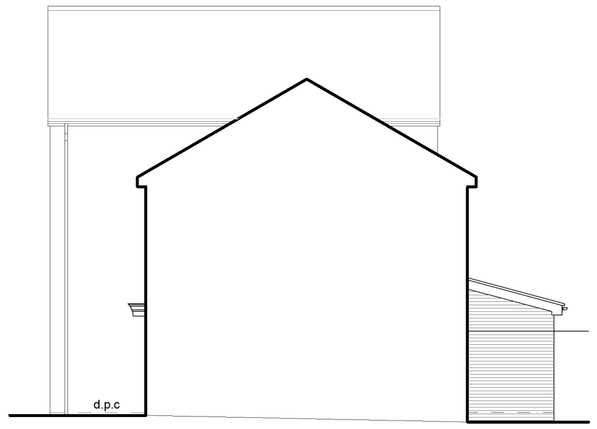
A1 DWG

FRONT ELEVATION

Scale 1:100

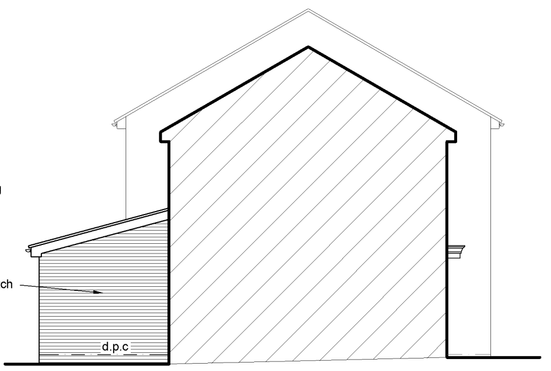


FLANK ELEVATION

Scale 1:100

REAR ELEVATION

Scale 1:100



SIDE ELEVATION

Scale 1:100

Note

This drawing is to be read in strict accordance with DB Consulting Structural Engineers detailed design drawings and calculations and all references to steelwork and end bearing must be taken from the engineers package. The structural arrangement information added to these drawings has been shown for ease of reference only.

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.
Where shrinkable clay sub-soils encountered, final depth to be compliant with NHBC Chapter 4.2 guidelines for building near trees although no relevant trees within zone of influence of foundations.
Where existing dwelling incorporates piled foundations, as are often used by developers for convenience, allow for taking down foundations to below ground beam level and for installing beam and block floor.
Exact location and depth of existing foul and surface water drains to be established prior to commencement of excavation works.
Foundations to be minimum 600mm wide where eccentrically loaded at boundary line to avoid overhanging.
Top of all foundations to be minimum 150mm below ground level.
Where foundations not concreted on 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. Feature brick detail to be maintained as noted on drawing. Render finish to have waterproof additive.
All brickwork to be fully bonded and coursed with existing.
100mm cavity filled with Crown Dritherm Cavity Slab 37 Standard insulation batts taken minimum 150mm below top of ground floor insulation and made continuous with roof insulation layer.
Inner skin to be 100mm Plasmor Fibolite blockwork with cement/sand (1:3) joints.
Finish internally with 12.5mm Gyproc Wallboard on 10mm Gyproc adhesive dabs.
Walls to achieve minimum overall 'U' value of 0.28 W/m2'k with specified construction achieving 0.27W/m2'k.
Provide stainless steel wall ties at max 300c/cs vertically and 600c/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 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 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. Secondary dpc to underside of floor beams to beam and block floor where chosen alternative.
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.
Where beam and block floor required, provide Glidevale 225 x 75mm airbricks MV250 with MV251 periscope vent to provide ventilation to beam and block floor at max 2m centres to external walls. Allow for incorporation of vents to internal load bearing walls at max 1m c/cs.

