CampbellReith
consulting engineers

28 Kylemore Road
NW6 2PT

Basement Impact Assessment
Audit

For

London Borough of Camden

Project Number: 12466-93
Revision: F1

September 2017

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Document Details

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Project Number	12466-93
Project Name	28 Kylemore Road, NW6 2PT
Planning Reference	2017/2671/P

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Appendix

1.0 NON-TECHNICAL SUMMARY

1.1. CampbellReith was instructed by London Borough of Camden, (LBC) to carry out an audit on the Basement Impact Assessment submitted as part of the Planning Submission documentation for 28 Kylemore Road, London, NW6 2PT (planning reference 2017/2671/P). The basement is considered to fall within Category B as defined by the Terms of Reference.

1.2. The Audit reviewed the Basement Impact Assessment (BIA) for potential impact on land stability and local ground and surface water conditions arising from basement development in accordance with LBC's policies and technical procedures.

1.3. CampbellReith was able to access LBC's Planning Portal and gain access to the latest revision of submitted documentation and reviewed it against an agreed audit check list. With an updated version of the BIA (rev. 3) being received from the applicant by email.

1.4. The Land Stability Assessment has been carried out by a firm of geotechnical consultants, and the individuals concerned in its production have suitable qualifications.

1.5. The property is a terraced two storey plus lower ground floor house. The proposed basement consists of a single storey construction formed by lowering an existing lower ground floor area and creation of a new lightwell to the front elevation.

1.6. A ground investigation was conducted and it is felt that the scope of the site investigations is appropriate to the scale of the proposal.

1.7. The ground model consists of a shallow depth of made ground overlying the London Clay. Ground water was not encountered.

1.8. The basement and new underpinned foundations will be founded in London Clay. There is no indication of trees in the vicinity of the property and the report indicates that there are no signs of structural damage on the building.

1.9. It is accepted that underpinning the existing foundations and lowering the floor level will have a limited impact on stability of the neighbouring properties (assuming good workmanship). A ground movement was conducted and confirmed a low impact of the lightwell construction on the highway infrastructures showing.

1.10. The proposed scheme indicates a hardstanding type of finishes on the front garden area with a small area of permeable paving. The reference to hardstanding as drained area indicates that the amount of surface water drained to public sewer will be reduced.

1.11. The construction methodology presented for the lightwell construction, subject to the comments made on section 4, is found to be acceptable given good workmanship.

1.12. A movement monitoring is being proposed to the party walls and highway structures.

1.13. Although some comments are made in section 4, it can be confirmed that the BIA complies with the requirements of CPG4.

2.0 INTRODUCTION

2.1. CampbellReith was instructed by London Borough of Camden (LBC) in June 2017 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 28 Kylemore Road, London, NW6 2PT, ref. 2017/2671/P

2.2. The Audit was carried out in accordance with the Terms of Reference set by LBC. It reviewed the Basement Impact Assessment for potential impact on land stability and local ground and surface water conditions arising from basement development.

2.3. A BIA is required for all planning applications with basements in Camden in general accordance with policies and technical procedures contained within

- Guidance for Subterranean Development (GSD). Issue 01. November 2010. Ove Arup & Partners.
- Camden Planning Guidance (CPG) 4: Basements and Lightwells.
- Camden Development Policy (DP) 27: Basements and Lightwells.
- Camden Development Policy (DP) 23: Water.

2.4. The BIA should demonstrate that schemes:

a) maintain the structural stability of the building and neighbouring properties;

b) avoid adversely affecting drainage and run off or causing other damage to the water environment;

c) avoid cumulative impacts upon structural stability or the water environment in the local area, and;

d) evaluate the impacts of the proposed basement considering the issues of hydrology, hydrogeology and land stability via the process described by the GSD and to make recommendations for the detailed design.

2.5. LBC's Audit Instruction described the planning proposal as *"Erection of a single storey rear extension at lower-ground floor level, new lightwell to the front elevation to form habitable rooms and new bin store in front garden all associated with the use as a maisonette (Class C3)."*

2.6. CampbellReith accessed LBC's Planning Portal on 28 July, 2017 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment – April 2017 – KEY GS – report number 17-135-R-002 rev.4 (received via Email)
- Neighbours consultation – two responses (both from 27 Kylemore Rd. 23/06/17)
- Planning Application Drawings consisting of
    - Existing and Proposed Floor Plans – drawing 170130/01 rev. A
    - Existing Elevations – drawing 170130/02
    - Proposed Elevations – drawing 170130/03 rev. A
    - Existing and Proposed Sections – drawing 170130/04 rev. A
    - Location and Block Plans – drawing 170130/05
    - Trial Hole Location Plan – drawing 170130/06

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	
Is data required by Cl.233 of the GSD presented?	No	No detail regarding other permits that may be required.
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	Yes	
Are suitable plan/maps included?	Yes	However ARUP GSD map extracts not presented.
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	Yes	
Land Stability Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Partially	The question regarding the location to the pond chains on Hampstead Heath has not been answered.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Partially	The question regarding the location to the pond chains on Hampstead Heath has not been answered. Justification generally provided for no answers.
Is a conceptual model presented?	Yes	
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Partially	No formal scoping carried out however some discussion has been made.

