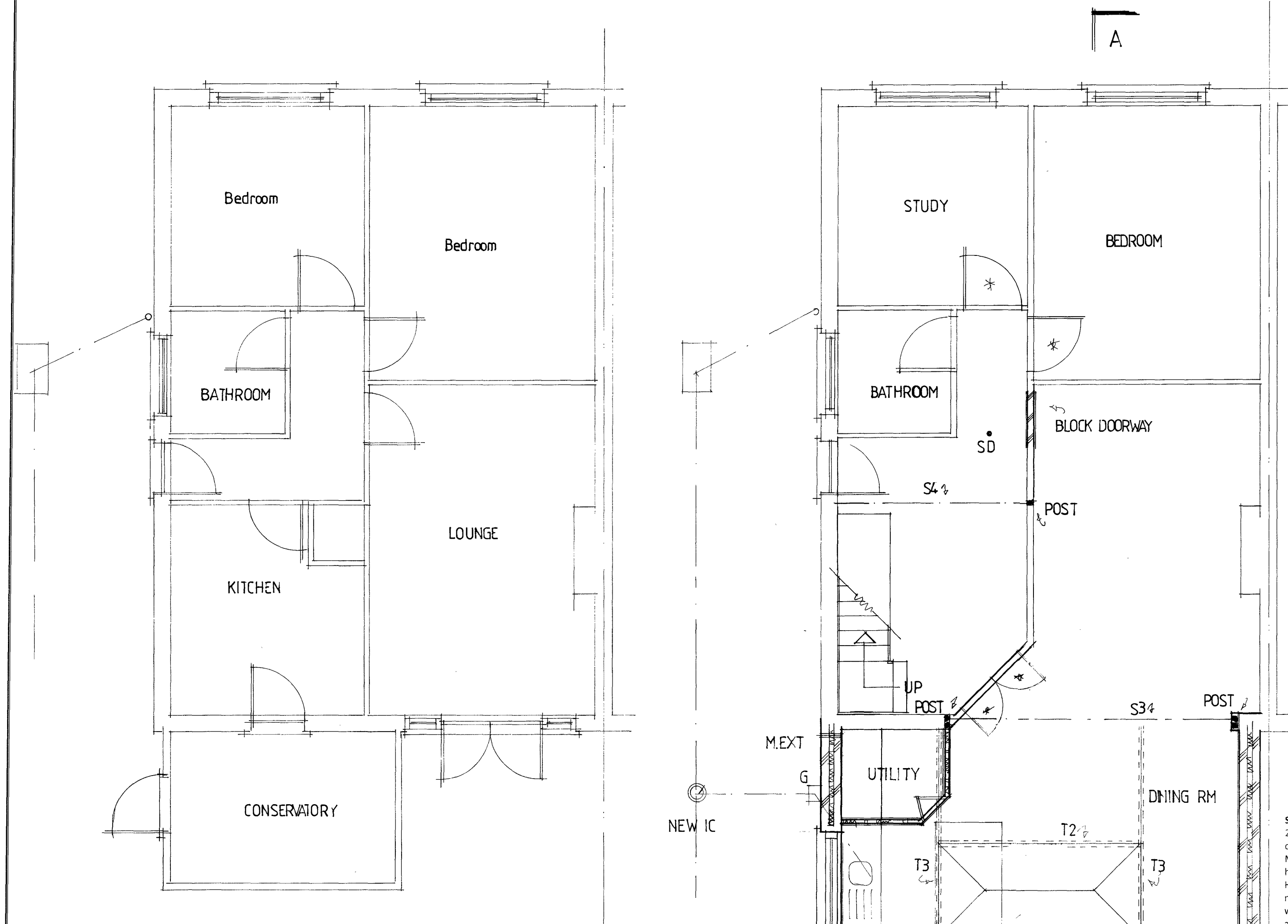




EXISTING GROUND FLOOR

Opening window: Areas to be minimum 1/20th of enclosed floor areas. All new windows to be fitted with minimum 8m² trickle vents per room. The maximum area of the double-glazed window not to exceed 20% of the total floor area.

