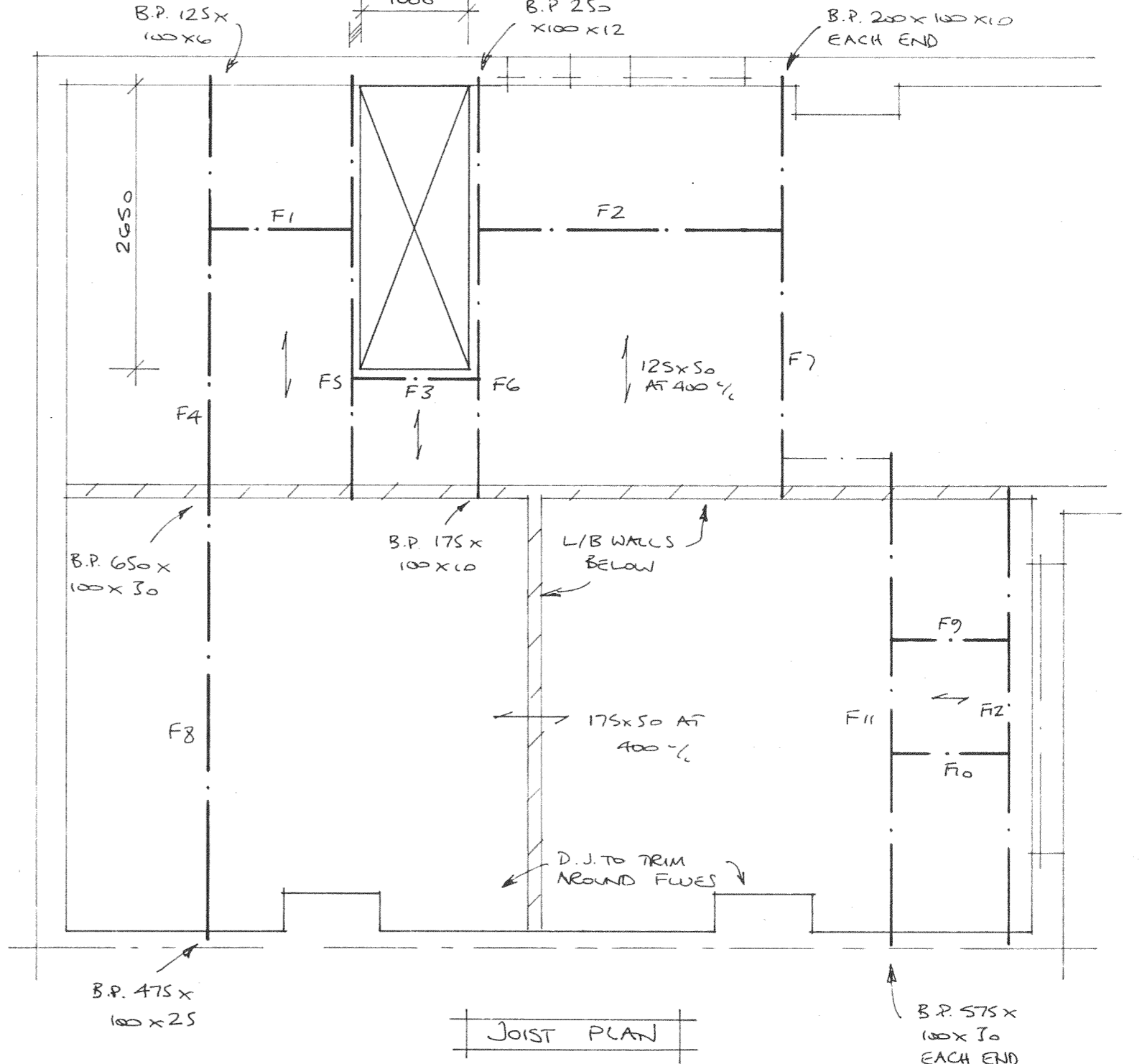
