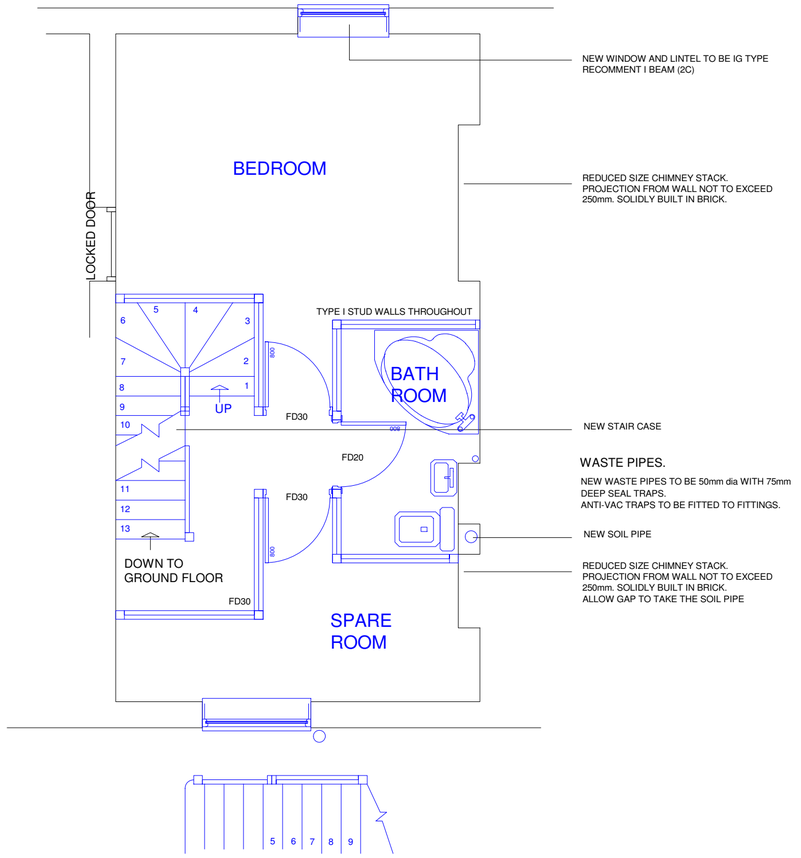
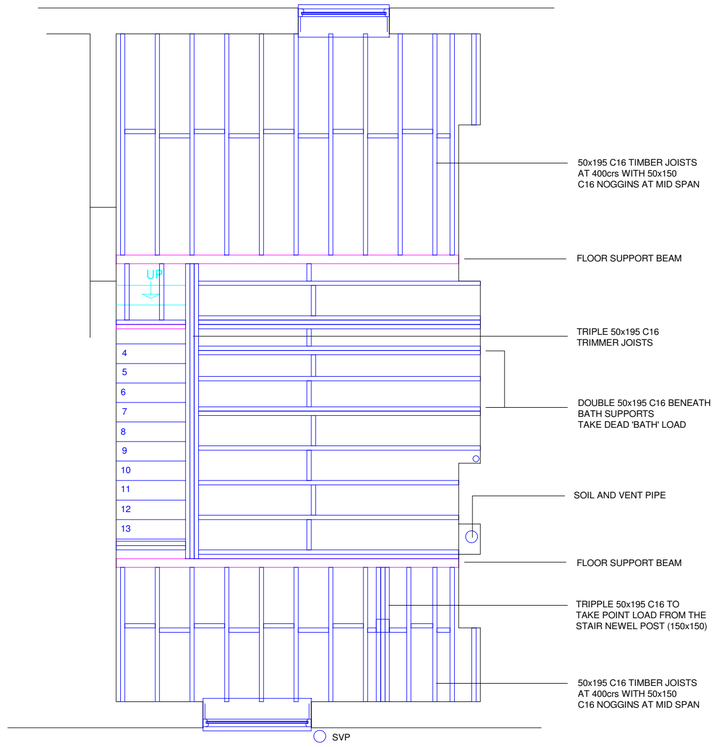
PROPOSED FIRST FLOOR PLAN



FLOOR JOIST LAYOUT



BALANCED FLUE BOILER DETAILS.