New windows: New double-glazed windows to have minimum U-value of 1.60w/m²k. Doors to have a minimum U-value of 1.80w/m²k. Toughened glass in glazed doors and windows in critical locations e.g. alongside doors. Seal around window/wall joints with mastic sealant. Double rafters as roof light trimmers if applicable.

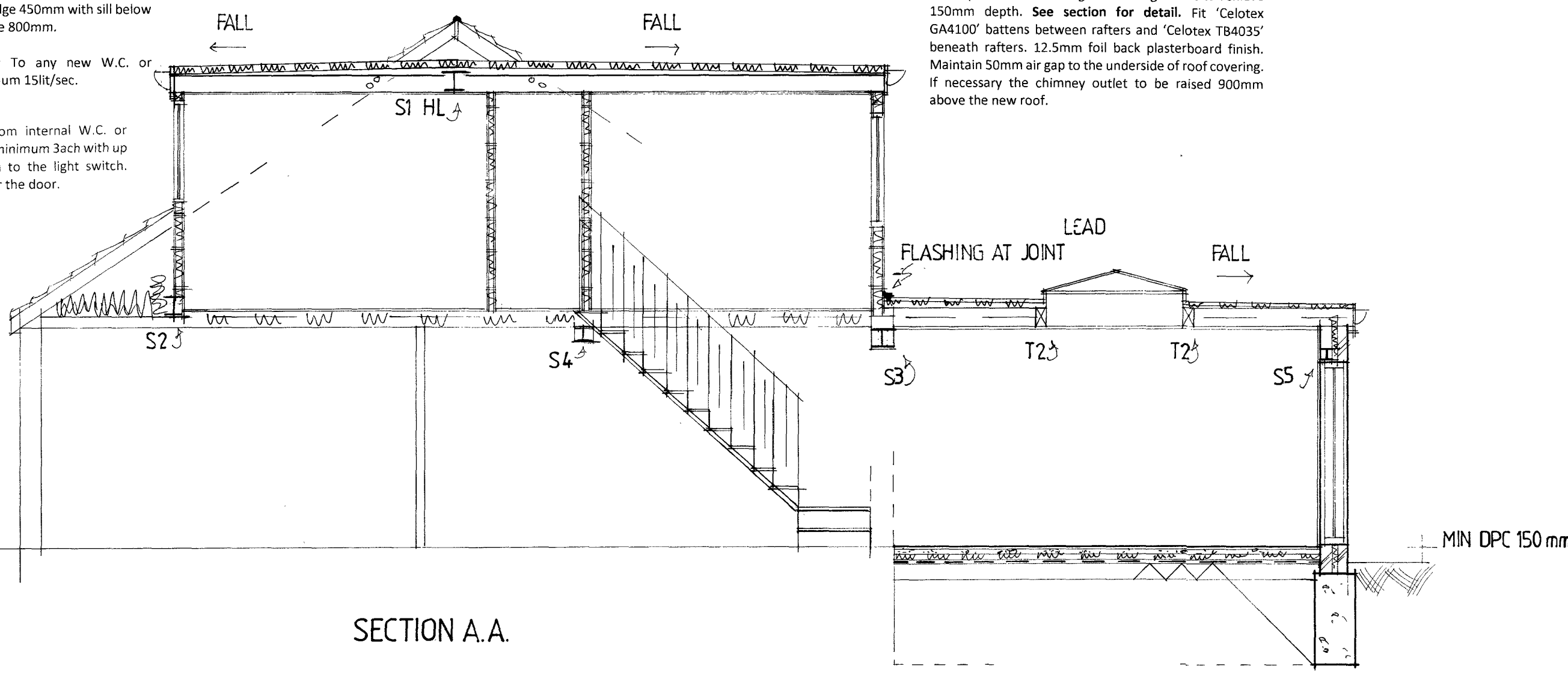
Minimum full opening: Size of escape window 0.33m² minimum clear dimension of edge 450mm with sill below 1.10m from the floor and above 800mm.

Fit mechanical extract fans: To any new W.C. or bathroom areas rated at minimum 15lit/sec.

