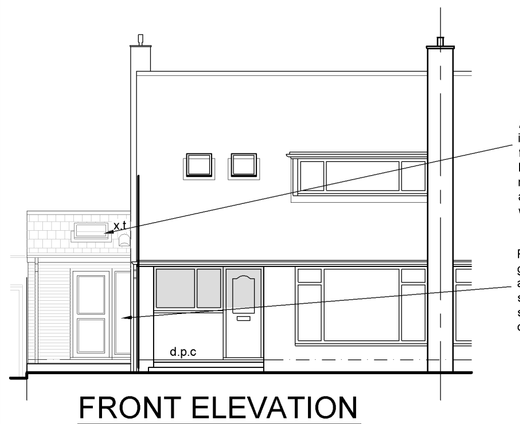
A1 DWG

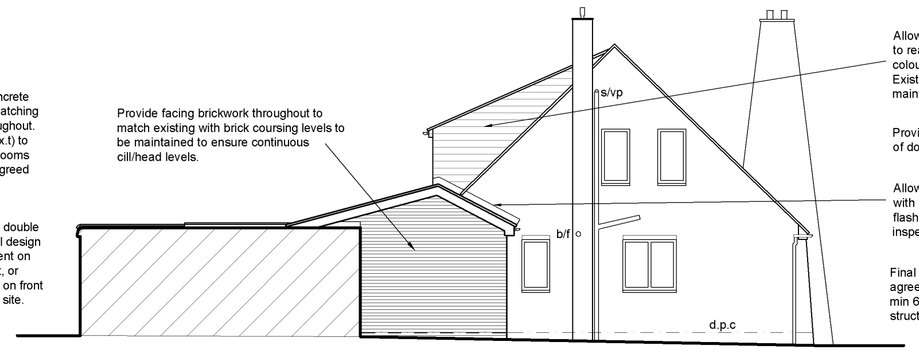


All new roof areas to be finished with concrete interlocking tiles to match existing with matching fascias, soffits and rainwater goods throughout. Final position of new extract fan outlets (x.t) to rear roof slope from Utility and Shower Rooms and from adapted kitchen extract to be agreed with LABC on site. See also main notes.

Provide 1575x2100mm high white UPVC double glazed doorset to front as indicated. Final design and style of doorset to be agreed with client on site. Provide 780x780mm Velux rooflight, or similar approved frameless type, centred on front door or doorset, subject to agreement on site.

FRONT ELEVATION

Scale 1:100



Provide facing brickwork throughout to match existing with brick coursing levels to be maintained to ensure continuous cill/head levels.

Allow for providing new Cedral cladding finish to rear and flank of dormer with final style and colour of cladding to suit client requirements. Existing render finish to side elevation to be maintained, to suit client requirements.

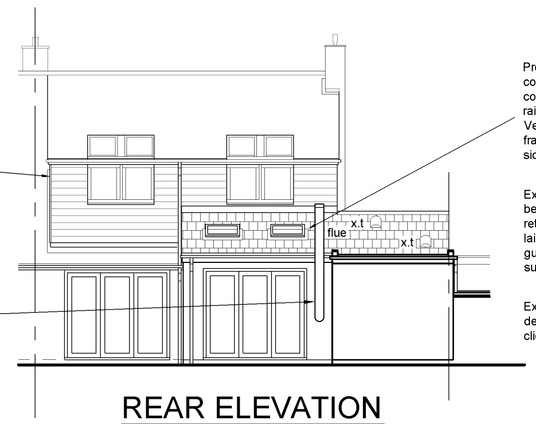
Provide stop bead/batten to cladding at end of dormer with flank render finish retained.

Allow for cutting in new and existing roofs with Code 5 lead soakers and cover flashings, all to satisfaction of building inspector.

Final position of log burner and flue to be agreed with client on site. Flue to terminate min 600mm above nearest part of any structure within 2.3m distance.

