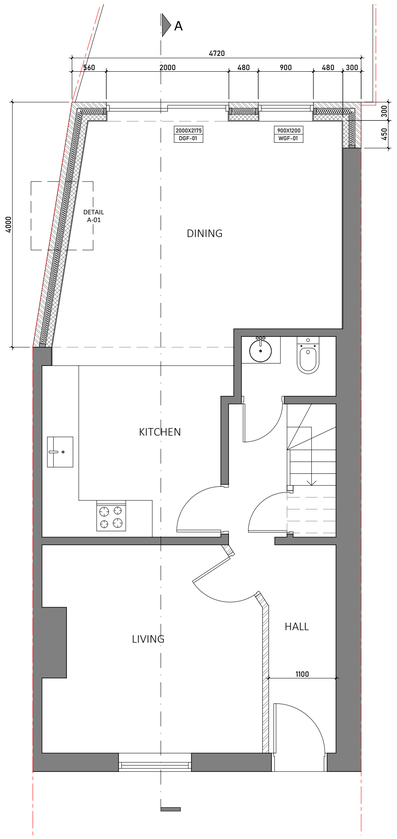
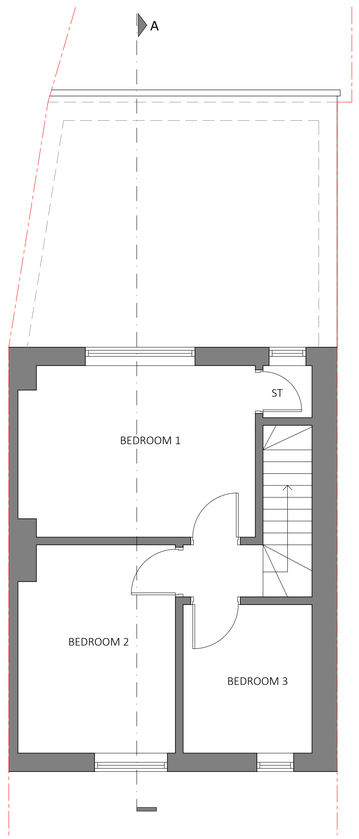
BUILDING REGULATIONS DRAWING



GROUND FLOOR PLAN
1:50



FIRST FLOOR PLAN
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BUILDING REGULATIONS NOTES

CDM REGULATIONS 2015
The client must abide by the Construction Design and Management Regulations 2015. The Client must appoint a Contractor, if more than one Contractor is to be involved, the Client will need to appoint (in writing) a Principal Designer (to plan, manage and coordinate the planning and design work), and a Principal Contractor (to plan, manage and coordinate the construction and ensure there are arrangements in place for managing and organising the project).

Domestic Clients
The Domestic Client is to appoint a Principal Designer and a Principal Contractor when there is more than one Contractor, if not your duties will automatically be transferred to the Contractor or Principal Contractor.

The Designer can take on the duties, provided there is a written agreement between you and the Designer to do so.

The Health and Safety Executive is to be notified as soon as possible before construction work starts if the works:

(a) Last longer than 30 working days and has more than 20 workers working simultaneously at any point in the project.
Or:
(b) Exceeds 500 person days.

THERMAL BRIDGING
Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new building fabric.

MATERIALS AND WORKMANSHIP
All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.
The latest edition of the British Standard (including any amendments) applies to any undated references within these specifications.

PARTY WALL ACT
Should they need to do so under the requirements of the Party Wall Act 1996, the owner has a duty to serve a Party Structure Notice on any adjoining owner if the building work involves any of the following to a Party Wall:
- Support of beam
- Insertion of DPC through wall
- Raising a wall or cutting off projections
- Demolition and rebuilding
- Underpinning
- Insertion of lead flashings

A Party Wall Notice is also required for:
- Any excavtions within 3 metres of any part of a neighbouring owner's building or structure, where any part of that work will go deeper than the neighbour's foundations; or
- Any excavations for a new building or structure, within 6 metres of any part of a neighbouring owner's building or structure, where any part of that work will meet a line drawn downwards at 45° in the direction of the excavation from the bottom of the neighbour's foundations, see diagram 7 in the following Government guidance.

A Party Wall Agreement is to be in place prior to start of works on site.

