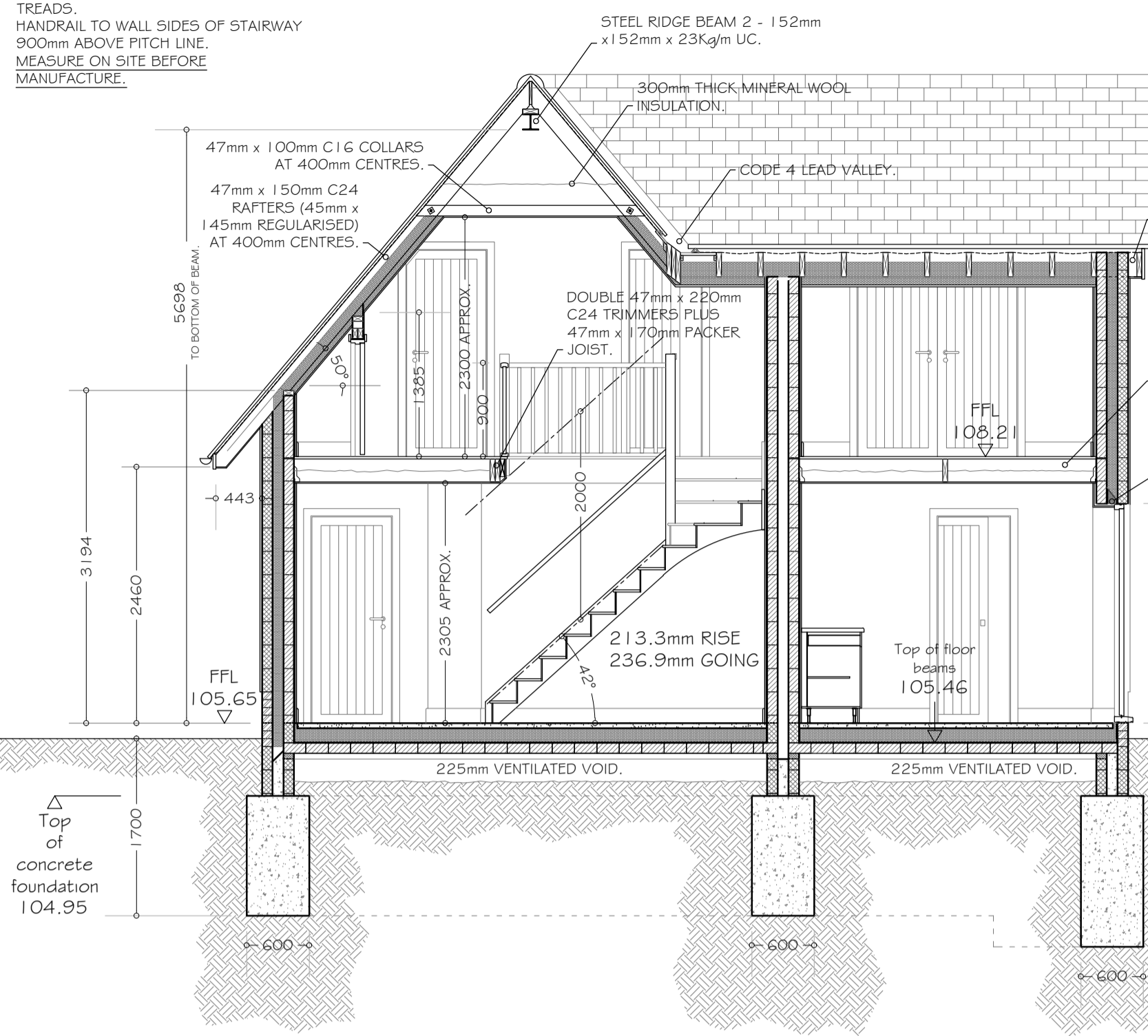


APPROXIMATE TOTAL RISE 2.500m.
 12No. RISERS AT 213.3mm RISE.
 11No. TREADS AT 236.9mm GOING.
 42" MAXIMUM FITCH.
 50mm MINIMUM GOING TO TAPERED TREADS.
 HANDRAIL TO WALL SIDES OF STAIRWAY 300mm ABOVE FITCH LINE.
 MEASURE ON SITE BEFORE MANUFACTURE.



SECTION AA

GENERAL NOTES
 All workmanship and materials are to be in accordance with the latest Codes of Practice and British Standards.
 All work to accord with the latest NHBC requirements.
 Cement used below DPC to be sulphate resisting.
 Carcasing timber to be treated with Protim or similar approved preservative.
 All materials are to be installed strictly in accordance with the manufacturer's instructions.

