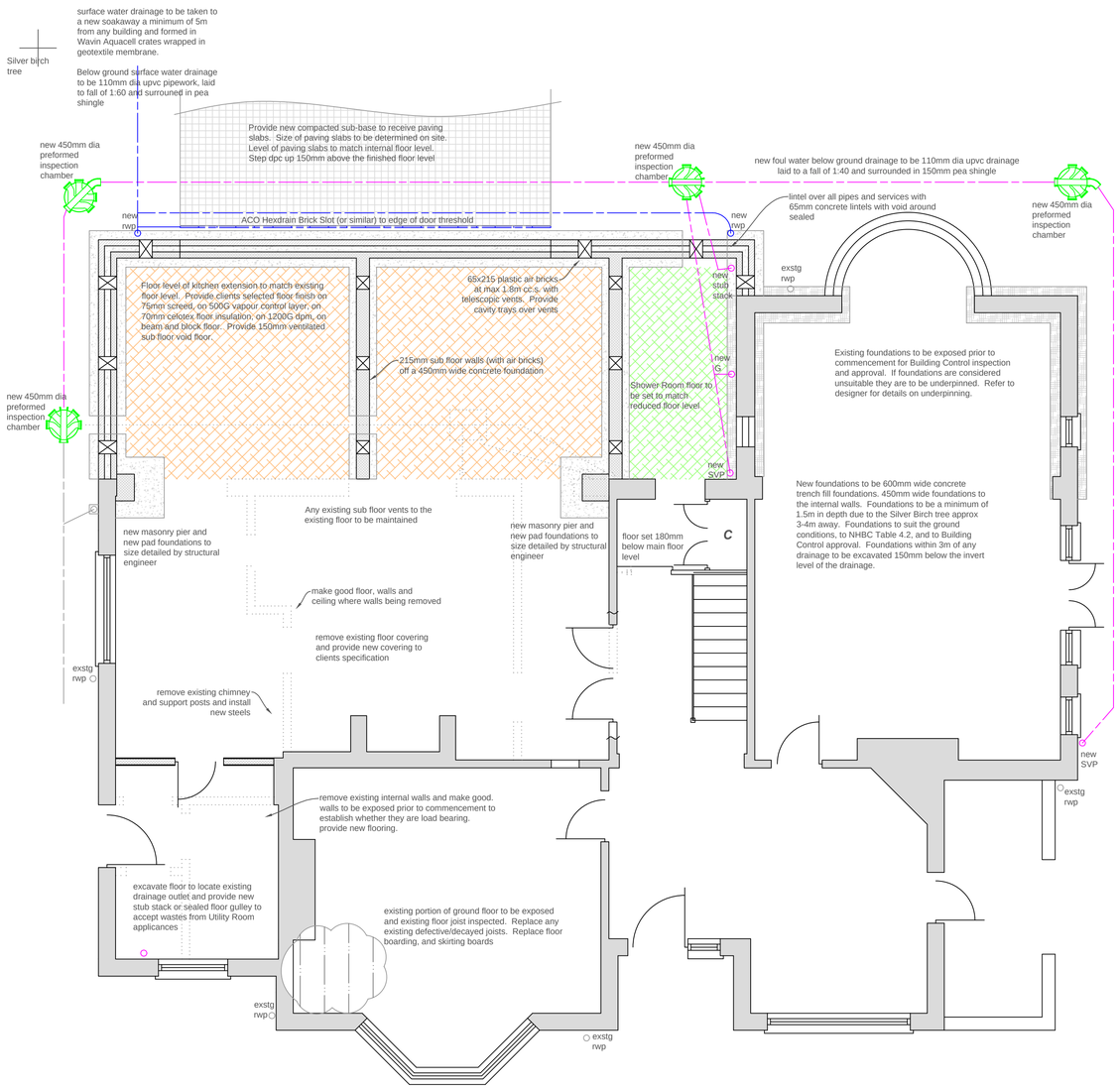


PROPOSED SUBSTRUCTURE PLAN - 1:50

Tile Hanging
Replace any broken/missing tiles to the front gable tile hung areas.