Item	Yes/No/NA	Comment
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Partially	No formal scoping carried out however some discussion has been made.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	N/A	No items carried through from screening.
Is factual ground investigation data provided?	Yes	Appendix 1 of BIA.
Is monitoring data presented?	No	
Is the ground investigation informed by a desk study?	Yes	A partial desktop study has been carried out in report on ground investigations.
Has a site walkover been undertaken?	Yes	Reference is made to a visual inspection of the building.
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	
Is a geotechnical interpretation presented?	No	
Does the geotechnical interpretation include information on retaining wall design?	No	
Are reports on other investigations required by screening and scoping presented?	No	
Are the baseline conditions described, based on the GSD?	Yes	
Do the base line conditions consider adjacent or nearby basements?	Yes	
Is an Impact Assessment provided?	Yes	Ground movements have been discussed.

Item	Yes/No/NA	Comment
Are estimates of ground movement and structural impact presented?	Yes	
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	Yes	
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	No	
Has the need for monitoring during construction been considered?	Yes	
Have the residual (after mitigation) impacts been clearly identified?	Yes	
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	Yes	
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	No	
Does report state that damage to surrounding buildings will be no worse than Burland Category 2?	Yes	
Are non-technical summaries provided?	No	

4.0 DISCUSSION

4.1. The Land Stability Assessment has been carried out by a firm of geotechnical consultants, KEY GS and the individuals concerned in its production have suitable qualifications in accordance with CPG4.

4.2. The property is a terraced two storey plus lower ground floor house. The proposed basement consists of a single storey construction formed by lowering an existing lower ground floor area and creation of a new lightwell to the front elevation, to form habitable rooms. The existing lower ground floor will be lowered approximately 330mm and the existing foundations will be underpinned with mass concrete to a depth of approximately 700mm.

4.3. A ground investigation report (ref. 17-135-R-001) was provided. While the two number borehole logs included in the report do not extend significantly below the proposed foundation level, it is felt that the scope of the site investigations is appropriate to the scale of the proposal.

4.4. A number of trial pits are indicated on drawing 170130/06 and the investigation results are provided in the ground investigation report. The trial pits were excavated up to the underside of the corbeled foundation, and show the bottom of foundation to be between 400 and 500mm below the finished floor level.

4.5. The ground model consists of a layer of made ground (0.2-0.8m) overlying the London Clay. It is indicated that a standpipe was installed to a depth of approximately 2.7mbgl but no water monitoring results were presented. No sign of ground water was encountered in the boreholes.

4.6. The basement and new underpinned foundations will be founded in London Clay. There is no indication of trees in the vicinity of the property and the report indicates that there are no signs of structural damage on the building.

4.7. It is accepted that the underpinning to the existing basement poses a low likelihood of significant ground movements assuming good workmanship, particularly in relation to the neighbouring properties that contain lower ground levels also. The results of the ground movement assessment, to predict the potential damage to the pavement and the highway due to the construction of the lightwell are presented. Horizontal and vertical movements are less than 10mm which is argued presents a low risk of damage to the highway structures and buried services, which is accepted.

4.8. Hardstanding is proposed to the front garden area (with exception of a small area), similar to the existing, along with the new front basement lightwell. While not explicitly indicated in the information provided, the applicant seems to refer to permeable/drained areas as “hardstanding” surface and is proposing to reduce this area by replacing 1.1m^2 of

"hardstanding" surface with permeable paving. As a result, there will be a small reduction of surface water being drained to the public sewers.

4.9. A construction methodology is presented for the lightwell construction which indicates the use of propped trench sheeting progressively lowered into the ground as the excavation proceeds, with the reinforced concrete retaining wall constructed inside of the trench sheeting. The void between the trench sheeting and the concrete wall is to be progressively filled as the wall is constructed, with the trench sheeting removed once completed. With reference to KEY GS drawing number 17-135-D-003, the Trench sheets should be moved up to mid height between stages 5 and 6 and then completely removed between stages 7 and 8, to avoid soil relaxation after backfill is completed. It is accepted that the method of construction has been thought out to ensure support to the retained ground at all times which is accepted, however good workmanship and an experienced contractor is should be ensured to ensure that ground movements are minimised.