BASIC RADON PROTECTION
Provide a 1600g (400 um) radon membrane under floor slab lapped 300mm double welted and taped with gas proof tape at joints and service entry points. Carry membrane over cavity and provide suitable cavity tray and weep holes.

SITE PREPARATION
Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases, e.g. landfill gases, radon, vapours etc. on or in the ground covered, or to be covered by the building.

EXISTING STRUCTURE
Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by Building Control.

BEAMS
Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance, as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

STEEL LINTELS
Lintel and lintel installation to be in accordance with BS 5977-1 Lintels. Method of assessment of load and BS EN 845-2 Specification for ancillary components for masonry.
Lintel to be galvanised steel, powder coated lintel, such as Catnic, with a built-in damp-proof course.
The lintel to be wide enough to provide adequate support to the walling above, to be installed with a nominal 150 mm bearing area at each end and be fully bedded on a solid bed of mortar. Only full bricks or blocks to be part of the bearing area - lintels not to be placed directly onto part bricks. Padstones and spreaders to be provided under the bearings, where required. Installation to be in accordance with manufacturer's recommendations.
Overhang of any masonry to be a maximum of 25mm and lintel toe to project beyond window head externally.
Risk of condensation at potential cold bridges to be minimised, wall insulation should abut the head of the window frame and insulation to be provided at the underside of the lintel unless the manufacturer produces an alternative.
(In severely exposed locations or where the lintel does not offer a built-in DPC, a separate membrane to be fitted, turned up at the edge to ensure the water is not directed into the cavity. For coastal areas, the use of soffit cladding to also be considered to provide further protection).

FOUNDATION
Provide concrete strip foundation in accordance with Table 10 of Approved Document A, thickness of concrete not to be less than 225mm and minimum width of foundation to be equal to the width of the wall plus 300mm. Concrete mix to conform to BS EN 206:2013(+A2:2021) and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, depth and size of foundation to be approved on site by Building Control to suit site conditions. All constructed in accordance with 2010 Building Regulations A1/2 and BS 8004:2015 Code of Practice for Foundations (+A1:2020). Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions be found or any major tree roots in excavations, Building Control to be contacted and the advice of a Structural Engineer should be sought.

SOLID FLOOR INSULATION OVER SLAB (DETAIL A-03)
To meet min U value required of 0.18 W/m²K
P/A ratio 0.5
Solid ground floor to consist of 150mm consolidated well-rammed hardcore, blinded with 50mm sand blinding. Provide 150mm ST2 or Gen2 ground bearing slab concrete mix to conform to BS 8500-2:2023 and BS EN 206 over a 1200 gauge polythene DPM. DPM to be lapped in with DPC in walls. Floor to be insulated over slab and DPM with min 90mm thick Celotex GA4000 insulation.
25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped by 150mm and sealed. Finish with 65mm sand/cement finishing screed with light mesh reinforcement.
Where drain runs pass under new floor, provide A142 mesh 1.0m wide and min 50mm concrete cover over length of drain.
Where existing suspended timber floor air bricks are covered by new extension, ensure cross-ventilation is maintained by connecting to 100mm dia UPVC pipes with 100mm concrete cover laid under the extension. Pipes to terminate at new 65mm x 215mm air bricks with cavity tray over.

FULL FILL CAVITY WALL (DETAIL A-02)
To achieve minimum U Value of 0.18 W/m²K (actual U Value achieved 0.16 W/m²K)
New cavity wall to comprise of 100mm suitable facing brick. Ensure a 10mm clear cavity and full fill the cavity with 90mm Celotex Thermaclass Cavity Wall 21 as manufacturer's details. Inner leaf to be 100mm medium block, 0.45 W/m²K. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1:6 cement mortar.
Vertical joints in the board must be staggered and all joints tightly butted.
All details including corner and junction to be as relevant BBA certificate.
Location to be assessed for suitability of insulation boards.

UNDERGROUND FOUL DRAINAGE
Underground drainage to consist of 100mm diameter UPVC proprietary pipework to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1 (+A1:2023).

WALL TIES
All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm ctrs horizontally, 450mm vertically and 225mm ctrs at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS EN 845-1:2013.
Wall ties for cavities over 150mm to be suitable for cavity width, and installed as manufacturer's details.