FOUNDATIONS
 Final size, shape, and depth of foundations are to be determined by conditions found on site, and are to be agreed on site with the Local Authority Building Control Officer and as designed by the Structural Engineer.

Foundation depths are to be a minimum of the NHBC Chapter 4.2 (2017): 'Building Near Trees', determined by the tree species in the vicinity, and their distance from the excavations, assuming (unless soil test proves to the contrary) high shrinkage soil.
 Notwithstanding the above, foundations are to be taken down a minimum of 300mm below lowest sign of tree roots.
 Backfill excavations with concrete foundations immediately after approval by the Building Control Officer. Alternatively protect bottom of excavation with concrete blinding if excavation left overnight.
 Investigate existing foundations of adjacent structures, and agree any additional works, or amended foundation design, with the Local Authority Building Control Officer.

FOUNDATION WALLS
 305mm cavity walls:-
 Outer leaf: 102mm approved brickwork, with bucket handle joints. Cavity: 103mm wide.
 Stainless steel butterfly wall ties at 450mm vertical, and 900mm horizontal centres with ties at 225mm adjacent to openings. Fill cavity to 225mm below lowest DPC with lean mix concrete, sloped towards outside.

Internal leaf: 102mm thick brickwork or 100mm blockwork suitable for use below DPC level.
 Install 100mm wide DPC's at underside of floor beams and to tops of beams to inner leaf, and at top of floor beam level to outer leaf. Where a change in floor levels occur between floor beams, link with DPC cavity tray lapped with DPC's, with bonded corner pieces, and end cloaks.
 Use brickwork or suitable blockwork only below DPC level.
 Cavity: 103mm wide with 90mm thick Celotex Thermaclass Cavity Wall 21 full fill cavity wall insulation boards to achieve a 'U' value of 0.18W/m²K maximum, installed strictly in accordance with the manufacturer's instructions, including DPC trays over all openings, penetrations through cavity and all steps of insulation. Install end cloaks to all DPC trays and form open perp end joint cavity tray drains to outer leaf at maximum 900mm centres. Install with 10mm residual cavity.
 Stainless steel twisted wall ties at 450mm vertical, and 750mm horizontal centres with ties at 225mm centres around window / door openings.
 Close cavity around openings using Kingspan Thermabate insulated cavity closers.
 Fill cavity to within 225mm vertically of DPC's with lean mix concrete, shaped to fall externally.
 Internal leaf: 100mm thick Celcon Standard (lambda = 0.15W/m.K) 3.6N/m² blockwork, or similar and equal. Use brickwork or suitable blockwork only below DPC level.
 Lintels: use Caticnic CG lintels with minimum 150mm end bearings. Install vertical construction joints in blockwork as recommended by the manufacturer.
 Provide 2 courses of bed reinforcement to blockwork above and below window / door openings, with 600mm projection beyond jambs.
 Apply 12.5mm thickness Gypsum WallBoard plasterboard on adhesive dabs to walls internally, with 2mm thick Thistle Multi-Finish skim coat. Clad externally with Cedar or similar weatherboarding (colour cream) on 25mm x 47mm treated vertical battens on building paper, and Krend render (colour cream) applied strictly to manufacturer's recommendations. See elevations for locations.

UNDERGROUND DRAINAGE
 All drains are to be 100mm diameter UPVC to BS EN 1401-1:2009. Lay pipes on and surround by a minimum thickness 150mm of 10mm pea shingle.
 Use all fittings strictly in accordance with the manufacturer's instructions including rest bends at the bottoms of stacks on concrete bases, back inlet gullies on concrete bases with stone surround.
 Lay foul drain to a minimum fall of 1:40, and surface water drains to a minimum fall of 1:80.
 Test drains to Local Authority Building Control Officer's satisfaction. Provide trapped gullies, with concrete surround splash backs, hoppers, and aluminium universal gratings at the base of all RWP's.
 IC indicates standard GRP inspection chambers, bonded on 150mm concrete, and backfilled with pea shingle.
 MH indicates manhole, constructed off 150mm concrete base, 215mm thick Class B Engineering brickwork, with cast iron cover to BS 497, Grade B, Class 1.
 When using soakaways for surface water drainage disposal, carry out percolation test as per section H2 of Building Regulations and BRE Digest 365 (minimum size 1.0m³). Soakaways to be 5.0m minimum distance away from buildings, constructed using Polystorm sand soakaway system for infiltration, laid on 100mm thick coarse sand or class 6H selected granular material, (with 100% passing of 5mm sieve), forming joints in accordance with manufacturer's instructions, with geotextile wrapping, designed to suit loading conditions, all strictly in accordance with manufacturer's instructions, including protection and backfill.
 All drain runs and depths to be confirmed on site before work commences.

