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6 ANTRIM GROVE

LONDON

NW3 4XR

BASEMENT IMPACT ASSESSMENT (BIA) & SITE INVESTIGATION REPORT

32027/R/001A.R01/RJM

June 2014

APPROVAL SHEET AND FOREWORD

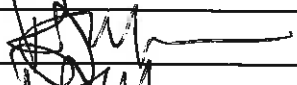

6 ANTRIM GROVE

LONDON

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BASEMENT IMPACT ASSESSMENT (BIA)
&
SITE INVESTIGATION
REPORT

Report Ref: 32027/R/001A.R01/RJM

Report Status: Final		Date of Issue: June 2014
		Signature
Author	M K Richardson	
Checked and Approved	R J Moore	

This report has been prepared with all reasonable skill, care and diligence within the terms of the contract with the Client and within reasonable limitations of the resources devoted to it by agreement with the Client.

This report is confidential to the Client and Knapp Hicks & Partners Limited accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

This report shall not be used for engineering or contractual purposes unless signed by the author and the approver and on behalf of Knapp Hicks & Partners Limited, and unless the report status is "Final".

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6 ANTRIM GROVE LONDON, NW3 4XR

BASEMENT IMPACT ASSESSMENT (BIA) REPORT

1 INTRODUCTION

Knapp Hicks and Partners Limited (KHPL) have been instructed to undertake the first stage of a Basement Impact Assessment (BIA) for 6 Antrim Grove, London NW3, to be prepared in accordance with London Borough of Camden guidance document CPG4. A site investigation was also requested by the client and the findings are included and assessed in this report.

Due diligence and care has been used in the preparation of this report, however the contents should be read with due regard to the time and financial resource made available to compile this report.

Whilst every effort has been made to ensure the accuracy of the data supplied and any analysis derived from it, there may be conditions at the site that have not been disclosed by the available records and could not therefore be taken into account. In particular, it should be noted that groundwater conditions vary due to seasonal and other effects and may at times be significantly different from those measured by intrusive investigations. No liability can be accepted for any such variations in these conditions.

In addition, any recommendations made are specific to the development as detailed in this report, and no liability will be accepted should they be used for the design of alternative schemes without prior consultation with KHPL.

Site Description

The site is located at 6 Antrim Grove, London NW3 at approximate grid reference TQ275848. No6 is a semi-detached 2-storey house with a small front garden and a larger garden to the rear. No4 adjoins the house to the east side and is of similar construction to No6. The overall site is rectangular in shape with approximately 9m length frontage onto Antrim Grove. The site runs approximately 34m SE-NW, and is parallel with neighbouring residential properties.

The neighbouring property to the west, No8 Antrim Grove has a recently constructed basement extension.

The existing level of Antrim Grove is approximately 59.25mAOD.

The house has a ground floor extension extending approximately 2.00m to the rear of the main property, with an approximately 3.00m wide paved terrace beyond. The garden area is set approximately 0.8m above the terrace level and is retained by a rendered masonry wall. Access to the garden is by a set of six steps at the western end of the patio.

Proposed Development

It is proposed to create a basement area below the existing house which will contain a play room, utility room, library, family room and gym. The ground floor will remain the same size as the existing building. The proposed basement will extend slightly forward from the existing building frontage, but remaining 1.20m to 2.10m within the site boundary. To the rear of the property, the basement will extend to between 3.00m and 3.70m from the rear site boundary.

Consideration has been given to the mature tree within the neighbouring garden to the rear of No6 and the basement will not enter within the limits of the Root Protection Zone of the tree (as derived using BS5837:2005, Trees in relation to construction.).

Geology

The 1:50,000 Geological Map (Sheet No. 256: North London) indicates the site to be underlain by London Clay. However, made ground is expected given the history of development on the site and surrounding area and it is also expected that there will be around 1m depth of clayey, locally gravelly Head Deposits overlying the London Clay.