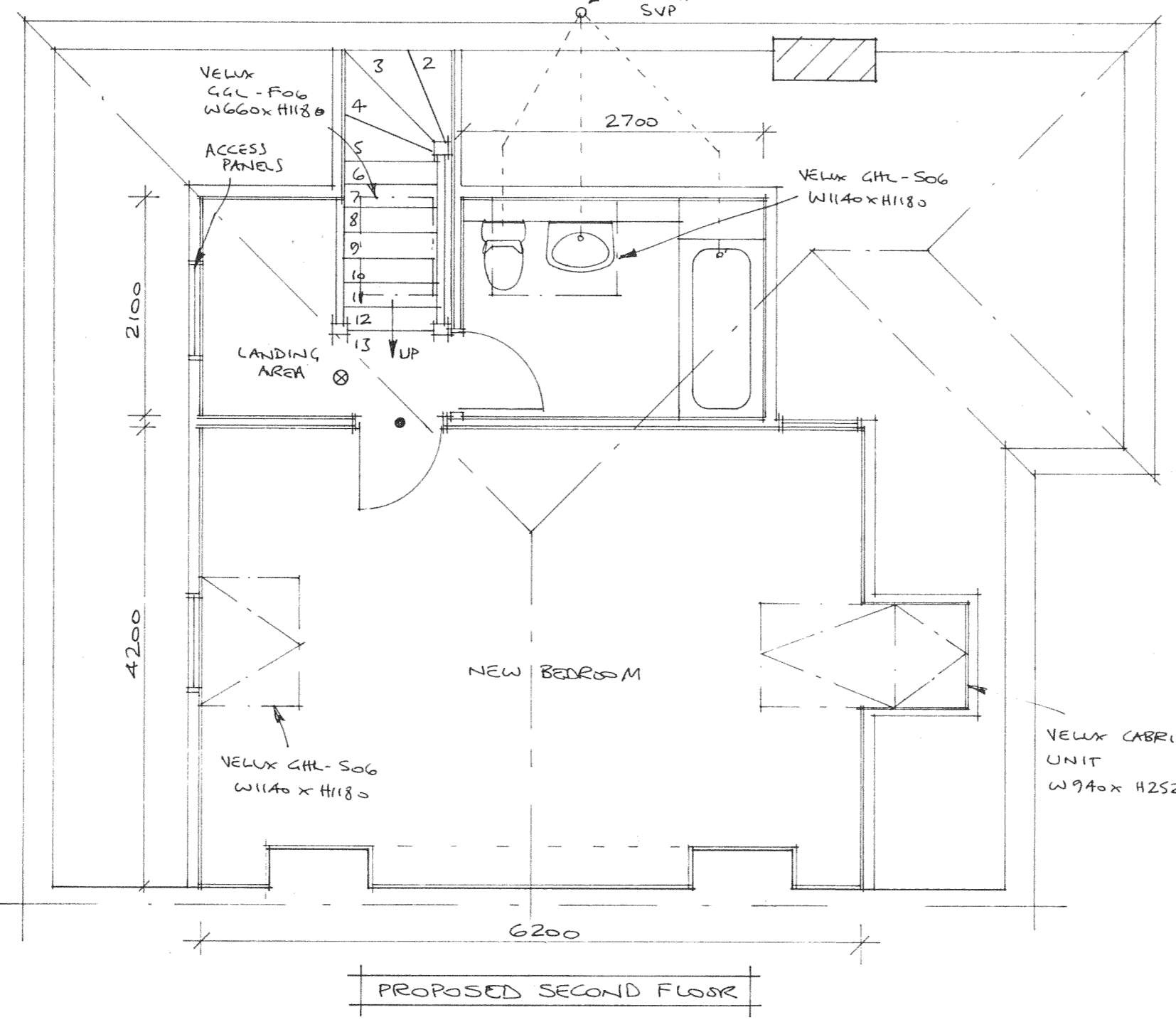
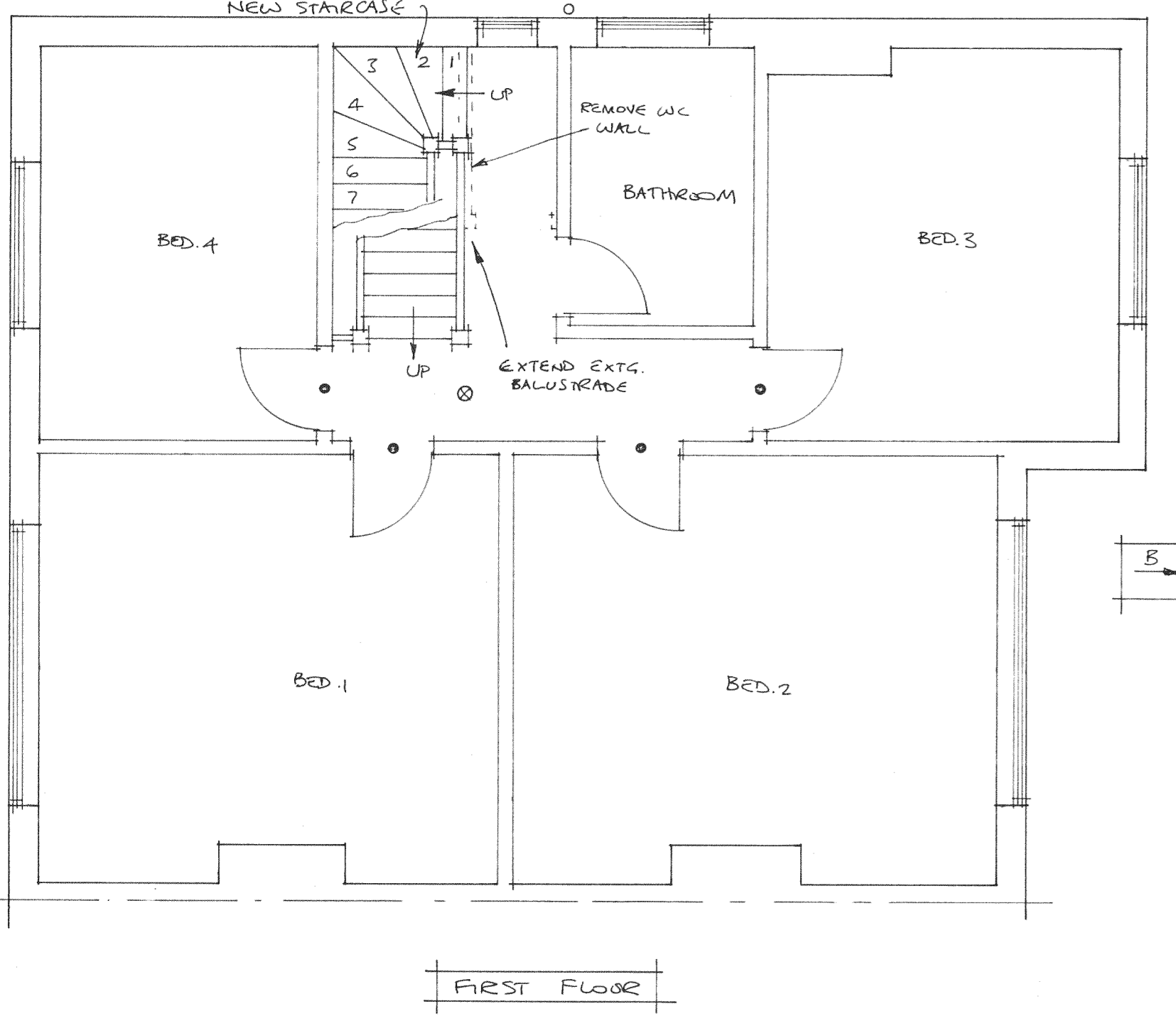
