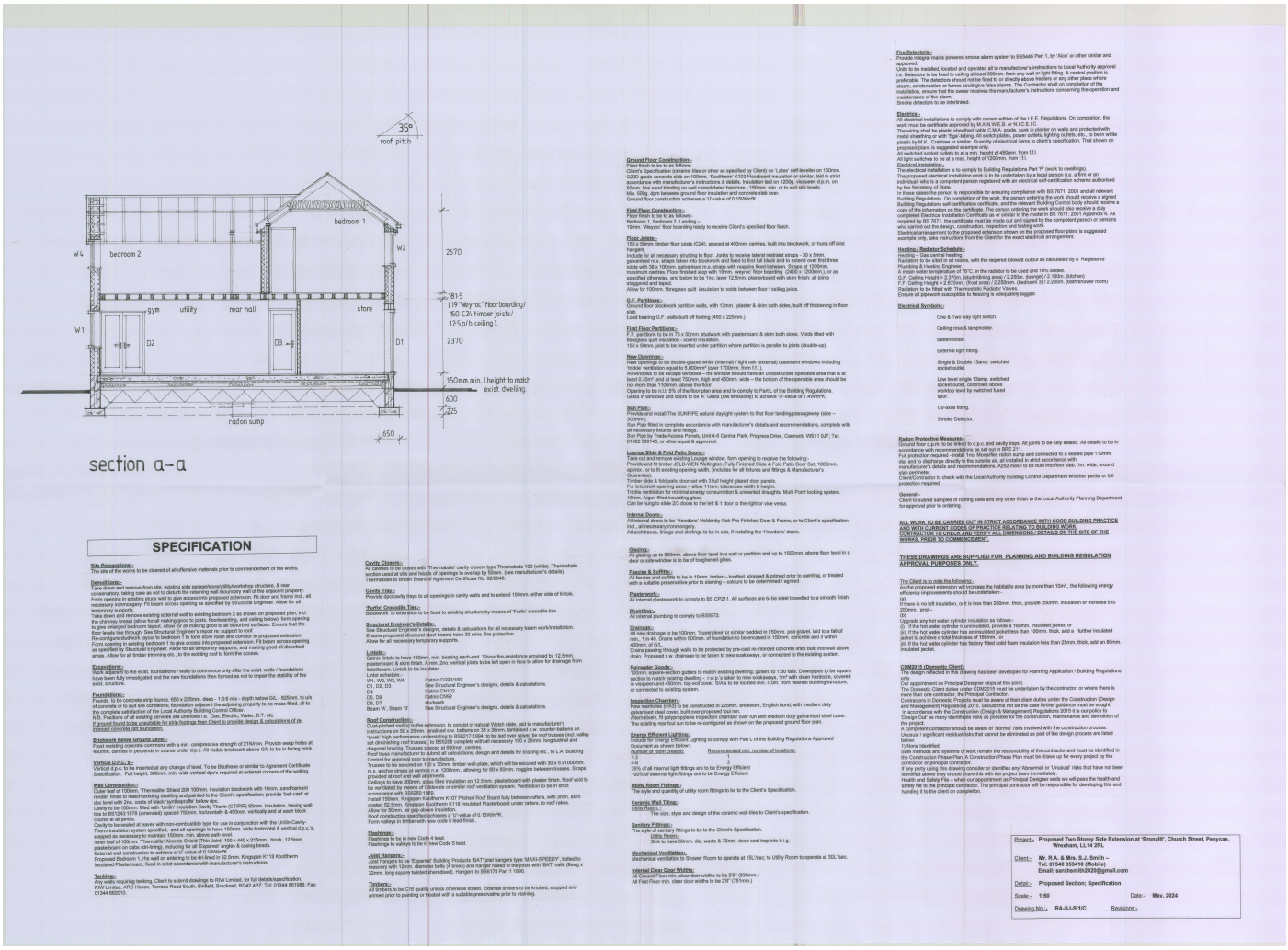
# HOUSEHOLDER APP



section a-a

## SPECIFICATION

**Site Preparation:-**
The site of the works to be cleared of all offensive materials prior to commencement of the works.

