

**PRELIMINARY METHOD STATEMENT**

**FOR**

**UNDERPINNING WORKS**

**AT**

**37 ARKWRIGHT ROAD**

**LONDON NW3 6BJ**

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Project No: DH/54  
Date: July 2019  
Revision

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## **Brief description**

The following is a preliminary Method of Works for the proposed underpinning of the existing party wall at 37 Arkwright Road to enable the installation of the new proposed slab at a lower level. The underpinning is to be installed if necessary following investigation on site.

This Method Statement is to be read in conjunction with all engineers and architects drawings and specifications. The contractor for the underpinning works shall be required to provide their own Method Statement in respect to sequence of works and confirmation of required depths of excavation and minimum widths of underpinning bays.

The contractor is to provide the method statement and details to the engineer, architect and all other parties a minimum of 14 days prior to commencement of works.

All underpinning bay lengths and depths are subject to variation dependant on site conditions.

Width of underpinning bays is based on an allowable bearing capacity of the ground of 100kN/m<sup>2</sup> which is subject to confirmation on site of bearing strata at founding level.

Wherever excavation or underpinning is being carried out, the Main Contractor shall allow for locating existing services and marking. In addition, they shall ensure that all underpinning operators are aware of service locations and depth and status i.e.: live or dead.

The attached plan DH/54/SK100 indicates a preliminary underpinning sequence, however the contractor is to confirm their proposals for sequencing in their method statement.

## **Method Statement**

### **Preparation works prior to commencement of excavation**

Prior to commencement of work on site details of adjacent property layouts are to be ascertained to confirm if existing basements are present if so the depth of the basement slab and if possible the method of construction of the basement. If a basement is not present the levels of ground slab shall be determined.

Establish setting out level above proposed slab level to enable all levels for excavation and finished slab etc to be taken from fixed setting out point.

Mark out proposed underpinning bays and confirm sequence in which bays are to be constructed in accordance with engineers drawings and specifications or as alternatively proposed by the contractor in their method statement (to be confirmed and agreed with engineer prior to commencement of works).

Contractor is to ensure that a suitable route is planned for the removal of excavated soil. To be confirmed on site.

All services and cables, which have been exposed or are in the area of working, should be marked and contractor's employees and staff should be made aware of their positions, depths and status i.e. live or dead.

The process of underpinning should proceed with pits marked No 1 (see drawing) and excavated to a depth of approximately a minimum of 0.75m below the underside of existing brick footings and to a width as specified on the drawings.

The contractor is to allow for temporary support of excavation if necessary based on inspection on site of ground conditions.

### **Underpinning to party wall.**

1. Commence with bay 1.
2. Excavate under wall to founding level to full width of existing footing.
3. Following excavation, the bottom of the underpinning bay should be thoroughly cleaned and all loose materials removed.
4. Any soft spots are to be reported to the engineer and filled with hardcore or as specified by Engineer.
5. Provide waterproofing under pin as engineers and architects drawings.
6. Provide 6 No 20mm mild steel dowel bars to be placed into the side of the excavation abutting the adjacent pits with a minimum of 400mm projecting.
7. The contractor is to notify building inspector, engineer and engineer of the completion of excavation to founding level and allow for inspection and approval of formation level and ground conditions prior to continuation of works. The contractor shall provide a minimum 48 hours notice to allow for inspection.
8. Subject to approval underpinning bays can be cast using SC25/30 concrete and allowing for a minimum 3 No cube tests per batch. Note if materials are to be ready mixed, mixed design is to be forwarded to engineer a minimum of 14 days prior to casting.
9. Underpinning bay is to be to depth as specified on drawings and to be minimum width of existing brickwork footing or as specified on drawings
10. Underpinning bay is to be cast to within 75mm of the underside of the existing brickwork footing.
11. Allow for a minimum period of 24 hours for concrete to set prior to dry packing between the underside of the existing footing and top of new pad.
12. Drypack should be a 1:3 cement sand drypack with Fosroc Conbex 100 admixture or similar approved. The contractor is to ensure that drypack is rammed into void for full width of existing footing and is tightly packed into void. The contractor is to ensure that any additives are used in full accordance with manufacturer's recommendations and specifications.
13. The remaining bays construction will be a repeat of the above. Allow for a minimum of 48 hours between drypacking of one bay and excavation for following bay

**NOTES**  
 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.  
 FOR GENERAL NOTES SEE DRAWING No DH/54/10

**UNDERPINNING NOTES**

THE UNDERPINNING SEQUENCE SHOULD BE BASED ON TRADITIONAL 1.4.2.5.3 LAYOUT OR AS SPECIFIED BY THE CONTRACTOR AND AGREED WITH THE ENGINEER.