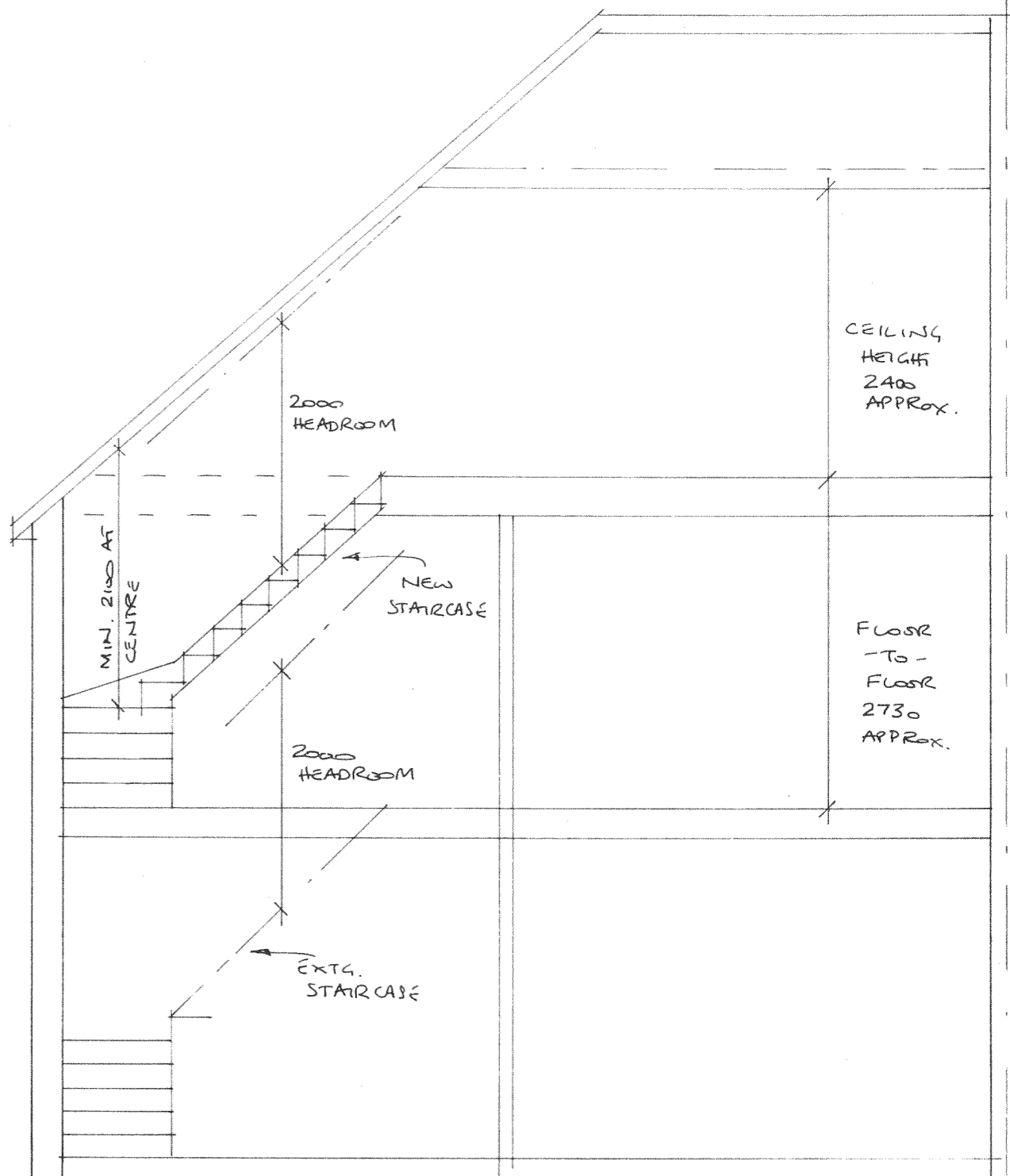
