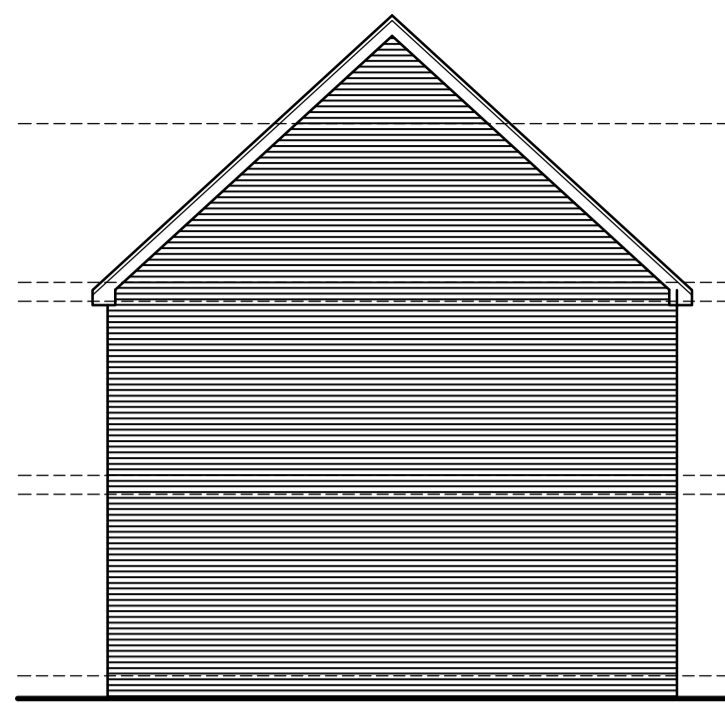


PROPOSED FRONT ELEVATION  
SCALE 1:100



PROPOSED SIDE ELEVATION  
SCALE 1:100



PROPOSED REAR ELEVATION  
SCALE 1:100

EXTRACT FOR SHOWER ROOM

Provide mechanical extract ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 l/s. Vent to be connected to light switch. Vent to have a 15min overrun if no window in room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. 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.

EXTRACT TO BATHROOM

Bathroom to have mechanical vent ducted to external air to provide min 15 l/s extraction. Vent to be connected to light switch and to have 15 minute overrun if no window in room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. 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.

EXTRACT TO WC

WC to have mechanical ventilation ducted to external air with an extract rating of 6 l/s operated via the light switch. Vent to have a 15min overrun if no window in room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. 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.

EXTRACT TO UTILITY ROOM

To utility room provide mechanical ventilation ducted to external air capable of extracting at a rate of 30 l/s. Internal doors should be provided with a 10mm gap below the door to aid air circulation. 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.

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, sealed to prevent entry of moisture. Internal doors should be provided with a 10mm gap below the door to aid air circulation. 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. Height of Cooker hood to be as manufacturer's specification or between 650mm and 750mm.

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

Controlable background ventilation at least 1700mm above floor level to be provided to habitable rooms and kitchens at a rate of min 8.000mm<sup>2</sup>, and to bathrooms at a rate of min 4000mm<sup>2</sup>. 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.

RAINWATER DRAINAGE

New rainwater goods to be new 110mm UPVC half round gutters token and connected into 68mm dia UPVC downpipes. Rainwater token 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 porous test to determine design and depth of soakaway.

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 14011-1 (+A1:2023).

INSPECTION CHAMBERS

Underground quality proprietary UPVC 450mm diameter inspection chambers to be provided at all connections, changes of level, changes in direction, and every 45m in straight runs. Inspection chambers to have bolt down double sealed covers in buildings and be adequate for vehicle loads in driveways.

ABOVE GROUND DRAINAGE

All new above ground drainage and plumbing to comply with BS EN 12056-2 for sanitary pipework. All drainage to be in accordance with Part H of the Building Regulations. Wastes to have 75mm deep anti-vac bottle traps and rodding eyes to be provided at changes of direction.

Size of wastes pipes and max length of branch connections (if max length is exceeded then anti-vac traps to be used).

Wash basin - 1.7m for 32mm pipe 3m for 40mm pipe.

