Response to neighbouring properties Review of original BIA.

Received 15/01/2013.

taylor whalley spyra

tws

3 PARK VILLAGE WEST
LONDON
NW1 4AE

ADDENDUM TO
BASEMENT IMPACT ASSESSMENT

3 Dufferin Avenue,
Barbican, London, EC1Y 8PQ
T: 020 7253 2626
F: 020 7253 2767
E: tws@tws.uk.com
W: www.tws.uk.com

CONTENTS

APPENDICES

1.0 INTRODUCTION

This Addendum to Taylor Whalley Spyra Basement Impact Assessment reference 8409-BIA-Version 2.0 dated September 2012 has been prepared in response to comments received from Eldred Geotechnics Ltd Consulting Engineers Ref. G1212-RP-01-E1, as requested by the owners of No. 4 Park Village West.

The following are the points (i) to (xviii) noted within items 25, 26, 27 & 28 of the Eldred report and are referenced back, our response items 3.0 to 10.0 within this Addendum, to our Basement Impact Assessment.

(i) See Item 4.0
(ii) See Item 4.0
(iii) See Item 4.0
(iv) See Item 4.0
(v) See Item 4.0

(vi) See Item 5.0
(vii) See Item 6.0
(viii) See Item 3.0, 4.0
(ix) See Item 7.0
(x) See Item 4.0, 7.0
(xi) See Item 10.0

(xii) See Item 4.0, 5.0
(xiii) See Item 6.0
(xiv) See Item 6.0

(xv) See Item 4.0, 8.0
(xvi) See Item 8.0
(xvii) See Item 5.0, 6.0
(xviii) See Item 6.0

2.0 REQUIREMENTS FOR DP27

DP27 states the council will require an assessment of the scheme impact on drainage, flooding, groundwater condition and structural stability where appropriate.

The level of information required will be commensurate with the scale and location of the scheme.

Large schemes will be expected to provide evidence against each of the conditions a to h in policy DP27. This is not a large scheme or a complicated procedure of installation or works.

The level of detail within the Basement Impact Assessment provided is proportional to the detail and reasonable complexity of the proposed basement works.

3.0 REVIEW OF PROPOSED WORKS

A review of how best to form the basement construction was undertaken and the most efficient form of construction is undertaking the initial underpinning in a sequence of bays by underpinning all surrounding walls, suitable located propping of existing walls and the underpins and then the excavation of the basement soil and construction of a rigid RC basement slab, RC concrete walls and RC cover slab.

The indication of proposed underpinning bay setting out on the drawings PA04 & PA05 were shown to define the basement area, as noted within the BIA item 7.0 point 1 of the proposed basement sequence of works "A sequence of 0.9 wide bays are to be agreed with adjoining properties engineers and party wall surveyors to allow sequenced excavation prior to start of works on site".

Any additional locations of underpinning or stepped underpins can be agreed as noted in item 34 of Eldred report during discussions with the party wall surveyors once condition surveys of the adjoining properties have been undertaken.

We have included within Appendix B of the Addendum drawing 8409_PA06 which shows the additional stepped underpinning to the party wall and additional detail for the temporary propping along the adjoining party wall.

4.0 REVIEW OF ADJACENT PROPERTIES

No. 3 is part of 7 properties within a 'U' shaped terrace that are constructed from solid external and internal brickwork. From a visual inspection of the outside all 7 properties are in a well maintained condition and do not show signs of any material structural distress. No. 4 is adjacent to similar works to No. 5 which were completed a little over two years ago by the same architect.

The architect has spoken with the party wall surveyor acting then who confirms that no associated damage to No. 4 was experienced as a result of the works.

