ALL SETTING OUT & LEVELS TO BE TAKEN AS INDICATED ONLY AND TO BE CONFIRMED ON SITE BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.
ALL STRUCTURAL & DEMOLITION WORKS TO BE IN STRICT ACCORDANCE WITH STRUCTURAL ENGINEERS CALCULATIONS & DETAILS. DO NOT SCALE FROM DRAWING. ANY DISCREPENCIES TO BE REPORTED IMMEDIATELY.
ALL BOUNDARY LOCATIONS & WORKS RELATED TO BOUNDARIES MUST BE CONFIRMED AND AGREED IN WRITING WITH ADJOINING OWNERSIPS PRIOR TO UNDERTAKING ANY WORKS, ALL IN ACCORDANCE WITH THE PARTY WALL ACT, PARTY WALL AGREEMENTS ARE THE RESPONSIBILITY OF THE CLIENT PRIOR TO COMMENCEMENT OF WORKS

The following specification notes are to be used in conjunction with all other drawings, for obtaining BUILDING REGULATION APPROVAL ONLY and are not to be used for any other purpose without written consent.

FOUNDATIONS (EXISTING)
Where required (see proposed plans) expose existing footings (if any) to determine condition. Where necessary new concrete foundations to Structural Engineer design/detail to be taken down to load bearing strata to the satisfaction of the Building Control Inspection Officer

STEPPED FOUNDATIONS TO NEW CAVITY WALLS
Stepped foundations to overlap by twice the height of the step, or by the thickness of the foundation, or by 300mm whichever is the greater. Height of steps not to be more than the thickness of foundation. Foundation size and depth dependant on site conditions, trench to be excavated down to load bearing strata to the satisfaction of the Building Control Inspection Officer

MAIN FOUNDATIONS (PROPOSED) TO NEW CAVITY WALLS
Generally 600mm wide, 225mm deep and to be 900mm min deep to u/s of new footing. Foundation trench down to load bearing strata to the satisfaction of the Building Control Inspection Officer. Where required by ground conditions, detail/design to be sought from Structural Engineer.

FOUNDATIONS (PROPOSED SINGLE LEAF 100 THK BLOCK WALL)
Generally 450 x 225 concrete foundations (grade ST1 concrete to BS 5328 part 2) to be 900mm min deep to u/s of new footing. Foundation trench down to load bearing strata to the satisfaction of the Building Control Inspection Officer. Where required by ground conditions, detail/design to be sought from Structural Engineer.

CAVITY WALLS all to achieve 0.18 w/m.sqK 'U' value
Wall construction based on 100mm outer leaf to match existing with render finish, cavity, s/s wall ties (see note), 90mm Celotex Thermaclass 21 insulation, 100mm Aircrete 7N block (conductivity 0.190W/mK) and plaster finish.
Cavities only to be bridged by wall ties/damp proof trays to prevent moisture being carried to the inner leaf. Tray DPC's/weepholes to be provided over all new structural openings in cavity walls. Thermabate cavity closers (or similar approved) to be used at all structural openings.

DAMP PROOF COURSE/VERTICAL DAMP PROOFING
All new walls to have DPC's min 150mm above the external ground level. Where required existing walls to receive DPC injection 150mm above external ground level.
Vertical DPC's to all heads, cills and jambs all cavities to be continious

CAVITY
Concrete cavity fill to cavities below DPC level with weepholes at max. 900mm ctrs., all new block/brick to be bonded to existing where neccessary

CAVITY WALL TIES
New cavity wall construction to have wall ties which conform to current British Standards.. Ties to be max 450mm vertically and 750mm horizontally and be staggered. Ties at door and window reveals to be max 225mm vertically. Vertical twist wall ties to be used to suit cavity width if over 100mm wide.

THERMAL BRIDGING
The building fabric should be constructed so that there are no significant thermal bridges or gaps in the insulation layer(s) within the various elements of fabric, at the joints between elements, and at the edges of elements such as those around window and door openings all to comply with TSO 2001

WALL RETURNS
Any internal returns to be min. 385mm. Where this dimension is not achieved Structural Engineers calculations/details to be sought prior to construction.

AIR LEAKAGE
Should air leakage testing be required then the dwelling Air Permeability must not exceed 10 cubic metres per hour square metre of external surface area at an applied pressure difference of 50 pascals to comply with CIBSE TM23 all in accordance with part L1 of the approved documents.

BUILDING FABRIC VENTILATION (see also Ground Floor – Suspended Timber where applicable)
Any air grates to the existing dwelling/building which are to be covered then sufficient ventilation is to be maintained via new air bricks/vents.

