## **METHOD STATEMENT**

## **FOR**

# THE CONSTRUCTION OF A BASEMENT

#### AT

207, SUMATRA ROAD, WEST HAMPSTEAD, LONDON NW 6 1 PF.

## **FOR**

Professor Kerry Hamilton.

Soarbond Limited, 17, Clarendon Road, Ealing,

London W5 1 AA.

Tel : 020 8997 8663

E Mail: soarbond@yahoo.co.uk

Project No	Revision	Date	Prepared By	Checked By	Status
1381	A		K. Zablocki		

# CONSTRUCTION OF AN EXTENSION TO AN EXISTING BASEMENT

- 1/ This document is prepared to assist in the redevelopment works to be carried out at 207 Sumatra Road, NW6 where an extended basement is to be constructed to increase the existing habitable space under the ground floor. This will now include the full main house footprint.
- 2/ The new basement will become deeper than the existing rectangular basement that is formed under the ground floor hall layout. The House-Owner uses this space in the basement as a toilet, a bathroom, a cupboard and a kitchenette area. The House-Owner needs to change the existing layout and height to ceiling so that the layout and ambience within the basement becomes an acceptable, habitable space. At the moment, it is poorly arranged and is a "difficult to manage" space.

The basement is shown on drawing 1381 / 01. A 70 % reduction print is included in appendix A sketch A. All the drawings in the appendices are 70 % reductions. The plan on drawing 01 gives an existing basement size of approximately 2.15 metres width by 8.65 metre in length.

- 3/ This document is required by the Planning Local Authority as part of the approval conditions for planning.
- 4/ The Contractor is deemed to have inspected the site and read through this document. He should make his observations known to the Contracts Administrator ( CA ) so that any valid and agreed observations can be incorporated into this document and worked to.
- 5/ Where instructions are give as "Dig down..." then these are assumed as being given to the Contractor for his incorporation within his Method Statement.
- 6/ The proposed basement layout drawing is given on 1381 / 11 which also indicates the numbering and location of the individual underpins, the location of structural steelwork beams at the underside of ground floor as well as the well areas. This drawing is attached as sketch B in appendix A.

It should be noted that the erection and completion of the well areas, the steels and basement slab will be carried out some time later than the formation of the underpins to construct the outer shell of the basement.

It should also be noted that the formation of the underpinning runs must be accompanied with temporary works strapping across the site. A

typical detail for this strapping is given as sketch H in appendix B and the details for this will be confirmed at the time of construction by the Design Structural Engineer.

- 7/ Underpinning works will be carried out from front to rear so that spoil can be easily removed etc.
- The Contractor is obliged to work on underpins 1 to 5 initially. He will dig down in front of the house and form the "step down" underpins to help lower the front well area. He will form the underpins in the sequence 1, 4, 2, 5 and 3. He will safeguard these underpins and prevent sliding by strutting off the house walling above the level where the formation of underpins 6 to 10 will take place.

From inside the house and using the existing basement door, the Contractor will form underpins 6 to 10 in the sequence of 6, 9, 7, 10 and 8.

When these underpins are formed the strutting off the brick walls above the line 6 to 10 can be lowered to strut off the two lines of formed underpins maintaining temporary struts from soil inside the house to the back of underpins 6 to 10.

- The third set of underpins shall be formed as 11 to 15 in the order 11, 14, 12, 15 and 13 with clay soil arisings removed via window in underpin 8 or through the basement door. The soil will be carted to the skips at the front of the house and works carried out within 1.5 metres of the underpin lines as working space.
- 10/ The Contractor shall use trench sheets, poling boards or any other such material in all digs to prevent slippage and collapse of side soil into the excavated zone as part of his normal underpinning sequence of working shown on the construction drawings.
- An access zone inside the house is needed to allow the access/ egress for materials and men. Use access via window to underpin 8 or front basement door. The Contractor shall erect a conveyor belt to take spoil to the outside.
- Form new underpins 28 to 32 to the other side of the basement from inside the house and existing basement area after stripping out all kitchen, toilet, bathroom and cupboard fixings and fittings etc. Pins are to be formed in sequence 28, 31, 29, 32, 30. Once pins and line have achieved full strength but no later than 3 days after completing the last pin, the Contractor shall clear away any impeding soil and shall erect

two rows of bracing across the site as shown on sketch H in appendix B.

