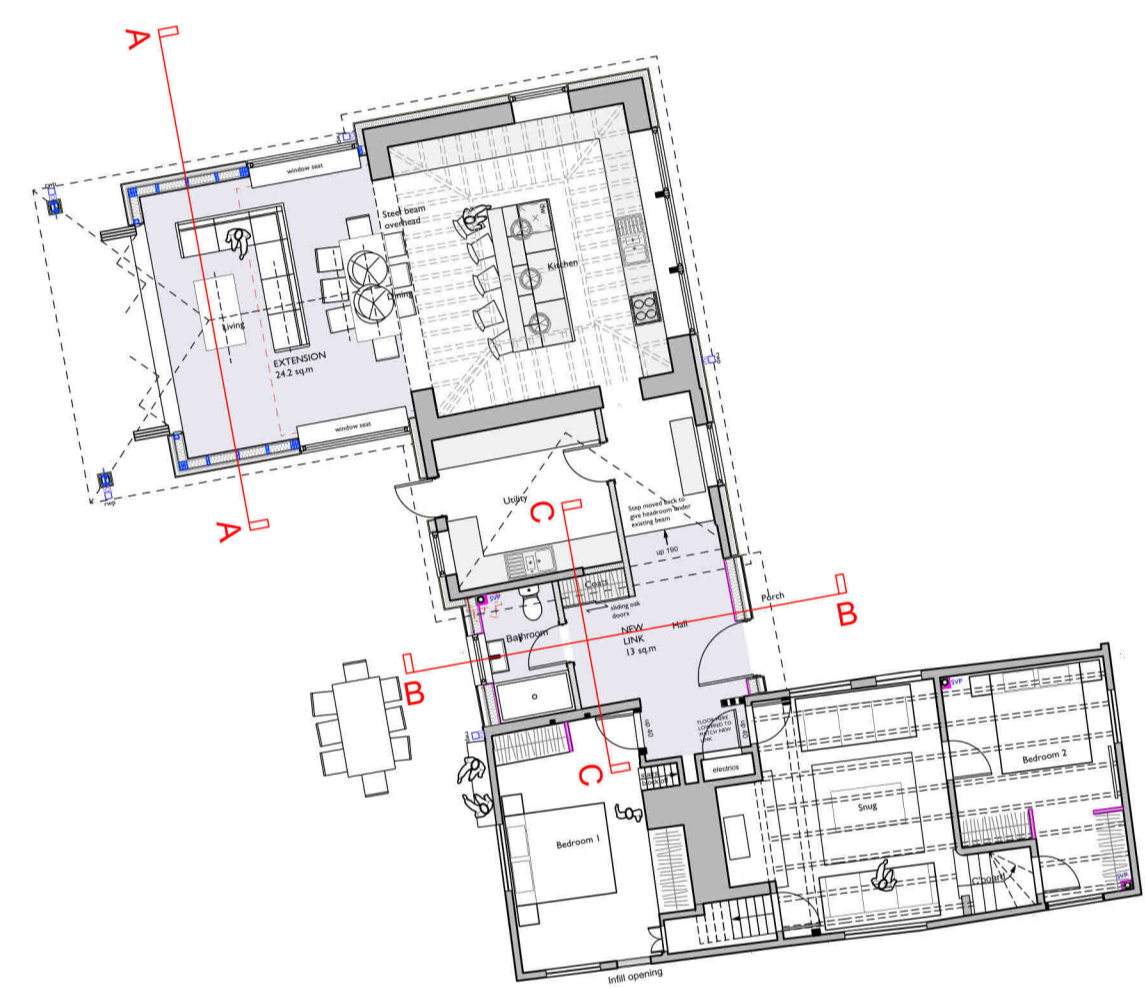


- This drawing is to be read in conjunction with other engineers, designers, subcontractors and specialists drawings and any associated specifications and details. Any discrepancies are to be reported to the CA/Client or relevant project manager before proceeding with the work.
- All workmanship and materials are to be carried out in accordance with current British Standards, Codes of Practice and good building practice.
- All work to be to the satisfaction of the Building Control checking authority.
- Do not scale this drawing. All dimensions to be noted. Contractor to check all dimensions on site before carry out works.
- Where existing elements are exposed or investigated during the building works and are found to be not as assumed then contractor to confirm and notify CA/design team/client as applicable before proceeding with works.
- The contractor is responsible for site health & safety including taking all necessary precautions to ensure stability of both existing and proposed structures at all times during construction. Contractor to contact structural engineer immediately where any doubts arise on site.
- All services/utilities are to be located and protected as necessary by the contractor prior to the commencement of the works.
- This drawing is for the private and confidential use of the client for whom it was undertaken and it should not be reproduced in whole or in part or relied upon by third parties for any use without the express written authority of Beech Architects Limited.