Dining Room Floor
Area of dining room floor alongside chimney appears damp. Lift flooring to investigate condition of joists and sub floor void. Replace any rotten/decayed timbers and floor boarding. Renew the skirting board. The damp issue would appear to have been caused by blocked rainwater downpipes/drainage - builder to investigate condition of surface water drainage systems and correct as necessary.

Wall Ties
Wall tie specialist to visit site to carry out a survey of the existing wall ties. Where necessary the wall ties are to be replaced.

Utility Porch
Remove the existing porch to the Utility Room and make good.

Existing Air Bricks
All existing external air bricks are to be exposed during the build - this may require the remove of vegetation or the lowering of the external ground levels.

Condition Survey
All defects identified in the Condition Survey are to be addressed during the build

Finishes
All finishes, including; skirting boards, flooring, doors, architraves, radiators, kitchen units, worktops, utility room units, tiles, sanitaryware, switches, sockets, light fittings, etc are to be agreed with the client during the build.

Building Notes/Specification

This is not a specification of works but has only been produced for gaining Planning & Building Regulation approval. The builder is responsible for checking prior to commencement all scaled and stated dimensions, with any discrepancies being reported to the designer. The builder is also responsible for checking all structural elements (walls, foundations, lintels etc) prior to commencement. Structural design is to be in accordance with the structural engineers details. Builder is to ensure that any Party Wall Act notices are signed and resolved prior to commencement.

Existing Foundations
Existing foundations to the single storey structure to the Living Room to be exposed prior to commencement for Building Control inspection and approval. If the foundations are considered unsuitable to accept the additional loads then refer to the designer for instruction.

Foundations
New foundations to be 600mm wide concrete trench fill foundations to a minimum depth of 1m, to suit the site conditions and to Building Control approval. In clay subsoil the foundations are to be constructed in accordance with the NHBC Table 4.2. If a clay sub soil is encountered this will dictate the need for the new foundations to be a minimum of 1.4m in depth due to the proximity of the Silver Birch tree.

Foundations within 3m of any drainage to be below the invert level of the drains. Where pipes and services pass through the foundations/walls they shall be lintel over, with the void around the pipe suitability sealed.

The builder is to excavate trial hole prior to commencement, for Building Control inspection, to ascertain the precise ground conditions and to allow the foundation depths to be agreed.

New Ground Floor
Kitchen extension floor level to finish flush with the existing floor, Shower Room floor to be lower to match the lower floor level. Provide clients selected floor finish on 65mm sand cement screed on 500G vapour control layer on 70mm Celotex floor insulation on 1200G dpm (fully lapped with dpc and existing membranes) on beam and block suspended floor to manufacturers details and calculations. Provide 20mm Celotex insulation skirted up around the perimeter to prevent cold bridging. Builder to provide set of the manufacturers structural details for the beam and block floor system to Building Control for approval. Provide dpc above and below the beam and block floor bearings. Provide 50mm compacted hardcore ground cover/concrete to the sub floor void. Maintain a 150mm air gap below the beam and block floor.

Any existing sub floor vents are to be maintained. Provide 65x215mm plastic air bricks to the external walls at 1500mm centres. Provide cavity tray and weep holes over the air bricks/telescopic ventilators.

Below Ground Walls
Walls below ground to be 100mm dense concrete block inner skin, with 100mm cavity and brick outer skin. 100mm cavity, filled with lean mix concrete (top splayed outwards) to 215mm below the lowest dpc. Below ground walls to internal walls to be 100mm blockwork. Provide a dpc at floor level which is lapped to the existing dpcs. Provide 215mm wide sub floor walls where supporting the beam and block floor/inner wall.

Above Ground Walls
External brickwork to match existing at low level, smooth through coloured render to the upper floors on dense concrete blocks, with 100mm cavity fully filled with Crown Dri-Therm Insulation Batts, 100mm Thermalite Shield insulating blocks, with plasterboard on dabs and skim finish. The external wall construction achieves a U value of 0.24W/m2k. To the first floor extension the cavity width is to match the existing cavity width - if this is less than 75mm then provide 35mm insulated packed plasterboard to the inside face of the first floor walls. To the utility room walls provide 35mm insulated backed plasterboard and skim.