FLANK ELEVATION

Scale 1:100



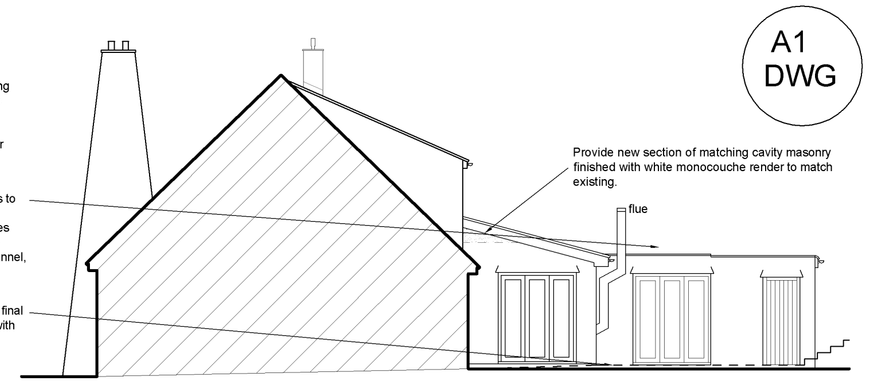
Provide mono-pitch roof finished with concrete interlocking tiles to match existing complete with matching fascias and upvc rainwater goods. Provide 2no. 780x1180 Velux rooflights, or similar approved frameless types, with double rafters either side bolted together at 600c/cs.

Existing garage roof felt and firring pieces to be stripped off with warm deck insulation retained. Allow for fixing new firring pieces laid to fall to extg rear gutter, or new side guttering with rwp connected to ACO channel, subject to agreement on site.

Existing decking to be fully removed with final design of new gravel area to be agreed with client on site.

REAR ELEVATION

Scale 1:100



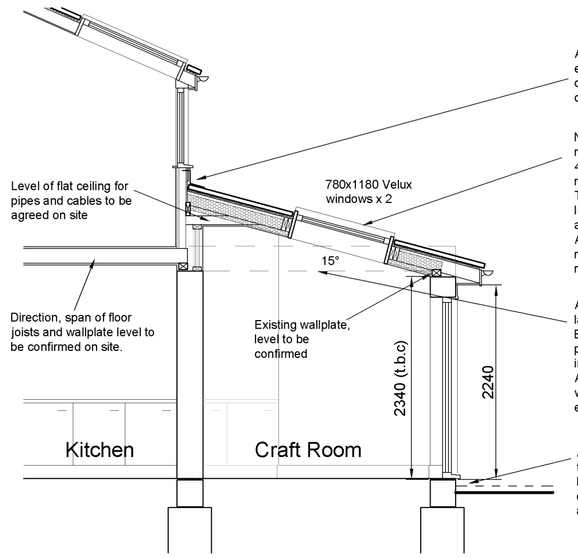
Provide new section of matching cavity masonry finished with white monocouche render to match existing.

SIDE ELEVATION

Scale 1:100

Waste Plumbing
All work to comply with BS 12056 & BS 752 and to the satisfaction of the building inspector.
Provide 40mm diameter UPVC waste to shower/sink/washing machine.
Provide 32mm diameter UPVC waste to basin in shower room.
Where basin waste lengths in excess of 1.7m use 38mm diameter waste pipes.
Provide 75mm deep seal traps to all fittings.
New 100mm diameter stub stack to be fitted with 'Durgo' or similar approved air admittance valve no lower than the highest overflow/flood level of any connecting appliance/fitting.
Cleaning/rodding eyes to be provided at all changes in direction of waste pipework.
Provide isolation valves to hot and cold water supplies within 300mm of each appliance.
All baths and wash hand basins are to be fitted with a mixer/blender valve ensuring maximum water discharge temperature of 48°C, positioned close to tap to prevent colonisation of waterborne pathogens.
All stored water to not exceed 100°C.

Finishes/Plasterwork
Provide 12.5mm Gyproc Wallboard to underside of ground floor ceilings with fixings at max 600 c/cs.
Provide min 3mm skim coat of plaster to finish with taped joints.
All new walls, unless otherwise specified, to be finished with 12.5mm Gyproc Wallboard on 10mm Gyproc adhesive dabs.
Where making good to or fully plastering existing walls, finish with sand/cement undercoat and Thistle multi finish plaster.
Provide s/w or MDf architraves and skirting boards throughout to match existing or with profile to suit clients choice.
All plastered walls to be finished with mist/sealer coat of emulsion paint prior to internal decoration works being undertaken.
All new softwood to be knotted and primed with appropriate trade paints/finishers.



Allow for providing Code 5 lead flashing upstand to existing rear dormer projection and finish rear and side cheek of dormer in Cedral cladding of colour to suit clients choice.