MOVEMENT JOINTS
Expansion joints to be provided where required to brickwork at 12m intervals and to blockwork at 6m intervals using Flexcell or equal approved

RADON GAS
Should Radon gas be present then primary protection is required ie. a continuos gas impermeable membrane access the building extension should be fitted. Air bricks / vents to be provided where possible to assist in maximum cross ventilation
Radon protection: continuous Visqueen Radon Membrane (thickness 300mu) to be maintaned throughout, membrane installed over blinded surface, joints lapped min. 150mm & secured with Visqueen Girth Jointing tape, membrane joined to full width damp proof course, cavity tray formed using Visqueen Polyethylene DPC (as a minimum) & jointed with dpc, all laps sealed using Visqueen DPC double sided Jointing Tape

RESTRAINT STRAPS
30 x 5.0 galvanised steel lateral restraint straps to be fixed at first floor (if applicable), roof level and up roof slopes to span 3no. rafters/ceiling joists and at max 1800mm centres and where applicable incorporate timber noggins between joists and packed out from brickwork. Strapping to be taken 1200mm down the wall.

ROOF TRUSSES
New timber roof trusses, bracing etc. to manufacturers design and specification. Generally all in accordance with BS 5268 and to comply with part A of the approved documents.
Any timber roof trusses to be used are to be designed and braced to BS 5268, all in accordance with manufacturers details and specification. Calculation to be submitted to Local Authority minimum 21 days before erection for approval.

GUTTERS & DOWN PIPES
Gutters to be 162mm (to match existing style), with 100mm down pipes to comply with BS 4576 Pt.1. Gutters to be fixed at 1m max centres and fall pipes fixed at 2m centres, all as recommended by manufacturer.

WINDOWS/DOORS
New windows and doors to be installed by a FENSA approved installer.
Upvc frames to achieve 'U' value of 1.4w/m.sq.K; double glazing with 'soft' low-E coating,

WINDOW AREAS
Generally the total area of the windows, doors and rooflights (if any) together must not exceed 25% of the total proposed floor area

WINDOWS – VENTILATION
Windows to provide 8000mm sqd. background ventilation (provided by either integral trickle vents, or lockable opening lights in accordance with Diangram 1 of Approved Document F).

SAFETY GLAZING
All glazing in critical locations to be safety glazing to BS 6206 and to be permanently marked to indicate this. Critical locations are between floor level and 800mm in windows and between floor level and 1500mm in doors and side panels within 300mm of doors.

WINDOW ESCAPE
Escape window to be provided to all habitable rooms. Clear opening of 0.33m sqrd. with a minimum dimension of 0.45m in any direction and the bottom of the opening should be between 800mm and 1100mm above the floor level.

LINTELS
All lintels to be 'Catnic' or similar approved to suit span and cavity width with 150mm end bearing, all to manufacturers recommendations. Cast stone lintels to outer leaf

STUD PARTITION WALLS
75 x 50 softwood studs at 600mm maximum centres. 15mm gyproc wallboard either side (min. mass per unit of wallboard to be 10kg/sq.m.), provide min. 25mm Rockwool acoustic slab between studs

ELECTRICAL
New lighting and power to be provided as required to new rooms. Scheme to be put forward to and verified with client prior to installation.
All eletrical works undertaken to be fully in accordance with Approved Document P, & fully certified by suitably competent/qualified person, or by relevant Building Control Inspection Officer.

EXTERNAL LIGHTING
Where required by Client external lighting must automatically extinguish when there is enough daylight, and when not required at night or have sockets that can only be used with lamps having an efficacy greater than 40 lumens per circuit Watt (such as fluorescent or compact fluorescent lamp types, and not GLS tungsten lamps with bayonet cap or Edison screw bases).

INTERNAL LIGHTING
Scheme to be put forward to Client for approval. Provide at a reasonable number of locations, where lighting can be expected to have most use, 'screw fix' lighting (comprising either basic lighting outlets or complete luminaires) that only take lamps having luminous efficacy greater than 40 lumens per circuit–watt. Circuit watts means the power consumed in lighting circuits by lamps and their associated control gear and power factor correction equipment.

SMOKE/HEAT DETECTION
Smoke detection to BS 5839 and alarm system in accordance with BS5899 to be installed, detectors taken to separate fuse on distribution board with battery back up

GENERAL FINISHES
Skirtings, architraves, doors and casings to match existing unless otherwise advised by Client and to be finished with primer, undercoat and 2 coats of gloss paint. Walls to be emulsioned magnolia unless otherwise stated

GENERAL
All dimensions to be checked on site prior to commencement of construction, all drainage to be investigated on site and all work to comply with current building regulations

VENTILATION
Generally rapid ventilation to habitable rooms to be 1/20th of the floor area via opening windows and to give 8000mm sqrd. background ventilation, mechanical ventilation to be generally provided with 15 minute overOrun. See table below for all areas:–