5.0 REVIEW OF SOIL INVESTIGATION

The full soil investigation report undertaken at No. 5 has been made available to us, this included 2 no. boreholes at 6m deep and trial holes at the 3 no. adjoining properties - No. 4 & No. 6 Park Village West and 1 no. against No. 2 Park Village Mews. These confirmed the bearing depth of the walls and ground conditions which were founded within the clay and that with an adequate factor of safety a net allowance of 150kN/mm^2 bearing pressure on the stiff London Clay can be allowed for within the basement design. This figure will be confirmed when undertaking the site specific SI report. This soil investigation and the 3 no. boreholes within Park Village Mews are sufficient information for this stage of the Basement Impact Assessment. As noted within the BIA site specific soil investigations and ground contamination testing will be undertaken within the area of the proposed basement prior to detailed design stage.

The company that undertook the soil investigation works are a well known SI company that we have used in the past and have a considerable knowledge of the local area and the ground conditions.

6.0 REVIEW OF GROUND WATER AND SURFACE WATER FLOW

The existing rear terrace area is a concrete slab on hard standing that drains to a surface water gulley. There is a 'U' shaped flower bed at the rear and to the sides. There is 400-500mm of made ground with firm to stiff London Clay under. The building and surrounding garden walls extend below the made ground into the London Clay and as such provide a cut off for any ground water flow within the made ground. The surface water within the garden area is restricted by the surrounding walls. The London Clay will only provide an extremely low ground water seepage.

The existing lower ground floor planter areas on site are approximately 9.8m^2 with the new planted area at basement floor being 8.2m^2. The new lower ground floor planters make up the difference. The paved area of hard standing at lower ground floor will have permeable joints which will allow surface water runoff to drain into the granular build-up below which will be placed within a Radmat D40 drainage mat which provides surface water storage within the voids between the granular stone. This allows the surface water stored within to discharge by the natural process of evaporation. This will reduce the amount of surface water that discharges into the existing drainage system at peak flow rates as the existing hard standing areas flow to an existing gully in the centre of the garden.

The granular stone build-up below the open planter at basement level will allow for initial storage and the slow permeability of ground water into the London Clay. This will be designed at detailed design stage to maintain the existing on site condition.

7.0 REVIEW OF TEMPORARY WORKS PARTY WALL MATTERS

Temporary propping will be designed by the specialist temporary works engineer which is standard practice and will be checked by Taylor Whalley Spyra prior to installation on site.

The location of temporary propping indicated on TWS drawings PA04 & PA05 is due to the existing site conditions with No. 1 Park Village Mews as shown on Section 2_2, whilst undertaking the detailed design stage the positioning or any requirement for any secondary propping will be confirmed, but attached to Appendix B of this Addendum is drawing 8409_PA06 which shows the proposed additional levels and details for the temporary propping along the adjoining party wall between Nos. 3 & 4 Park Village West.

As part of the Party Wall process the adjoining owners may appoint their own party wall surveyor who may also request their own checking engineer be appointed as part of the process for independent review of the permanent and temporary works for the proposed works, this is standard practice.

8.0 REVIEW OF SURROUNDING FEATURES OUTSIDE OF THE SITE BOUNDARY

Within the Ove Arup & Partners Ltd report titled London Borough of Camden, Camden geological, hydrogeological and hydrological study guidance for subterranean development, are a number of study maps that are contained within Appendix E of the BIA. These show the location of the site with regard to Water Courses - Figure 11, Camden Surface Water Features - Figure 12, Hampstead Heath Surface Water Catchments and Drainage - Figure 14, Flood Map - Figure 15 and Slope Angle Map - Figure 16. Reference to the maps shows that the site is not located within any known risk of the above.

With regard to any nearby subterranean development we have noted No. 5 Park Village West rear basement extension which is the closest to No. 3. A review of the surrounding properties and Camden planning portal indicate that most of the other properties have a lower ground floor built as part of the existing buildings, but no basement extension below has been added.

9.0 OTHER CONSTRUCTION POINTS

During the initial start of works on site hoarding will be located at the front of site and also at the rear on the garden walls to minimise dust and noise, alternatively it may be possible to install a covered scaffold frame over the rear works to further minimise the effects of the works to adjoining owners.