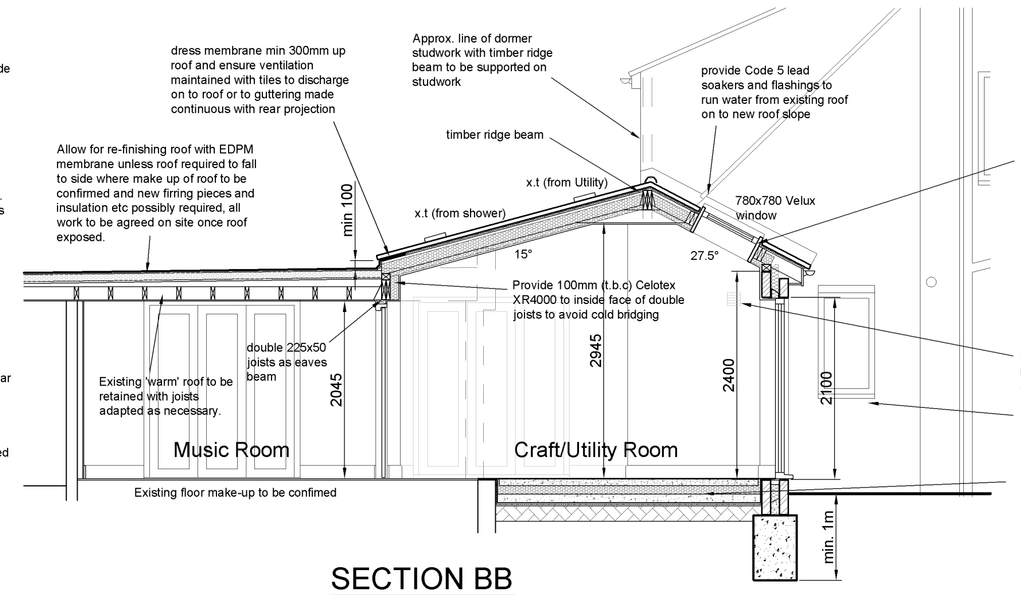
New mono-pitch roof to be constructed generally as main notes with 150x50 C24 grade rafters at max 400c/cs doubled up and bolted together around rooflights.
Top wallplate to be fixed to existing dormer studwork. Insulate with 120mm Celotex PL5000 between rafters and further 50mm to underside.
Allow for providing 50x50mm counter battens under rafters to take recessed LED fittings, see also main note and all subject to agreement on site with client.

Allow for stripping out existing flat roof structure, lantern and all flashings.
Existing wallplate levels to be exposed with final position to be confirmed on site. Architect to be informed where substantially different from plans.
Allow for forming insulated studwork upstand from rear wall of existing house to underside of new roof to ensure flush wall finish.

All existing decking to be removed and levels reduced to ensure min 150mm clearance below d.p.c level.
Finish areas with gravel over Weedguard membrane or similar approved with final landscaping to be agreed with client on site.

SECTION AA

Scale 1:50



New vaulted roof to be constructed generally as main notes with 150x50 C24 grade rafters at max 400c/cs, doubled up and bolted together around rooflight.
Insulate with 120mm Celotex GA4000 insulation between rafters and further 50mm to underside.
Provide double 225x50 C24 joists bolted together as ridge beam with rafters supported on Simpson SPR50 adjustable hangars, or similar approved.
Provide 100x50mm collars to underside of ridge beam spiked to rafters to create void for cables, pipes etc.
Pitch of front roof slope approx. 27.5° and rear roof slope 15° (to match mono-pitch roof) with timber ridge to line through and be supported from corner of dormer studwork wall with all levels to be confirmed on site.
Allow for making good existing dormer and for re-cladding with Marley Eternit Cedral cladding on 38x25mm vertical s/w battens screwed to dormer studwork through Tyvek breather membrane over existing render with all necessary stop beads and drips provided.
All work to be in strict accordance with structural engineers design details and calculations, where required.

