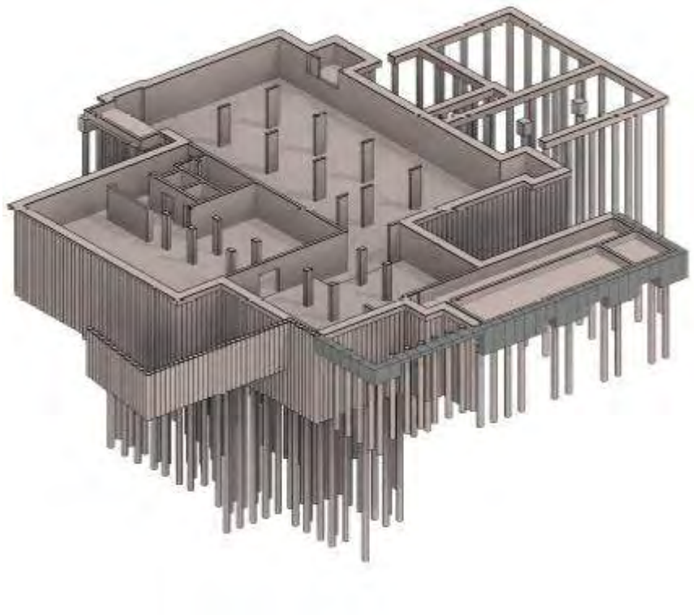
elliottwood



Hampstead Green

Rowland Hill Street,
London
NW3 2AB

Basement Construction Plan
(Temporary Works Review)

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revision:	P3	prepared by:	Joshua Nunns MEng (Hons)	checked by:	Mark Renshaw BEng (Hons)	approved by:	Miroslav Antelj BEng (Hons) CEng MIStructE
date:	12.01.16	signature:		signature:		signature:	

Contents

Appendices

1.0 Introduction

1.1 Elliott Wood Partnership LLP has been appointed by the Client, Pegasus Life Ltd. to provide structural and civil engineering consultancy services for the development of the site formerly known as Bartram's Convent, Rowland Hill Street, Hampstead, London NW3 2AB.

1.2 Residential developments of all scales have been central to the workload of the practice with many in the Greater London area. In particular Elliott Wood Partnership LLP have been producing designs for basements to both existing and new buildings. Our general understanding of the development of London, its geology and unique features together with direct experience on many sites puts us in a strong position to advise clients on works to their buildings and in particular the design and construction of their basement.

1.3 We have been provided with information regarding the site, existing buildings and proposed developments by Duggan Morris Architects and AECOM, the project managers for the development.

1.4 Card Geotechnical Limited (CGL) was appointed to carry out a full assessment of the site, including a desk study, ground investigation and production of the Basement Impact Assessment submitted in support of the planning application for this site.

1.5 Details of Elliott Wood's appointment have been submitted separately, and are included for reference in Appendix 1.

2.0 Structural Design

2.1 The design of the permanent structure of the basement has been undertaken by Elliott Wood. This includes, but is not limited to, design intent for embedded piled retaining walls for all loads in the permanent case, design of floor slabs to provide propping to retaining walls as well as supporting the vertical loads from the permanent structure, and design intent for bearing piles and associated foundations supporting vertical loads from the structure above.

2.2 Detailed drawings for the basement construction are included in Appendix 2. Full calculations for all structural elements will be issued before the construction implementation date. Key design criteria are summarised in Appendix 3.

3.0 Impact on Neighbouring Structures

3.1 Condition surveys of all of the neighbouring sites have been provided by Jones Lang Lasalle. These have been included for reference in Appendix 4.

3.2 For the majority of the building envelope the neighbouring structures are set back from the site boundary and there is no impact on them from the proposed development.

3.3 The Cancerkin Centre is an annex to the Royal Free Hospital, and is situated close to the eastern boundary of the site. It is of reinforced concrete construction with precast concrete cladding. It is structurally in good condition with some minor damage as noted in the survey. Both the Cancerkin building and the proposed development are set back from the site boundary, and there is expected to be negligible impact on the existing structure.

3.4 The Rosary Primary School consists of a main 5 storey building with annexes to the north over one or two storeys. The main building is Victorian and of masonry construction. The annexes were added later and are also of masonry construction with flat, felt-covered roofs. The condition of the structures is generally good and in keeping with their age. The roofs to the majority of the annexes are in very good condition following recent repairs. The proposed development will abut the school structure at the western boundary of the site, including provision of underpinning and adjacent excavations.

3.5 Ground movement analysis has been undertaken by CGL which indicates that the expected movements during the construction of the basement of the proposed development will limit any damage to the neighbouring Rosary Primary School to 'very slight', or Category 1 on the Burland Scale as described in CIRIA Report 580. Damage to other neighbouring properties will be negligible (i.e. Category 0 on the Burland Scale).

3.6 During the Screening phase of the Basement Impact Assessment it was established that groundwater present at the site was found in the Made Ground and within bands of claystone or silty sand within the London Clay Formation. These bands were only encountered in two of the boreholes and are not consistent across the site, and thus are not considered to be representative of a deeper groundwater table. Therefore with the existing groundwater level below the proposed development further groundwater modelling was therefore deemed not to be required.

3.7 This level of structural damage for all of the neighbouring properties is within that allowed for within the Section 106 Agreement ('Slight', or Category 2 on the Burland Scale). Further details of this analysis are included within the Basement Impact Assessment submitted in support of the planning application for this site.

4.0 Temporary Works

4.1 During the construction of the basement a number of temporary measures will be required to ensure the safety and stability of the site, and that of neighbouring structures.

4.2 It will be the Contractor's responsibility to design and implement temporary works measures, including sequencing of the works, method statements for works relating to the basement construction and design of any temporary support before commencement of basement excavation and during the construction of the permanent structure.

4.3 A proposed sequence of works has been included in this document, along with diagrammatic sequences in the appendices, stating an assumed sequence of construction. Temporary works elements have been sized as part of the development of the assumed sequence of construction. The sequence information has been supplemented by a method statement for the underpinning works.

4.4 All temporary works proposals will be reviewed by EW before their implementation to ensure that they are robust enough to maintain the stability of the site, and to limit the impact on neighbouring structures as described above.

4.5 The full temporary structural design, drawings and calculations, together with method statements will be provided prior to the construction implementation date.

5.0 Assumed Sequence of Construction

5.1 Some of the issues that affect the sequence of works on this project are:

- The stability of adjoining and adjacent buildings;
- Forming sensible access onto the site to minimise disruption to the neighbouring residents; and
- Providing a safe working environment.

It is expected that the basement works will be completed in a "bottom up" construction sequence.

Once the works commence EW will have an on-going role on site to monitor that the works are being carried out generally in accordance with our design and specification. This role will typically involve weekly site visits at the very beginning of the construction and fortnightly thereafter. A written report of each site visit will be provided for the Design Team, Contractor and Party Wall Surveyor.

The Contractor is entirely responsible for maintaining the stability of all existing buildings and structures, within and adjacent to the works, and of all the works from the date of possession of the site until practical completion of the works.

5.2 Stage 1: Site Set-Up

Erect a fully enclosed painted plywood site hoarding.

The services within the site should be identified and isolated as necessary. All below ground obstructions should also be removed to allow the works to progress.

5.3 Stage 2: Enabling Works

A movement monitoring system will be installed to the adjoining buildings at no.14 and no.6 Rowland Hill Street and at the rear of the property. A detailed specification for the monitoring is given in section 14.0.

The removal of spoil to initially level the site is to be completed. A piling mat is to be installed in well compacted layers over the reduced level excavation to provide a trafficking route and base for the high level piling operations.

5.4 Stage 3: Demolition of Existing Structure

Carefully demolish the existing buildings on site. Remove the existing drainage where necessary.

5.5 Stage 4: Progress Contiguous Piling and Pile Caps

Complete the contiguous piling to the new entrance/sub-station followed by installation of RC pile capping beams. Excavate a trench for the installation of diagonal temporary bracing.