IN THE EVENT OF A NEED TO REPLACE OR PROVIDE
A NEW BOILER, NEW REGULATIONS ARE APPLICABLE.
THE BOILER/GAS APPLIANCE WITH BALANCED FLUE
AND A CAPACITY OF 7-14kW WILL REQUIRE CLEAR
600mm AIR SPACE AROUND THE FLUE OUTLET.
OTHER TYPES OF GAS APPLIANCES ARE AFFECTED
AND IT IS ADVISEABLE THAT THE MANUFACTURERS
SPECIFICATIONS BE ADHERED TO. ALTERNATIVELY
REFER BACK TO ARCHITECT PRIOR TO INSTALLATION.
ANY REPLACEMENT BOILER TO BE CONDENSING TYPE.

COMMISSIONING OF HEATING SYSTEMS

THE SPACE HEATING AND HOT WATER SYSTEM MUST BE INSPECTED AND COMMISSIONED TO ENSURE THE RELEVANT REQUIREMENTS OF L1(b) AND (a) HAVE BEEN COMPLIED WITH. UPON COMPLETION OF THE INSTALLATION THE PERSON RESPONSIBLE FOR ACHIEVING THE COMPLIANCE MUST PROVIDE THE CLIENT AND THE COUNCIL WITH A CERTIFICATED STATING THAT SUCCESSFUL COMMISSIONING HAS BEEN CARRIED OUT. THE PERSON GIVING THE CERTIFICATE MUST HAVE A RECOGNISED QUALIFICATION.

THE COMBUSTION INSTALLATION MUST BE CHECKED BY QUALIFIED INSTALLER AND A REPORT DRAWN UP SHOWING THAT MATERIALS COMPONENTS AND FLUES HAVE PASSED RELEVANT TESTS. REPORT COPIES TO BE GIVEN TO CLIENT AND THE COUNCIL.

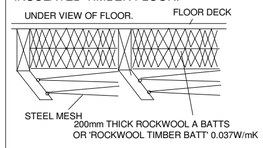
FOR THE PURPOSES OF DETERMINING THAT THE COMBUSTION APPLIANCES CAN BE SAFELY INSTALLED, WHERE A HEARTH AND FIREPLACE OR CHIMNEY IS PROVIDED OR EXTENDED A DURABLE NOTICE CONTAINING INFORMATION ON THE PERFORMANCE OF HEARTH FIREPLACE OR CHIMNEY MUST BE AFFIXED IN A SUITABLE PLACE WITHIN THE BUILDING.

THE OWNER/OCCUPIER OF THE BUILDING MUST BE PROVIDED WITH SUFFICIENT INFORMATION WITH THE RELEVANT SERVICES SO THAT THE BUILDING CAN BE OPERATED AND MAINTAINED IN SUCH A MANNER AS TO USE NO MORE ENERGY THAN IS REASONABLE IN THE CERCUMSTANCES.

FIRST FLOOR TIMBER CONSTRUCTION

22mm BOARDING TO ALL NEW FLOORS.
C16 JOISTS TO BEAR ON INNER LEAF WALLS.
INNER LEAF SECTION OF LINTELS, STEEL HANGERS
WHICH ARE SCREW FIXED TO SUPPORT STRUCTURE.
JOISTS TO HAVE STRUTS, BLOCKS OR NOGGINS
AT 1800crs, AND STRAPPING AT 1000crs.
THE LOWER CEILING SHALL BE PLATED WITH 15mm
PLASTER BOARD WITH JOINTS TAPED & FILLED
AND A 5mm NEAT GYPSUM PLASTER FINISH. THIS
WILL PROVIDE FOR 1/2hr FIRE RESISTANCE.
A 1hr FIRE RESISTANCE WILL REQUIRE THE CEILING
TO BE PLATED WITH NOT LESS THAN 30mm PLASTER
BOARD, WITH JOINTS TAPED, FILLED & STAGGARED.

INSULATED TIMBER FLOOR.

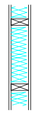


INSULATION SLABS FITTED BETWEEN JOISTS & TRIMMING
TO ACHIEVE A SNUG FIT. INSULATION GIVEN ADDITIONAL
SUPPORT BY STEEL WIRE MESH NAILED TO JOISTS. THE
INSULATION TO BE HELD UP AGAINST UNDERSIDE OF THE
FLOOR DECK.