4.10. Outline structural design calculations is being provided. At this stage, the ground water is not being considered but an adequate groundwater level must be account for on the final design of the retaining wall. It is suggested that the retaining wall could be reinforced concrete or reinforced brickwork but, although we accept that brickwork could be an acceptable construction material for the retaining wall, the methodology presented would not allow for the waterproofing the back of the wall, potentially reducing the durability of the retaining structure. For this reason, it is recommended the use of reinforced concrete.

4.11. A works programme covering key phases of work such as start date, duration has been provided.

4.12. A movement monitoring strategy is being proposed to include visual inspection and the monitoring of fixed monitoring points on the property, adjoining properties and public highway. This includes an outline movement monitoring strategy and generic trigger levels, which given the scale of the proposal is considered adequate.

4.13. Although comments made above should be taken into account, it can be confirmed that the BIA complies with the requirements of CPG4.

5.0 CONCLUSIONS

5.1. The BIA has been carried out by a firm of engineering consultants using individuals who possess suitable qualifications in accordance with CPG4.

5.2. The property is a terraced two storey plus lower ground floor house. The proposed basement consists of a single storey construction formed by lowering an existing lower ground floor area and creation of a new lightwell to the front elevation, to form habitable rooms.

5.3. A Ground Investigation was carried out and it is felt that the scope of the site investigations is appropriate to the scale of the proposal.

5.4. A series of trial pits were made and the investigation results indicate that the bottom of corbeled foundation is 400 to 500mm below the finished floor level.

5.5. The ground model consists of a small layer of made ground overlying the London Clay. No indication of ground water was encountered in the boreholes.

5.6. The basement and new underpinned foundations will be founded in London Clay. There is no indication of trees in the vicinity of the property and the report indicates that there are no signs of structural damage on the building.

5.7. It is accepted that the underpinning to the existing basement poses a low likelihood of significant ground movements assuming good workmanship, particularly in relation to the neighbouring properties that contain lower ground levels also. The results of the ground movement assessment, to predict the potential damage to the pavement and the highway due to the construction of the lightwell indicate a low risk of damage to the highway structures.

5.8. The proposed scheme indicates a hardstanding type of finishes on the front garden area with a small area of permeable paving. The reference to hardstanding as drained area indicates that the amount of surface water drained to public sewer will be reduced.

5.9. A construction methodology is presented for the lightwell construction which indicates the use of propped trench sheeting, with the reinforced concrete retaining wall constructed inside of the trench sheeting. Subject to the comments pointed on section 4, the construction methodology is found to be acceptable given good workmanship.

5.10. The outline of the retaining wall structural design calculations is provided. Groundwater pressure, not included at this stage, must be considered in the final design. The construction material of the retaining wall should be reinforced concrete and not brickwork.

5.11. A works programme covering key phases of work is included.

5.12. A movement monitoring is being proposed to the party walls and highway structures.

5.13. Although some comments are made in section 4, it can be confirmed that the BIA complies with the requirements of CPG4.

Appendix 1: Residents' Consultation Comments

Residents' Consultation Comments

Surname	Address	Date	Issue raised	Response
Saynor, John	27 Kylemore Rd, NW6 2PS	23/06/17	Existing front a garden impermeable area;	The applicant must clarify the existing and proposed site drainage.
Saynor, John	27 Kylemore Rd, NW6 2PS	23/06/17	Differential depth of foundations with adjoining properties.	The applicant has provided a method statement to indicate the feasibility of carrying out the limited depth underpinning that is required.
Saynor, John	27 Kylemore Rd, NW6 2PS	23/06/17	Risk of adjoining property damage (numbers 26 and 30);	The applicant has demonstrated that the existing foundation underpinning (adequately executed) will have an insignificant impact on the adjoin properties
Saynor, John	27 Kylemore Rd, NW6 2PS	23/06/17	Groundwater (the site is within an aquifer);	Camden Aquifer Designation Map locates the property in the "Unproductive Strata" area (not an aquifer). The water the neighbour is referring to is most probably water present in the made ground layer. The basement is founded on the London Clay.
Saynor, John	27 Kylemore Rd, NW6 2PS	23/06/17	Existing property condition (Peeling paintwork)	Peeling paintwork does not necessarily indicate a structural issue or sign of ground movement.