BEAM AND BLOCK FLOOR
 Lay 50mm minimum thickness Gyvlon Thermo anhydrite screed over insulation boards including approved separating layer to floor insulation manufacturer's requirements, on 100mm minimum thickness Kingspan Kooltherm K103 PIR insulation board to achieve a maximum 'U' value of 0.13W/m²K, all installed in strict accordance with manufacturer's details. Provide 35mm thick perimeter upstand insulation to screed at abutment with external walls. Screed to incorporate an underfloor heating system.

BEAM AND BLOCK FLOOR (cont'd)
 Insulation to be laid over 1200 minimum gauge DPM installed in strict accordance with manufacturer's details over beam and block floor. Beam and block floor to be designed and supplied by specialist manufacturer to support 1.5kN domestic loading, e.g. Milbank Floors T150 system or equal and approved.
 Strip ground beneath floor of all vegetation and reduce levels to ensure minimum 225mm void between finished ground surface and underside of floor beams. Treat with weed killer before installing floor. Fully gROUT in all floor blocks and prepare surface in accordance with DPM manufacturer's recommendations.
 Install proprietary airbrick void ventilators as shown, with cranked ducts as appropriate. Minimum clear ventilation opening to not be less than either 1500mm²/m run of external wall or 500mm²/m² of floor area, whichever gives the greater opening area. Locate vents to avoid crushing by beam ends. Any pipes needed to carry ventilating air through intermediate supporting walls to have a diameter of at least 100mm.
 Saw beams on DPM to inner leaf, with second DPC set on top of beams, level with external leaf DPC and 150mm above external ground level.

EXTERNAL WALLS
 305mm cavity walls ('U' value 0.17W/m²K):-
 Outer leaf (plinth up to four courses above DPC): 102mm thick approved brickwork in Flemish bond, refer to elevations for types and locations (65mm TBS Audley Antique).
 Outer leaf (above brick plinth): 100mm thick Plasmor Fibolite Ultra lightweight block outer leaf (lambda = 0.24W/m.K), or similar block with lambda value equal to or less than 0.24W/m.K.
 Use brickwork or suitable blockwork only below DPC level.
 Cavity: 103mm wide with 90mm thick Celotex Thermaclass Cavity Wall 21 full fill cavity wall insulation boards to achieve a 'U' value of 0.18W/m²K maximum, installed strictly in accordance with the manufacturer's instructions, including DPC trays over all openings, penetrations through cavity and all steps of insulation. Install end cloaks to all DPC trays and form open perp end joint cavity tray drains to outer leaf at maximum 900mm centres. Install with 10mm residual cavity.
 Stainless steel twisted wall ties at 450mm vertical, and 750mm horizontal centres with ties at 225mm centres around window / door openings.
 Close cavity around openings using Kingspan Thermabate insulated cavity closers.
 Fill cavity to within 225mm vertically of DPC's with lean mix concrete, shaped to fall externally.
 Internal leaf: 100mm thick Celcon Standard (lambda = 0.15W/m.K) 3.6N/m² blockwork, or similar and equal. Use brickwork or suitable blockwork only below DPC level.
 Lintels: use Caticnic CG lintels with minimum 150mm end bearings. Install vertical construction joints in blockwork as recommended by the manufacturer.
 Provide 2 courses of bed reinforcement to blockwork above and below window / door openings, with 600mm projection beyond jambs.
 Apply 12.5mm thickness Gypsum WallBoard plasterboard on adhesive dabs to walls internally, with 2mm thick Thistle Multi-Finish skim coat. Clad externally with Cedar or similar weatherboarding (colour cream) on 25mm x 47mm treated vertical battens on building paper, and Krend render (colour cream) applied strictly to manufacturer's recommendations. See elevations for locations.

FIRST FLOOR CONSTRUCTION
 22mm flooring grade moisture resistant tongued and grooved chipboard floor boards with 22mm tongued and grooved WBP plywood to bathrooms and other wet areas. Note: minimum mass to floorboards to be 15kg/m².
 Joists:- 47mm x 220mm C24 floor joists at 400mm centres.
 Strutting:- One row of 38mm x 38mm herringbone strutting at mid span for joist spans of 2.5m to 4.5m or 2 rows evenly spaced for spans over 4.5m.
 Joists doubled up below partitions, or where partitions run counter to joists, solid full depth noggins inserted under.
 Joists to be supported by Expanmet BAT SPH joist hangers built into masonry walls.
 Line underside of joists with single layer of 10kg/m² minimum mass plasterboard (Gyproc WallBoard TEN or equivalent) with noggins as required.
 Provide and fix 100mm minimum thickness mineral wool sound absorbent layer (minimum density 10kg/m³) between joists.
 Joists to not penetrate through inner leaf of cavity walls and to be suspended on joist hangers.