- 13/ The Contractor shall erect three double rows of cross bracing to the lowered basement at preferably 2.0 metre centres to envelope the underpins up to 14 to 28 from the front of the house.
- 14/ Form the underpins 20 24 in the traditional sequence of 20, 23, 21, 24 and 22. Form underpins 16 to 19 and 25 in the sequence 16, 19, 17, 25 and 18. Erect two more rows of doubled up cross bracing as shown on H in appendix B and then complete the underpinning by forming underpins 34, 27, 35, 26 and 36 in that final order.
- Dig out spoil in the central area and the two well zones to the required line and level. Blind with 50 mm concrete the exposed clay soil so that the concrete slab can be built onto this protected surface. Agree with the Design Structural Engineer the sequencing and size of basement slab bays to be poured so that these works can proceed and the lower level of propping can be removed.
- All underpins are generally 1.25 metres wide and shall not be formed 1.4 metres or over in width.

  If, by inspection, the opening up of an underpin along the party load bearing wall line indicates that there may be excessive loading above (generally not the case in domestic properties) the walling above and to the side is to be supported by "strong-boys" with two each side of the underpin location. Support off soil ground level and support off laid timber scaffolding boards or similar approved.

  All of this is to be agreed with the Contracts Administrator and noted on the Temporary Works drawings before works start.
- 17/ The underpins shall be constructed using the classical, traditional technique as shown on the construction drawings. Whilst digging out the area under a single underpin, the Contractor shall ensure he does not over-dig into the Adjoining Owner's demise but brings down the line of the party wall thickness to extend the brick walling as reinforced concrete walling to the new basement invert level as shown on the relevant structural drawings.

Drill and epoxy fix mild steel dowels to underside of exposed spread brick footing. Form underpins with distribution steel pushed horizontally into the clay for lapping in future and front the underpin with shuttering using a "bird mouth" technique to drop concrete into the pocket. Cast up to 75 mm below the brickwork underside. Prepare dry pack as 1:3 cement: pea shingle and sand and just moist to the touch as well as retaining shape when squeezed between the fingers. Add "Combex 100" additive, as per manufacturer's instructions, mixed into the dry pack as this will ensure 5 % swelling on completion. Ram home the mixture to ensure a very good bond between the cleaned down underside of the spread brick footing and the top of the newly cast concrete.

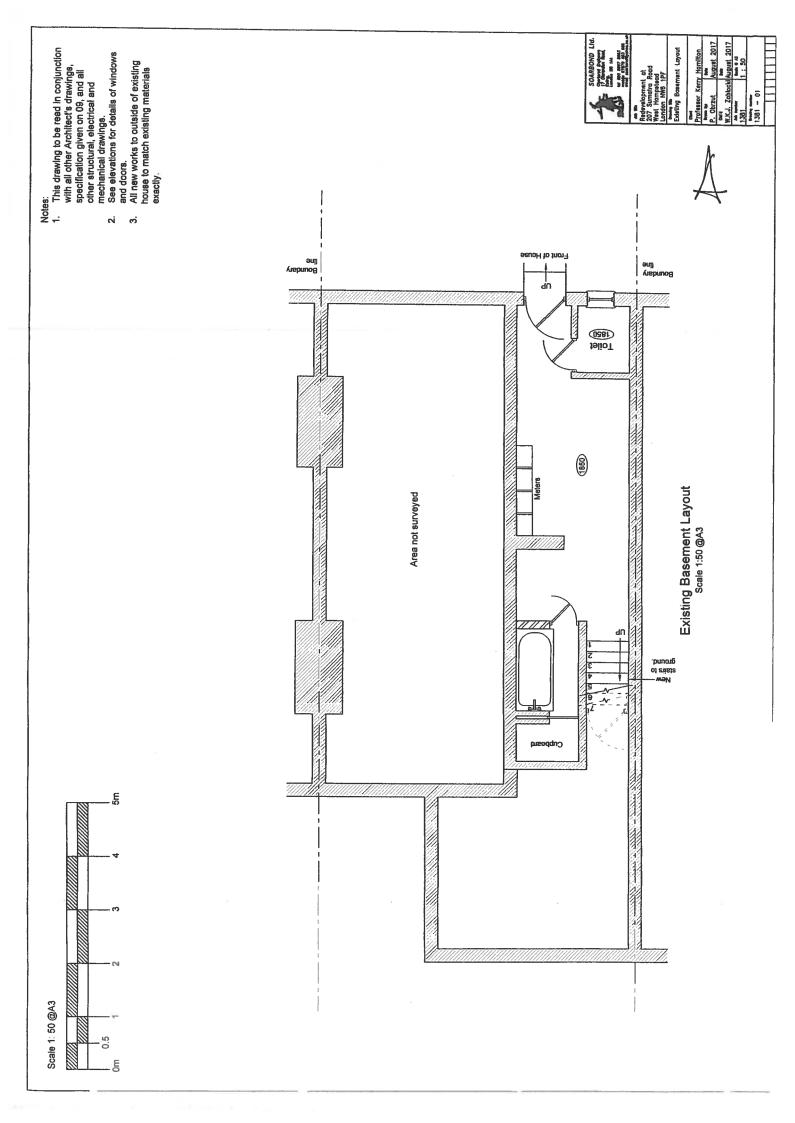
- 18/ Completed underpins are to be left for at least two working days before digging for an adjoining underpin.
- Once all of the underpins on external perimeter save 33 have been formed AND allowed to develop enough strength (say, 4 days), the foundation to the new brick pier can be formed and cast. The brick pier can be built in new brickwork to line and level. Erect steel bearing plate on top of the brick pier on top of suitable mortar. After the bearing plates have been allowed to develop their resistance to crushing, the 4 steel beams shall be erected to the underside of ground floor timber joists etc.
- 20/ The remaining zones shall be excavated and blinded with 50 mm of concrete to line and level.
- 21 / The timing for construction of new basement concrete slab can be determined by the Contractor to suit site programming. However, the construction of the slab (tying in the underpins) and erection of the steel beams must be carried out before one level and, then, the second level of propping is removed.
- Consequently, form reinforced, 200 mm thick concrete basement slab to tie in all underpins at basement level so that a "U" shaped box is formed at basement level running from front to back and side to side.
- 23/ Appendix A contains further sketches of the property as additional information whilst appendix B also has two sketches as sections through the proposed new house.

