0.18W/m2K at rafter level or 0.16W/m2K at ceiling level. Trussed roof to be in accordance with BS 5268 or cut roof to be in accordance with Euro code 5 span tables 3rd Edition. Gable walls should be strapped to rafters at 2m centres. All external walls running parallel to roof rafters to be restrained at roof level using 1000mm x 30mm x 5mm galvanised mild steel horizontal straps or other approved to BS EN 845-1 built into walls at maximum 2000mm centres and to be taken across minimum 3 rafters and screw fixed. Provide solid nogging between rafters at strap positions. All wall plates to be 100 x 50mm fixed to inner skin of cavity wall using 30mm x 5mm x 1000mm galvanised metal straps or other approved to BS EN 845-1 at maximum 2m centres. Insulation requirements to manufacturer's specification for warm or cold roof. Ceiling finished with 12.5mm plasterboard and min 3mm thick multi-finish plaster.

**Lead Work**  
 All lead flashings, any valleys or soakers to be Code 6 lead and laid according to Lead Development Association. Flashings to be provided to all joints and below window openings with welded upstands. Joints to be lapped minimum 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

**Internal Works**  
**Electrics**  
 All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to the B. Inspector.

**Internal Lighting**  
 Install low energy light fittings. Not less than three energy efficient light fittings per four of all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations.

**Heating - Gas Heating**  
 Extend all heating and hot water services from existing and provide new TVRs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist.  
**Heating - New Boiler if required**  
 Heating and hot water will be supplied via a wall mounted condensing vertical balanced flue pressurised boiler with a minimum SEDBUK rating of 86%. No combustible materials within 50mm of the flue. System to be fitted with thermostatic radiator valves and all necessary zone controls and boiler control interlocks. The system will be installed, commissioned and tested by a "competent person" and a certificate issued that the installation complies with the requirements of Approved Document L1B.

**Means Of Escape and Fire Regulations**  
**Smoke Detection**  
 Mains operated linked smoke alarm detection system to BS 5446 - 1:2000 and BS5839-6:2004 to at least a Grade D category LD3 standard and to be mains powered with battery back up. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/storeroys and within 7.5m of the door to every habitable room. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

**Escape Windows**  
 Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. Windows to have an unobstructed openable area of minimum 0.33m sq. with a minimum dimension of 450mm in any direction, the bottom of the openable area should be not more than 1100mm above the floor. The window should enable the person to reach a place free from danger from fire.

**Windows & Doors**  
**Roof Lights**  
 T & A type roof lights to be fitted with 16mm argon gas and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufacturer's instructions with openings to be trimmed in accordance with Trade Euro code 5 span tables 3rd Edition.

**Safety Glazing**  
 All glazing in critical locations to be toughened or laminated safety glass to BS 6206 and Approved Document N of the current Building Regulations, i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

**Window U-Values**  
 Window Energy Rating to be Band C or better and to achieve U-value of 1.6 W/m2K. All windows to be fitted with 12.5mm thick DPM to suit.

**Door U-Values**  
 To meet minimum U-value required of 0.28 W/m2K. Provide horizontal strip polymer (hydrol) damp proof course to both leaves minimum 150mm above 'wet' level. All cavities to be installed at all reveals where cavity is closed 102.5mm thick brickwork outer leaf. Cavity width to suit insulation manufacturer's specification. All walls constructed with stainless steel vertical twist type retaining wall ties built in at 750mm centres horizontally, 450mm vertically and 225mm centres at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS 1243. Inner leaf to be insulated blockwork to achieve the U-value with the chosen insulation. Provide cavity trays over openings. All cavities to be closed at eaves and around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres. Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abut the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles. 12.5mm standard plasterboard dry lining on plaster dabs with lightweight plasterboard to finish. Attaching New Wall to Existing Wall  
 Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abut the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

**Background & Purge**  
 Background ventilation - Controllable background ventilation via trickle vents to BS EN 13141-3 within the window frame to be provided in new habitable rooms.

**Domestic Ventilation**  
 All glazing in critical locations to be toughened or laminated safety glass to BS 6206 and Approved Document N of the current Building Regulations, i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

**Window U-Values**  
 Window Energy Rating to be Band C or better and to achieve U-value of 1.6 W/m2K. All windows to be fitted with 12.5mm thick DPM to suit.

**Door U-Values**  
 To meet minimum U-value required of 0.28 W/m2K. Provide horizontal strip polymer (hydrol) damp proof course to both leaves minimum 150mm above 'wet' level. All cavities to be installed at all reveals where cavity is closed 102.5mm thick brickwork outer leaf. Cavity width to suit insulation manufacturer's specification. All walls constructed with stainless steel vertical twist type retaining wall ties built in at 750mm centres horizontally, 450mm vertically and 225mm centres at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS 1243. Inner leaf to be insulated blockwork to achieve the U-value with the chosen insulation. Provide cavity trays over openings. All cavities to be closed at eaves and around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres. Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abut the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles. 12.5mm standard plasterboard dry lining on plaster dabs with lightweight plasterboard to finish. Attaching New Wall to Existing Wall  
 Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abut the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

**Extract Ventilation - All Wet Rooms**  
 Provide mechanical extract ventilation to all wet rooms ducted to external air capable of extracting at a rate of not less than below: Shower Room/Bathroom/En-suite 15 litres per second, WC 6 litres per second, Utility 30 litres per second, Kitchen 30 litres per second at cooker hood or 60 litres per second elsewhere. 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 undercut ventilation below the door to aid air circulation. Ventilation provision in accordance with the Domestic ventilation compliance guide. Intermittent extract fans to BS EN 13141-4.