10.0 CONCLUSIONS

The proposed basement is relatively modest in scale and the information supplied within the Basement Impact Assessment is sufficient information to understand the effects of the proposed basement on the adjacent properties and surrounding areas.

The proposed works are feasible in terms of the general construction process, structural stability, long term integrity of adjacent buildings and the existing property and surrounding infrastructure.

The additional clarification provided within this addendum further confirms the above points.

The BIA and addendum also review the required level of detail required to assist in detailed design stage and the sharing of information to adjoining owners at detailed design stage which will be further reviewed.

The hard and soft permeable areas will remain similar to the existing with the planters and drainage mat storage so the existing surface water volumes will remain unchanged.

The temporary works propping and bracing will be designed with the required surcharge loadings from adjoining properties and to minimise ground movement and displacement of existing walls.

The works are being undertaken by the existing owner to provide extra living space for the family home. The selection of the main contractor as stated in the BIA will be based on previous experience of similar projects having been undertaken, completed satisfactorily and the understanding that the contractor has the resources available to undertake the works in an efficient and timely manner.

The main contractor will be required to provide all health and safety documentation, method statements for the relevant areas of works and also a more detailed Construction Management Plan with proposed contract programme

With regard engineering and construction considerations it is therefore considered that the scheme is acceptable and accords with Camden Development Policy requirements.

