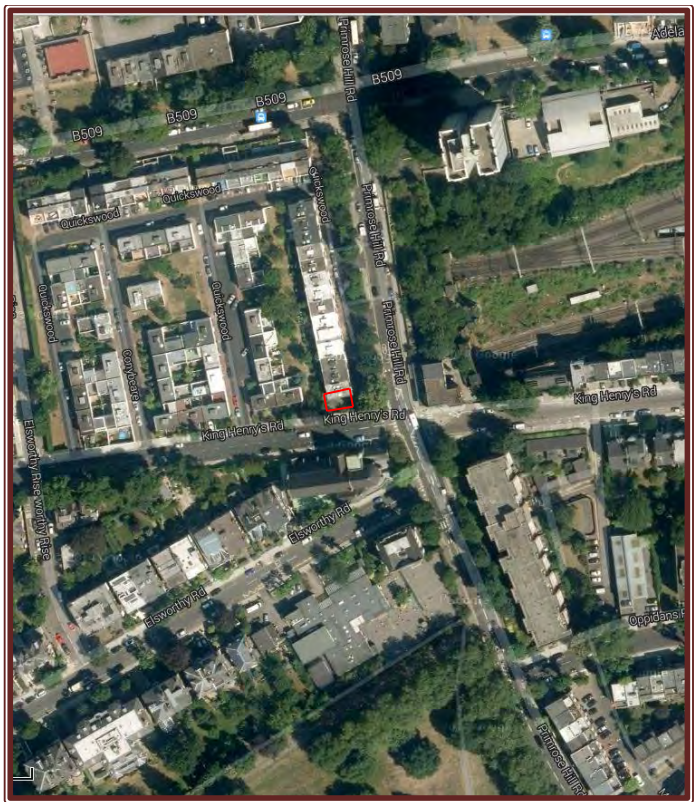
SCREENING AND SCOPING REPORT: 'LAND STABILITY'

PROPOSED DEVELOPMENT:

11A, PRIMROSE HILL ROAD, LONDON NW3 3DG



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Date:	**11th July 2014 [Rev 1]**

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SCREENING AND SCOPING REPORT: 'LAND STABILITY'

PROPOSED DEVELOPMENT:

11A, PRIMROSE HILL ROAD, LONDON NW3 3DG

DOCUMENT ISSUE STATUS:

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Rev 0	**27 June 2014**	**First issue**	**Alan Watson** BSc [Eng], CEnv, CEng, MICE	**Stuart Wagstaff** BSc(Hons), MSc, CGeol, FGS
Rev 1	**11 July 2014**	**Tree removal**	**Alan Watson** BSc [Eng], CEnv, CEng, MICE	**Stuart Wagstaff** BSc(Hons), MSc, CGeol, FGS

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  [Camden geological, hydrogeological and hydrological study: Guidance for subterranean development', Issue 01 dated November 2010]
- Drawings of proposed construction
- Site Plan
- Location Map

1.0 INTRODUCTION

Consideration is being given to the construction of a new four storey end of terrace house including a single level basement built in the side garden of No11, Primrose Hill Road.

This desk study report presents the potential impact relating to the proposed subterranean development in terms of 'land stability' as presented in the guidance documents published by Arup 2010: 'Camden geological, hydrogeological and hydrological study: Guidance for subterranean development', Issue 01 dated November 2010 and CPG4 and 'Basements and Lightwells', published by Camden Council, 2013.

The proposed development may involve a contiguous pile embedded retaining wall and underpinning of the adjacent house to enable excavation down to a depth of about 3.2m below existing ground level. The basement will cover an area of approximately 60m^2. There will also be construction of three above ground storeys. Rail tunnels lie directly below the site and thus this will impact on the design and construction of the development.

2.0 SITE DESCRIPTION

The site is located on the north west corner of the junction between Primrose Hill Road and King Henry's Road within the London Borough of Camden, with its centre at NGR 527515E 184220N and with overall dimensions of approximately 13m x 7m. The site comprises the garden area to the side of 11, Primrose Hill Road, a three storey end of terrace residential house of traditional brick construction, which does not have a basement. This adjacent property is joined to 13, Primrose Hill Road to the north. Access to the site is via Primrose Hill Road.

The garden area is enclosed by wooden fencing and a hedge and there are a number of mature trees of about 9m to 10m height along the boundary, together with more substantial trees about 10m distant of about 15m height.

The site itself comprises a local gentle slope down from south to north [from King Henry's Road down to No11, Primrose Hill] by about 0.6m over a distance of about 6.5m [about 5°] based on existing elevations and lies at approximately +46mOD [inferred from nearby Ordnance Survey spot levels]. The general terrain slopes gently down from west to east along King Henry's Road from +47.9m OD to +44.8m OD over a distance of 180m [slope angle <1°]. The slope along Primrose Hill Road is unclear from OS spot levels but on the basis of interpolated values would appear to be sloping down from south to north by <2°.

A Network Rail Tunnel running between Euston and South Hampstead is present directly beneath the site. Information on the depth and alignment of the tunnel has been requested by the Client's representatives although these tunnels are thought to be relatively shallow as the portal is present immediately to the east of Primrose Hill Road where the rail lines are in open cut.

The site is surrounded by further residential properties and the Parish Church of St Mary the Virgin, which may have a basement or crypt, is situated opposite the site on the south side of King Henry's Road.

3.0 GROUND INVESTIGATION

There is currently no available site specific ground investigation but we do have general knowledge about the anticipated ground conditions from published geology and nearby sites.

4.0 STAGE 1 - SCREENING

The purpose of the screening stage is to determine whether a full Basement Impact Assessment is required and CPG4 provides flowcharts for each of the three disciplines [Groundwater Flow, Land Stability and Surface Flow/Flooding] for this purpose, identifying a series of questions. An answer of 'Yes' or 'Unknown' will require progression to Stage 2 of the CPG4 categories. Answers of 'No' indicate that no further investigation is generally required - these answers require written justification. The purpose of this section is to present the screening stage for the Land Stability discipline.

4.1 Land Stability

The screening stage for slope stability has been considered as set out in Figure 2 of CPG4 Camden Council, 2010 [slope stability screening flowchart] and the results have been tabulated in Table 1 below.

Table 1: Impact of proposed basement works on Land Stability

Impact question	Answer	Justification	Reference
1] Does the existing site include slopes, natural or man-made greater than 7° [approximately 1 in 8]?	No	No significant apparent slope indicated by survey plans within relevant distance around the site	• Large scale OS mapping • Existing elevations
2] Will the proposed re-profiling of landscaping at site change slopes at the property boundary to more than 7°?	No	There are no plans to alter the site levels	• Proposed development plans
3] Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7°?	No	There is a railway cutting approach to the Primrose Hill Tunnels, which pass beneath the site. The slope at the tunnel entrance is greater than 10° but this is not immediately neighbouring and lies about 50m east of the site. Available survey information shows no other slopes greater than 7° within a relevant distance.	• OS Maps
4] Is the site within a wider hillside setting in which the general slope is greater than 7°?	No	Map review and assessment of slope angles from survey data	• Large scale OS mapping

Impact question	Answer	Justification	Reference
5] Is the London Clay the shallowest stratum at the site?	Yes	The site is underlain by the London Clay. Some made ground may also be present	• BGS Published Geology and nearby boreholes
6] Will any trees be felled as part of the proposed development and/or any works proposed within any tree protection zones where trees are to be retained?	Yes	Trees are present on [and within an influencing distance from] the site. A tree will be removed from near the SE corner of the proposed footprint. Appropriate precautions should be taken to ensure that the proposed basement is not adversely affected by swelling/shrinkage of the surrounding soil.	• Tree protection plan • Public domain photographs • Existing elevations
7] Is there a history of seasonal shrinkage/swelling subsidence to the local area, and or evidence of such effects at the site?	Unknown	The London Clay is classified as a soil with a high volume change potential. It is possible that this stratum has been adversely affected because trees are present on and within an influencing radius of the site. We have not been provided with any information from the engineer/architect to indicate that subsidence has occurred at the site/adjacent areas.	• NHBC Guidance
8] Is the site within 100m of a watercourse or a potential spring line?	No	As far as can be determined from the Camden Geological, Hydrogeological and Hydrological Study there are no watercourses or spring lines within 100m. See comments in report presented by ESI Ltd [Ref 62633 R1 June 2014].	• Arup 2010 Figures 11 & 12
9] Is the site within an area of previously worked ground?	No	There is a tunnel beneath the site, which may be considered worked ground, but in terms of surface workings, the published geological data indicates no worked ground or made ground is present at the site or in close proximity.	• BGS Published Geology • Arup 2010 Figure 16
10] Is the site within an aquifer? If so; will the proposed basement extend beneath the water table such that dewatering may be required during construction?	No	The London Clay is classified as "Unproductive" aquifer. The site is shown within the Outer Source Protection Zone as shown on ARUP Figure 8, but this probably relates to the underlying Chalk Aquifer which is at great depth and not within influencing distance. Dewatering is unlikely to be required.	• Arup 2010 Figure 8
11] Is the site within 50m of any ponds?	No	Arup Figure 12 indicates no nearby ponds.	• Arup 2010 Figure 12 • OS mapping
12] Is the site within 5m of a highway or pedestrian right of way?	Yes	The proposed basement is within 5m of King Henry's Rd.	• Proposed development plans
13] Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?	Yes	Basement retaining walls will extend below founding levels of No11, Primrose Hill Road, which is located to the north. Carefully-designed and constructed underpinning or other form of retaining structure will be essential to ensure that no adverse effects occur due to the construction. The movement expected from a properly constructed and supported wall should be relatively small.	• Proposed development plans

Impact question	Answer	Justification	Reference
14] Is the site over [or within] the exclusion zone of any tunnels, e.g. railway lines?	Yes	The site development area is directly over one of the Network Rail Primrose Hill Tunnels running between Euston and South Hampstead.	• Internet mapping • Network Rail consultation

Responses of note are as follows:

- Question 5 [London Clay] is answered 'Yes'. BGS mapping indicates that the London Clay is present near the ground surface, possibly below a layer of made ground.

- Question 6 [tree removal] is answered 'Yes'. A tree will be removed from adjacent to the SE corner of the proposed footprint.

- Question 7 [shrink/swell] is answered 'Unknown'. Although the London Clay is the shallowest strata present [beneath made ground if present], the depth of the proposed basement would suggest that related shrink/swell concerns may not be an issue and the answer would likely be 'No' in this regard; some measures may be necessary to cater for potential clay swell exerting pressure on the basement retaining walls if trees are removed.

- Question 12 [is the site within 5m of a highway or pedestrian right of way] is answered 'Yes' as the site borders King Henry's Road footpath and measures must be taken during construction to ensure that the pavement and adjacent road are not adversely affected by the construction.

- Question 13 [Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?] is answered 'Yes' - carefully-designed and constructed underpinning / retaining structure will be essential to ensure that no adverse effects occur due to the construction; the movement expected from a properly constructed and supported wall should be relatively small.

- Question 14 [Is the site over [or within] the exclusion zone of any tunnels?] is answered 'Yes'. The influence of the basement excavation on the tunnels will require an assessment for Network Rail approval.

5.0 STAGE 2 - SCOPING

The purpose of Stage 2 is to assess the potential impacts of the proposed scheme that Stage 1 has indicated that require further consideration. These are addressed below for each of the relevant points.

5.1 Land Stability

As identified in Section 4.1 the slopes within influential distance of the site are all shallow [<7 °] and no significant impact is anticipated on sloping ground in terms of land stability provided that the design and construction of the scheme ensure that ground movements are kept to an absolute minimum.

The presence of London Clay near the ground surface [Question 5] is unlikely to be a significant issue due to the depth of the proposed basement being below the expected root affected zone within the clay. The advantage of this stratum is that groundwater is unlikely to be a significant issue affecting construction and any impact on groundwater caused by the construction will be minimal.

A tree will be removed from near the proposed footprint [Question 6]. Soil volume change [Question 7] is unlikely to be a significant issue despite the presence of nearby trees as the founding depth for the proposed basement should be below the influence of any expected root growth. Some measures may be necessary to cater for potential clay swell exerting pressure on the basement retaining walls as a tree will be removed.

The depth of the aquifer in relation to the basement [Question 10] is assessed further by ESI within their Basement Impact Report [Ref 62633 R1, June 2014]; however, the London Clay is not expected to contain significant groundwater within the likely construction depths. Uplift/heave pressures due to soil heave following excavation, and hydrostatic pressures will both have to be considered in the design.

With regard to the impact on adjacent highways / pedestrian right of way [Question 12], the proposed basement construction will be within influencing distance of King Henry's Road. The construction methodology must be carefully considered to ensure that adequate support is maintained at all times to avoid significant ground movements.

The differential depth of the proposed foundations in relation to neighbouring properties [Question 13] is such that underpinning of party wall foundations may be required. [if an embedded wall is used underpinning may not be necessary if the wall is adequately propped].

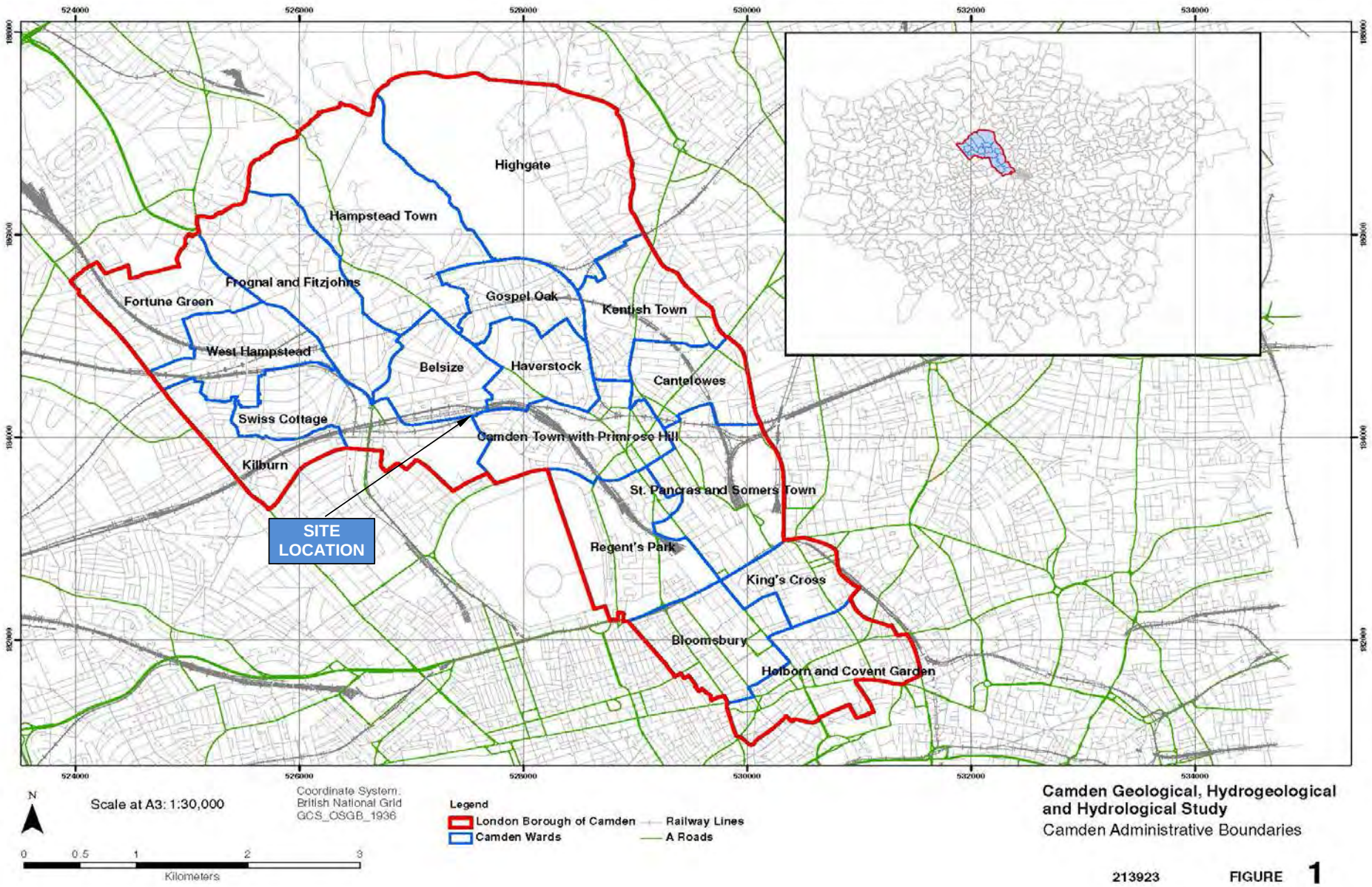
The influence of the basement construction on the underlying Network Rail Tunnel [Question 14] will require assessment for Network Rail approval. This will require information on the line and level of the tunnel which we understand has been requested.