GROUND FLOOR TIMBER CONSTRUCTION

GROUND FLOOR JOISTS TO BE C16 GRADE AT 400crs
JOISTS WILL BEAR ON DPC ON INNER LEAF AND SLEEPER
WALLS (IF APPLICABLE).
JOISTS WITH FLOOR LATERAL STRAPS AT 1m crs.
THERE SHALL BE A MINIMUM AIR SPACE OF 150mm BELOW
THE TIMBER JOISTS AND ABOVE THE 100mm OVERSITE
CONCRETE SLAB.
UNDER FLOOR VENTING SHALL BE PROVIDED BY MAXI-VENTS
AND THE OPENINGS TO BE LARGE ENOUGH TO GIVE THE
EQUIVALENT OF 5000SQ MM PER METRE RUN OF WALL.
EACH EXTERNAL WALL SHOULD HAVE VENT OPENINGS
PLACED SO THAT VENTILATING AIR WILL HAVE A FREE
PATH BETWEEN OPPOSITE SIDES AND TO ALL SIDES.

STUD WALL TYPE 1



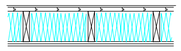
50x75 C16 TIMBER STUDS AT
400crs (VERT & HORIZON).
67 ROCKWOOL ACOUSTIC SLAB
13mm PLASTER BOARD EACH
SIDE WITH 3mm PLAST. SKIM.

FIRE RESISTANCE = 30mins
ACOUSTIC ISOLN = 44dB

INNER & OUTER SURFACES	= 0.18
	= 0.114
INSULATION 0.075/0.035	= 2.14
PLASTER BOARD 0.026/0.16	= 0.16
'U' VALUE = 0.38W/sqmK	2.594

FLOOR CONSTRUCTION

INSULATION FITTED IN ACCORDANCE WITH
MANUFACTURERS DETAILS.
FOR FLOOR OVER GARAGE APPLY TWO
LAYERS OF PLASTER BOARD AND SUPPORT
THE INSULATION ON STEEL WIRES (MESH).
NEW FLOOR DECKS TO BE 22mm THICK
DENSE BOARDING.



INCREASE DENSITY OF FLOOR TO 15kg/sqm BY
OVERLAYING THE WHOLE FLOOR WITH 9mm
PLYWOOD.
FOR INSULATION USE CELOTEX CG4000 110mm
OR KINGSPAN TF70 110mm

INNER & OUTER SURFACES	= 0.18
INSULATION 0.110/0.022	= 5.0
PLASTER BOARD CLG 0.013/0.16	= 0.08
'U' VALUE = 0.19W/sqmK	= 5.24

'U VALUE ALLOWABLE = 0.22W/sqmK

CAVITY WALL SPECIFICATION.

OUTER LEAF OF BWK, AN INSULATED CAVITY AND INNER
LEAF OF 100mm THICK THERMALITE TURBO BLOCK, ALONG
WITH INTERNAL PLASTER FINISH.
OUTER LEAF MAY BE SUBJECT TO PLANNING CONDITIONS.
CAVITY WALL BELOW DPC TO BE OF BWK. CONC. BWK,
DENSE CONC. BLOCK OR 4N min. TRENCH BLOCK.
CAVITY BELOW DPC TO BE FILLED WITH CONCRETE TO
225mm BELOW DPC LEVEL.
CAVITY CLOSED AT EAVES AND VERGE.
CAVITY WALL BUILT OFF A CONCRETE FOUNDATION.
DPC TO BS743 AND BE AT LEAST 150mm ABOVE GROUND.

U-VALUE REQUIRED 0.28W/sqmK
PARTIAL FILL CAVITY 105 BWK, 75 CAVITY, 100 TURBO.
USE 40mm CELOTEX CG4000
PARTIAL FILL CAVITY 105BWK, 75 CAVITY, 100 SUPERBLOC
USE 40mm KINGSPAN THERMAWALL TW50
OR 50mm KINGSPAN KOOLTHERM K8

LINTEL SCHEDULE

TO BS5977: PART 2: 1983. BBA 86/1674 & BBA 85/1453.
LINTELS MUST NOT SUPPORT CONCRETE FLOOR LOADS OR
POINT LOADS.
DO NOT USE DAMAGED LINTELS.
END BEARINGS GENERALLY NOT LESS THAN 150mm.
FOR END BEARING OF 100mm THE ENDS ARE TO BE FILLED
WITH CONCRETE FOR A DEPTH OF 150mm.
INSIDE OF BEAMS TO BE FILLED WITH FIBREGLASS INSUL.

