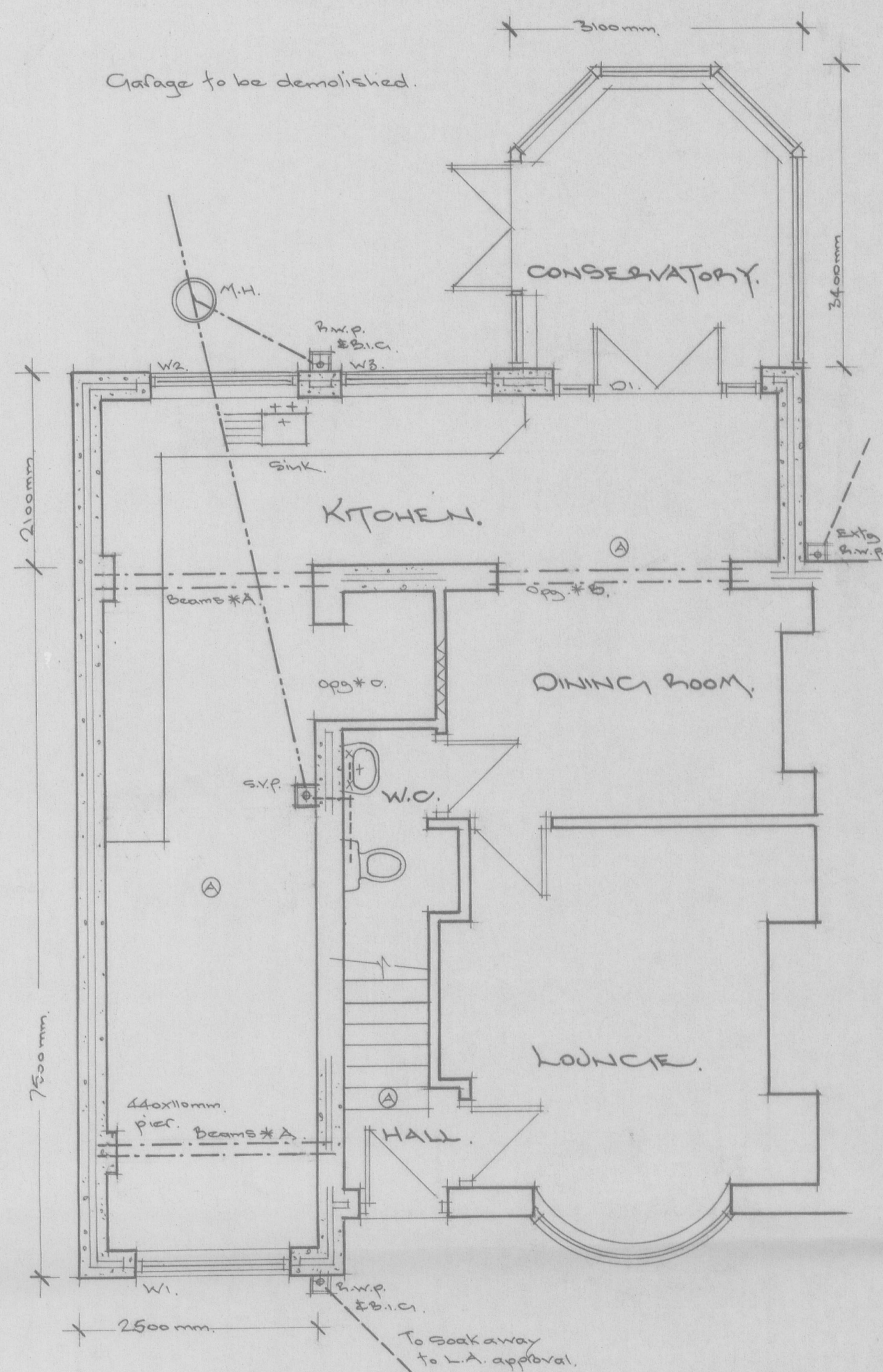