5.2 Conclusions

From the available information we consider that the risk to ground stability from this development should be LOW. This is on the condition that the works are undertaken by reputable experienced specialists and the temporary and permanent works are adequately designed and implemented with due consideration to the geology and hydrogeology of the site and surrounding areas. Ground movements should thus be kept within normal tolerable limits. It is noted that rail tunnels may be within influencing distance and thus the ground and ground water conditions should be ascertained. The relevant ground movement analysis should be undertaken to address both the impact of the development on neighbouring properties and the underlying tunnel.

APPENDIX

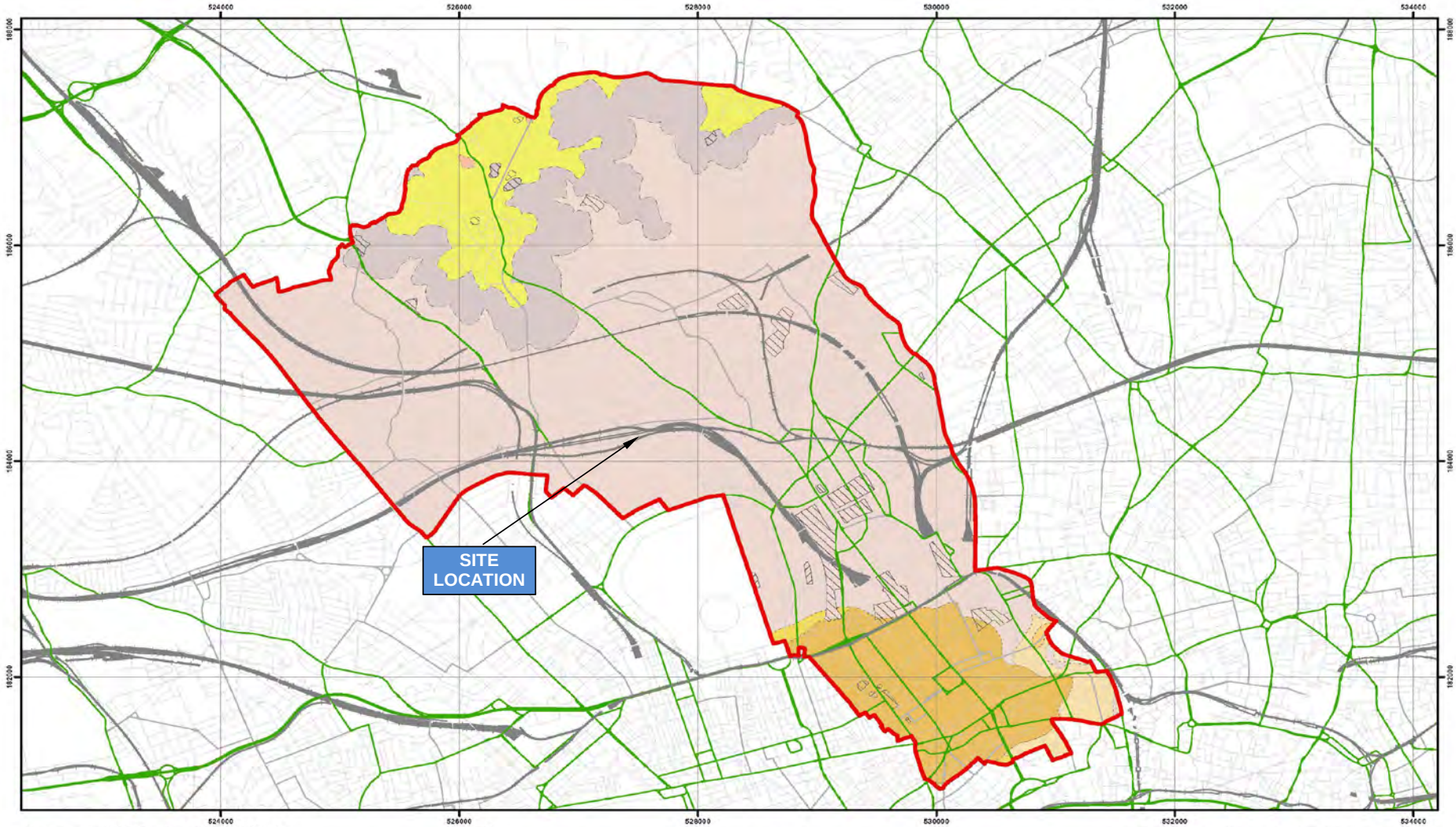
- Arup 2010 Figures
  [Camden geological, hydrogeological and hydrological study: Guidance for subterranean development', Issue 01 dated November 2010]
- Drawings of proposed construction
- Site Plan
- Location Map



Camden Geological, Hydrogeological and Hydrological Study

Camden Administrative Boundaries

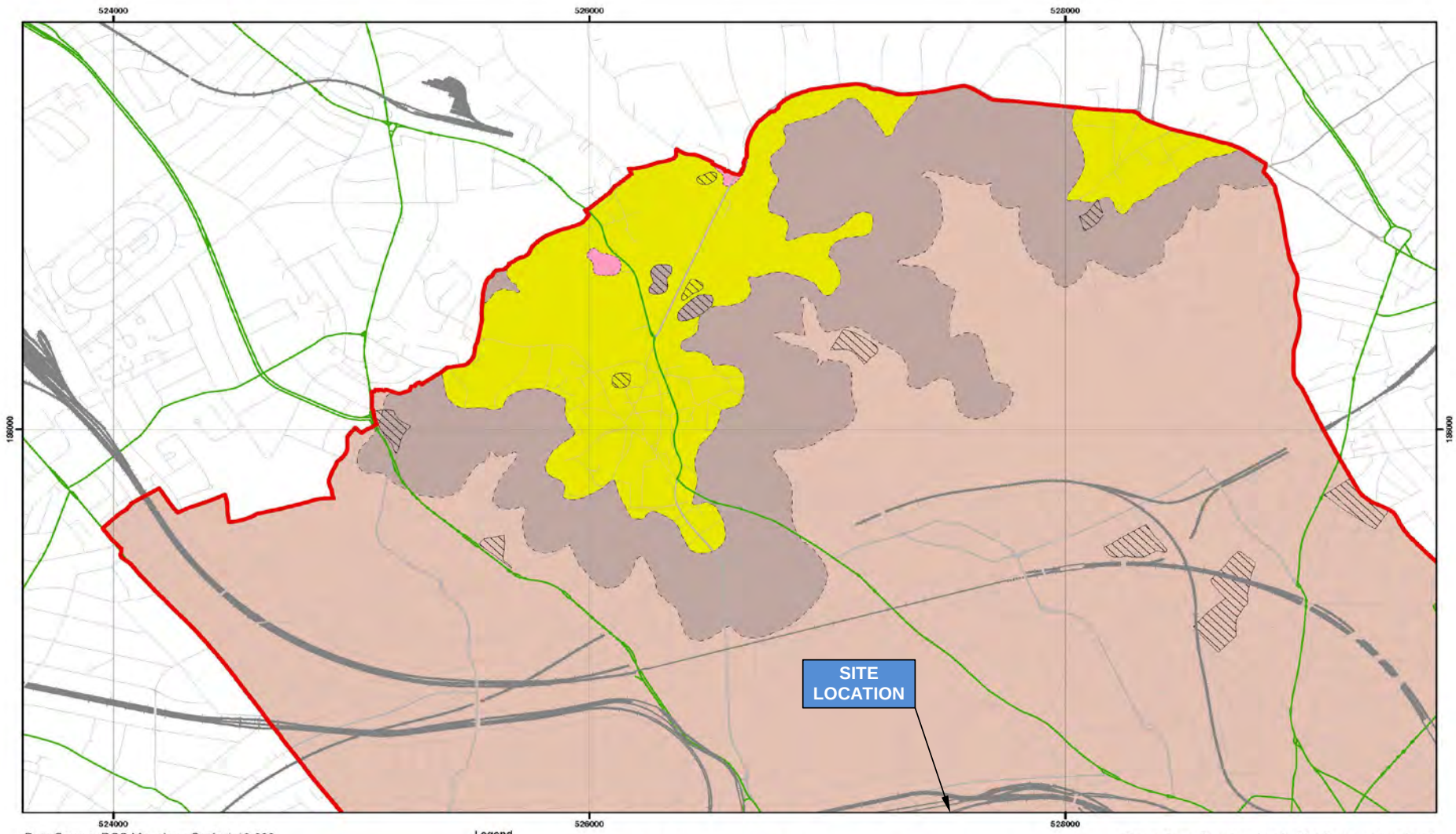
213923 FIGURE **1**



Camden Geological, Hydrogeological and Hydrological Study

Camden Geological Map

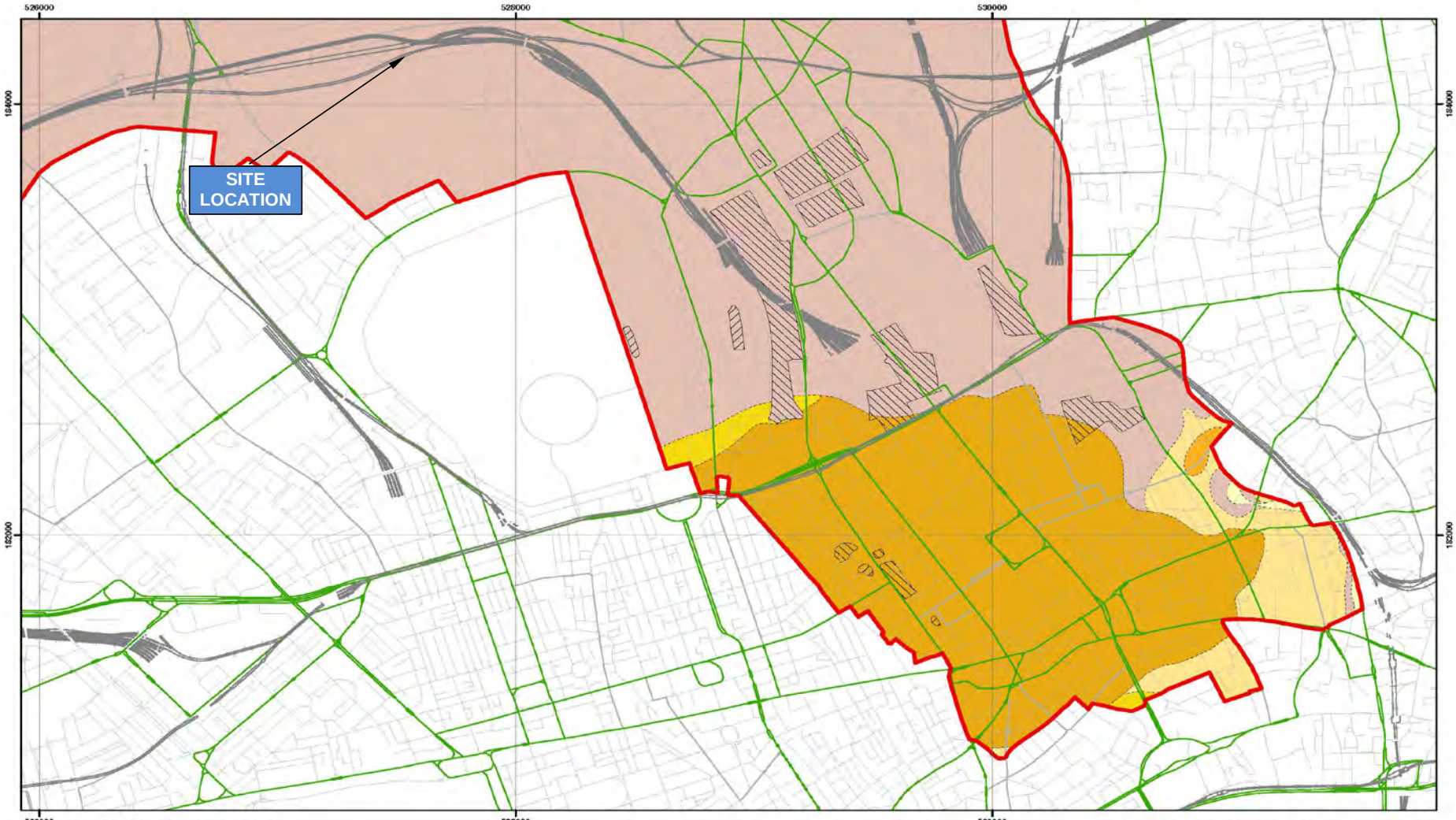
213923 FIGURE **3**



Camden Geological, Hydrogeological and Hydrological Study

North Camden Geological Map

213923 FIGURE **4**



Data source: BGS Mapping - Scale 1:10,000

N

Scale at A3: 1:15,000

Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.25 0.5 1 1.5
Kilometers

Legend

- London Borough of Camden
- Railway Lines
- A Roads

BGS 1:10K Artificial Ground

- MADE GROUND
- WORKED GROUND

BGS 1:10K Drift Geology

- ALLUVIUM
- HACKNEY GRAVEL FORMATION
- LANGLEY SILT FORMATION
- LYNCH HILL GRAVEL FORMATION
- STANMORE GRAVEL FORMATION

BGS 1:10K Solid Geology

- BAGSHOT FORMATION
- CLAYGATE MEMBER
- LAMBETH GROUP
- LONDON CLAY FORMATION

NB. Geological boundaries are largely indicative based on available geological mapping data

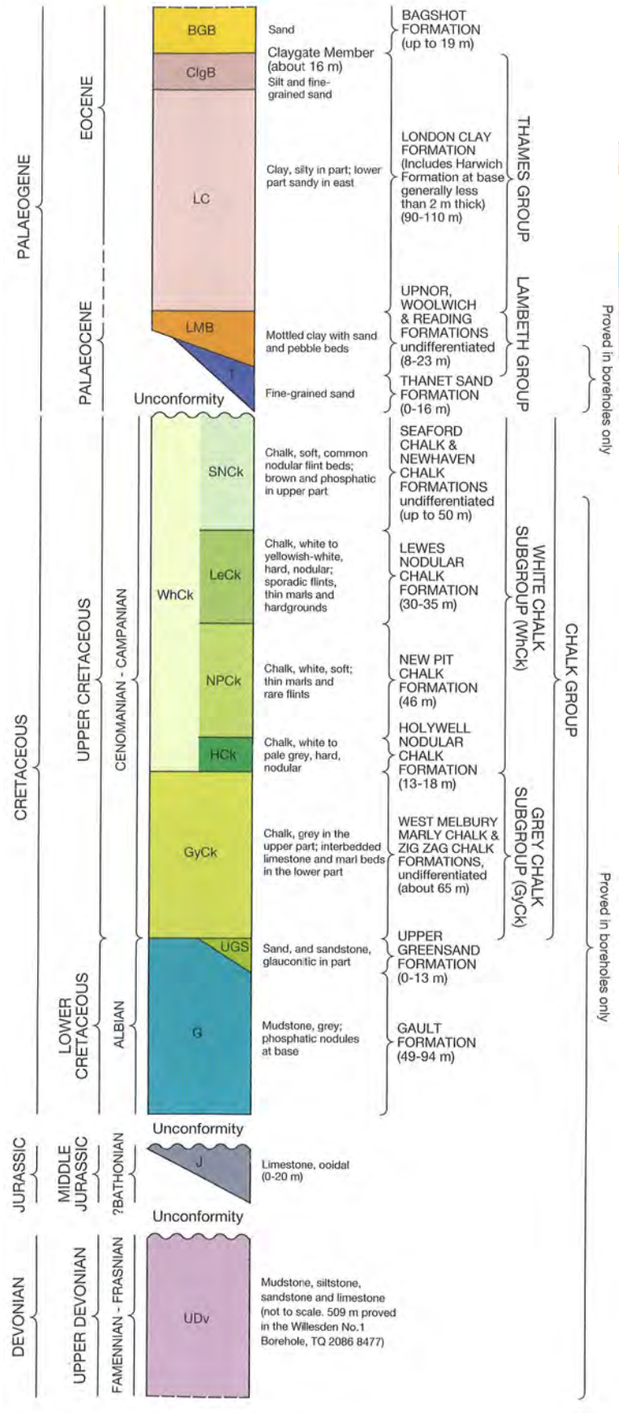
Camden Geological, Hydrogeological and Hydrological Study