CAVITIES
Provide cavity trays over openings and where roofs abut walls. All cavities to be closed at eaves and around openings using Thermabate or similar non combustible insulated cavity closers. Provide vertical DPCs around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres.

EXISTING TO NEW WALL
Cavities in new wall to be made continuous with existing, where possible, to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abuts the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

CAVITY BARRIERS
30 minute fire resistant cavity barriers to be provided around openings, at tops of walls, gable end walls, vertically at junctions with separating walls and horizontally at separating floors. Cavity trays to be provided over barriers where required. Trays and cavity barriers to be installed according to manufacturer's details.

VENTILATED FLAT ROOF (DETAIL A-02)
(imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²)
To achieve U value of 0.15 W/m²K
Flat roof covering to be glass reinforced plastic (GRP) system with BROOF(t4) fire rating in accordance with BS EN 13501-1:2018 and with a current BBA or other approved accreditation. GRP to be laid in compliance with manufacturer's details by flat roofing specialist on 18mm exterior grade plywood, plywood to be laid on firings to give a 1:40 fall on 50 x 170mm grade C24 timber joists at 400 ctrs, max span 3.89m (see Engineer's details for sizes). Cross ventilation to be provided on opposing sides by a proprietary eaves ventilation strip to give 25mm continuous ventilation, with fly proof screen.
Flat roof insulation is to be continuous with the wall insulation but stopped back to allow a continuous 50mm air gap above the insulation for ventilation. Insulation to be 120mm Celotex XR4000 between joists and 50mm Celotex GA4000 under joists. Provide 12.5mm plasterboard over vapour barrier to the underside of the insulation. Plasterboard to be fixed joists and finished with a plaster skim.
Provide restraint to flat roof by fixing using of 30 x 5 x 1200mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall.

ELECTRICAL
All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a Competent Person registered under a Competent Person Self Certification Scheme such as BRE certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to Building Control on completion.

INTERNAL LIGHTING
Install low energy light fittings that only take lamps having a luminous efficiency better than 80 lumens per circuit watt. All fixed to have lighting capacity (lm) 185 x total floor area, to comply with Part L of the current Building Regulations and the Domestic Building Services Compliance Guide.

SMOKE DETECTION
Provide a linked smoke alarm detection system to BS EN 14604 and BS 5839-6:2019 to at least a Grade D2 category LD3 standard. System to be mains powered with battery back up. At least one smoke detector to be provided in each hallway and landing. In hallways exceeding 7.5m in length, no point within the hallway should exceed 7.5m from the nearest detector and no bedroom door should be further than 3m from the nearest smoke alarm. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.
Mains-wired, interlinked heat detector to be provided to the kitchen and smoke detectors to principal living rooms, if required by Building Control.

SAFETY GLAZING
All glazing in critical locations to be toughened or laminated safety glass to BS EN 12600:2002, BS EN 14179 or BS EN ISO 12543-1 and Part K of the current Building Regulations, i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

DPC
Provide horizontal strip polymer (hyload) damp proof course to both internal and external skins, DPC to be placed a minimum 150mm above external ground level. New DPC to be made continuous with existing DPC's and with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed.

Note:
ALL DIMENSIONS AND FEASIBILITY TO BE CHECKED BY CONTRACTOR PRIOR TO ANY WORK COMMENCING

NEW AND REPLACEMENT WINDOWS
New and replacement windows to be double glazed with 16-20mm argon gap and soft coat low-E glass. Window Energy Rating to be Band B or better and to achieve U-value of 1.4 W/m²K. The door and window openings should be limited to 25% of the extension floor area plus the area of any existing openings covered by the extension.
Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals.
Windows and door frames to be taped to surrounding openings using air sealing tape.
Windows to be fitted with trickle vents to provide adequate background ventilation in accordance with Approved Document F.

NEW AND REPLACEMENT DOORS
New and replacement doors to achieve a U-Value of 1.4W/m²K. Glazed areas to be double glazed with 16-20mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1 and Part K of the current Building Regulations.
Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals.
Windows and door frames to be taped to surrounding openings using air sealing tape.