TIMBER STUD CONSTRUCTION

ALSO LOOK AT CONSPECTUS STUD WALL TYPE 1 & 2
DRG. SYMBOL



50x100 C16 TIMBER FRAMEWORK SET 400mm APART
AND BOTH SIDES PLATED WITH PLASTER BOARD AND
WITH 5mm PLASTER FINISH.
NOTE THAT WALLS SHALL HAVE 100mm FIBREGLASS
INFILL AND 15mm PLASTER BOARD FOR SOUND INSUL.
PLASTER BOARD FIXINGS TO BE 50mm GALV. NAILS
AT 250mm crs.
STUD WALL AT FIRST AND/OR SECOND FLOOR LEVEL
TO BE BUILT ON A TRIPPLE JOIST.

BEAM AND STRUCTURAL NOTE

FOR STRUCTURAL CALCULATION PURPOSES ALL THE
MAJOR STEEL AND/OR TIMBER BEAMS WILL CARRY DEAD
AND IMPOSED LOADS FROM WALLS, FLOORS AND ROOFS
BASED ON THE SPANS INDICATED ON THIS PLAN OR
ASSOCIATED PLANS.
IN SOME CASES THE CALCS MAY SHOW A DIFFERENT
OR ASSUMED SPAN FOR THE PURPOSES OF CALCULATING
WORST CASE LOADING PATTERN.
DEPARTURES FROM APPROVED CALCULATIONS ARE NOT
PERMITTED.

NOTE THAT WHERE A BEARING SIZE IS GIVEN THEN
THIS WILL BE THE MINIMUM PERMITTED AND THAT THE
CONTRACTOR SHALL WHERE SPACE IS AVAILABLE FIT
A LARGER SIZE PADSTONE.
WHEN PURCHASING BEAMS THE CONTRACTOR SHALL USE
SITE MEASUREMENTS FOR LENGTHS OF BEAM.
FOR THE PURPOSES OF SAFETY, THE BUILDER SHALL
ALREADY HAVE KNOWLEDGE OR OBTAIN KNOWLEDGE IN
RESPECT TO THE HANDLING AND INSTALLATION OF THE
VARIOUS ITEMS INVOLVED IN THE CONSTRUCTION.

INDICATES A SUPPORT BEAM
INDICATES SPAN OF JOISTS
MEMBER LABEL POINTER

STRUCTURAL USE OF TIMBER

ALL STRUCTURAL TIMBER MEMBERS ie. JOISTS, RAFTERS,
PURLINS, LINTELS, TRIMMERS, TIMBER TIES ETC. SHALL
BE IN ACCORDANCE WITH BS 5268-2:2002.
TIMBERS USED SHALL BE C16min FROM SUPPLIES THAT
WERE STAMPED 'DRY' or 'KD'. (REF. TO ANY CALCS)
TIMBERS USED SHALL BE FROM GRADE STRESSED STOCK.
MAXIMUM THICKNESS OF ANY MEMBER TO BE 100mm AND
MAXIMUM DEPTH OF ANY MEMBER SHALL BE 300mm.
ANY NOTCHES IN A TIMBER MEMBER SHALL BE LIMITED
TO MAX. 1/8th DEPTH, BE BETWEEN 1/20th & 1/4 OF
SPAN FROM A SUPPORT. DRILLED HOLES TO BE AT THE
MIDDLE AXIS OF MEMBER AND NOT MORE THAN 1/4 OF
DEPTH, NOT LESS THAN THREE DIAMETERS APART, & BE
BETWEEN 0.25 AND 0.4 SPAN.
NAILED JOINTS TO HAVE MIN. 2 SCEW DRIVEN NAILS.
WHERE BEAMS AND TRIMMERS ARE BOLTED TOGETHER
THEN THE PREFARED BOLT SIZE IS M16 WITH NUT
AND WASHER AND 400mm APART.

KEITH SWAIN DESIGN

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DRAWING NUMBER	P 13162

PROPOSED DEVELOPMENT

RE-DEVELOPMENT OF LISTED BUILDING

AT

31 LIVERPOOL ROAD
MANCHESTER

SCALES 1 : 50	sht 4