BUILDING REGULATIONS

NOTES

ADDRESS

65 Cherry Hills, Darton, Barnsley

WORKS

Erection of Single Storey Front and Side Extension

BMBC
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03 APR 2014
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Building Regulations Specification Notes

Address: 65 Cherry Hills
Darton
Barnsley

Client: Mr & Mrs B Banham

Date: February 2014

General Information

These notes are to be read in conjunction with all relevant drawings and details, Structural Engineers details and calculations, and all other specialist consultants details and specification.

1. **All work** to be carried out in strict accordance with all current Building Regulations requirements, British standards, Codes of Practise, Agreement Certificates, Yorkshire Water Authority Procedures and any other Statutory Authority regulations and procedures. All dimensions in millimetres unless noted otherwise. DO NOT SCALE – if in doubt ask.

2. **All dimensions must be checked and verified on site prior to commencement of work** and client notified of any discrepancies. Setting out of building to be agreed with LA before commencement of works.

3. **All materials** to be installed in strict accordance with manufacturers' recommendations, all relevant Agreement certificates and to Building Control approval.

4. **Any deviation** or changes from materials specified in these notes, and on the relevant drawings to be agreed in writing with the Building Control Officer prior to commencement of works. Such changes are to be notified to the client and alternative drawings provided should they be required.

5. **It is the Contractor's responsibility** to submit all appropriate Building notices for Building Control inspections before the relevant works are covered up.

6. **Calculations where required** for loading, strength, and structural stability to be submitted by Structural Engineer or timber truss specialist for approval by Building Control Officer.

7. **Any land drain** or watercourse encountered to be diverted so as not to pass under the new buildings. Diversion and connections to be inspected and approved by Building Control Officer.

8. **All timbers** to be fit for purpose and to have suitable double Vac-Vac preservative treatment or equivalent Building Control approved pressure-impregnation. All structural timbers to be in full accordance with BS 5268 Part 2.

   All general joinery timber to be in full accordance with BS 1186 Parts 1 & 2. Exposed structural timbers to be fit for purpose selected structural grade (toC24/SC4 equivalent)

Douglas fir, free from all knots and shakers etc to BS EN 338. Covered up structural timbers to be fit for purpose selected structural grade C24/SC4 treated SW timbers to BS EN 338.

9. **All windows** to have sealed double-glazed units with low emissivity glass with soft coating in 6/20/6 format, within uPVC window frames. Sizes and location of window and door openings as shown on plan however client to decide on style and type of windows and doors to be used.

   Area of new glazing not to exceed 25% of extension floor area. All windows to habitable rooms to have an unobstructed openable area of at least 0.33m^2 and at 450mm high and 450mm wide. Base of openable area to be max. of 1100mm from floor level.

10. **U-Values:** all elements to achieve U-Values detailed in table below.

Thermal Elements	
Structure	U-Values (W/m2K)
Walls	0.28
Pitched Roof – Insulation in Ceiling	0.16
Pitched Roof – Insulation in Rafters	0.18
Flat Roof	0.18
Floors	0.22
Windows and Roof Lights	1.60
Doors with more than 50% glazed	1.80
Other Doors	1.80

11. **Foundations** to be sized subject to ground conditions and to be agreed with Building Control Officer on site. Should ground conditions be suitable for strip foundation depth to be taken down to adequate load bearing strata (envisaged at between 750-1000mm below current ground level) or to a depth equal to the existing dwelling foundation. The contractor shall determine the depth of the existing dwelling foundations prior to any commencement on site to ascertain the exact depth of the proposed foundations and ground conditions. Foundation for new extension to be min. 600mm wide to accommodate cavity wall. Concrete mix to be C30/20, unless recommended differently by a structural engineer or Building Control Officer. Walling below ground level to be dense aggregate foundation blocks or similar, up to min. 150mm below ground level.
   Alternative Foundation:
   Should ground conditions be unsuitable for strip foundations structural engineer to be consulted and alternative foundation designed. Structural calculations for any engineered designed foundation to be provided to Building Control prior to commencement. Client responsible for the employment of structural engineer should one be required.

12. **Damp Proof Course:** Proprietary pitch polymer dpc to be provided to all external and internal walling a minimum of 150mm above finished ground level externally. DPC to extend over cavity and adjoin visqeen damp proof membrane to provide basic Radon protection, a cavity tray dpc to be provided above with proprietary pvc weep holes provided, colour to match external walling finish. Weep holes to be provided at approx 900mm centres. Provide and fix vertical dpc or proprietary insulated cavity closers to all openings within external walls to prevent cold bridging. Do not return with brickwork/blockwork.
    N.B. The NHBC recommends that all tray dpc's are to be laid with a horizontal base within the cavity as opposed to a sloping section.

12. **External Wall Construction** to be 100mm external buff brick to match existing except for bottom two courses, soldier courses above windows and doors and on end course below windows which are to be red brick to match detailing of existing dwelling. Minimum 100mm unventilated cavity fully filled with 100mm Crown Dritherm 32 insulation walling slabs (or equivalent).
Inner leaf to be 100mm thick 7N/mm2 dense concrete blockwork, whole wall to achieve a U-value of 0.28 W/m2.
Provide and fix vertical twist-type stainless steel wall ties or wall ties of equivalent performance, to BS 1243 and spaced generally at 450mm centres vertically, 750mm centres horizontally and 225mm centres up the reveals of all openings due to the cavity exceeding 75mm.
Both BRE Digest 164 and British Standard 5628: Part 3 confirm that movement joints should be provided at 12m intervals in continuous brickwork. Movement joints should be provided in the following positions:

- Intersecting walls, piers, floors etc.
- Window and door openings;
- Changes in height or thickness of walls;
- Chases in the wall;

The width of the joint in millimetres should be about 30% more than the distance between joints in metres for example movement joints at 12m centres will need to be about 16mm wide. (Unrestrained, un-reinforced walls, but can be applied to walls in all situations to ere on the side of safety).
Wall ties should be provided at 300mm vertical spacing, on either side of the joint. (Masonry is unlikely to develop tensile cracks, except in short returns of less than 1m in length).

10mm movement joint in blockwork to be located every 6.0 to 9.0m

13. **All external lintels** to be external grade galvanised steel cavity lintels appropriate for the span, with DPC cavity tray over. All lintels to have min. 150mm end bearing on either side onto structural blockwork or brickwork pier. Weep vents to be inserted at 1500mm centres (min 2 per opening). All steelwork to be boxed in to provide full 30 mins fire resistance.