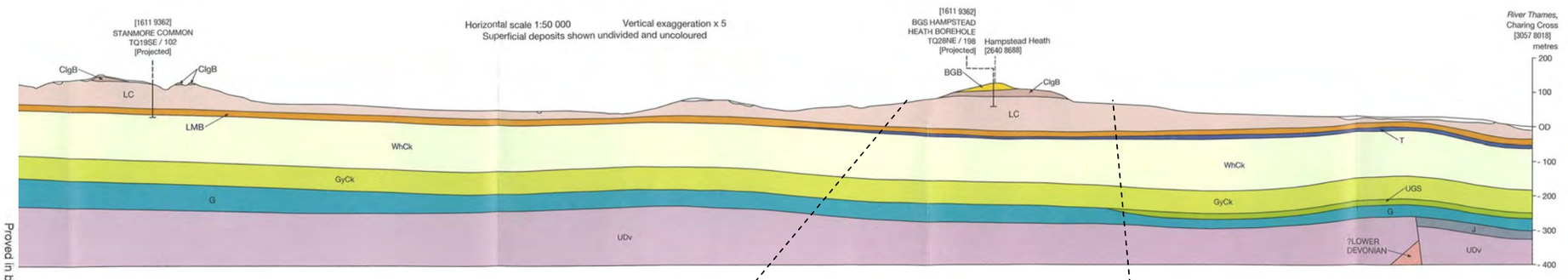
South Camden Geological Map

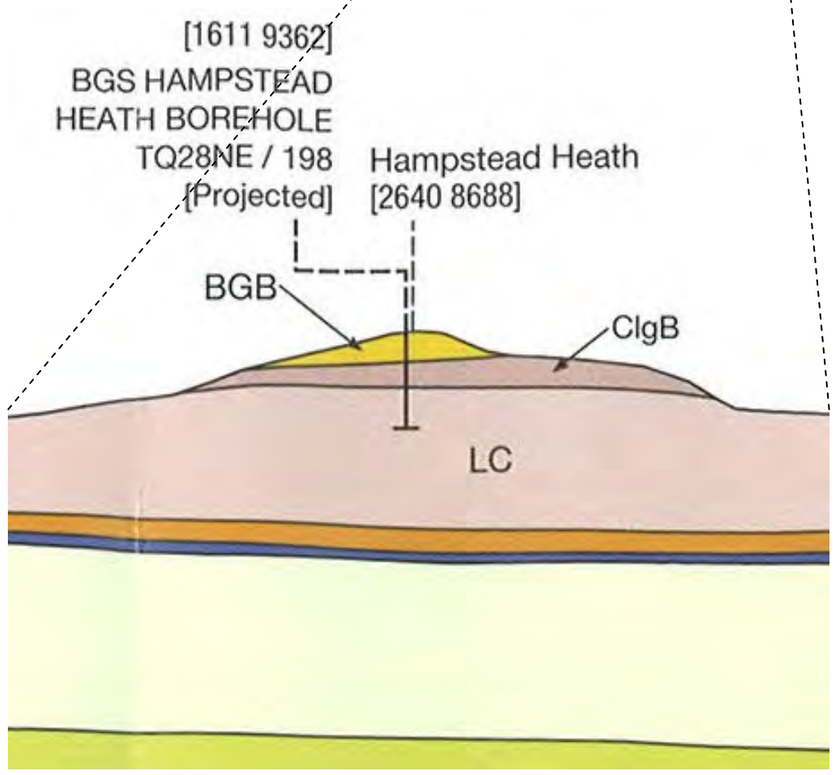
213923 FIGURE **5**

GENERALIZED VERTICAL SECTION

Scale 1:2500 (1 cm to 25 m)





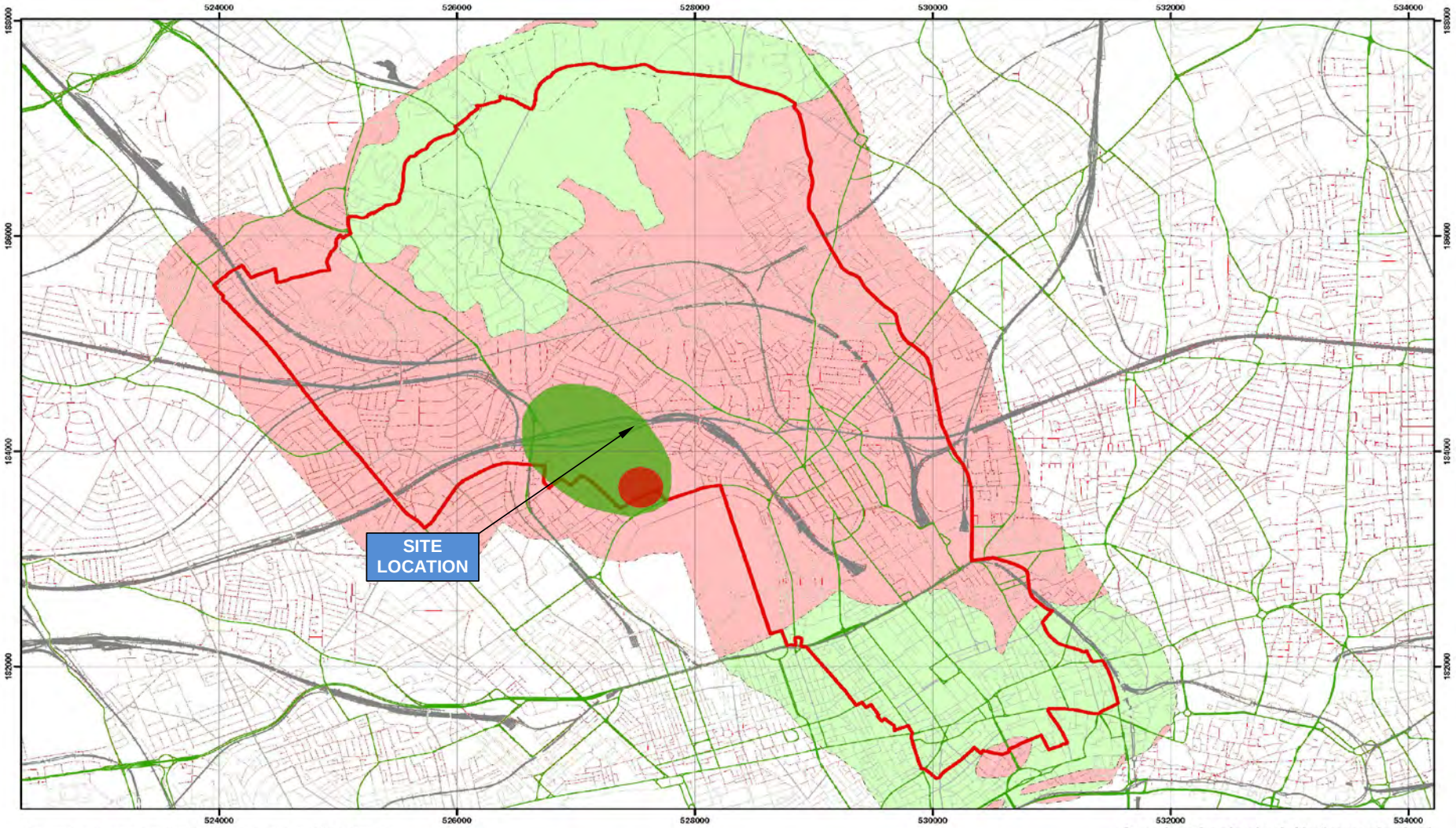


Source - British Geological Society, 1:50,000 Series
England and Wales Sheet 256 – North London

Camden Geological, Hydrogeological and Hydrological Study

Geological Long Section (NW – SE)

213923 **FIGURE 7**



Environment Agency Aquifer Designation based on BGS Mapping

N

Scale at A3: 1:30,000

Coordinate System: British National Grid GCS_OSGB_1936

0 0.5 1 2 3
Kilometers

Legend

Borough of Camden
Railway Lines
A Roads

Aquifer Designation

Secondary A Aquifer
Unproductive Strata

Source Protection Zone

Outer Source Protection Zone
Inner Source Protection Zone

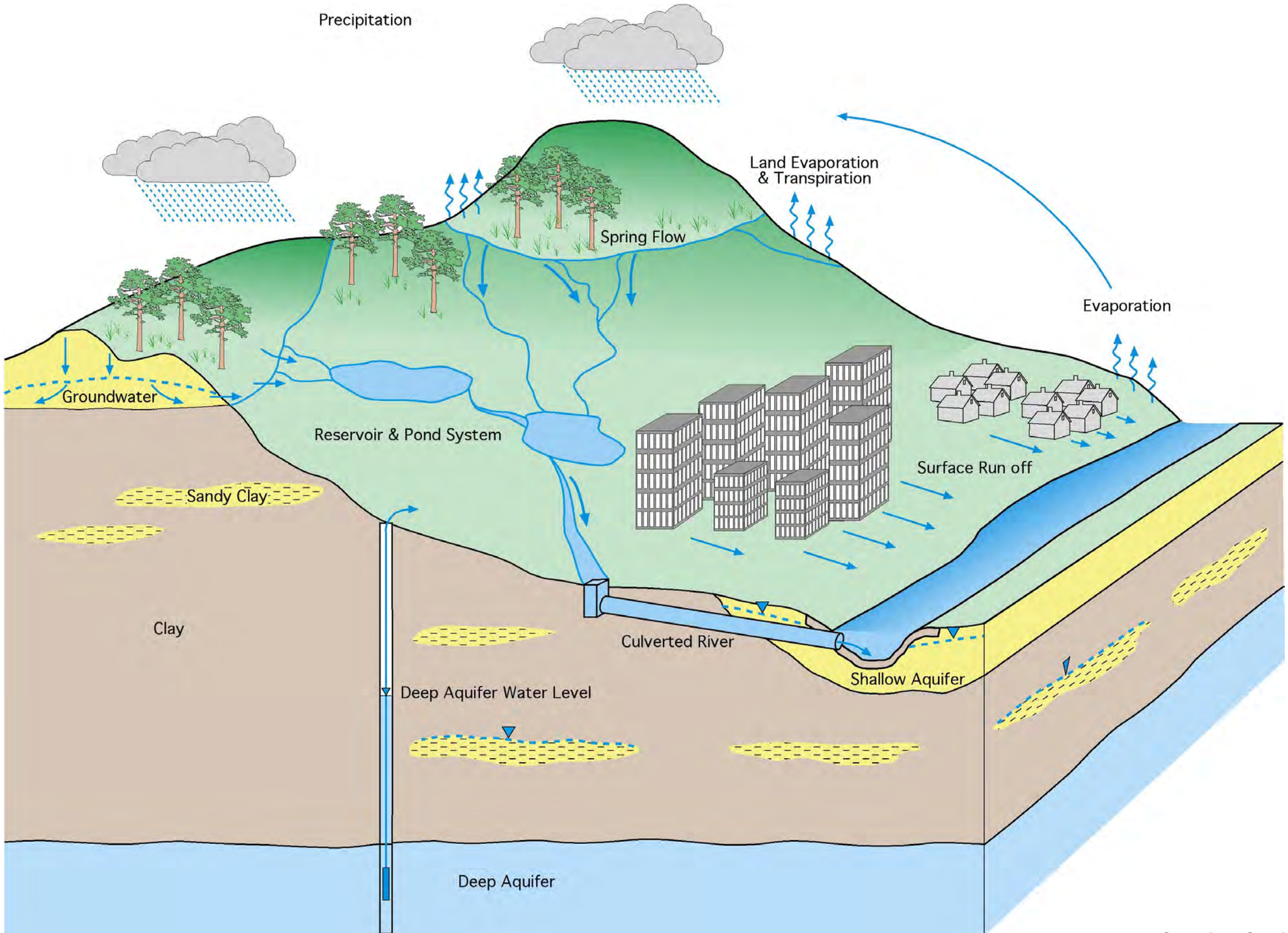
NB. Aquifer boundaries are indicative based on available geological mapping data

Camden Geological, Hydrogeological and Hydrological Study

Camden Aquifer Designation Map

213923

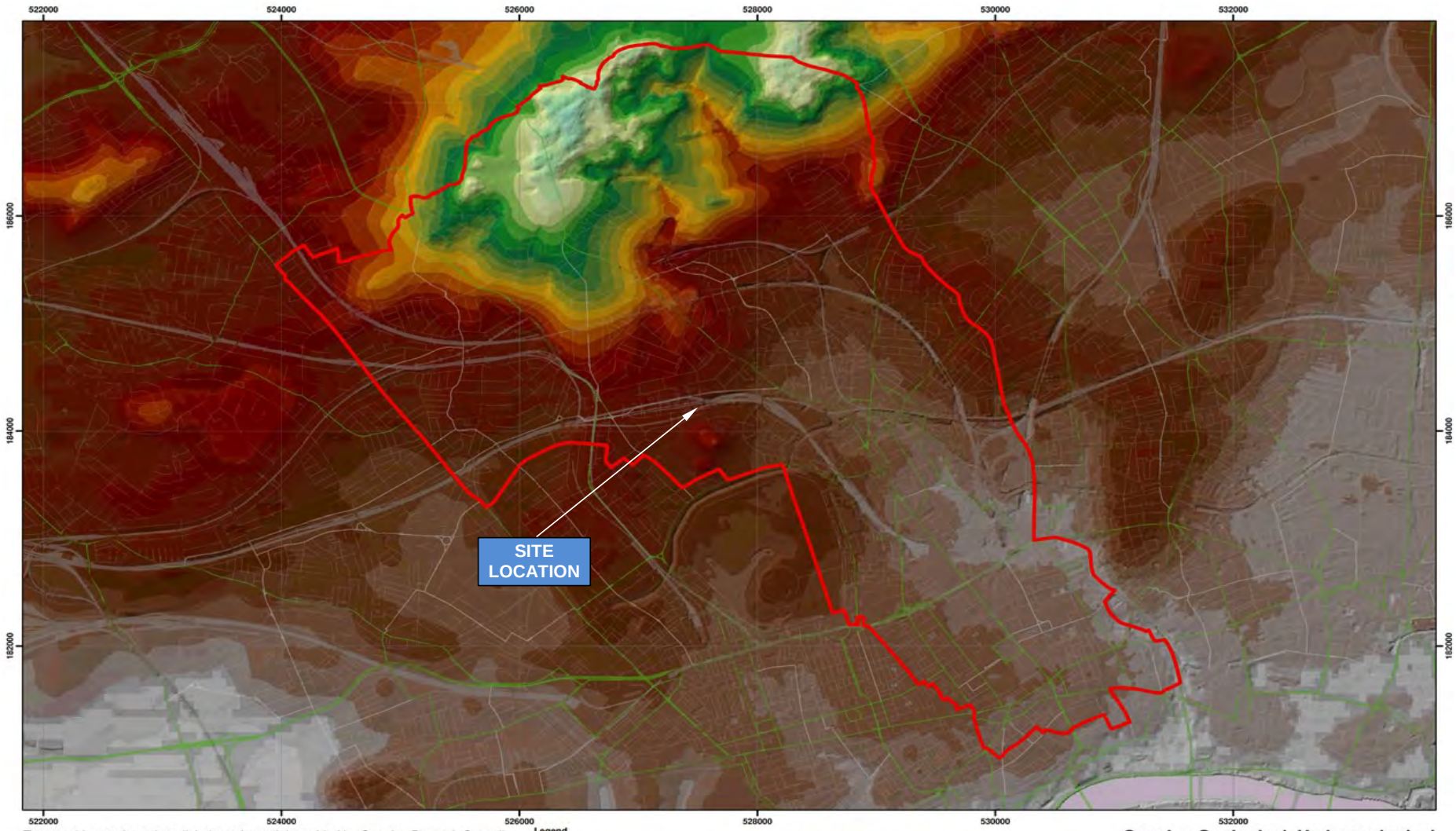
FIGURE 8



Camden Geological, Hydrogeological and Hydrological Study
Conceptual Ground Model