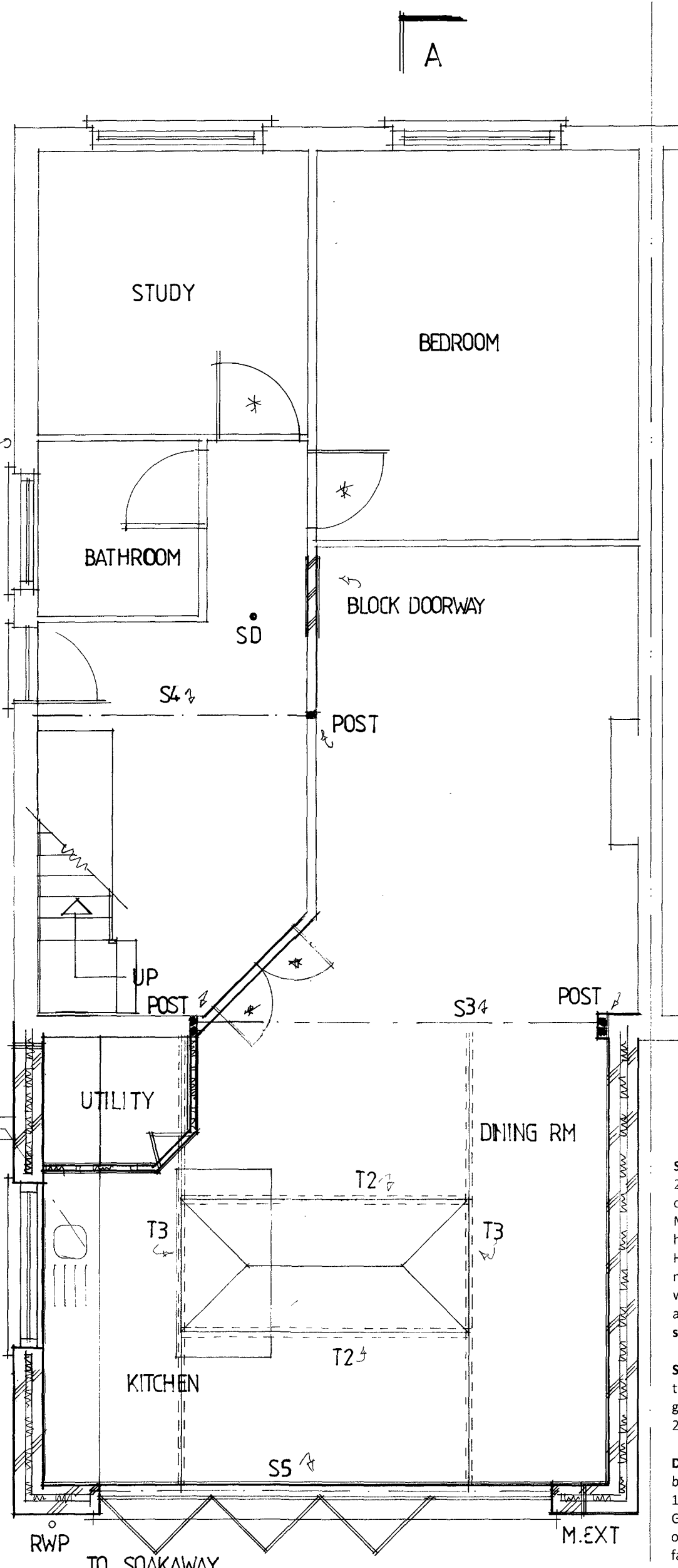
Duct mechanical extract: From internal W.C. or bathroom areas rated to give minimum 3ach with up to 15-minute overrun. Wired to the light switch. Minimum 12mm air gap under the door.

Steelwork: Minimum bearing 100mm on concrete padstones, prestressed concrete lintols or metal bearing plates. Encase in minimum two layers of 12.5mm plasterboard for half-hour fire resistance when fitted at floor levels. Lengths of steels to be site measured to include bearings. See structural calculations for sizes. Fabrication details to be provided if required by building control.

The floor in roof-space: 21mm floor grade tongued and grooved chipboard, 2.3 grade in bathrooms on 50mm x 200mm joists at 400mm centres. Joists to be doubled where under and parallel to partitions over. Solid strut at third centres of joists spanning more than 2.40m. Remaining roof spaces to be floored as the main area when joists extend out to outer walls. 'Simpson strong-tie' or similar galvanised joist hanger connection to steelwork where applicable. Purpose made 'MS shoe/hanger' where fitch beams join to steelwork or other fitch beams. Fit minimum 100mm mineral wool battens between joists for sound insulation.