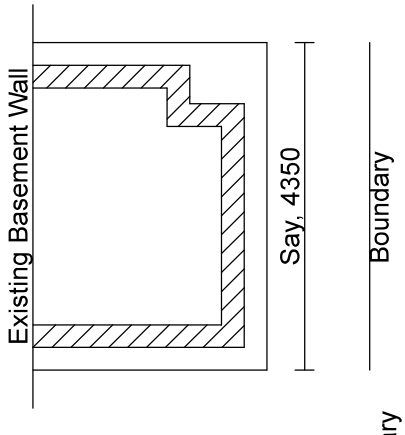
Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	General	Work programme to be provided	Closed	25.08.2017
2	Hydrogeology	Existing and proposed front garden drainage to be clarified	Closed	05.09.2017
3	Hydrology	Existing and proposed front garden drainage to be clarified	Closed	05.09.2017
4	Stability	Calculations of predicted damage category to the highway, due to lightwell construction, to be provided	Closed	05.09.2017
5	Stability	Lightwell retaining wall outline structural design to be provided	Closed with comments.	25.08.2017
6	Stability	Further details of temporary works to construct lightwell wall is required, to avoid poor compaction of soil to the external face of the lightwell wall.	Closed with comments.	25.08.2017
7	Stability	Further details of outline movement monitoring strategy to be provided.	Closed	05.09.2017

Appendix 3: Supplementary Supporting Documents

Consider INITIAL evaluation of Lightwell construction :



For INITIAL evaluation calcs, ASSUME :

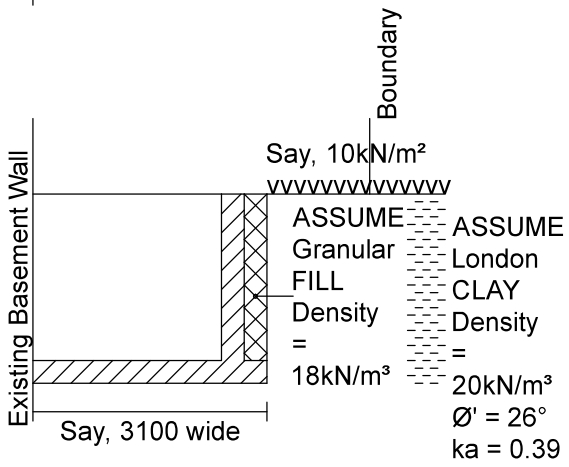
No groundwater present.

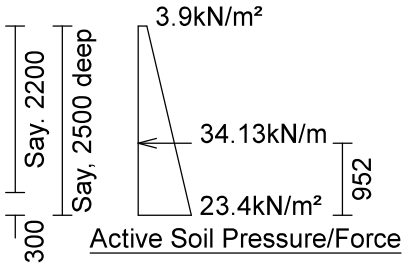
London CLAY soil.

Lightwell construction to be reinforced concrete.
(NB: Final construction may be reinforced brickwork/blockwork on reinforced concrete slab.)

"Backfill to wall stems to be granular FILL.

10kN/m² surface surcharge.





Consider weight of Lightwell (per m run) :

Base slab = 3.1 x 0.3 x 24kN/m³ = 22.32kN/m

Wall stem = 2.2 x 0.3 x 24kN/m³ = 15.84kN/m

Backfill = 2.2 x 0.3 x 18kN/m³ = 11.88kN/m

i.e. Total Weight = 50.04kN/m

Take moments at and above u/s slab/existing basement wall :

22.34 x 1.55 + 15.84 x 2.65 + 11.88 x 2.95 - 32.50
= say, 79kNm/m

Hence,
Resultant at 79/50.04 = 1.579m from existing basement wall.

Therefore, eccentricity (e) = 1.550 - 1.579
= -0.029m from C/L base slab

Thus, $q_{ref(after\ Meyerhof)}$ = 50.04/(3.1 - (2 x 0.029))
= say, 16.5kN/m²/m

Consider moments above u/s of base for Active Force (per m run) :

34.13 x 0.952 = say, 32.50kNm/m

By Inspection,
Bearing Capacity of London CLAY
and
structural adequacy of lightwell construction
OK!

NOTES

1.

