

NOTE
 This drawing is to be read in conjunction with the Building Regulation Compliance notes related to this project dated 28 March 2023

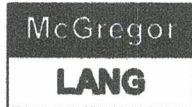
Revisions

Proposed Utility Room Alterations
 Dr and Mrs R Kandler
 Low Wood, Braithwaite Lane, Dacre, Harrogate HG3 4AS.

Underground Drainage layout
 Date 28 Mar 2023 Scale 1:50@A4

Drg No **06**

M105793 - SK01 - A



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Consulting Structural Engineers

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Sketch

Contract:

LOW WOOD, BRAITHWAITE LANE, DACRE, HARROGATE.

Part of Structure

Ref. No : ML05793

Date : 02.05.2023

NOTES REGARDING THE STRUCTURAL PROPOSALS.
NOTES RELATING TO SKETCH SK01.

Prepared by : JLB

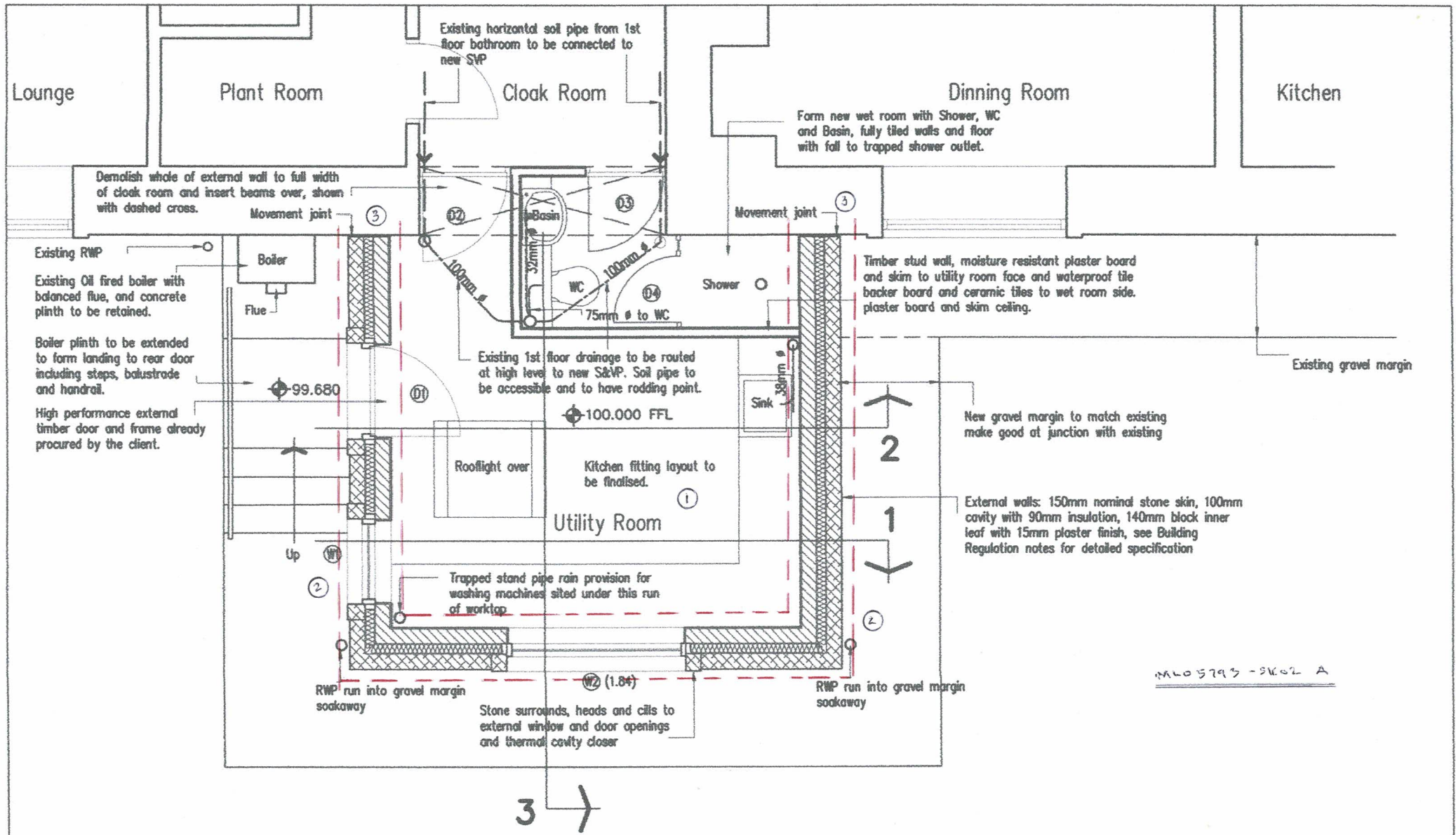
Scale : NTS

Checked by : JLB

Sheet No : KEY Rev. A

Revision A : 12.05.23 – Lintels altered, beams to the ex property and the knock through added.

1. Provide minimum 50 x 150 C24 timber rafters at 400mm centres notched and screwed to the wallplate and ridge beam.
2. Provide minimum 2No 50 x 150 C24 timber rafters to the full perimeter of the Velux windows notched and screwed to the wallplate and ridge beam.
3. Provide 203 x 102 x 23UB ridge beam having 100mm end bearings on 440 x 100 x 215dp padstone. The beam shall have a 50 x 100 C16 timber wallplate bolted to the top flange using M10 bolts at 600mm staggered centres.
4. Provide Catnic CH90/100T 135 lintel having minimum 150mm end bearings. Assuming a 100mm cavity, 100mm inner leaf and a 150mm external leaf.
If the internal and external leaves are both 140 to 150mm in width then provide 150 x 150 x 10RSA to each leaf having minimum 150mm end bearings.
5. Considering the width of the wall being in the order of 600mm provide 4No 152 x 152 x 23UC side by side. The beams shall have a minimum of 200mm end bearings on cast in-situ padstones being 600 long x 400mm wide x 215dp.
6. Provide Catnic CH90/100T 135 lintel having minimum 150mm end bearings. Assuming a 100mm cavity, 100mm internal leaf and 150mm external leaf. It is possible that the suggested lintel may be too deep for the eaves situation. Assuming this is the case if 100mm internal leaf adopt 100 x 100 x 8RSA having 150mm end bearings. If the internal and external leaves are 140mm to 150mm provide 150 x 150 x 10RSA having minimum 150mm end bearings.