14. **Internal Walling** All internal non loadbearing walls are to comprise of 50 x 75mm timber C.L.S. 'chamfered' kiln dried studs at 450mm centres horizontally , 900mm centres vertically and finished on both sides with 12.5mm 'Gyproc Wallboard TEN or Knauf (min 10kg/m3 density) plasterboard and skim. Provide minimum 75mm 'Rocksill' Flexible slabs insulation or similar between to achieve 10kg/m3 density.

15. **Timber Suspended Ground Floor** to comprise of the following:

a) client choice of finish i.e. laminate or carpet etc. or
b) if tiled finish – to provide suitable adhesive and grouting, this applied over 6/9mm marine ply to suit the base and ensure no movement of the tiles – check with supplier/tiling contractor, on;
c) nominal 22mm PT&G weatherdek waterproof boarding, joints glued and screwed to avoid 'floor squeak' and fitted in accordance with the manufacturers instructions, grade 4 on;

d) 50 x 150mm C16 regularised joists at max 400mm centres, joists set into walling and fully pointed/mastic sealed around.
e) 100mm thick flooring grade 'Kingspan Thermafloor TF 70' floor insulation to provide 'U'-value of 0.22w/m2K between floor joists or 150mm thick 'Rockwool Rollbatt' quilt on netlon mesh on;
f) 100mm oversite concrete (ensure minimum 150mm gap below the timber joists to oversite concrete) on;
g) 1200g DPM visqueen, acting as basic Radon barrier. (Any laps within the membrane to be taped and proprietary 'top hats' to be provided where any services penetrate the barrier.) on sand blinding, on min 150mm good clean, inert hardcore, well compacted in min 150mm thick layers.

Provide sub floor ventilation to comprise of 225 x 150mm clay ware telescopic grates and liners, minimum 3000mm2 ventilation per meter run of wall.

Contractor to ensure that proposed finished extension floor is in alignment with the existing bungalow finished ground floor.

16. **Ceiling Finishes** to comprise of 15mm thick 'Gyproc Wallboard TEN' plasterboard and skim finish where fixed back to ceiling members of the trusses.

17. **Pitched Roof** to comprise of the following construction:

    a) Roofing tiles, colour and profile to match existing bungalow;
    b) Tiles fixed on 50 x 25mm thick softwood battens, on;
    c) 1 No layer to 'Grilltex ATX (or equivalent) untearable breathable roofing felt fitted in accordance with the manufacturers recommendations i.e. laid taught and fixed by counterbattens to allow free air flow etc, dressed into gutters on;
    d) Standard trussed rafters at max 600mm centres and to be designed at side to match pitch of existing bungalow roof and at front to match pitch of existing porch roof. **Contractor to check pitch and truss requirements on site prior to ordering.** Truss calculations provided by supplier to be provided to Building Control a minimum of 28 days prior to installation.

    Trussed rafters to be fixed to 50 x 100mm C16 wall plate over the inner leaf, wall plates strapped back to blockwork with 30 x 5 x 100mm long m.s. straps fixed down the internal face of the external wall construction. Girder truss to be installed to carry existing roof trusses where supporting wall is removed and new trusses are installed, the size, dimension and exact location of this girder truss to be determined by truss manufacturer and calculations provided to the satisfaction of the Building Control Officer.

    All measurements/dimensions for the ordering of the roof trusses are to be taken on site and not relied upon from the working drawings and these dimensions and pitch details should be taken prior to any ordering or installation.

    Where the new front gable roof meets the existing porch roof a box gutter is to be installed as per detail provided.

18. **Wind Bracing** to trussed rafters to be fitted in accordance with BS 5268: Part 3 2006, and as indicated on the appointed truss manufacturers approved layouts. In general these are to be

of 100 x 25mm longtitudinal and diagonal bracings at rafter node points, twice nailed to each and every rafter with 3.35mm diameter x 65mm long galvanised wire clout nails.

19. **Roof Ventilation** provide minimum 25mm continuous ventilation gap at eaves with comb filters to prevent bird or insect entry.

20. **Roof Insulation** provide and install minimum 300mm overall roof insulation thickness completed in 2 layers of Crown Wool insulation slabs to the whole horizontal ceiling area, one 150mm layer laid between the ceiling members and a second 150mm layer laid above it at right angles.

21. **Rainwater Discharge** All new gutters to be an extension/continuation of existing gutters on the existing dwelling, new downpipes to be connected to a suitably designed soakaway a minimum of 5m from the dwelling should ground conditions allow. Should ground conditions not allow a suitable soakaway rain water drainage to be connected to existing system.

22. **Drainage** all below ground foul drainage to be constructed from 'supersleeve' flexible jointed pipes to BS 8301 and to be n accordance with BS 752 & 12056.
The existing drainage runs within the footprint of the new extension,, this is to be diverted at the rear of the dwelling and taken down the side of the extension and a new inspection point to be created at the front of the extension. New inspection chambers to be installed at all change of direction to the satisfaction of the Building Control officer.
The actual existing drainage runs to be determined on site by the client/contractor prior to any commencement on site and the proposed drainage to be adjusted where necessary to the satisfaction of the Building Control Officer.
All pipework to be a minimum of 100mm diameter and all gradients are to be 1:40.

23. **All doors and window** openings to include 25mm jamb rebate with proprietary insulated horizontal and vertical cavity closers with integrated DPC's and cavity trays with stop ends to be fully tapped and sealed.
All new windows and doors to all habitable rooms are to be provided with trickle ventilation equal to 8000mm2.
Escape windows are to be fitted to the 2 new bedrooms due to them being inner rooms. These windows are to have an unobstructed opening of at least 0.33m2 and be at least 750mm high and 450mm wide. The bottom of the opening is to be no more than 1100mm from finished floor level.
All windows to achieve a minimum 'U-Value' of 1.6W/m2K, doors to achieve a minimum 'u' value of 1.8W/m2K.
All new doors and window openings to have proprietary water bars, weather seals, strips and draught excluders.

With reference to the external door and window sizes indicated on the working drawing, please not the dimensions provided are structural brickwork sizes and the actual sizes for both the doors and windows are to be measured on site prior to ordering and installation.

Toughened glazing is to BS 6206 is to be provided to all glazed doors to a height of 1500mm above floor level together with any adjoining glazed panels, any windows below 800mm from finished floor level also to have toughened glazing.

24 **Mechanical Ventilation** Mechanical ventilation to be provided as follows:

a) New Bathroom –	15l/s mechanical extract ventilation
b) New kitchen –	30l/s mechanical ventilation where extractor is located above hob 60l/s mechanical ventilation where extractor is not located above hob.