SECTION A.A.



PROPOSED GROUND FLOOR

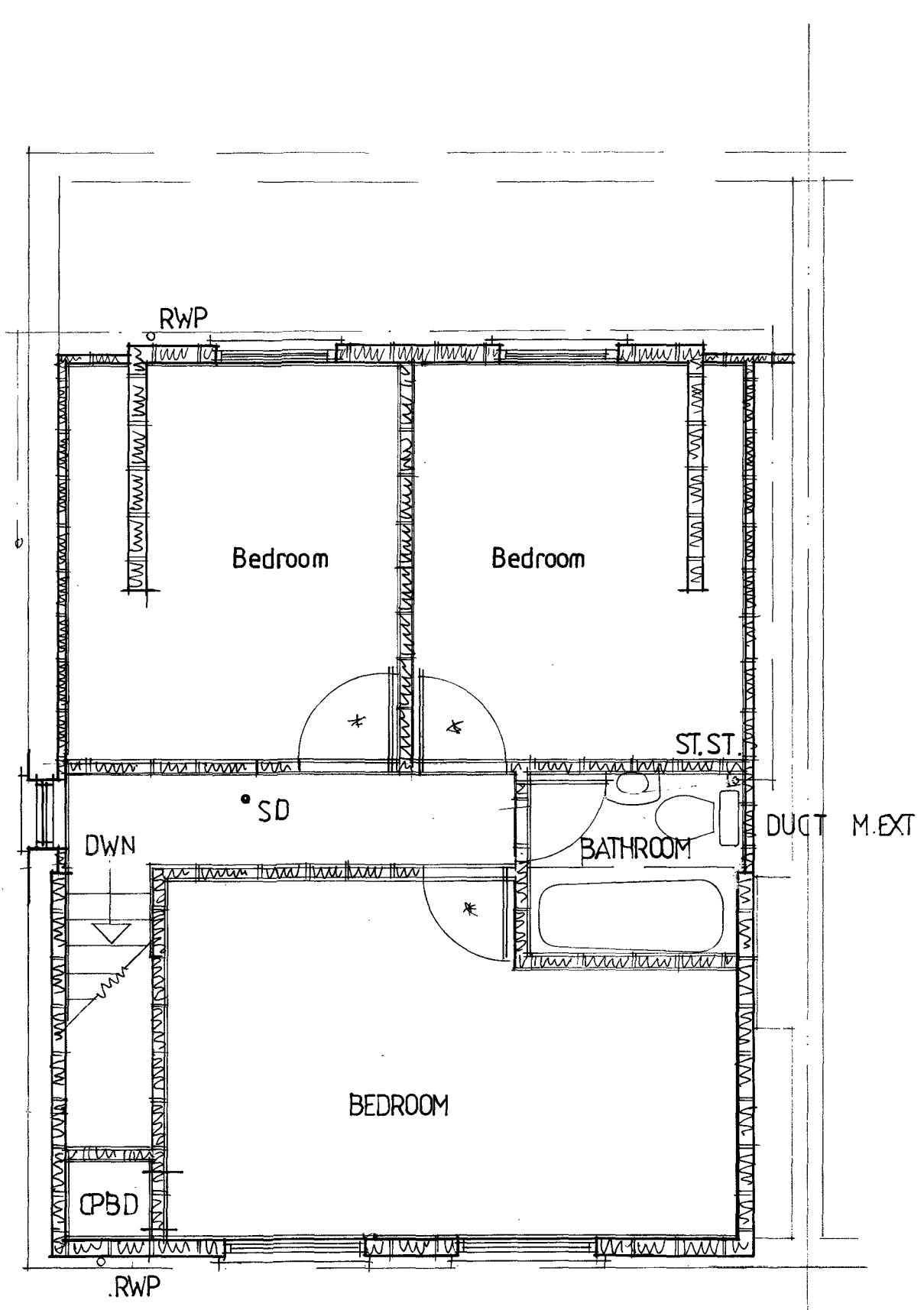
Inner partition: 12.5mm plasterboard each side of minimum 75mm x 50mm studwork. Fit 25mm sound insulation quilt between held in place with battens.