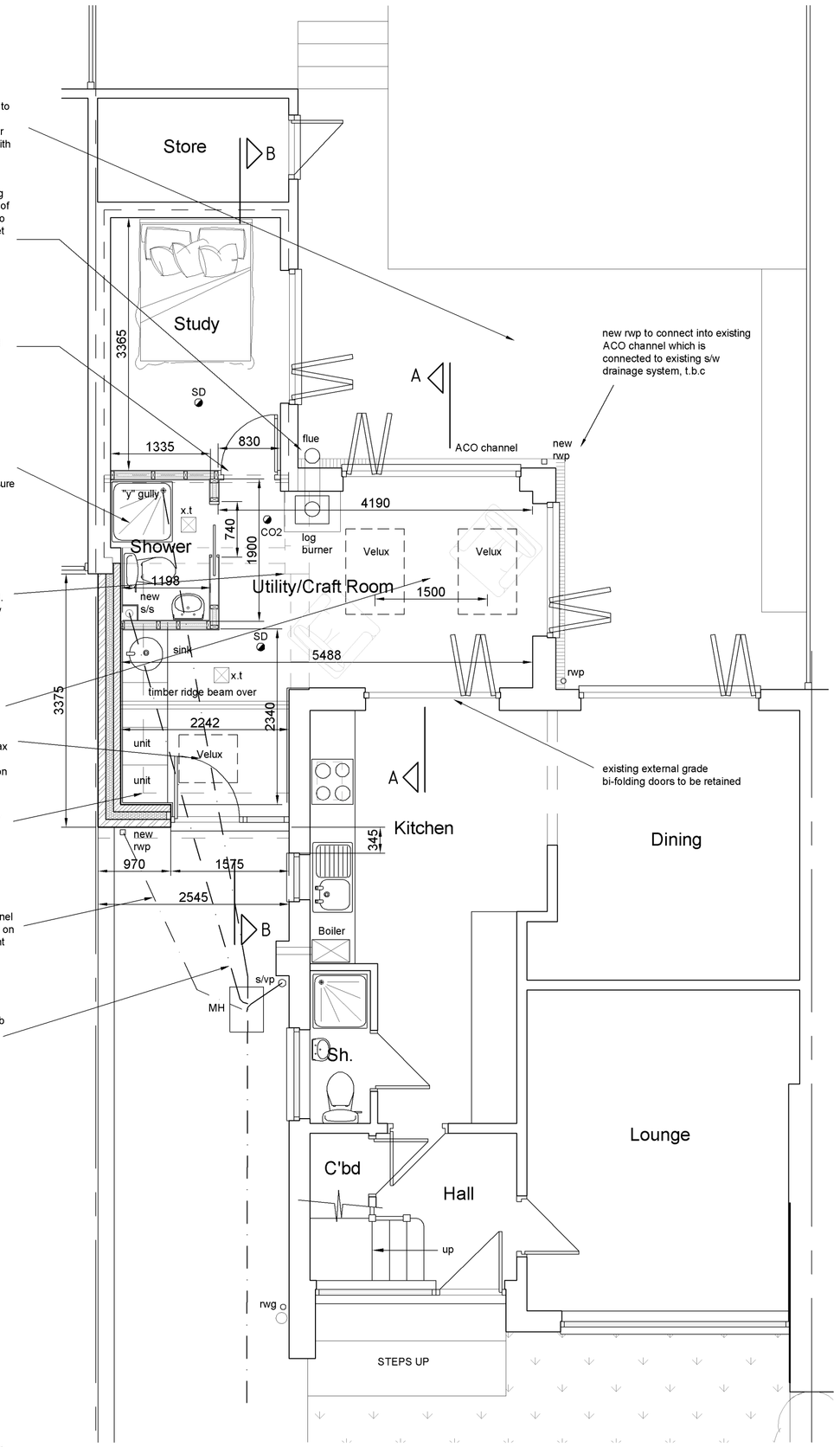
Existing cooker extract vent to be adapted and taken to new roof tile outlet or fascia/wall vent or as otherwise agreed on site.

All new opening heights as indicated subject to adjustment as necessary to ensure continuous brick coursing levels with existing dwelling.

New and existing dpc's and dpm's to be lapped and made fully continuous.
Provide ground bearing slab in accordance with main specification note.
Alternatively, provide 168mm thickness of Styrofloor laminated PIR/t & g chipboard slab (or similar approved to suit levels) bonded to top of new slab in accordance with manufacturers guidelines.