Mechanical extract units to be fitted at a minimum of 2100 above floor level and all ducting to be directed to external air through the external wall.

25. **Electrical Specification** All work required to meet the requirements of Part 'P' (Electrical Safety) must be designed, installed, inspected and tested by a person registered under the competent persons scheme. A copy of the Building Regulation self-certification certificate is to be given to the Council upon completion of the works. All new light fittings and electrical sockets to be to client's specification and specified locations.

Smoke detection system to be interlinked with mains power with battery back up and is to comply with BS 5839 – 6. Smoke detectors/heat detectors to be located as shown on plan i.e. smoke detector in new lobby area outside bedrooms and bathroom and heat detector to be located in kitchen.

26. **Central Heating:** The additions to the system are to be installed (and serviced) by a competent person as stated in the Gas Safety (installation and use) Regulations 1998. Flues to be balanced or fan assisted, and outlets (fitted with appropriate guard) to be located minimum 600mm from any opening. Installation to comply with all relevant British Gas regulations. Central heating to have appropriate zone and timing controls and boiler control interlock. Heating distribution to be panel radiators or similar with thermostatic radiator values (TRV's) to each radiator, or thermostats to be provided to selected rooms, as appropriate. New radiators to be sited in extension in locations to be specified by the client.

27. **All insulation** to have continuity around and throughout the building to limit any cold bridging and prevent additional heat loss through air-tightness.

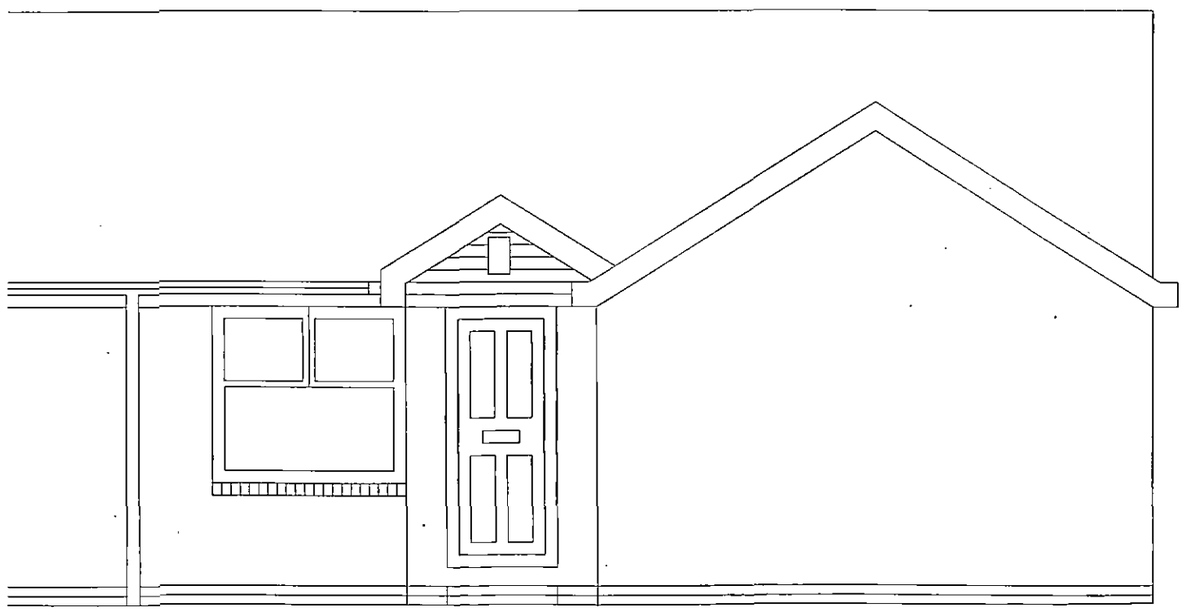
28. **Airtightness:** All joints and gaps in the fabric to be carefully sealed, contractor to refer to accredited details for specific details on best practice of sealing fabric.

29. **Utility Outlets** Gas and Electric meters to be relocated from side elevation to location specified by client, the moving of these services must be undertaken by suitably qualified persons.

29. **General:** Should any clarification regarding any elements of construction or further information be required please contact the client.



Existing Front Elevation



Proposed Front Elevation

Scope of Works:

The existing property is a semi detached bungalow which is accessed from a private drive to the front and does not front a highway. Directly in front of the property is a garage block, one of which belongs to the property.

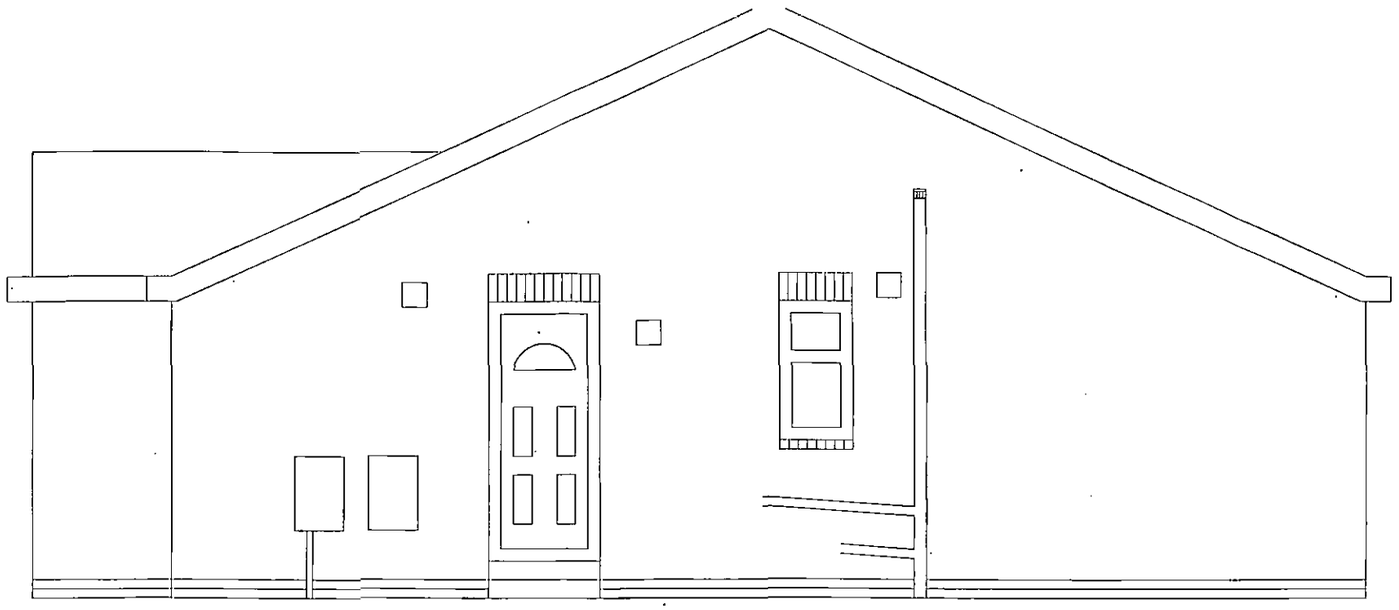
It is proposed to construct a single storey side extension which will also project to the front of the property.