FLOOR JOIST ANCHOR STRAPS
 Expanmet BAT M305 straps at 2.0m maximum centres, taken over, let in and fixed to tops of first three joists. End built into wall, and turned down cavity face of inner leaf.
 Provide full depth solid blocking pieces beneath straps and packing between wall and first joist.
 Fix using minimum 7no. 50mm long No12 wood screws.

PITCHED ROOF FINISH
 Natural slate (Cupa Pizarras No.8 Developer Range) as indicated on the drawings.
 Nominal 25mm x 47mm treated tiling battens, gauge and fixings as required by tile manufacturer with consideration given to exposure location.
 Provide code 3 lead soakers, and code 4 lead flashing at abutments with walls and chimneys. Raked out and stepped flashing tucked into joint, secured with lead wedges and mortar pointing. Flashing held down with code 5 lead tacks.
 Provide code 5 lead back gutter at abutment of roof pitches at chimneys with 18mm WBP plywood, dressed up under tiles via treated titling fillet, and welded edge formed. Sarking dressed into lead gutter. Below battens one layer Tyvek Supra Breathable Sarking, with Tyvek eaves carrier, dressed into gutter.
 Valley gutters to be formed in Code 4 or 5 lead on 19mm thick marine ply wall boards. Lengths of lead not to exceed 1.5m and have a 150mm minimum overlap. The mortar for bedding the slates should have a slate slip undercloak between the mortar and the lead. If using a propriety valley gutter system, follow the manufacturer's instructions. Provide at least a 100mm wide clear channel between the mortar bedding to the tiles.

PITCHED ROOF STRUCTURE - CUT ROOF
 Cut rafter roof structure as designed by the structurally engineer. Rafters to be birdsmouthed over wall plate (maximum notch depth = 1/3 rafter depth).

LOAD BEARING AND NON-LOAD BEARING PARTITIONS
 100mm Celcon or similar standard aerated concrete blockwork.
 Load bearing walls toothed into external walls.
 Non-load bearing walls tied into external walls with stainless steel wall starters.
 Non-load bearing walls to be built off of beam and block floor, on 100mm wide DPC.
 Walls to be restrained at top with noggins at 400mm centres.
 Provide two courses of Expanmet joint reinforcement above lintels.
 Lintels to bear minimum 150mm onto full blocks.
 13mm Gypsum Hardwall plaster both sides.
 Minimum mass of wall including finishes to exceed 90kg/m².

GABLE ANCHOR STRAPS/LATERAL RESTRAINT STRAPS
 Install Expanmet M305 straps to gable ends, taken over and fixed to first three rafters at rafter, floor joist and ceiling joist level.
 End of straps to be turned down outer face of inner leaf of cavity wall. Use minimum 7no. fixings per straps comprising 50mm long No.12 sheradised wood screws.
 Provide solid noggins beneath straps between rafters/joists/ceiling joists.
 End of straps to be turned down outer face of, and fixed to, masonry wall.

WALL PLATES
 100mm x 50mm wall plates to be bedded onto blockwork, and strapped down with Expanmet BAT standard straps, bent over top of plate, and turned 1000mm down inner face of cavity wall. Fix to plate and blockwork with a minimum of 7no. fixings using 50mm long No.12 sheradised wood screws. Straps to be installed at 1.5m centres.
 Wall plates generally to be laid in 3.0m minimum lengths but where shorter lengths are required they should extend below at least 3no. joists/rafters. Plates to be joined with half lapped joints at corners and in running lengths.
 Rafters to be fixed to plates using Expanmet or equal approved truss clips, fully nailed in strict accordance with manufacturer's details.

STUDWORK PARTITIONS
 100mm x 47mm C16 studs at 400mm centres with 100mm x 47mm sill and head plates and horizontal noggins.
 Support off new doubled up infill joists or noggins between joists at 400mm centres.
 All partitions to achieve 40dB sound reduction minimum:-
 Line both sides with 12.5mm British Gypsum SoundBlock plasterboard

STUDWORK PARTITIONS (cont'd)
 with 25mm thick Isover Acoustic Partition Roll in cavities.
 Or,
 Line both sides with 15mm British Gypsum WallBoard plasterboard with 25mm thick Isover Acoustic Partition Roll in cavities.
 3mm Thistle MultiFinish skim coat finish to plasterboard faces.
 Where a partition is between a bathroom and bedroom or a bedroom and a bedroom, the partition should be upgraded to either two layers each side of plasterboard, each sheet of minimum mass 10kg/m² (Gyproc Wallboard TEN or equivalent) plus skim, or, single layer each side of 10kg/m² plasterboard plus skim with 25mm thickness 10kg/m³ unfaced mineral wool suspended in cavity.