UNDERPINNING BAYS ARE TO BE A MAXIMUM OF 1.0m WIDTH.

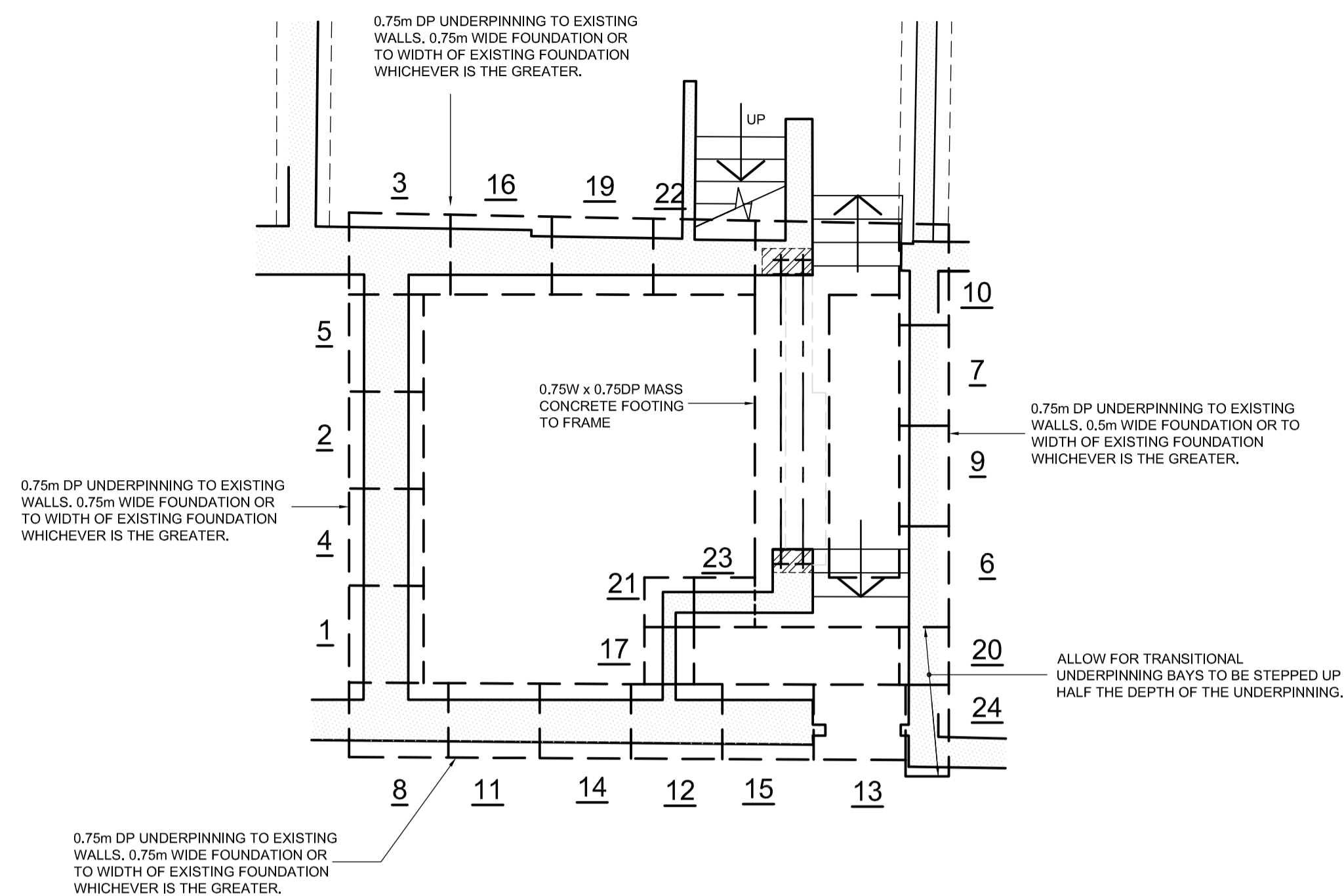
BASE IS TO BE PREPARED WITH 50mm SAND BLINDING AND 150mm COMPACTED hardcore PRIOR TO CASTING SLAB.