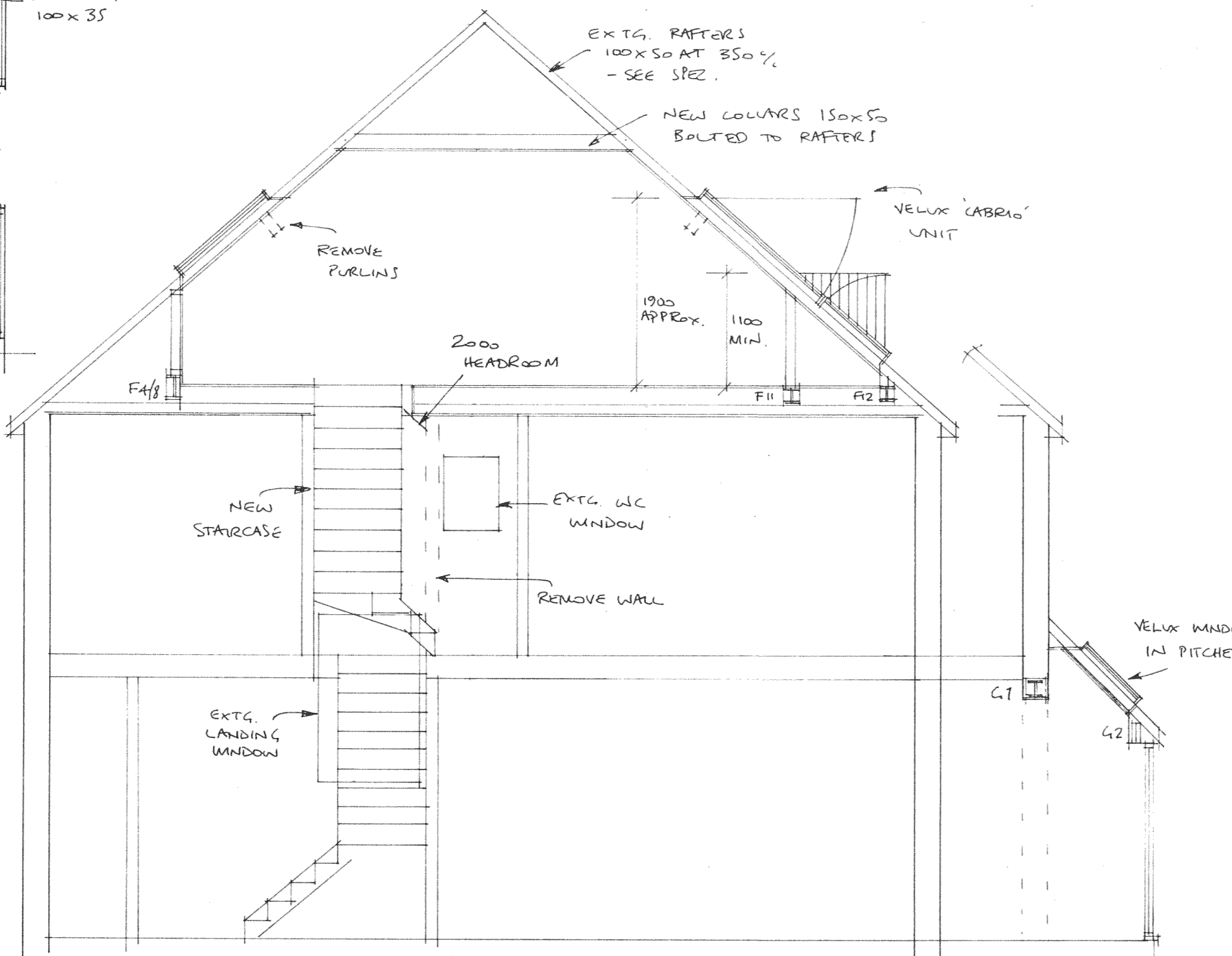


