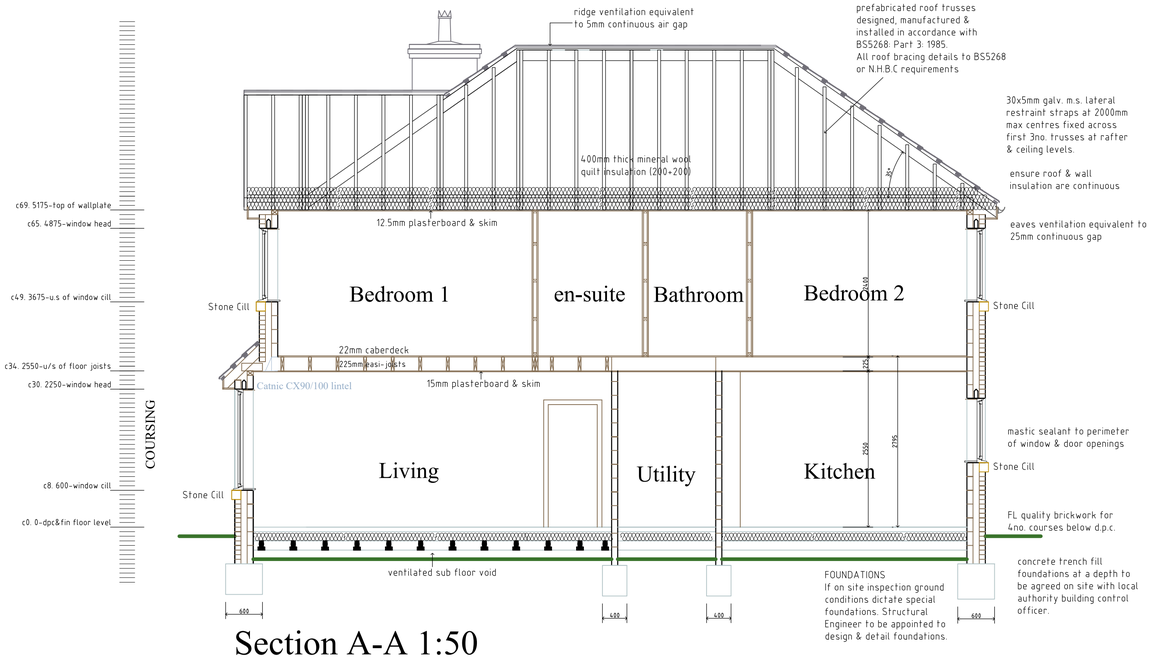
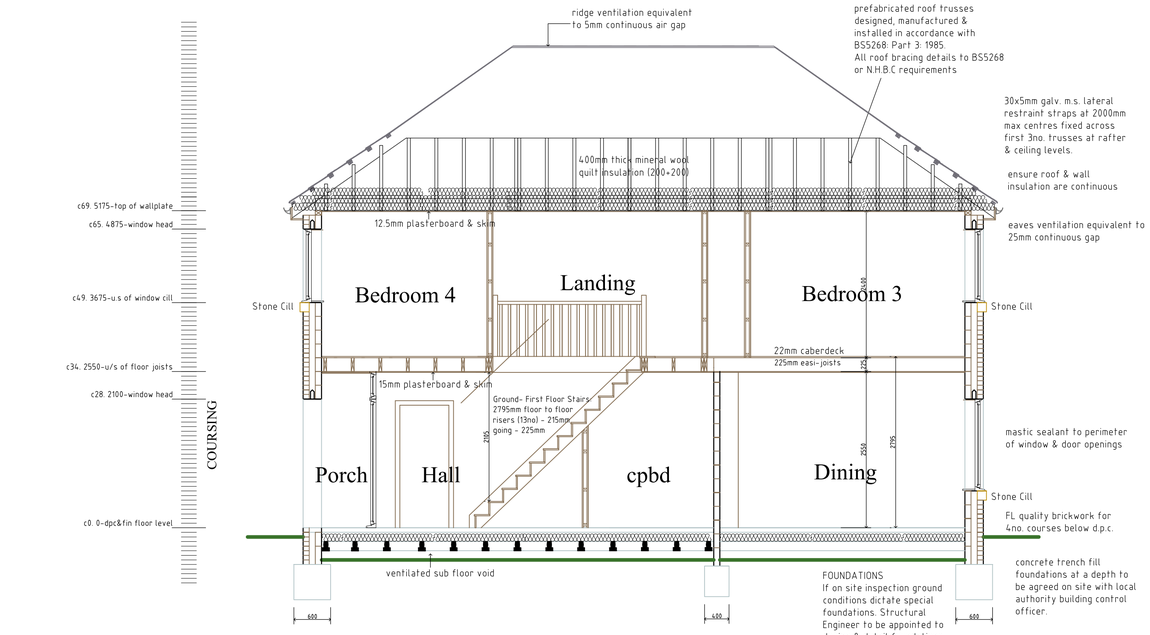
Plots 1&2 - 28 Pargeter Street, Stourbridge, DY8 1AU



