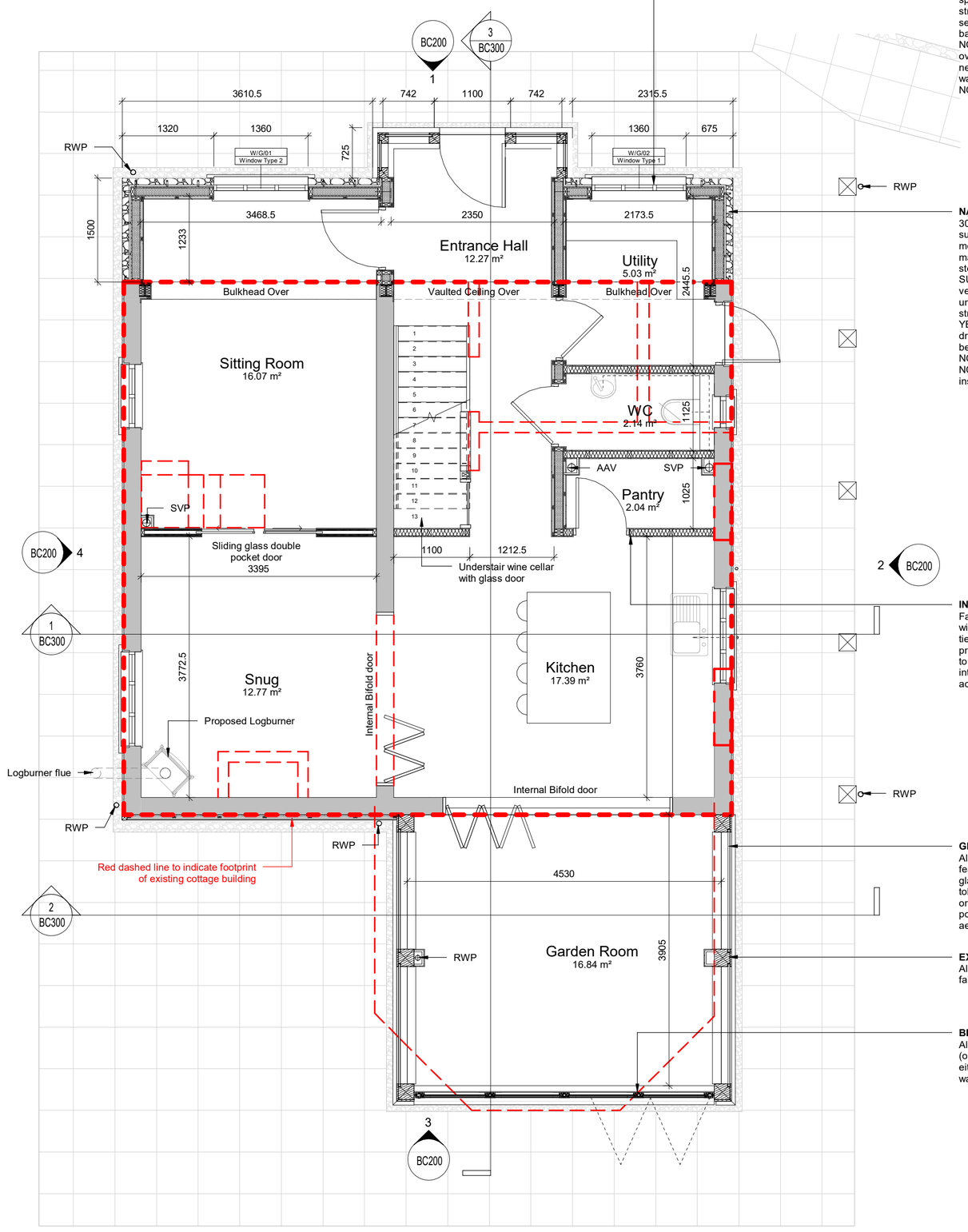
1 BC100 GA - 00_Proposed Ground

Scale - 1 : 50



EXTERNAL SASH WINDOWS - REPLACED EXISTING AND NEWLY PROPOSED
All windows to be BBA approved timber thermally broken frames with internally beaded sealed double glazing units with 6 split per pane glazing bars. Specified windows to have French Grey frame colour. Glazing bars to match external French Grey frame colour. Frames to be mechanically fixed with galvanised frame cramps to inner leaf SIPs structure spaced at 150mm from corners and 300mm centres elsewhere. Frames to be weather stripped and draught sealed and to be pointed externally with one part non staining facade sealant to ISO 11600 Type F to suit joint width and depth with closed cell polyethylene backing strip.
NOTE: All windows to be installed in such a position that the internal face of the frame overlaps the thermal line by a minimum of 25mm. Extended sill units to be provided as necessary to achieve a minimum of 50mm overhang from the outside face of the external wall.
NOTE: The supplied window system to achieve a U-Value of maximum **1.2W/m²K**.