To the side are gardens for properties on Kingsway with the houses being approximately 20meters away at the top of the garden.

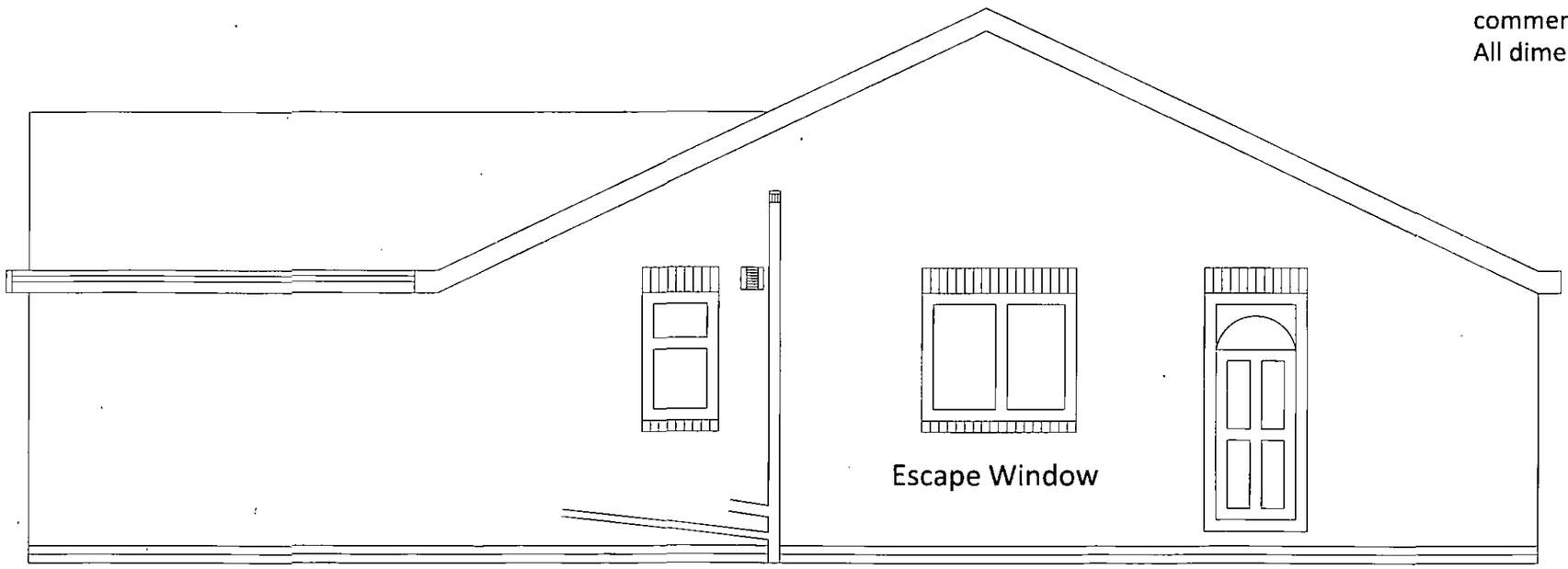
It is proposed to extend the property by 2.15m to the side still leaving approximately 18m to the houses adjacent. It is proposed to continue the roof ridge over the new extension to line with the existing roof. This is to ensure ceiling levels run true internally and pitch of roof remains consistent with existing roof which we believe will be more aesthetically pleasing than lowering the ridge and having a different pitch over the extension.

Do Not Scale - If in doubt ask

Mr & Mrs B Banham	
Single Storey Front & Side Extension	
65 Cherry Hills Darton Barnsley	
Drwg No: 001	Rev: A
1:50 @A3	Front Elevations



Existing Side Elevation



Proposed Side Extension

External brickwork to match existing, bottom 2 courses, soldier and end courses around window to be red brick to match existing.

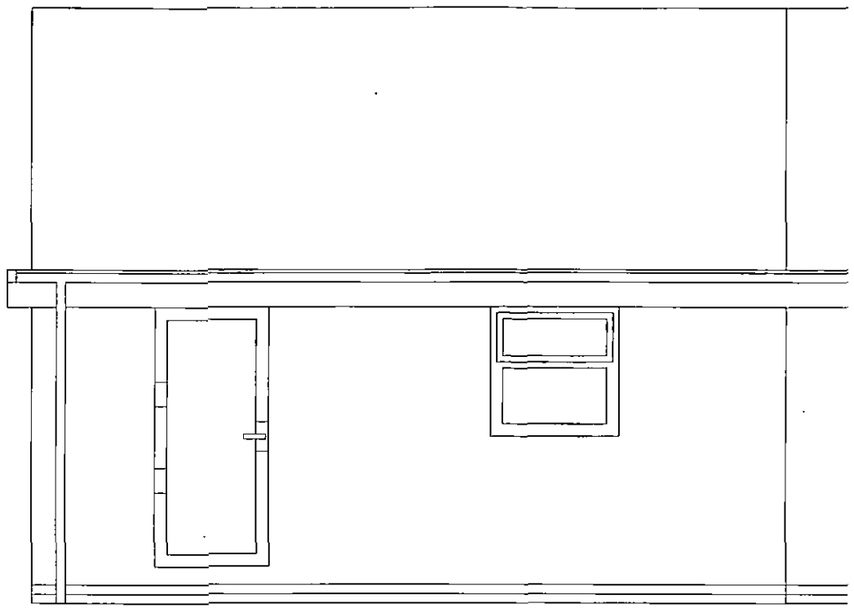
Utility boxes to be relocated to clients preferred location. Work to be undertaken by suitably qualified professionals to be chosen by client.