Section A-A 1:50



Section B-B 1:50

FOUNDATIONS
600mm wide concrete trench fill foundations at a depth to be agreed on site with local authority building control officer. If on site inspection ground conditions dictate special foundations. Structural Engineer to be appointed to design & detail foundations.

SUBSTRUCTURE BRICKWORK
Internal and external leaves to be class B semi-engineering bricks or 100mm 7N solid concrete blockwork. FL quality facing bricks to be used in external leaf from underside of DPC to two courses below finished ground level. Cavity to be filled with insitu concrete to within 225mm of lowest DPC. Opening for services/ drainage to have concrete lintol over and masked each side with rigid material.

DPC's
Horizontal DPC to external walls to be provided at ground floor level to external leaf (150mm min. above external ground level) and to underside of precast beams to internal leafs and sleeper walls. All DPC's to be Hyload polymer free (o.e.a.).

GROUND FLOOR - U-VALUE = 0.12w/m2k
65mm thick sandcement screed (1:3) with fibreglass reinforcement over 500 gauge vapour barrier on 150mm thick Celotex XR4000 flooring insulation on 1200 gauge damp proof membrane, turned up at a perimeter and sealed to DPC, on suspended precast concrete beam and block floor system. Dense block (600kg/m3) concrete.Vertical upstands of insulation to be provided at perimeter of floor for depth of screed. 150mm min void to be ventilated by proprietary plastic air bricks and periscope ventilators providing openings of 1500mm2 per metre run of wall. (215x65mm air brick at 2m max centres). p/a ratio = 0.66
Beam & block manufacturers details to be submitted to Structural Engineer & Local Authority for approval

GARAGE FLOOR
75mm min thick C20P insitu concrete laid to falls with powerfloat finish on 1200gauge damp proof membrane, (lapped up cavity face of blockwork & sealed to DPC), on suspended precast concrete beam and block floor system. Clear void below suspended floor to be 150mm minimum measured from underside of concrete support beams. Void to be ventilated by proprietary plastic air bricks and periscope ventilators providing openings of 1500mm2 per metre run of wall. (215x65mm air brick at 2000mm max centres). Soil below floor to be treated with weed killer.
Beam & block manufacturers details to be submitted to Structural Engineer & Local Authority for approval

EXTERNAL WALL CONSTRUCTION - U-VALUE = 0.17W/m2k.
Cavity wall construction 358mm o/a thickness consisting of
102mm thick facing brickwork external leaf
125mm width cavity with 75mm Kooltherm K8 cavity board insulation fixed to inner leaf leaving a 50mm clear cavity
100mm thick Lightweight Concrete thermal Block (Toplite GTI 3.6N)
15mm airspace and plaster dabs
12.5mm thick plasterboard & 3mm skim finish.
Stainless steel cavity wall ties at 750mm horizontal and 450mm vertical staggered centres. 300mm to reveals. Cavity to be closed around door and window openings with insulated cavity closers linked to cavity tray over opening.

GARAGE COMPARTMENT WALLS - U-VALUE = 0.18W/m2k.
Cavity wall construction 331mm o/a thickness consisting of
100mm thick Fibolite 3.6N block
125mm width cavity with 75mm Kooltherm K8 cavity board insulation fixed to inner leaf leaving a 50mm clear cavity
100mm thick Lightweight Concrete thermal Block (Toplite GTI 3.6N)
15mm airspace and plaster dabs
12.5mm thick plasterboard & 3mm skim finish.

BLOCKWORK INTERNAL LOADBEARING WALLS
100mm thick Lightweight Concrete Block (3.6N) Fibolite or similar finished both sides with 12.5mm thick plasterboard & skim finish on plaster dabs. All joints to be well sealed.