SECTION BB

Scale 1:50



GROUND FLOOR PLAN

Scale 1:50

Foundations
New 750 x 500mm wide mass concrete (concrete to BS 8500) trench fill foundations to be at same depth as existing dwelling or a minimum depth of 1m below ground level, whichever is the lower, to the satisfaction of the building inspector.
Assumed shrinkable clay sub-soil but no relevant trees within zone of influence of foundations recorded at time of survey in accordance with NHBC Chapter 4.2 guidelines for building near trees.
Exact location and depth of existing foul and surface water drains to be confirmed prior to commencement of excavation works.
Foundations to be minimum 600mm wide where excavated in pure sand based soils or where eccentrically loaded at boundary line to avoid overhanging as noted on plan.
Top of all foundations to be minimum 150mm below ground level.
Where foundations not concreted down to a daily basis, adjacent pours to be linked using 3 H16 900mm dowel bars at top and bottom of foundations.
All bridging to be completed using 150mmx100mm deep PCC lintels.
Overlap of foundations to be 2 x step up or thickness of foundation whichever is greater.
Provide 75mm Claymaster compressible board to internal faces of foundations at a depth of 1.5m or greater.
Allow for tracing and locating all services prior to any excavation work being carried out and ensure services are adequately protected or relocated as necessary.
All foundation work to be to the satisfaction of the building inspector.

External Cavity Walls
Provide 102mm matching facing brickwork in cement/sand mortar (1:3) with approved joints.
All brickwork to be fully bonded and coursed with existing.
Provide min 100mm wide cavity insulated with min 90mm Celotex Thermoclass 21 interlocking PIR board tied to inner leaf with min 10mm residual air gap to be kept free of debris with installation to be in strict accordance manufacturers guidance and specifications.
Inner leaf to be Celcon Standard (Lambda 0.15) blockwork or similar approved, e.g. Celcon Solar or Thermalite Shield.
Finish internally with 12.5mm Gyproc Wallboard on min 10mm Gyproc adhesive dabs.
Walls to achieve minimum overall 'U' value of 0.18 W/m2'k with specified construction achieving this.
Provide stainless steel disc ties for retaining solid insulation panel at max 450c/cs vertically and 750c/cs horizontally staggered and at 225mm c/cs to all openings.
Provide vertical and horizontal dpc's to all openings.
Provide 'Furfix' or similar approved (unless stated otherwise on drawing or within any supporting structural calculations) starters at junction of new and existing masonry, with vertical dpc, where appropriate and finish joint externally with poly-sulphide sealant.
All openings in new cavity walls, unless otherwise stated, to be spanned with proprietary IG L1/S 100 lintels of length to suit window openings with minimum 150mm end bearing together with dpc's, cavity trays, weepholes and arch formers as appropriate.
All cavities to be closed with 'Thermabate' or similar approved insulating dpc's.
Provide Hyload dpc's at min 150mm above finished ground level lapped with all dpm's and existing dpc's.
All d.p.c levels and finished floor levels relative to drawings to be checked and any discrepancies reported back to designer where necessary.
Cavity to be filled with weak mix concrete to within 3 courses of dpc or finished ground level whichever is lower.
All work below ground level to be in Class B engineering brickwork or approved block work.

Existing Flat Roof (Warm - Unventilated)
Allow for stripping off existing roof and replacing existing roof membrane with existing ply, firring pieces and existing insulation panel to be fully retained unless fall of roof to be altered to fall side to side.
Provide 'Firestone' EDPM, or similar approved rubber roofing membrane system achieving Class AA, AB or AC surface spread of flame resistance, cold bonded (or 12.5mm thickness of limestone chippings bedded in bitumen on a 3 layer glass fibre based built up roofing felt system, incorporating type 3g felt as first layer) to top of existing or replacement ply deck.
Where existing roof insulation panel on top of ply and firring pieces, and direction of fall from roof to be altered from front to back to side to side, allow for stripping off insulation and providing 150mm Kingspan TR27 (or equivalent) with integral vapour barrier. Provide 50x50m cross noggins between joists to support ends of insulation panels and bed all edges on mastic beads to ensure continuous vapour control layer.
Above construction, where full replacement of roof required due to feferential changes, achieves overall 'U' value of 0.15 W/M2'k.
Fix/lay insulation panel on firring pieces laid to fall 1:60 side to side on existing roof joists as shown on the drawing.
Form new verges, as required, with minimum 75x25mm chamfered fillet nailed to top of insulation panel/decking at verges of roof with roofing felt/membrane draped over and into new guttering.
Provide 12.5mm foil backed plasterboard to underside of roof joists internally where replacement required.
Provide new 100mm HR UPVc guttering to side elevation where fall of roof to be changed with 68mm diameter down pipes to match existing connected to extg ACO drain.
All works subject to opening up and inspection of roof and agreement with building inspector on site.