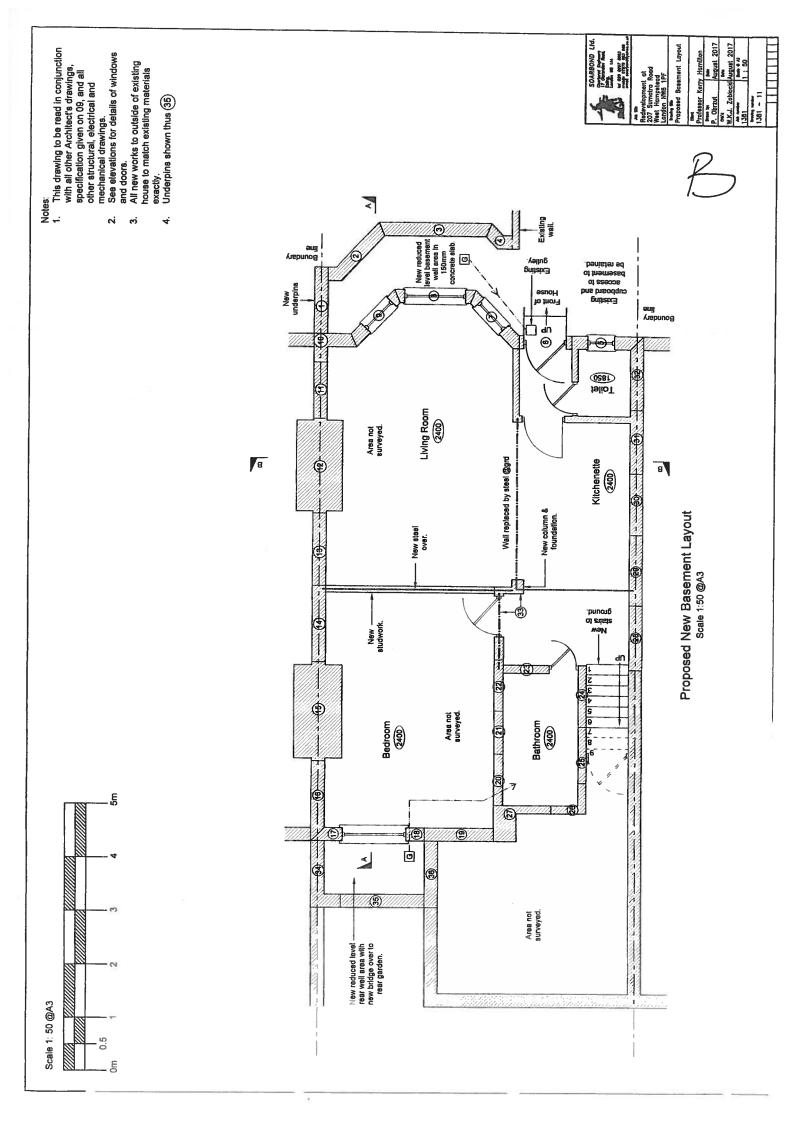
For and on behalf of Soarbond Ltd., Chartered Civil and Structural Engineers and Planners.