EXTRACT TO KITCHEN
Kitchen to have mechanical ventilation with an extract rating of 60 l/s, or 30 l/s if adjacent to hob to external air. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. Cooker hoods to BS EN 13141-3. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

EXTRACT TO BATHROOM
Bathroom to have mechanical vent ducted to external air to provide min 15 l/s. Vent to be connected to light switch and to have 15 minute over run if no window in room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

PURGE VENTILATION
Minimum total area of opening in accordance with Table 1.4 Approved Document F1.
Hinged or pivot windows with an opening angle of 15 to 30 degrees to have an openable area in excess 1/10 of the floor area of the room.
External doors and sash, hinged or pivot windows with an opening angle of equal to or greater than 30 degrees to have an openable area in excess of 1/20 of the floor area of the room.
Purge ventilation should be capable of extracting at least 4 air changes per hour per room directly to the outside.
Internal doors should be provided with a 10mm gap below the door to aid air circulation.

BACKGROUND VENTILATION
Controllable background ventilation at least 1700mm above floor level to be provided to habitable rooms and kitchens at a rate of min 10,000mm², and to bathrooms at a rate of min 4000mm²,
Total number of ventilators installed in a dwellings habitable rooms to be at least 4 ventilators for one bedroom dwellings and 5 ventilators for dwellings with more than one bedroom.
Background ventilators to be tested to BS EN 13141-1.
Background ventilator equivalent area and operation to be measured and recorded.
Noise attenuating background ventilators should be fitted to facades with sustained loud noise.

Where the extension connects to in an existing room and as a result the existing room is left with no windows or background ventilation less than 5000mm², then the new room background ventilation to be at least 10,000mm² equivalent area.
Where the extension connects to in an existing room and as a result the existing room is left with background ventilation at least 5000mm², then both the following is to be provided:
- Background ventilators of at least 12,000mm² equivalent area should be provided between the two rooms.
- Background ventilators of at least 12,000mm² equivalent area between the additional room and the outside.

PIPEWORK THROUGH WALLS
Where new pipework passes through external walls the pipework is to be provided with 'rocker pipes' at a distance of 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a maximum length of 600mm.
Alternatively provide 75mm deep pre-cast concrete plank lintels over drain to form an opening in the wall which gives 50mm space all round pipe. Mask the opening both sides with rigid sheet material and compressible sealant to prevent entry of fill or vermin.

C2. CONDENSATION
Walls, floors and roof of the building to be designed and constructed so that their structural and thermal performance will not be adversely affected by interstitial condensation, surface condensation or mould growth. Account to be taken of the building's form and orientation in relation to topography, prevailing winds, sunlight and over-shadowing, and the rate at which humidity is generated.
Materials with the highest vapour resistance should be located on the warm side of a thermal element. VCLs to be provided where necessary.
The junctions between elements are designed to Accredited Construction Details or guidance of BRE IP17/01] and BS 5250:2021 Management of moisture in buildings to be followed.

RAINWATER DRAINAGE
New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be min of 1 cubic metre capacity (or to depth to Local Authority approval), filled with suitable granular fill and provided with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine design and depth of soakaway.

JUST BEAMS

CLIENT	-
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TITLE	FLOOR PLANS
PROJECT STATUS	BUILDING REGULATIONS DRAWING
DATE	MAR 2024
REVISION	
SCALE	As Indicate @A1
SHEET No.	WD001
REFERENCE	0010/20/FA