RESIDUAL RISK TO HEALTH & SAFETY

- Whilst we have made every attempt to design out risk associated with our design some risks may remain. Significant residual risks relating to our design are detailed below with our assessment of how these may be managed. The contractor remains responsible for identifying and managing risk associated with construction processes and site safety and these risks should be identified within the contractor's Construction Health & Safety Plan all operations carried out in accordance with HSE requirements. Current Code of Practice and compliance with CDM 2015 regulations.
- Numbered triangles further highlight specific locations where residual risks remain:
- Access equipment for cleaning and maintenance will be required and works undertaken by qualified and competent person.
 - The risks associated with working at height should be reduced by using appropriate scaffold, platforms, mobile elevating equipment, safety nets or fall arrest systems as deemed appropriate by the contractor's review and assessment of the construction methodology & process.
 - The locations of all existing services and utilities must be confirmed prior to commencement of the works.
 - The engineer must be contacted immediately where unsure or concern raised regarding the stability of any structure.



NEW TILED DUO PITCHED ROOF TO EXTENSION AND GARDEN BUILDING - U VALUE 0.13W/M2K

Tiles: New clay pantile roof covering: William Blyth 'Barco' Old English Pantiles weathered, <https://williamblyth.co.uk/our-products/barco/> fixed and installed in strict accordance with manufacturers instructions. Headlap / gauge to comply with manufacturers instructions. NOTE: Installation of all roof tiling is to be strictly in accordance with the current version of BS5534, and BS 8000: Part 6: the British Standard Code of practice for workmanship on building sites. All single lap tiles mechanically clipped or nailed (in certain areas both clipped and nailed), and all ridge, hip, valley, perimeter and verge tiles mechanically fixed and mortar bedded.

Ridge: Half round clay ridge tiles to match existing, mortar bedded using 1:3 mortar mix.

Valley: Code 4 lead valley, installed strictly in accordance with current Lead Sheet Association details (www.leadsheet.co.uk).

Tiling battens and counter battens are to comply with BS 5534. Tiling battens: 50 x 25mm pressure treated sw tiling battens fixed with galvanized or stainless steel nails to counterbattens.

Breather Membrane: Proctors Roofshield breather membrane fixed in strict accordance with manufacturers instructions. Min 150mm vertical laps and 300mm horizontal laps. To lap over ridge min 150mm over sheet other side. To lap eaves trays by 150mm and all laps taped as manufacturers instructions.

Counter battens: Treated sw counter battens 25 x 50mm galvanized or stainless steel screwed to rafters (min 50mm embedment).

Roof structure: Roof structure all in accordance with structural engineers details. Klin dried oak collars (exposed in room) Oak requires stainless steel fixings (where metal fixings) for material compatibility.

3mm Galvanised holding down straps over wall plates @ max 1m centres all in accordance with structural engineers details.

Gable walls should be strapped to roofs as shown in Diagram 16(a) and (b) of Building Regulation Approved Document A with galvanised tension straps at no more than 2m centres. Noggins or packers should be provided between minimum 3 number rafters/trusses to ensure adequate fixing. All as per structural engineers requirements. Further bracing and fixing to roof structure all in accordance with structural engineers details. Structural engineer to provide calculations for roof structure to building control and for CA approval.

Insulation between rafters: 200mm Recticel GP insulation installed to fit tightly between rafters, with 50mm clear ventilation zone maintained above insulation (vent zone includes counter battens).

Sheathing board: 9mm thick OSB sheathing board to underside of the rafters all as structural engineers details. NOTE: The sheathing board must remain at the underside of the rafters to prevent interstitial condensation.

Insulation below rafters: 80mm Recticel Eurothane GP insulation board to underline rafters. Insulation board must be sealed with foil tape as specified by manufacturer to form secondary continuous vapour barrier. Spray foam installed along all edges when boards are butted together to ensure completely continuous insulation. All joints on face foil taped. Take particular care at eaves, ridges and valleys to ensure no gaps are present anywhere in insulation.