NATURAL FLINT FACING WALLS WITH SIPS INTERNAL STRUCTURE
304.5mm external wall comprising of 100mm natural flint external facade installed with suitable hydraulic lime mortar with a typical mix of 1:lime and 2.5:sand. SURECAV25 moulded cavity space system to provide structural backing to natural flint buildup and maintain open 25mm cavity fixed through to internal SIPs leaf using standard stainless steel wall ties (Ancon STF-50) with additional support using frame ties fixed throgh the SURECAV25 pods. Wall ties fixed to fall towards external skin spaced at 450mm centres vertically and 750mm centres horizontally. Wall ties spaced with 225mm horizontally from un-bonded jambs of openings at 300mm maximum vertical centres. Kingspan 142mm TEK structural insulated panel (SIP) (or similar approved) to form internal leaf structure with YBSinsulation Breather Foil-FR (or similar approved) foil faced breathable membrane dressed between external SIPs face and SURECAV25. Suitable VCL to be installed between SIPs and internal plasterboard backing suppport.
NOTE: Wall construction to achieve U-Value of **0.18 W/m²K.**
NOTE: To reduce cold bridging ensure that the SIPs panel butts and joins to the roofing insulation to form continuous thermal barrier.

INTERNAL LINING PARTITIONS
Fabricated on site using regularised 94x44mm softwood vertical studs at 400mm centres with one line of solid noggins at mid height. 94 x 44mm head and sole plates mechanically tied to floor and ceiling for lateral support. Provide additional noggins as necessary to provide fixings for radiators etc. Fix 12.5mm Gyproc Wallboard tapered edge plasterboard to timber studs with Gyproc 38mm drywall timber screws with minimum 25mm penetration into timber. All joints taped and prepared to receive a 3mm Gyproc Thistle finish coat, all in accordance with manufacturer's recommendations.

GLAZING ELEMENTS OF TIMBER FRAME CONSTRUCTION
All glazing forming part of the exposed timber frame construction and bespoke timber feature windows to bedrooms to be sealed double glazing units fabricated to suit by the glazing supplier. Glazing to be mounted within a cut rebate within the timber with a 5-8mm tolerance to allow for natural movement. Units to be sealed with expanding adhesive foam or EPDM sealing strips. Seasoned timber capping board cut to the same width as frame positioned to the external face to conceal glazing connections and to present frameless aesthesic.

EXPOSED STRUCTURAL TIMBER ELEMENTS
All exposed structural timber elements to be suitable treated Douglas fir strictly to fabricator's detail and specification.

BI-FOLD DOORS
All bi-fold doors to be Reynaers CF77 Aluminium Bifold Doors with [Low Threshold] Option (or similar approved) finished in anthracite grey colour (RAL 7016). All bifold doors to either receive extended sill to allow for water run-off into channel drains or directed waterproof membrane below ground with sloping threshold stone towards drain.

2 BC100 GA - 01_Proposed First

Scale - 1 : 50

ROOF STRUCTURE - VAULTED CEILINGS TO ENTRANCE HALL
Pitched 47 x 200mm rafters to form roof structure with 1 x layer of 120mm Kingspan Kooltherm K107 between rafters with top face of boards battened to ensure a 25mm clear gap (based on 200mm rafters) between underside of roof underlay and top of boards to provide a void to drape roof underlay. Provide a continuous layer of TLX Gold multi-foil insulation draped over rafters with Kingspan boards flush with underside of rafter. Tiling to be battened over all-in-one TLX membrane in strict accordance with manufacturer's guidelines. Knauf 12.5mm Plasterboard Tapered Edge with end joints staggered and fixed to u/s of timber rafters at 450mm centres with 60mm Gyproc Drywall screws. Before skimming reinforce joints using Gyproc Joint Tape and pre-fill any gaps between boards exceeding 3mm.
NOTE: Pitched roof construction to achieve a maximum U-Value of **0.18W/m²K**.