**Demolition:-**
Take down and remove from site, existing side garage/store/utility/workshop structure, & rear conservatory sliding care as not to disturb the retaining wall boundary wall of the adjacent property.
Form opening in existing study wall to give access into proposed extension. Fit door and frame incl., all necessary ironmongery. Fit beam across opening as specified by Structural Engineer. Allow for all temporary supports.
Take down and remove existing external wall to existing bedroom 2 as shown on proposed plan, incl. the chimney breast (allow for all making good to pots, floorboarding, and ceiling below). Form opening to give enlarged bedroom layout. Allow for all making good to all disturbed surfaces. Ensure that the floor levels line through with existing bedroom to rear.
Re-configure kitchen & layout to bedroom 1 to form store room and corridor to proposed extension.
Form opening in existing bedroom 1 to give access into proposed extension. Fit beam across opening as specified by Structural Engineer. Allow for all temporary supports, and making good all disturbed areas. Allow for all timber trimming etc., to the existing roof to form the access.

**Excavations:-**
Work adjacent to the exist. foundations / walls to commence only after the exist. walls / foundations have been fully investigated and the new foundations then formed as not to impair the stability of the exist. structure.

**Foundations:-**
Foundn. to be concrete strip foundn. 600 x 225mm. deep - 1.0 6 min - depth below GL - 825mm. to rch of concrete or to suit site conditions; foundation adjacent the adjoining property to be mass filled, all to the complete satisfaction of the Local Authority Building Control Officer.
N.B. Positions of all existing services are unknown i.e. Gas, Electric, Water, B.T. etc.
If ground found to be unsuitable for strip footings then Client to provide design & calculations of rtc reinforced concrete raft foundation.

**Brickwork Below Ground Level:-**
Foad resisting concrete commons with a min. compressive strength of 21N/mm. Provide weep holes at 450mm. centres in perpends in course under d.p.c. All visible brickwork above GL to be in facing brick.

**Vertical D.P.C.'s:-**
Vertical d.p.c. to be inserted at any change of lead. To be Bituthene or similar to Agreement Certificate Specification. Full height, 300mm. min. wide vertical dpc's required at external corners of the walling.

**Wall Construction:-**
Outer leaf of 100mm. 'Thermalite' Shield 200 100mm. insulation blockwork with 15mm. sand/cement render, finish to match existing dwelling and painted to the Client's specification; provide 'bell-cast' at dpc level with 2no. coats of black 'synthapruffe' below dpc.
Cavity to be 100mm. filled with 'Unilin' Insulation Cavity Therm (CTPR) 95mm. Insulation, having wall-tie to BS1243:1978 (amended) spaced 750mm. horizontally & 450mm. vertically and at each block course at all jambs.
Cavity to be closed at eaves with non-combustible type for use in conjunction with the Unilin Cavity-Therm insulation system specified, and all openings to have 100mm. wide horizontal & vertical d.p.c.'s, stepped as necessary to maintain 150mm. min. above path level.
Inner leaf of 100mm. 'Thermalite' Aircrete Shield (Thin Joint) 100 x 440 x 215mm. block, 12.5mm. plasterboard on dabs (dry-lining), including for all 'Expamet' angles & casing beads.
External wall construction to achieve a 'U'-value of 0.13W/m²K.
Proposed Bedroom 1, the wall on entering to be dri-lined in 32.5mm. Kingspan K118 Kooltherm Insulated Plasterboard, fixed in strict accordance with manufacturer's instructions.

**Tanking:-**
Any walls requiring tanking, Client to submit drawings to RIW Limited, for full details/specification, RIW Limited, ARC House, Terrace Road South, Binfield, Bracknell, RG42 4PZ. Tel: 01344 861666. Fax: 01344 862010.

**Cavity Closers:-**
All cavities to be closed with 'Thermabate' cavity closers type Thermabate 100 (white). Thermabate section used at cills and heads of openings to overlap by 50mm. (see manufacturer's details).
Thermabate to British Board of Agrement Certificate No. 92/2648.