Rev.	Revision Detail	Drawn	Date
00	Preliminary/Initial Issue	IFG	18/08/17

CLIENT:

Key GeoSolutions Ltd
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E-mail: info@keygs.com
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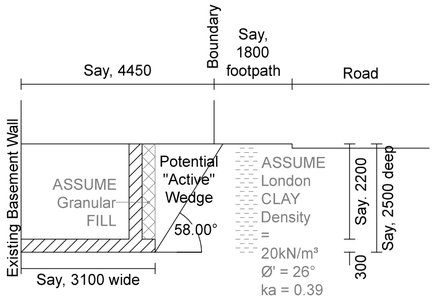
PROJECT:
26 Kylemore Road
London
NW6 2PT

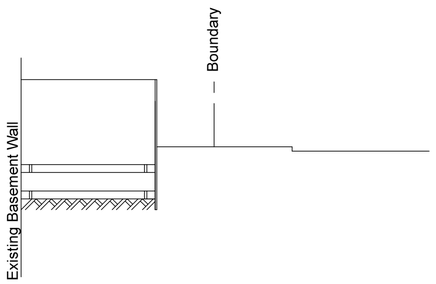
TITLE:
INITIAL Evaluation
of
Lightwell Construction

Drawn:	Checked:	Date:
IFG	??	18/08/17
Scale: 1:100	Original Sheet Size: A4	Status: PRELIM
Drawing No.: 17-135-D-002		Revision: 00



By Inspection,
the lateral movements/vertical settlements from an adequately designed/supported temporary excavation and/or permanent structure should not be significant beyond the site boundary,
provided that
the works are performed in an adequately controlled construction sequence.

Suitable Construction Sequence :



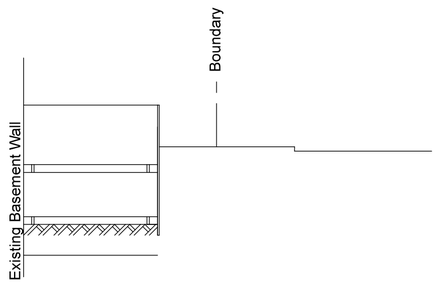
Stage 1 :

Excavate to 1200 depth.

"Pitch" M6 trench sheets around perimeter of excavation.

Place LOWER level of bracing at the BOTTOM of the excavation (1200) and lightly pressurise.

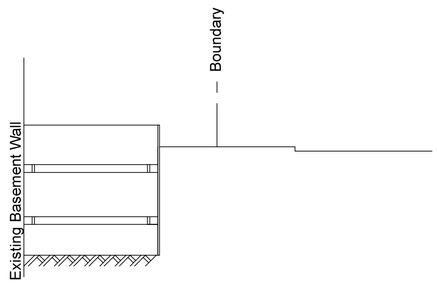
Place UPPER level of bracing at 500 depth and pressurise.



Stage 2 :

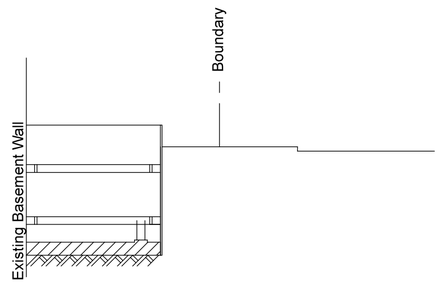
Proceed with excavation advancing the trench sheets, depressurising, lowering and lightly pressurising the "bottom" bracing as excavation proceeds.

When the BOTTOM bracing is at final depth (1700), pressurise the bracing.



Stage 3 :

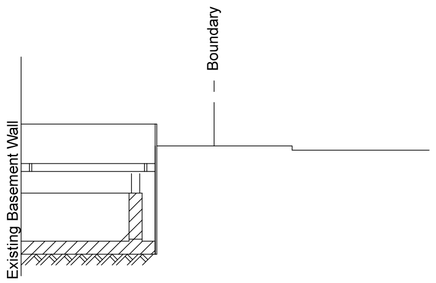
Proceed with excavation to full depth (2500) "pushing" the trench sheets down as excavation proceeds.



Stage 4 :

ASSUME rc construction as the most onerous option.

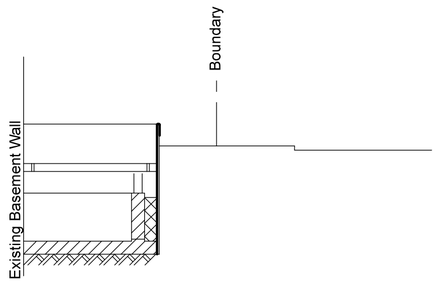
Constuct base slab plus "kicker" and allow to gain strength.



Stage 5 :

When concrete to base slab has gained adequate strength, remove lower bracing frame.

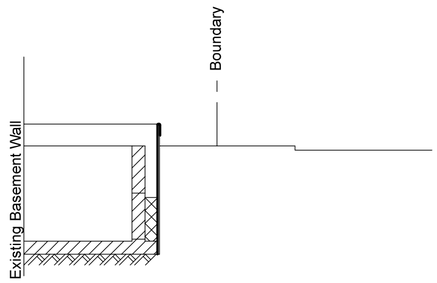
Constuct "first lift" of rc wall construction.