Conversion of existing roof-space (Sloping ceilings): Either plant on or fit alongside existing rafters to achieve 150mm depth. See section for detail. Fit 'Celotex GA4100' battens between rafters and 'Celotex TB4035' beneath rafters. 12.5mm foil back plasterboard finish. Maintain 50mm air gap to the underside of roof covering. If necessary the chimney outlet to be raised 900mm above the new roof.

Stairs: Maximum rise 220mm. Minimum going on tread 220mm with minimum 16mm nosings. Minimum going on winders 50mm. Minimum clear width 800mm. Maximum pitch 42 degrees. Minimum 2.0m clear vertical headroom off pitch line over new and existing stairs. Handrails minimum 900mm with vertical balusters at maximum 100mm centres. Allow to pack off party/outer wall to accommodate any required dry lining of the wall above. **New staircase dimensions to be confirmed on site prior to manufacture.**

Stair practical limits: Stair risers and goings to be within the practical limits of risers 155/220 to be used with goings 245/260 or risers 165/200 to be used with goings 223/300mm.

Dormer walls: Tile/slate hanging on battens and breathable felt on 100mm x 50mm studwork with 12.5mm foil back plasterboard finish over 'Celotex GA4070' battens between studs' flush with the outer face of studs' (30mm cavity) and 'Celotex TB4012' across the face of the studs'. Tape and mastic joints (12.5mm plasterboard on cheeks where within 1.00m of the boundary). Also, fit 6mm master board web under cheek felt where within 1m of the boundary. Triple rafters under cheeks. Sheath with 12.5mm marine ply under felt for additional lateral support.



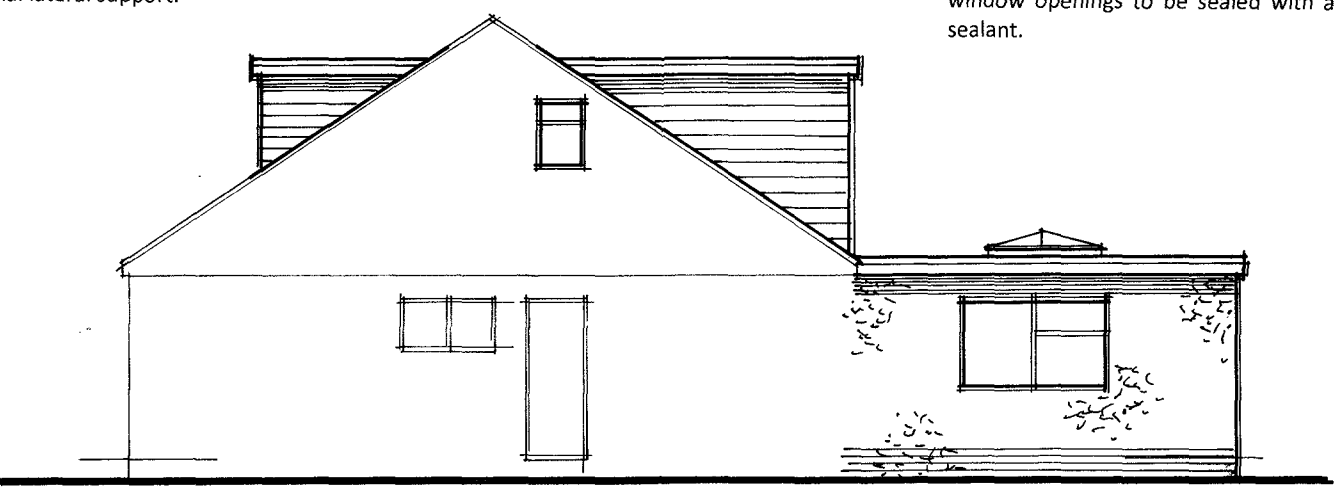
PROPOSED ROOFSPACE

Dormer warm flat roof: Three-layer built up felt to 'BS747 CP144 PT3' on 'Celotex TD4126' decking on firings on 50mm x 175mm joists at 400mm centres. 12.5mm foil back plasterboard ceiling. Seal warm roof from existing vented roof space at join if applicable.