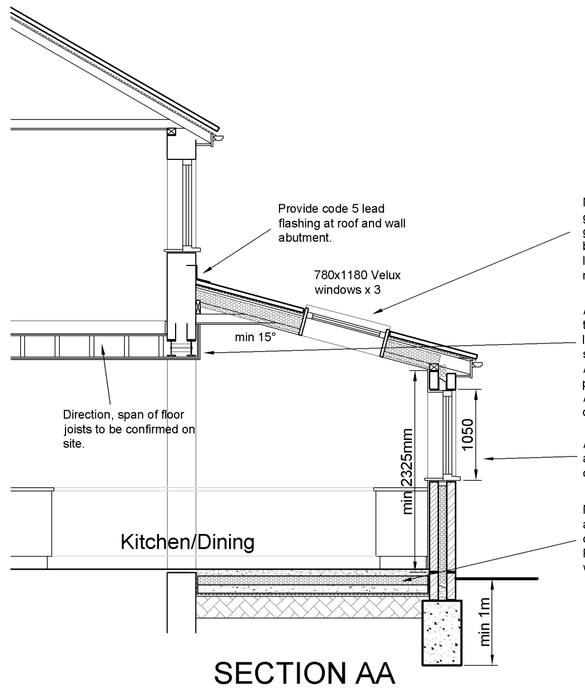
Ground Floor Construction (Beam and Block)
Provide 70mm 1:3 cement/sand screed reinforced with D49 Fabric mesh at base on 1000 gauge polythene vapour barrier on minimum 120mm thickness Celotex FR5000 insulation panel with 25mm edge strip to perimeter on 1200 gauge polythene dpm lapped with all new and existing dpc's and dpm's.
Floor construction specified achieves 'U' value of 0.15W/M2'C.
Provide Bison, or similar approved, standard beam and block floor with manufacturers details and calculations to be submitted to Building Control for prior approval.
Pre-cast concrete beams to be 150mm (or 225m depth depending upon span and loading) at max 510mm c/cs with minimum 100mm end bearing on internal cavity leaf.
Provide standard 7N (650kg/m²) concrete blocks laid between beams with all joints grouted with lean mix sand/cement. Provide all necessary slip bricks between precast concrete beams on inner cavity leaf.
Floor beams to doubled up under non loadbearing partitions.
Allow minimum 150mm void beneath floor and formation to be treated with weed killer. (Sub-Floor ventilation to be provided as per External Cavity Wall notes).
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.

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 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.

Mono-Pitched Roof - Warm Unventilated
Provide Sandtoft 20/20 concrete plain or suitable matching concrete interlocking tiles for use on minimum 15 degree pitched roof 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.
Allow for providing additional cross noggins to underside of ceiling where client wishes to install halogen 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 resin anchored to face of existing masonry using M.12 Remfix 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 120mm thickness of Celotex FR5000 insulation panel fixed in position with counter battens between rafters and 50mm Celotex FR5000 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 with 12.5mm foil backed plasterboard.
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.

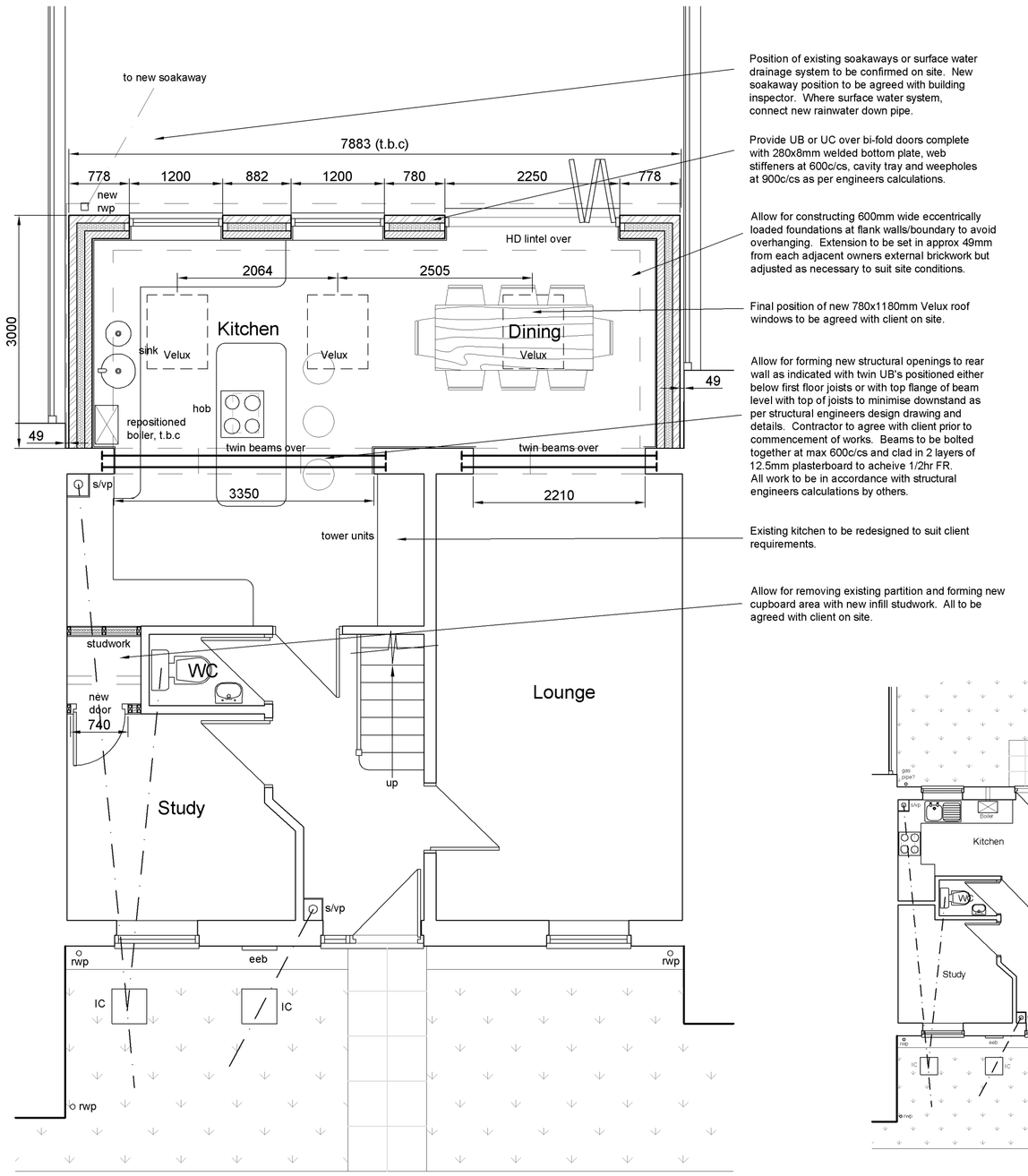
Studwork
Provide studwork partitions/walls generally with 12.5mm Gyproc Wallboard either side of 100x50mm timber studs with minimum 50mm Rockwool Acoustic Partition Roll, or similar approved, acoustic insulation of density no less than 10kg/m³, between studs in order to achieve minimum 40db sound resistance.
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.