213923

FIGURE **9**



Topographic map based on digital terrain model provided by Camden Borough Council

N

Scale at A3: 1:30,000

Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.375 0.75 1.5 2.25 3 3.75
Kilometers

Legend
London Borough of Camden
Railway Lines
A Roads

DTM Terrain
* Window Size: 20.000

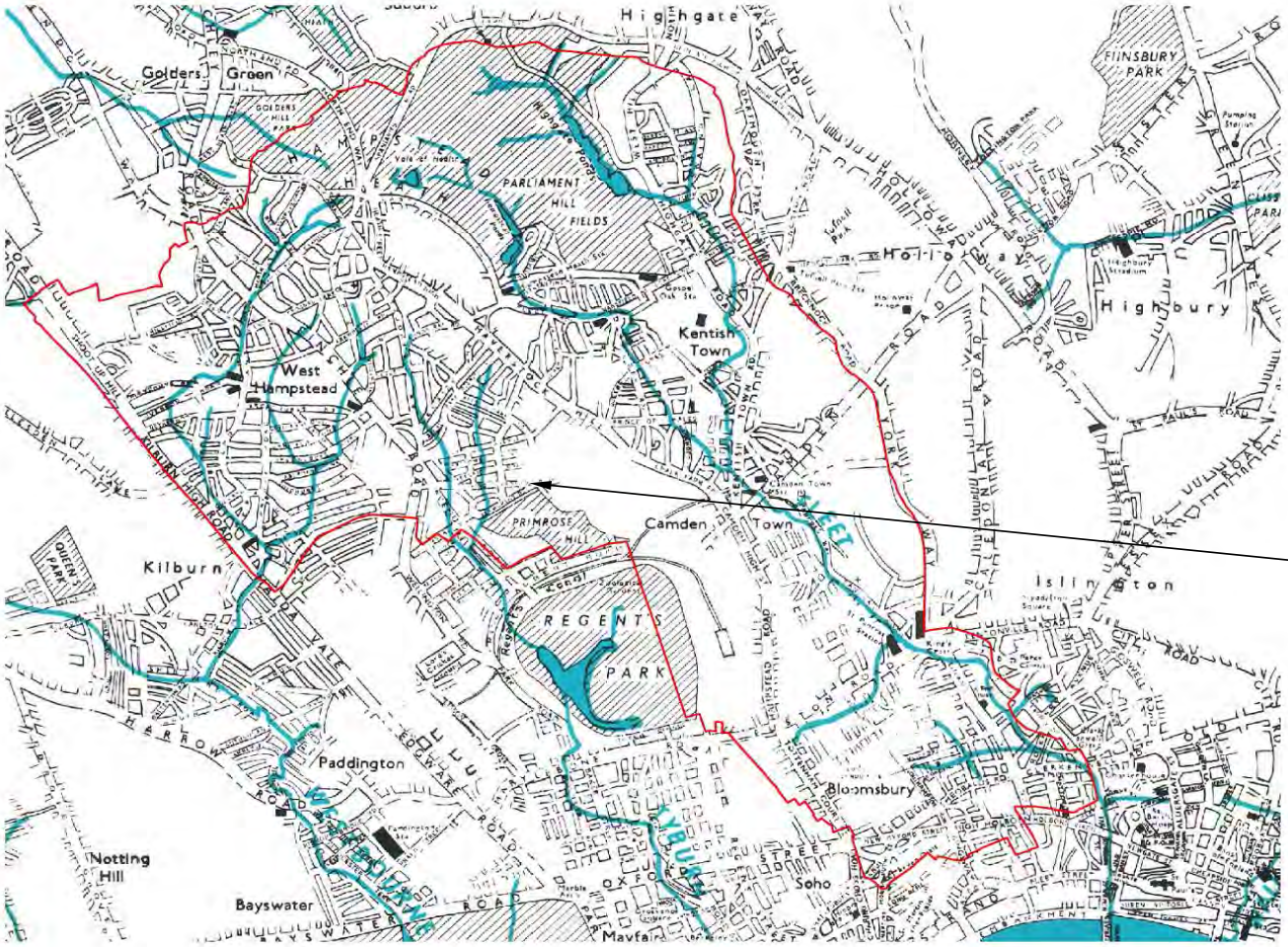
Elevation
145 - 150
140 - 145
135 - 140
130 - 135
125 - 130
120 - 125
115 - 120
110 - 115
105 - 110
100 - 105
95 - 100
90 - 95
85 - 90
80 - 85
75 - 80
70 - 75
65 - 70
60 - 65
55 - 60
50 - 55
45 - 50
40 - 45
35 - 40
30 - 35
25 - 30
20 - 25
15 - 20
10 - 15
5 - 10
0 - 5
-5 - 0
-7.4 - -5

Camden Geological, Hydrogeological and Hydrological Study

Camden Topographic Map

213923

FIGURE **10**

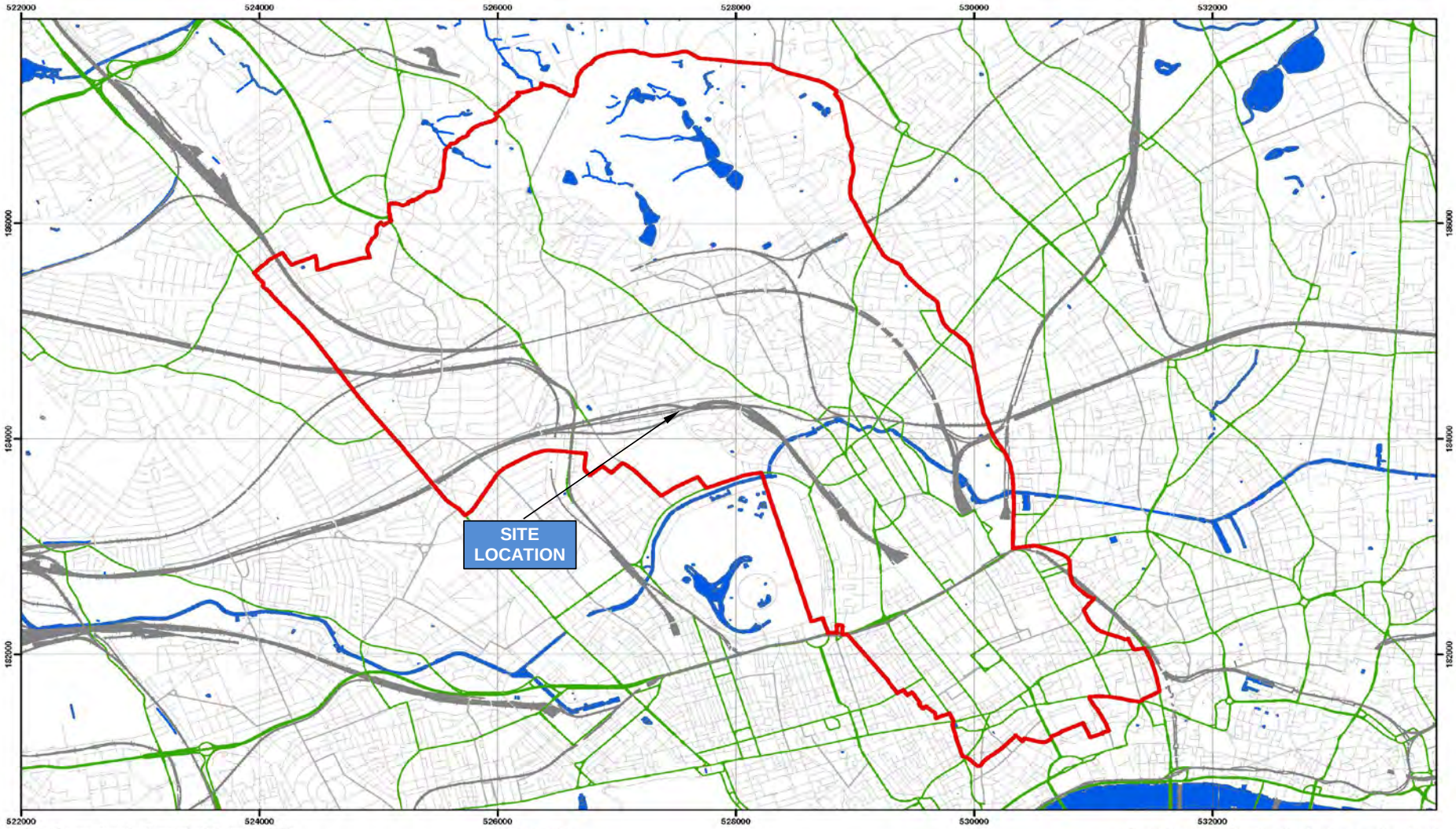


Source – Barton, Lost Rivers of London

Camden Geological, Hydrogeological and Hydrological Study
Watercourses

213923

FIGURE **11**



Data Source: London Borough of Camden, 2010

N

Scale at A3: 1:30,000

Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.5 1 2 3
Kilometers

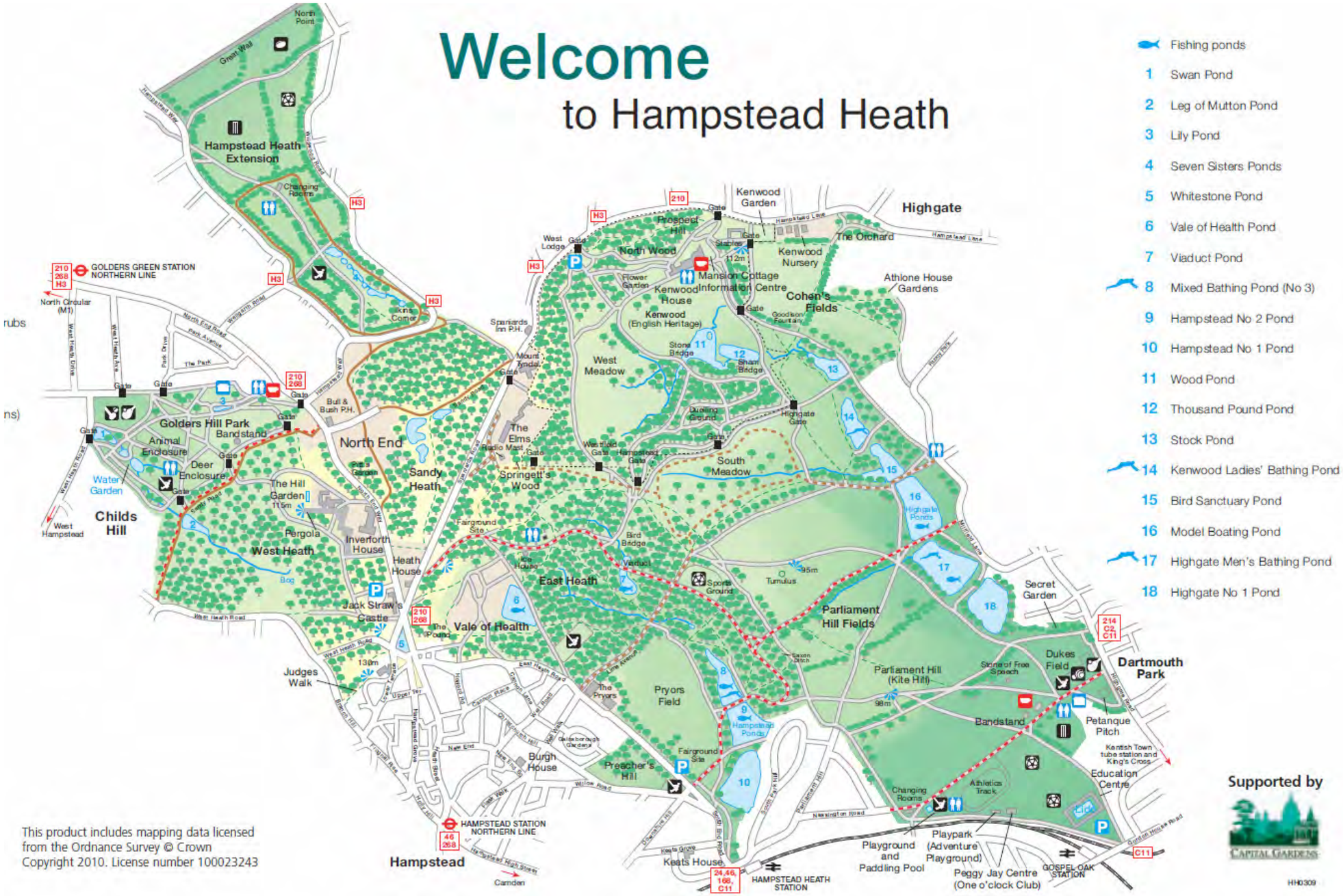
Legend

- London Borough of Camden
- Surface water
- Railway Lines
- A Roads

Camden Geological, Hydrogeological and Hydrological Study

Camden Surface Water Features

213923 FIGURE **12**



Source – City of London, 2010, Welcome to Hampstead Heath Leaflet

Camden Geological, Hydrogeological and Hydrological Study
Hampstead Heath Map

213923

FIGURE 13

526000

528000

188000

186000

Catchments and Drainage after Haycock, 2010

N

Scale at A3: 1:10,000

Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.125 0.25 0.5 0.75 1

Kilometers

Legend

- London Borough of Camden
- Railway Lines
- A Roads
- Surface Water
- Highgate Chain Catchment
- Golders Hill Chain Catchment
- Hampstead Chain Catchment
- Hampstead Heath Extension Chain Catchment