Bath/shower - 3m for 40mm pipe 4m for 50mm pipe.

WC - 4m for 100mm pipe for single WC.

All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m.

Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.

Waste pipes not to connect on to SVP within 200mm of the WC connection.

Supply hot and cold water to all fittings as appropriate.

SOIL AND VENT PIPE

Svp to be extended up in 110mm dia UPVC and to terminate min 900mm above any openings within 3m. Provide a long radius bend at foot of SVP. Internal soil vent pipes to be wrapped in 25mm unfaced mineral fibre and enclosed in minimum two layers of 12.5mm plasterboard (15g/m<sup>2</sup> mass per unit area) to provide adequate sound proofing. Soil and vent passing through floors to be enclosed in ducts comprising of timber framing faced with fire line plasterboard to achieve half hour fire resistance. All ducts to be fire stopped at floor levels using mineral wool quilt packing.

AUTOMATIC AIR VALVE

WC to be connected to new 110mm UPVC soil pipe with accessible internal air admittance valve complying with BS EN 12380. Air admittance valve to be placed at a height so that the outlet is above the spill over level of the highest fitting.

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 inlets 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.

REGULATIONS 26, 26A AND 26C ENERGY PERFORMANCE

- The below to be submitted to building control before the work starts:
- Target primary energy rate and the dwelling primary the emission rate.
- The target emission rate and the dwelling emission rate.
- The target fabric energy efficiency rate and the dwelling fabric energy efficiency rate.
- A list of specifications to which the dwelling is constructed.

The dwelling primary energy rate, dwelling emission rate and dwelling fabric energy efficiency rate must not exceed the target primary energy rate, target emission rate and target fabric energy efficiency rate, respectively.

No later than 5 days after the work has been completed building control to be provided with:

- The as-built target primary energy rate and as-built dwelling primary energy rate.
- The as-built target emission rate and as-built dwelling emission rate.
- The as-built target fabric energy efficiency rate and as-built dwelling fabric energy efficiency rate.
- A list of specifications used in the as-built calculations, and whether the specifications have changed from those used in the design stage calculations.

All to be calculated using the Standard Assessment Procedure for Energy Rating of Dwellings, SAP 10.

BREL report to be given to building control along with photographic evidence of compliance.

Energy Performance Certificate (EPC) accompanied by a recommendation report in compliance with Regulation 29, is to be given to the owner of the building and submitted to building control, no later than 5 days after the work has been completed.

REGULATION 43 - AIR PRESSURE TESTING

An air pressure test to be carried out on each dwelling. Certificate to be given to building control by a person who is registered by Elmhurst Energy Systems Limited or the Air Tightness Testing and Measurement Association.

Air pressure tests to be performed following the guidance in the Approved Airtightness Test Methodology CIBSE TM23.

The measured air permeability to be not worse than 5 m<sup>3</sup>/(h.m<sup>2</sup>) at 50 Pa.

If the required air permeability is not achieved, then remedial measures should be undertaken and a new test carried out until satisfactory performance is achieved. The results of all pressure tests, including any test failures, should be reported to building control. A copy of the test results to be sent building control no later than 7 days after the test has been carried out.

AIR TIGHTNESS

Drawings to be provided which identify the position, continuity and extent of the air barrier. Incoming and penetrating services, ducts and cables, wherever possible, to be grouped to minimize how often the air barrier is penetrated. Grommets or flexible collars to be used around flexible services and sealed to the air barrier with air-sealing tape or sealant.

RAMPED APPROACH MAX 1:15 (WHERE GRADIENT EXCEEDING 1:20 BUT NOT 1:15)

Provide a ramped approach to the principal entrance door with a firm, even, non slip surface capable of supporting the weight of a wheelchair and its user (loose material such as gravel and shingle would not be suitable).

Ramp to be at least 900mm wide and with cross falls no greater than 1:40 and a maximum gradient of 1:15. Landings of 1.2m to be provided every 10m. Ensure the top and bottom landing are at least 1.2m clear of any door swing (provide intermediate landings if necessary).