Appendix A

8409_PA01 - Site Location Plan Indicating Adjoining Properties

IMAGE 01

No 7 PARK VILLAGE WEST No 6 PARK VILLAGE WEST No 5 PARK VILLAGE WEST

IMAGE 02

No 4 PARK VILLAGE WEST

IMAGE 03

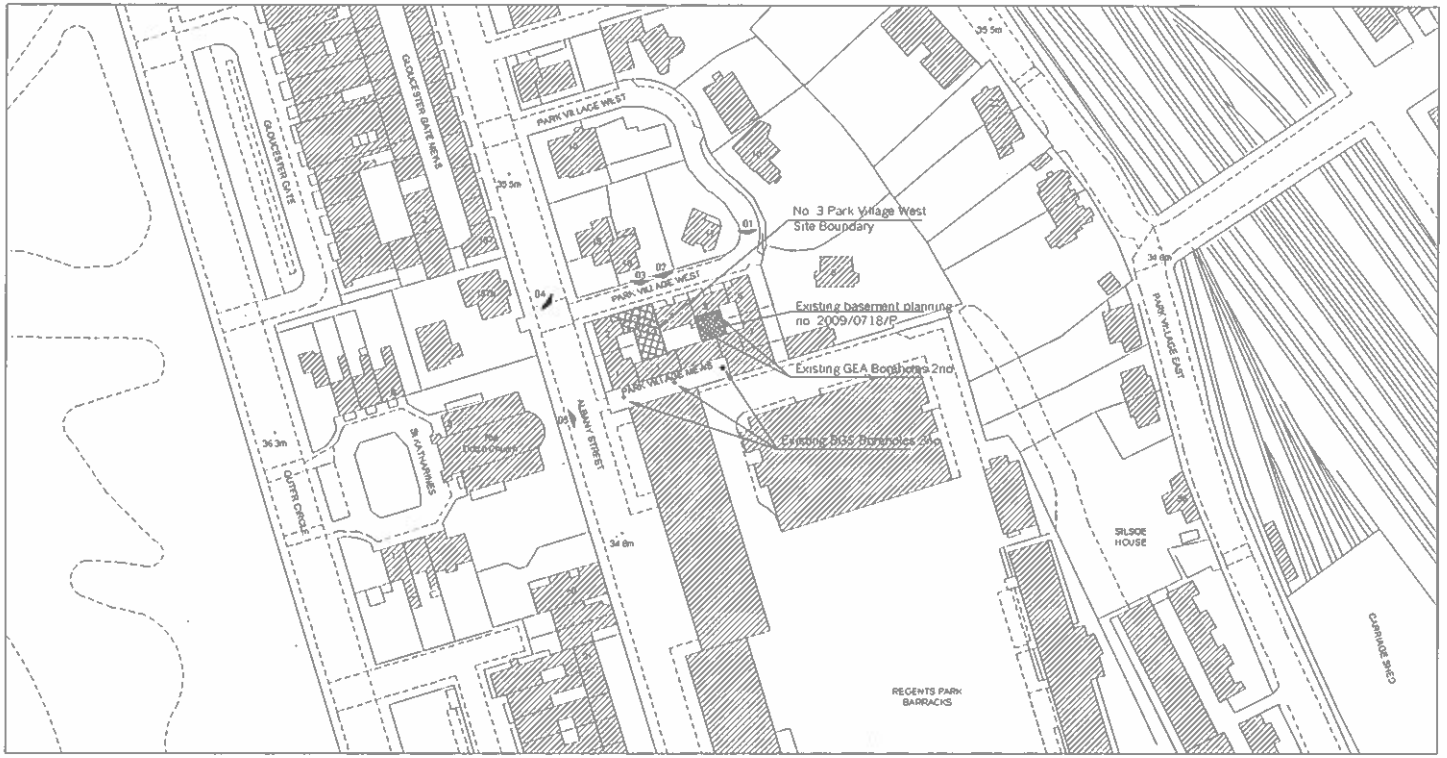
No 3 PARK VILLAGE WEST

IMAGE 04

No 2 PARK VILLAGE WEST No 1 PARK VILLAGE WEST

IMAGE 05

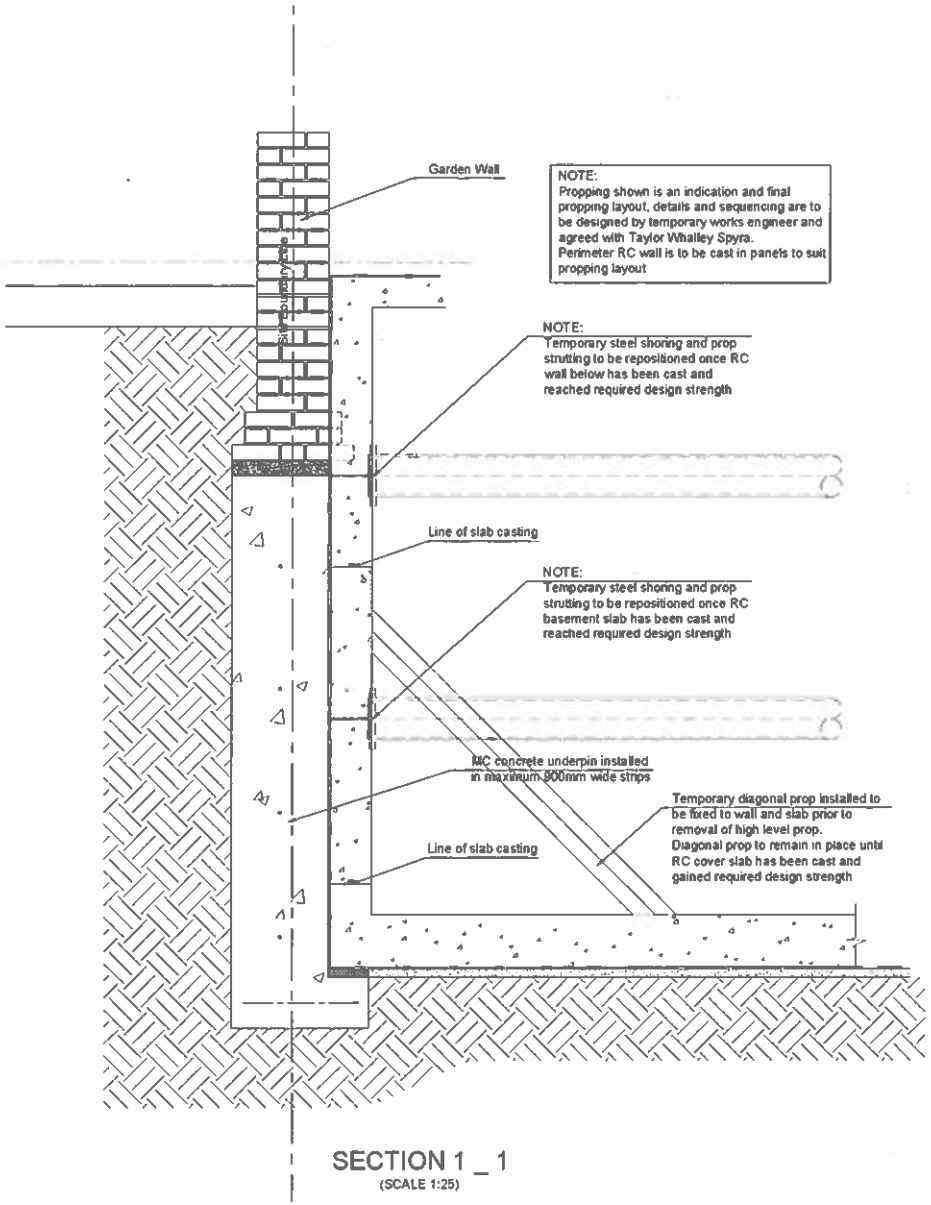
PARK VILLAGE MEWS