Complete high level piles for Block D and individual piles such as crane base.

Complete reduced level excavation to second piling level.

A piling mat is to be installed in well compacted layers over the reduced level excavation to provide a trafficking route and base for the high level piling operations.

5.6 Stage 4: Construct Mass Concrete Underpins and Progress Piling

A piling mat is to be installed in well compacted layers over the reduced level excavation to provide a trafficking route and base for the high level piling operations. Progress second piling level piles coordinated with underpinning to ensure that there is no overlap of piles adjacent to underpin excavation OR freshly cast underpins. Complete for contiguous wall and any internal piles to be completed at this stage. Follow with installation of RC pile capping beams. Excavate trenches for installation of diagonal temporary bracing.

Dig trial underpins for inspection by EW to check how well the existing soil is cemented, ground water levels and flows and in particular the grounds ability to "stand up" whilst the individual underpin is completed. Given our experience on nearby projects we would expect that localised trench sheeting and props will need to be installed within the underpin shaft.

The underpins will be constructed as mass concrete L-shaped pins and completed in a maximum of 1 metre sections in a sequence to be agreed by the Contractor. The underpins will be left to cure as per the agreed

method statement and then dry-packed to the underside of the existing wall with 3:1 sharp sand to cement with the dry-pack well rammed in.

Suitable temporary sumps should be excavated at all stages within the excavation to allow surface water to be collected and pumped out if required. Filters should be installed to ensure that the migration of fines is limited.

This method of construction will be used to limit any horizontal ground movement associated with the construction of the underpins and limits the risk of the underpinning works on the neighbouring buildings.

5.7 Stage 5: Complete Bulk Excavation – L.G.F Extension

Installing temporary props and waling beams to the underpinning across the width of the basement as required. During this stage all piles are to be broken down and prepared to be tied into the basement slab.
Complete the bulk excavation removing soil from reduced level excavation at the rear down to the lower ground floor level re-

Excavate sumps below basement slab formation level to allow any groundwater to be collected during the excavation and pumped out. The form of construction for the sumps will be decided by the main contractor but could consist of either insitu reinforced concrete or precast concrete rings.

5.8 Stage 6: Construct Slabs - Basement level

Any drainage runs should be installed and permanent sumps for foul pumps and cavity drainage cast.

Install the rigid insulation to the face of the installed underpins. At this stage any lowest level piles can be installed (if not installed from a higher level previously). Progress basement slab with kicker construction sequentially to minimise issues with shrinkage between pours.

5.9 Stage 7: Construct Retaining Walls

Install retaining walls in sequence to minimise alterations to temporary works. Cast up to underside of installed temporary works, install new props against new retaining wall elements, remove props over. Continue casting next stage of retaining wall.

5.10 Stage 8: Construct Slabs – Lower Ground Floor

Complete the lower ground floor reinforced concrete slabs. Following the slabs being cured it will be possible to remove the remaining sub-structure temporary works.

5.13 Stage 11: Completion of Sub-structure Works

The superstructure works can be commenced following the completion of the basement works.

6.0 Monitoring of Construction Works

6.1 Elliott Wood will be making periodic visits to site, assumed to be minimum fortnightly, throughout the construction period. This is to ensure that the works on site are proceeding in accordance with the approved design, and that any temporary measures have been implemented correctly so as to ensure the safety and stability of the site as described above.

6.2 Movements arising from the construction works will be subject to a monitoring regime with suitable trigger levels at which action must be taken in order to maintain the safety and stability of the site and of neighbouring properties. The monitoring will be carried out by the Contractor both before work commences, and during the demolition and construction phases. Elliott Wood has proposed the extent of the monitoring to be put in place, details of which can be found in Appendix 5.

6.3 Vibrations arising from the construction works may also be subject to a monitoring regime if and where requested by the adjoining owners. This requirement and the appropriate trigger levels will be agreed directly with the adjoining owners.

7.0 Maintenance and Upkeep

7.1 Following construction providing that the structure is kept in good repair then the safety and stability of neighbouring structures will be ensured.

7.2 The private drainage network will be operated and maintained by the site owner. This includes the operation and maintenance of all pumping stations, drainage pipes / manholes, gullies, linear channels and attenuation crates. All drainage devices are to be maintained periodically in line with manufacturer's recommendations.

8.0 Groundwater Monitoring

8.1 Existing groundwater levels have been recorded as part of the site investigation carried out by CGL. These were followed up with a further monitoring visit. These results can be found within the Basement Impact Assessment submitted in support of the planning application.

8.2 Standpipes for monitoring groundwater levels have been left in position in two of the boreholes measured. Given the location of the site it is deemed unlikely that groundwater monitoring would be necessary. However, should this requirement be included as a planning condition, it is recommended that the monitoring installations are retained where feasible. It is anticipated that groundwater would travel in a southerly direction and on-going monitoring at boreholes BH3, BH4 and BH5 would therefore pick up changes in groundwater across the site. It is assumed that BH4 and BH5 would be removed during construction but BH3 is outside the development footprint and therefore should be retained for potential monitoring.

9.0 Traffic

9.1 It will be the Contractor's responsibility to implement measures relating to the impact of construction traffic. These are included within the Demolition and Construction Management Plan.

10.0 Certification

10.1 A letter of Professional Certification confirming that the design is in accordance with the Section 106 Agreement and other relevant requirements and that the measures described above will be implemented appropriately accompanies this report.

10.2 A second, independent, suitably certified Engineer has been appointed to review the design plans and the measures described above.

Appendix 1 – Details of Appointment

Dated 4th June 2015

(1) PEGASUSLIFE DEVELOPMENT LIMITED

(2) ELLIOTT WOOD PARTNERSHIP LLP

Appointment of Structural Engineer in relation to Bartram's Convent, Hampstead

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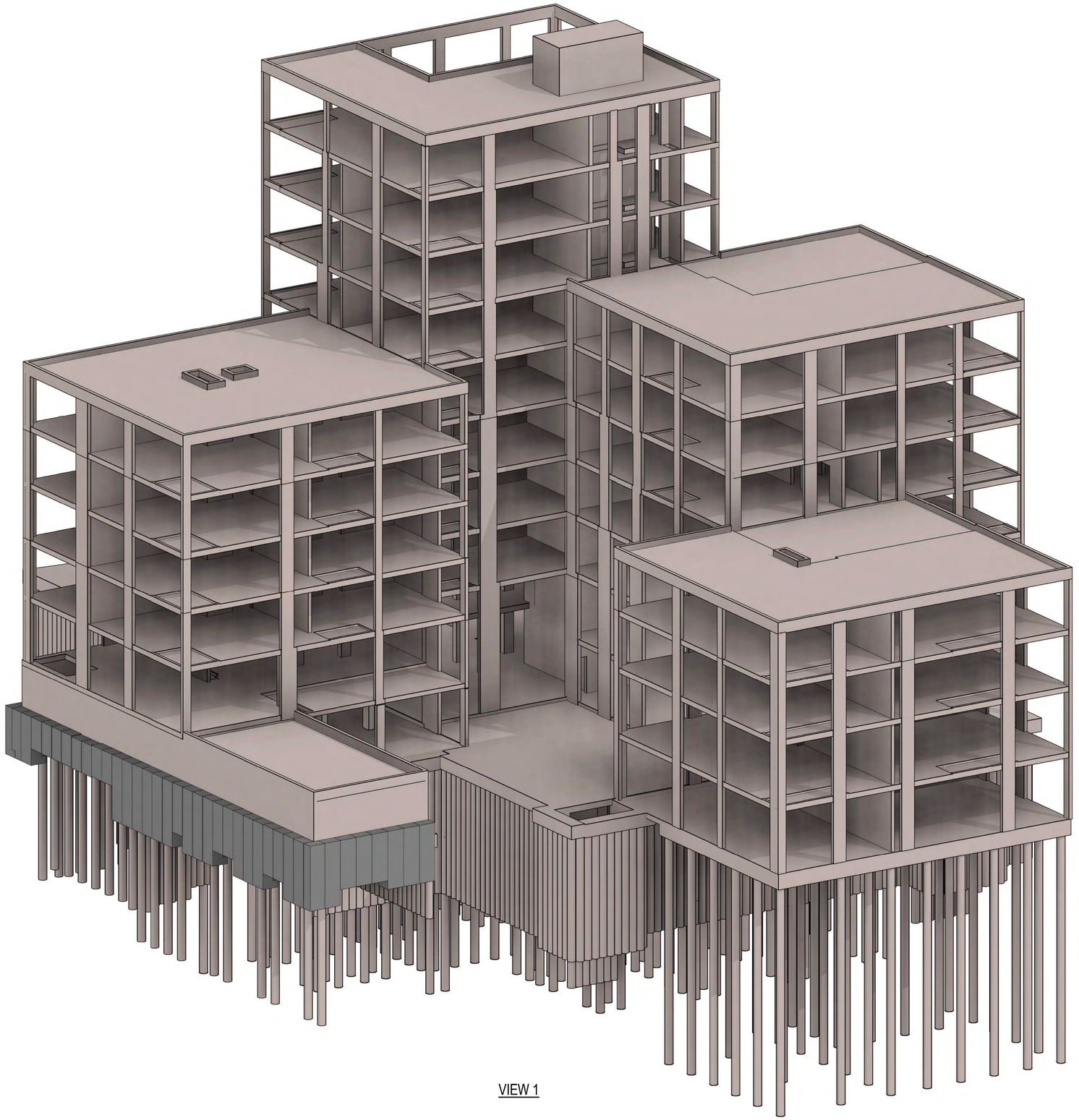
CMS Cameron McKenna LLP
Mitre House
160 Aldersgate Street
London EC1A 4DD