STUD PARTITIONS.
80mm wide comprising of 50mm metal stud with 12.5mm soundblock board, 3mm skim and 50mm thick acoustic quilt

LINTELS
Catnic, IG (or similar approved) insulated galvanised steel lintols (to BS5977) to Manufacturers schedule, built in with min. 150mm end bearing to each side. Lintol schedule to be submitted to the Structural Engineer for approval.

PITCHED ROOF - U-VALUE = 0.11W/m2k
Marley Ashmore (smooth brown and smooth grey) single lap interlocking double plain roof tile min pitch 22.5degrees. Marley dry ridge, dry verge, dry hip and dry valley systems with 25mm eaves vent system. 50x25mm JB Red roofing battens (fully graded) to BS.5534, on breather membrane underlay to BS.5534 (Dupont Tyvex Supro or similar) on prefabricated trusses to BS5268 at 600mm max centres, secured to 100x75mm softwood treated wallplate. All roof members to be preservative treated. 400mm thick (200+200) glass mineral wool insulation (Knauf loftroll 44 or similar) laid at 90° to each other over areas of flat ceiling. u-value = 0.11W/m2k. Roof space to be ventilated by proprietary eaves vents giving equivalent to 25mm continuous air gap & proprietary ridge vents giving equivalent to 5mm continuous air gap. Roof bracing to BS5268 Part 3 appendix A and manufacturers recommendations. 100x25mm longitudinal bracing at rafter, ceiling and ridge level at truss node point with 100x25mm diagonal rafter bracing. Wallplate to be secured to inner leaf of external wall by 30x5mm galv. m.s. wallplate anchor strap at 2000mm max. centres.
Truss manufacturers details to be submitted to Structural Engineer & Local Authority for approval

STAIRCASE
Specialist made timber staircase, each step to have max. rise of 220mm and min. going of 220mm. Pitch of stairs to be a maximum 42°. Handrail to be securely fixed to height of minimum 900mm and maximum 1000mm (measured vertically above pitch line). Minimum 2000mm clear headroom to be maintained throughout stair flight. Ballusters to be at 100mm max centres. Guarding to landing to be fixed to height of 900mm above finished floor level.

UPPER FLOORS
22mm thick Caberdeck floor boards (min mass per unit area 15kg/m2) or 19mm thick plywood under wet area floors, on 225mm easi-joists (posi-strut or similar) to manufacturers details & design. 12.5mm plasterboard with skim finish ceiling (min mass per unit area 10kg/m2). 100mm quilt insulation (10kg/m2) to be placed between joists.
Joist manufacturers details to be submitted to Structural Engineer & Building Control for approval.
First floor over garages to be insulated with 150mm Kooltherm K3 and to garage ceiling to have 1hr firecheck board (or two layers 12.5mm plasterboard ans skim)

FLAT ROOFS (WARM)
Sika Sarnafil AT-25 single ply membrane roofing system (multi layer synthetic membrane) with integral trims and flashings on 22mm thick WBP grade plywood decking on 120mm thick Kingspan Thermaroof TR26 (or similar approved) insulation board laid over 1000g vapour barrier on 18mm thick OSB decking, on top of 50mm wide sw treated firring & diminishing strips to give 1:80mm gradient to roof finish, on flat top roof trusses to manufacturers details & design. 12.5mm foil backed plasterboard with skim coat finish ceiling. Joist manufacturers details to be submitted to Structural Engineer & Building Control for approval

WINDOWS
Hollow profile extruded PVCu framed, double glazed windows (profile to BS7413). All habitable rooms to have emergency egress windows giving unobstructed openable area of 0.33m2 and at least 450mm high and 450mm wide. bottom of openable area to be min 800mm & max 1100mm above fin floor level. Opening lights to be not less than 1/20th of the rooms floor area and open more than 30°, to provide rapid ventilation.

GLAZING - U-VALUE = 1.2W/m2k
Factory made double glazed units, to give max u-value of 1.2W/m2k. (as specified by window manufacturer). glazing in the following locations to be toughened safety glass to BS6206, 1981:
between f.f.l. & 800mm high.
between f.f.l. & 1500mm high in doors or side panels.

SOIL AND VENT PIPES
100mm dia. uPVC SVP to be terminated at roof vent tile or air admittance valve (positioned at higher level than adjacent waste outlets) or 900mm min above adjacent window head where external. Internal SVP's to be encased in 38x50mm timber framework at maximum 600mm centres covered with 12.5mm plasterboard and skim finish with access panels at low level. SVP to be wrapped in 25mm thick insulation where passing through habitable rooms.