Vapour barrier: Min 1000 gauge black polythene vapour and air barrier continuous to underside of entire roof with min. 150mm laps and double sided black tape to ensure air tight construction. Lap and tape to provide a completely airtight construction. Use Dafa or similar approved vapour barrier tapes. Any penetrations to membrane to be fitted with air tight collars and sealed.

Sloping ceiling: 12.5mm plasterboard fixed through insulation and vcl into rafters, faced with skim plaster.

Eaves / eaves soffit: Rafters reduced to 125mm deep at eaves end with cut profile as shown.

21 x 150mm pressure treated sw eaves soffit boards nailed to top of rafter ends, with black polythene fitted over the top as inner roof boarding.

Ventilated Eaves: 25mm wide continuous ventilation opening to be maintained between underside of eaves soffit boarding and top of wall cladding, with insect mesh protection. To provide clear ventilation path to roof ventilation zone and behind wall cladding.

Eaves fascia: 135 x 32mm pressure treated softwood fascia with 10mm chamfer to bottom edge to form drip. To be stainless steel screwed (60mm) to each rafter end behind.

Finish: Eaves and verge timbers, fascia, bargeboards & soffit boards to have 2 no. coats Bedec Barn paint applied prior to installation. Fill all screw holes after installation and provide 1 no further coat of Bedec Barn paint.

Eaves tray: Redland or similar approved black eaves tray fitted to top of fascia and dressed up roof with a min of 200mm underlap to roofing underlay.

Eaves filler comb: Redland eaves filler comb fixed to top of fascia as continuous insect barrier, colour: black.

Gable Verge: Fibre cement board ss nailed to top of gable bargeboards. Verge tiles to overhang 25mm from bargeboard and to be both mortar bedded using 1:3 mortar mix, and mechanically fixed to comply with BS5534.

Gable ladder: Pressure treated structural sw gable ladder all to structural engineers details.

Gable Verge soffit: 21 x 150mm pressure treated sw boards stainless steel screwed to underside of gable ladder timbers (50mm embedment into timbers).

Bargeboard: 180 x 32mm stainless steel screwed (60mm) to each gable ladder timber behind.

Verge timbers finish: as eaves finish, see note above.

GROUND FLOOR TO EXTENSION, LINK, GARDEN BUILDING AND ANNEX CONVERSION

U VALUE: 0.12W/M2K
U-value prepared by Recticel

Tile floor finish. Main contractor to install client supplied tiles.

Schluter Ditra 25 decoupling membrane (for u/floor heating) with applicable adhesive bed (for u/floor heating) to receive tiled floor finish (overall floor finish with tiles assumed at 20mm thick - client to confirm chosen tile thickness to allow adjustment of floor level as required.) Decoupling membrane and adhesives to be installed to manufacturers details.

Schluter Tile movement joints with matching colour insert to be installed along line of floor differentiation/abutment and at differing u/floor heating zones and generally in accordance with manufacturers installation instructions for maximum tiled areas.

40mm floating Gyvlon Thermo+ liquid screed. Min 20mm cover over underfloor heating pipes. Install in accordance with manufacturers specification and details www.gyvlon.co.uk. Uponor underfloor heating pipes installed strictly in accordance with manufacturers/suppliers design and installation instructions. Movement joints at all door thresholds and between underfloor heating zones.