T +44(0)20 7367 3000
F +44(0)20 7367 2000

Ref: ROKA/134274.00033

Appendix 2 – Drawings



VIEW 1

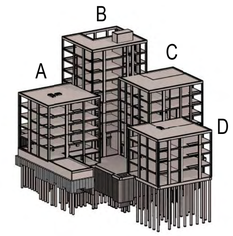
This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

ISOMETRIC VIEW:

- EXISTING STRUCTURE
- EXISTING STRUCTURE TO BE REMOVED
- NEW REINFORCED CONCRETE
- NEW MASS CONCRETE
- NEW PRECAST CONCRETE
- NEW STRUCTURAL STEELWORK
- NEW LOAD BEARING BLOCKWORK
- NEW LOAD BEARING BRICKWORK
- NEW TIMBER
- NEW GLAZING

BLOCK PLAN



NOT FOR CONSTRUCTION

rev	date	by	chk	description
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elliottwood

Elliott Wood Partnership LLP, 241 The Broadway, London SW19 1SD
Consulting Structural and Civil Engineers. www.elliottwood.co.uk
tel: 020 8544 0033. fax: 020 8544 0066. info@elliottwood.co.uk

project

Hampstead Green, Rowland Hill Street, Hampstead, London, NW3 2AB

drawing title

Proposed Isometric View
Sheet 1

scale (s)	date	drawn
NTS	April 2014	MJS

drawing status

Tender

job no	level	originator & drg no.	revision
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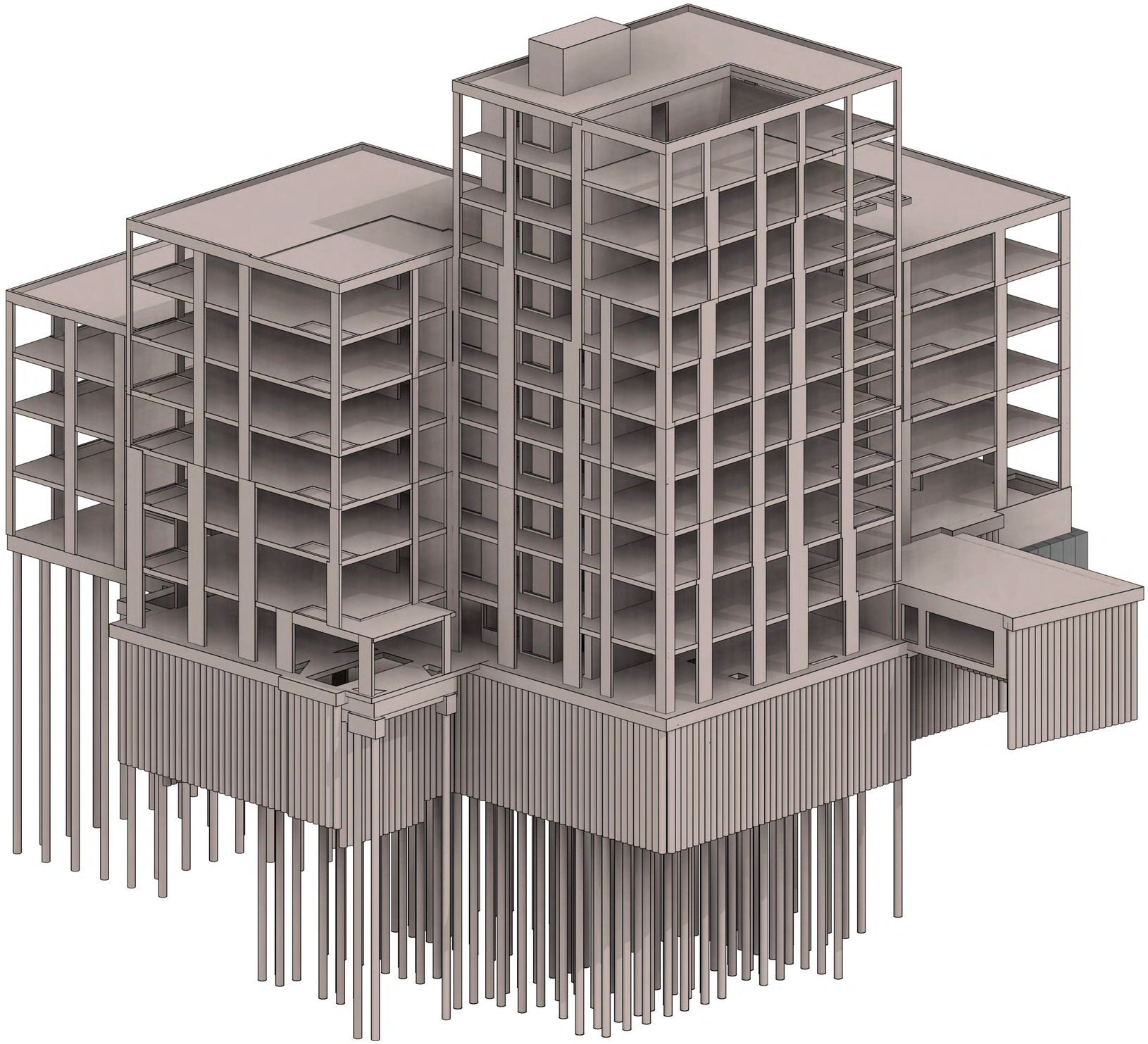


VIEW 2

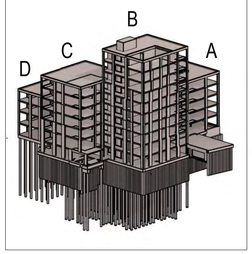
This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

ISOMETRIC VIEW:

- EXISTING STRUCTURE
- EXISTING STRUCTURE TO BE REMOVED
- NEW REINFORCED CONCRETE
- NEW MASS CONCRETE
- NEW PRECAST CONCRETE
- NEW STRUCTURAL STEELWORK
- NEW LOAD BEARING BLOCKWORK
- NEW LOAD BEARING BRICKWORK
- NEW TIMBER
- NEW GLAZING