Foundations: Concrete trench fill, 450mm wide to min' depth of 1m or to suit local ground conditions. (In clay soils min depth 1.2m) or to below invert level.

Floor: 50mm screed on 100mm concrete slab on 'Celotex GA4070' insulation battens on 1,200G damp proof membrane continuous with the new and existing damp proof course, on min' 100mm well-consolidated hardcore with 50mm sand blinding. Fit 100mm diam PVC ducts under slab terminating in 225mm x 75mm airbricks to vent existing timber subfloors when required.

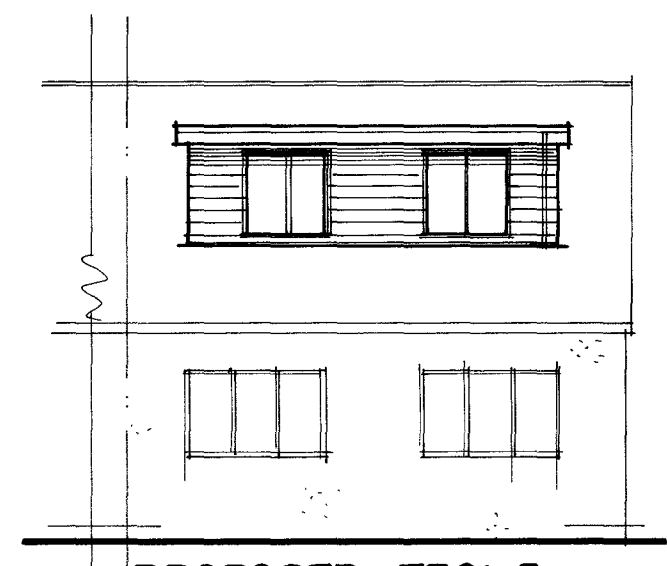
External walls: Two skins 100mm lightweight concrete blockwork (Celcon Solar, Thermalite Turbo or similar rated) 50mm clear cavity with 'Celotex CW4025' on the outer face of the inner skin. Render and set internal, two-coat render external (overall cavity 75mm). Insulated 'Catic' lintels over new openings, tooth into existing walls and maintain all cavities. Close cavities at eaves with non-combustible material. Wall ties to be at 900mm centres vertically and 450mm centres horizontally and staggered. 'Catic' or similar vertical cavity thermal closers at openings. External perimeter of door and window openings to be sealed with a suitable airtight sealant.



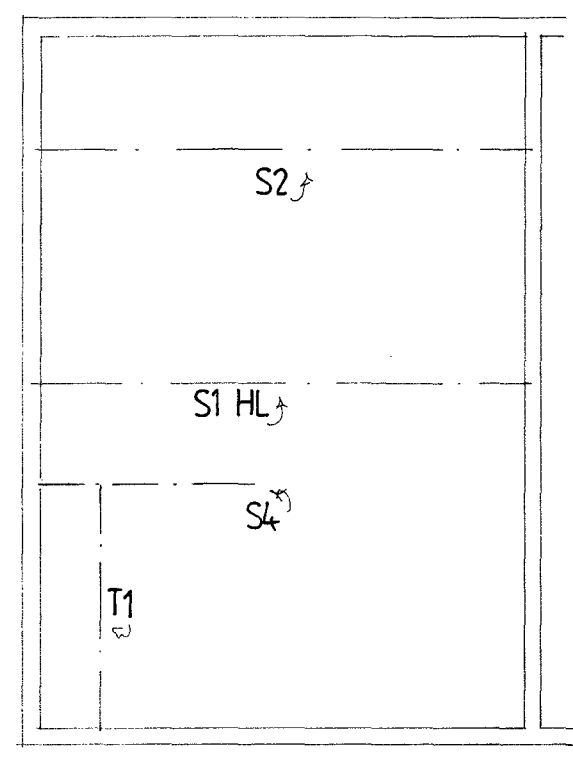
PROPOSED SIDE



PROPOSED REAR



PROPOSED FRONT



STRUCTURAL LAYOUT

Flat roof: 13mm spar chippings on 3-layer high-performance torch on felt to 'BS747 CP144 PT3 1977' on 'Celotex XR4120' insulated roof decking on firings on 50mm x 225mm roof joists at 400mm centres. 12.5mm foil back plasterboard ceiling. Strap down the new roof with 1m x 32mm galvanised mild steel straps at 1.2m centres. Ensure that wall insulation is taken up to meet the underside of 'Celotex' to ensure warm roof construction.

