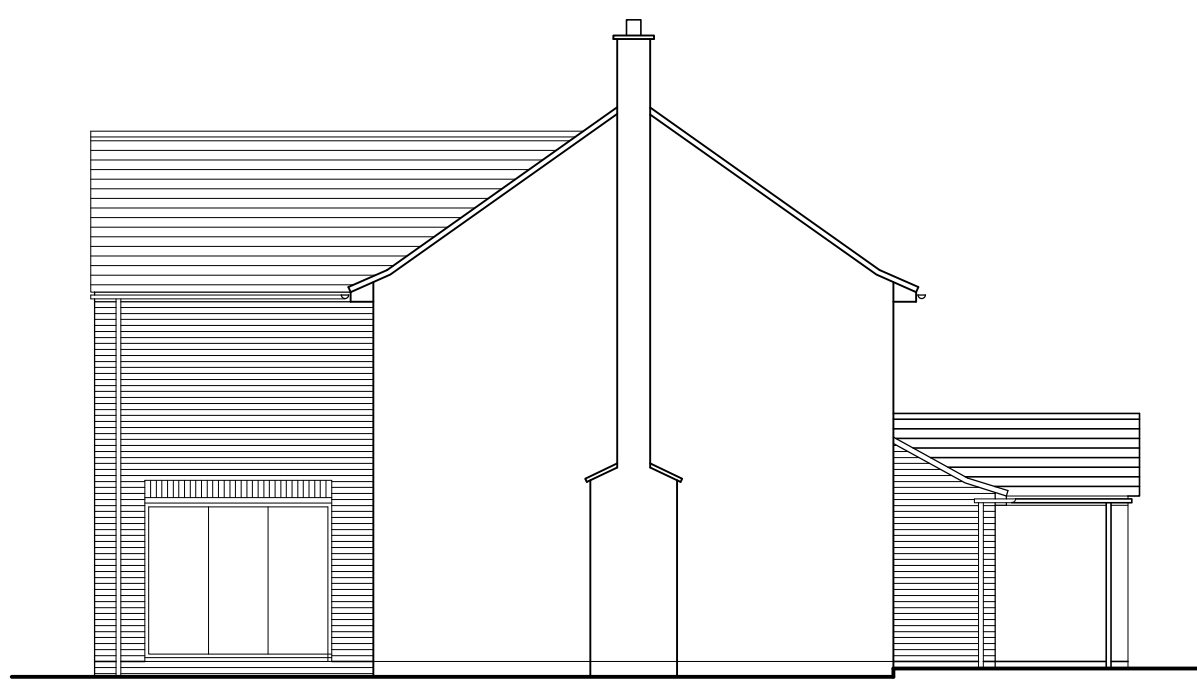




Front Elevation



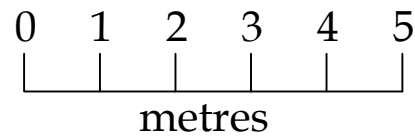
Side Elevation



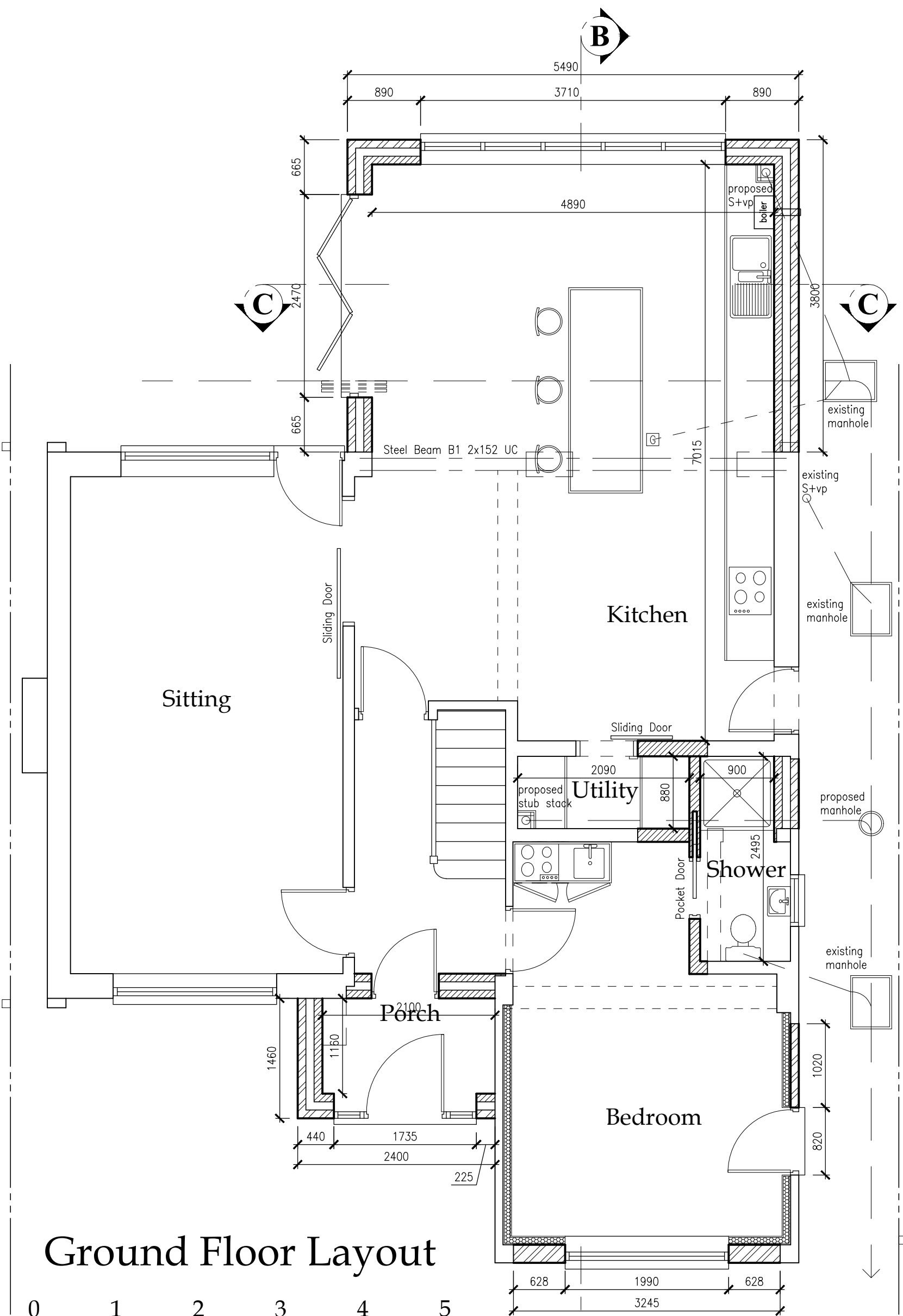
Rear Elevation



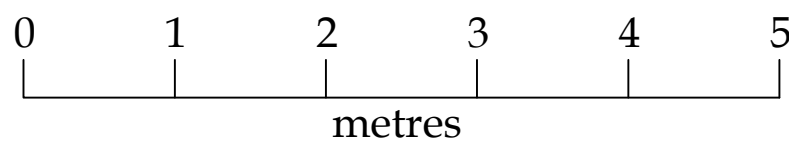
Side Elevation



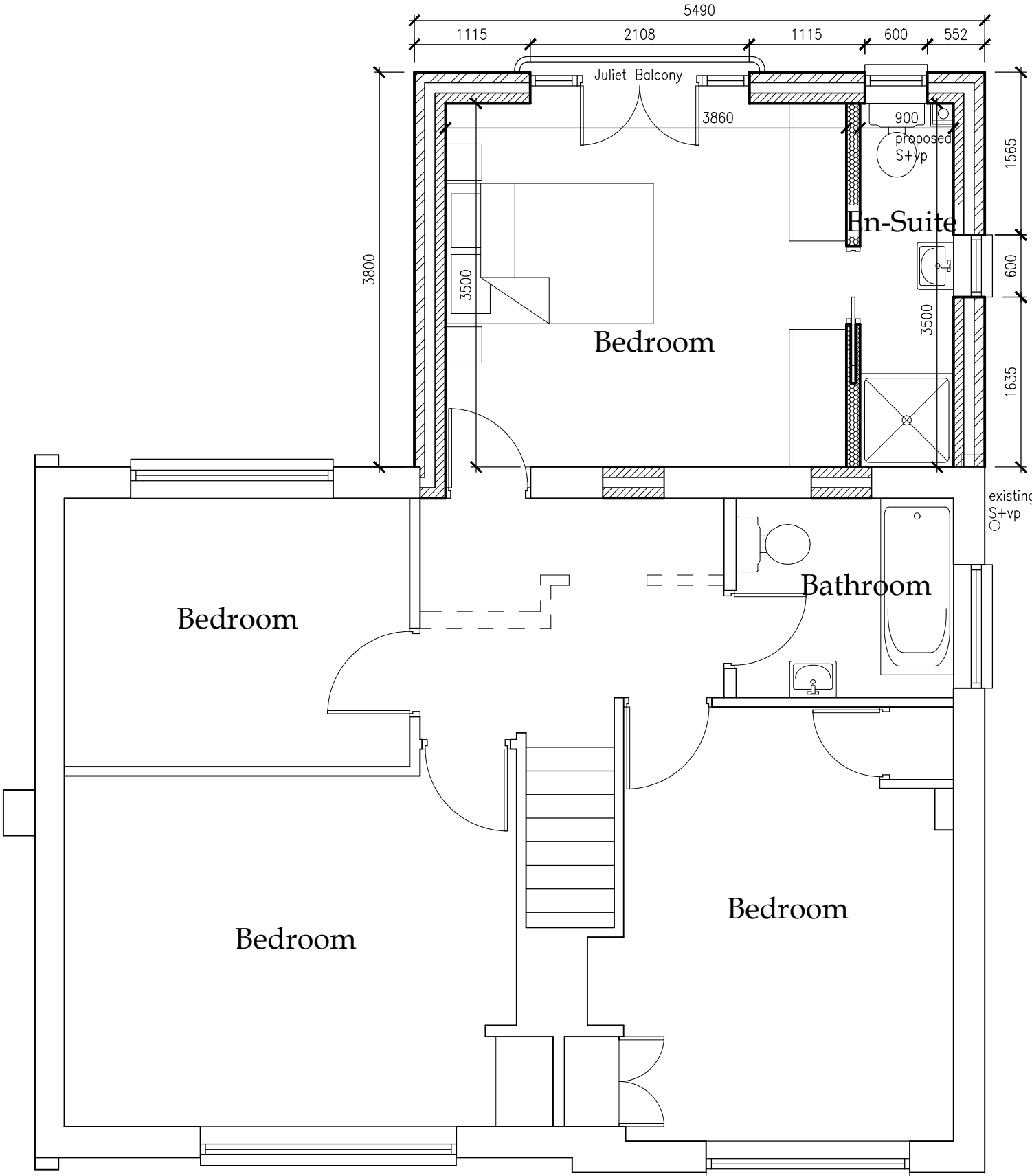
Scale Bar @ 1:100



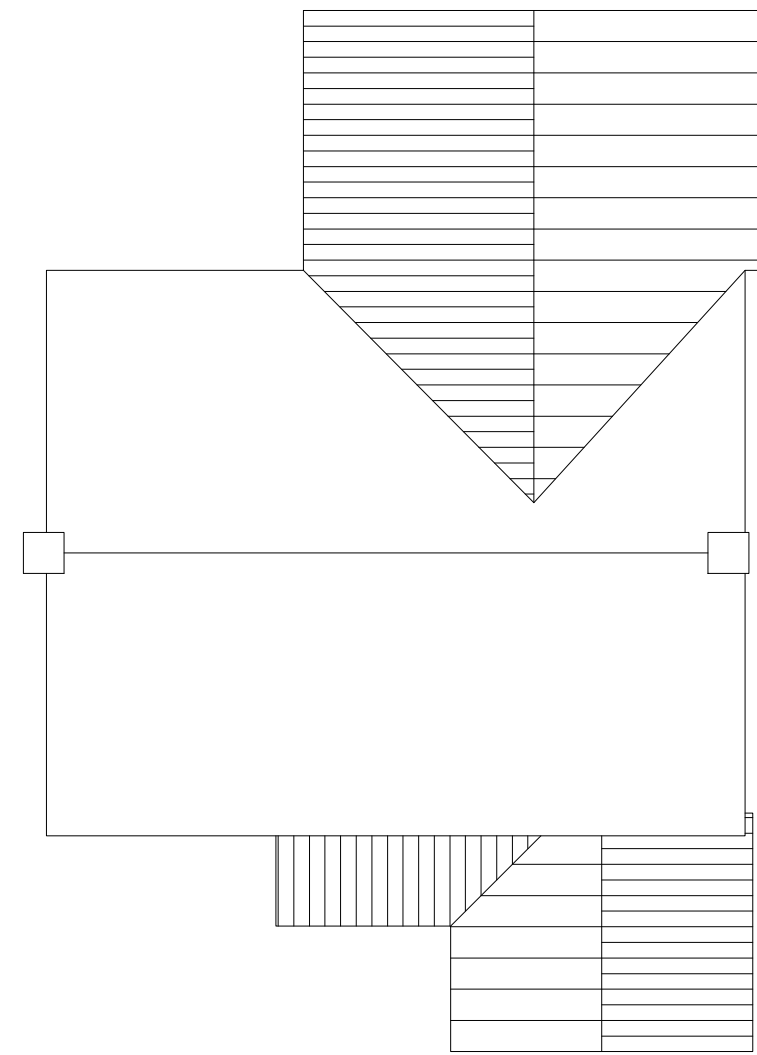
Ground Floor Layout



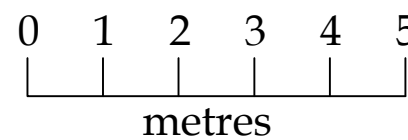
Scale Bar @ 1:50



First Floor Layout



Roof Layout



Scale Bar @ 1:100

SPECIFICATION

Foundations:-- Min. 1m deep x 600 wide in GEN 1 concrete or to suit sub-soil conditions and to be agreed on site with the Local Authority.
Insert bridging lintels in foundations where any drains pass through.
Check extg. foundations for suitability to carry additional loading and underpin if required in C15P concrete min 1m deep.