BLOCK PLAN



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T1	30.06.15	MJS	AR	Issued for Tender

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Consulting Structural and Civil Engineers. www.elliottwood.co.uk
tel: 020 8544 0033. fax: 020 8544 0066. info@elliottwood.co.uk

project

Hampstead Green, Rowland Hill Street, Hampstead, London, NW3 2AB

drawing title

Proposed Isometric View Sheet 2

scale (s)	date	drawn
NTS	April 2014	MJS

drawing status

Tender

job no	level	originator & drg no.	revision
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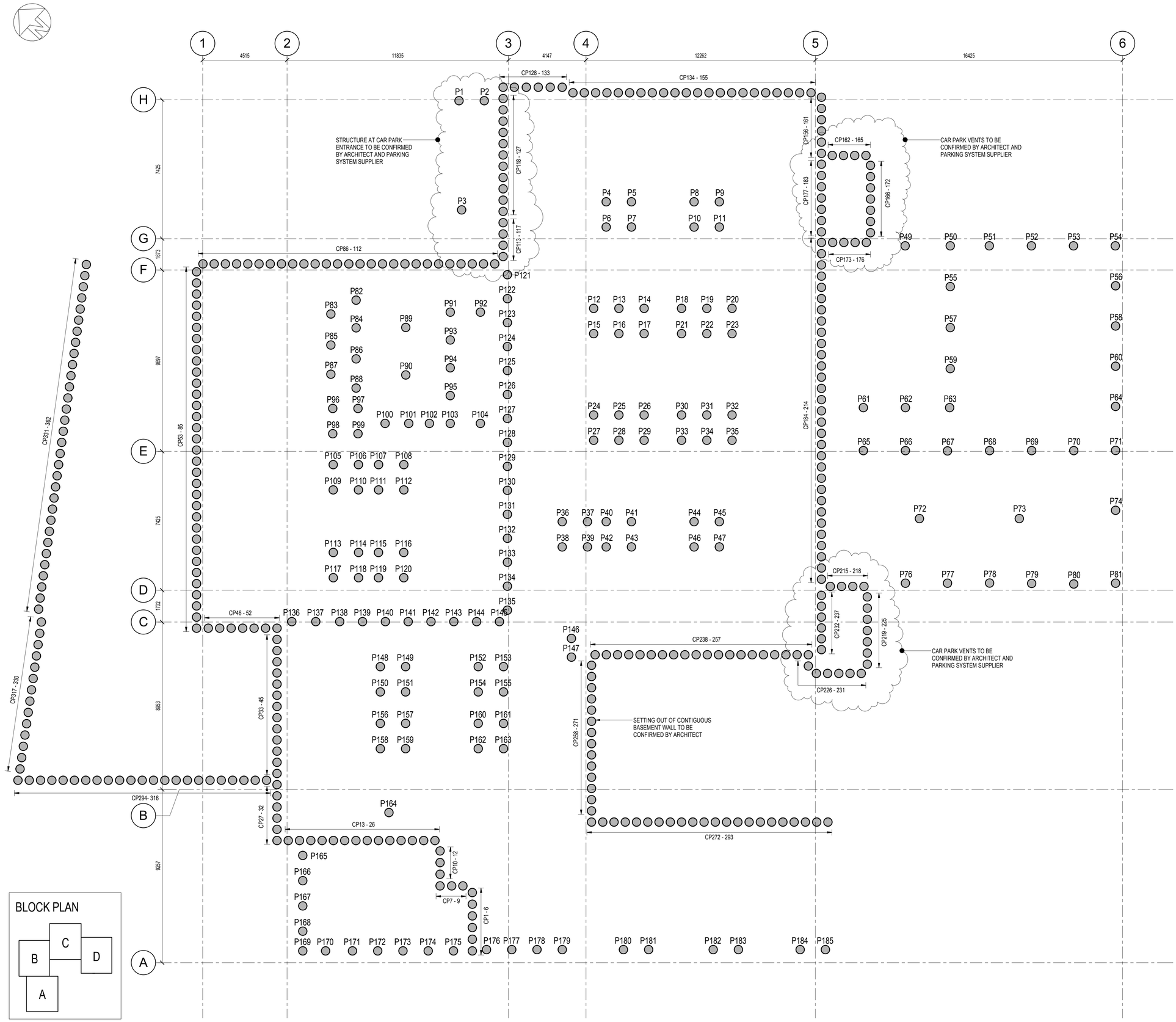

This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

LEGEND

- EXISTING STRUCTURE
- NEW LOAD BEARING BLOCKWORK
- NEW LOAD BEARING BRICKWORK
- NEW REINFORCED CONCRETE
- NEW MASS CONCRETE
- PADSTONES
- LOAD BEARING STUDWORK
- NON LOAD BEARING PARTY WALLS
- LOAD BEARING STRUCTURE BELOW
- EXISTING STRUCTURE TO BE REMOVED
- NEW STEEL BEAMS
- NEW LINTELS OVER OPENINGS
- INSITU CONCRETE BALCONY (180 THK U.N.O). THERMALLY BROKEN FROM MAIN SLAB

1. PILE DESIGN TO BE CARRIED OUT BY PILING CONTRACTOR INCLUDING CONFIRMATION OF PILE DIAMETER
2. FORMATION LEVELS TO BE DETERMINED BY PILING CONTRACTOR TO SUIT CUT OFF LEVELS SHOWN AND PREFERRED CONSTRUCTION SEQUENCE
3. FOR PILE LOADS REFER TO EW DRG. 213839/71

NOT FOR CONSTRUCTION

rev	date	by	chk	description
T2	18.12.15	MJS	AR	Re-Issued for Tender
T1	30.06.15	MJS	AR	Issued for Tender

elliottwood

Elliott Wood Partnership LLP, 241 The Broadway, London SW19 1SD
Consulting Structural and Civil Engineers. www.elliottwood.co.uk
tel: 020 8544 0033. fax: 020 8544 0066. info@elliottwood.co.uk

project

Hampstead Green, Rowland Hill Street, Hampstead, London, NW3 2AB

drawing title

Proposed Pile Layout

scale (s)	date	drawn
1:000@A1; 1:000@A3	April 2015	M JS

drawing status

Tender

job no	level	originator & drg no.	revision
213839	B03	S/70	T2

PILING SCHEDULE

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PILING SCHEDULE

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P124	450	450	66.725	527229978	185327005
P125	450	450	66.725	527228884	185326338
P126	450	450	66.725	527227791	185325671
P127	450	450	66.725	527226697	185325004
P128	450	450	66.725	527225603	185324337
P129	450	450	66.725	527224510	185323670
P130	450	450	66.725	527223416	185323003
P131	450	450	66.725	527222322	185322336
P132	450	450	66.725	527221229	185321669
P133	450	450	66.725	527220135	185321002
P134	450	450	66.725	527219041	185320335
P135	450	450	66.725	527217948	185319668
P136	450	525	67.125	527211406	185329217
P137	450	525	67.125	527212073	185328123
P138	450	525	67.125	527212740	185327030
P139	450	525	67.125	527213375	185325988
P140	450	525	67.125	527214011	185324946
P141	450	525	67.125	527214646	185323905
P142	450	525	67.125	527215281	185322863
P143	450	525	66.725	527215916	185321822
P144	450	525	66.725	527216551	185320780
P145	450	525	66.725	527217187	185319739
P146	450	250	66.725	527218070	185315771
P147	450	250	66.725	527217216	185315250
P148	450	375	67.125	527211815	185323923
P149	450	375	67.125	527212518	185322771
P150	450	375	67.125	527210663	185323220
P151	450	375	67.125	527211366	185322068
P152	450	375	67.125	527214541	185319454
P153	450	375	67.125	527215244	185318301
P154	450	375	67.125	527213388	185318751
P155	450	375	67.125	527214091	185317598
P156	450	700	67.125	527209225	185322344
P157	450	700	67.125	527209928	185321191
P158	450	700	67.125	527208072	185321641
P159	450	700	67.125	527208775	185320488
P160	450	650	67.125	527211951	185317874
P161	450	650	67.125	527212654	185316722
P162	450	650	67.125	527210798	185317171
P163	450	650	67.125	527211501	185316019
P164	450	600	67.125	527205395	185319469
P165	450	350	70.730	527201039	185322209
P166	450	350	70.730	527199887	185321506
P167	450	350	70.730	527198734	185320803
P168	450	350	70.730	527197582	185320100
P169	450	350	70.730	527196682	185319551
P170	450	350	70.730	527197317	185318510
P171	450	350	70.730	527198065	185317283
P172	450	350	70.730	527198768	185316131
P173	450	350	70.730	527199471	185314978
P174	450	350	70.730	527200174	185313826
P175	450	350	70.730	527200877	185312673
P176	450	350	69.775	527201857	185311201
P177	450	350	69.775	527202560	185310048
P178	450	350	69.775	527203262	185308895
P179	450	350	69.775	527203965	185307743
P180	450	250	69.775	527205668	185304952
P181	450	250	69.775	527206371	185303799
P182	450	250	69.775	527208167	185300853
P183	450	250	69.775	527208870	185299701
P184	450	250	69.775	527210588	185296884
P185	450	250	69.775	527211291	185295731

