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Drawing Number	Document Title	Scale	Paper Size	Revision												
500	Ground Floor Plan	1:50	A2	T1												
600	Structural Sections - S1 & S2	1:20	A3	T1												



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Project:		Job No:	
125 Albert Street		8136	
By:	Sheet:	Date:	
AA	1 of 1	19.01.23	

Underpinning Specification

The underpinning has been designed so that the maximum bearing pressure is 150 KN/m2 (SLS) based on medium dense sand and gravel indicated on borehole logs local to the site. Should the ground conditions found to be different the structural engineer must be informed prior to the casting of the underpinning.

The Contractor is to be responsible for the accurate construction of the works according to the true intent of the Engineer's drawings and this specification.

The Contractor is to consider the need for any temporary works required to ensure the stability of the walls underpinned and provide any needling, dead shoring, propping etc. as may be appropriate.

The underpinning legs are to be constructed in the stages indicated on the drawing. Should the contractor wish to undertake the works in different stages this must be agreed with the engineer prior to undertaking the works

The excavation works are to be undertaken carefully so that the existing footings are not disturbed. Excavations are to be temporarily supported as necessary

When excavating for an underpinning leg, if any deviation is found in the nature of the bearing strata, or if obstacles or obstructions are encountered, the facts are to be reported to the Engineer.

All underpinning legs should have keys formed in them for bonding into succeeding legs as indicated on the Engineer's drawing.

A minimum of 48 hours after concreting a leg of underpinning, the footings above may be pinned up.

The pinning concrete is to be driven into place using hand held hammer and a 75 mm square hardwood drift against a substantial timber, secured on far side of footing.

Concreting and pinning-up must be completed before starting to excavate the next section of underpinning in the sequence.

Underpinning legs should preferably be concreted on the same day as they are excavated. If it is necessary to leave them open overnight temporary works and timbering are to be used to ensure that all is secure. On no account are underpinning legs to be left open over the weekend.

Particular care is to be taken to clean off and if necessary hack or scabble side of previously cast legs to provide adequate bond before concreting subsequent legs.

If water is encountered in excavation the Contractor is to provide sumps, grips and pumps as necessary to keep the excavations free from water always.

The concrete used in underpinning legs shall be minimum grade RC40 in accordance with BS EN 206:2013, with a minimum cement content of 330 kg/m³ or a 1:1.5:3 prescribed mix using 20 mm maximum aggregate, subject to proper ganging facilities being available on site.

Materials

Pinning concrete shall be approximately 75 mm thick pea-shingle concrete 1:1:5:3 mixing using 5 mm - 10 mm coarse aggregate and "Cebex 100" expanding admixture by Messrs Fosroc UK Ltd in accordance with their instructions.

The water content in the pinning concrete is to be the minimum necessary to ensure hydration of the cement and the consistency should be such that the wetted mix will just bind under strong hand pressure.



Numbers in bay refer to a "possible" excavation and underpinning sequence to be undertaken by the contractor - Refer to Structural Specification for more Details

____ Indicates line of structure under



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DO NOT SCALE FROM THIS DRAWING

All dimensions to be verified on site before commencing work. All error and omissions are to be reported to the Engineer. This drawing is to be read in conjunction with all relevant Design Team drawings and specifications

Drawing History

Rev	Date	Description	Drawn	Checked
T1	19.01.23	For Tender	AA	JN

Mass concrete underpins to existing foundations to front facade to be cast in 1000mm widths to a depth of 2600mm below existing ground level. Underpins to be tied into adjoining pins with H12 dowels at 200mm centres, front and back. Dowels to be a minimum 400mm long. Numbers in bay refer to a "possible" excavation and underpinning sequence to be undertaken by the contractor -Refer to Structural Specification for more Details

Depth of underpins to party wall to equally step up per underpin to existing foundation depth. Depths on plan are assuming party wall foundation depth to be 750mm below ground level. Steps to be 450mm per underpin. **To be confirmed on site**

Ground Floor Plan

125 Albert Street, NW1 7NB

Private Client

Job No 8136

Drawing No 500

Revision T1

1:50 at A2



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DO NOT SCALE FROM THIS DRAWING

All dimensions to be verified on site before commencing work. All error and omissions are to be reported to the Engineer. This drawing is to be read in conjunction with all relevant Design Team drawings and specifications

Drawing History

Rev	Date	Description	Drawn	Checked
T1	19.01.23	For Tender	AA	JN

Existing foundations shown indicitavely

75mm thick pinning concrete

Mass concrete underpins to existing walls to be cast in 1000mm widths to a depth of 2600mm below existing ground level. Underpins to be tied into adjoining pins with H12 dowels at 200mm centres, front and back. Dowels to be a minimum 400mm long

Section S2 Scale 1:20

Structural Sections -S1 & S2

Project 125 Albert Street, NW1 7NB

^{Client} Private Client

Job No. 8136

Drawing No. 600

Revision T1

Scale 1:20 at A3