STAIRWAY
 Refer to drawing for nominal total rise, risers and treads. Actual sizes to confirmed on site prior to manufacture.
 Stairs to have a minimum 900mm clear width.
 Treads 21mm thick pine, with radused projecting nosings.
 Risers 9mm ply. String 32mm thick pine.
 Line underside with 12.5mm plasterboard and skim coat finish.
 Balustrading to be 900mm high, to comprise ex 32mm square pine balusters at 125mm centres, with ex 50mm x 75mm hardwood handrail set at 900mm above the pitch line and landing level.
 19mm softwood apron to be installed to trimmed first floor opening.
 75mm x 50mm hardwood handrail to be fixed to wall side of stairs, set 900mm above the pitch line.
 Minimum 2.0m headroom to be preserved over stair flight and landings.
 All guarding to be designed to resist at least the horizontal forces given in BS 6399: Part 1: 1996.

WINDOWS
 Residence R9 uPVC framed windows, glazed with 44mm sealed triple glazed units including Pilkington K glass and argon gas to achieve a 'U' value of less than 1.5W/m²K.
 Refer to elevations.
 Trickle vents are to be provided to all new windows unless suitable background ventilation is provided elsewhere. Trickle vents should have an equivalent area of 5000mm² for habitable rooms and 2500mm² for kitchen, utility room, bathroom and WC areas.
 Windows to afford a minimum of 1/20th of the room floor area as rapid ventilation.
 Windows handle heights to be no higher than 1.4m above finished floor level.

MEANS OF ESCAPE WINDOWS
 The windows should have an unobstructed openable area that is at least 0.33m² and at least 450mm wide x 750mm high (or 750mm wide by at least 450mm high). The bottom of the openable area should not be more than 1100mm above the finished floor level.
 Means of escape windows (M.O.E.) with sill openings less than 800mm above finished floor level to be fitted with a safety gate/guarding that can be opened to allow emergency egress.
 Openers for means of escape windows to be no higher than 1.1m above finished floor level.
GLAZING - SAFETY
 All glazing to doors, or within 800mm of floor level, (windows and side lights) or within 300mm horizontally of doors, to be kite-marked BS safety glazing.
 Glazing to be capable of resisting at least the horizontal force given in BS 6399: Part 1: 1996.

SLOPING CEILINGS
 Insulate sloping ceilings with 90mm thick Celotex GA4000 between the rafters and underside lined with 50mm thick Celotex GA4000 insulation boards, to achieve maximum a 'U' value of 0.15 W/m²K. Line internally with 12.5mm Gyproc Duplex plasterboard with plaster skim coat finish. Refer to section for rafter sizes.

FLAT CEILINGS
 Insulate between truss ceiling cords (or ceiling joists) with 100mm mineral wool quilt. Lay 170mm thickness of mineral wool quilt over top, perpendicular to the first and to ceiling ties. 'U' value to be less than 0.16W/m²K.
 Provide additional noggins as required for plasterboard.
 Line underside of truss ceiling ties with 12.5mm plasterboard. Gyproc WallBoard Duplex, or equivalent, to be used to soffits of the roof.
 Apply scrim and plaster skim to underside.

MECHANICAL AND ELECTRICAL SERVICES
 To be installed to the client's requirements.
 All wiring to be installed in accordance with current IEE Regulations.
 At least 75% of fixed light fittings provided shall be only capable of receiving a high efficiency LED lamp.
 All switches and sockets within habitable rooms to be installed within a zone of 450mm to 1200mm from finished floor level.

MECHANICAL EXTRACT FANS
 Provide 30 litre/second cooker extract fan, ducted to outside louvre.
 Provide 30 litre/second extract fan to Utility Rooms.
 Provide 15 litre/second extract fans to new Bathrooms, Shower Rooms and WC's.
 Where no rapid ventilation opening exists units to be light switch operated, with a 15 minute overrun.
 Units to be wall mounted or alternatively ceiling mounted with a flexible duct to an external wall or roof terminal.
 Where passing through compartment floors, fire dampers equivalent to be installed in fire rating of floor.

SMOKE ALARMS
 (SD) smoke detector (HD) heat detector

Denotes ceiling mounted mains wired (inc. battery back up) linked smoke detectors/alarms to BS 5446 Part 1 to at least Grade D LD3 (300mm from walls and light fittings and within 7.5m of each habitable room). Detectors required in existing circulation spaces if the means of escape is via these areas.

FINISHES
 Finishes to be to the client's requirements.