PILING SCHEDULE (CONTIG)

PILE REFERENCE	PILE DIAMETER (mm)	WORKING LOAD ON PILE (kN/m)	PILE CUT OFF LEVEL (m)
CP1 - 6	450	325	70.780
CP7 - 9	450	325	70.780
CP10 - 12	450	325	70.780
CP13 - 26	450	425	70.780
CP27 - 32	450	725	74.575
CP33 - 45	450	725	70.780
CP46 - 52	450	875	70.780
CP53 - 85	450	725	71.025
CP86 - 112	450	675	71.025
CP113 - 117	450	650	71.025
CP118 - 127	450	650	69.825
CP128 - 133	450	525	71.025
CP134 - 155	450	525	71.025
CP156 - 161	450	650	71.025
CP162 - 165	450	75	71.025
CP166 - 172	450	75	71.025
CP173 - 176	450	375	70.780
CP177 - 183	450	650	TBC
CP184 - 214	450	550	70.780
CP215 - 218	450	375	70.780
CP219 - 225	450	75	71.025
CP226 - 231	450	75	71.025
CP232 - 237	450	325	TBC
CP238 - 257	450	325	70.825
CP258- 271	450	725	70.780
CP272- 293	450	325	71.025
CP294- 316	450	275	74.275
CP317- 330	450	275	74.275
CP331- 362	450	100	VARIES

This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

1. PILE DESIGN TO BE CARRIED OUT BY PILING CONTRACTOR INCLUDING CONFIRMATION OF PILE DIAMETER
2. FORMATION LEVELS TO BE DETERMINED BY PILING CONTRACTOR TO SUIT CUT OFF LEVELS SHOWN AND PREFERRED CONSTRUCTION SEQUENCE
3. FOR PILE LAYOUT REFER TO EW DRG. 213839/70

NOT FOR CONSTRUCTION

rev	date	by	chk	description
T3	18.12.15	MJS	AR	Re-Issued for Tender
T2	19.11.15	BMC	AR	Re-Issued for Tender
T1	30.06.15	MJS	AR	Issued for Tender

elliottwood

Elliott Wood Partnership LLP, 241 The Broadway, London SW19 1SD
Consulting Structural and Civil Engineers. www.elliottwood.co.uk
tel: 020 8544 0033. fax: 020 8544 0066. info@elliottwood.co.uk

project

Hampstead Green, Rowland Hill Street, Hampstead, London, NW3 2AB

drawing title

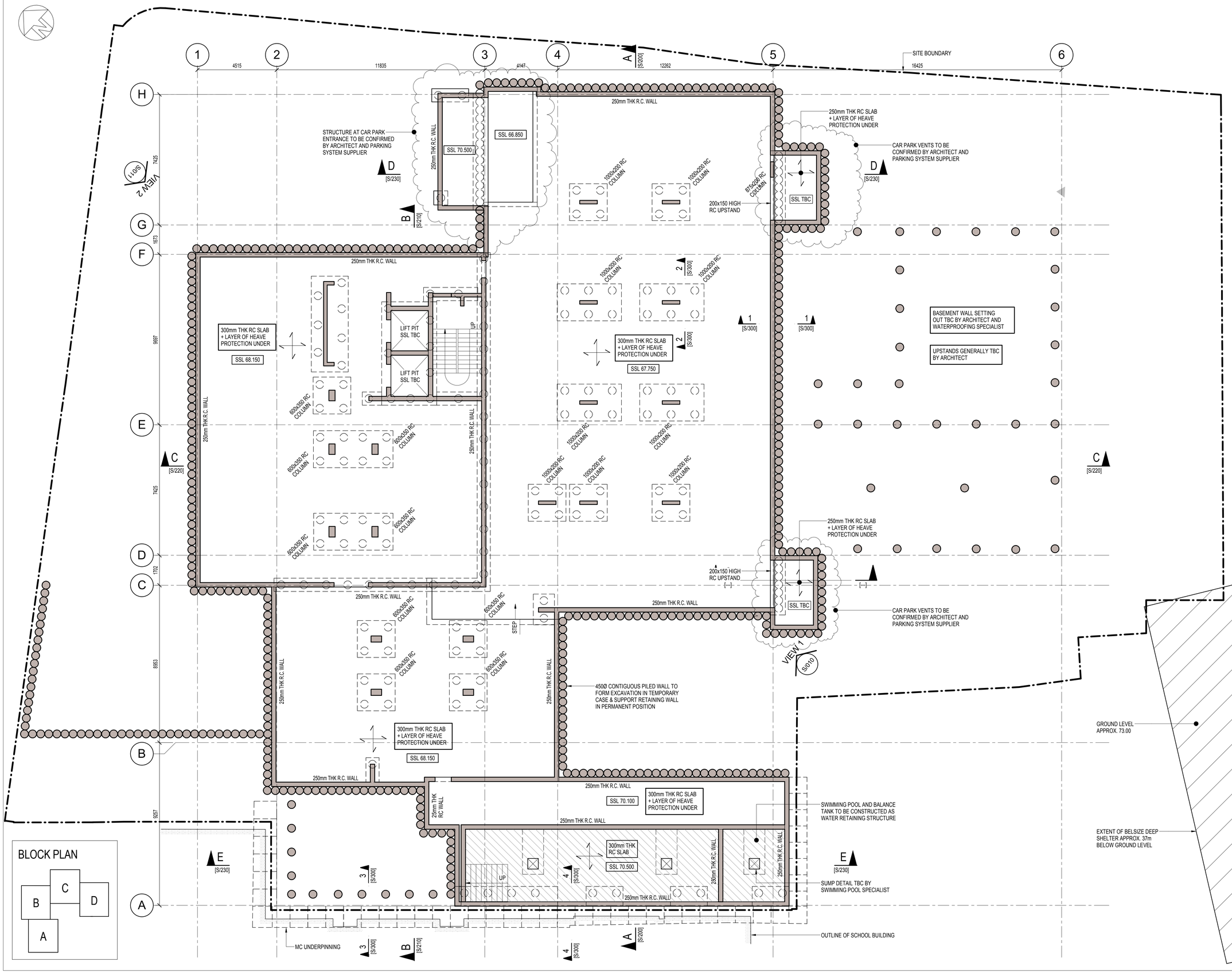
Proposed Pile Layout Schedules

scale (s)	date	drawn
NTS	April 2015	MJS

drawing status

Tender

job no	level	originator & drg no.	revision
213839	B03	S/71	T3



This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

LEGEND

- EXISTING STRUCTURE
- NEW LOAD BEARING BLOCKWORK
- NEW LOAD BEARING BRICKWORK
- NEW REINFORCED CONCRETE
- NEW MASS CONCRETE
- PADSTONES
- LOAD BEARING STUDWORK
- NON LOAD BEARING PARTY WALLS
- LOAD BEARING STRUCTURE BELOW
- EXISTING STRUCTURE TO BE REMOVED
- NEW STEEL BEAMS
- NEW LINTELS OVER OPENINGS
- INSITU CONCRETE BALCONY (180 THK U.N.O). THERMALLY BROKEN FROM MAIN SLAB

PILES
PILE DIAMETER TBC FOLLOWING INPUT FROM PILING CONTRACTOR. ASSUMED 450mm Ø 18m LONG OR 600mm Ø 14m LONG.