GROUND FLOOR ALTERATIONS
 Remove 225mm wall and insert beam G1 over. New foundations to be at least depth of existing; 4:2:1 concrete min 450 thick. New floor - 50 sand & cement screed (4:1) on 100 concrete (4:2:1) on building paper on 100 Celotex insulation on 1200 gauge polythene DPM on sand blinding on min 150 clean hardcore well compacted. 100 horizontal Hyload DPC min 150 above ground level in outer leaf and at floor level in inner leaf. New wall construction in two leaves 100 Plasmor fibrolite blockwork with 85 Drytherm insulation between, stainless steel wall ties as appropriate. Furtix channels to existing masonry. Two coats sand & cement render externally as existing. Carite plaster internally. Cavity closers at reveals with 30mm overlap to UPVC frames.
 Extend pitched roof across to conservatory wall and re-roof whole area, with plain tiles on Tyvek breather felt. New section of 100 x 50 rafters at 400 c/c, notched over 100 x 50 wall plate rowbolted to external wall at 450 c/c, bottom of rafters notched over wall plate on inner leaf/beam G2. 50mm Celotex between all rafters (leaving min 50 airgap to felt) and 65 Celotex across underside of rafters; 12.5 plasterboard & skim internally. Code 4 Lead flashings at junction with external wall, turned up wall 150. Form cavity tray above. New UPVC fascia board; 112 HR gutter along eaves into existing 68 diameter downpipe.