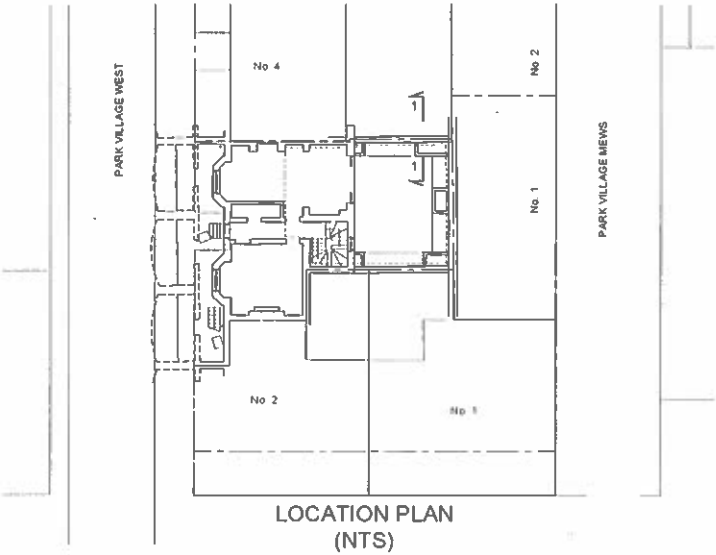
taylor whalley spyra twS consulting civil and structural engineers 3 Dufferin Avenue, Barbican, LONDON EC1Y 8PD Tel (020) 7253 2626 Fax (020) 7253 2767 E-mail: tws@tws.uk.com Website: www.tws.uk.com	Contract 3 PARK VILLAGE WEST, LONDON, NW1 4AE	Title SITE LOCATION PLAN ALSO INDICATING ADJACENT PROPERTIES	Scale NTS	Date 24.04.12	Drawn GB
			Job No. 8409	Drawing No. PA01	Rev. -