WATER EFFICIENCY

The estimated water consumption not to exceed 125 litres per person per day in accordance with Approved Document G2. Water Efficiency to be calculated using the 'Water Efficiency Calculator for New Dwellings' and results submitted to building control before works commence on site.

Water calculation to be in compliance with Code for Sustainable Home Level 3/4 as stipulated by the local Planning Authority. Example calculation below:

WC 5/3 (actual flush)

Taps (excluding kitchen taps) 4

Baths 180

Shower 8

Kitchen sink taps 6

Washing machine 8.17 (not supplied)

Dishwasher 1.25 (not supplied)

Water recycling 0 (not supplied)

Predicted per capita consumption (Code) 103.28

HOT WATER SUPPLY

All bathrooms, washbasins, bidet, baths and showers to be provided with adequate hot and cold water supply in accordance with Approved Document G3. A washbasin with wholesome hot and cold water supply to be provided in or adjacent to all rooms containing a WC. A sink with hot and cold water also to be provided to any area where food is being prepared.

PROPOSED MATERIALS

WALLS - AMBERLEY MIXTURE (WINNERBERGER)

ROOF - GREY MARLEY ETERNIT

WAINDOWS - AGATE GREY

OVERHEATING MITIGATION

Adequate means of removing excess heat and limiting solar gains to be provided.

Compliance to be demonstrated by using either:

- The simplified method for limiting solar gains and providing a means of removing excess heat as set out in Section 1 of Approved Document O, Compliance check list (AD O Appendix B) to be provided to demonstrate compliance, or

- The dynamic thermal modelling method as set out in Section 2 of Approved Document O, using the guidance set out in - CIBSE TM59 methodology for predicting overheating risk.

Report to be provided that demonstrates that the building passes CIBSE's TM59 assessment of overheating. Consideration given to provision of adequate daylight as detailed in BS 8206-2 Code of Maintaining Adequate Level of Daylight, noise pollution and security.

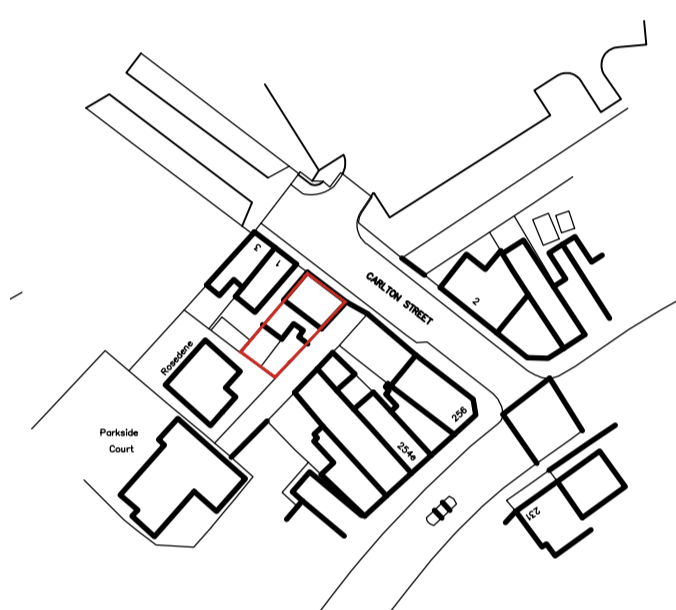
Solar gains in summer to be limited by fixed shading devices, which may be any of the following:

i. Shutters,

ii. External blinds,

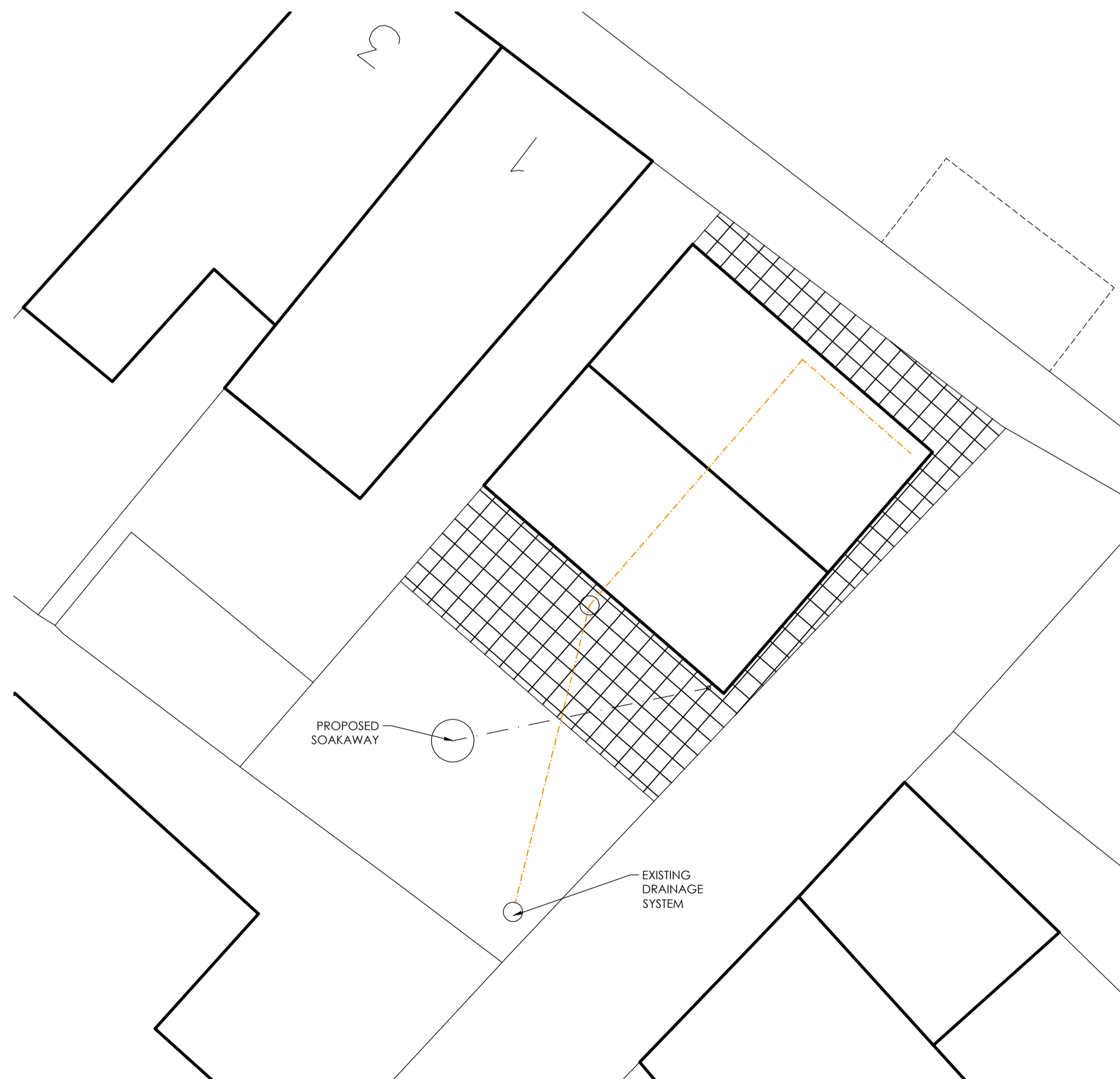
iii. Overhangs,

Awnings.



LOCATION PLAN

SCALE 1:1250



SITE PLAN

SCALE 1:100

UNVENTED PITCHED ROOF

(Imposed load max 0.75 kN/m<sup>2</sup> - dead load max 0.75 kN/m<sup>2</sup>) To achieve U-value 0.16 W/m<sup>2</sup>K. Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1:2004 Eurocode 5: Design of timber structures (+A2:2014). Suitable roofing tiles on 25 x 38mm tanalised sw treated battens on breathable sarking felt to relevant BBA Certificate. Supported on 47 x 150mm grade C24 rafters at max 400mm centres, max span 3.7m. Rafters supported on 100 x 50mm treated sw wall plates. Allow min 20mm air space to allow for drape of breathable felt. Insulation to be 130mm Celotex XR4000 rafters and 40mm TB4000 under. Fix 12.5mm plasterboard (joints staggered) over VCL. Finish with 3mm skim coat of finishing plaster to the underside of all ceilings. Restraint strapping - Ceiling joists tied to rafters (if raised collar roof consult Structural Engineer). 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls. Straps built into cavity, across at least 3 timbers with noggins. All straps to be 1200 x 30 x 5mm galvanized straps or other approved to BS EN 845-1 (+A1:2016) at 2m centres.