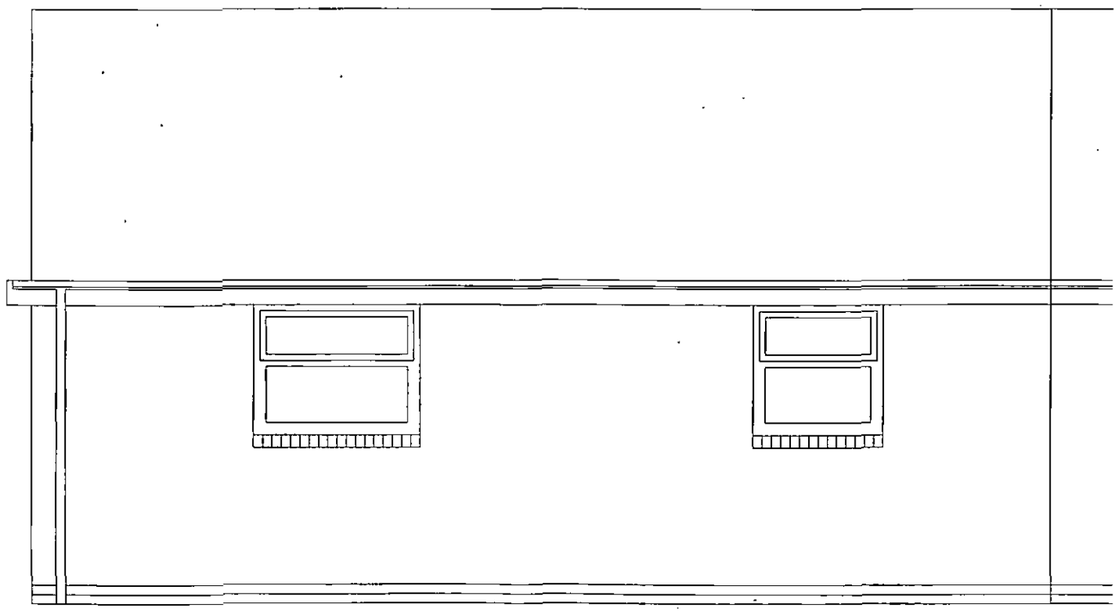
Escape window to be provided to new bderoom dimensions as per specification notes.

All dimensions must be checked and verified on site prior to commencement of work and client notified of any discrepancies. All dimensions in mm unless stated otherwise.

Do Not Scale - If in doubt ask

Mr & Mrs B Banham	
Single Storey Front & Side Extension	
65 Cherry Hills Darton Barnsley	
Drwg No: 002	Rev: A
1:50 @A3	Side Elevations





Extension at rear to be extended flush with existing building line. Existing door to existing rear bedroom to be removed and replaced with new kitchen window opening.

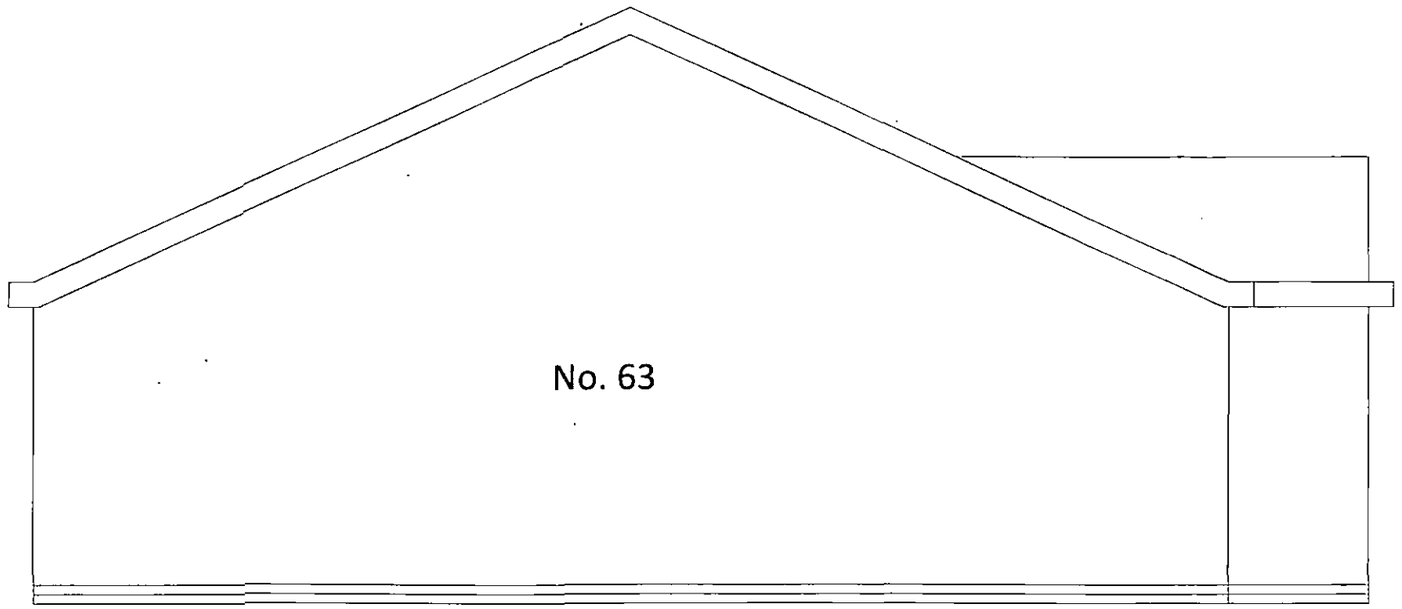
Guttering to be extended and rain water pipe to be relocated and connected to soakaway located a minimum of 5m away from any building and subject to a percolation test.

Bottom 2 courses of brickwork to be red brick aswell as end courses underneath windows to match existing.

Contractor to ensure that proposed finished extension floor is in alignment with the existing bungalow finished ground floor.