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 windows and doors to incorporate trickle ventilators, with an equivalent open area of 4000mm² to kitchen and 8000mm² to all habitable rooms. 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 to achieve U value of 1.6 W/m²k (doors 1.8w/m²k) minimum with 16mm air space and 'K' glass to both panes complete with warm-edge spacers.
Windows/doors with glass within 800mm of floor level to be glazed with toughened glass to BS 6206. All glass within doors and/or side panels within 1500mm of floor level to be toughened or laminated glass to BS6206.
New 780x1180mm (size to be agreed) Velux standard range rooflights to be double glazed with low E glass and minimum 16mm air space. Allow for incorporating raising kit (or timber noggins) as necessary to ensure minimum pitch of 15 degrees to glazing.
Where specified, supply and fit (RAL colour to be agreed with client) powder coated aluminium bi-fold doors. Final cill and head details and opening configuration to be subject to agreement with manufacturer with specification of doors to be in strict accordance with manufacturers specification with thermally broken frame and profiles, 28mm Pilkington 'K' Glass argon filled units, warm edge spacers and 'U' value of 1.6 complete with face drainage and suitable security locking.



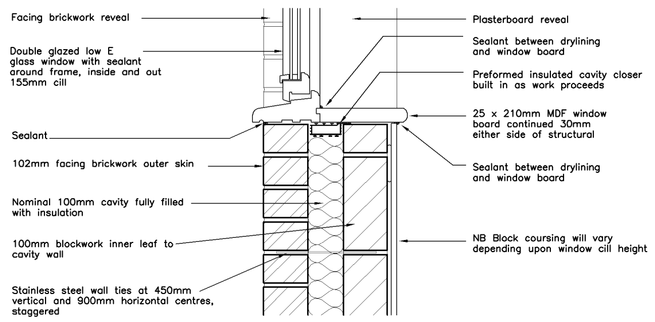
SECTION AA

Scale 1:50



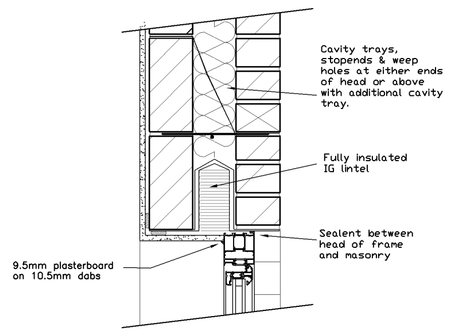
GROUND FLOOR PLAN

Scale 1:50



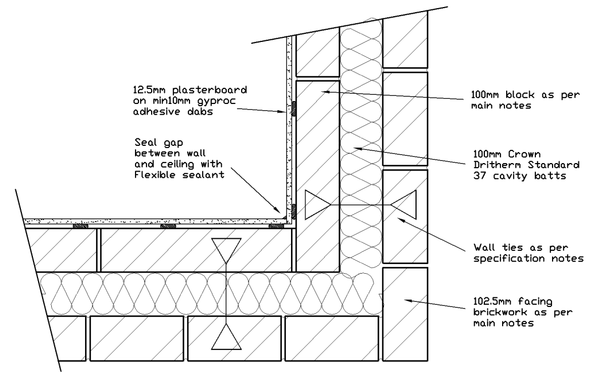
CILL DETAIL

Scale 1:10



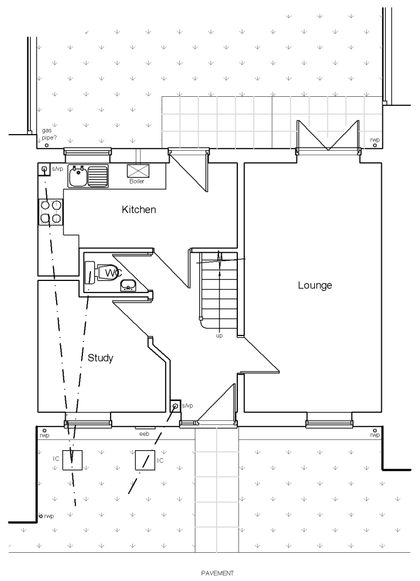
HEAD DETAIL

Scale 1:10



CORNER DETAIL

Scale 1:10



EXISTING FLOOR PLAN

Scale 1:100

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 2 coat Hardwall plaster.
Where making good to or fully plastering existing walls, finish with sand/cement undercoat and Thistle multi finish plaster.
All new steel beams to be clad with 2 layers of standard 12.5mm plasterboard to achieve half hour fire resistance.

Mechanical Ventilation
Extract ventilation from kitchen to be provided through Cooker Hood, complete with filters, fixed between 650-750mm above cooker hob with 30 litres/second extraction rate or through a wall mounted extract fan with 60 litres/second extraction rate where separate from hob.
Kitchen extract fan/cooker hood to be automatically controlled by humidity sensor but 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.

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 sink/washing machine/dishwasher.
Where basin waste lengths in excess of 1.7m use 38mm diameter waste pipes.
Provide 75mm deep seal traps to all fittings
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.

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.

Surface water Drainage - Private
Provide 100mm diameter UPVC flexi jointed surface water drain pipes, bedded and surrounded with 100mm pea shingle, to fall 1:60 to new soakaways.