Camden Geological, Hydrogeological and Hydrological Study

Hampstead Heath Surface Water Catchments and Drainage

213923

FIGURE 14

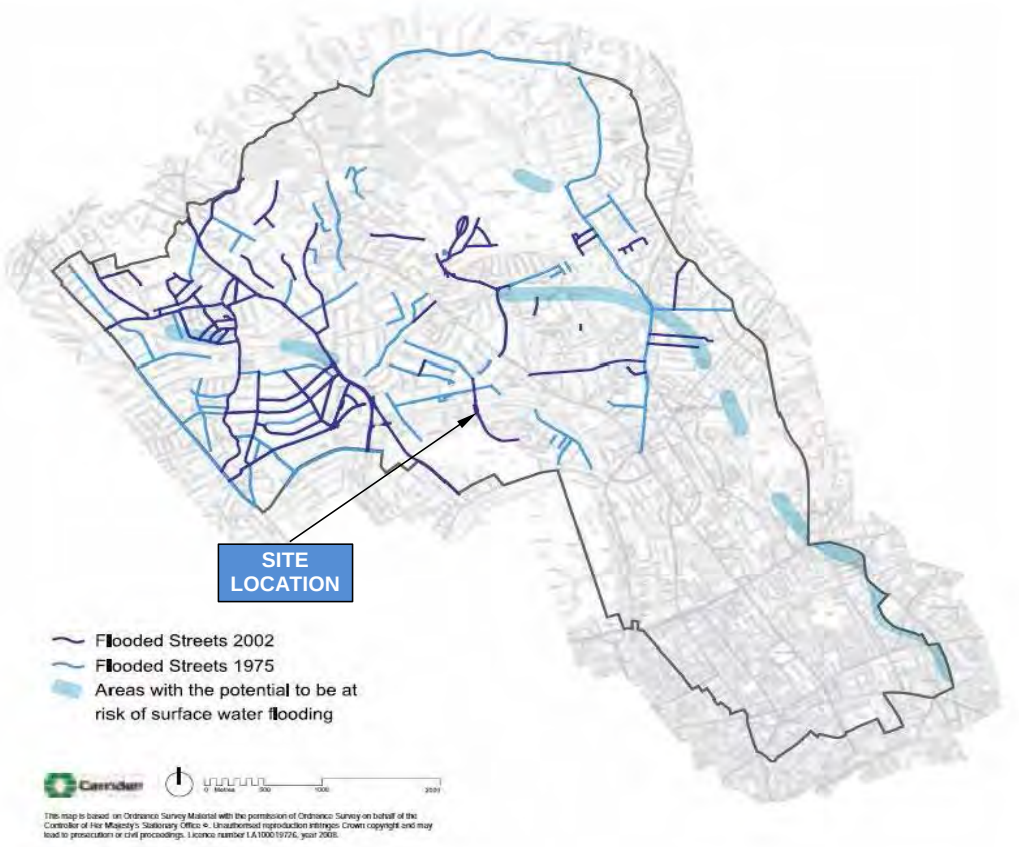
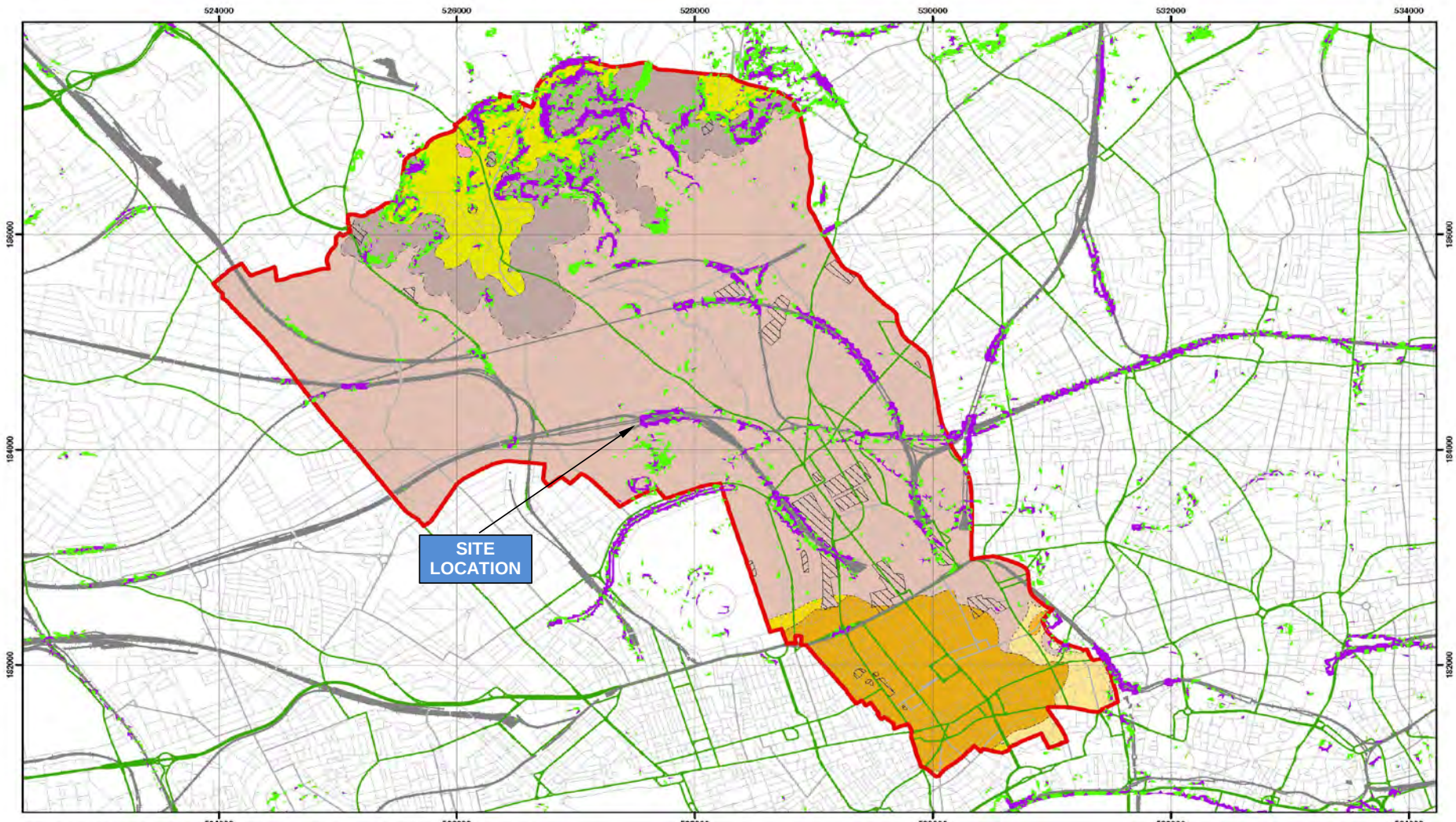


Figure 5 from Core Strategy, London Borough of Camden

Camden Geological, Hydrogeological and Hydrological Study
Flood Map

213923 FIGURE **15**



Slope Angles calculated from Digital Terrain Model Provided By Camden Bourough Council

N

Scale at A3: 1:30,000

1:10,000 BGS Mapping
Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.5 1 2 3
Kilometers

Legend

Slope
0° - 7°
7° - 10°
> 10°

London Borough of Camden
Railway Lines
A Roads

BGS 1:10K Artificial Ground
MADE GROUND
WORKED GROUND

BGS 1:10K Drift Geology
ALLUVIUM
HACKNEY GRAVEL FORMATION
LANGLEY SILT FORMATION
LYNCH HILL GRAVEL FORMATION
STANMORE GRAVEL FORMATION

BGS 1:10K Solid Geology
BAGSHOT FORMATION
CLAYGATE MEMBER
LAMBETH GROUP
LONDON CLAY FORMATION

NB. Geological boundaries are largely indicative based on available geological mapping data

Camden Geological, Hydrogeological and Hydrological Study

Slope Angle Map

213923

FIGURE **16**

Areas of greatest potential for slope instability

The assessment of the potential for slope instability

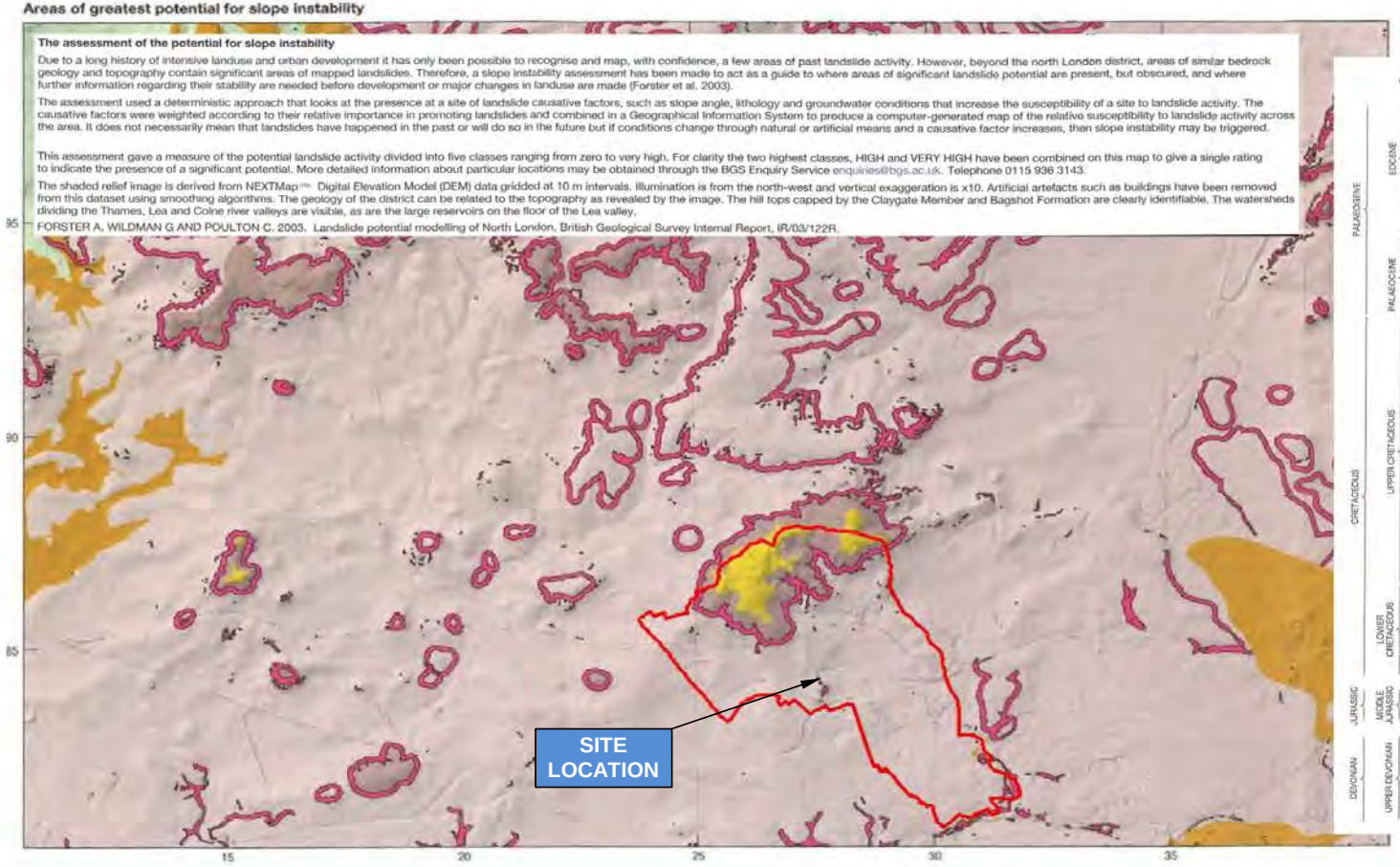
Due to a long history of intensive landuse and urban development it has only been possible to recognise and map, with confidence, a few areas of past landslide activity. However, beyond the north London district, areas of similar bedrock geology and topography contain significant areas of mapped landslides. Therefore, a slope instability assessment has been made to act as a guide to where areas of significant landslide potential are present, but obscured, and where further information regarding their stability are needed before development or major changes in landuse are made (Forster et al. 2003).

The assessment used a deterministic approach that looks at the presence at a site of landslide causative factors, such as slope angle, lithology and groundwater conditions that increase the susceptibility of a site to landslide activity. The causative factors were weighted according to their relative importance in promoting landslides and combined in a Geographical Information System to produce a computer-generated map of the relative susceptibility to landslide activity across the area. It does not necessarily mean that landslides have happened in the past or will do so in the future but if conditions change through natural or artificial means and a causative factor increases, then slope instability may be triggered.

This assessment gave a measure of the potential landslide activity divided into five classes ranging from zero to very high. For clarity the two highest classes, HIGH and VERY HIGH have been combined on this map to give a single rating to indicate the presence of a significant potential. More detailed information about particular locations may be obtained through the BGS Enquiry Service enquiries@bgs.ac.uk. Telephone 0115 936 3143.

The shaded relief image is derived from NEXTMap™ Digital Elevation Model (DEM) data gridded at 10 m intervals. Illumination is from the north-west and vertical exaggeration is x10. Artificial artefacts such as buildings have been removed from this dataset using smoothing algorithms. The geology of the district can be related to the topography as revealed by the image. The hill tops capped by the Claygate Member and Bagshot Formation are clearly identifiable. The watersheds dividing the Thames, Lea and Colne river valleys are visible, as are the large reservoirs on the floor of the Lea valley.

FORSTER A, WILDMAN G AND POULTON C. 2003. Landslide potential modelling of North London. British Geological Survey Internal Report, IR/03/122R.



Areas of significant landslide potential

GENERALIZED VERTICAL SECTION

Scale 1:2500 (1 cm to 25 m)

Source - British Geological Society, 1:50,000 Series
England and Wales Sheet 256 – North London

Camden Geological, Hydrogeological and Hydrological Study
Areas of landslide potential

213923

FIGURE **17**

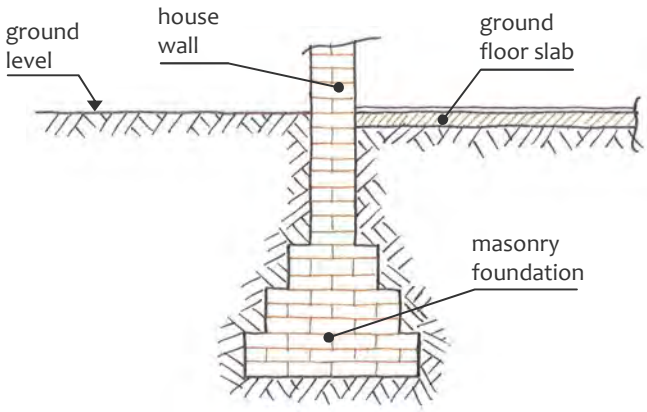
Source - London Borough of Camden, January 2010. *Camden Core Strategy Proposed Submission.*

Camden Geological, Hydrogeological and Hydrological Study
Transport Infrastructure

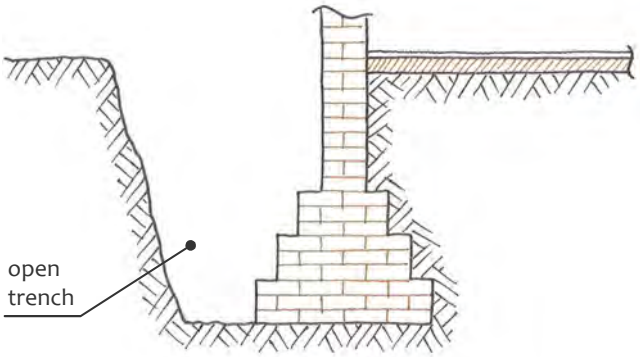
213923

FIGURE **18**

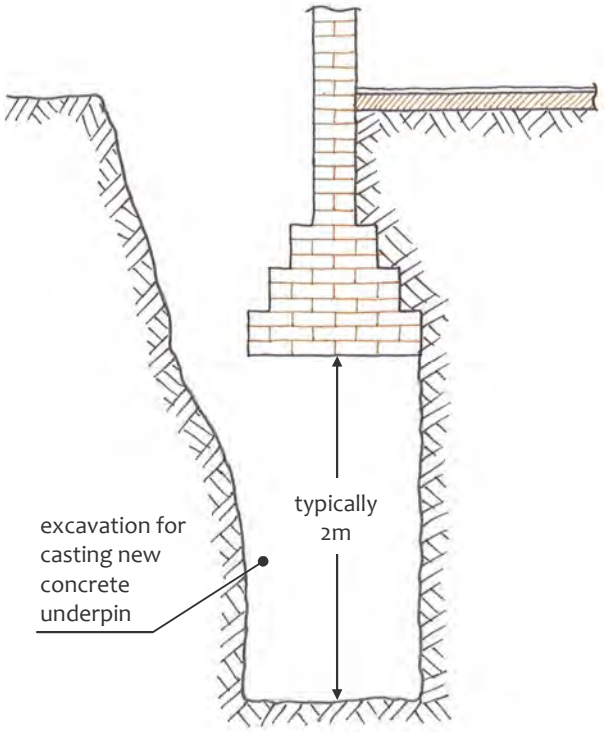
Stage 0: original foundation, typical of houses



Stage 1: exposure of original foundation by digging a short trench along a section of the wall to be underpinned



Stage 2: excavation of pit to form underpin: see Fig. 2.1b for details



Indicative, schematic sketches only.
Actual dimensions are likely to vary.
Not to scale.