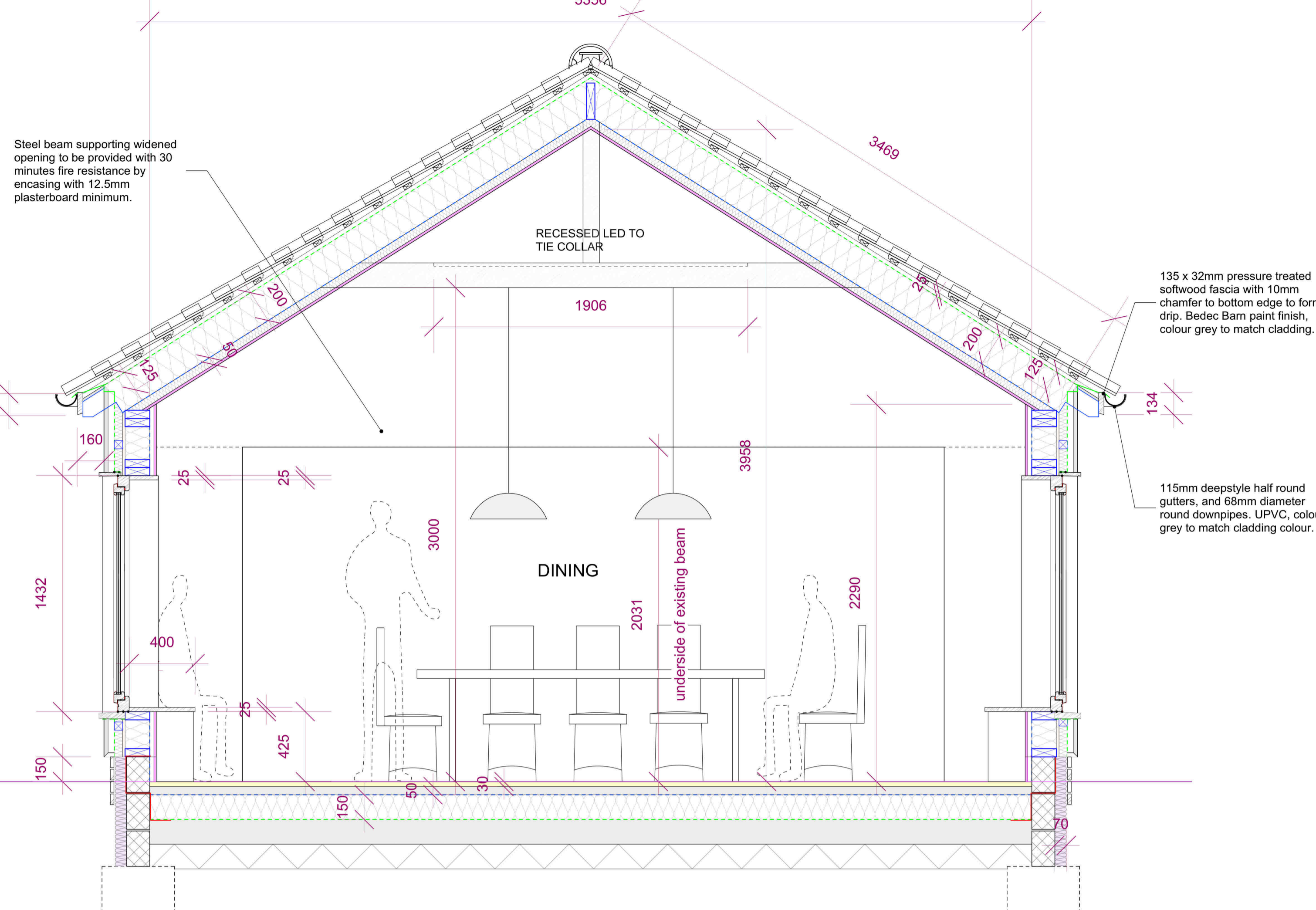
Polythene VCL, 500 gauge

150mm thick Recticel Eurothane GP floor insulation (suitable for use with underfloor heating) with 25mm Celotex US4000 insulation board upstands at walls. All joints to be taped and installed to manufacturers instructions/details (Where alternative PIR insulation is used a min. 1000 gauge polythene separating layer to be installed over insulation as required by insulation manufacturer lapped up at perimeter insulation).

2000mm gauge polythene DPM between concrete slab and insulation.

150mm concrete, dense (BS5250)

All steelwork below ground to have bitumen paint finish



SECTION AA EXTENSION

NEW SINGLE PLY ROOF TO LINK - min 0.13 U value W/m2K. see Bauder specification for lead wood roll effect membrane warm roof.

Bauder roof system to be installed to manufacturers spec/details by approved installer. Contractor to check and confirm all site measurements prior to Bauder tapered insulation being ordered.

30mm Bauder insulation upstand to existign walls either side of link.

Insulation to be installed on Bauder vapour barrier adhered to 18mm WBP plywood deck screwed to joists at 300mm c/c's.

Complete Bauder roof covering and insulation system to be installed to manufacturers specifications, instructions and details by approved installer.

Roof joists and steelwork to structural engineers details. 18mm ply sat on firings above roof joists.