Stage 6 :

When the "wall stem" has gained adequate strength,
"drape" polythene sheet (or other "bond breaking" material) down trench sheets and then place lean mix concrete behind wall "stem". (Possibly semi-dry concrete and/or "no fines" lean mix concrete.)

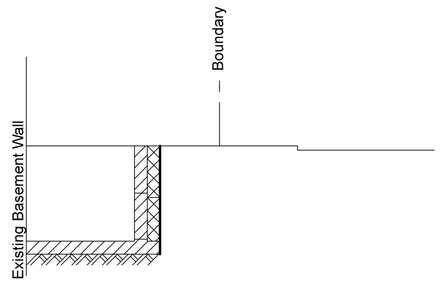
Alternatively, place well compacted granular fill if there is adequate working space to compact the granular fill.



Stage 7 :

When the "wall stem" has gained adequate strength, remove upper bracing frame.

Construct "final lift" of rc wall construction.



Stage 8 :

When the "wall stem" has gained adequate strength, backfill behind "wall stem" with lean mix concrete (or well compacted granular fill).

Cut off polythene sheet.

Remove trench sheets.

NOTES

Rev.	Revision Detail	Drawn	Date
01	First Issue	WR	01/01/17

CLIENT:

PROJECT:
28 Kylemore Road
London
NW6 2PT

TITLE:
INITIAL Evaluation
of Construction Sequence
for Lightwell Construction

Drawn:	Checked:	Date:
IFG	??	24/08/17
Scale:	Original Sheet Size:	Status:
1:100	A2	PRELIM

Drawing No.: **17-135-D-003** Revision: **00**

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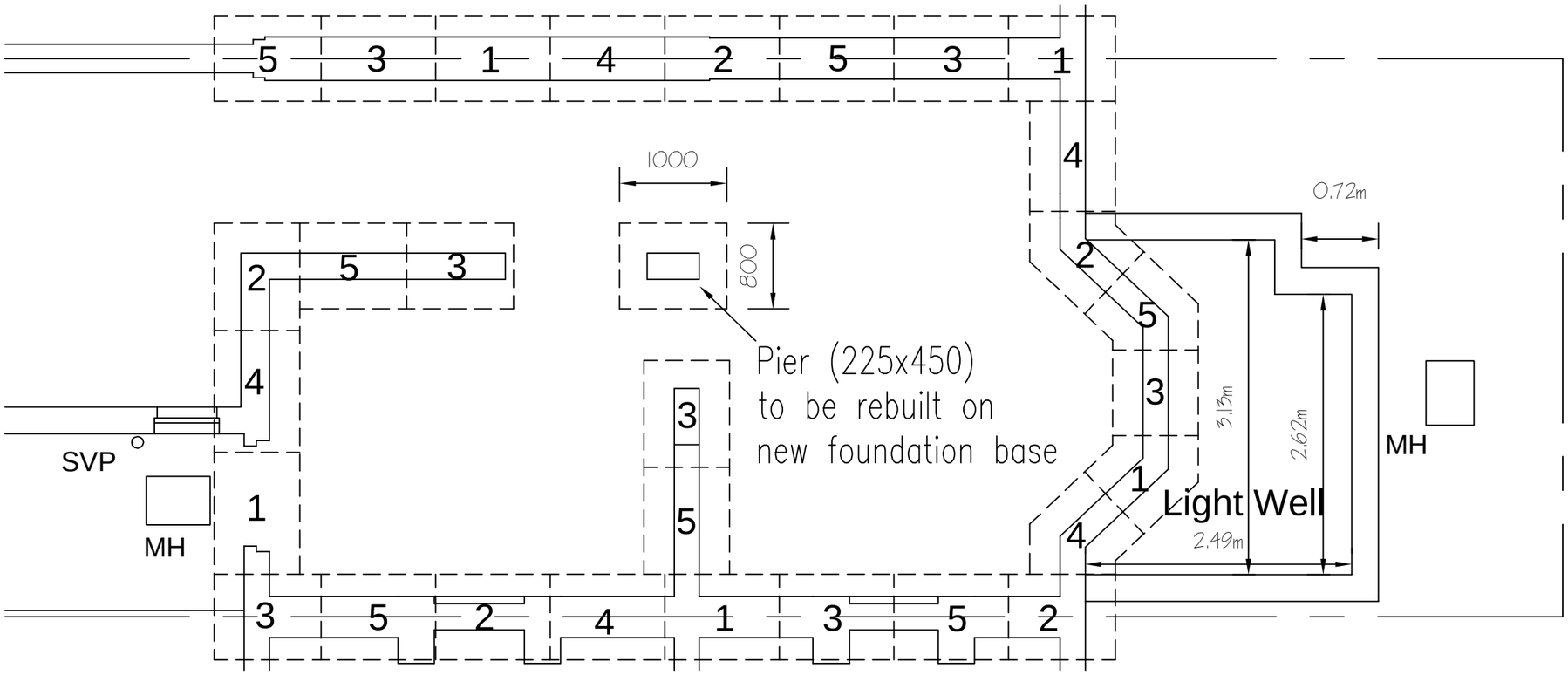