Roof insulation: Roof to be insulated with two layers of 150mm fibreglass insulation quilt. One layer laid between ceiling joist and one layer laid over in opposite direction. Maintain roof ventilation with 25mm continuous air to eaves and vent tiles to the apex as shown.

Drainage: All drainage to 'BS EN752' plus approved doc H 100mm diam. PVC drain ware minimum fall 1-40 in 150mm concrete surround new or existing inspection chamber on the existing run. Bridge with concrete lintels over where passing beneath new walls and flexible packing surround. Exact position, invert and direction of all existing drains to be determined and agreed on site prior to the commencement of works. **The integrity of the existing sewer passing beneath the extension to be checked either by exposing the sewer or a CCTV camera survey prior to the commencement of work.**

Plumbing: All to 'BS EN 2056' plus approved doc H 38mm diam'. Wastes from the sink, bath and shower, 32mm diam'. Waste from wash hand basins, all with rodding access on changes of direction and with deep seal traps. Run to existing/new 100mm diam PVC svp terminating min 900mm above nearest window head and with rodding access at the base.

Stub Stack: Run to 100mm diam stub stack terminating above appliance flood level with 'Durgo auto-vent'.

New SVP: 100mm diam/PVC svp to terminate min' 900mm above window heads and with rodding access at the base.

Rainwater goods: Run new 100mm diam PVC rainwater gutting and 70mm diam downpipes to the existing drainage system.

All new electrical works: To be designed, installed, inspected and tested in accordance with BS7671 (IEE.17thed). The works are to be undertaken by an installer registered under a suitable self-certification scheme or by a suitably qualified professional with a certificate of compliance produced to building control upon completion of the works.

Lighting: Fit high efficacy light fittings minimum three per four new fittings. Any recessed ceiling lights to be 30-minute fire resisting.

SD smoke detectors: Fit a smoke detector system wired to the mains supply and to each other with battery backup system. One per floor minimum. All installed to BS 5839.6.2004. To be over 300mm from doors, walls and light fittings.

Party walls: To be lined with 12.5mm foil back plasterboard over 'Celotex GA4050' insulation battens on 25mm x 50mm battens at 600mm centres. (25mm air gap) Tape joints before plaster boarding.

Radiators: All new radiators to be fitted with TRVs.

Fit * 20/30: Rated fire resisting doors with new 25mm x 38mm stops, to all doorways opening onto the route of escape (except bathrooms).

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Principal Contractor to ensure all materials and workmanship complies with Regulation 7 of the Building Regulations whether or not specifically stated on these drawings. It is the Principal Contractor's duty to ensure all works on site are approved by an appointed Building Control body.

Principal Contractor is to ensure dimensions are taken on site before procurement of any materials works proceeding. Structural members are not to be ordered scaling from this drawing.

Principal Contractor to ensure full compliance with the amended CDM Regulations (2015) if the project requires.

This drawing, unless noted, does not represent compliance with the Party Wall Act 1996 and if required, all agreements are to be in place before works commence.

It is the Principal Contractor's responsibility to ensure Planning/Building Control approvals are in place prior to works commencing. Should works commence prior to relevant approvals Thorns-Young Architectural accepts no responsibility.

Do not scale from this drawing except for the purpose of Local Authority Planning department.

A	Date	Revision
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THORNS-YOUNG LTD CHARTERED BUILDING CONSULTANTS Website: www.thornsyong.co.uk		
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Client
KATIE LAX

Job Title
**28 MARGARET CLOSE
WATERLOOVILLE**

Drawing Title
**REAR EXTENSION +
LOFT CONVERSION**

Scale
1:50, 1:100 AT A1

Date
DEC 2018

Drawn by
CM

Drg. No. 2254.18	Rev.
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