Electrical Installation
All electrical work to BS 7671 and to meet requirements of Part P (Electrical Safety) designed, installed, inspected and tested by a person competent to do so. Prior to completion the Local Authority must be satisfied that an appropriate electrical installation certificate has been issued for the work, and it has been signed by a person competent to do so.
The Local Authority should require notification from the Part P Competent Persons Scheme (CPS) that the relevant registered installer has carried out the works and had duly notified them in accordance with set procedures.
Final positioning of lights, sockets etc to be agreed with client on site.
All switches and sockets to be 450-1200mm above floor level.

Mono and Dual Pitched Roofs - Warm Unventilated
Provide Forticrete 'Centurion' or Redland Regent concrete interlocking tiles, or similar approved (e.g Sandtoft 20/20 concrete plain tiles for use down to 15 degree pitch), laid with minimum 100mm headlap. All tiles, including verges, to be clipped into place in accordance with manufacturers specific guidelines. Provide 38x25mm tanalised battens at gauge to suit on Tyvek Supro (or similar approved) breather membrane, with minimum laps of 229mm, complete with eaves carriers draped over 150x50mm C24 Grade rafters at 400mm centres as specified on the drawing. Rafters to be doubled up either side of rooflights and bolted together at max 600mm c/cs.
All rafters to be notched over (maximum 25mm 'birdsmouth') and spiked through wall plates using 4no. long 4.00mm nails per connection and supported on hangars to ridge beam over side extension.
Allow for providing additional cross noggins to underside of ceiling where client wishes to install recessed downlights to sloping sections of roof so as to avoid any contact with insulation layer. Any recessed down lighters to be fire rated.
100 x 75mm wall plate to external cavity wall held down with 5 x 30 x 1200 galvanised metal straps at 2.00m centres maximum.
Provide 175x50mm wall plate to top of mono-pitch bolted to existing dormer window structural timber frame qith M12 bolts at max 400 c/cs.
Allow for 3no.end rafters to be tied to new cavity walls with 5 x 30 x 1200 galvanised metal straps at 1.20m centres maximum with 50 x 75mm noggins and packing pieces.
Provide minimum 125mm thickness of Kingspan Thermopitch TP10 panel (or 125mm Celotex XR4000) fixed in position with counter battens between all new rafters and 50mm Thermopitch TP20 (or 50mm Celotex GA4000) to underside of rafters to all roof slopes with joints of all panels and rafters finished with a mastic bead as per manufacturer's specific guidelines.
Roof construction specified achieves overall 'U' value of 0.15 W/m2'k.
Ensure minimum 25mm air gap between underside of breather membrane and top of insulation panel where no integral vapour barrier.
Line underside of rafters where Celotex used with 12.5mm foil backed plasterboard where thermal board not used.
Provide Code 5 lead soakers at abutment with walls and code 5 lead cover flashings.
Provide cavity trays, IG or similar approved, at roof wall/abutments, over openings and where cutting new lead flashings into new or existing cavity masonry, and where specified by the building inspector.
All leadwork to be in accordance with BS EN 12588 and installed in a competent and professional manner in accordance with Lead Development Association guidelines.
Provide UPVc fascias and soffitt boards with 100mm HR UPVC gutters and 68mm diameter rainwater pipes to match existing.

Ground Floor Construction (Ground bearing slab)
Provide 70mm 1:3 cement/sand screed, reinforced with D49 Fabric mesh at base, on 1000 gauge polythene vapour barrier on 120mm thickness Celotex XR4000 insulation panel (or equivalent approved, e.g Kingspan Thermafloor TF70) with 25mm edge strip to perimeter on 100mm 1:2:4 concrete slab on 1200 gauge polythene dpm lapped with all new and existing dpc's and dpm's on minimum 150mm thickness of well consolidated broken brick hardcore (or 250mm Type 1 fill) blinded with minimum 25mm thickness of sand.
Floor construction specified achieves 'U' value of 0.15W/M2'C.
Allow for masking all voids around pipes passing through floor and structure generally to prevent ingress of fill and vermin and finish with compressible sealant.
Where ducts incorporated in slab to connect to existing house air bricks, provide 2no.68mm square pvc rwp's tied together.