Just Beams Ltd
28 Harrow Road, Newport, NP19 0BT
07769316378

BUILDING REGULATIONS DRAWING

Note:
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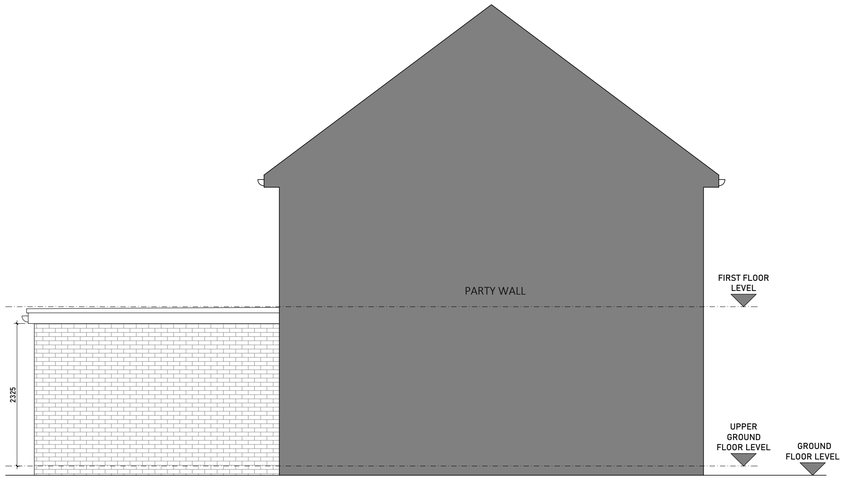
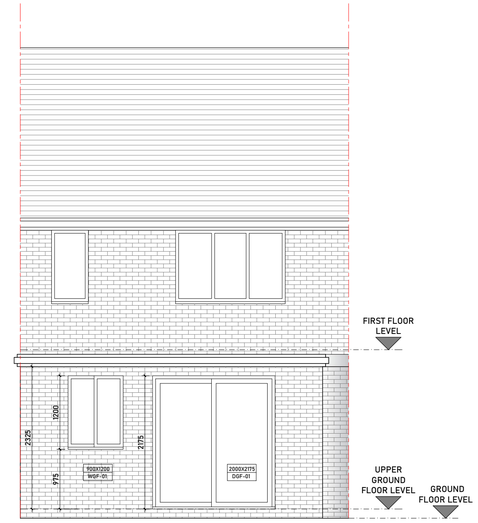
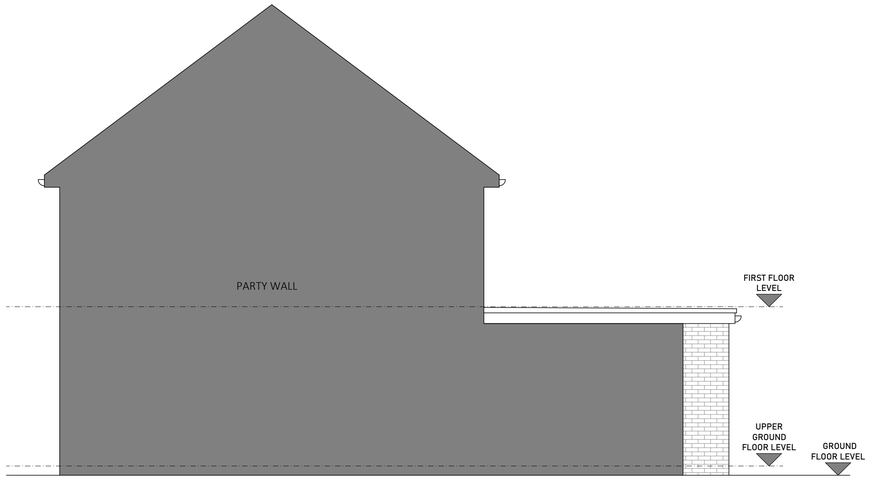