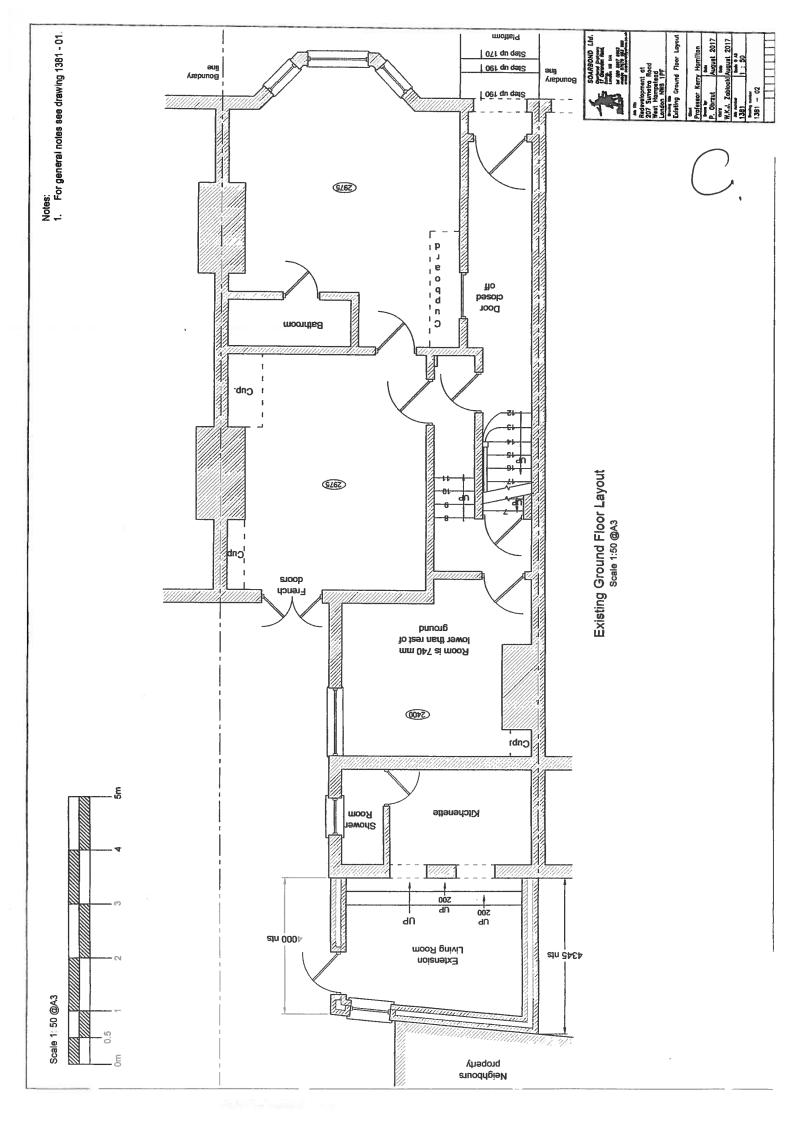
W.K.J. Zablocki B.Sc., C. Eng., MICE. Director.