CONTIGUOUS PILES
PILE DIAMETER TBC FOLLOWING INPUT FROM PILING CONTRACTOR. DESIGN TO SUIT PROPOSED CONSTRUCTION SEQUENCE AND TEMPORARY WORKS

BASEMENT DRAINAGE
GRADE OF BASEMENT WATERPROOFING TO BE AGREED & SUITABLE STRATEGY IMPLEMENTED (DRAINED CAVITY / WATER RESISTING CONCRETE ETC) TBC BY CLIENT / ARCHITECT, DESIGN BY SPECIALIST

FIRE RESISTANCE
ASSUMED TO BE 60MINS TBC BY ARCHITECT / FIRE CONSULTANT

RETAINING WALLS
RETAINING WALLS ASSUMED TO BE PROPPED DURING CONSTRUCTION & IN PERMANENT CASE, THICKNESS TO BE 250mm.

TEMPORARY WORKS
-THE CONTRACTOR IS ENTIRELY RESPONSIBLE FOR MAINTAINING THE STABILITY OF ALL EXISTING BUILDINGS AND STRUCTURES, WITHIN AND ADJACENT TO THE WORKS AND OF ALL THE WORKS FROM THE DATE OF POSSESSION OF THE SITE UNTIL PRACTICAL COMPLETION OF THE WORKS
-THE CONTRACTOR SHALL DESIGN, INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY WORKS AND SHALL SUBMIT PROPOSALS FOR THE TEMPORARY SUPPORTS AND SEQUENCE OF CONSTRUCTION FOR THE WORKS, TO THE STRUCTURAL ENGINEER AND CONTRACT ADMINISTRATOR AT LEAST 10 WORKING DAYS PRIOR TO STARTING ON SITE. THESE PROPOSALS

BELOW GROUND OBSTRUCTIONS
A LARGE AMOUNT OF EXISTING BELOW GROUND DRAINAGE EXISTS WITHIN THE SITE BOUNDARY, REFER TO EWP SITE CONSTRAINTS DRAWING. EXACT LOCATION PURPOSE & OWNERSHIP TBC

ALL INSPECTION CHAMBERS AND PUMPING STATIONS AT BASEMENT LEVEL ARE TO BE FORMED USING CAST IRON HATCH BOXES TO BE INSTALLED WITHIN RC CHAMBERS. THE SIZE DEPTH AND NUMBER REQUIRED TBC. REFER TO EW DRAINAGE DRAWINGS

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elliottwood

Elliott Wood Partnership LLP, 241 The Broadway, London SW19 1SD
Consulting Structural and Civil Engineers. www.elliottwood.co.uk
tel: 020 8544 0033. fax: 020 8544 0066. info@elliottwood.co.uk

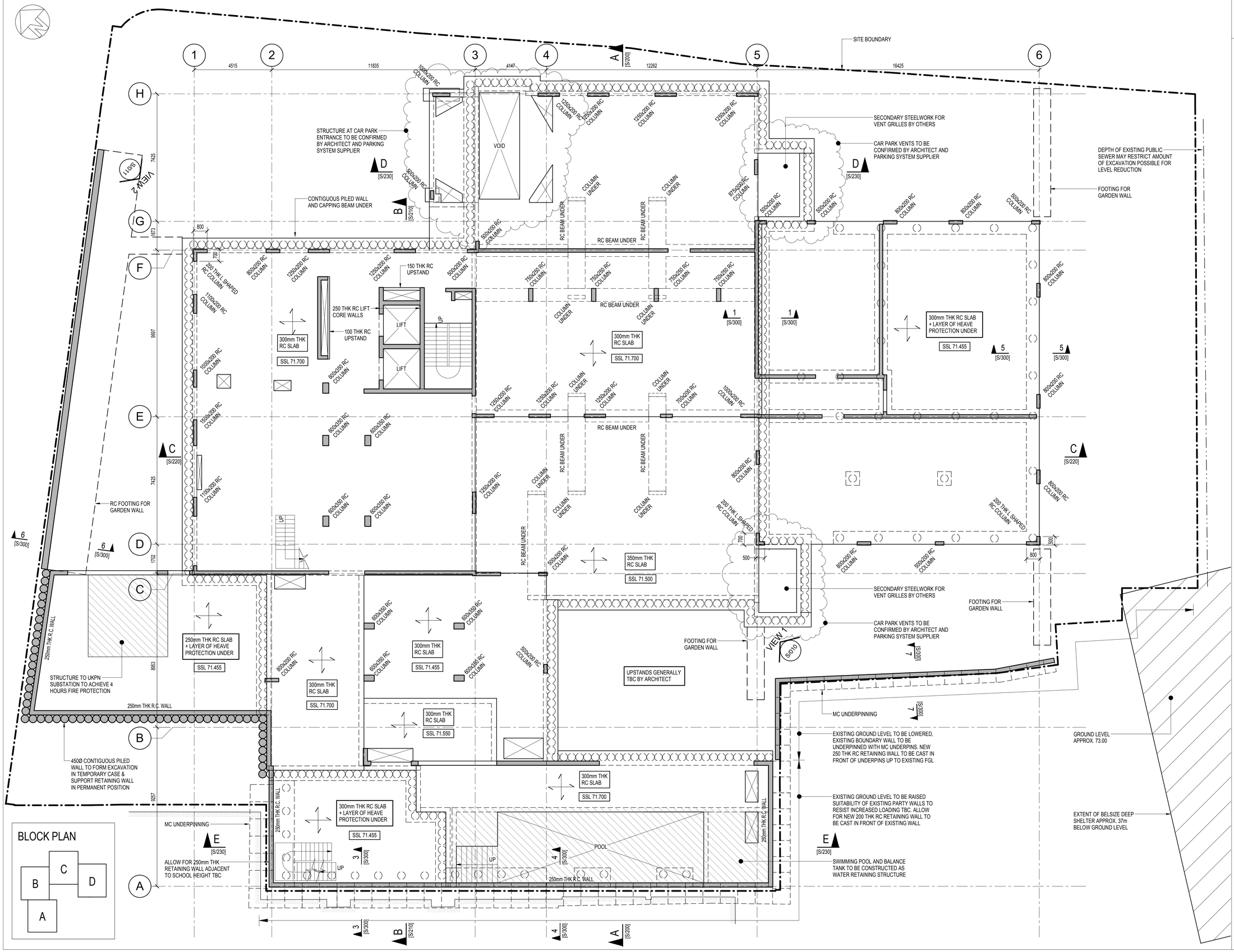
project
Hampstead Green, Rowland Hill Street, Hampstead, London, NW3 2AB

drawing title
Proposed Basement Plan

scale (s)	date	drawn
1:000@A1; 1:200@A3	April 2014	MJS

drawing status
Tender

job no	level	originator & drg no.	revision
213839	B02	S/80	T1



This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

LEGEND

- EXISTING STRUCTURE
- NEW LOAD BEARING BLOCKWORK
- NEW LOAD BEARING BRICKWORK
- NEW REINFORCED CONCRETE
- NEW MASS CONCRETE
- PADSTONES
- LOAD BEARING STUDWORK
- NON LOAD BEARING PARTY WALLS
- LOAD BEARING STRUCTURE BELOW
- EXISTING STRUCTURE TO BE REMOVED
- NEW STEEL BEAMS
- NEW LINTELS OVER OPENINGS
- INSITU CONCRETE BALCONY (180 THK U.N.O). THERMALLY BROKEN FROM MAIN SLAB

PILES
PILE DIAMETER TBC FOLLOWING INPUT FROM PILING CONTRACTOR. ASSUMED 450mm Ø 18m LONG OR 600mm Ø 14m LONG.