SPECIFICATIONS

GENERAL
 Ventilation: Provide equivalent to 5mm continuous ventilation strip at ridge. Ensure/provide 25 ventilation strip (or equivalent) to existing eaves. Provide trickle ventilator to give 8000mm² background ventilation to loft rooms. Provide 25 ventilation strip above Velux roof windows to ensure continuous flow over sloping ceiling areas.
 Structural: Double rafters to trim all round Velux window apertures. NOTE: existing structure bearing additional load to be exposed and checked for adequacy.
 Conservation of fuel and power: Glazing to have U value 1.8 W/m² K. Install 2 energy-efficient light fitting(s). New radiator(s) to be fitted with TRV's.
 Electrical Works: All electrical work required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Contractor 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.

STAIRCASE
 Rise = 210 Going = 234 No. equal risers = 13
 Overall width = 900 Maximum pitch 42°
 Floor/pitch line to top of handrail 900. Spindles at 100 centres. Tapered treads to have min 50 going and same going as straight treads at mid-point.

CEILINGS & SKEELINGS
 New ceiling joists (collars) with 120 Celotex insulation. Existing/new rafters to achieve 50 ventilation gap behind 60 Celotex insulation between rafters; 50 Celotex insulation across rafters with 12 foil-backed plasterboard + 5 plaster skim, or 50 Celotex insulation between rafters plus Tri-iso Super 10 stapled to rafters with 75mm overlaps + aluminium tape to seal, 25 x 50 cross battens at 400%, then 9.5 plasterboard (non foil backed) + plaster skim.

WALLS
 100 X 50 studwork at 400 centres infilled with 90 Celotex insulation, and 12 foil-backed plasterboard + 5 plaster skim each side (internal walls) or one side (perimeter walls). Internal walls to have sound insulation (25 Rockwool).

DORMER ROOF - FLAT
 Bitumen bedded limestone chippings on three layers bitumen roofing felt to BS 747, on 18 exterior plywood decking on 50 x 50 cross battens at 400 centres, on firing pieces (at 1:40 on x 50 flat roof joists at centres, infilled with 140 Celotex insulation, and 12 foil-backed plasterboard + 5 plaster skim internally. Provide 25 ventilation gap around perimeter of flat roof. 112 half-round gutter to perimeter of roof; discharge onto existing roof via 68 ø downpipe.