Do Not Scale - If in doubt ask

Mr & Mrs B Banham	
Single Storey Front & Side Extension	
65 Cherry Hills Darton Barnsley	
Drwg No: 003	Rev: A
1:50 @A3	Rear Elevations

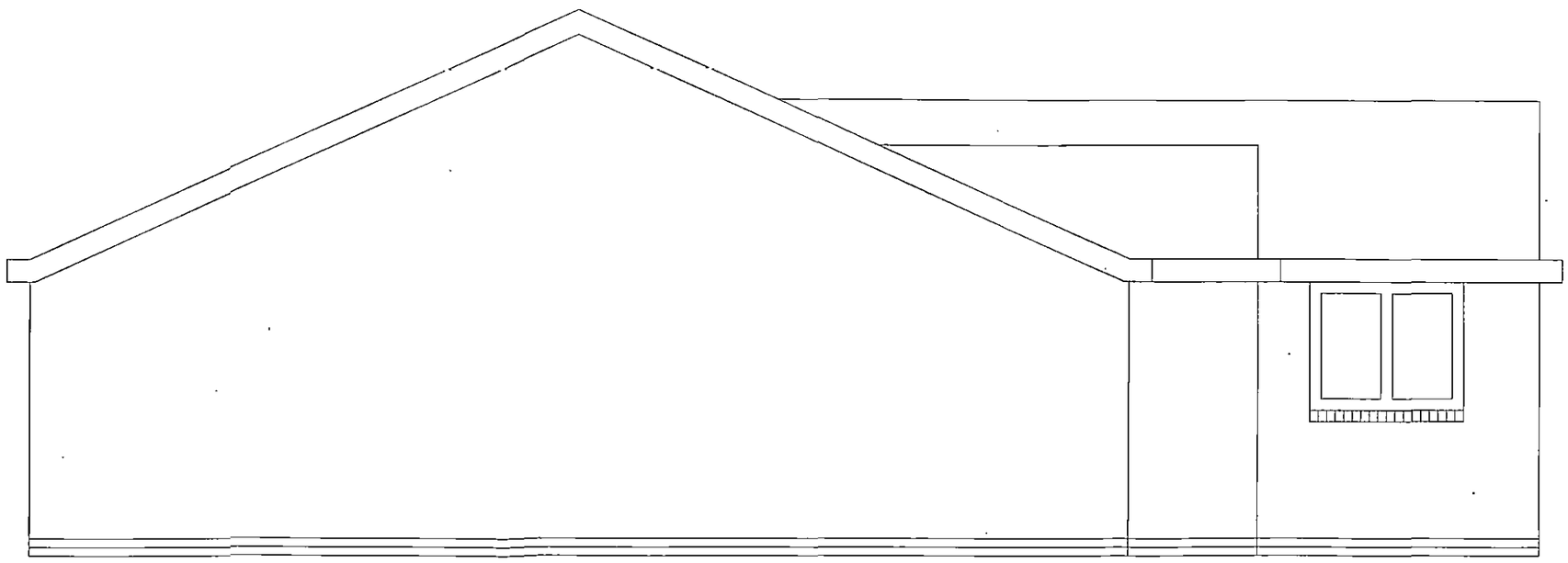


Side elevation details, view from neighbouring property

Extension to extend forward by approximately 2.3m from original building line of porch.

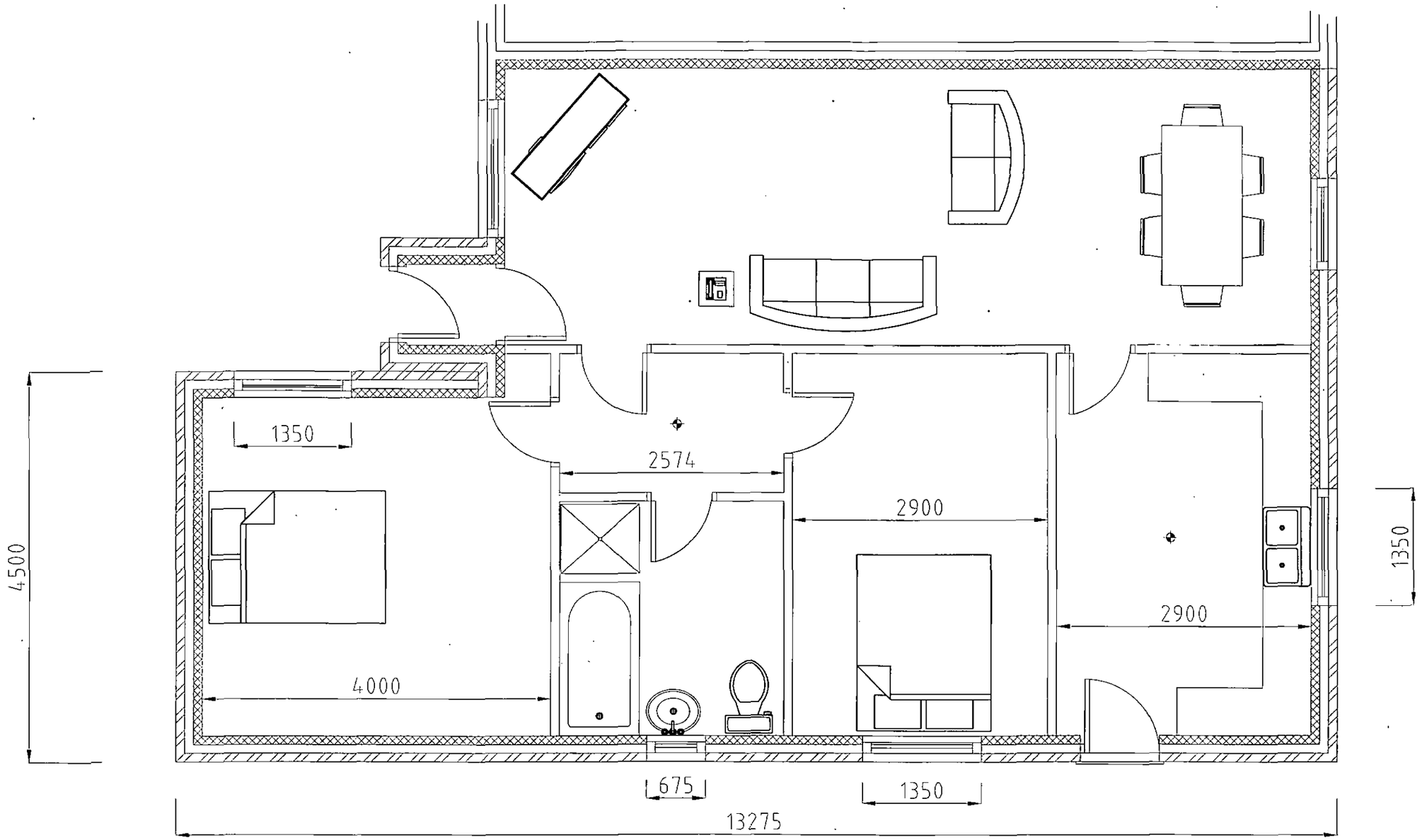
Details (door,window locations etc) for no 63 omitted for clarity.