PART P - ELECTRICAL
 All electrical works 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 Council should be satisfied that Part P has been complied with. This may require an appropriate BS 7671 electrical certificate to be issued for the work by a person competent to do so.
 All electrical works are to be carried out by a Part P registered competent person, with a Certificate issued to both the client and Building Control upon completion of the works.

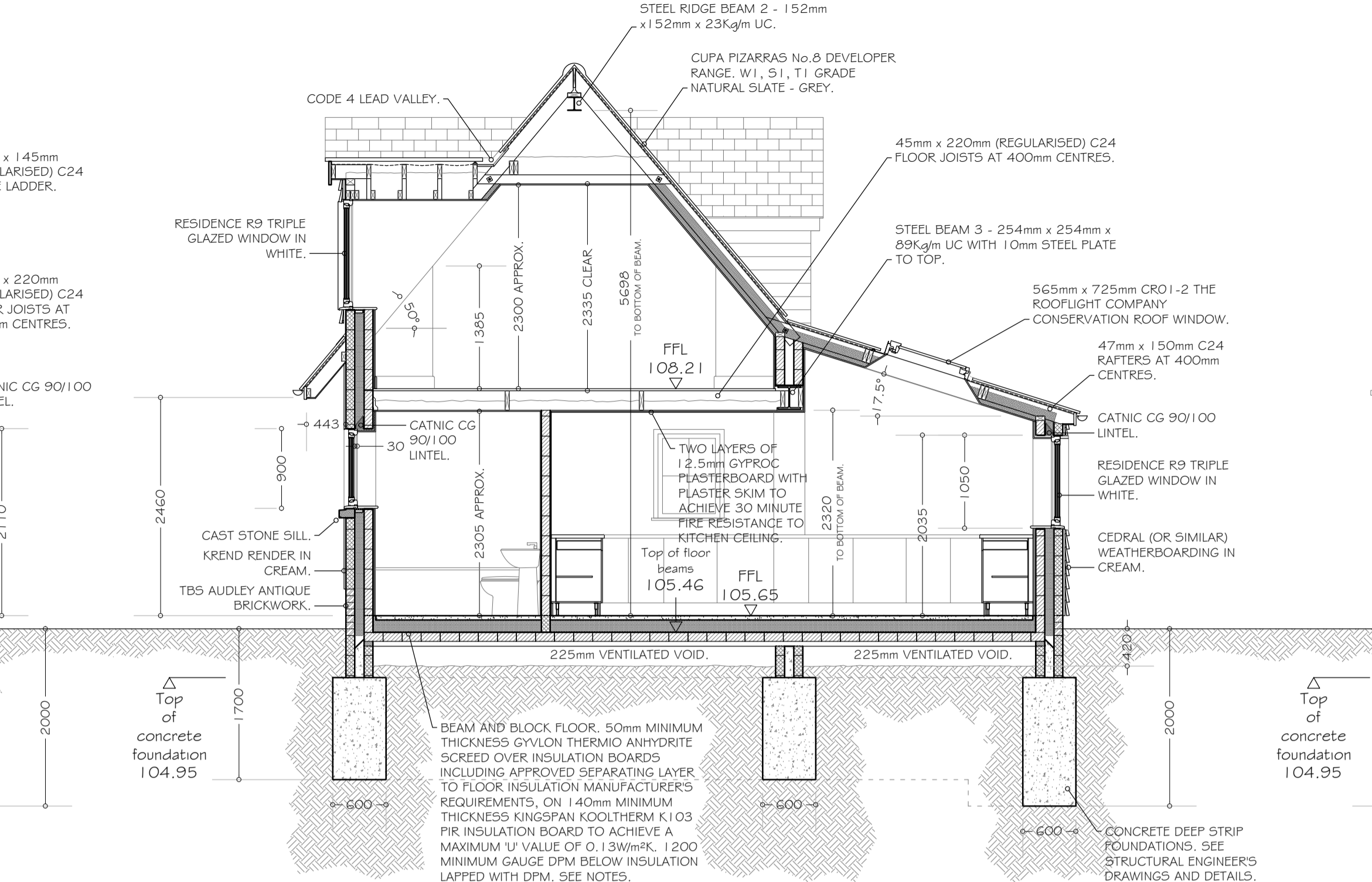
WATER
 Wholesome water should be supplied to any place where drinking water is drawn off and to any sink where food is prepared.

PART Q - SECURITY
 All doorsets, including garage doorsets, are to be secure doorsets, manufactured to a design that has been shown by test to meet the security requirements of BS PAS 24:2012 or better. Bespoke timber doorsets to be in accordance with The Building Regulations Part Q, Appendix B.
 Letter plates to have maximum aperture of 260mm x 40mm and incorporating a flap or other feature to restrict access.
 The main entrance door to the dwelling is to incorporate a door viewer (not required if glazing panel within door) and a door chain/limiter.
 All windows to the ground floor, basement and other easily accessible windows (including rooflights) are to be secure windows manufactured to a design that has been shown by test to meet the security requirements of BS PAS 24:2012 or better.
 Window and door frames are to be mechanically fixed to the structure of the building in accordance with manufacturer's instruction.