ROOF STRUCTURE - COLD ROOF TO SINGLE STOREY GROUND EXTENSION
Pitched 47 x 200mm rafters to form roof structure with a continuous layer of TLX Gold multi-foil insulation draped over rafters. Tiling to be battened over all-in-one TLX membrane in strict accordance with manufacturer's guidelines.
47 X 150mm timber joists to form ceiling line structure with 150mm Celotex XR4000 between ceiling joists and 25mm Celotex TB4000 (or similar approved) rigid insulation installed over timber joists.12.5mm Gypsum wallboard plasterboard with end joints staggered and fixed to u/s of timber joists at 450mm centres with 25mm Gyproc Drywall screws. Finish ceilings with thistle board finish. Before skimming reinforce joints using Gyproc joint tape and pre-fill any gaps between boards exceeding 3mm.
NOTE: Pitched roof construction to achieve a maximum U-Value of **0.18W/m²K**.

RENDERED BLOCKWORK WALLS WITH SIPS INTERNAL STRUCTURE
304.5mm external wall comprising of external leaf 100mm 7N concrete blockwork to BS 6073 with a density of no less than 1500kg/m³. Applied render to be either a through colour proprietary system or finished with 3 coats of sand/cement render (1:1:5 to 6, cement:lime:sand), applied strictly in accordance with Manufacturer's specification and colour to match areas of existing walls with applied Prooftherm as stated above.SURECAV25 moulded cavity space system to maintain open 25mm cavity fixed through to internal SIPs leaf using standard stainless steel wall ties (Ancon STF-50) with additional support using frame ties fixed throgh the SURECAV25 pods. Wall ties fixed to fall towards external skin spaced at 450mm centres vertically and 750mm centres horizontally. Wall ties spaced with 225mm horizontally from un-bonded jambs of openings at 300mm maximum vertical centres. Kingspan 142mm TEK structural insulated panel (SIP) (or similar approved) to form internal leaf structure with YBSinsulation Breather Foil-FR (or similar approved) foil faced breathable membrane dressed between external SIPs face and SURECAV25. Suitable VCL to be installed between SIPs and internal plasterboard backing suppport.
NOTE: Wall construction to achieve U-Value of **0.18 W/m²K.**
NOTE: To reduce cold bridging ensure that the SIPs panel butts and joins to the roofing insulation to form continuous thermal barrier.

ROOF STRUCTURE - EXTERNAL SHELTER
Pitched 47 x 200mm rafters to form roof structure with weather treated Douglas fir 100x 25mm cladding battens with 5mm spacings fixed to underside of rafters installed across rafter direction to provide soffit line. Tiling to be battened with Proctor non-woven polypropylene breather membrane or similar approved lapped 100mm horizontally and vertically, 150mm at hips, 300mm at valleys and sealed with recommended adhesives. Membrane to be draped over rafters to allow for water run off under tiling battens. Membrane to discharge over fascia into rainwater gutters on proprietary eaves carrier. Where membrane meets TLX gold to roof areas housing internal spaces, membrane to overlap and tape to seal over TLX to suit. All in strict accordance with manufacturer's instructions and BBA certificate.

ROOFLIGHTS
All rooflights to be Roof Maker Luxlite Frameless Fixed in anthracite grey colour (RAL 7016) 700x1200mm double glazed units. Rooflights to be fitted in strict accordance with manufacturer specification and detail. Supplied rooflights to include proprietary flashing kits.

GLAZING ELEMENTS OF TIMBER FRAME CONSTRUCTION
All glazing forming part of the exposed timber frame construction and bespoke timber feature windows to bedrooms to be sealed double glazing units fabricated to suit by the glazing supplier. Glazing to be mounted within a cut rebate within the timber with a 5-8mm tolerance to allow for natural movement. Units to be sealed with expanding adhesive foam or EPDM sealing strips. Seasoned timber capping board cut to the same width as frame positioned to the external face to conceal glazing connections and to present frameless aesthesic.

IMPORTANT NOTE: Extension and Alterations
These drawings have been prepared without the benefit of exposing underlying construction and therefore assumptions have been made. Prior to commencement the contractor must contact designer to agree the necessary scope of investigation works, to confirm on site conditions. It should be noted that results of these investigations may require the drawings and structural design to change.

IMPORTANT NOTE: General
All dimensions are in millimetres (mm). Where dimensions are not given, drawings must not be scaled. In the event of any detail or dimensional conflict between these drawings and site conditions, the matter must be referred back to designer for clarification.

All dimensions and conditions are to be checked on site by the contractor prior to commencing any work.

Drawings to be read in conjunction with Structural Engineer's, Mechanical and Electrical Engineer's, Specialist Manufacturer's and Sub-contractor's drawings and specification.