Provide wall ties at 750mm centres horizontally, 450mm centres vertically, and at every block course within 300mm of openings. Insulated damcore vertical dpcs to be used at reveals to prevent cold bridging. Provide preformed insulated Catnic lintels over openings with min 150mm end bearing. Lintels to suit the manufacturers span and load tables.

All cavities to be continuous with existing, and new work to be bonded to existing with Furfix slip connectors to create a movement joint. Movement joint to be provided in render on line of masonry movement joints. Provide a continuous horizontal dpc 150mm above ground level, and continuous with any existing membranes, Level of patio to match internal finished floor level - therefore step dpc above mm higher in area of patio. Provide vertical restraint straps at 2m centres to the wall plates. Provide lateral restraint straps (with solid noggins below) over the floor joists at 1800mm centres. Restraint straps to be 30x5x1000mm long galvanised straps.

First Floor
Provide new 47x170 C24 floor joists at maximum 400 c/cs. Increase the depths of the joists as necessary to achieve a floor and ceiling level which matches the existing. Provide double joists below any stud walls and below any baths. Multiple member joists to be bolted together at 400mm c/cs, with dog tooth washers. Provide solid strutting to the new joists at one third span. Joists to be either built into the walls or provided on masonry hangers, and built into the web of the existing steel beams. Joists to be covered in 22mm t&g moisture resistant floor boarding over the joists. To the ceiling provide 100mm mineral wool between the joists with 12.5mm plasterboard and skim to the ceiling. Ceiling to match the level of the existing ceiling

Internal Stud Walls
Provide 50x100 timber studs at 400mm centres with head and sole plates and intermediate noggins. Provide 100mm mineral wool within the studs. Provide ply bracing either side of the studs with plasterboard and skim finish.

Internal Block Walls
Provide 100mm blockwork (off suitable foundation) with plasterboard and skim either side.

Roof Construction - Dwelling
Provide a 50x100 treated timber wall plate strapped to the external walls.

First Floor Bedroom Roof
Provide 47x100 C24 rafters and 47x125 C24 ceiling joists at 400mm centres. Provide 2No 47x125 C24 ceiling binder at mid span to support the ceiling joists, with joist hangers. Ceiling joists to be continuous from side to side to maintain roof triangulation. Provide layboards onto the existing roof structure. Birdsmouth rafters over the wall plate, pole plate and a head plate (which is bolted to the wall at 600mm centres). Provide a 152x152x51 UC beam to support the existing roof- this beam is to be accommodated above the existing ceiling line where possible with joist hangers provided to the roof structure. Provide 280mm mineral wool insulation to the roof space.

Single Storey Roof - Skilling Ceiling
Provide 47x195 C24 rafters at max 400mm centres. Provide double rafters either side of the roof windows. Roof windows to be 780x1400 velux roof windows. Birdsmouth rafters over the wall plate and a 50x100 head plate (which is bolted to the wall at 600mm centres). Between the rafters provide 125mm celotex insulation, maintaining a 25mm ventilation void over. Provide a further 25mm celotex below the rafters with the joints fully taped.

Ceilings
Provide a 500g vapour control layer then 12.5mm plasterboard and skim. Renew/repair existing ceilings as necessary.

Pitched Roof Covering
Provide a breather membrane, 25x38mm treated battens and roof tiles to match colour of the extension but to suit the roof pitch.

Eaves
Provide exposed rafter feet to match existing. Provide new black upvc rainwater goods and renew existing rw goods in black upvc

Leadwork
Provide cavity trays and lead flashings to all roof/wall abutments in accordance with the LDA guidelines.

Renew lead flashings and trays to all existing chimneys and roof abutments. Renew leadwork to valleys. Remove vegetation from all roof areas, including valleys and at chimneys.