INTERNAL STUD PARTITIONS

Construct non load bearing internal masonry partitions using dense concrete blocks built off thickened floor slab. Wall to be fixed at 225mm centres with proprietary steel profiles or block bonded to all internal and external walls. Walls faced throughout with 12.5mm plasterboard on dabs with skim plaster finish or 13mm lightweight plaster.

INTERNAL MASONRY PARTITIONS

Construct non load bearing internal masonry partitions using dense concrete blocks built off concrete foundation. Concrete mix to conform to BS EN 206-1 (+A2:2021). Depth to Engineer's details and dependent on ground conditions, depth to be agreed with BCO. Wall to be fixed at 225mm centres with proprietary steel profiles or block bonded to all internal and external walls. Walls faced throughout with 12.5mm plasterboard on dabs with skim plaster finish or 13mm lightweight plaster.

INTERNAL LOADBEARING MASONRY PARTITIONS

Construct load bearing internal masonry partitions using dense concrete blocks built off concrete foundation. Concrete mix to conform to BS EN 206-1 (+A2:2021). Depth to Engineer's details and dependent on ground conditions, depth to be agreed with BCO. Wall to be fixed at 225mm centres with proprietary steel profiles or block bonded to all internal and external walls. Walls faced throughout with 12.5mm plasterboard on dabs with skim plaster finish or 13mm lightweight plaster.

INTERMEDIATE FLOORS

Intermediate floor to be 25mm 1&g flooring grade chipboard or floorboards laid on C24 joists at 400mm cts (see Engineer's calculation for sizes and details). Lay 100mm Rockwool mineral fibre quilt insulation min 10kg/m<sup>2</sup> or equivalent between floor joists. Ceiling to be 12.5 Fire-Line plasterboard with skim plaster set and finish. Joist spans over 2.5m to be studded at mid span using 38 x 38mm herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). In areas such as kitchens, utility rooms and bathrooms, flooring to be moisture resistant grade in accordance with BS EN 312. Identification marking must be laid upper most to allow easy identification. Provide lateral restraint where joists run parallel to walls. Floors are to be strapped to walls with 1200mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 (+A1:2016) at max 2.0m centres, straps to be taken across minimum 3 no. joists. Straps to be built into walls. Provide 38mm wide x ¼ depth solid noggins between joists at strap positions.

STAIRS

Dimensions to be checked and measured on site prior to fabrication of stairs. Timber stairs to comply with BS585 and with Part K of the Building Regulations. Max rise 220mm, min going 220mm. Two risers plus one going should be between 550 and 700mm. Tapered treads to have going in centre of tread at least the same as the going on the straight. Min 50mm going of tapered treads measured at narrow end. Pitch not to exceed 42 degrees. The width and length of every landing should be at least as great as the smallest dimension of the flight above or below a landing at the bottom of a flight should leave a clear space of at least 400mm across the full width of the flight. Cupboard doors may open across the top landing where the swing is a minimum of 400mm from the tread. Min 2.0m headroom measured vertically above pitch line of stairs and landings. Handrail on staircase to be 900mm above the pitchline, handrail to be at least one side if stairs are less than 1m wide and on both sides if they are wider. Ensure a clear width to local authority minimum 600mm. Balustrading designed to be unclimbable and should contain no space through which a 100mm sphere could pass. Allow for all structure as designed by a Structural Engineer.

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

Internal energy efficient light to be fitted as calculated within the dwelling primary energy rate and dwelling emissions rate for account for the efficacy of lamps. Provide low energy light fittings lamps with a luminous efficacy better than 80 lamp lumens per watt. All fixed lighting to have lighting capacity (lm) 185 x total floor area.