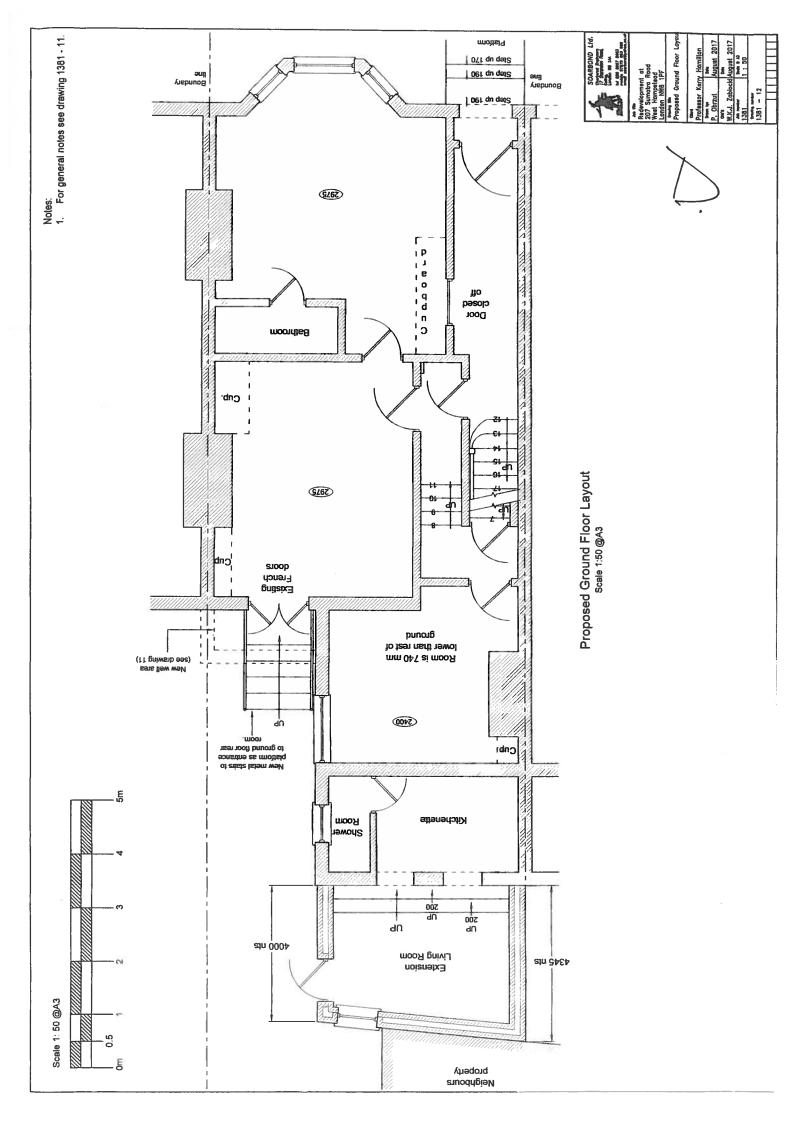
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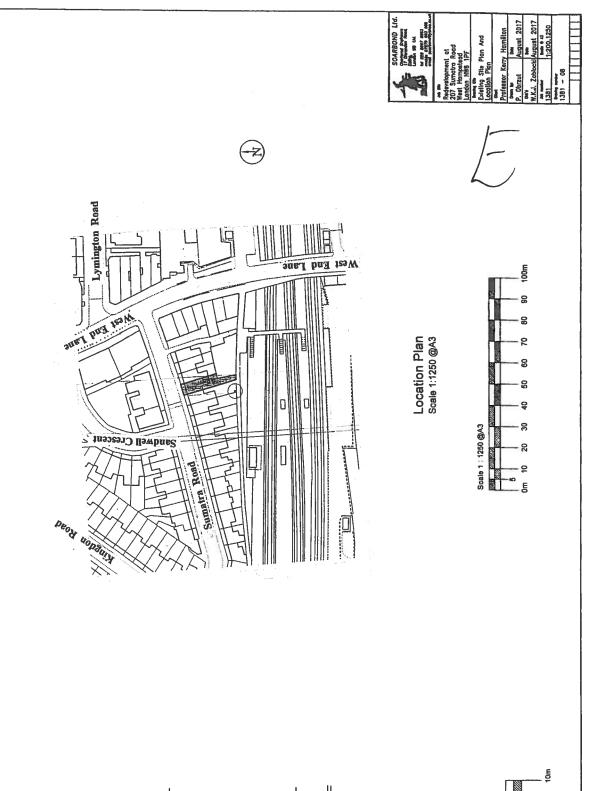