CONTIGUOUS PILES
PILE DIAMETER TBC FOLLOWING INPUT FROM PILING CONTRACTOR. DESIGN TO SUIT PROPOSED CONSTRUCTION SEQUENCE AND TEMPORARY WORKS

BASEMENT DRAINAGE
GRADE OF BASEMENT WATERPROOFING TO BE AGREED & SUITABLE STRATEGY IMPLEMENTED (DRAINED CAVITY / WATER RESISTING CONCRETE ETC) TBC BY CLIENT / ARCHITECT, DESIGN BY SPECIALIST

FIRE RESISTANCE
ASSUMED TO BE 60MINS TBC BY ARCHITECT / FIRE CONSULTANT

RETAINING WALLS
RETAINING WALLS ASSUMED TO BE PROPPED DURING CONSTRUCTION & IN PERMANENT CASE, THICKNESS TO BE 250mm.

TEMPORARY WORKS
-THE CONTRACTOR IS ENTIRELY RESPONSIBLE FOR MAINTAINING THE STABILITY OF ALL EXISTING BUILDINGS AND STRUCTURES, WITHIN AND ADJACENT TO THE WORKS AND OF ALL THE WORKS FROM THE DATE OF POSSESSION OF THE SITE UNTIL PRACTICAL COMPLETION OF THE WORKS
-THE CONTRACTOR SHALL DESIGN, INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY WORKS AND SHALL SUBMIT PROPOSALS FOR THE TEMPORARY SUPPORTS AND SEQUENCE OF CONSTRUCTION FOR THE WORKS, TO THE STRUCTURAL ENGINEER AND CONTRACT ADMINISTRATOR AT LEAST 10 WORKING DAYS PRIOR TO STARTING ON SITE. THESE PROPOSALS

BELOW GROUND OBSTRUCTIONS
A LARGE AMOUNT OF EXISTING BELOW GROUND DRAINAGE EXISTS WITHIN THE SITE BOUNDARY. REFER TO EWP SITE CONSTRAINTS DRAWING. EXACT LOCATION PURPOSE & OWNERSHIP TBC

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elliottwood

Elliott Wood Partnership LLP, 241 The Broadway, London SW19 1SD
Consulting Structural and Civil Engineers. www.elliottwood.co.uk
tel: 020 8544 0033. fax: 020 8544 0066. info@elliottwood.co.uk

project
Hampstead Green, Rowland Hill Street, Hampstead, London, NW3 2AB

drawing title
Proposed Lower Ground Floor Plan

scale (s)	date	drawn
1:100@A1; 1:200@A3	April 2014	MJS

drawing status
Tender

job no	level	originator & drg no.	revision
213839	B01	S/90	T1

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LEGEND

- EXISTING STRUCTURE
- NEW LOAD BEARING BLOCKWORK
- NEW LOAD BEARING BRICKWORK
- NEW REINFORCED CONCRETE
- NEW MASS CONCRETE
- PADSTONES
- LOAD BEARING STUDWORK
- NON LOAD BEARING PARTY WALLS
- LOAD BEARING STRUCTURE BELOW
- EXISTING STRUCTURE TO BE REMOVED
- NEW STEEL BEAMS
- NEW LINTELS OVER OPENINGS
- INSITU CONCRETE BALCONY (180 THK U.N.O). THERMALLY BROKEN FROM MAIN SLAB

FIRE RESISTANCE
ASSUMED TO BE 60MINS TBC BY ARCHITECT / FIRE CONSULTANT

TEMPORARY WORKS
-THE CONTRACTOR IS ENTIRELY RESPONSIBLE FOR MAINTAINING THE STABILITY OF ALL EXISTING BUILDINGS AND STRUCTURES, WITHIN AND ADJACENT TO THE WORKS AND OF ALL THE WORKS FROM THE DATE OF POSSESSION OF THE SITE UNTIL PRACTICAL COMPLETION OF THE WORKS
-THE CONTRACTOR SHALL DESIGN, INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY WORKS AND SHALL SUBMIT PROPOSALS FOR THE TEMPORARY SUPPORTS AND SEQUENCE OF CONSTRUCTION FOR THE WORKS, TO THE STRUCTURAL ENGINEER AND CONTRACT ADMINISTRATOR AT LEAST 10 WORKING DAYS PRIOR TO STARTING ON SITE. THESE PROPOSALS

ALL WALLS TO BE 200 THK UNLESS NOTED OTHERWISE

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Elliott Wood Partnership LLP, 241 The Broadway, London SW19 1SD
Consulting Structural and Civil Engineers. www.elliottwood.co.uk
tel: 020 8544 0033. fax: 020 8544 0066. info@elliottwood.co.uk

project
Hampstead Green, Rowland Hill Street, Hampstead, London, NW3 2AB

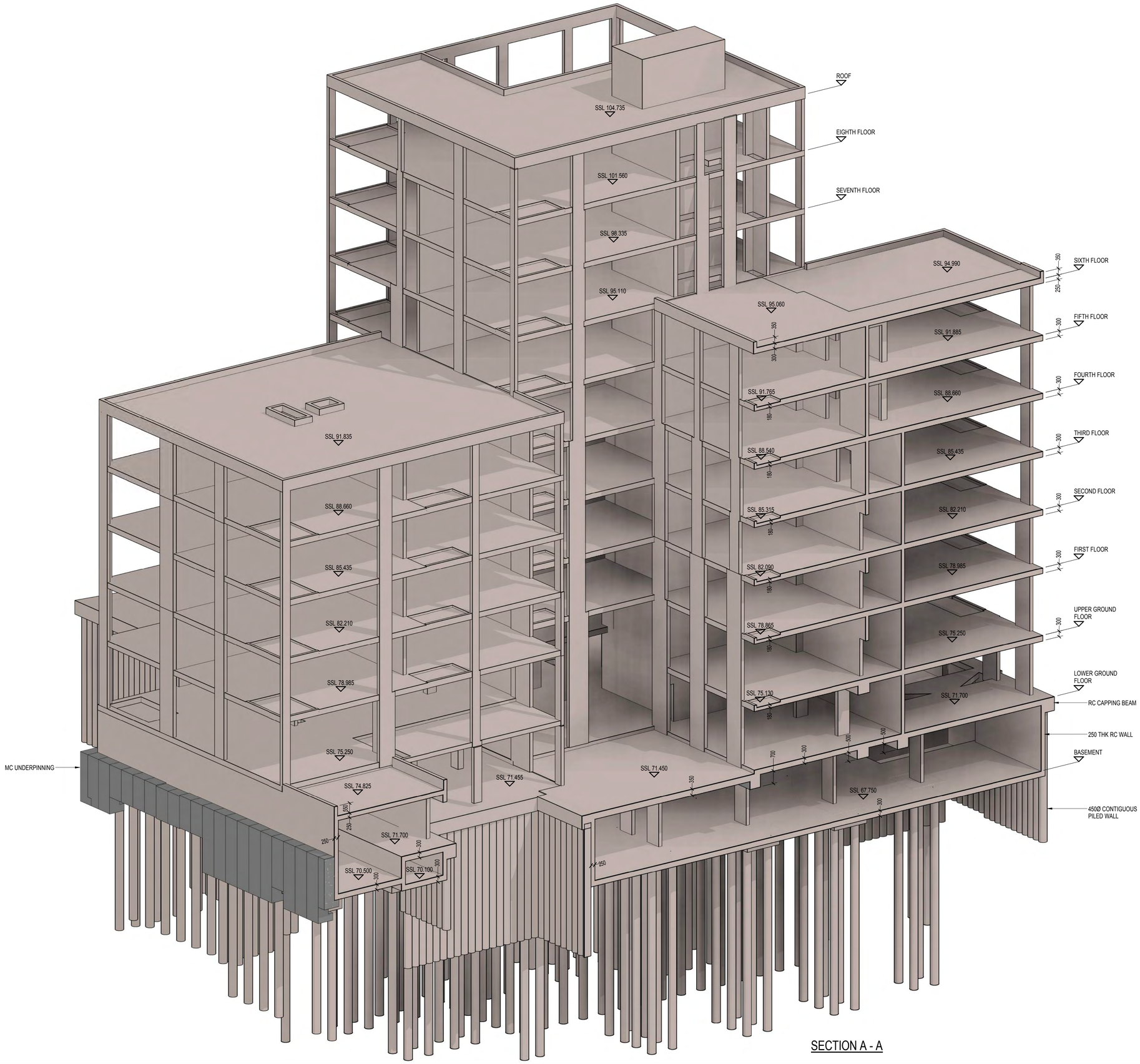
drawing title
Proposed Upper Ground Floor Plan