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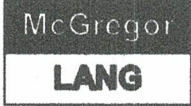
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MLO5793-SK02 A



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Part of Structure

NOTES REGARDING THE STRUCTURAL PROPOSALS.
NOTES RELATING TO SKETCH SK02.

Ref. No : ML05793

Date : 02.05.2023

Prepared by : JLB

Scale : NTS

Checked by : JLB

Sheet No : KEY Rev. A

Revision A : 12.05.23 – Alternative ground floor construction added.

1. Provide minimum 50 x 200 C24 timber floor joists at 400mm centres or a Bison (or similar approved) IJ2 or IJ3 system 150mm beam and block floor. As the worst case formation level is less than 1.50m a ground bearing slab may be provided as detailed on the Architects drawings.
2. Provide minimum 600mm wide x 225mm deep foundations to be taken to the depths noted below.

Distance from the tree.	Minimum formation.
7.00m	1.400m
8.00m	1.350m
9.00m	1.250m
10.00m	1.200m
11.00m	1.150m
12.00m	1.050m

This is based upon NHBC Regulations and associated table Chapter 4.2. The ground strat is assumed to be a medium shrinkage clay. This shall all be exposed and agreed with the Building Control Officer. As the formation is less than 1.50m no void former for heave is necessary. To be confirmed on site once the strata is excavated.

3. Take the proposed foundation beneath that existing by 300mm. To be agreed on site once exposed.

The ground floor slab sub base is to be min 200mm of consolidated hardcore with sand blinding, 300µm thick (1200 gauge) Visqueen damp proof membrane over which a slab of 150mm minimum reinforced concrete with a layer of A142 mesh reinforcement in the bottom is to be cast. Kingspan Kooltherm K103, 100 mm rigid board insulation is to be provided over the slab with a 125 µm thick (500 gauge) Visqueen separation membrane over. Electrical under floor heating elements are to be installed on top of this insulation and topped by a 75mm sand/cement screed.