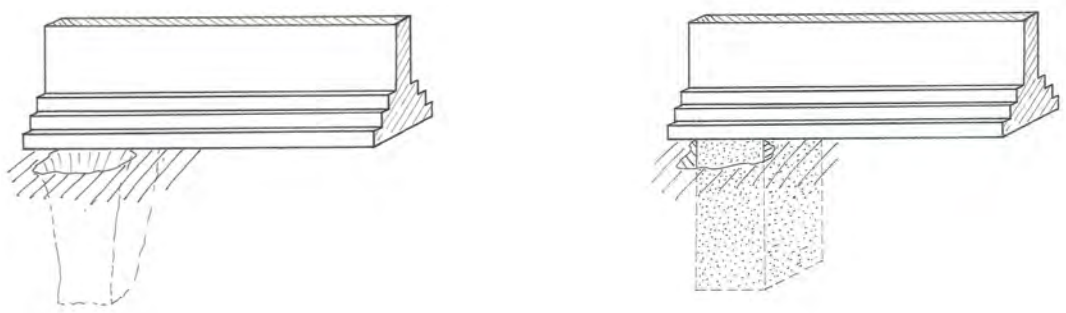
Camden Geological, Hydrogeological and Hydrological Study

Typical underpinning construction sequence

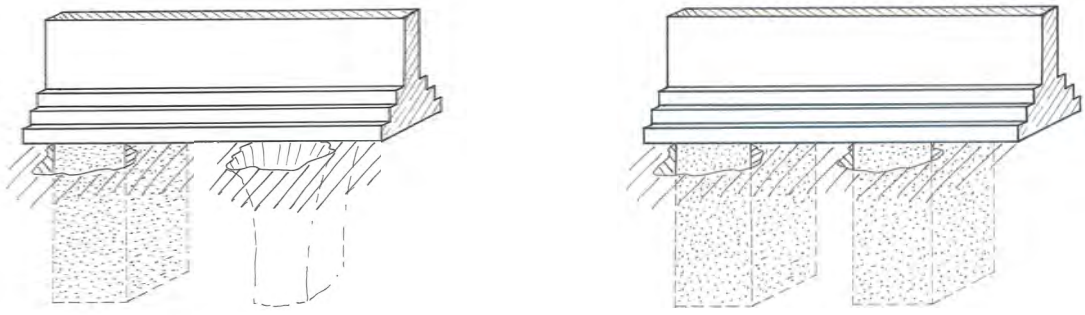
213923

FIGURE **19**

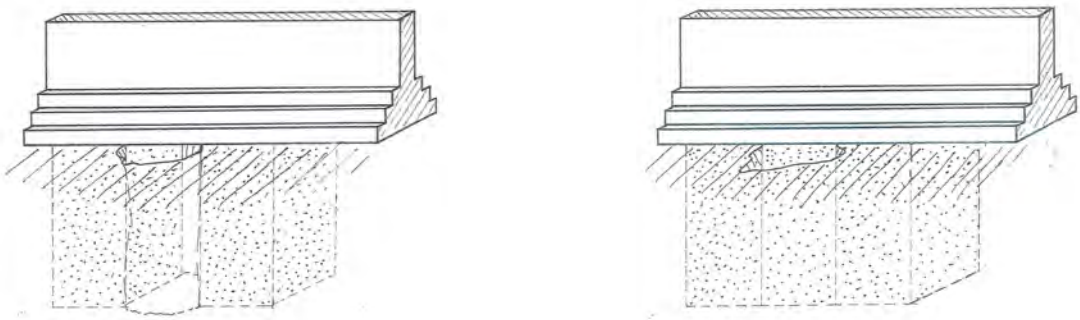
Stage 2a: excavation and concreting of initial section



Stage 2b: excavation and concreting of another section, not adjacent to first one



Stage 2c: excavation and concreting of an intermediate section, to form contiguous rows of underpin



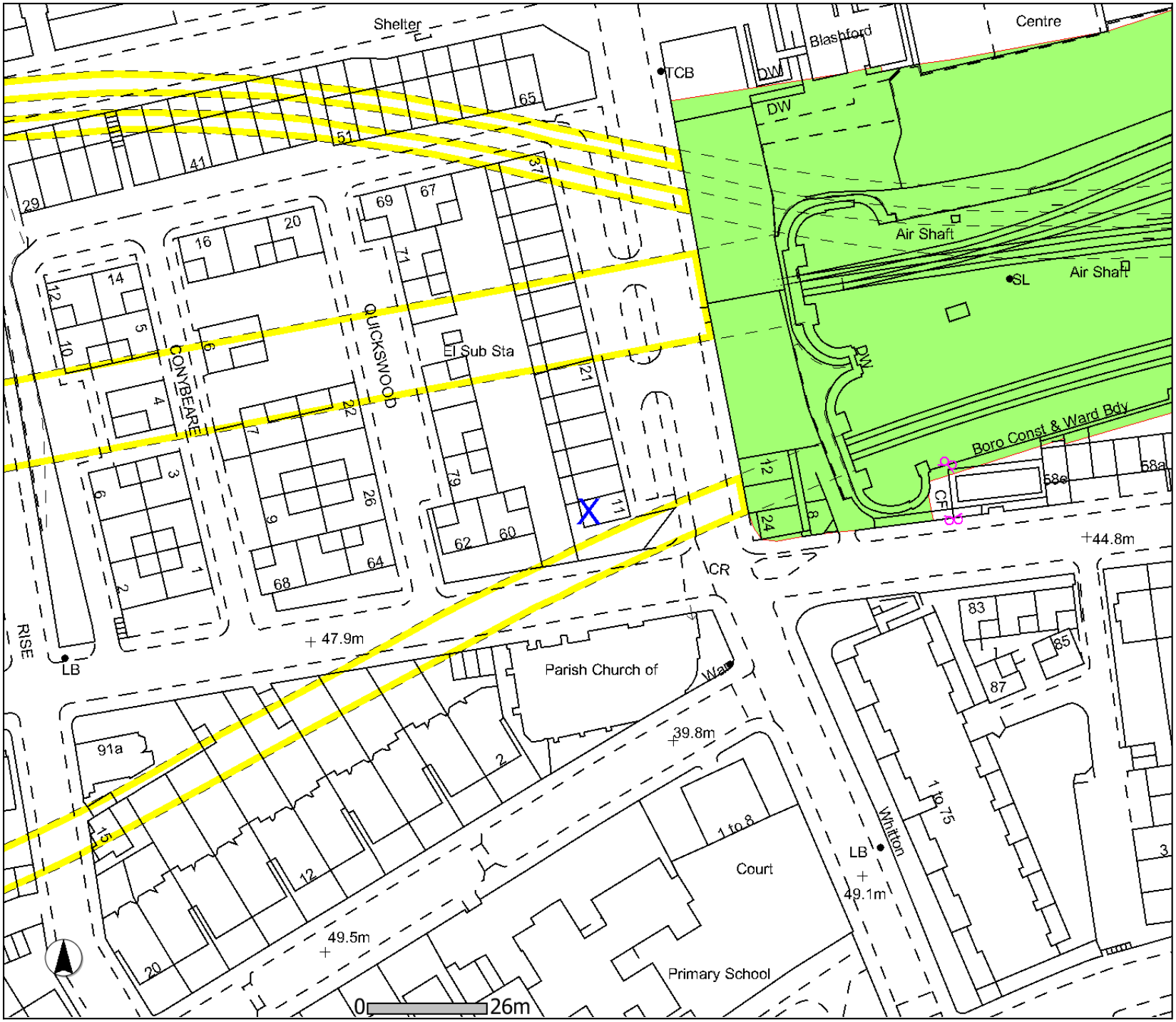
Indicative, schematic sketches only.
Actual dimensions are likely to vary.
Not to scale.

Camden Geological, Hydrogeological and Hydrological Study

Underpinning construction sequence with 'hit and miss' pattern

213923

FIGURE 20



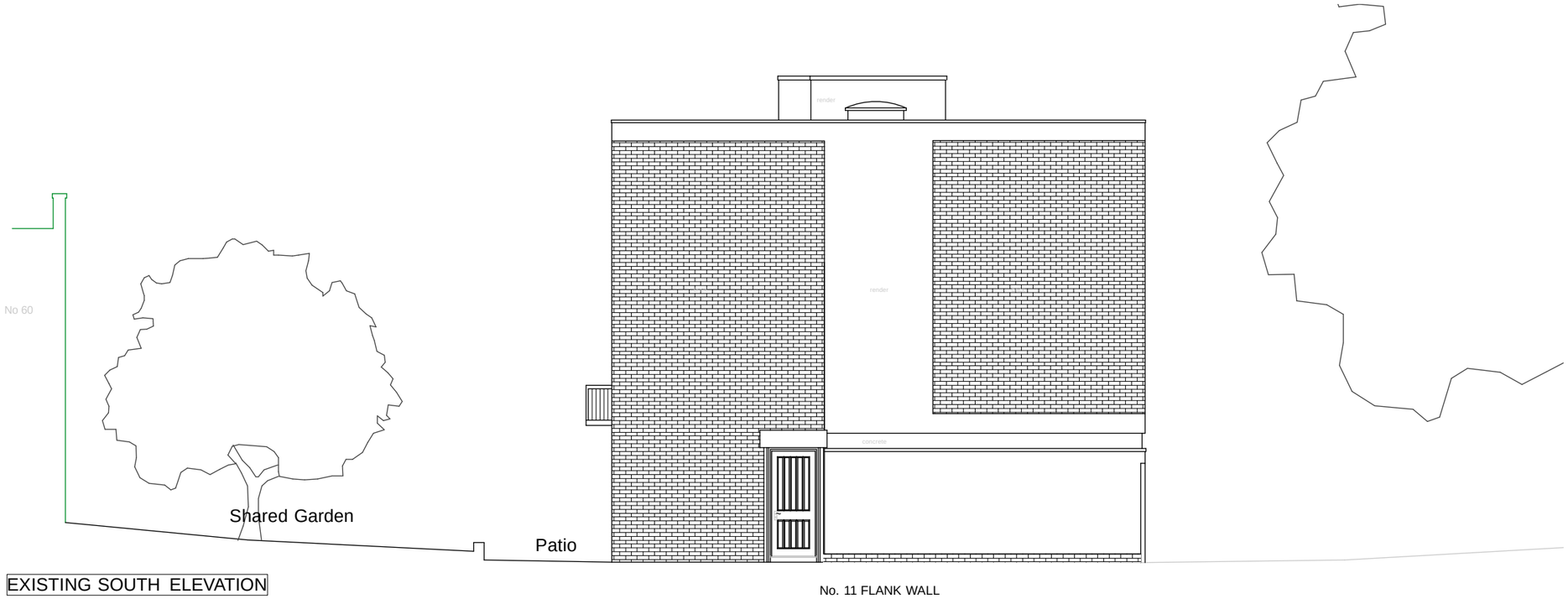
11 PRIMROSE HILL ROAD

Plot Scale	1:1250
Plot Date	10/6/2014

Network Rail

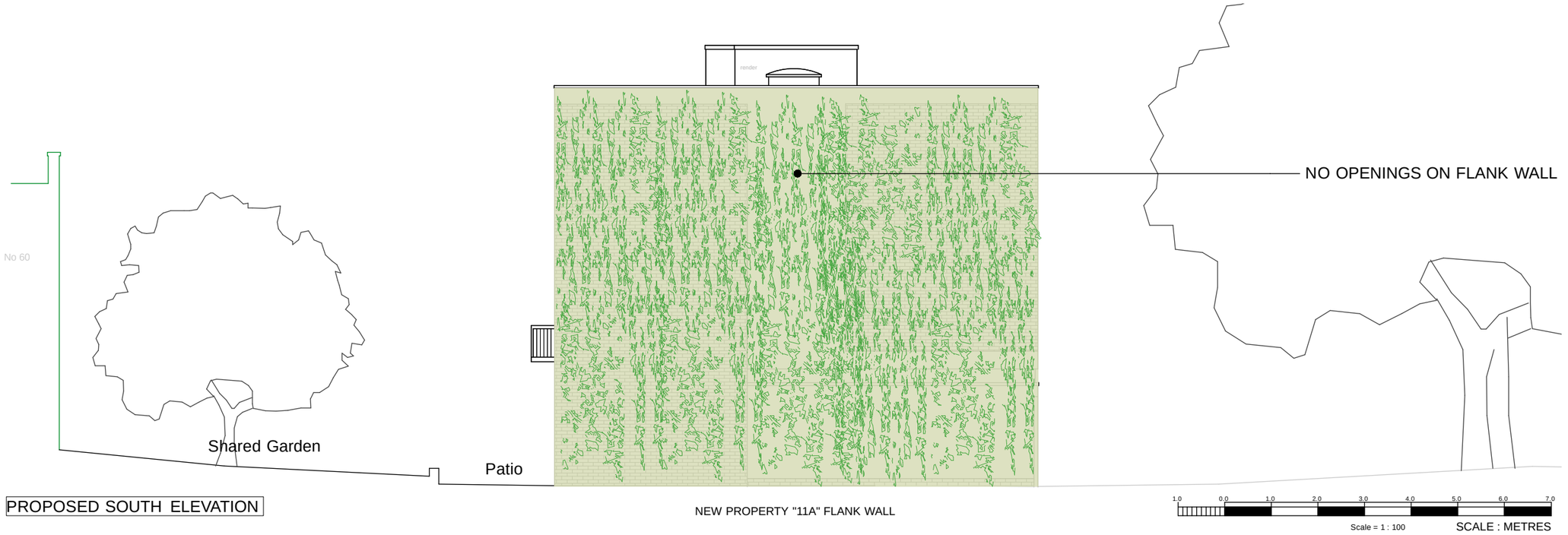
Centre of Map Window (E,N): 527508 , 184225

Output Created from the GI Portal – A4 Landscape



EXISTING SOUTH ELEVATION

No. 11 FLANK WALL



PROPOSED SOUTH ELEVATION

NEW PROPERTY "11A" FLANK WALL

UNDERCOVER

ARCHITECTURE LTD

Studio 2
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London NW1 7TX

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E:info@undercoverarchitecture.com

PROJECT TITLE	11a PRIMROSE HILL ROAD
CLIENT	MR OLUSEGUN OSOBA
DATE	15 APRIL 2014
SCALE	1:100 @ A3 UNLESS NOTED OTHERWISE
DRAWING TITLE	SIDE ELEVATIONS
DRAWING N.	A 302
REVISION B	B - Revised PLANNING 15.04.14 PLANNING