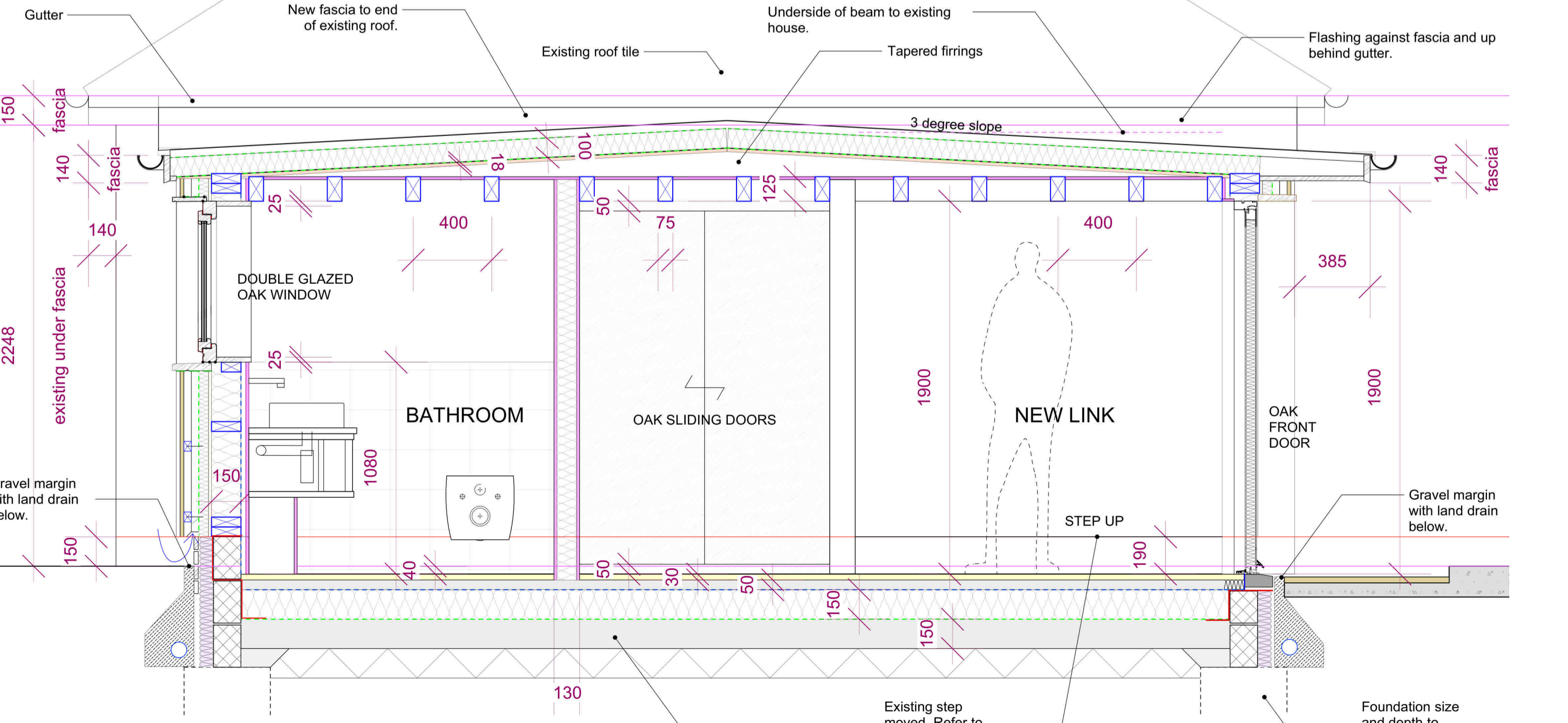
100mm PIR insulation sat on sloping deck. Foil taped joints.

12.5mm Gypsum plasterboard cut between roof joists & skim to ceiling. Joists exposed. Size of joists to be confirmed by engineer.