The above geology has been confirmed on site in boreholes (See attached borehole records in Appendix D), and in recent excavations for a basement at No8 Antrim Grove, the adjacent property to the south.

The following section of this report describes the scope and findings of a recent site investigation carried out at No6 Antrim Grove.

2. SITE INVESTIGATION

Scope of Investigation

A site investigation was carried out in November 2013 and consisted of 1No window sampler borehole, and 3No hand dug trial pits. Follow on hand augering was carried out in two of the trial pits.

The window sampler borehole was located in the front garden of the property adjacent to the paved footpath and extended to a depth of 7.40mbgl and Standard Penetration Tests (SPT's) were carried out at 1.0m depth intervals.

1No hand dug trial pit (TP1) was located at the south eastern front corner of the property but was terminated at 0.38mbgl due to services. The second hand dug trial pit was undertaken in the raised garden area on the southern side, and the third was carried out within the terraced area towards the northern boundary.

Borehole and trial pit logs with details of the soils encountered are attached in Appendix C.

Geotechnical laboratory testing consisting of natural moisture content determinations and soil index property tests were undertaken on representative samples obtained from the boreholes and trial pits and these have been assessed alongside and compared with samples taken from boreholes in No8.

Ground Conditions

Based on the available geological records and previous ground investigations at No8 & No10 Antrim Grove, the borehole and trial pits confirmed the expected geology of topsoil and thin made ground resting on a thin layer of clayey sandy GRAVEL Head Deposits.

The Head Deposits were proved to 1.50mbgl at the front of the house, and the base was not proved at the rear of the property due to the dense and very gravelly nature of the strata. However, it is anticipated that the depth of the Head Deposits will be similar to the borehole carried out a few metres away, in the back garden of No8 (BH3, December 2011), i.e. 2.10m below garden level. Stiff, becoming very stiff, London Clay is present below the Head and extends to below the proposed basement.

Occasional rootlets are present in the London Clay but the natural moisture content is generally sufficiently high to suggest that significant desiccation is not present and does not extend to depths which would affect the basement.

Based on the observations in TP1, and a similar trial pit carried out on No8, it is expected that the existing foundations to No6, and the adjoining property at No4 Antrim Grove, will consist of a brick corbel on a concrete strip foundation founded on a layer of compacted rubble on the clayey gravelly Head Deposits at approximately 0.70m to 1.0m below ground level.

Groundwater

Groundwater was not encountered in any of the exploratory holes at No6 Antrim Grove.

However, we understand that during basement construction works at No 8 & 10 Antrim Grove, adjacent to the site, excavations have been carried out to approximately 3.0mbgl and the excavation has generally remained dry but localised perched groundwater was encountered at the base of the Head Deposits. Similar groundwater conditions were also encountered in the site investigations at No8 and No10 Antrim Grove. It should be assumed that the quantity of

perched water may vary seasonally and, therefore, the contractor undertaking the works should make suitable provision for temporary works to deal with perched water in the Head Deposits overlying the London Clay.

The architect and structural engineer responsible for designing the basement should also provide suitable tanking measures in their design to ensure that the potential to encounter perched water is taken into account.

Classification for Buried Concrete

Tests from the adjacent sites indicate that ground conditions contain locally elevated levels of sulphate and therefore a Design sulphate class of DS-3 and an aggressive concrete classification of AC-3 are recommended for concrete in contact with the ground.

3. BASEMENT IMPACT ASSESSMENT (STAGE 1 – SCREENING)

The London Borough of Camden has ruled that all new basement developments within the Borough are subject to the assessment process described in CPG4 Basements and Lightwells, adopted April 2011. This policy has been developed to ensure that permission will only be granted for new basements which do not:

- Cause harm to the built and natural environment and local amenity;
- Result in flooding; or
- Lead to ground instability

This is a new basement for a property which currently does not have one. It will occupy the full width of the semi-detached property, and extend a significant distance into the garden. It is proposed to install office facilities and additional living space.