PROPOSED UNDERPINNING PLAN

UNDERPINNING METHOD AND SEQUENCE

A – Excavate bays numbered "1" on plan maximum 1.0m in length to minimum depth shown or to achieve 500mm thickness of concrete whichever deeper

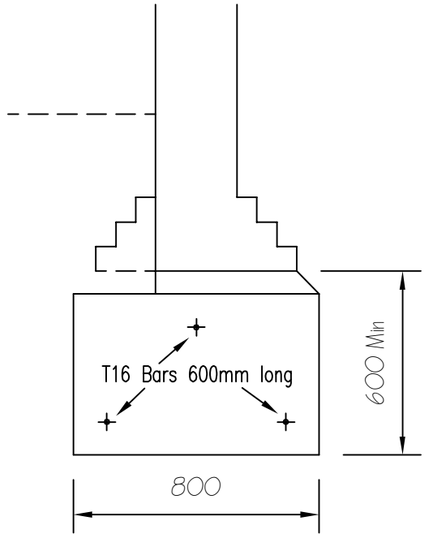
B – Insert continuity bars into soil each side

T16 Bars @ 600c/c 600mm long pushed into clay 300mm each side

C – Concrete the bay leaving 75mm gap for dry packing and allow to cure for 24 hours – Concrete to be grade C20P to BS 8110 or to have 50kg cement to max 0.1m^3 Fine Aggregate and max 0.2m^3 Coarse Aggregate

D – Strike shuttering if provided and Dry Pack – Not Exceeding 75mm thick completed not less than one day after concreting 3:1 Sand Cement rammed in with 50x50mm Hardwood

E – Repeat for bays numbered 2, 3, 4 & 5 in strict order. Any change in order is to be agreed with the engineer beforehand Ensure at least 3 days between dry packing and excavation of an adjacent bay



SECTION - 1:20

PROGRAM for UNDERPINNING

01 – Party wall notices to be served – Allow 8 – 10 weeks for issuing of Party Wall Awards although this could be reduced if adjoining owners consent

02 – General stripping out, site clearance and site set up – Allow 1 week

03 – Other building work not subject to Party Wall Agreements to be carried out pending Party Wall Agreements

04 – Excavate underpinning bays marked 1 – Allow 2 or 3 days

05 – Concrete all bays marked 1 – Allow 1 day

06 – Excavate underpinning bays marked 2 – Allow 2 or 3 days

07 – Dry Pack bays marked 1 on 2nd or 3rd day of item 06 above

08 – Concrete all bays marked 2 – Allow 1 day

09 – Excavate underpinning bays marked 3 – Allow 2 or 3 days

10 – Dry Pack bays marked 2 on 2nd or 3rd day of item 09 above

11 – Concrete all bays marked 3 – Allow 1 day

12 – Excavate underpinning bays marked 4 – Allow 2 or 3 days

13 – Dry Pack bays marked 3 on 2nd or 3rd day of item 12 above

14 – Concrete all bays marked 4 – Allow 1 day

15 – Excavate underpinning bays marked 5 – Allow 2 or 3 days

16 – Dry Pack bays marked 4 on 2nd or 3rd day of item 12 above

17 – Concrete all bays marked 5 – Allow 1 day

PROGRAM for UNDERPINNING ... Continued

18 – Prepare area for front lightwell – temporary works/hoarding etc – Allow 2 or 3 days

19 – Dry Pack bays marked 5 on 2nd or 3rd day of item 18 above

20 – Excavate for front lightwell installing temporary works as work proceeds – Allow 2 weeks

21 – Blind excavations and install reinforcement for slab/toe & kicker Allow 2 or 3 days (including inspection by engineer)

22 – Provide shuttering to kicker & concrete slab/toe & kicker – Allow 1 day

23 – Rest day to allow concrete to cure – Prepare stem reinforcement – Allow 1 day