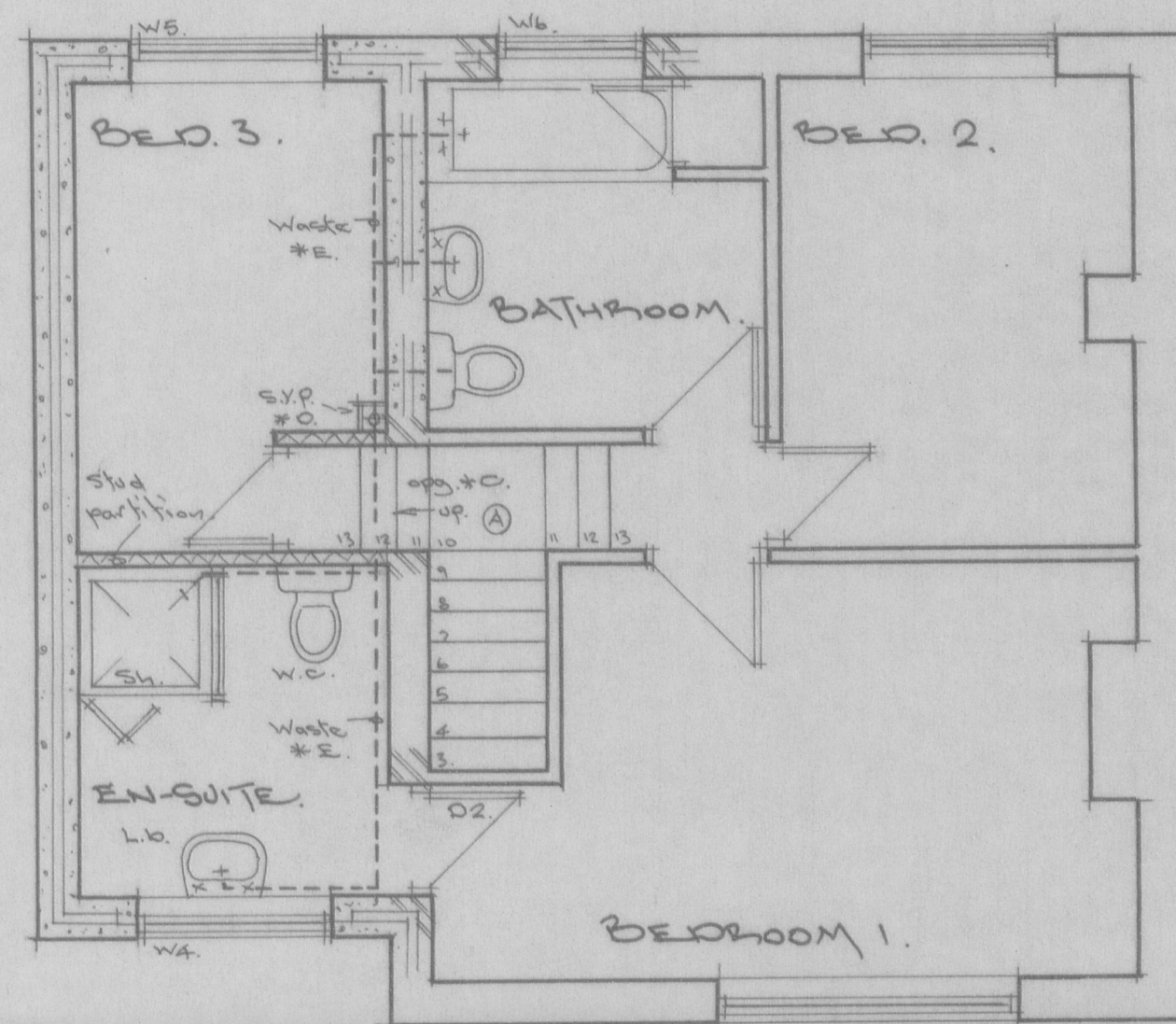
Proposed G. F plan.

Scale: 1 to 50.