Steel Beams
Provide steel beams, bearings and piers in accordance with the structural engineers design. Form new piers to steel beams as required by structural engineer. Steel beams to be clad or coated to achieve 30 minutes fire resistance. Provide steel column/posts to the glazed feature with projecting plate, head and base plates to structural engineer design.

Fire Safety
Provide new mains operated (with battery back-up) and interlinked smoke/heat detection within the property; to the locations shown on the plans.

Steel beams to be encased/coated to achieve 30 minutes fire resistance.

The new bedrooms windows at first floor level must be provided with a suitable means of escape window which provides a minimum opening area of 0.33m2, and a minimum clear opening width and height of 450mm. If necessary windows to have a flying mullion/transom to achieve the minimum opening area. Cill height of window to be 800-1100mm above floor level.

Windows/Glazing
Windows to be upvc double glazed units with a 16mm air gap, soft low E coating argon filled and warm edge spacer bar to achieve a U value of 1.6W/m2k. Provide safety glass in the critical areas. Windows to be casement windows with Georgian glazing bars. Replace existing windows. Bay windows to be load bearing windows, with suitable reinforced bay poles/head plates to support the roof loading. Windows/doors to be designed by fabricator

Windows/doors to habitable rooms to have trickle vents giving background ventilation of 8000mm2. Window to the non-habitable rooms to have 4000mm2 trickle vents. Frames to be sealed externally and internally with mastic.

The feature glazing to the rear are to be designed by the glazing manufacturer. Details of the glazing to be provided to client and Building Control for approval prior to installation.

Ventilation of Rooms
Habitable rooms to have trickle ventilation of 8000mm2 and 4000mm2 to non habitable rooms.

Utility Room to have extract ventilation of 30 litres per second. Kitchen to have extract ventilation of 60 litres per second (or 30 litres per second if ducted to the outside air). Bathroom, Shower Room and En-Suite to have 15 litres per second extract ventilation.

All extract fans are to be ducted to the outside air (including any cookerhoods). Fans to be tested on completion with certificate issued to Building Control confirming that the fans achieve the specified extraction rate.

Heating
Existing boiler to be removed and replaced with a new megaflow boiler. Full heating and hot water installation to be designed by a Gas Safe Engineer. Boiler to have a minimum efficiency of 92%. Boiler to have a timer, thermostat, zone controls and TRVs to radiators. The boiler to be flued in accordance with Part J. All works to the boiler to be carried out by a Gas Safe Engineer. Type and position of radiators to be determined with the client prior to installation.

Surface Water Drainage to be UPVC gutters and downpipes. Renew any existing rw goods in upvc. Existing downpipes and drainage to be investigated for suitability/completeness. Rainwater pipes to be taken to a below ground drainage system, which connects to a new soakaway. Below ground surface water drainage to be 110mm diameter drainage laid to a fall and on a bed and surround of 150mm of pea shingle. Junction of the below ground drainage with the above ground rainwater downpipes is to be sealed with a rubber junction piece. Soakaways to be positioned a minimum of 5m from any building and to be formed in Wavin Aquacell crates lined with a geotextile membrane. Soakaway to have a minimum volume of 1m3, but actual volume to be determined by a percolation test carried out by the builder. Alter the existing gutter as necessary to suit the position of the relocated/new down pipes.

Foul Water Drainage
Foul water drainage to be 110mm diameter upvc pipework, laid to a fall of 1in40 and bedded and surrounded in 150mm pea shingle. Provide new 450mm diameter preformed inspection chambers to all junctions/changes of direction in drainage. Sinks, basins, showers to have 38mm diameter waste pipes. Combined wastes to be minimum of 50mm diameter. WCs to have 100mm diameter waste pipes. Above ground drainage pipes to have deep seal traps and to be laid to a suitable fall. To Shower Room stub stack provide air admittance valve about level of wash hand basin. Provide offset in rear SVP - wrap drainage within extension with acoustic mineral wool, and box in with two layers of plasterboard and skim. Extend boxing full width of extension to achieve consistent wall line.

At the time of the measured survey the exact drainage layout could not be ascertained. A full drainage survey is to be carried out prior to commencement to establish the correct line, depth, and condition of the drainage.