DORMER ROOF - PITCHED
 Concrete roof tiles on treated battens on felt on 100 x 50 rafters at 400 centres, notched over 100 x 50 sole plate. Ceiling ties 100 x 50 at 400 centres. Internal specification as per 'Ceilings'. Provide 25 ventilation around perimeter of pitched roof and equivalent to 5 continuous ventilation strip at ridge. 112 half-round gutter to perimeter of roof; discharge onto existing roof via 68 ø downpipe.

DORMER WALLS
 Vertical tile hanging on treated battens on breather paper on 12 ply bracing on 100 x 50 framing at 400 centres, infilled with 90 Celotex insulation, and 12 foil-backed plasterboard + 5 plaster skim internally. 100 x 100 corner and reveal posts. Checks within 1000 of boundary to have 9 Supalux over ply to achieve half-hour fire resistance from both sides. Checks built off existing masonry to have GMS straps at 900 centres. Dormer fully weathered in Code 4 lead flashing.

NEW FLOOR
 Main beams on load bearing walls supporting new and existing structure. Supporting wall under rafters to have sole plate bolted to top flange of RSJ via M6 bolts at 600 centres. Timber packing bolted through RSJ web via M12 bolts at 600 centres, carrying GMS joisthangers with tails taken over stud wall sole plate. New joists to be 50 minimum from chimney breasts. Existing ceiling joists strapped up to new floor beams where binders/truss members removed. Steelwork to have 50 x 50 framing at 600 centres and encased in 12 fireline board for half-hour fire protection. New flooring to be 18 tongued and grooved flooring grade chipboard.

ALTERNATIVE INSULATION SPECIFICATION
 Tri-iso Super 10 (25mm thick uncompressed) applied to all areas, stapled to inside of rafters/joists/studs, 75mm overlaps with aluminium tape to seal, 25 x 50 cross battens over insulation at 400% then 9.5 plasterboard (non foil backed/Duplex) & plaster skim finish. (Effective U value 0.2 W/m² K or better, to all applications).

FIRE RESISTANCE
 Existing ceilings - LATH + PLASTER BETWEEN
 New loft floor to be full half-hour fire resistant. Lay 100 Rockwool over chickenwire over existing ceiling joists prior to laying new floor joists. Ensure first floor achieves modified half-hour fire resistance. Doors marked Ø to be fire doors (FD20). Any glazing to be replaced with fire resisting glass.

⊗ Mains powered interlinked smoke alarms to BS 5446.
SOIL/DRAINAGE
 400 UPVC waste to bath/shower + basin, 1000 UPVC waste to WC, all connecting into existing SVP with vent pipe extended to terminate 900 above new windows. 75 deep seal traps (anti-vac if necessary). Rodding eyes at bends.
 Fit extractor fan with 15 litres per second flow rate, + 15 min overrun.

REF.	DESCRIPTION	BEAM SIZES
F1	FLOOR BEAM	2/125x50
F2	"	2/225x50 + G FLITCH PLATE
F3	"	2/100x50
F4	"	2/225x50 + G FLITCH PLATE
F5	"	2/175x50 + 10 FLITCH PLATE
F6	"	152x152 UC 23
F7	"	2/225x50 + 10 FLITCH PLATE
F8	"	203 x 133 UB 30
F9/G	"	2/100x50
F10	"	152x152 UC 37
F12	"	2/125x50 + 8 FLITCH PLATE
G1	GROUND FLOOR BEAM	203 x 203 UC 46
G2	"	2/125x50
	EXTG. RAFTERS	ADD 150x50 TO EXTG. RAFTERS (STUDWALL → RIDGE).

DIMENSIONS IN MILLIMETRES
 JULIAN ADAMS BSc (HONS)
 Loft Conversion Design
 01234 314143

CONTRACTOR/AGENT
PROJECT

SCALE	DATE
1/50 + 1/100	4.6.7
DRG. No.	REVISIONS
TU/01	A 19.6.7 BEAM DETAILS ADDED B 21.6.7 MINOR ALTERATIONS C 10.8.7 EXTENSION SPEC. ALTERED.