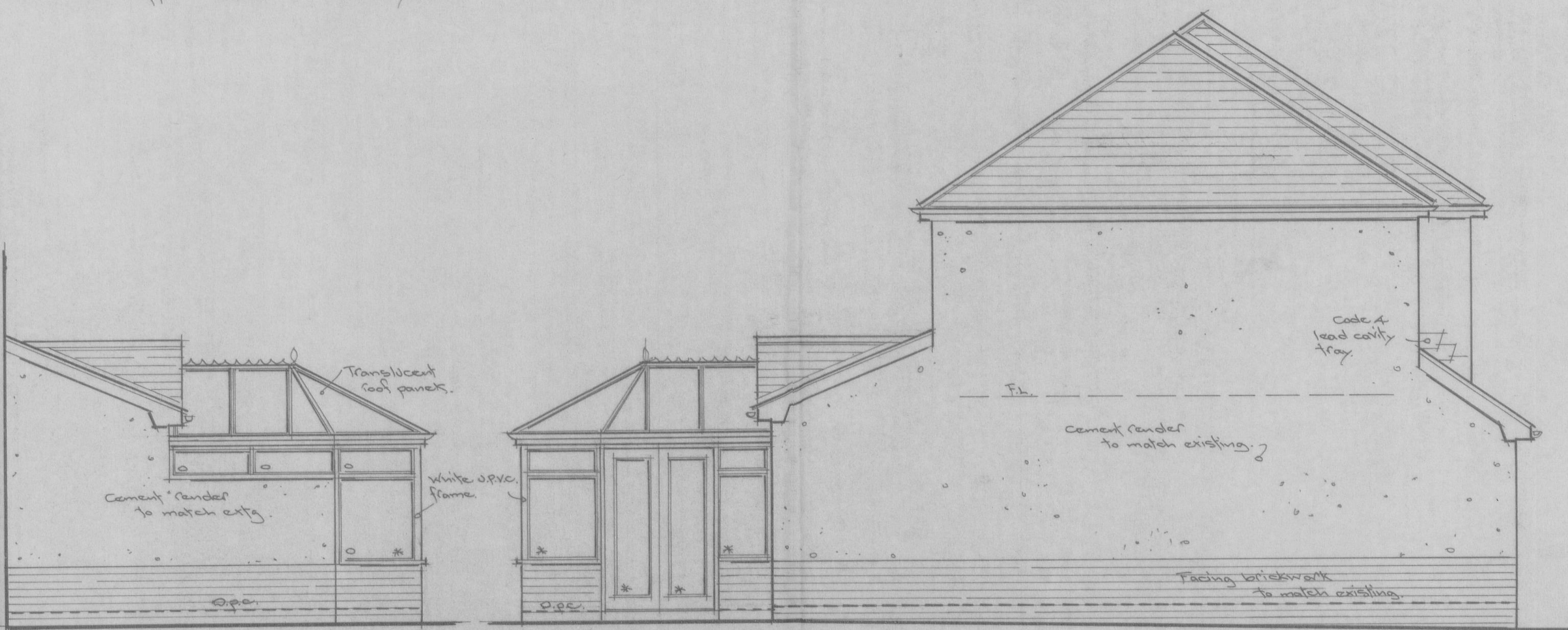
Proposed front elevation.

Proposed Extensions at - 152 Whalley



Proposed F. F plan.

Drainage - Sink, shower & bath to have 40mm. Ø waste L.B's to have 32mm Ø waste all to have 75mm deep seal traps. Waste pipe #E to be 100mm. Ø U.P.V.C. pipe boxed in at C.F. ceiling level - cleaning access to be provided at all connections. S.V.P. #D to be fitted with air admittance valve. All new drains to be 100mm. Ø S.G. SuperSleeve. Drains passing under line of building to be encased in 150mm. concrete & installed over all wall crossings - foundations to step down below invert level. M.H. to be high density polyethylene to BS. 4660 with screw down medium duty cover. All to the approval of Local Authority.



Proposed side elevations.

Road, Langho. for - Mr. C. Barton.

Roof - Tiles to match extg. & Redland Brown Tiles on 38x32mm battens on reinforced breather. Jett on specialist roof trusses to BS 5268 & BS 6399 at 600mm. centres to main roof (100x50mm. rafters with 100x50mm ceiling joists - Grade C24 timber at 400mm. centres to lean-to roof). Ceiling - 13mm. plasterboard on 500 gauge Visqueen vapour barrier. 100x50mm. Wallplate strapped 600mm. down wall with 30x55mm. galv. m/s. straps at 1500mm centres. Insulation - 100mm fibre glass split between joists - 170mm. f.g.g. over joists. Roof space ventilated via. 25mm. continuous eaves air gap plus proprietary cavity trays & vent tiles to give equivalent area. Minimum air space over insulation 50mm.

Walls - 102mm. brick/100mm. conc. block outer leaf - 100mm. cavity with 50mm. Celotex insulation fixed to 100mm. Thermaflex Turbo block inner leaf with lightweight plaster finish. S/S. twist ties at 750mm. x 450 vert. centres. New & extg. walls well keyed in & cavities made continuous. Cavity closed at top of wall & around all open by inner leaf on insulated d.p.c. Concrete cavity fill to g.l.