ROOM	RAPID VENTILATION (eg opening window)	BACKGROUND VENTILATION	EXTRACT VENTILATION FAN RATES OR PSV
HABITABLE ROOM	1/20th of floor area	8000mm sqrd.	–
KITCHEN	Opening window	4000mm sqrd.	30 ltrs./sec. adj. to hob or 60 ltrs./sec. elsewhere
UTILITY ROOM	Opening window	4000mm sqrd.	30 ltrs./second or PSV
BATH ROOM	Opening window	4000mm sqrd.	15 ltrs./second or PSV
SANITARY ACCOM.	1/20th of floor area or mechanical extract @ 6 ltrs./second	4000mm sqrd.	–

NEW SPACE HEATING
Details of heating system to be submitted by heating contractor/client to building inspector for approval prior to works being carried out
Should new space heating systems be required then compliance with the relevant recommendations in BS 5864 or Good Practice Guide 302.
Heating system to be provided with either zone controls with temperature control effected by room thermostats/thermostatic valves together with appropriate control devices.
Heating and HWS systems should be inspected at completion of installation so as to establish that the specified and approved provisions for efficient operation have been put in place. Without prejudice to the need to comply with health and safety requirements, these systems should be commissioned to make reasonably certain that they can operate efficiently for the purposes of the conservation of fuel and power.

PIPEWORK
Reasonable provision should be made for insulating pipes and ducts to conserve heat and hence maintain the tempreature of the water or air heating service, and in the case of between useful draw–offs. Therefore space heating pipework located outside the building fabric insulation layer(s) should be wrapped with insulation material having a thermal conductivity at 40°C not exceeding 0.035 W/mK and a thickness equal to the outside diameter of the pipe up to a maximum of 40mm.

DRAINAGE
New drainage to be 100mm dia upvc pipes flexible with joints, bed and surround in pea gravel. Where drains pass through external walls pcc lintels are to be used, hole around drain must filled with compressible material. Inspection chambers to be 225mm class B engineering brick or precast concrete sections on 150mm concrete base and chambers deeper than 1 metre are to have step irons incorporated and internal sizes of chambers to comply with BS 8301. All drainage is to be to the satisfaction and approval of the Building Control Inspection Officer.
Drain pipes under building to receive min. 100mm flexibile fill around pipe, if crown of pipe is within 300mm of u/s concrete slab pipe to be protected by a reinforced concrete cover slab with a flexibile filler & at least 75mm of granular material between the top of the pipe & u/s of the flexibile filler below the slabs
Should the proposed fall within 3m of an adopted drain / sewer then a section 18 Building Over Agreement is to be obtained and submitted at a later date.

SANITARY PIPEWORK
Where relevant (see plans), 40mm waste to appliances such as sinks, baths, showers, whb's etc. to have 75mm trap. All wastes other than WC (toilet) to discharge into existing/new SVP above or minimum 200mm below WC connection. Rodding points installed in soil stacks must be above spillover level of lowest connection. Any drains serving hot food premises must incorporate grease traps.
New drains connecting into existing (not at manhole) must use prefabricated units to avoid use of 'saddles', where this is unavoidable, hole in existing pipe must be drilled, not broken out. SVP to be minimum 100mm PVC and to terminate minimum 1 metre above window heads where external and to haveweathering slate incorporated where taken through roof construction. In areas of rodent control problems cages fitted to top of vent pipes must be metal. 100mm fibre glass insulation to be incorporated around SVP where boxed in. Non return valves to be incorporated to stub stacks, foul waste to discharge into existing LA systems

HOT WATER SUPPLY
All hot taps to be on left.
Maximum temperature of bath tap 48 degC
Maximum temperature of 100degC to hot water storage
A potable water usage of 125L per day per person

STRUCTURAL ENGINEERS CALCULATIONS
Any foundation, steelwork, strapping, joists, rafters, purlins, floor joists, wall plates etc. sizes / calculations / details to be confirmed to the LA by a structural Engineer at a later date

STRUCTURAL NOTES:– (WHERE APPLICABLE)

GENERAL

Do not Scale

This is to be read in conjunction with all relevant Architects, Engineers and specialist suppliers drawings.

All workmanship and materials to be in accordance with the latest edition of the relevant Codes of Practice or British Standards.

The Contractor is to maintain stability of all walls, floors, columns, trusses and other structural and non–structural elements and to design, detail, supply and fix all temporary supports to maintain vertical and horizontal stability of the structure for the duration of the works

The principle dimensions and levels for setting out are shown on here and on the architects drawings. The contractor is to take accurate site measurements to verify principle setting out dimensions and levels prior to the execution of any work

The contractor is to ensure compatibility and good fit between new and existing construction throughought.