**Cavity Trav:-**
Provide Bituminity trays to all openings in cavity walls and to extend 150mm. either side of lintols.

**'Purlin' Crocodile Ties:-**
Blockwork to extension to be fixed to existing structure by means of 'Purlin' crocodile ties.

**Structural Engineer's Details:-**
See Structural Engineer's designs, details & calculations for all necessary beam work/installation.
Ensure proposed structural steel beams have 30 mins. fire protection.
Allow for all necessary temporary supports.

**Lintols:-**
Internal lintols to have 150mm. min. bearing each-end. 'Ichour' fire-resistance provided by 12.5mm. plasterboard & skim finish. A.mm. 2no. vertical joints to be left open in face to allow for drainage from brickbeam. Lintols to be insulated.
Lintol schedule -
W1, W2, W3, W4 Catnic CG90/100
D1, D2, D3 See Structural Engineer's designs, details & calculations.
D4, Catnic CN102
D5, D6 Catnic CN60
D6, D7 studwork
Beam 'A', Beam 'B' See Structural Engineer's designs, details & calculations.

**Roof Construction:-**
Dual-pitched roofing to the extension, to consist of natural Welsh slate, laid to manufacturer's instructions on 50 x 25mm. tanalised s.w. battens on 38 x 38mm. tantalised s.w. counter-battens on 'tyvek' high performance underskating to BS5617:1994, to be laid over raised tie roof trusses @ 600 c.c. max. valley diagonal boards to manufacturer to submit all calculations, design and details for bracing etc., to L.A. Building Control for approval prior to manufacture.
Trusses to be secured on 100 x 75mm. timber wall-plate, which will be secured with 30 x 5 x100mm. m.s. anchor straps at centres n.e. 1200mm., allowing for 90 x 50mm. noggins between trusses. Straps provided at roof and wall abutments.
Ceilings to have 300mm. glass fibre insulation on 12.5mm. plasterboard with plaster finish. Roof void to be ventilated by means of Glidevale or similar roof ventilation system. Ventilation to be in strict accordance with BS5250:1989.
Roof construction to be 100mm Kingspan K107 Pitched Roof Board fully between rafters, with 3mm. skim coated 52.5mm. Kingspan Kooltherm K118 Insulated Plasterboard under rafters, to roof rakes.
Allow for 50mm. air gap above insulation
Roof construction specified achieves a 'U'-value of 0.13W/m²K.
Form valleys in timber with new code 5 lead finish.

**Flashings:-**
Flashings to be in new Code 4 lead.
Flashings to valleys to be in new Code 5 lead.

**Joist Hangers:-**
Joist hangers to be 'Expamet' Building Products 'BAT' joist hangers type 'MAXI-SPEEDY', bolted to masonry with 10mm. diameter bolts (4 times) and hanger nailed to the joists with 'BAT' nails (6wg x 32mm. long square twisted sheradized). Hangers to BS6178 Part 1 1980.

**Timbers:-**
All timbers to be C16 quality unless otherwise stated. External timbers to be knotted, stopped and primed prior to painting or treated with a suitable preservative prior to staining.

**Ground Floor Construction:-**
Floor finish to be to as follows:-
Client's Specification (ceramic tiles or other as specified by Client) on 'Latex' self-leveller on 150mm. C20D grade concrete slab on 100mm. 'Kooltherm' K103 Floorboard insulation or similar, laid in strict accordance with manufacturer's instructions & details. Insulation laid on 1200g. visqueen d.p.m. on 50mm. fine sand blinding on well consolidated hardcore - 150mm. min. or to suit site levels.
Ground floor construction to have insulated perimeter upstand to cavity wall over.
Ground floor construction achieves a 'U'-value of 0.15W/m²K.

**First Floor Construction:-**
Floor finish to be to as follows:-
Bedroom 1, Bedroom 2, Landing –
19mm. 'Weyroc' floor boarding ready to receive Client's specified floor finish.