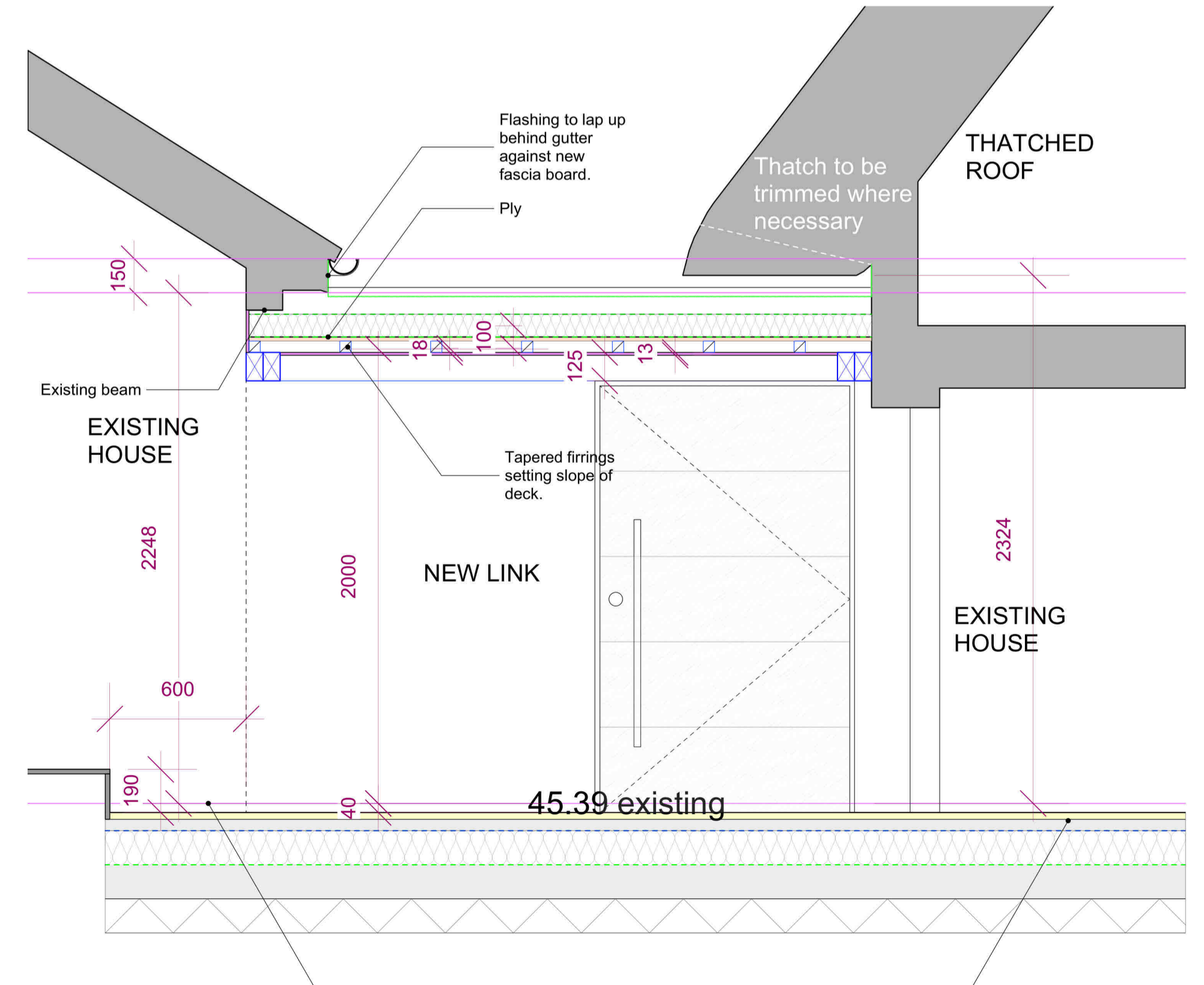
INTERNAL STUD WALLS (NON LOADBEARING)

100x50mm studs at 450mm c/c's (to provide plasterboard fixing size) with 12.5mm gypsum soundbloc plasterboard (min mass 10kg/m2) and skim to either side. Ply lining to stud walls where indicated by structural engineer and where required for fixtures/fitings. All studs fully filled with 50mm 1200 apr isowool acoustic roll as indicated.

Showers lined with 12.5mm knauf aquapanel cement based boards for tiling, bathrooms room and en suites to be boarded with 12.5mm moisture resistant soundbloc plasterboard.



SECTION BB LINK



SECTION CC LINK

PRELIMINARY

| | | |
|----|----------|---|
| P4 | 20.02.23 | Ventilated ridge note removed |
| P3 | 13.12.22 | Update following client meeting, Building Control comments and structural engineer info |
| P2 | 31.10.22 | To roof supplier and engineer |
| P1 | 28.10.22 | Preliminary issue to engineer |

Rev

Beech ARCHITECTS
Church Farm Barn
The Street
Thornton
Suffolk
IP23 7JR
www.beecharchitects.com

CLIENT
Dean Happer and Peter Brooks

PROJECT
The Old Forge
Church Road
Wingfield
IP21 5RA

DRAWING
Proposed Sections for House Extension and Link.

| | | | |
|----------------|------------|----------------------|---------|
| SCALE | DATE | DRAWN BY | CHECKED |
| 1:20 @ A1 | Dec 2022 | | |
| DRAWING NUMBER | JOB NUMBER | STATUS | REV |
| WD06 | 603 | Building Regulations | P4 |

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