WINDOWS AND DOORS

ENTRANCE DOORS
Solid Douglas Fir entrance door to achieve an area weighted average U-Value of at least **1.8W/m²K** (Table 2 AD Part L1B). Style of front entrance door to be confirmed by client.

EXTERNAL SASH WINDOWS - REPLACED EXISTING AND NEWLY PROPOSED
All windows to be BBA approved timber thermally broken frames with internally beaded sealed double glazing units with 6 split per pane glazing bars. Specified windows to have French Grey frame colour. Glazing bars to match external French Grey frame colour. Frames to be mechanically fixed with galvanised frame cramps to inner leaf SIPs structure spaced at 150mm from corners and 300mm centres elsewhere. Frames to be weather stripped and draught sealed and to be pointed externally with one part non staining facade sealant to ISO 11600 Type F to suit joint width and depth with closed cell polyethylene backing strip.
NOTE: All windows to be installed in such a position that the internal face of the frame overlaps the thermal line by a minimum of 25mm. Extended sill units to be provided as necessary to achieve a minimum of 50mm overhang from the outside face of the external wall.
NOTE: The supplied window system to achieve a U-Value of maximum **1.2W/m²K**.

GLAZING ELEMENTS OF TIMBER FRAME CONSTRUCTION
All glazing forming part of the exposed timber frame construction and bespoke timber feature windows to be sealed double glazing units fabricated to suit by the glazing supplier. Glazing to be mounted within a cut rebate within the timber with a 5-8mm tolerance to allow for natural movement. Units to be sealed with expanding adhesive foam or EPDM sealing strips. Seasoned timber capping board cut to the same width as frame positioned to the external face to conceal glazing connections and to present frameless aesthesic.

BI-FOLD DOORS
All bi-fold doors to be Reynaers CF77 Aluminium Bifold Doors with [Low Threshold] Option (or similar approved) finished in anthracite grey colour (RAL 7016). All bifold doors to either receive extended sill to allow for water run-off into channel drains or directed waterproof membrane below ground with sloping threshold stone towards drain.

ROOFLIGHTS
All rooflights to be Roof Maker Luxlite Frameless Fixed in anthracite grey colour (RAL 7016) 700x1200mm double glazed units. Rooflights to be fitted in strict accordance with manufacturer specification and detail. Supplied rooflights to include proprietary flashing kits.

OVERHEAD BACKGROUND VENTILATION TO WINDOWS/DOORS
All windows/doors to be fitted with integral through-vent, weatherproof adjustable trickle vents complete with insect mesh to give area of opening not less than 8000mm² to all habitable rooms and 4000mm² to kitchen.

EXTERNAL TIMBER WINDOW FEATURE SILLS
All casement windows to receive externally fixed Douglas fir timber feature sills (or heads depending on location, please review proposed elevations). Timber features to protrude 100mm further either side in addition to window width. Douglas fir to be treated for suitable external exposure in accordance with timber fabricator recommendations.

STEEL BEAMS
Steel beam sizes and pad stones to Structural Engineer's design and specification. Where possible all steel beams are to be incorporated within the floors or ceiling voids. Steel beams not concealed within the floor zone to be provided with minimum 30 minutes fire resistance by intumescent coating or casement protection. Steel beams to be delivered to site pre-painted and/or pre-primed with compatible primer, with 2 coats of zinc-phosphate paint.

ALUMINIUM FASCIA AND SOFFIT BOARDS
Marley Alutec (or similar approved) EVOKE aluminium fascia type B system (standard white) fixed to rafters (or perimeter joists depending on location) with weather resistant fixings at 600mm centres. Marley Alutec vented aluminium soffit boards (standard white) to be installed to allow for continuous roof construction ventilation. All in accordance with manufacturer's instructions. Provide treated softwood carcass as necessary to support soffit.

ALUMINIUM RAINWATER GOODS
All rainwater goods to be Marley Alutec Aluminium Traditional Half Round 125mm gutters with 76mm Aluminium Traditional Downpipe (or similar approved) in anthracite grey colour (RAL 7016) with all necessary stopped ends, outlets, fixing brackets etc. laid in accordance with with BS 5955, BS 8301 and diagram 9 of Section 2 in Part H1 of the Building Regulations.

SERVICES

ELECTRICAL - GENERAL INSTALLATION
The work comprises of the design, supply and installation of new electrical services to the new dwelling. The supply and installation of small power distribution, lighting installation including the supply and installation of luminaires, testing and commssioning. All sockets to be positioned above 450mm, and light switches below 1.2m as set out in Approved Document M, Diagram 29.