Site Plan Scale 1:200 @A3

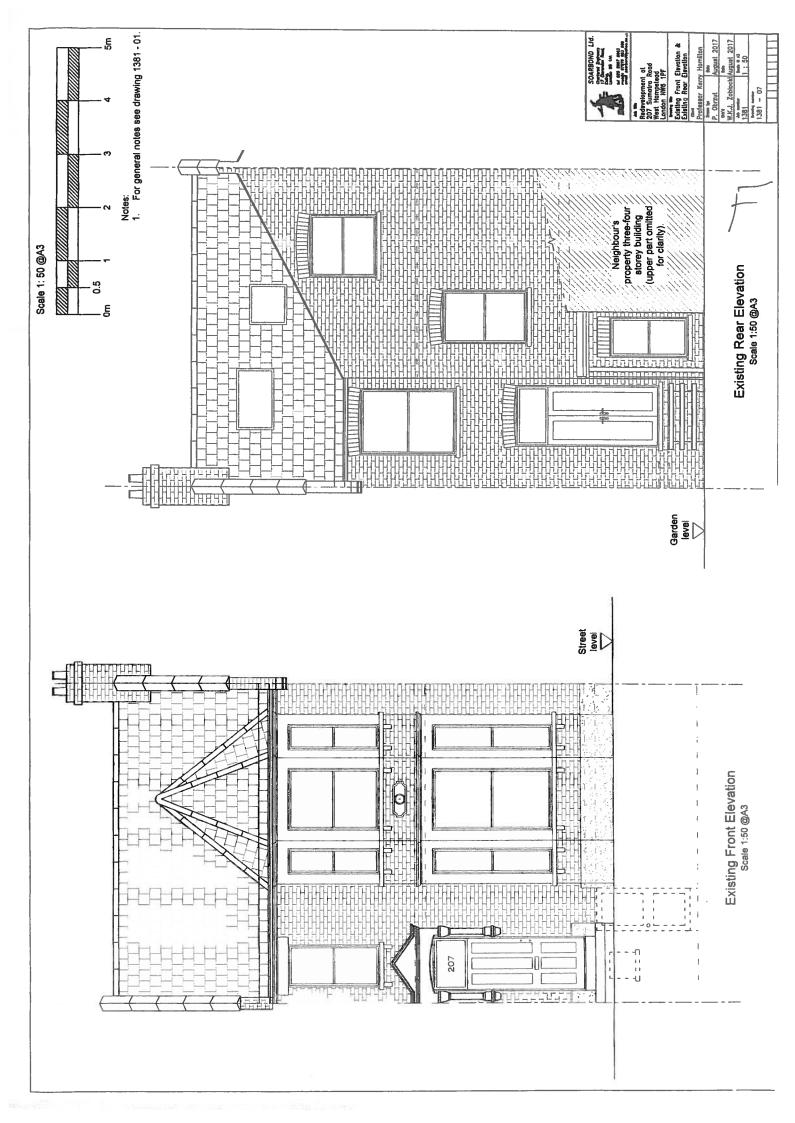
Scale 1: 200 @A3

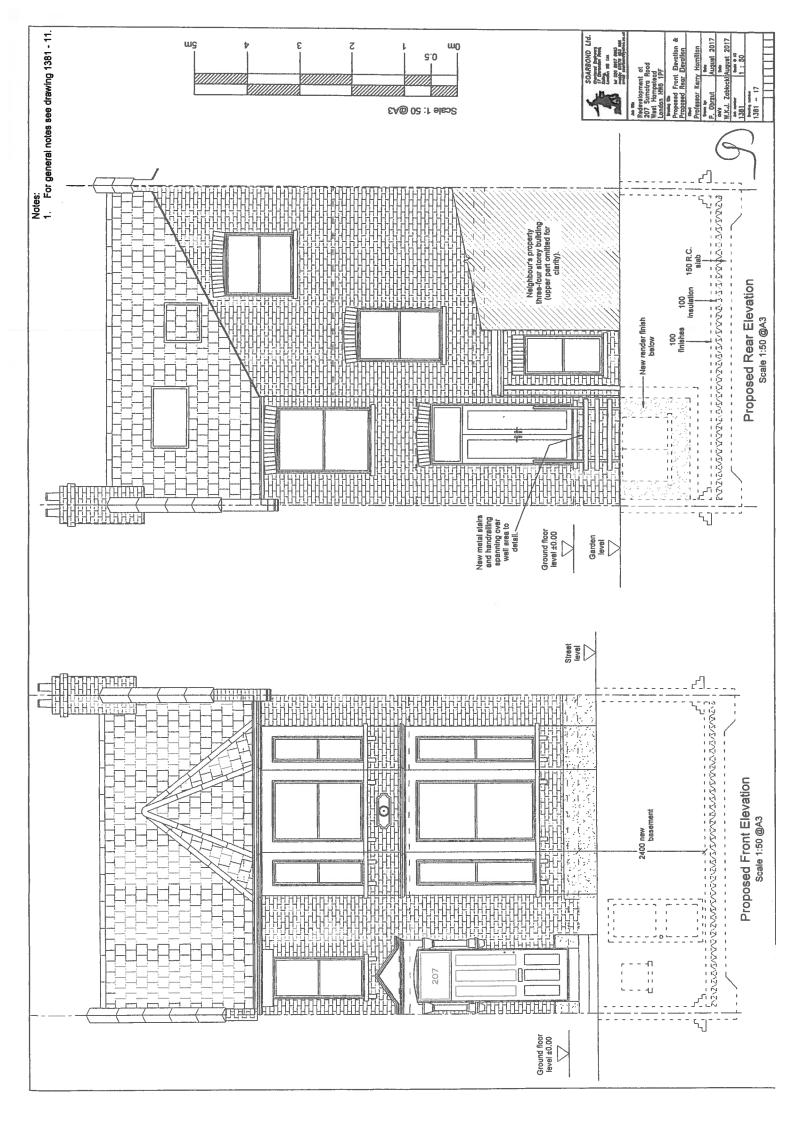
Rallway lines