scale (s)	date	drawn
1:100@A1; 1:200@A3	April 2014	MJS

drawing status
Tender

job no	level	originator & drg no.	revision
213839	L00	S/100	T1

BLOCK PLAN



SECTION A - A

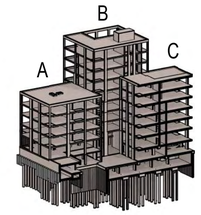
This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

ISOMETRIC VIEW:

- EXISTING STRUCTURE
- EXISTING STRUCTURE TO BE REMOVED
- NEW REINFORCED CONCRETE
- NEW MASS CONCRETE
- NEW PRECAST CONCRETE
- NEW STRUCTURAL STEELWORK
- NEW LOAD BEARING BLOCKWORK
- NEW LOAD BEARING BRICKWORK
- NEW TIMBER
- NEW GLAZING

BLOCK PLAN



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T1	30.06.15	MJS	AR	Issued for Tender

elliottwood

Elliott Wood Partnership LLP, 241 The Broadway, London SW19 1SD
Consulting Structural and Civil Engineers. www.elliottwood.co.uk
tel: 020 8544 0033. fax: 020 8544 0066. info@elliottwood.co.uk

project

Hampstead Green, Rowland Hill Street, Hampstead, London, NW3 2AB

drawing title

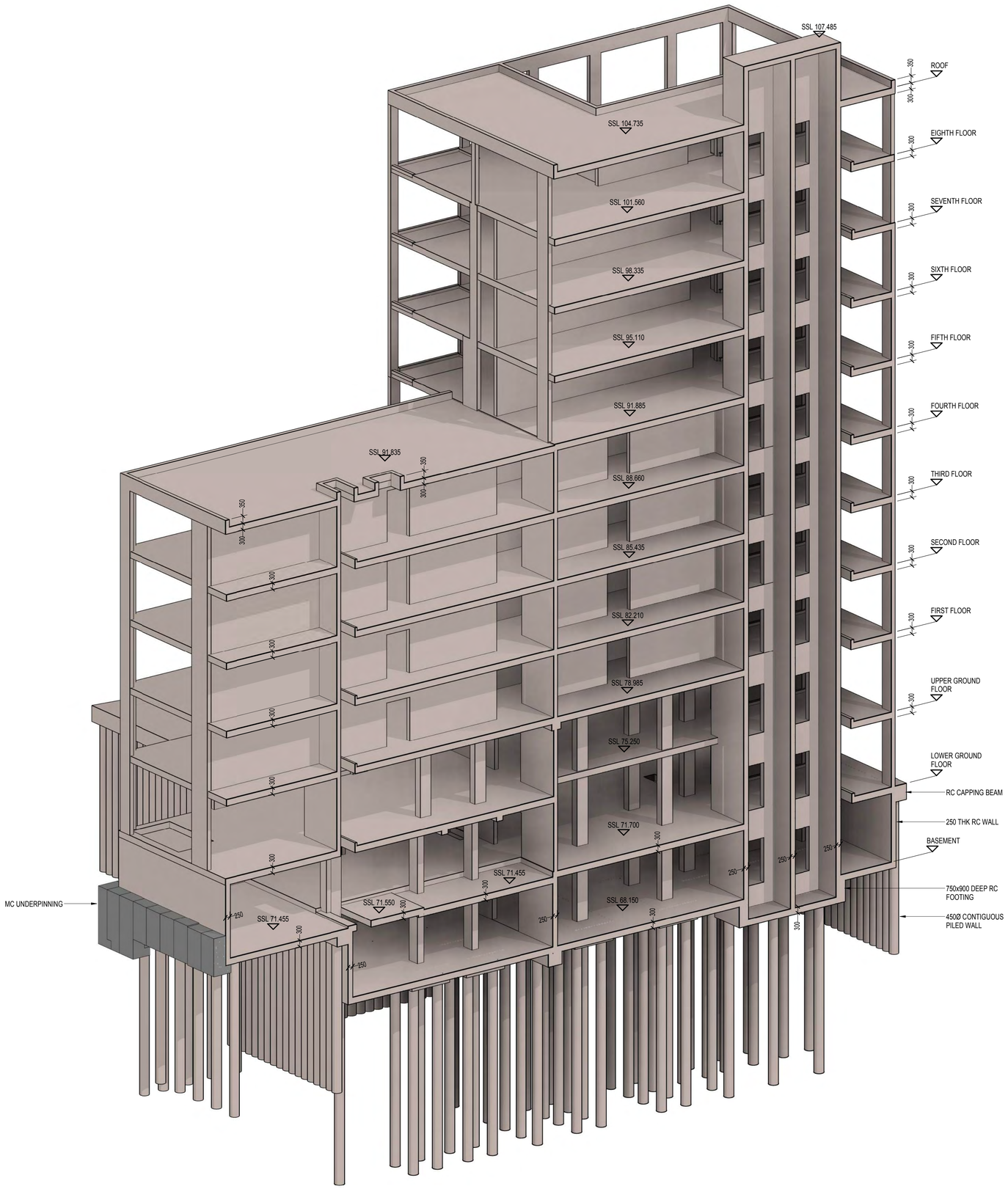
Proposed Isometric Section A-A

scale (s)	date	drawn
1:100@A1; 1:200@A3	May 2015	MJS

drawing status

Tender

job no	level	originator & drg no.	revision
213839		S/200	T1



SECTION B - B

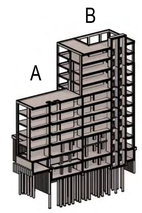
This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

ISOMETRIC VIEW:

- EXISTING STRUCTURE
- EXISTING STRUCTURE TO BE REMOVED
- NEW REINFORCED CONCRETE
- NEW MASS CONCRETE
- NEW PRECAST CONCRETE
- NEW STRUCTURAL STEELWORK
- NEW LOAD BEARING BLOCKWORK
- NEW LOAD BEARING BRICKWORK
- NEW TIMBER
- NEW GLAZING

BLOCK PLAN



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T1	30.06.15	MJS	AR	Issued for Tender

elliottwood

Elliott Wood Partnership LLP, 241 The Broadway, London SW19 1SD
Consulting Structural and Civil Engineers. www.elliottwood.co.uk
tel: 020 8544 0033. fax: 020 8544 0066. info@elliottwood.co.uk

project

Hampstead Green, Rowland Hill Street, Hampstead, London, NW3 2AB

drawing title

Proposed Isometric Section B-B

scale (s)	date	drawn
1:000@A1; 1:200@A3	May 2015	MJS

drawing status

Tender

job no	level	originator & drg no.	revision
213839		S/210	T1