**Floor Joists:-**
150 x 50mm. timber floor joists (C24), spaced at 400mm. centres, built into blockwork, or hung off joist hangers.
Include for all necessary strutting to floor. Joists to receive lateral restraint straps - 30 x 5mm. galvanised m.s. straps taken into blockwork and fixed to first full block and to extend over first three joists with 38 x 100mm. galvanised m.s. straps with noggins fixed between. Straps at 1200mm. maximum centres. Floor finished atop with 19mm. 'weyroc' floor boarding (2400 x 1200mm.), or as specified otherwise, and below to be 1no. layer 12.5mm. plasterboard with skim finish; all joints taped and filled.
Allow for 100mm. fibreglass quilt insulation to voids between floor / ceiling joists.

**G.F. Partitions:-**
Ground floor blockwork partition walls, with 13mm. plaster & skim both sides, built off thickening in floor slab.
Load bearing G.F. walls built off footing (450 x 225mm.)

**First Floor Partitions:-**
F.F. partitions to be in 75 x 50mm. studwork with plasterboard & skim both sides. Voids filled with fibreglass quilt insulation - sound insulation.
150 x 50mm. joist to be inserted under partition where partition is parallel to joists (double-up).

**New Openings:-**
New openings to be double-glazed white (internal) / light oak (external) casement windows including 'Ventaxia' trickle vents equal to 5,000mm² (over 1750mm. from f.f.l.).
All windows to be escape windows – the window should have an unobstructed openable area that is at least 0.33m² and at least 750mm. high and 450mm. wide – the bottom of the openable area should be not more than 1100mm. above the floor.
Opening to be n.l.t. 5% of the floor plan area and to comply to Part L of the Building Regulations.
Glass in windows and doors to be 'K' Glass (low emissivity) to achieve 'U'-value of 1.4W/m²K.

**Sun Pipe:-**
Provide and install The SUNPIPE natural daylight system to first floor landing/passageway (size – 350mm. dia.).
Sun Pipe fitted in complete accordance with manufacture's details and recommendations, complete with all necessary fixtures and fittings.
Sun Pipe by Trade Access Panels, Unit 4-5 Central Park, Progress Drive, Cannock, WS11 0JF; Tel: 01922 500745, or other equal & approved.

**Lounge Slide & Fold Patio Doors:-**
Take out and remove existing Lounge window, form opening to receive the following:-
Provide and fit timber JELD-WEN Wellington, Fully Finished Slide & Fold Patio Door Set, 1800mm. approx., or to fit existing opening width. (Includes for all fixtures and fittings & Manufacturer's Guarantee).
Timber slide & fold patio door set with 3 full height glazed door panels.
For brickwork opening sizes – allow 11mm. tolerances width & height.
Trickle ventilation for minimal energy consumption & unwanted draughts. Multi Point locking system.
16mm. Argon filled insulating glass.
Can be hung to slide 2/3 doors to the left & 1 door to the right or vice versa.

**Internal Doors:-**
All internal doors to be 'Howdens' Holdenby Oak Pre-Finished Door & Frame, or to Client's specification, incl., all necessary ironmongery.
All architraves, linings and skirtings to be in oak, if installing the 'Howdens' doors.

**Glazing:-**
All glazing up to 800mm. above floor level in a wall or partition and up to 1500mm. above floor level in a door or side window is to be of toughened glass.

**Fascias & Soffits:-**
All fascias and soffits to be in 16mm. timber – knotted, stopped & primed prior to painting, or treated with a suitable preservative prior to staining – colours to be determined / agreed.

**Plasterwork:-**
All internal plasterwork to comply to BS CP211. All surfaces are to be steel trowelled to a smooth finish.

**Plumbing:-**
All internal plumbing to comply to BS6572.

**Drainage:-**
All new drainage to be 100mm. 'Supersilave' or similar bedded in 150mm. pea-gravel, laid to a fall of min., 1 in 40. Drains within 900mm. of foundation to be encased in 150mm. concrete and if within influence of trees.
Drains passing through walls to be protected by pre-cast re-inforced concrete lintol built into wall above drain. Proposed s.w. drainage to be taken to new soakaways, or connected to the existing system.