Ground Floor Construction:-- 65mm sand/cement screed on 100mm GEN 2 concrete on 500g polythene membrane on 100mm Celotex Extra-R XR4000 insulation on 1200g polythene d.p.m. turned up at edges and linked to d.p.c. on 100mm well compacted, sand blinded hardcore. Provide 25mm Celotex Tuff-R GA4000 edge insulation to concrete and screed.
Link new DPM to existing DPM with mastic seal to the joint.
Provide A142 mesh in center of slab.
New floor level to line through with extg.

Cavity Wall Construction:-- 102 facing brickwork externally, 100mm cavity with 100mm rockwool full fill or with 50mm clear cavity with 50mm celotex tuff-R QW4000 or similar and 100mm plasmar ogite inner skin with 13mm two coat plaster finish.
Use stainless steel wall ties @ 750 horizontal and 450 vertical centres (225 at reveals) and provide thermabate cavity closer at reveals.

Lay a 100 wide horizontal d.p.c. to each skin, lapped at corners linked to existing d.p.c. and d.p.m. and min. 150 above finished ground level.
All work below d.p.c. to be brickwork and fill cavity with 10:1 semi-dry concrete to within 225 of d.p.c.
Use Caltic C90/100 lintel over bi-fold doors and C90/100 lintels over rest of the ground floor openings and C90/100 over first floor openings, min. 150 end bearing.

All new work to be properly bonded to extg. by either C.T.&B. or by the use of Furix battens, and connect new cavities to existing.
Provide type E Bit. felt cavity tray above lead flashing with weep holes above opening in existing wall.

Ground Floor Internal Walls:-- 100mm non load bearing blockwork with 13mm thick two coat plaster finish both sides, built off existing floor slab.

First Floor Construction:-- 22mm T&G chipboard moisture resistant type II/III glued at edges and secured with 65mm annular ring nails over 175x50 C24 floor joists @ 400 centres, ends build into new wall and treated with cuprinol or similar.
Ends of joists to be supported at house wall end on jiffy hangers over timber packer in web of steel beam B1 12mm rawbolts.

Ceiling to have one layer 12.5mm plasterboard with taped and filled joints.
Over garage provide 100mm Celotex tuff-R GA4000 insulation between joists.
Provide 100mm mineral wool insulation between joists.
New floor level to line through with existing.
Provide strutting to joists at mid span.

Steel Beams:-- Provide new steel beams as shown on floor plans & sections. See engineers calculations for steel beam sizes, padstone sizes and connection details. New steel beams to be encased with 19mm thick Gypsum plasterboard with wire binding at 100mm pitch and finished with 7mm Gypsum plaster finish, or to have brush applied intumescent paint, to achieve half hour fire resistance.