Electrical Specification All work required to meet the requirements of Part 'P' (Electrical Safety) must be designed, installed, inspected and tested by a person registered under the competent persons scheme. A copy of the Building Regulation self-certification certificate is to be given to the Council upon completion of the works. All new light fittings and electrical sockets to be to client's specification and specified locations.



Do Not Scale - If in doubt ask

Mr & Mrs B Banham	
Single Storey Front & Side Extension	
65 Cherry Hills Darton Barnsley	
Drwg No: 004	Rev: A
1:50 @A3	Side Elevation



Proposed Layout Plan

Locations of furniture shown for indicative purposes only.

Smoke detection system to be interlinked with mains power with battery back up and is to comply with BS 5839 - 6. Smoke detectors/heat detectors to be located as shown on plan i.e. smoke detector in new lobby area outside bedrooms and bathroom and heat detector to be located in kitchen.

All internal non loadbearing walls are to comprise of 50 x 75mm timber C.L.S. 'chamfered' kiln dried studs at 450mm centres horizontally , 900mm centres vertically and finished on both sides with 12.5mm 'Gyproc Wallboard TEN or Knauf (min 10kg/m3 density) plasterboard and skim. Provide minimum 75mm 'Rocksill' Flexible slabs insulation or similar between to achieve 10kg/m3 density.

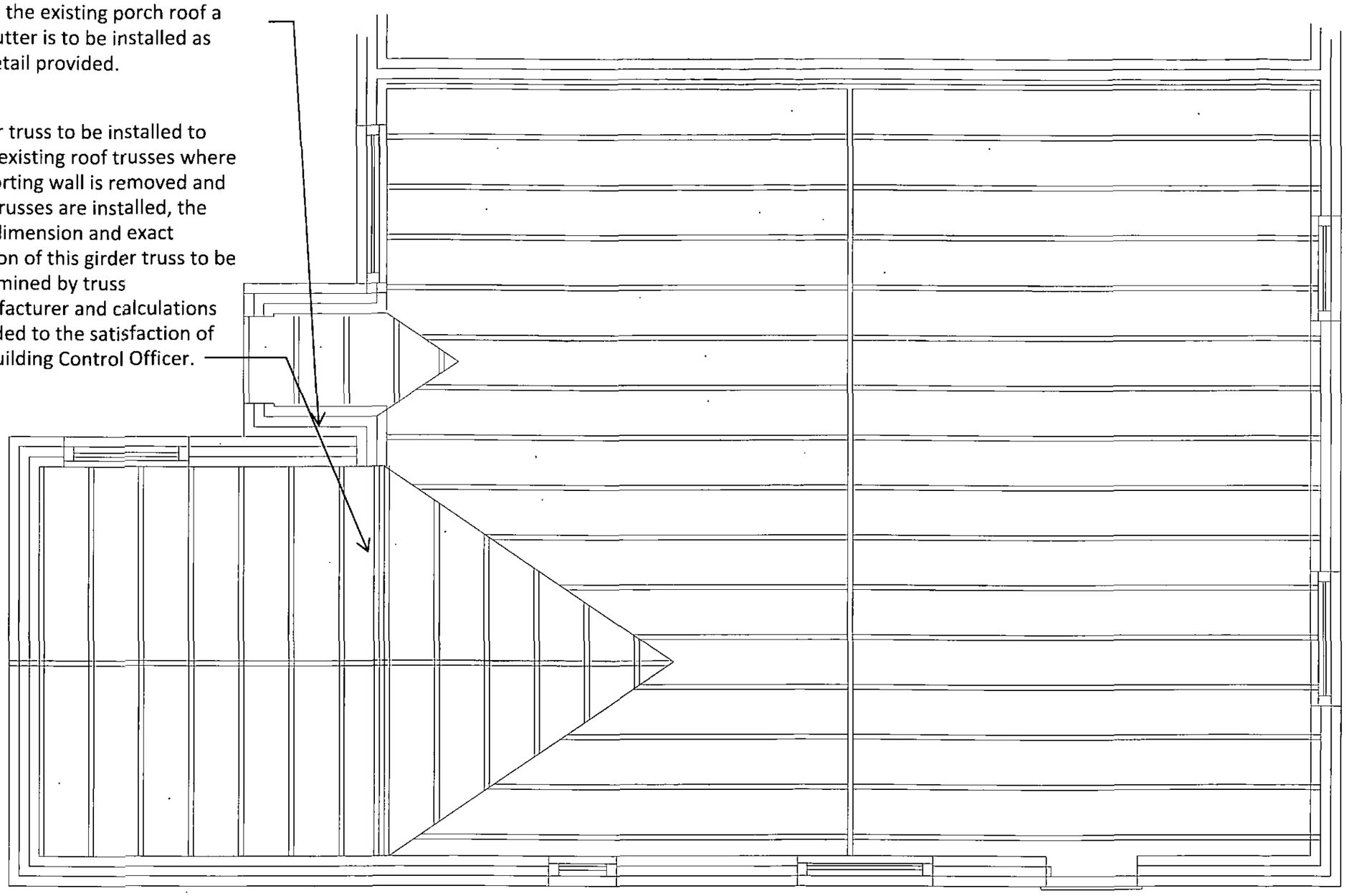
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Mr & Mrs B Banham	
Single Storey Front & Side Extension	
65 Cherry Hills Darton Barnsley	
Drwg No: 005	Rev: A
1:50 @A3	Layout Plan

Where the new front gable roof meets the existing porch roof a box gutter is to be installed as per detail provided.

Girder truss to be installed to carry existing roof trusses where supporting wall is removed and new trusses are installed, the size, dimension and exact location of this girder truss to be determined by truss manufacturer and calculations provided to the satisfaction of the Building Control Officer.



All measurements/dimensions for the ordering of the roof trusses are to be taken on site and not relied upon from the working drawings and these dimensions and pitch details should be taken prior to any ordering or installation.