Appendix B

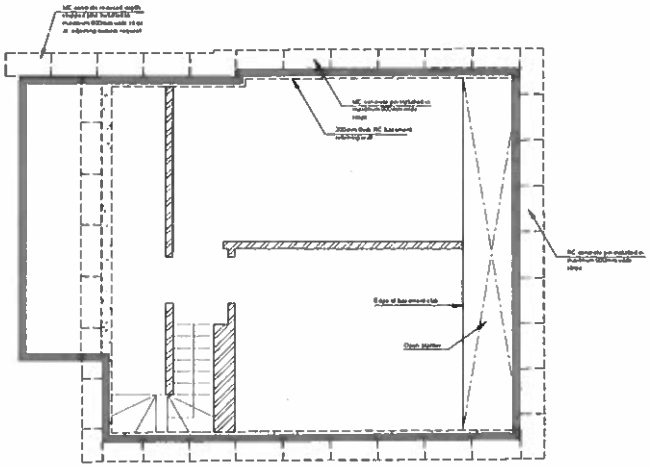
8409_PA06 - Section 1 _ 1 through Party Wall with No. 4 Park Village West
Showing Indicative Temporary Propping



SECTION 1 _ 1
(SCALE 1:25)



LOCATION PLAN
(NTS)



INDICATION OF PROPOSED
UNDERPINNING BAYS SETTING OUT

taylor whalley spyra
consulting civil and structural engineers
3 Dufferin Avenue, Barbican, LONDON EC1Y 8PD
Tel (020) 7253 2626 Fax (020) 7253 2767
E-mail: tws@tws.uk.com Website: www.tws.uk.com

Contract	Title	Scale	Date	Drawn
3 PARK VILLAGE WEST, LONDON, NW1 4AE,	SECTION 1 _ 1 THROUGH PARTY WALL WITH No. 4 PARK VILLAGE WEST SHOWING INDICATIVE TEMPORARY PROPPING	1:25	10.01.13	GB
		Job No. 8409	Drawing No. PA06	Rev. -

Curriculum Vitae

SIMON LANE
Director

Qualifications:

- BSc Civil Engineering
- Chartered Engineer
- Fellow of The Institution of Structural Engineers
- Fellow of The Institution of Civil Engineers
- Fellow of The Association of Consulting Engineers

Simon has been an equity director since 1996. Prior to that he had extensive experience with developers, contractors, and Local Authorities. He has been a Fellow of the Institution of Civil Engineers and a Fellow of the Institution of Structural Engineers since 1993.

He has extensive experience of designing in all structural forms and with all the common materials. He has worked in project teams throughout the UK and in particular in London and the surrounding counties. He has worked on most building types both new build and complex refurbishments in city centres, multiple occupancy and greenfield locations.

Core strengths are: technical excellence, managerial ability, practical approach, good people skills, calm nature, commercial acumen and problem solving ability.

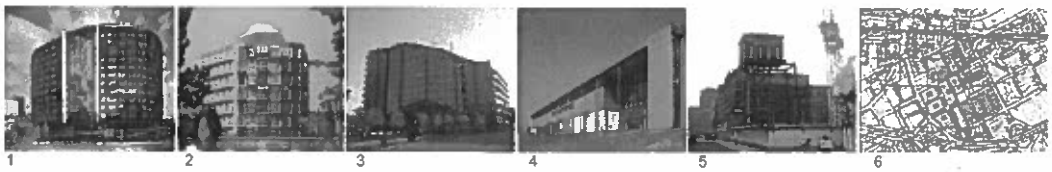
Simon has worked for and is retained by a wide cross section of clients including the education and research sector, institutions and pension funds, banks and financial institutions, the church, local authorities, commercial organisations, developers, private investors and building contractors.

He is a supervising engineer for graduates working towards chartered status and an examiner for the Institution of Civil Engineers.

He is a reviewer for the Institution of Structural Engineers commenting on the content of technical papers prior to publication in engineering journals and proceedings.