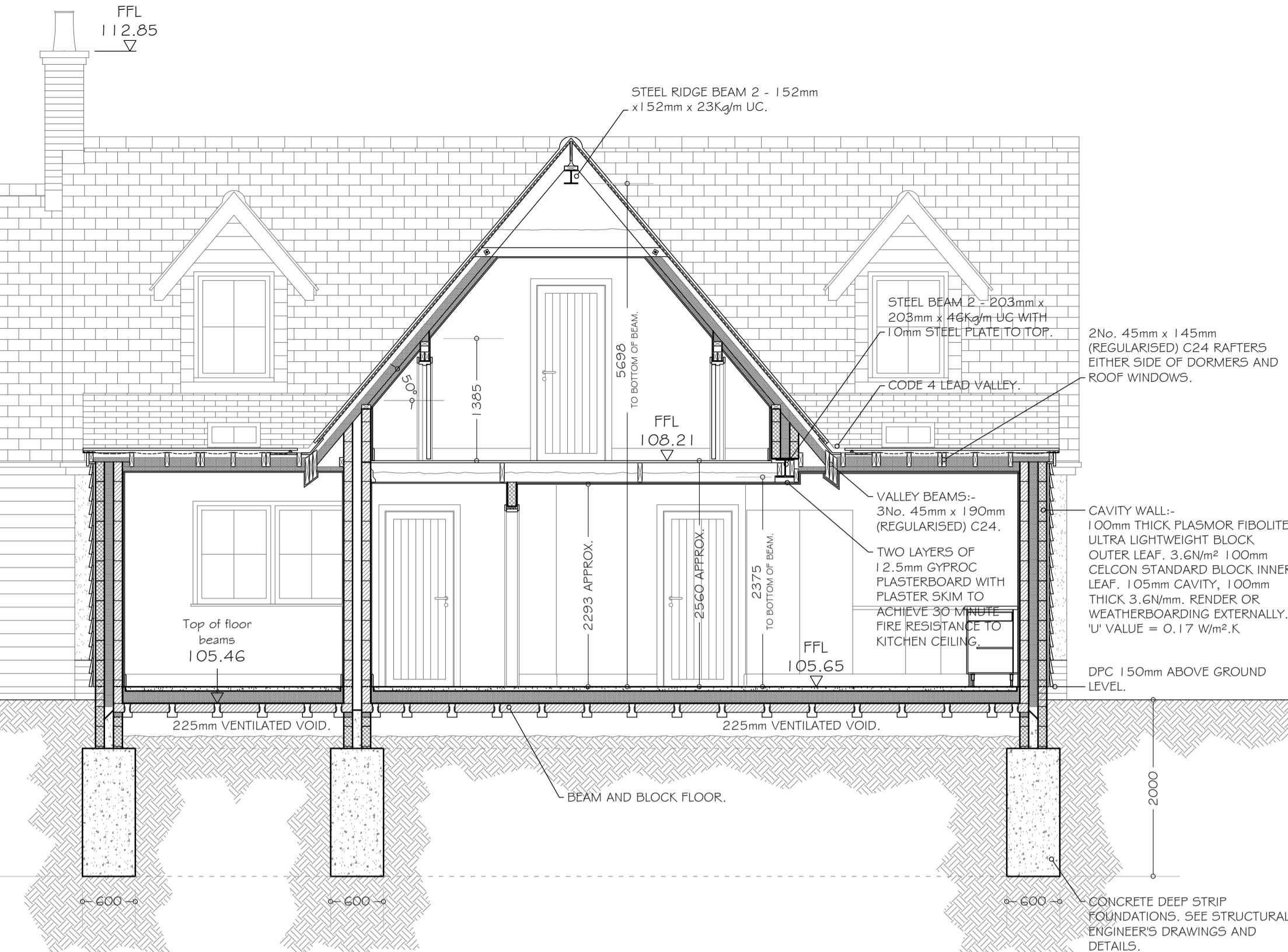
INTERNAL DOORS AND HALLWAYS
 All doors within the dwelling to have a minimum 800mm clear opening and 900mm hallways and corridors.

HOT WATER
 The hot water supply to the fixed bath is to incorporate an inline blending valve or other appropriate control device fitted to restrict the water temperature at the bath hot tap to no more than 48°C. The thermostatic mixing valve should be positioned as close as possible to the tap.