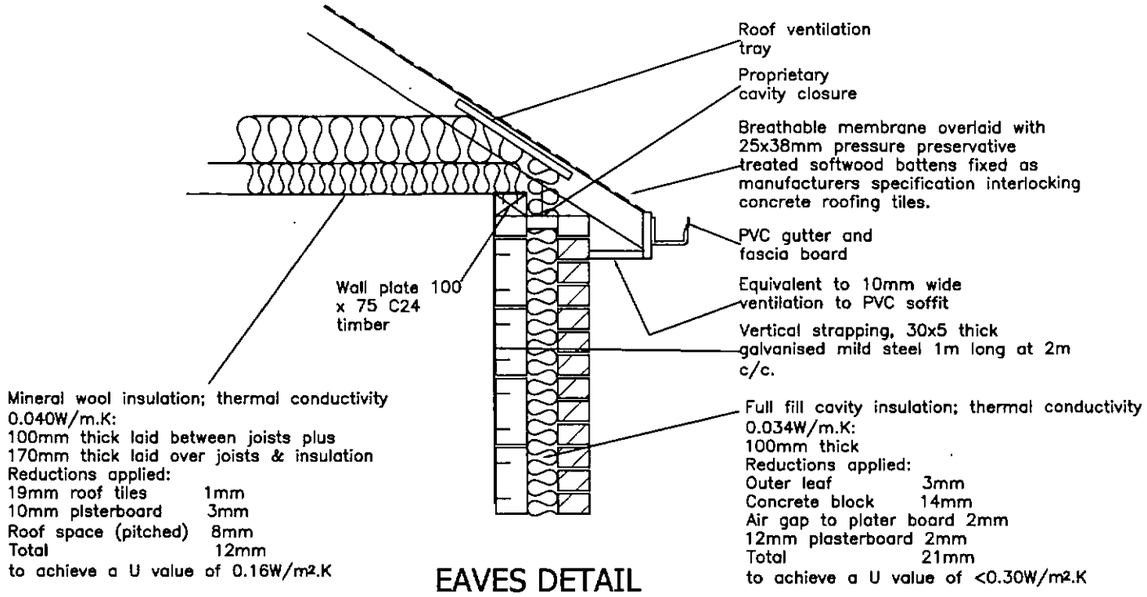
Standard trussed rafters at max 600mm centres and to be designed at side to match pitch of existing bungalow roof and at front to match pitch of existing porch roof. Contractor to check pitch and truss requirements on site prior to ordering. Truss calculations provided by supplier to be provided to Building Control a minimum of 28 days prior to installation.

Roof Plan

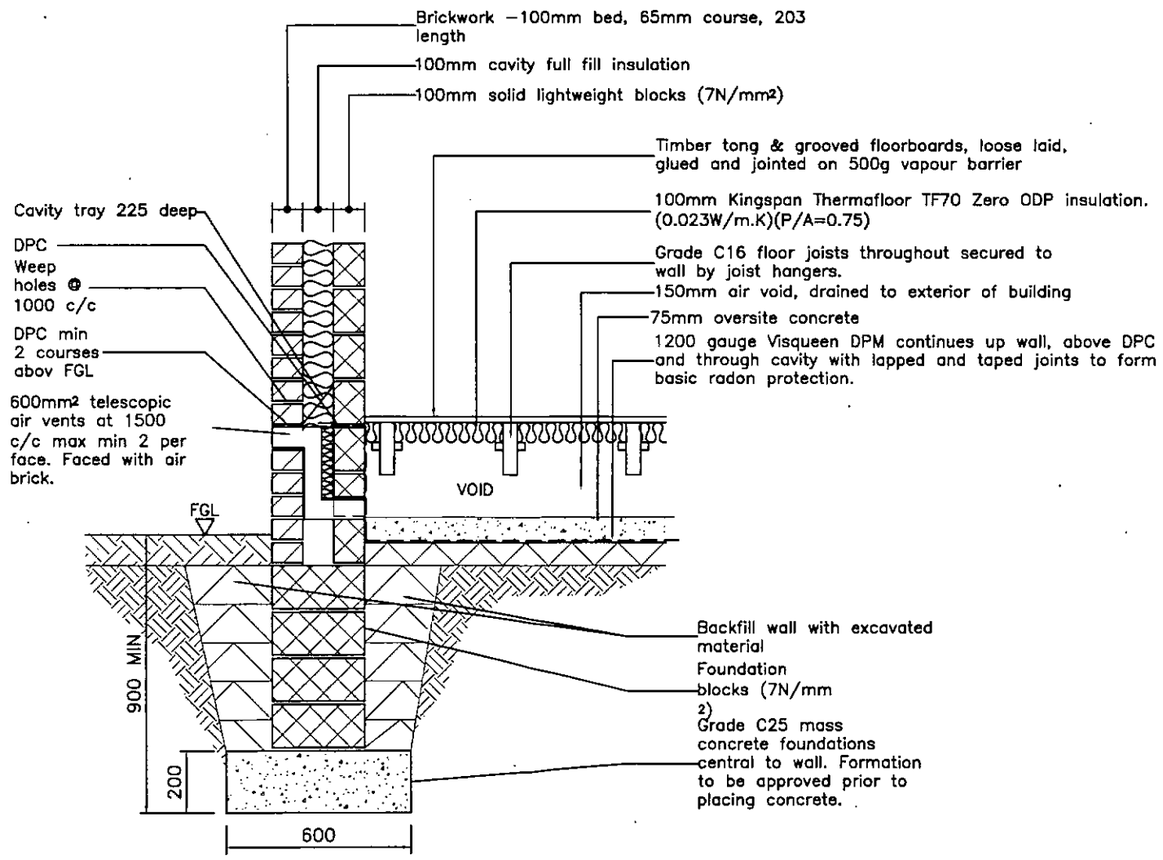
Do Not Scale - If in doubt ask

Mr & Mrs B Banham	
Single Storey Front & Side Extension	
65 Cherry Hills Darton Barnsley	
Drwg No: 006	Rev: A
1:50 @A3	Roof Plan

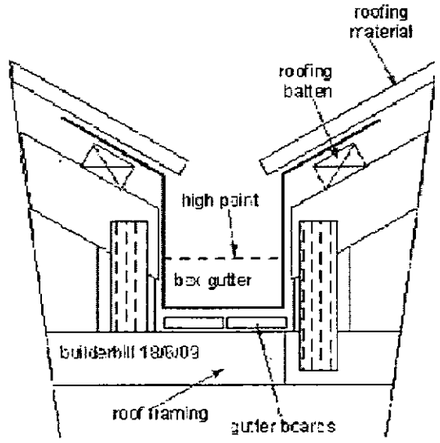
Drawing No.	Rev No.
MPM001 -004	



EAVES DETAIL
(1:20)



FOUNDATION/GROUND FLOOR DETAIL
(1:20)



Box Gutter Between Two Parallel Roof Surfaces

Box Gutter Detail
(not to scale)

Mr & Mrs B Banham
Single Storey Front & Side Extension
65 Cherry Hills Darton Barnsley

Drwg No: 007	Rev: A
1:50 @A3	Standard Details