Ground floor - 22mm. f.g.g. chipboard on 100x50mm. Grade C24 joists at 400mm. centres on 100x50mm. Wallplate on d.p.c. on honeycombe sleepers walls at 1500mm. centres on 100mm. conc. slab on 1200 gauge Visqueen d.p.m. on sand blinded hardcore fill. Minimum gap between u/s. joists & top of slab 125mm. 80mm. Celotex insulation on saddle clips between joist. Floor space ventilated via 225x150mm. vent bricks at 900mm. centres. Top of slab to be above g.l. at some point.

First floor - 22mm. f.g.g. chipboard on 170x50mm. joists at 400mm. centres with 160x50mm. Solid noggin at mid-span. Joists built-in 100mm. solid. Ceiling 15mm. Gyproc Wallboard with 100mm. Iso wool Acoustic Roll between joists.

Stud partitions - 13mm. Gyproc Soundbloc to b/s. 75x50mm. studs at 400mm. centres with Iso wool Acoustic Roll fill between studs.

All new windows to be double glazed with Low E glass in frames from FENSA Reg. supplier - all to achieve U-value of 1.8W/m².K. Opg. lights to equal 1/2 floor area plus high level controllable trickle vents of 8000mm² (4000mm² to W4 & W6).

Opg. lights shown 'E' to be side hung escape windows of 0.33m² min. area. Minimum height & width of 450mm. Max. sill height 1100mm. Clipping shown # to be approved safety glass.

Lintels - W1, W2, W3, O1 - cast in C25/30.

W4, W5 - cast in C25/30. W6 - cast in C25/30.

Opgs #C & D2 - 2N/150x100mm. Rein. conc. lintels.

Self contained mains operated smoke alarm to BS. 5446. Detectors to be interlinked & have battery back-up.

Ventilation - Kitchen to have mechanical extract with manual control to clear 60 litres/sec. Bathroom & En-suite ditto to clear 15 litres/sec. W.C. to have mechanical extract to clear 15 litres/sec. Wired thro. light switch with 15 minute over-run. Door to have 10mm gap under.

All electrical work must meet the requirements of Building Regs. Part P & should be designed, installed, tested & certified by persons competent to do so. Prior to completion the L.A. should be issued with the appropriate BS. 767 Electrical Installation Certificate for their approval.

Beam calcs. - Beam #A (Check beam to inner leaf) Span 2.2m. Load - Roof 4/2 x 1.7 = 5.10 Wall 2.5 x 2.5 = 6.25 11.35 kN/m.

Total U.O.L. = 2.2 x 11.35 = 24.97 kN. Allowable def. =  $\frac{24.97}{360} = 6.94 \text{ mm}$ .

I reqd. =  $\frac{5 \times 24.97 \times 2.2^3 \times 10^6}{384 \times 21 \times 6.12} = 269.38 \text{ cm}^4$ .

Try 178x102mm. x 19Kg U.B. (I=1356cm⁴, Z=153cm³).

B.M. =  $\frac{24.97 \times 2.2}{2} = 6.87 \text{ kNm}$ .

P.b.c. = 100 N/mm²

f.b.c. =  $\frac{6.87 \times 10^3}{153} = 44.51 \text{ N/mm}^2$

Use 2N/178x102mm. 19Kg U.B.s.

Beam #B (Check beam to inner leaf) Span 2.7m. Load - Wall 2.6 x 2.5 = 6.50 Floor 2.2 x 2.6 = 5.72 Roof 1.2 x 1.7 = 2.04 14.26 kN/m.

Total U.O.L. = 2.7 x 14.26 = 38.50 kN. Allowable def. =  $\frac{38.50}{360} = 10.69 \text{ mm}$ .

I reqd. =  $\frac{5 \times 38.50 \times 2.7^3 \times 10^6}{384 \times 21 \times 7.5} = 478.90 \text{ cm}^4$ .

Try 178x102mm. x 19Kg U.B. (I=1356cm⁴, Z=153cm³).

B.M. =  $\frac{38.50 \times 2.7}{2} = 9.94 \text{ kNm}$ .