Electrics
Electrical installations to be in accordance with the latest edition (17th) of the IEE Regulations, and to be carried out by a NICEIC registered competent person, with a certificate of installation provided on completion of the project. Locations of sockets and switches to be determined on site. 75% of all lights are to only accept low energy light bulbs.
Any external lighting is to be fitted with a sensor.

Garage
Remove garage structure and remove from site - note garage roof would appear to be asbestos. Remove concrete driveway and provide new grass on top soil.

Landscaping
Provide new timber fence panels and timber posts to side of property as shown on plans

Provide new patio slabs to serve sliding doors - type of patio slabs and size of patio to be determined. Level of patio to match internal finished floor level - therefore step dpc above mm higher in area of patio. Provide path to extend to side of building as shown on plans.

Remove existing tree stumps to side of property and make good

Client to ascertain ownership of existing leaning brick boundary wall. If owned by client the wall is to be either removed or made safe.

Render
Existing external walls to be re-rendered with a smooth through coloured render such as K-Rend. Where rendering over the existing render the rendering contractor is to ensure that the existing render is in a sound condition and that the render installation is carried out in accordance with the manufacturers details. Maintain brick at low level and brick feature course at base of render. Remove vegetation growth from walls.

Existing Roof
Clear vegetation from all roof areas. Renew leadwork to valleys. Renew lead flashings and trays to chimneys. Rebed the ridge tiles. Realign tiles as necessarys. Replace and missing/broken tiles. Remove glazed roof to rear, install new rafters, felt, battens and matching tiles. Investigate existing flat roofs to bay windows and replace roof covering and lead work as necessary.

Recessed Porch
Replace rotten timbers from recessed porch with matching timbers. Provide new flooring. Provide new ceiling (including insulation between the joists).

Fireplaces
Remove existing fireplaces and prepare areas to receive new fireplaces. Existing chimneys to be inspected by chimney sweep. HETAS engineer to provide new flue liners to the chimneys. Provide new combustion vents at low level in external walls to any rooms/areas containing a chimney. Provide carbon monoxide detector in all rooms/areas containing a fire place.

Stairs
Remove the existing balustrading to the staircase and provide a new timber balustrading and handrail. Balustrading to consist of vertical balusters at max 100mm centres

Existing Roof Void
Remove existing insulation and provide new 280mm mineral wool. Remove existing glazed loft hatch and infill void with timber joists and plasterboard/skim. Form new access hatch over Landing and provide a new insulated loft access hatch together with a retractable loft ladder. Provide woodworm treatment to existing roof timbers. Provide 3 sun tubes to serve the existing Landing. Provide 22mm loft boarding to area immediately around access hatch. Provide loft light.

Security Alarm
Provide security alarm within the property. Alarm panel to be provided alongside the entrance door.

External Doors
Existing external doors to be replaced with new doors. Style of door to be determined.

The drawings, details and specifications are soley for the purpose of seeking Planning and Building Regulation approvals. They are not intended as a specification of works, and PMG Ltd accepts no liability should they be used in this manner.

Drawing to be read in conjunction with specification, details notes and any specialist design elements. Any works carried out prior to approval are done so at the clients/builders own risk.

The contractor is responsible for checking all scaled and stated dimensions prior to commencement on site. The length of all structural elements are to be checked on site prior to placing orders.

The builder is to expose any existing structural elements (foundations, walls, lintels, floors, beams, roofs etc) which are accepting additional loads for Building Control and client approval prior to commencement.

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Any boundaries shown on the plan are their assumed location/line. No works to project over the boundary line.

Client is resolve all matters relating to the Party Wall etc Act 1996 prior to commencing building works

Project Title

Proposed Extensions & Alterations
9 Granville Road
Littlehampton
West Sussex
BN17 5JU

Drawing Title

Proposed Substructure Plan
Construction Notes

Client

Mr & Mrs M Marodeen

Date:

October 2014

Scale:

1:50 at A1

Drawing No.

004 rev A

PMG
SurveyingPlanDrawingConsultancy

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