SOIL CONTAMINATION (PART C1)
 The site was previously part of the garden of Yew Tree Cottage and as such it is very unlikely that any contamination is present in the soil.



SECTION BB



SECTION CC

FIXED BUILDING SERVICES
 Fixed building services (space and water heating, mechanical ventilation, comfort cooling, lighting and others, as listed) are to be supplied and installed in accordance with Domestic Building Services Compliance Guide, 2013 edition.

ELECTRONIC COMMUNICATIONS (PART R)
 New dwelling to be equipped with a common access point for high speed electronic communications networks. A functioning connection to a gigabit capable public electronic communication network will be provided for the new dwelling.

MEANS OF VENTILATION
 Ventilation design/strategy is to be reviewed as the SAP 10 calculations are improved.

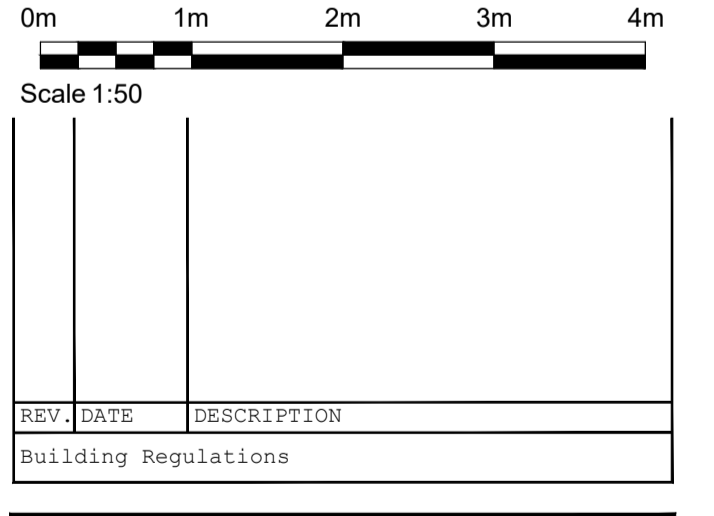
SEWERAGE TREATMENT PLANT
 The existing sewerage treatment plant for Yew Tree Cottage is a Klargester Sewage Treatment Plant. This is to be moved into the garden of Yew Tree Cottage. The sewerage treatment plant for the new dwelling is to be a Klargester Biodisc BA, and is to be linked only to the proposed new dwelling.

SOAKAWAY
 The roof area of the proposed dwelling is 106.4m². Using the manufacturer's (Polystorm) recommendation of one drainage crate per 10m² of roof area, this equates to 11No. 1.0m x 0.5m x 0.4m drainage crates to satisfy the requirement.

CONSUMER UNITS
 Consumer units are to be positioned between 1350mm and 1450mm above finished floor level.

ABOVE GROUND DRAINAGE
 Soil and vent fittings shall be 110mm size to BS 4514:1983, Kitemarked.
 WC connectors shall be in white colour. Pipework manufactured in PVC-U by Osma or similar approved.
 Stack pipe to serve WC and adjacent fittings shall be 100mm diameter, connected to below ground drainage via adaptor if clayware. Vent pipe to be continued up to terminate via balcony grating, at 900mm above window head level.
 Branch connection for waste pipes and WC as indicated on the drawings, to include access plug for clearing. Bracket fixings to walls as per manufacturer's details.
 Waste pipes to fittings to be in ABS solvent weld, white colour, including all bends, and brackets, laid to appropriate falls to stack in accordance with the Building Regulations.
 No waste entry into stack within 200mm centre to centre below WC connection. WC pan to have 75mm P trap. All other fittings to have 75mm bottle traps.
 WC wastes to be 100mm diameter. Sink, dishwasher, washing machine, bath and shower wastes to be 40mm diameter. Basin wastes to be 32mm diameter. Common wastes to be 50mm diameter.

HEATING
 Heating system as determined by the SAP calculation. Radiators, valves, etc. to be designed and installed by a specialist sub contractor. Installation to comply with the Building Regulations and NHBC standards. An adequate supply of air must be provided for combustion and discharge.
 Sedbuk rating to be as specified by the SAP assessors.



REV.	DATE	DESCRIPTION
Building Regulations		

AP Designs		
Romara, Norwich Road, Ludham, Norfolk NR29 5PB		
T: 01924 782537 M: 07848 681245 E: allenplayfair@hotmail.co.uk		
CLIENT Michael Doran		
PROJECT ADDRESS Site Adjacent to Yew Tree Cottage, School Lane, Takeley, Bishop's Stortford, Essex CM22 6PJ		
TITLE Sections and Specification Notes		
DATE 21.09.23	SCALE AT A1 1:100	DRAWN BY AMP
DRAWING NUMBER C488/BR/02		REVISION