HEATING

All radiators to have TRVs. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities by laws, the Gas Safety (Installation and Use) Regulations 1998 and IEI Regulations. The energy performance of the new components to be assessed. The results should be recorded and given to the building owner. All accessible pipes to be insulated to the standards in Table 4.4 Approved Document L.

NEW GAS BOILER

Heating and hot water will be supplied via a wall mounted condensing vertical balanced flue pressurised boiler with a minimum efficiency of 92% (as defined in ErP) and boiler control interlocks. Each room to be fitted with thermostatic radiator valves and all necessary zone controls. Energy-Related Products Directive for Standard Assessment Procedure modelling, SEDBUK values to be used. The energy performance of the new components to be assessed. The results to be recorded and given to the building owner. All pipes to be insulated to the standards in Table 4.4 Approved Document L. All parts of the system including pipework and emitters should be sized to allow the space heating system to operate effectively and in a manner that meets the heating needs of the dwelling, at a maximum flow temperature of 55°C or lower. The system will be installed, commissioned and tested by a GAS SAFE Registered Specialist and a certificate issued to demonstrate that the installation complies with the requirements of Part L. Carbon monoxide alarm to be positioned near boiler. Boiler flue to be installed in accordance with Approved Document J, British Gas requirements and manufacturer's guidance. Flues to be terminated externally with metal terminal guard and enclosed a minimum of 600mm away from any openings into the building. Where the flue passes through a wall, floor or roof, position in a non-combustible sleeve. Where the flue is within a void provide appropriate and sufficiently sized access to allow inspection of the flue. No combustible materials to be within 50mm of the flue. Provide new metered gas supply to the dwelling. All works to comply with gas authority standards. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities by laws, the Gas Safety (Installation and Use) Regulations 1998 and IEI Regulations. Battery operated or mains-wired Carbon monoxide alarm to be fitted between 1m and 3m of the boiler in compliance with Approved Document J.

MEANS OF ESCAPE - Fire doors

Form a protected escape stairway by providing half hour fire resistance to all partitions, floors and ceilings. Stairway to be protected at all levels and to lead directly to an external door at ground level (no inner rooms allowed). All doors on to the stairway must be FD20 rated fire doors to BS 474, fitted with intumescent strips rebated around sides & top of door or frame if required by BCO). Where applicable, any glazing in fire doors to be half hour fire resisting and glazing in the walls forming the escape route enclosure to have 30 minutes fire resistance to at least 1.1m above the floor level or stair pitch line.

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 LD2 standard. System to be mains powered with battery back up. Smoke detectors to be provided to:

- Each hallway and landing
- Every principal living room (as required by the building control officer)

An interlinked heat detector to be provided in the kitchen. 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 detectors to be 300mm from the walls and light fittings.

ROOF LIGHTS

Min U-value of 1.6 W/m<sup>2</sup>K. Roof lights to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufacturer's instructions, with rafters doubled up to sides and suitable flashings provided.

DOORS

Opaque doors (less than 30% glazed area) and semi-glazed doors (30-60% glazed area) to achieve U-value of 1.0 W/m<sup>2</sup>K. Glazed doors with greater than 60% glazed area to achieve U-value of 1.2 W/m<sup>2</sup>K. Glazed areas to be double glazed with argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS EN 12600:2002, BS EN 14179 or BS EN ISO 12543-1 and Part K (Part N in Wales) 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.

WINDOWS

Windows to be double glazed with argon filled gap and with a soft coat low-E glass. Window Energy Rating to be Band A or better and to achieve U-value of 1.2 W/m<sup>2</sup>K. 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.

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ARCHITECTURAL SERVICES		Email: info@whiteaguspартnership.co.uk Web: www.whiteaguspартnership.co.uk			
Project:	Client:				
PROPOSED DETACHED DWELLING CARLTON STREET, CUDWORTH S72 8ST		MR A. SELBY			
Drawing Title:	Date:	Scale:			
ELEVATIONS AND SPECIFICATION	JUNE 2024	1:50 & 1:100 @ A1			
Ref:	Dwg. No.:	Rev.:			
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Date	Suffix	Description	Date	Suffix	Description