**Rainwater Goods:-**
100mm. square-section gutters to match existing dwelling; gutters to 1:50 falls. Downpipes to be square section to match existing dwelling – s.w.p.'s taken to new soakaways, 1m³ with drain handcore, covered in vitrapipe and 450mm. top-soil cover. SVP's to be located min. 5.0m. from nearest buildings/structure, or connected to existing system.

**Inspection Chambers:-**
New manholes (rm3) to be constructed in 225mm. brickwork, English bond, with medium duty galvanised steel cover, built over proposed foul run.
Alternatively, fit polypropylene inspection chamber over run with medium duty galvanised steel cover.
The existing rear foul run to be re-configured as shown on the proposed ground floor plan.

**Energy Efficient Lighting:-**
Include for Energy Efficient Lighting to comply with Part L of the Building Regulations Approved Document as shown below:-

| Number of room created: | Recommended min. number of locations: |
|---|---|
| 1-3 | 1 |
| 4-6 | 2 |

75% of all internal light fittings are to be Energy Efficient
100% of external light fittings are to be Energy Efficient

**Utility Room Fittings:-**
The style and quantity of utility room fittings to be to the Client's Specification.

**Ceramic Wall Tiling:-**
Utility Room:-
The size, style and design of the ceramic wall-tiles to Client's specification.

**Sanitary Fittings:-**
The style of sanitary fittings to be to the Client's Specification.
Utility Room:-
Sink to have 50mm. dia. waste & 75mm. deep seal trap into b.i.p.

**Mechanical Ventilation:-**
Mechanical ventilation to Shower Room to operate at 15L/sec, to Utility Room to operate at 30L/sec.

**Internal Clear Door Widths:**
All Ground Floor rm3, clear door widths to be 2'9" (826mm.)
All First Floor rm, clear door widths to be 2'6" (751mm.)

**Fire Detectors:-**
Provide integral mains powered smoke alarm system to BS5446 Part 1, by 'Aico' or other similar and approved.
Units to be installed, located and operated all to manufacturer's instructions to Local Authority approval i.e. Detectors to be fixed to ceiling at least 300mm. from any wall or light fitting. A central position is preferable. The detectors should not be fixed to or directly above heaters or any other place where steam, condensation or fumes could give false alarms. The Contractor shall on completion of the installation, ensure that the owner receives the manufacturer's instructions concerning the operation and maintenance of the alarm.
Smoke detectors to be interlinked.

**Electrics:-**
All electrical installations to comply with current edition of the I.E.E. Regulations. On completion, the work must be certificate approved by M.A.N.W.E.B. or N.I.C.E.I.C.
The wiring shall be plastic sheathed cable.C.M.A. grade, earth in plaster on walls and protected with metal sheathing or with 'Egal'-tubing. All switch plates, power outlets, lighting outlets, etc., to be in white nylon finish. The Contractor shall submit a complete set of electrical items to client's specification. That shown on proposed plans is suggested example only.
All switched socket outlets to at a min. height of 450mm. from f.f.l.
All light switches to be at a max. height of 1200mm. from f.f.l.
**Electrical Installation:-**
The electrical installation is to comply to Building Regulations Part 'P' (work to dwellings).
The proposed electrical installation work is to be undertaken by a legal person (i.e. a firm or an individual) who is a competent person registered with an electrical self-certification scheme authorised by the Secretary of State.
A competent person is deemed 'fit'fit', in the radiator to be used and 10% added.
A minimum heating output of 'fit'fit', in the radiator to be used and 10% added.
F.F. Ceiling Height = 2.370m. (kitchen/dining area) / 2.250m. (lounge) / 2.193m. (kitchen)
F.F. Ceiling Height = 2.670mm. (front area) / 2.289mm. (bedroom 3) / 2.265m. (bath/shower room)
Radiators to be fitted with Thermostatic Radiator Valves.
Ensure all pipework susceptible to freezing is adequately lagged.