24 – Install reinforcement and shuttering for stem – Allow 1 day

25 – Concrete stem and allow to cure for 24 hours – Allow 2 days

26 – Strike shuttering and back fill as required – Allow 1 day

Total Working Days for Underpinning & Light Well = 36 – 43 days or 7 to 8 weeks therefore underpinning and lightwell should be completed 15 to 18 weeks into the contract

REVISIONS | DATE

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Plymouth PL7 2HY
t: 01752 341696
m:07973 136876
THE DESIGN WORKS

TITLE
UNDERPINNING PLAN & SEQUENCE

ADDRESS
28 KYLEMORE ROAD
LONDON NW6 2PT

CLIENT COBSTAR Ltd

SCALE 1:50 & 1:20 @ A3 | DATE AUGUST 2017

DRAWING No. 170130/ 07 | REV.

Program of Construction Works - 28 Kylemore Road London NW6 2PT	January				2018	February			2018	March			2018	April
Work Stage	Wk 1	Wk2	Wk3	Wk4	Wk5	Wk6	Wk7	Wk8	Wk9	Wk10	Wk11	Wk12	W13	Wk14
Party Wall Notices	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX													
Site set up and clearance							XXXXX							
Demolitions and Structural Work (Not Party Wall Associated)								XXXXXXXXX						
Underpinning (Party Wall Notices Required)											XXXXXXXXXXXXXXXXXXXXX			
Front Lightwell (Party Wall Notices Required)														
Rear Extension Excavations (Party Wall Notices Required)											XXXXX			
Rear Extension Brickwork/Blockwork												XXXXXXXXXX		
Rear Extension Roof														XXXXX
Rear Extension Knock Through														
Structutal Work (Party Wall Notices Required)											XXXXX			
New Drainage														
New Floor Constructions														
Lower Ground Floor Tanking Membrane (Walls & Floors)														
External Windows and Doors														
Internal Non Load Bearing Partitions										XXXXX				XXXXX
First Fix Electrical														
First Fix Plumbing														
Acoustic Insulation														
Internal Door Frames, Plasterboard & Plaster														
Kitchen Installation														
Bathroom Installations														
Second Fix Plumbing														
Second Fix Electrical														
Internal Doors, Architraves, Skirtings and the like														
Decoration Internal														
External Works - Front & Rear Gardens														
Decoration External														
Final Snagging and Clean Down														

Program of Construction Works - 28 Kylemore Road London NW6 2PT	April		2018	May				2018	June			2018
Work Stage	Wk15	Wk16	Wk17	Wk18	Wk19	Wk20	Wk21	Wk22	Wk23	Wk24	Wk25	Wk26
Demolitions and Structural Work (Not Party Wall Associated)												
Underpinning (Party Wall Notices Required)	XXXXX											
Front Lightwell (Party Wall Notices Required)	XXXXXXXXXXXXXXXXXXXXXXXXXXXX											
Rear Extension Knock Through	XXXXX											
Structutal Work (Party Wall Notices Required)	XXXXXXXXXXX											
New Drainage		XXXXX										
New Floor Constructions		XXXXXXXXXXXXXXXX										
Lower Ground Floor Tanking Membrane (Walls & Floors)					XXXXX							
External Windows and Doors					XXXXXXXXXX							
Internal Non Load Bearing Partitions						XXXXXXXXXXXXXXX						
First Fix Electrical						XXXXXXXXXXXXXXX						
First Fix Plumbing					XXXXXXXXXXXXXXX							
Acoustic Insulation							XXXXXXXXXX					
Internal Door Frames, Plasterboard & Plaster								XXXXXXXXXXXXXXX				
Kitchen Installation										XXXXXXXXXX		
Bathroom Installations										XXXXXXXXXX		
Second Fix Plumbing											XXXXXXXXXX	
Second Fix Electrical												XXXXX
Internal Doors, Architraves, Skirtings and the like												XXXXX
External Works - Front & Rear Gardens						XXXXXXXXXX						

Program of Construction Works - 28 Kylemore Road London NW6 2PT	July			2018	August				2018	September		2018
Work Stage	Wk27	Wk28	Wk29	Wk30	Wk31	Wk32	Wk33	Wk34	Wk35	Wk36	Wk37	Wk38
X												
Second Fix Electrical	XXXXX											
Internal Doors, Architraves, Skirtings and the like	XXXXXXXXXX											
Decoration Internal		XXXXXXXXXX										
External Works - Front & Rear Gardens	XXXXXXXXXX											
Decoration External		XXXXXXXXXX										
Final Snagging and Clean Down				XXXXX								

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