Project examples include:

- *Westminster Park Plaza – 1200 bed hotel with 5 basements*[1]
- *Abito Apartments, Greengate – 260 apartments with office & leisure facilities*[2]
- *Abito Apartments, Salford Quays - 280 apartments with office & leisure facilities*[3]
- *Downham Lifestyles Lewisham – leisure centre, medical consulting rooms, library*[4]
- *Whitefriars – facade & water tower retention*[5]
- *First Street Manchester - masterplan* [6]



1 2 3 4 5 6

AWARDS: Civic Trust Awards 1972 – George Hotel, Edinburgh; Civic Trust Awards 1989 – Richmond House, Whitehall; Structural Steel Design Award 1973 – London Ambulance Services Transmitter Stations and Masts; Structural Steel Design Award 1987 – Volvo House, Marlow; Burnley Borough Council Mayor's Award of Excellence 1995/96 – Towneley House; London Borough of Camden Building Quality Award 2007 – Ambassadors Hotel London; Civic Trust Awards 2008 – Abito Apartments, Manchester; Civic Trust Awards 2009 – Downham Health & Leisure Centre, Lewisham; RIBA East – Spirit of Ingenuity Education & Healthcare Award 2010 – Kimbolton School.

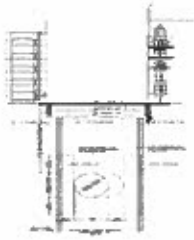
TYPICAL EXAMPLES OF DIFFICULT SUPERSTRUCTURE RETENTION AND SUBSTANTIAL BASEMENT CONSTRUCTION IN LONDON




16 Boltons Place, London
Formation of significant residential basements adjacent to and beneath existing

37 Loudon Road, London

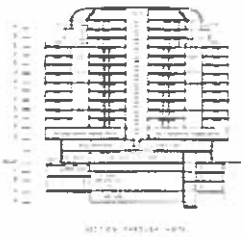


67 West Heath Road, London
New construction adjacent to existing buildings

17-23 Farringdon Road, London
Construction of new retail, commercial and residential building over the proposed Crossrail link



Clifton Ford Hotel, London
Façade retention and new double basement leisure facility

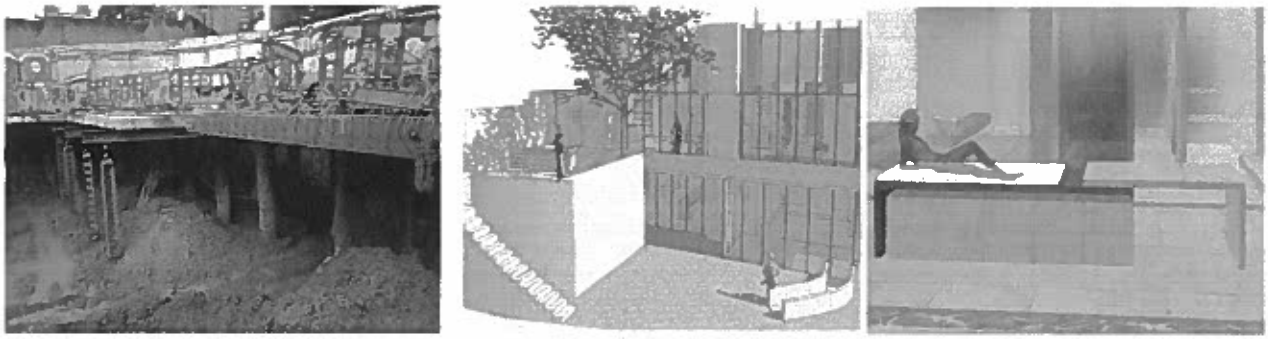
Westminster Park Plaza, London
Construction of new luxury hotel by top-down method incorporating 4 basement levels




Whitefriars, London
Façade and water tower retention prior to basement construction

Fitzroy Place, W1 (former Middlesex Hospital Site)
Mixed office and residential development

TYPICAL CURRENT CENTRAL LONDON RESIDENTIAL DEVELOPMENTS



5 CANNON LANE, HAMPSTEAD, LONDON NW3 1EL

60 ADDISON ROAD, HOLLAND PARK, LONDON W14 8JJ

148 FELLOWS ROAD, SWISS COTTAGE, LONDON NW3 3JH

67 WEST HEATH ROAD, HAMPSTEAD