Roof Construction (Rear):-- Roof tiles to match extg.
Provide roofing to BS5534, including 50mmx25mm treated BS battens on one layer Tyvek 'Supro' breathable membrane on 150x50 rafters @ 400 centres over 100x50 wallplates strapped down to walls @ 1.2m centres.
Provide a 250x38 ridge board.

Lay 100mm Celotex tuff-R GA4000 insulation board between rafters (with 50mm air gap above) and 50mm below to sloping ceilings with 12.5mm plasterboard finish.
Form valleys with pre-manufactured fibreglass valley units on 100x50 noggins.
Put 250x38 layboards on existing rafters and the new rafters will sit on top of these layboards.

Fascias to be 25mm treated softwood and soffits to be 9.5mm W.B.P. ply (or uPVC).
Provide Tyvek eaves carrier at eaves.
Provide vapour barrier at ceiling level over kitchen.

Roof Construction (Front):-- Roof tiles to match extg. as closely as possible but to suit roof pitch (28 degrees).

Provide roofing to BS5534, including 50mmx25mm treated BS battens on one layer Tyvek 'Supro' breathable membrane on 100x50 rafters @ 400 centres over 100x50 wallplates strapped down to walls @ 1.2m centres.
Provide a 200x38 ridge board.

Lay 50mm Celotex tuff-R GA4000 insulation board between rafters (with 50mm air gap above) and 100mm below to sloping ceilings with 12.5mm plasterboard finish.
Put 200x38 layboards on rafters of front single storey gable roof and the new lean to roof rafters will sit on top of these layboards.

Form valleys with pre-manufactured fibreglass valley units on 100x50 noggins.
Fascias to be 25mm treated softwood and soffits to be 9.5mm W.B.P. ply (or uPVC).
Provide Tyvek eaves carrier at eaves.

Lean to Roof:-- Provide roofing to BS5534.
Concrete tiles to suit roof pitch of 29 degrees on 50mmx25mm treated BS battens on one layer Tyvek 'Supro' breathable membrane on 150x50 rafters @ 400 ctrs. birdsmouthed over 100x50 wallplate strapped down to walls @ 1.2m centres, and 100x50 top plate rawbolted to house wall @ 600 ctrs. with 12mm a rawbolts.
Concrete tiles to match existing on 50mmx25mm treated BS battens on one layer Tyvek 'Supro' roof felt on 100x50 rafters @ 400 ctrs. birdsmouthed over 100x50 wallplate strapped down to walls @ 1.2m centres, and 100x50 top plate rawbolted to house wall @ 600 ctrs. with 12mm a rawbolts.
Lay 50mm Celotex tuff-R GA4000 insulation board between rafters (with 50mm air gap above) and 100mm below to sloping ceilings with 12.5mm plasterboard finish.
Provide 150mm high code 4 lead cover flashing (75mm underneath window cill with non-setting mastic seal between flashing and window cill) where roof abuts house wall.
Fascias to be 25mm treated softwood and soffits to be 9.5mm W.B.P. ply (or uPVC).
Provide Tyvek eaves carrier at eaves.

Ventilation Details:--
Mechanical: Shower room and en-suite to be mechanically ventilated, ducted to external air and fan to have an extract rate of 15litres/sec. and to be connected to light switch.
Kitchen and utility to be mechanically ventilated, ducted to external and fan to have an extract rate of 60litres/sec (30litres/sec if cooker hood).
New extract fans to have a 15 minute overrun facility and to be tested and commissioned upon completion of building works.

Purge: To be achieved by opening doors and windows in new rooms, all opening windows to open 30' or greater and opening area to be a minimum of 1/20 of the floor area.

Trickle vents: Trickle vents in habitable rooms to be 8000sq.mm and other rooms to be 2500sq.mm.

Continued on BR-101.

all dimensions to be checked on site as work commences and any discrepancies or omissions reported immediately.

client **Mr. & Mrs. Mandefield,
80 London Road,
Knebworth,
SG3 6HB.**

job title: **Proposed Two Storey Rear Extension
And Garage Conversion.**

dwg title: **Proposed Floor Plans,
Roof Plan & Elevations.**

dwg. no: 2022032-BR-100 drawn by: PK scales: 1:50, 1:100 @ A1

revision suffix: - status: Building Regs date: Mar 2022

Rev.	Description	Date
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