The Basement Impact Assessment contains five stages in total:

- Stage 1 – Screening
- Stage 2 – Scoping
- Stage 3 – Site investigation
- Stage 4 – Impact assessment; and
- Stage 5 – Review and decision making

This report addresses the first stage in the process i.e. screening of the proposal and is supplemented by the findings of recent investigations of the existing structure. At this stage, the guidance requires any proposed application to make an assessment on the impact of the development on (a) groundwater and surface water flows, and (b) land stability.

The screening process is described in Appendix E of CPG4 and includes 3 flowcharts as follows:

- Surface flow and flooding
- Subterranean (groundwater) flow
- Slope Stability

Potential impacts linked to the screening flowcharts are provided in CPG4 Appendix F.

Each of the above flow charts and responses to the questions asked are presented on the following pages of this report.

A. Surface flow and flooding screening flowchart

Question		Yes (Y), No (N), Unknown (U) (see also notes provided at base of table)
1.	Is the site within the catchment of the pond chains on Hampstead Heath?	N
2.	As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and peak run-off) be materially changed from the existing route?	N
3.	Will the proposed basement result in a change in the proportion of hard surfaced / paved external areas?	N
4.	Will the proposed basement result in changes to the profile of the inflows (instantaneous and long term) of surface water being received by adjacent properties or downstream watercourses?	N
5.	Will the proposed basement result in any changes to the quality of surface water being received by adjacent properties or downstream watercourses?	N
Notes		
<p>Q1 - By inspection of Figure 14 of CPG4.</p> <p>Q2 – Existing surface water pipes are not shown on the survey but it is unlikely that this development will materially change existing routes.</p> <p>Q3 – The proposed development will not change the impermeable/permeable area ratio for the front of the site, as the basement extension will be reinstated at existing ground level to reflect the existing arrangement, i.e. garden and shrub planting. To the rear, although technically the development will marginally increase the impermeable/permeable area ratio for the site the increase in roof area will be offset by a sedum roof with two skylights finished with walko-over glazing set flush with the green sedum roof. A patio area will occupy the same footprint as the existing patio and is therefore not considered to have a significant effect on the surface water regime.</p>		

B. Subterranean (groundwater) flow screening flowchart

Question		Yes (Y), No (N), Unknown (U) (see also notes provided at base of table)
1a.	Is the site located directly above an aquifer?	N
1b.	Will the proposed basement extend beneath the water table surface?	Y
2.	Is the site within 100m of a watercourse, well (used/disused) or potential spring line?	N
3.	Is the site within the catchment of the pond chains on Hampstead Heath?	N
4.	Will the proposed basement development result in a change in the proportion of hard surfaced/paved areas?	N
5.	As part of the site drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground (e.g. via soakaways and/or SUDS)?	N
6.	Is the lowest point of the excavation (allowing for any drainage and foundation space under the basement floor) close to, or lower than, the mean water level in any local pond (not just the pond chains on Hampstead Heath) or spring line?	N
Notes		
<p>Q1a – The site is located on the London Clay which is a non-aquifer</p> <p>Q1b – Groundwater was encountered above the proposed depth of the basement in recent site investigation holes and construction works at the neighbouring property. However, this is considered to be a perched water table overlying the relatively impermeable London clay which will be encountered at between 1.5m and 2.0m below ground level.</p> <p>Q2 - A deep sewer runs the length of Antrim Grove to the front of the property (see Thames Water Records, Appendix D), but that is the extent of any 'water course' in the vicinity of the site. No water courses are indicated on any historic maps that we have seen, nor is a river indicated on that alignment in the standard reference work: The Lost Rivers of London by Nicholas Barton. Furthermore, we have reviewed the contours on the OS map and these are not indicative of any historic river valleys following the alignment of Antrim Grove. The proposed scheme is located far enough away from the sewer to mean that, subject to the use of appropriate equipment and construction methods, the scheme will not have a detrimental effect on the sewer. However, we would recommend that the condition of the mains sewer is surveyed as part of the preparatory condition survey. This Report also acknowledges the potential presence of perched water and that this may vary seasonally. Further recommendations on this issue must be incorporated into the design and construction of the proposed scheme.</p>		