P.b.c. = 100 N/mm²

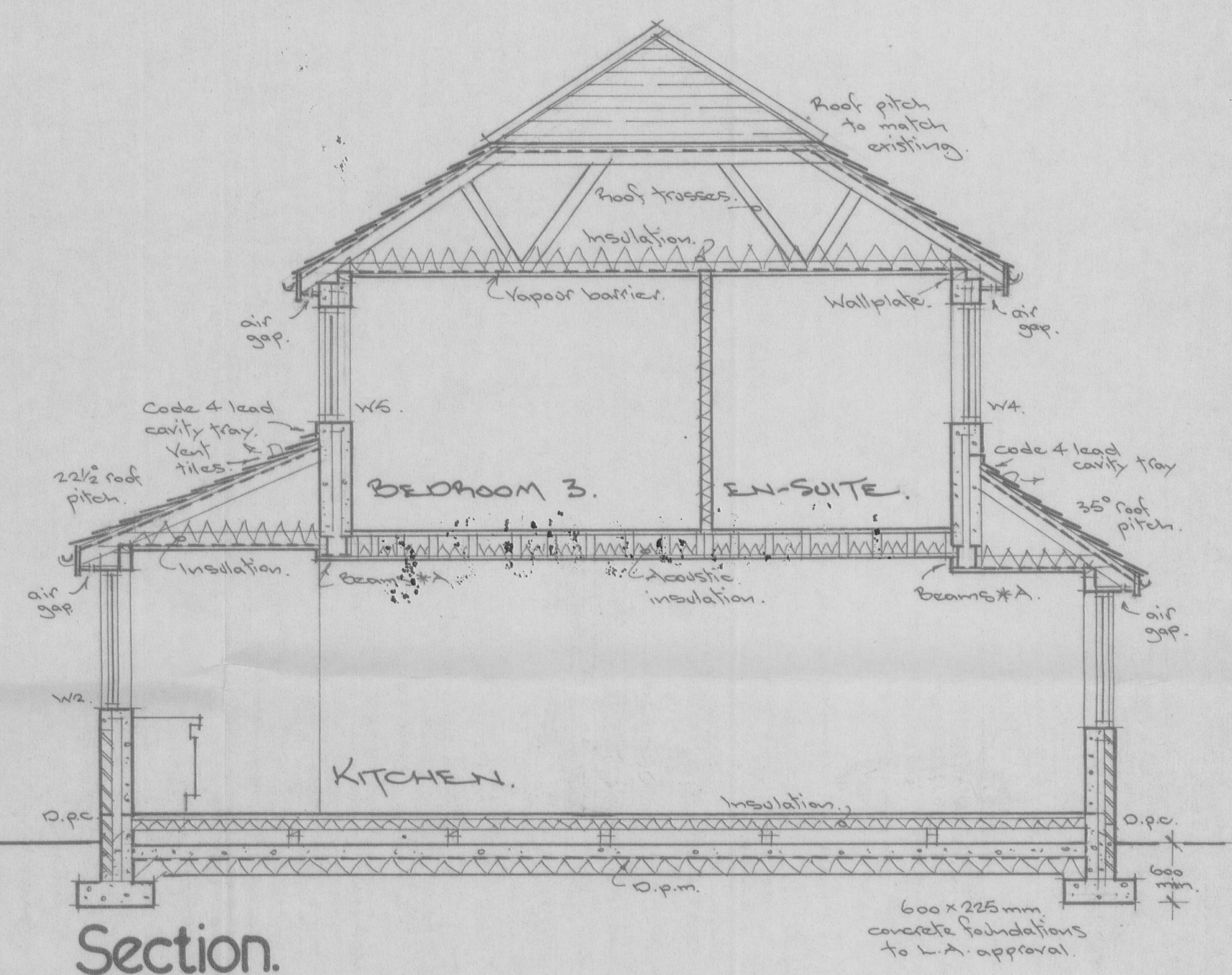
f.b.c. =  $\frac{9.94 \times 10^3}{153} = 64.92 \text{ N/mm}^2$

Use 2N/178x102mm. 19Kg U.B.s.

Beams to be bolted together with spacers at 600mm centres & bear onto 400 x 200 x 100mm. concrete padstones. Beam to be encased in 150mm. Fireline board & skim.

All dimensions to be checked on site before work proceeds.

Foundation design assumes firm, load bearing strata at depth shown.



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Proposed rear elevation.

Dwg. CB/O7/O2.