FOUNDATIONS AND SLAB DESIGN AND INFORMATION IS BASED ON PERMISSIBLE BEARING PRESSURE OF 100kN/m<sup>2</sup>. CONDITIONS ARE TO BE MONITORED ON SITE BY CONTRACTOR AND ANY VARIATIONS ARE TO BE REPORTED TO THE ENGINEER AND ARCHITECT PRIOR TO CONTINUATION OF WORKS. THIS INCLUDES TYPE OF GROUND AND WHETHER THERE IS WATER PRESENT ON THE SITE.

DRY PACK TO UNDERSIDE OF EXISTING USING MINIMUM 50mm TO BE FULLY RAMMED TO FULL DEPTH OF WALL.

CONCRETE FOR UNDERPINNING TO BE MINIMUM GRADE C25/30 DESIGN CLASS DS-1 ACEC CLASS AC-1S.

ANY AREA OF BACKFILLING BEHIND WALL SHOULD BE FILLED WITH LEAN MIX CONCRETE. ENGINEER SHOULD BE CONSULTED IF THERE ARE ANY AREAS WHERE BACKFILLING MAY BE REQUIRED.



**NOTE**  
 UNDERPINNING SEQUENCE IS PRELIMINARY AND FOR INFORMATION ONLY. THE CONTRACTOR IS TO PROVIDE FULL DETAILS FOR PROPOSED UNDERPINNING SEQUENCING AND METHOD STATEMENT FOR CARRYING OUT THE WORKS.  
 THE SEQUENCE IS TO BE AGREED WITH ENGINEER AND ARCHITECT PRIOR TO COMMENCEMENT OF WORKS.  
 TEMPORARY WORKS WILL BE SUBJECT TO ON SITE INVESTIGATION AND FINDINGS AND THE CONTRACTOR SHALL ALLOW FOR TEMPORARY PROPPING DESIGN AND INSTALLATION AS NECESSARY

**NOTE**  
 UNDERPINNING IS TO BE CARRIED OUT IN MAXIMUM 1.0m LONG BAYS AND HAVE 6No H20 BARS x0.6m LONG BETWEEN BAYS.  
 PROVIDE MINIMUM 50mm NON SHRINK DRY PACK TO UNDERSIDE OF EXISTING TO FULL DEPTH OF FOOTING.

**NOTE**  
 AT JOINTS IN WALL AND SLAB ALLOW FOR PROVIDING WATERBAR SUCH AS SUPERCASST BY FOSROC OR SIMILAR APPROVED. DELTA MEMBRANE TO BE USED INTERNALLY ON WALLS TO ARCHITECTS DETAILS.

**PRELIMINARY UNDERPINNING PLAN**  
 SCALE 1:50

	Date	Made	Chk'd
PRELIMINARY			
* ISSUED FOR COMMENT	31.07.19	A.S.T	
<b>Client</b>			
<b>Project</b>			
37 ARKWRIGHT ROAD LONDON NW3 6BJ			
<b>Title</b>			
PRELIMINARY UNDERPINNING PLAN			
AST STRUCTURAL ENGINEERING SERVICES LTD 22 POLEHANGER LANE HEMEL HEMPSTEAD HERTS HP1 3PT e-mail asthompson007@gmail.com Tel 01442 218290 M 07508 319494			
Scale	Drawn	Date	Checked
1:50 @ A1	AST	JULY 19	
Drawn	Checked	Cad File	
Drawing No	Prelim'	Const'n	Tender
DH/54/SK100			
			Record