**Electrical Symbols:-**

One & Two way light switch.

Ceiling rose & lampholder.

Batternholder.

External light fitting.

Single & Double 13amp. switched socket outlet.

Low level single 13amp. switched socket outlet, controlled above worktop level by switched fused spur.

Co-axial fitting.

Smoke Detector.

**Radon Protective Measures:-**
Ground floor d.p.m. to be linked to d.p.c. and cavity trays. All joints to be fully sealed. All details to be in accordance with recommendations as set out in BRE 211.
Full protection required - install 1no. Monarflex radon sump and connected to a sealed pipe 110mm. dia. and to discharge directly to the outside air, all installed in strict accordance with manufacturer's details and recommendations. A252 mesh to be built into floor slab, 1m. wide, around slab perimeter.
Client/Contractor to check with the Local Authority Building Control Department whether partial or full protection required.

**General:-**
Client to submit samples of roofing slate and any other finish to the Local Authority Planning Department for approval prior to ordering.

**ALL WORK TO BE CARRIED OUT IN STRICT ACCORDANCE WITH GOOD BUILDING PRACTICE AND WITH CURRENT CODES OF PRACTICE RELATING TO BUILDING WORK.**
**CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS / DETAILS ON THE SITE OF THE WORKS, PRIOR TO COMMENCEMENT.**

**THESE DRAWINGS ARE SUPPLIED FOR PLANNING AND BUILDING REGULATION APPROVAL PURPOSES ONLY.**

The Client is to note the following:-
As the proposed extension will increase the habitable area by more than 10m², the following energy efficiency improvements should be undertaken:-
(a)
If there is no loft insulation, or it is less than 200mm. thick, provide 200mm. insulation or increase it to 250mm., and -
(b)
Upgrade any hot water cylinder insulation as follows:-
(i) If the hot water cylinder is uninsulated, provide a 160mm. insulated jacket; or
(ii) If the hot water cylinder has a factory fitted foam jacket less than 100mm. thick, add a further insulated jacket to achieve a total thickness of 160mm. jacket.
(iii) If the hot water cylinder has factory fitted solid foam insulation less than 25mm. thick, add an 80mm. insulated jacket.

**CDM2015 (Domestic Client):**
The design reflected in this drawing has been developed for Planning Application / Building Regulations only.
For appointment as Principal Designer stops at this point.
The Domestic Client duties under CDM2015 must be undertaken by the contractor, or where there is more than one contractor, the Principal Contractor.
Contractors in Domestic Projects must be aware of their client duties under the Construction (Design and Management) Regulations 2015. Should this not be the case further guidance must be sought.
In accordance with the Construction (Design & Management) Regulations 2015 it is our policy to 'Design Out' as many identifiable risks as possible for the construction, maintenance and demolition of the project.
A competent contractor should be aware of 'Normal' risks involved with the construction process.
Any unusual / significant residual risks that cannot be eliminated as part of the design process are listed below:-
1) None Identified.
Safe methods and systems of work remain the responsibility of the contractor and must be identified in the Construction Phase Plan. A Construction Phase Plan must be drawn up for every project by the contractor or principal contractor.
If any party using this drawing consider or identifies any 'Abnormal' or 'Unusual' risks that have not been identified above they should share this with the project team immediately.
Health and Safety File – when our appointment as Principal Designer ends we will pass the health and safety file to the principal contractor. The principal contractor will be responsible for developing this and handing it to the client on completion.

Project:- **Proposed Two Storey Side Extension at 'Bronallt', Church Street, Penycae, Wrexham, LL14 2RL**
Client:- **Mr. R.A. & Mrs. S.J. Smith –**
**Tel: 07940 353410 (Mobile)**
**Email: sarahsmith2020@gmail.com**
Detail:- **Proposed Section; Specification**
Scale:- **1:50** Date:- **May, 2024**
Drawing No:- **RA-SJ-S1/C** Revisions:-