All proprietary fixings, lintels etc to be installed in strict accordance with the manufacturers written instructions

FABRICATION OF STEELWORK (WHERE APPLICABLE)

Steel sections: To BS 4, part 1 or BS 4848 as appropriate, made from steel to BS EN 10025, grade S275

Do not use sections which are heavily pitted or rusted

Make cuts and holes neatly and accurately. Remove burrs, sharp edges and dross caused by flame cutting

Welding: Metal arc method to BS 5135 to form fully fused joints with mechanical properties not less than those of the parent metal. All welds to be 6mm continuos fillet welds unless noted otherwise. No site welding unless noted otherwise

Section sizes shown are minimum. The section sizes may only be increased, subject to the approval of the Engineers.

SHOP PRIMING OF STEELWORK (WHERE APPLICABLE)

Cleaning: Chip, scrape, disc sand and grind surfaces to remove all fins, burrs, sharp edges, weld splatter, loose rust and loose scale. Clean out all crevices. Thoroughly degrease using emulsion cleaners followed by thorough rinsing with water. Apply primer when surface is dry and on the same day as cleaning

Primer: One full coat of zinc phosphate modified alkyd brush applied to all surfaces, free from runs and sags. Primer to br touched up on site as necessary

TIMBER (WHERE APPLICABLE)

All timber work shall be SC3 U.N.O and comply with BS 4471, BS 4978 and be in accordance with Approved Document A of the Building Regulations

All timber to be good, sound and free from insect attack or fungi

Min. bearing to all timber to be 50mm U.N.O

CONCRETE (WHERE APPLICABLE)
300 Kg/m cubed and Max. W/C ratio of 0.6

Cement to be OPC to BS12

Aggregate size to be 20mm max

Cover to be 35mm U.N.O

Blinding to be 50mm concrete U.N.O

For details of reinforcement see BBS R019 Sheet 01

INSTALLATION OF STEELWORK (WHERE APPLICABLE)

Position members accurately, using steel packs of adequate area and non–shrink grout as necessary to achieve a true line and level

Bearing to be a min. of 150mm where beam is parallel to supporting wall U.N.O and a min. of the wall thickness where perpendicular to supporting wall

Padstones to be mass concrete of strength no less than 25 N/mm sqrd.. Size to be 200mm deep x 200mm wide x wall thickness U.N.O

All bolts to be M16 Black Bolts, grade 8.8, galvanised to BS 729 U.N.O

Dry–pack mortar to new beams supporting existing floors and walls as necessary to ensure full load transfer

All concrete to be Grade C35 with Min. Cement content of

MASONRY (WHERE APPLICABLE)

All new internal masonry walls to be 7N/mm sqrd. Blockwork, 100mm thick unless noted otherwise.

Mortar to be type (ii) – 1:3 to 4

Wall ties to cavity walls to be Type 1 to DD140. Ties to 450mm c/c vertically and 750mm c/c horizontally, staggered

New walls to be tied to existing using Simpson Strong Tie Stainless Steel Crocodile Plus Wall Connector system installed in strict accordance eith the manufacturers written instructions and the BBA Agreement Certificate No.85/1571 where and if necessary

UNDERPINNING (WHERE APPLICABLE)
1. Concrete to have a minimum cube crushing strength of 20N/mm.sqrd. at 28 days. Slump to be between 75mm and 150mm.

2. Underpinning blocks to be taken down to firm natural ground of min. allowable bearing cap >150 kn/m.sqrd. to the satisfaction of the building inspector.

3. Concrete underpinning blocks to be cast 200mm above the bottom of the existing footing if any.

4. A mechanical poker vibrator shall be used to compact the concrete and ensure that the concrete is fully worked under the wall and is in full contact with the wall

5. The procedure for installing the underpinning blocks is as follows:– The underpinning blocks denoted 'A' on the plan are to be cast first. The excavation for the blocks shown as 'B' must not commence until the 'A' blocks have been fully concreted and allowed to cure for at least 16 hours. The excavation for the blocks denoted 'C' must not commence until the 'B' blocks have been fully concreted and allowed to cure for at least 16 hours and so forth. No excavations for any of the blocks are to remain open for more than 3 hours before the concrete is placed

6. On completion of the underpinning, all loose mortar is to be carefully raked out and the joints repointed.

7. Existing surfaces are to be reinstated on completion of the works

8.The contractor must ensure that all existing drainage and other services (if any) are protected during the underpinning works.

rev.	date.	notes.

P-2-B

PLAN - 2 - BUILD

DESIGN & BUILD SERVICES

TITLE
Proposed Rear Extension

ADDRESS
8 School Street, Hemmingfield, S73 0PP

CLIENT
Mr & Mrs Rodis

DATE	DWG NO	SCALE
Oct 25	07	NA @ A3

REF

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