CHIMNEY CONSTRUCTION
Chimney is to be constructed using a 200x200mm Redbank class 1 flue chimney liner system with concrete lintel/throat unit, flue size to relate to fireplace area, designed by specialist manufacturers, with the flue sockets or rebates uppermost to prevent condensate running out. Liners are to be surrounded in brick/blockwork having a min. thickness of 100mm.
Any void left between the brick/blockwork surround is to be filled using a weak mixture of insulating backfill, i.e. 20 parts Leca aggregate and 1 part OPC.
Where bends are necessary, they should make an angle of not more than 30°
Carry out smoke test during construction at first floor level, roof space level and on completion all in accordance with BS 6461 part 1:1984
All work to be in accordance with Building Regulations, current British Standards, NHBC requirements and good building practice.
Provide permanent air supply to room in accordance with Building Regulations part J table 1 1992 edition - air bricks as shown on plans
Provide a constructional hearth (in accordance with document J diagram 25 &26) of solid non-combustible material of at least 12mm thick that extends at least 300mm to the front and 150mm wider than recess to either side
Log burner to be fitted and certified by a qualified HETAS engineer

PLUMBING
All fittings to have 75mm deep seal traps and separate connections to SVP in accordance with BS5572. 38mm dia. waste to kitchen sink. 50mm dia. waste to bath & shower, 32mm dia. waste to wash hand basins. WC to be connected with 100mm dia. uPVC branch. All wastes to be accessible throughout their lengths and to be fitted with anti vacuum traps.

ELECTRICS
Provide for electrical sockets, switches, lights, extract fans, cooker point, etc as indicated on plans. All electrical work to 'Approved Document P' & in accordance with BS7671:2001 , designed, installed and inspected by a competent person registered with an electrical self certification scheme authorised by the Secretary of State.

SOCKETS AND SWITCHES
Low level socket outlets to be positioned 450mm above finished floor level.
Switch outlets to be positioned 1050mm above finished floor level.

LIGHT FITTINGS (as per SAP calcs)
To comply with Approved Document L1A Table 4
All light fittings to be energy efficient light fitting (a complete luminaire or fitting that can only take lamp with efficacy greater than 45 lumens per circuit-watt) and a total output greater than 400 lumens. External lighting to have lamp capacity not greater than exceed 100W per light fitting which automatically switches off when there is enough daylight and after the area becomes unoccupied OR light fittings with a efficacy greater than 45 lumens per circuit watt which automatically switches off when there is enough daylight and is manually controlled by occupiers.

MECHANICAL VENTILATION
Kitchen extract fan to be capable of extracting air at a rate of not less than 60 litres/second intermittently operated, or if incorporated into cooker hood, fan to be capable of extracting air at a rate of not less than 30 litres/second intermittently operated.
Bathroom & En suite (with opening window) extract fans to be capable of extracting air at a rate of not less than 15 litres/second operated intermittently
Cloakroom (with opening window) to have no mechanical ventilation

Access & Entrance Doors & Security :
A level threshold for level access is to be provided to the principle entrance
Clear opening widths of 775mm to principle entrance door and w/c door to be achieved with 838mm wide door
Unauthorised access - the entrance door/frame is to meet the security requirements of BS. publication PAS 24:2012, letter plates should have a maximum aperture of 260x40mm and principle entrance doors must incled a door viewer or clear glass panel/side window and be fitted with a chain/limiter
Windows are to meet the security requirements of BS. PAS 24-2012

FIRE SAFETY
Self contained smoke alarms (minimum one number each storey) which are to be interconnected and permanently wired to a separate fixed circuit at the distribution board. Smoke detectors to be located within 7m of doors to habitable rooms at ground floor level & within 3m of doors to bedrooms at first floor level. The location and fixing of smoke detectors are to comply with approved documents B1.1.4 to 1.25.

HEATING
space and Water Heating generated from a gas combination boiler and balanced flue.
Log burning stove to living rooms. All certificates be submitted to Building Control for approval.