Soakaways to be minimum 3-5m from any new or existing building, road or area of unstable ground.
Fill with clean broken bricks 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
Subject to existing rating and capacity of boiler, 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.
Insulate pipes with minimum 40mm foam lagging.
75% of all new lights to be energy efficient types to only take lamps having a luminous efficacy greater than 45 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 45 lumens per circuit watt. All lights to be controlled automatically with motion and daylight sensors.
Where replacement of existing boiler necessary due to inadequate capacity, Boiler to be Class A mains natural gas fired condensing unit with balanced flue. Efficiency to comply with Sedbuk min 90 %.
New boiler flue to be protected with durable wire guard if less than 2m above ground level and to be no less than 600mm from any boundary or 300mm from any window opening.
Boiler to be provided with suitable air flow for combustion purposes i.e. not enclosed within cupboard unless ventilation grilles are provided.
Pvc condense pipe from boiler to connect to foul water system.
Final positioning of boiler, if replacement required, to be agreed on site.

General Notes
All work, including all demolition work and excavation work, to be carried out carefully and safely with all necessary propping, shoring and strutting. All work by contractor to be undertaken in strict accordance with all relevant CDM Regulations, Health & Safety legislation, BS Publications, trade manufacturer literature and any requirements of statute or the local authority.

Note: All existing foundations, beams, lintels etc, where appropriate, to be opened up and inspected for adequacy to take additional loading and upgraded as necessary to the satisfaction of the building inspector.

Note:
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 existing loadbearing conditions to be established prior to commencement of works and any discrepancies from the drawings or details specified to be reported to designer immediately.
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.
All steelwork to be pre-treated with 2 coats of zinc phosphate primer and where situated below dpc/ground level to have 2 coats of bitumen based paint to be applied on site.
This drawing to be read in conjunction with all other relevant information whether produced by this company or by others.

Note:
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.

Revisions		

Project:
Proposed single storey rear extension to 56 Eddington Crescent, Wewlyn Garden City, AL7 4SQ.

Title:
Scheme Proposals Drawing

Scale:	Date:	Drawn:
As stated	04/10/2017	SJC

Job No:
SC/2005546

Drawing No:	Rev:
02	

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