Windows/Doors
Provide UPVC double glazed windows/doors to match existing of size, design and colour (to suit clients choice) as shown on drawing although to have minimum opening area equivalent to 1/20 of floor area (or 1/10th of floor area if opening angle of casement/light less than 30 degrees) of room.
All new and any replacement windows and doors to incorporate trickle ventilators, with an equivalent open area of 4000mm² to Utility Room and 8000mm² to all habitable areas.
Trickle ventilators to be fitted within head of windows at minimum 1700mm above floor level.
All door and window frames to be fixed in to position so as to provide minimum 30mm coverage to cavity closers. Provide mastic seals to front and back of frames.
All windows, doors, rooflights etc to achieve U value of 1.4 W/m²kminimum with 4mm Pilkington Optifloat to outer pane, 16mm Argon filled air space and 'K' glass A to inner pane complete with warm edge spacers.
All glass at ground floor level within 800mm of floor level within doors and/or side panels to be toughened or laminated glass to BS8206.
All new internal doors at ground floor level to be 1981 x 762/680mm wide with minimum 10mm air gap under door leaf as dimensioned on drawing.
New Velux standard range rooflights (or similar approved 'frameless' types - to be agreed with client) to be double glazed with 4mm Pilkington Optifloat to outer pane, 16mm Argon filled air space and 'K' glass A to inner pane complete with warm edge spacers. Allow for incorporating raising kit (or timber noggins) as necessary to ensure minimum pitch of 15 degrees to glazing.
Part Q Security (optional)
All doors and windows to incorporate locking mechansims compliant with Part Q of Building Regulations and 'Secured by Design'.
Doors and windows to incorporate locks to meet security requirements of BS PAS 24:2012 or satisfying standards that provide a similar or better performance.

Studwork Partitions
Provide studwork partitions/walls generally with 12.5mm Gyproc Wallboard either side of 100x50mm timber studs (or 75x38mm) with minimum 50mm Rockwool Acoustic Parition Roll, or similar approved, acoustic insulation of density no less than 10kg/m³, between studs in order to achieve minimum 40db sound resistance.
Provide 12.5mm Gyproc Soundbloc board in place of Wallboard to all partitions forming sanitary accommodation.
Provide min 3mm skim coat of plaster to finish with taped joints.
Timber studs to be at max 600mm c/cs vertically and 900mm c/cs horizontally. Provide additional noggins for electrical switches, sockets etc together with all necessary sole and head plates.

Mechanical Ventilation
Supply and fit wall mounted extract fan units in Shower Room to provide 15 litres/second extraction rate with 15 minute overrun.
Fan to be controlled by operation of light switch with separate manual control.
All mechanical extract terminals to be placed as high as practicable although preferably less than 400mm below ceiling levels and positioned so as to avoid draughts.
Extract fan to Utility Room to provide 30 litres/second extraction rate, linked to operation of light switch with separate manual control.
Where ducting lengths over 1.5m, Centrifugal fans to be used.
All extract fans (excluding cooker hood) to be Greenwood Airvac, or similar approved, low energy dMEV types to reflect extraction rates required.
Extract fan outlets (x.t) to be positioned as generally indicated on drawing although subject to agreement on site between client and contractor.

Foul and Surface water Drainage - Private
Provide100mm diameter vitrified clay flexi jointed foul water drain pipes to fall 1:40 to existing manhole bedded and surrounded with 150mm of 5-14mm mixed gravel to BS EN295. Same material to be used where making good any part of existing drains or redundant connections disturbed as part of works.
Back inlet gulleys are to be set on and surrounded with 150mm CP20 grade concrete with removeable external grate and if situated internally to be fitted with sealed, screwed down galvanised plates, perforated as necessary for waste pipes.
Provide RC lintels over all drains passing through foundations and walls.
Drains below hardcore internally to be covered with 300mm wide 75mm thick concrete slab to prevent damage during construction.
Allow for masking all voids around pipes passing through floor and structure generally to prevent ingress of fill and vermin and finish with compressible sealant.
Any foul or surface water drainage pipes running under driveway with less than 900mm cover to be bedded and surrounded with minimum 100mm concrete. Concrete stopped short of joints and flexcell board fitted.
Any new plastic inspection chambers to be Hepworth or similar approved, positioned and set on concrete (1:2:4) base with unused connections left blanked off. Surround for public sewer chambers to be 150mm concrete but for private drain chambers surround may be selected 'as dug' granular material tamped in layers of not more than 250mm. Provide standard grade C cover and frame to BS EN 124. Installation to be as described by manufacturer.
For surface water, provide 100mm diameter UPVC flexi jointed surface water drain pipes, bedded and surrounded with 100mm pea shingle, to fall 1:60 to any suitable existing soakaway, surface water drainage system or new soakaways where directed by building inspector.
Surface water disposal arrangement to be agreed at commencement of works.
Any new soakaways to be minimum 5m from any new or existing building, road or area of unstable ground.
Fill with soakaway attentuation crates and top with 1200 gauge polythene and min 230mm top soil.
Provide 100mm thick RC cover slab where under hardstandings.
In chalk, sand or gravel based soils, soakaway volume (below invert of pipe) to be 1m³ per 60m² of roof area served.
In clay soils, soakaway volume (below invert of pipe) to be 1m3 per 16m² of roof area served.
All soakaways sizes and positions to be agreed on site with building inspector.
(Design and installation of soakaways in accordance with BS EN 752-4 and BRE Digest 365 'Soakaway Design')