HEATING & HEATING CONTROLS
To Specialists details and design. All to be submitted to Building Control for approval
There shall be a room thermostat or thermostatic radiator valves or any other equivalent form of sensing device, to control the output of the heating system

HOT WATER STORAGE
To comply with AD Part G3 paras 3.9. to Specialists details and design. All to be submitted to Building Control for approval
Sizing of discharge pipes to follow BS6700: 1987.
Discharge pipes to be installed with a continuous fall, have discharges visible at both the tundish & final point of discharge.
Acceptable discharge arrangements:
Ideally below a fixed grating & above the water seal in a trapped gulley
downward discharges at low level (upto 100mm above external surfaces) with protection guard or cage positioned to prevent contact where children may come into contact, whilst maintaining visibility.
Discharges at high level, into metal hopper & metal downpipe, with the end of discharge pipe clearly visible, or onto a roof capable of withstanding high temparature discharges of water & 3m from any plastics guttering system that would collect such discharges.

HOT WATER SAFETY & WATER EFFICIENCY.
In accordance with Approved Document Part G: 2010.The hot water storage vessel is to be fitted with a device to prevent the temperature of the water stored in the vessel at any time exceeding 100o C to be compliant with G3 (4) paragraphs 3.10 - 3.23. The hot water supply temperature to a bath must be limited to a maximum of 48o C by the use of an in-line blending valve or other appropriate temperature control device to be compliant with G3 (4) paragraphs 3.65 - 3.68
The estimated water consumption of a new dwelling should be not more than 125 litres/head/day.

COLD AIR INFILTRATION
To comply with Approved Document L1a.
All doors and windows to have mastic seals at perimeter of openings externally and draft seals internally. Loft hatches to include draft seals. Service pipe penetrations to be sealed. Concealed services to be sealed where they penetrate floors and ceilings.

FIRE PROTECTION TO STEEL BEAMS, COLUMNS & LINTOLS.
All exposed steel lintols to be encased in 15mm thick two coat plaster, or 2no. layers of 12.5mm plasterboard with taped & staggered joints and skim finish, to give equivalent to 1 hour fire resistance.

LEAD FLASHINGS
Code 4 lead flashings (to BS1178), minimum 150mm upstand where roof abuts dormer windows. Top edge to be dressed under window cill minimum 25mm and fixed with lead wedges.

INTERNAL DOORS
All ground floor internal doors to habitable rooms to give minimum 750mm clear opening.
All doors to habitable rooms & stores acessed from protected stairwell to be FD30s fire rated

ADDITIONAL INFORMATION :
The following information is to be provided and passed to the B.I
1. calculations/details for roof trusses
2. calculations/details for block & beam floor
3. a coal mining report is to be submitted to the Building Inspector
4. foundation details and calculations by structural engineer
5. energy ratings calculations to be provided (SAP & EPC)
6. water consumption calculations to be provided
7. structural engineer to provide details for steel beams & padstones
8. structural engineer to provide details for retaining walls
9. presure testing to be carried out on completion & results passed on to B.I.

EV Charging point
Rolec EV 7.4kW fast charging

BUILDING REGULATIONS AMENDMENTS - 29/11/2022

1. calculations/details for roof trusses, 1st floor joists and block/beam floors to be obtained from manufacturers and passed on to B.I.
2. calculations/details for structural steelwork from structural engineer - sizes of steel beams and padstones added to drawings
3. unprotected area between the two houses (distance between houses is 1.35m) The left hand side wall of plot 2 forms the boundary.
unprotected area calculation is shown on elevation drawing
unprotected area is 7.82%
4. background ventilators to provide a min. of 8000mm2 (min x3 no. to kitchen/dining room)
5. soakaway design, details & calcs to follow from structural engineer following result of percolation tests
6. carbon monoxide detectors are to be sited in rooms that contain heat producing appliances - see plans
7. chimney details added
8. ground floor specification amended to match SAP calcs
9. external wall specification amended to match SAP calcs
10. lighting specification amended to match SAP calcs
11. Further information to confirm that the buildings have been assessed to prevent overheating to follow.
12. EV charging point details added
13. photographic evidence to be taken during the construction process to verify compliance with SAP calcs.
14. M&E systems to be tested and certified upon completion

f. 19/11/2024 - amended notes - pitched & flat roof details
e. 21/03/2023 - amended brick dims to openings
d. 29/11/2022 - building regulations amendments
c. 08/1/2022 - space & water heating amendments
b. 24/10/2022 - structural steel info added

TITLE:
Plots 1&2
Building Regulations Drawing No.5
28 Pargeter Street
Stourbridge
DY8 1AU

DRAWING NO. 28PS/19
REV: f

DATE: October 2022

SCALE: 1:50

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