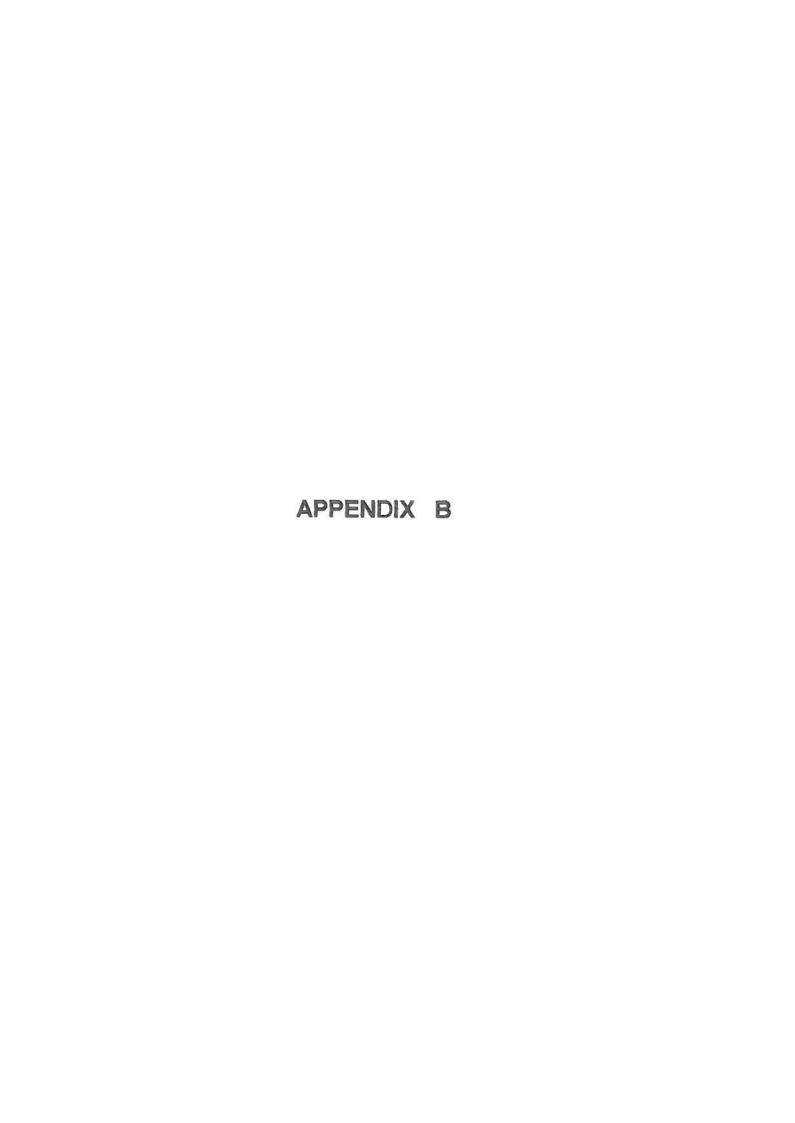
Path

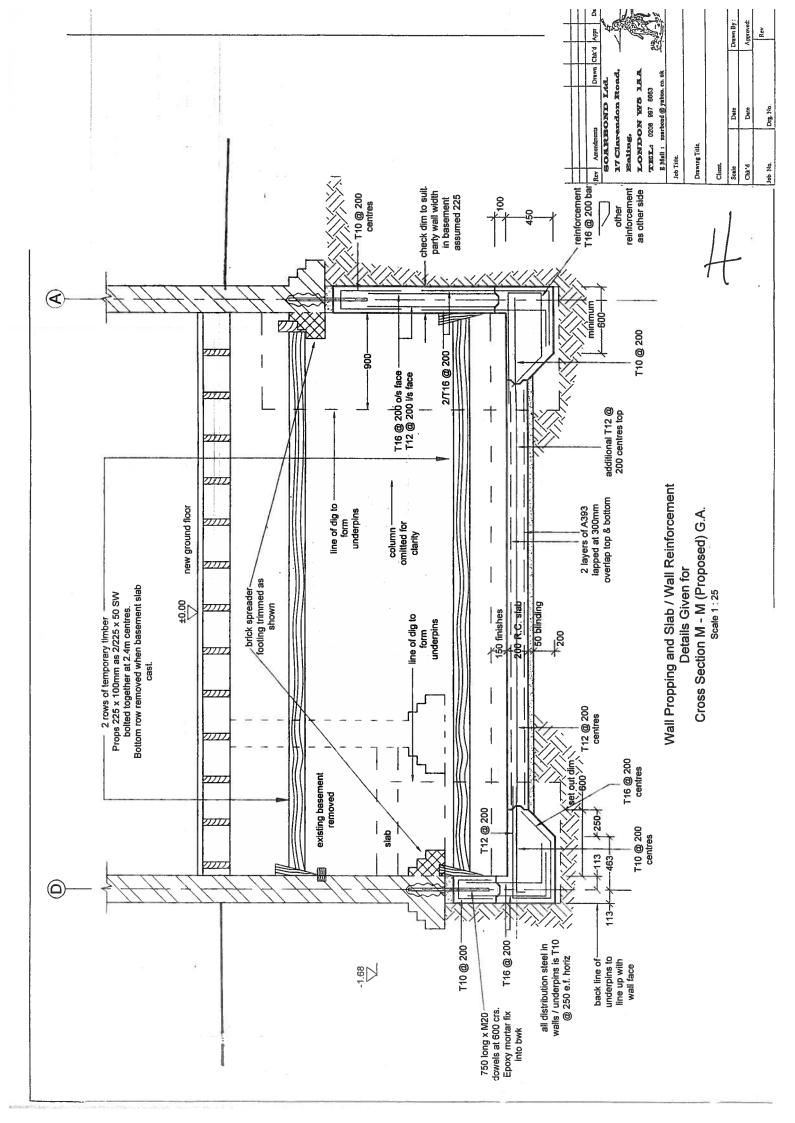
Rear Garden P

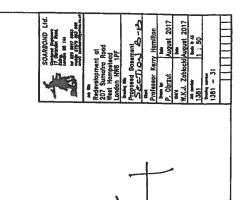
HOUSE 207