**Pitched Roof Ventilation**  
 Maintain a 50mm air gap above insulation in the roof pitch to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation. Alternatively use proprietary breathable membrane to BS 4016:1997. Suitable ridge tiles to be provided to aid cross ventilation.

**Drainage**  
**Rainwater Drainage**  
 New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 150mm diameter UPVC downpipes. Rainwater taken to existing storm water system or new soakaway, situated a minimum distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaways to be min 1 cubic metre capacity (or to depth to Local Authorities approval) with suitable granular fill with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine design and depth of soakaway or taken to alternative outfall.

**Foul Drainage**  
**Underground Drainage**  
 Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 400mm pea shingle (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS7158 and BS801. Inspection Chambers  
 Inspection chambers/manholes to be provided at all changes of level, direction, connections and every 45m in straight runs. Inspection chambers to have bolt down double sealed covers internally and be adequate for vehicle loads in driveways.

**Above Ground Drainage**  
 Above ground drainage to comply with BS5572:1978 for sanitary pipework. All drainage in accordance with Approved Document H of the Building Regulations. Wastes to have 75mm deep anti vac bottle traps and rodding eyes at changes of direction. All plumbing to be to BS 5572.  
 Size of wastes pipes and maximum length of branch connections (if maximum length is exceeded then anti vacuum traps to be used).  
 Sinks - 3m for 40mm pipe 4m for 50mm pipe  
 Washing machine and dishwasher - stand pipe 50mm  
 Wash basin - 1.7m for 32mm pipe 4m for 40mm pipe  
 Bath/shower - 3m for 40mm pipe 4m for 50mm pipe  
 W/c - 100mm for 6m for single wc  
 All branch pipes to connect to 110mm soil and vent pipe. Waste pipes not to connect within 200mm of the wc connection.  
 Supply hot and cold water to all fittings as appropriate.  
**Foul Drainage Ventilation**  
**Soil & Vent Pipe**  
 SVP to be extended up in 110mm dia UPVC and to terminate minimum 900mm above any window/door openings within 3m. Provide a long radius bend at foot of SVP.  
 Automatic Air Valve  
 Ground floor fittings from wc to be connected to new 110mm UPVC soil pipe with accessible internal air admittance valve complying with EN 12280, placed at a height so that the outlet is above the trap of the highest fitting.

**All windows and stairs must be measured and designed on site by specialist supplier. All woodwork to be agreed with client before supplying and fixing. All measurements checked on site and discussed with Phil Rand if any problems have been found.**

**Client**  
 Mr Brian Soule.

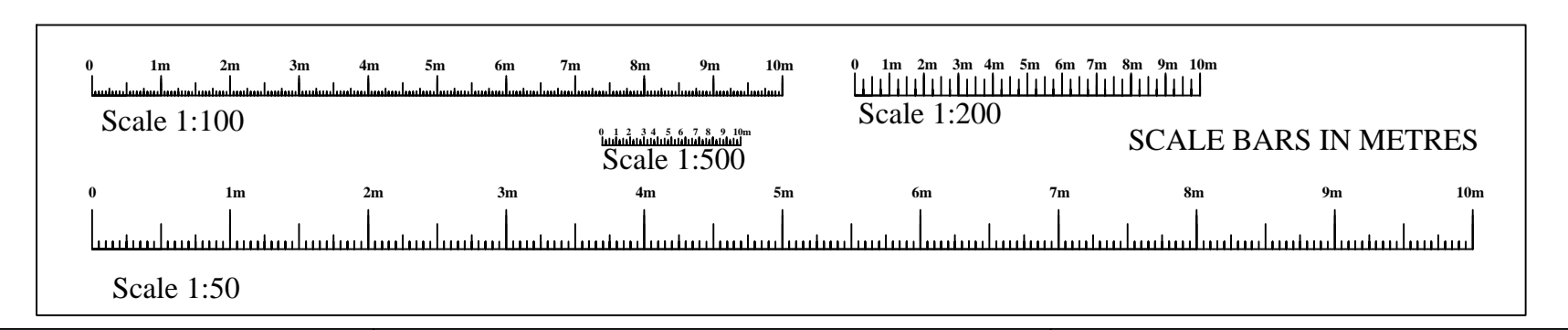
**SITE ADDRESS**  
 25 Churchill Place  
 Failand  
 GL7 4JT

**PROJECT**  
 Proposed side and rear extension.

**Phil Rand**  
 Cherry Tree House  
 Clardon lane  
 Purton,  
 Wiltshire  
 SN5 4HN  
**TEL 01793 771128**

**RAND PLANNING CONSULTANCY LTD**

Drawn by <b>Phil Rand</b>	Drawing No <b>02</b>	Paper size <b>A1</b>
Scales <b>1:500 1:100 1:50</b>	Date <b>14th Feb 2024</b>	



PROPOSED GROUND FLOOR.

PROPOSED 1ST FLOOR.