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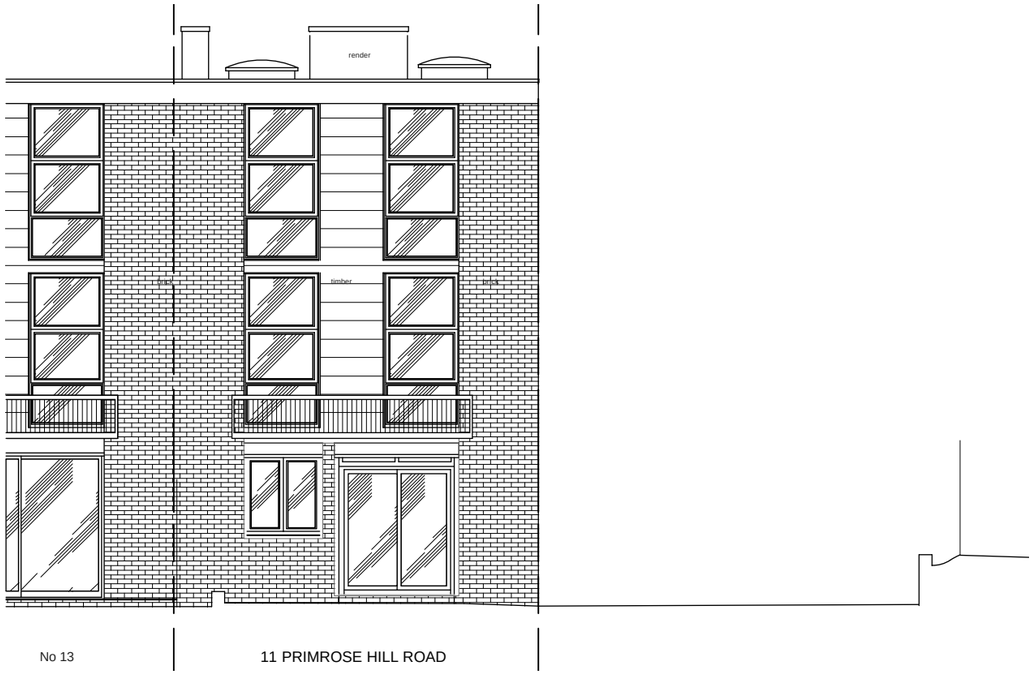
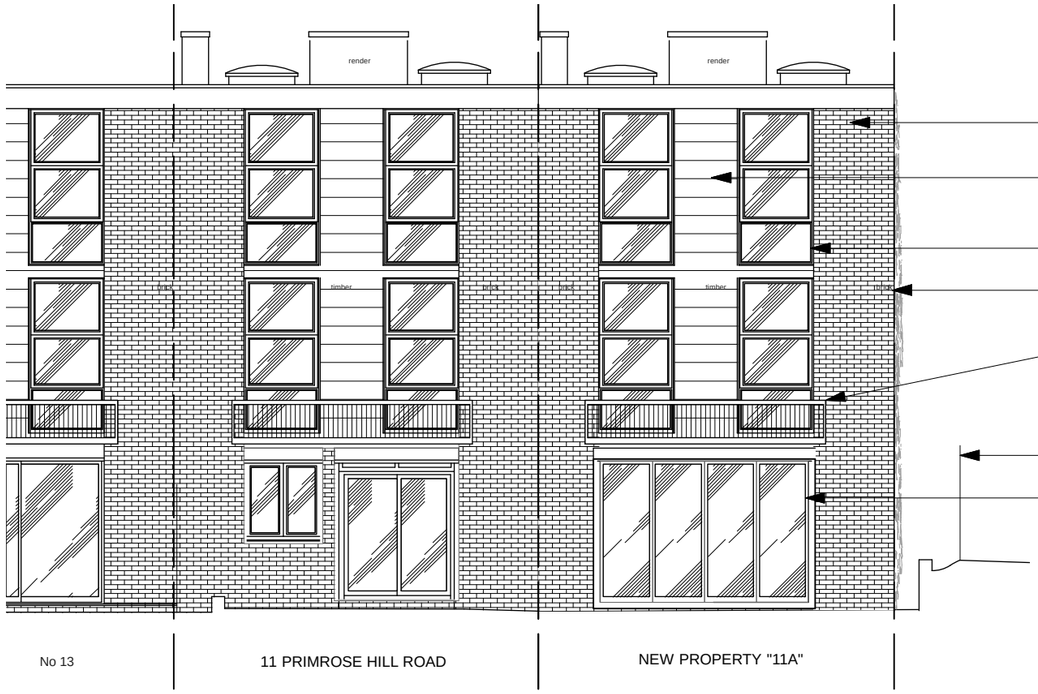
PROJECT TITLE	11a PRIMROSE HILL ROAD
CLIENT	MR OLUSEGUN OSOBA
DATE	15 APRIL 2014
SCALE	1:100 @ A3 UNLESS NOTED OTHERWISE
DRAWING TITLE	REAR ELEVATIONS
DRAWING N.	A 301
REVISION B	B - Revised PLANNING 15.04.14 PLANNING

EXISTING WEST ELEVATION



PROPOSED WEST ELEVATION



STOCK BRICKS TO MATCH ADJACENT PROPERTY

WHITE PAINTED TIMBER SLATS TO MATCH ADJACENT PROPERTY

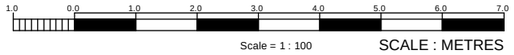
WHITE PAINTED PVC OR ALUMINIUM WINDOWS TO MATCH STYLE OF OTHER PROPERTIES ON TERRACE

LIVING WALL ON FLANK SIDE

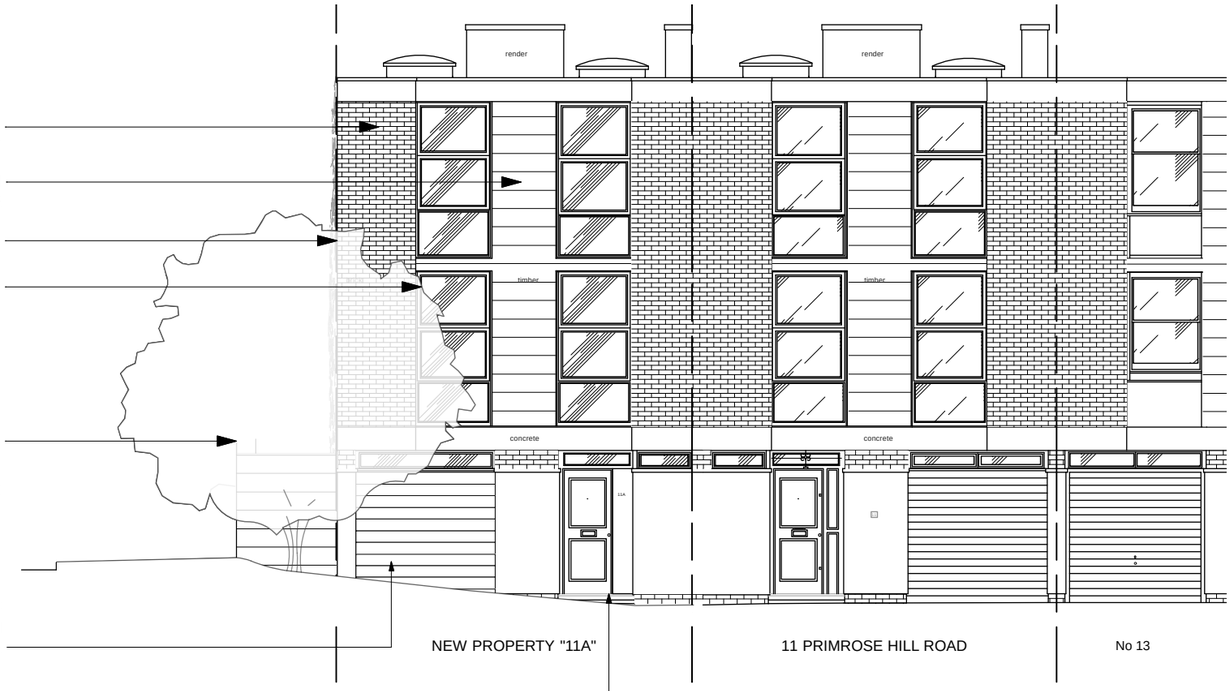
WHITE PAINTED STEEL BALCONY TO MATCH ADJACENT PROPERTY

LINE OF BOUNDARY FENCE (FENCE TO BE REPLACED IN STYLE AND MATERIALS TO MATCH FENCE EITHER SIDE RECENTLY REFURBISHED BY ESTATE)

SLIDING / BI-FOLDING DOORS IN WHITE PVC OR ALUMINIUM TO MATCH STYLE OF OTHER PROPERTIES ON TERRACE



EXISTING EAST ELEVATION



STOCK BRICKS TO MATCH ADJACENT PROPERTY

WHITE PAINTED TIMBER SLATS TO MATCH ADJACENT PROPERTIES ON TERRACE

LIVING WALL ON FLANK SIDE

WHITE PVC OR ALUMINIMUM WINDOWS TO MATCH STYLE AND DETAILS OF OTHER WINDOWS ON TERRACE

LINE OF BOUNDARY FENCE TO BE REPLACED TO MATCH PVC REFURBISHED FENCE EITHER SIDE OF PROPERTY

WHITE ELECTRIC LOUVRES IN FRONT OF FIXED PANE GLAZING TO MATCH WITH OTHER PROPERTIES ON THE TERRACE

DOOR STYLE TO MATCH EXISTING PROPERTY No. 11 PRIMROSE HILL ROAD

1.0 0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0

Scale = 1 : 100 SCALE : METRES

PROPOSED EAST ELEVATION

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PROJECT TITLE	11a PRIMROSE HILL ROAD
CLIENT	MR OLUSEGUN OSOBA
DATE	15 APRIL 2014
SCALE	1:100 @ A3 UNLESS NOTED OTHERWISE
DRAWING TITLE	FRONT ELEVATION
DRAWING N.	A 300
REVISION B	B - Revised PLANNING 15.04.14 PLANNING

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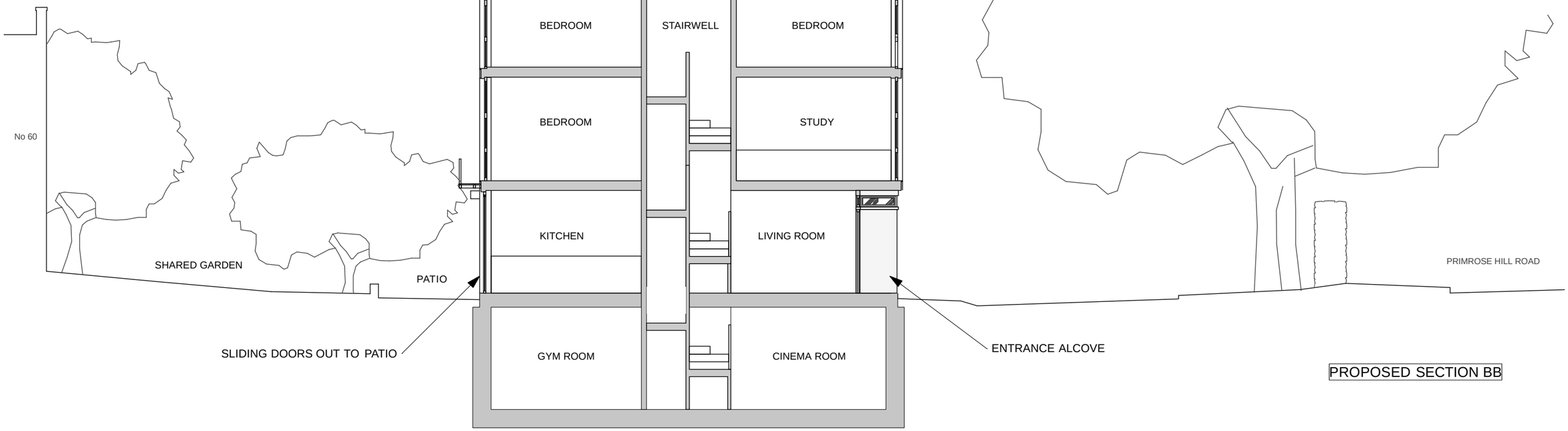
PROJECT TITLE	11a PRIMROSE HILL ROAD
CLIENT	MR OLUSEGUN OSOBA
DATE	15 APRIL 2014
SCALE	1:100 @ A3 UNLESS NOTED OTHERWISE
DRAWING TITLE	SECTION BB
DRAWING N.	A 201
REVISION B	B - Revised PLANNING 15.04.14
	PLANNING



PROPOSED SECTION BB

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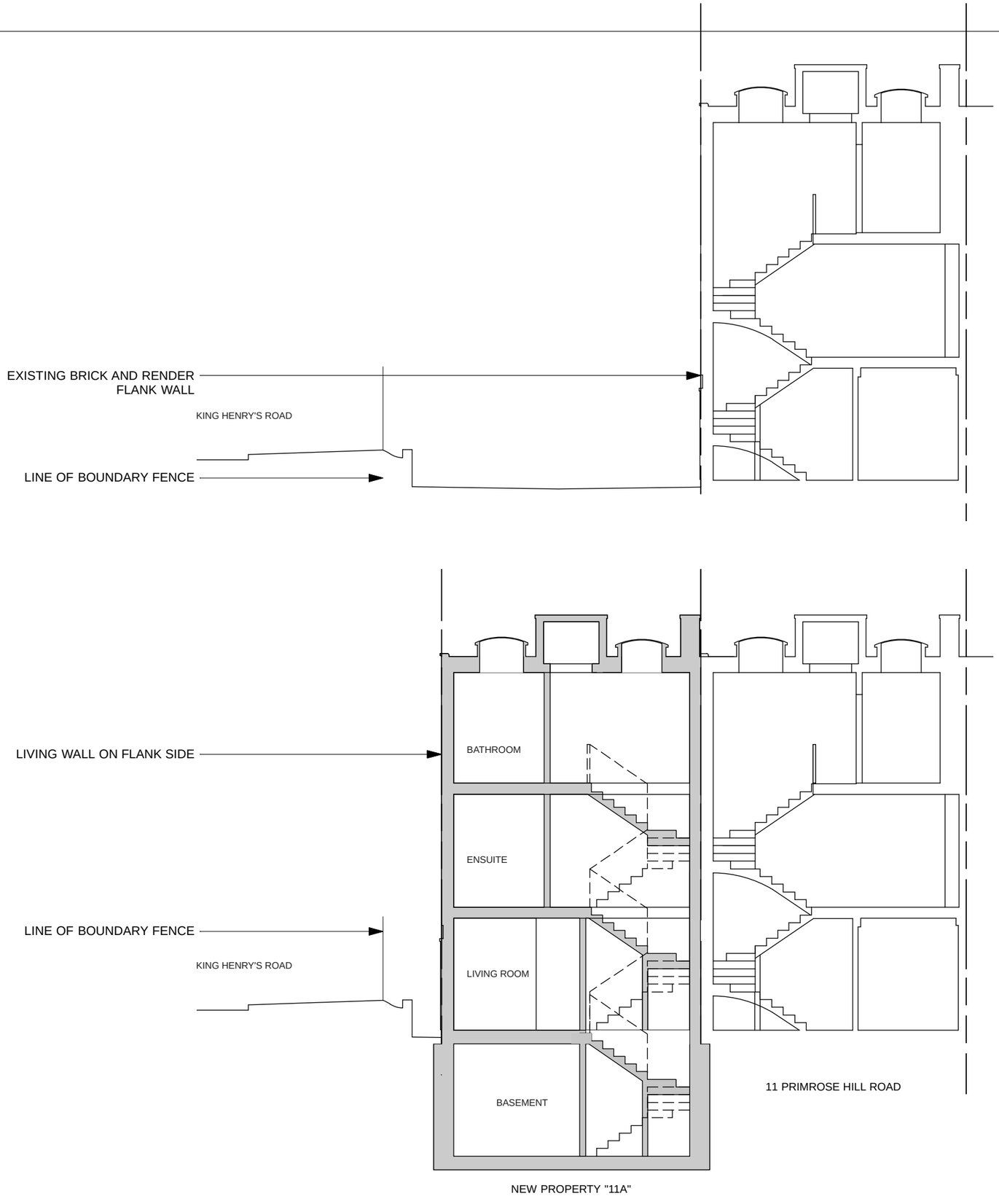
Scale = 1 : 100

SCALE : METRES



EXISTING SECTION AA

PROPOSED SECTION AA

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Scale = 1 : 100 SCALE : METRES