LEFT ELEVATION
1:50



REAR ELEVATION
1:50



RIGHT ELEVATION
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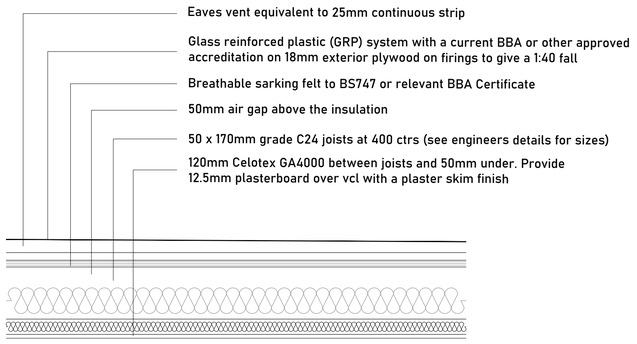
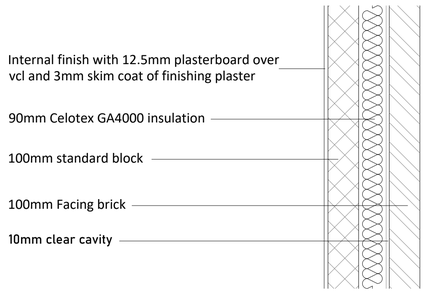
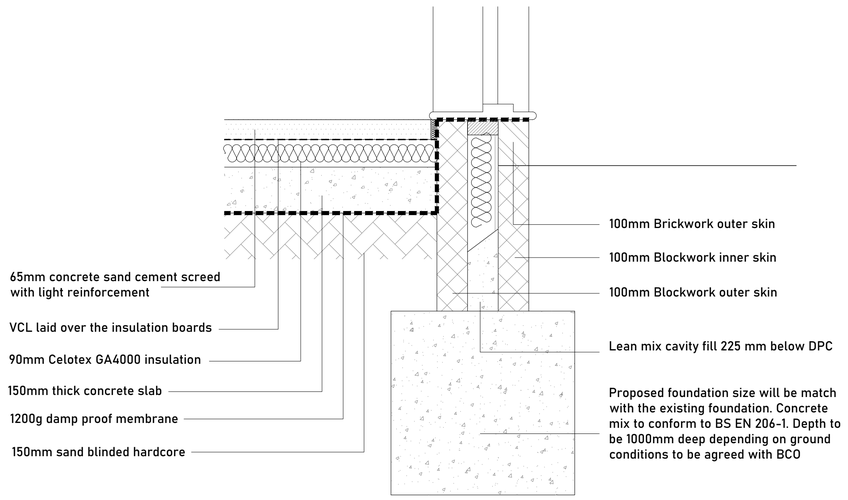


DETAIL A-01
1:10



DETAIL A-02
1:10



DETAIL A-03
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TITLE	ELEVATIONS & DETAILS
PROJECT STATUS	BUILDING REGULATIONS DRAWING
DATE	MAR 2024
REVISION	
SCALE	As Indicate @A1
SHEET No.	WD002
REFERENCE	0010/20/FA

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BUILDING REGULATIONS DRAWING