All in accordance with BS7671 (The IEE Regulations) and to Electricity Board's requirements. Existing electricity supply to be inspected for suitability to service new extension by qualified electrician. The installation will comply with the current rules and regulations of the local electrical supply company and any other relevant authority.

The installation will comply with the current relevant parts of the Building Regulations, in particular Part L1 The Conservation of Heat and Power and Part P Electrical Safety.

The installation will comply in every respect with the 16th Edition of the Regulations for Electrical Installations as issued by the Institute of Electrical Engineers and all guidance notes.

The installation shall also comply with the current rules and regulations of the Local Electricity supplier, and any other relevant authority. Upon completion of the installation part thereof, the sub-contractor shall supply to the client a "Completion Certificate" and "Inspection Certificate" as described respectively within the IEE Regulations.

ELECTRICAL - COMPLIANCE WITH PART P
In order to comply with Approved Document P of the Building Regulations, the Electrical Contractor must belong to a qualifying body recognised on the Government's 'Competent Persons Scheme' so that the new electrical works can be self certified in order for compliance. The competent Electrical Contractor will be responsible for the design, installation and testing of all electrical work. Prior to completion the Council should be satisfied that Part P has been complied with. This will require an appropriate BS 7671 electrical installation certificate to be issued by a person competent to do so. The competent electrician will have to belong to the Government approved scheme of which a number have already been given approval. These are NICEIC, ELECSA Ltd, British Standards Institution and Zurich Certification. A certificate of compliance will be required from the Electrical Contractor to be provided to the Building Control Dept. and the client immediately after completionof the electrical works (no later than 30 days after completion).

BUILDER'S WORK IN CONNECTION WITH SERVICES INSTALLATION

CHASING CONDUIT TO BLOCKWORK WALLS
In walls, the depth of horizontal chases should be no greater than 1/6th of the thickness of a single leaf at any point, and the depth of vertical chases should be no greater than 1/3rd of the thickness of a single leaf at any point.

ADJUSTMENT OF EXISTING SERVICES
It is likely that some of the existing walls to be removed or adjusted for the new structure will have electrical, heating or plumbing services attached that will need to be relocated or capped off as the case may be to the client's requirements.These items have not been indicated on the drawings for clarity but the contractor is to satisfy himself as to the extent of these adjustment works deemed to be included by inspecting on site prior to tendering.

CONDUIT WITHIN SCREED
Reinforcement: Overlay with reinforcement selected from 500mm wide strip of steel fabric to BS 4483, reference D49, or welded mesh manufactured in rolls from mild steel wire minimum 1.5mm diameter to BS 1052, mesh size 50 x 50mm. Placing reinforcment mid depth between top of conduit and the screed surface. Screed cover over conduit (minimum) of 25mm.

NOTCHING OF TIMBER JOISTS
General: Avoid if possible.
Sizes (MAX): Minimum needed to accomodate services.
Position: Do not locate near knots or other defects.
Notches and holes in the same joist: Minimum 100mm apart horizontally.
Notches in joists: Locate at top. Form by sawing down to a drilled hole.
Depth (MAX): 0.125 x joist depth.
Distance from supports: Between 0.07 and 0.25 x span.
Holes in joists: Locate at neutral axis.
Diameter (MAX): 0.25 x joist depth.
Centres (MAX): 3 x diameter of largest hole.
Distance from supports: 0.25-0.40 x span.
Notches in roof rafters: NOT PERMITTED.

DRAINAGE

ROOF RAINWATER RUN-OFF
All newly introduced rainwater downpipes to be connected to existing property's rainwater disposal mains system subject to application to the property water supplier for additional coverage.

If additional coverage is not supported, 100mm diameter upvc surface water drains to be bedded and surrounded in 150mm pea shingle (1:60 falls). New soakaway to be constructed in accordance with BRE Digest 365, minimum of 5.0m away from any building. Rubble filled soakaways should be capped with a thin layer of concrete or polythene sheet. Provide rodding access points at all changes in direction.

BELOW GROUND DRAINAGE
All below ground drainage capacity and layout to be reviewed and newly proposed layout to be co-ordinated with Structural Engineer.

Notes:

DRAWING INFORMATION
Dimensions to be checked on site. All in millimetres (mm) unless stated. Not to be scaled.
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Comments:

0 1 2 3m
Scale 1:50

Drawn by: TS Date: 17.06.21

Checked by: GW Date: 17.06.21

Issued for: BUILDING CONTROL

Project: - -

Client: -

Drawing: Proposed GA Plans

Project No: 21023 Dwg No: BC100

Scale: As indicated@A1

Rev:

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