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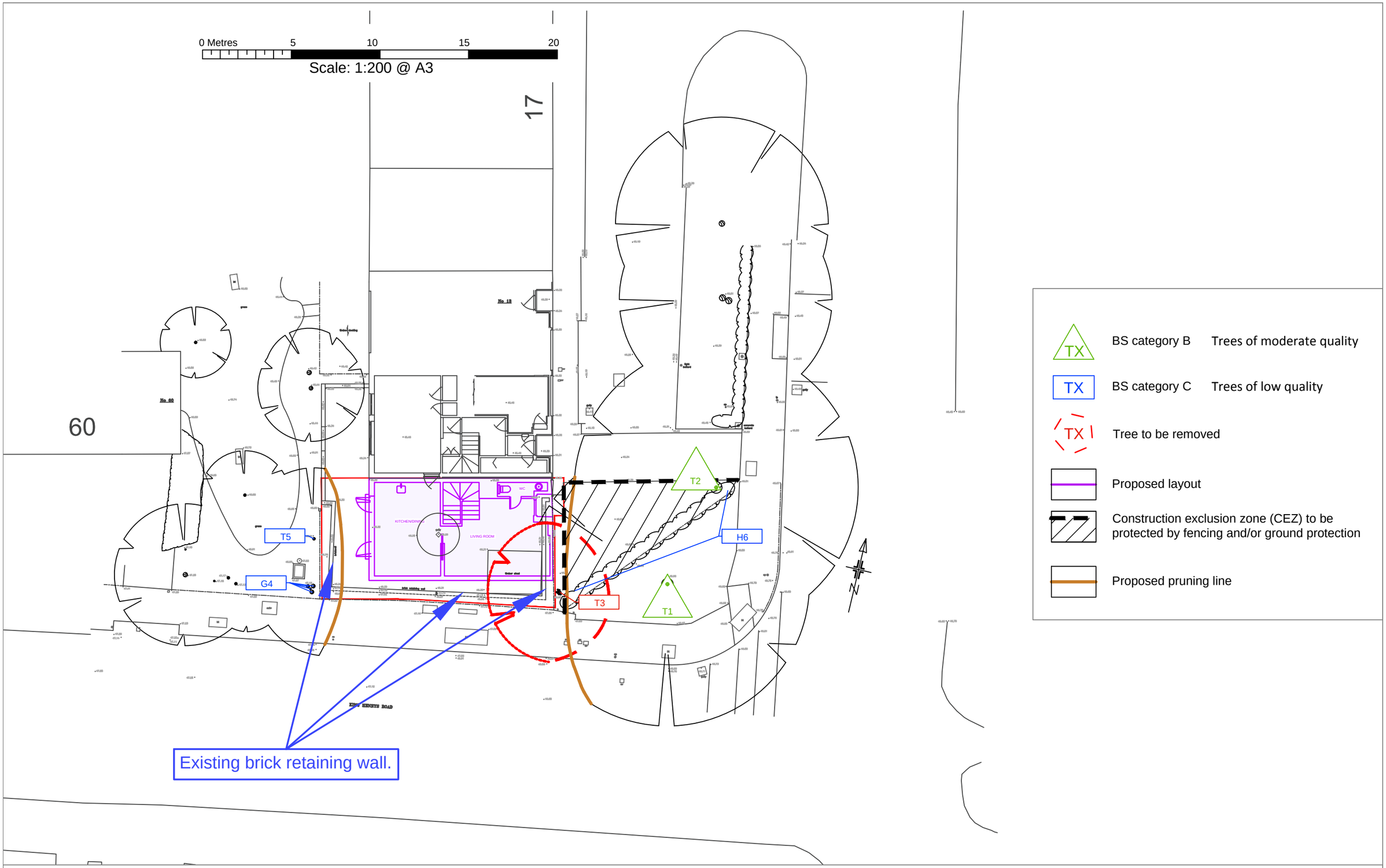
PROJECT TITLE	11a PRIMROSE HILL ROAD
CLIENT	MR OLUSEGUN OSOBA
DATE	15 APRIL 2014
SCALE	1:100 @ A3 UNLESS NOTED OTHERWISE
DRAWING TITLE	SECTION AA
DRAWING N.	A 200
REVISION B	B - Revised PLANNING 15.04.14 PLANNING



Tree protection plan

Location of trees, categorisation & protection/management proposals for land adjoining 11 Primrose Hill Road, London

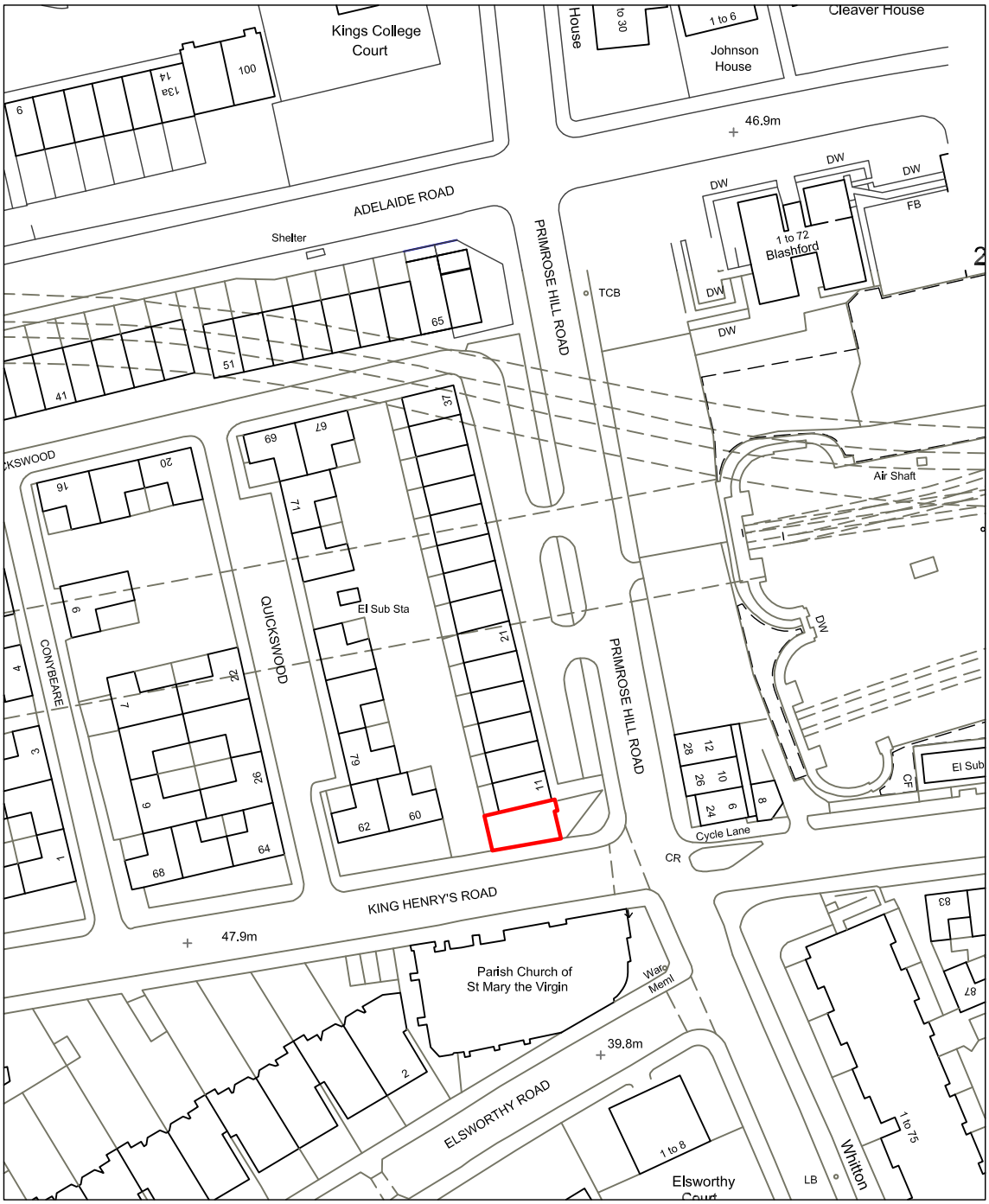
This drawing to be reproduced in colour only.

Barrell Plan Ref: 14020-BT1

Provided Plan Refs:
21691A-1 & Tracing of Barrell-Proposed Ground Floor Plan PDF

barrell TREE CONSULTANCY

Field House, Fordingbridge Business Park,
Ashford Road, Fordingbridge SP6 1BY
Tel: 01425 651470 Fax: 01425 653449
www.barrelltreecare.co.uk



LOCATION PLAN 1:1250

0 5 10 20 30m

N

Key:

APPLICATION SITE

Site:

NO.11A, PRIMROSE HILL ROAD, LONDON NW3 3DG

REQUEST FOR PRE-APPLICATION ADVICE

Planning Drawing Title

LOCATION PLAN

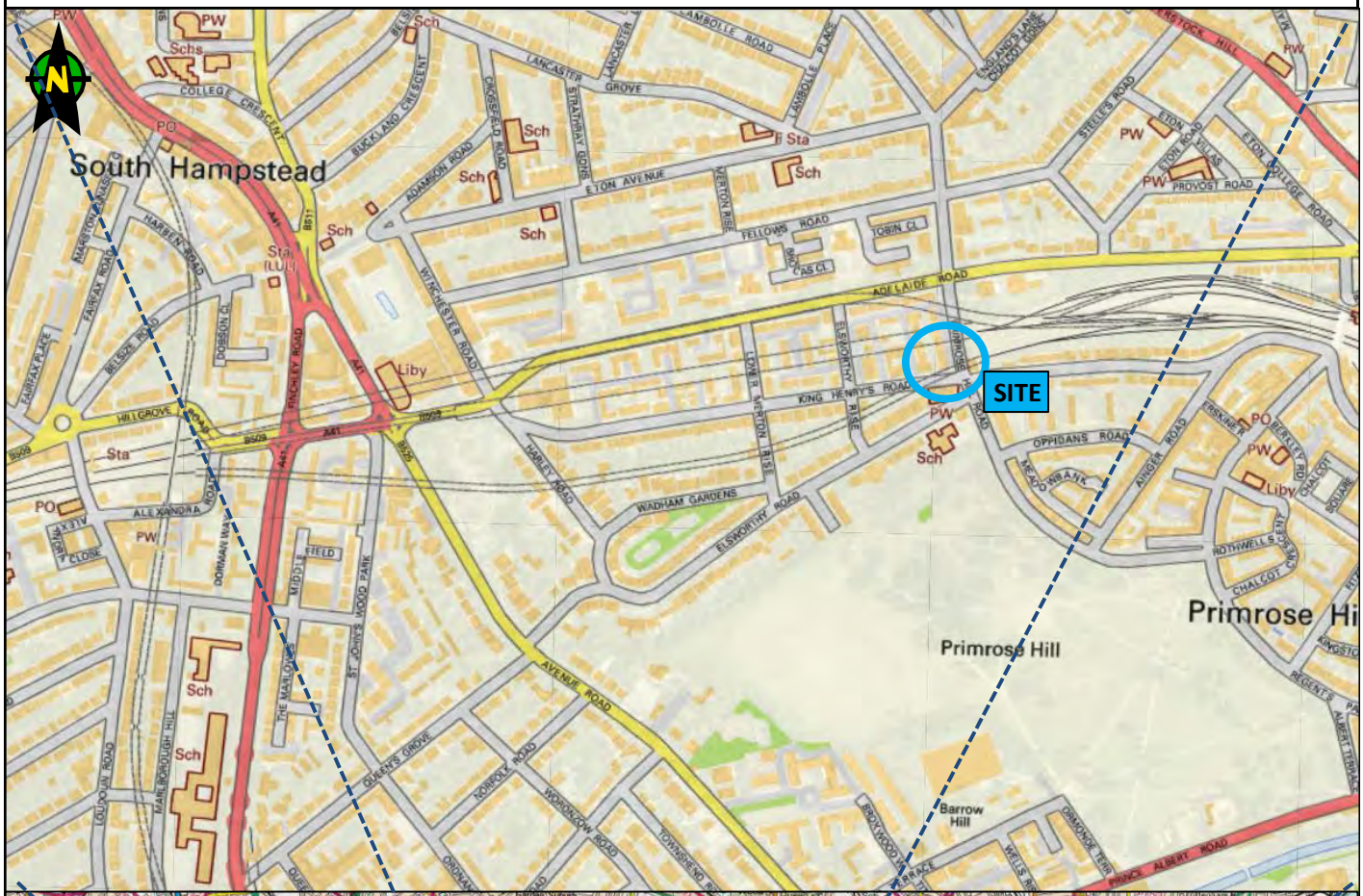
Planning Drawing Number	Revision
FIG. 1	**00**

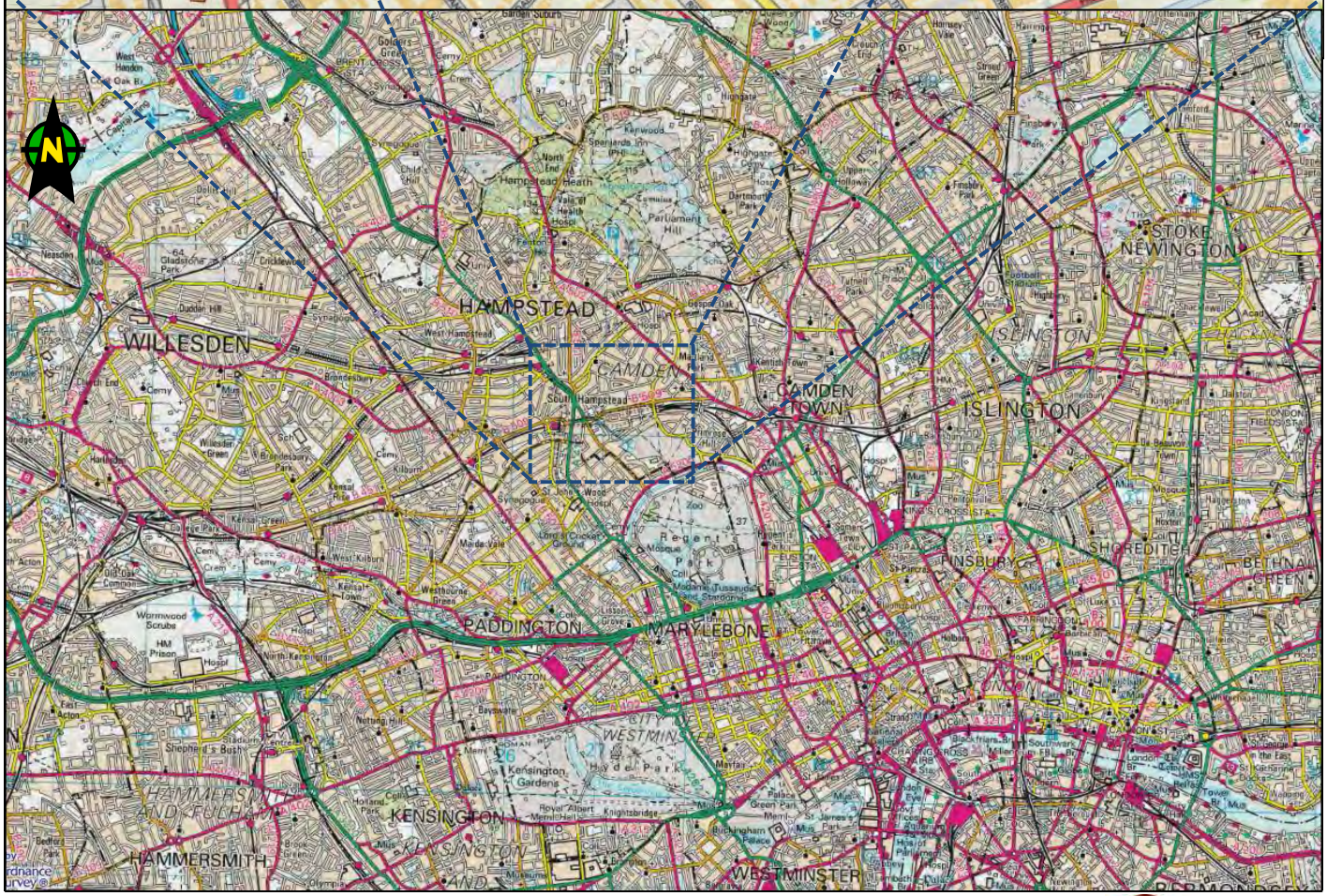
Scale	Date
1:1250 @ A4	**SEPTEMBER 2013**

ADRIAN SALT AND PANG LIMITED
DEVELOPMENT PLANNING CONSULTANTS
13A LANARK ROAD LONDON W9 1DD UK
T +44 (0)20 7286 7411 F +44 (0)20 7286 7416
E-mail: asapp@globalnet.co.uk

Site Location	11A, Primrose Hill Road, London NW3 3DG	Report No: 9613 / AW

LOCATION PLAN





Appproximate NGR 527515E 184220N

Soil Consultants