Central Heating/Hot water and Lighting
Existing Worcester Bosch Greenstar 28i Junior Combi MKV boiler in kitchen to be retained subject to existing rating and capacity being sufficient.
Adapt/extend existing heating and hot water system and provide controls, thermostatic valves etc to match remainder of system.
All new radiators to be fitted with thermostatic control valves.
Boiler, Heating and Hot Water systems to be fully tested and commissioned by GasSafe registered contractor upon completion of works with certificates to be supplied to building owner and local authority.
Responsibility for achieving compliance with the requirements of Part L rests with the property owner. Provide the building owner/occupier with all the relevant appliance manufacturers manuals/specifications, installation and maintenance handbook with sufficient information on the operation and maintenance of heating/hot water system complete with any appliance registration certificate and testing certificates.
Where any new or replacement fixed gas burning appliance is installed, provide a Carbon Monoxide alarm compliant with BSEN50291-1:2018 in the subject room.
Insulate pipes with minimum 40mm foam lagging.
All new internal lights to be energy efficient types to only take lamps having a luminous efficacy greater than 75 lumens per circuit watt.
External lighting to be provided with maximum 150W fittings to only take energy efficient bulbs having a luminous efficacy greater than 75 lumens per circuit watt. All lights to be controlled automatically with motion and daylight sensors.

Party Wall Act 1996
The relevant local authority approval(s) for the proposed works alone does not constitute authority to proceed with building works where the Party Wall (etc) Act 1996 applies or is deemed likely to apply.
The property owner is responsible for seeking the appropriate specialist advice in order to ensure compliance with this act prior to commencement of any works and no liability is accepted by this company for the failure of the property owner to meet the requirements or provisions contained therein.
We would recommend contacting Mr J Mitchell of Miramar Design on 01296 663888 to seek advice and administer all necessary client Party Wall Activities.

Building Safety Act 2022 - Client Legal Duties
The client is responsible for the appointment of a Principal Contractor/Principal Designer to undertake the works.

Our role as the Architectural Designer does not extend beyond the provision of Council Approvals for the works, i.e Planning Permission and Full Plans Building Regulations approval. We are therefore not to be considered the Principal Designer as defined under the Building Regulations 2010 (Amended), in Part 2A,11C(1) where the client is required to appoint a suitably competent Principal Designer and Principal Contractor to undertake the works which can be the same person/company.

The client is responsible for providing the LABC with the reelvant name, contact address and contact number for these persons as soon as possible. If you do not notify LABC of these appointments, they will assume that you will be acting in both capacities and will be taking on these legal duties. The new regulations are a result of the Building Safety Act 2022 which is intended to drive up competence in the construction industry and improve quality and standards in our built environment.

General Notes
Figured dimensions to be read in preference to scaled dimensions at all times.
Where dimensions indicated as t.b.c (to be checked/confirmed) these are either considered to be critical to setting out of structure or they are dependant upon existing site conditions and the contractor is to check conditions etc before work proceeds.
All dimensions (unless otherwise stated) are structural, e.g. from blockwork to timber studwork, and allowance should be made where necessary for internal finishes.
All external materials to match existing unless specified otherwise with samples to be sourced and approved by client and/or LPA prior to commencement of works.
This drawing to be read in conjunction with all other relevant information whether produced by this company or by others.

CBuildE chartered building engineer

registered LABC Partner Authority Scheme

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Revisions		

Project:
Proposed single storey side extension and associated alterations to 31 Grovelands Avenue, Hitchin, SG4 0QU

Title:
Scheme Proposals Drawing

Scale:	Date:	Drawn:
As stated	01/10/2024	SJC

Job No:
SC/20051188

Drawing No:	Rev:
02	

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Tel: 01525 862457 or 07960 215053
stevecoates72@gmail.com