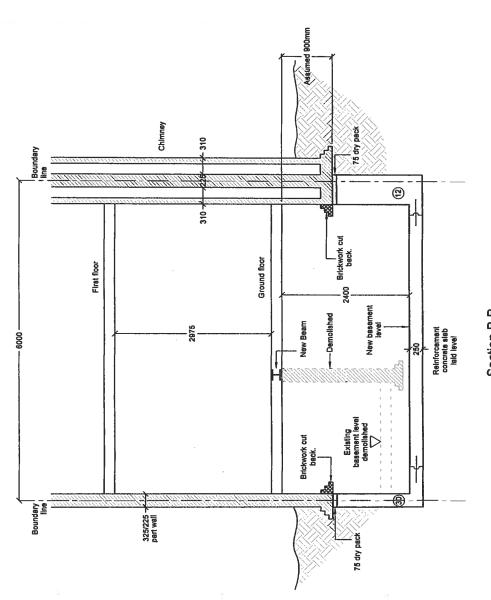




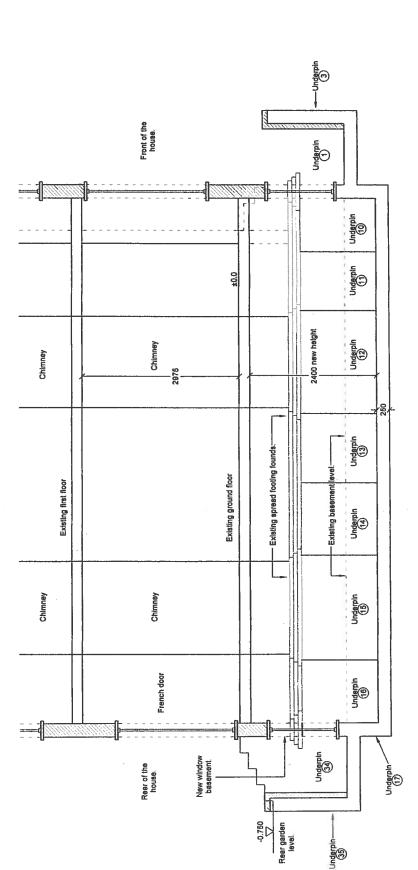








Section B-B Scale 1:50 @A3



Proposed Section A-A Scale 1:50 @A3

