METHOD STATEMENT
FOR
UNDERPINNING AND FORMATION OF RETAINING WALLS
TO
CREATE A NEW BASEMENT

25 Glebe Place
London

Ref:-15573
1.0 INTRODUCTION

This Construction Method Statement is produced for submission to the Royal Borough of
Kensington and Chelsea planning department for planning application only and should not be
used for any other purposes, e.g. Party Wall Awards.

Scope Of Works

New basement extension is to be created under 50% of the front and rear garden of the existing property. This will create a bedroom and light well.

Description Of 25 Glebe Place And Adjoining Properties

The property is a four storey terraced house located at the end of a terrace. It is of masonry
construction with timber floors to all levels and timber rafters to form the roof. The property is
in sound condition structurally. The adjoining properties are of similar construction and look to
be in sound condition from an external non – intrusive visual examination. Neither the
property nor any of the adjoining properties are listed on the Statutory List of Buildings of
Special Architectural or Historic Interest, but the property is located within the Chelsea Park Carlyle
Conservation Area. The property is in use as multiple flats.

2.0 GENERAL NOTES

These calculations and details are to be read in conjunction with all relevant Architect's and
Engineer's drawings and specifications.

Full Building Regulation Approval should be obtained prior to the commencement of works on site,
and any works carried out prior to this are undertaken at the Client's/Contractor's own risk.

The works are to be carried out to the approval and satisfaction of the Building Control Officer, to
accepted good building practice and with full compliance and in accordance with all relevant
British Standards and Codes of Practice.
3.0 CONSTRUCTION NOTES

2.1 Existing Construction

All assumed load bearing walls, foundations and structural elements are to be exposed and checked on site with the Building Control Officer, prior to the commencement of works for suitability. Trial holes are to be excavated prior to commencement of works and are to be inspected by the Building Control Officer/Soils Specialist. All new foundations are to be founded off natural virgin ground.

Any deviation from the design assumptions is to be reported to the Architect/Engineer prior to commencement of works.

The existing building is assumed to be in good structural order and any defects are to be reported to the Architect/Engineer.

The temporary stability of the structure during all stages of the construction work is the responsibility of the Contractor.
4.0 Geology

- Typical Geohydrology Results for the area (To be confirmed)

Depth 0.6m Made Ground
Depth 0.6-3.5m Clay
Depth 3.5m-9.4m Gravel/sand
Depth 9.4m – Stiff Clay

5.0 SDP

Subterranean Development SPD – Clause 6.1.2

We are happy that the above strata is capable of supporting the given loads and sequence of works.

The proposed works will have no affect on existing surrounding utilities and infrastructure.

Slope instability will not apply.

We do not expect ground water to be encountered within the build. A pump shall be present on site to deal with any ground water as a fail safe.

Our design has taken into account all geological, hydrological and structural concerns. Our sequence, method statement and retaining wall design have considered all these factors.

Please see plans for sequenced works. Enclosed

Please note that if all works are carried out to this Method Statement, Calculations and sequence, we are happy to state that no detrimental affect will occur to the adjoining properties.
6.0 NOTES ON UNDERPINNING

Internal underpinning to existing building

Given the anticipated ground conditions and depth of proposed basement areas, the method of construction will be carried out from existing ground levels using hand dug underpinning techniques. Depending on the sequence of excavation and construction, the walls will be propped at appropriate levels using temporary and permanent propping elements.

The underpins will take the form of reinforced concrete retaining wall sections which will resist the lateral forces both in the temporary and permanent conditions. Once a complete box has been formed the central slab will be cast.

A proposed sequence of construction in 1100mm bays has been illustrated on the plan.

Underpinning sequence of work

1. Excavate bays 1 down to required level. The underside of existing foundation is to be well cleaned. Sides of excavation are to vertical and smooth faced. Provide 4 no. dowel bars into adjacent soil.

2. Shutter, as necessary to provide required foundation width. Concrete is to be placed up to 75mm below underside of existing foundation.

3. One day after completion of concreting (24 hours), dry pack to bay 1 to be placed between underside of footings and new surface.

4. Repeat operations 1 to 3 for bays 2 allowing at least 48 hours between dry packing and excavation of adjacent bay.

5. When pouring against a section already underpinned, the face of the concrete shall be cleaned and roughened, if necessary, to provide a good key. Exposed dowel bars to be cleaned off.

6. Repeat operations 1 to 3 for additional bay 3 allowing at least 48 hours between dry packing and excavation of adjacent bay.

7. When all underpinning bays have been poured and dry packed placed between underside of footings and new surface. Projected brickwork corbels and concrete footings can be carefully removed by the contractor.
7.0 **NOTES ON RETAINING WALLS**

New retaining walls to basement extension to be designed using BS8110

Condition surveys of the subject building and adjoining properties will also be undertaken prior to commencement of the site works.

1. The sequence of retaining wall construction is to be agreed with engineer.

2. Not more than 25% of one wall shall be undercut at any one time. Underpinning shall be in short lengths not exceeding 900mm.

3. Reinforced concrete for underpinning shall be Design Sulphate class DS-1 and ACEc class AC-1 grade C35, maximum aggregate size of 20mm, and a w/c of 0.45

4. Dowel bars shall be 20mm plain round bars 600mm long with 300mm embedment in each section.

5. Prior to concreting, the underside of existing foundations shall be carefully cleaned of all soil from the sides of the trench, and the formation shall not be left exposed over night. The formation shall be protected from heavy rain and frost.

6. Concrete shall be placed with care to avoid loose soil or rubbish falling into the excavation. The concrete shall be carefully compacted by means of a pocket vibrator.

7. No two adjoining sections shall be worked concurrently. A minimum period of 48 hours should be given between placing dry pack mortar and commencing excavation of any adjacent section.

8. Dry pack is to be a mixture of portland cement and sharp sand mixed as dry as possible passing through a No 16 seize with just enough water to hydrate the cement and is to be placed into position using a back shutter against which it should be rammed with a blunt timber rammer and mallet.

9. A continuous trench for working space shall not be permitted.
Signed…..
Date 18/03/15
Mr A J Mitchinson BEng, CEng, MIstructE