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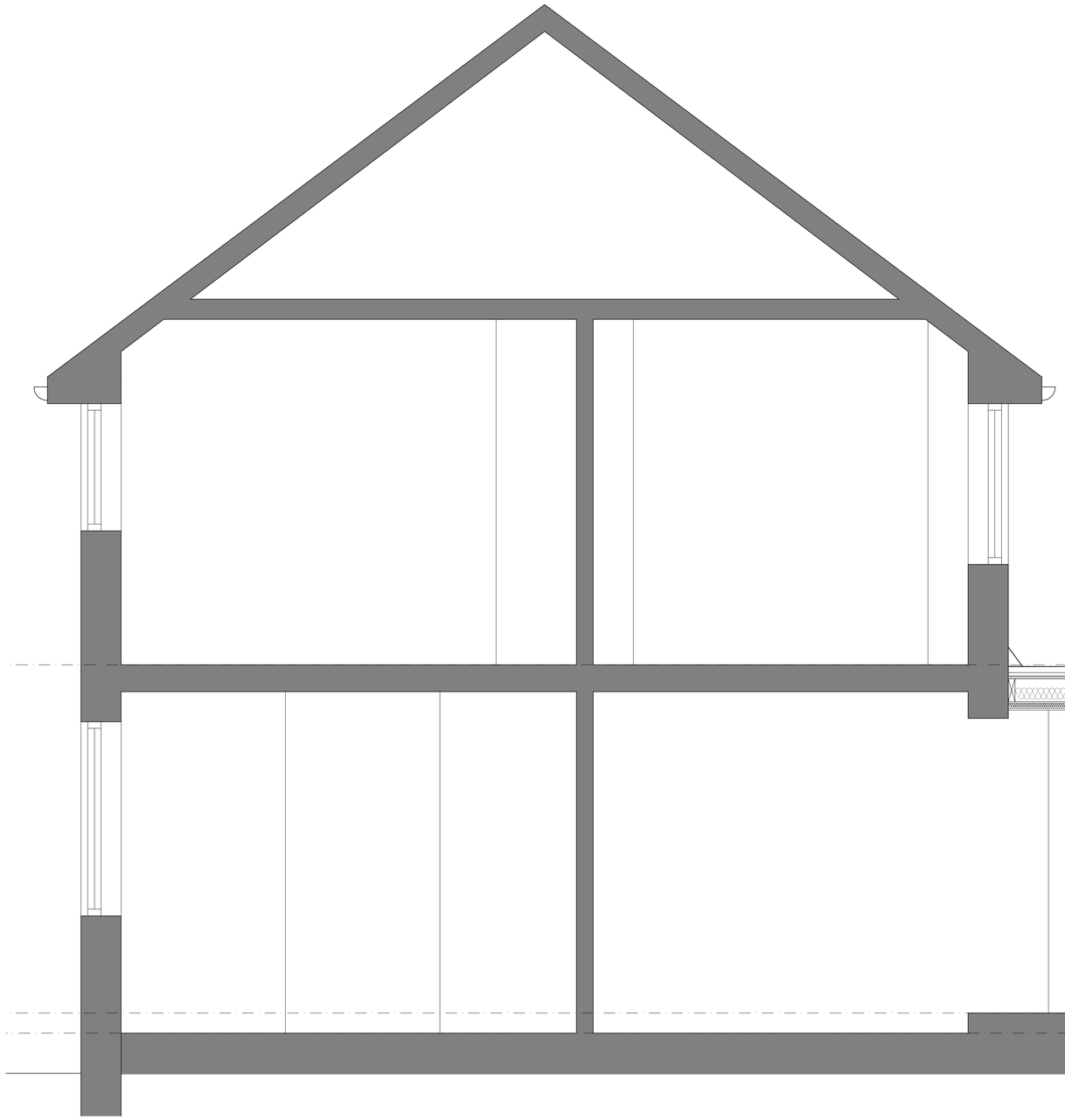
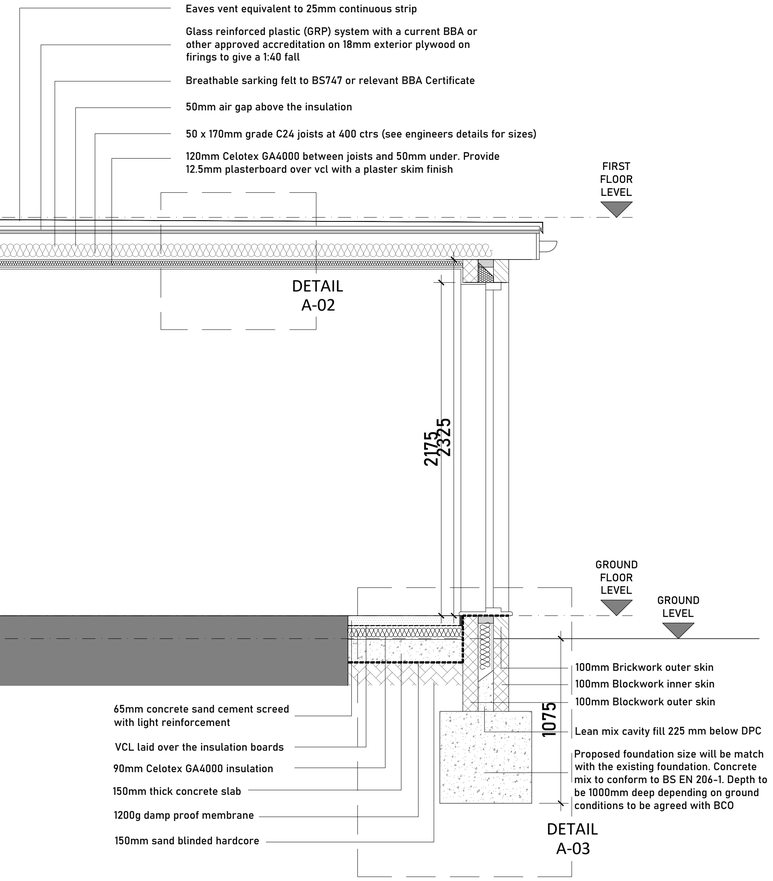


SECTION A-A
1:20



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ADDRESS
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Carshalton, SM5 1LU

TITLE
SECTION A-A

PROJECT STATUS
BUILDING REGULATIONS DRAWING

DATE	MAR 2024
REVISION	
SCALE	As Indicate @A1
SHEET No.	WD003
REFERENCE	0010/20/FA

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