Q3 – By inspection of Figure 14 CPG4, the site is approximately 1km south east from the Hampstead Heath Extension Chain Catchment

Q4 – The proposed development will not change the impermeable/permeable area ratio for the front of the site, as the basement extension will be reinstated at existing ground level to reflect the existing arrangement, i.e. garden and shrub planting. To the rear, although technically the development will marginally increase the impermeable/permeable area ratio for the site the increase in roof area will be offset by a sedum roof. A patio area will occupy the same footprint as the existing patio and is therefore not considered to have a significant effect on the surface water regime.

Q5 – There will be no change to the drainage arrangements for the site

Q6 – There are no surface water features located within 240m of the site.

C. Slope stability screening flowchart

Question		Yes(Y),No(N), Unknown (U) (see also notes provided at base of table)
1.	Does the existing site include slopes, natural or manmade greater than 7deg. (approx. 1V in 8H)?	N
2.	Will the proposed re-profiling of landscaping at site change slopes at the property boundary to more than 7deg.?	N
3.	Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7deg.?	N
4.	Is the site within a wider hillside setting in which the general slope is greater than 7deg.?	N
5.	Is the London Clay the shallowest strata at the site?	N
6.	Will any trees be felled as part of the proposed development? Are any works proposed within any tree protection zones?	N
7.	Is there a history of seasonal shrink-swell subsidence in the local area, and/or evidence of such effects at the site?	N
8.	Is the site within 100m of a watercourse or a potential spring line?	N
9.	Is the site within an area of previously worked ground?	N
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?	N N
11.	Is the site within 50m of the Hampstead Heath ponds?	N
12.	Is the site within 5m of a highway or pedestrian right of way?	Y
13.	Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?	Y
14.	Is the site over (or within the exclusion zone of) any tunnels, e.g. railway lines?	N
Notes		
Q1 – See site plans provided with this report. The topography surrounding the site is gently sloping (around 3 degrees) towards Antrim Grove. The rear garden incorporates a small bank of approximate height 0.8m. The ground floor level of the existing house is approximately 0.80m above the road level along Antrim Grove.		

Q2 – There will be no changes to the surrounding topography.

Q5 – Based on available site investigation records and reference to the 1:50,000 Geological Map, the geological profile is expected to consist of variable depths of made ground and/or Head, over London Clay. The formation level for the proposed basement is expected to penetrate the London Clay by a minimum 1.50m at the front of the property and by more to the rear.

Q6 – A mature sycamore tree is present in the garden to the north of the site. An independent assessment of this tree and the potential effects of the proposed basement has been carried out by an arboriculturalist and the basement design has been amended accordingly to ensure that the tree will not be affected by the scheme at No8 and the same assessment applies for No6 (Ref 2: Letter Reference ha/ms1/6antrimgrv, dated 22nd May, 2014).

The basement will not enter within the limits of the Root Protection Zone of the tree (as derived using BS5837:2005, Trees in relation to construction.).

Q7 – We are unaware of any shrink-swell subsidence or evidence thereof on site or in the area of the site.

Q8 – There are no Environment Agency flood plains, river network entries or surface water features in the vicinity of the site.

Q9 No previous workings are reported on or near the site.

Q10 - Groundwater was encountered as seepages in site investigation holes undertaken to the rear of the property. The seepages occur from strata, and possibly land drainage, overlying the London Clay and it is considered that there is a perched water table overlying the London Clay. After a period of monitoring, the groundwater level settles at between 0.4m to 1.1m below ground level.

It is considered that dewatering will be necessary during construction, probably in the form of pumping from a sump in the base of the excavation.

Prior to commencement of construction, it is recommended that trial excavations are hand dug down to formation level to confirm the rate of inflow to open excavations and to assist with selection of appropriate temporary works and long term measures to control the groundwater.

Q12 – The site is within 5m of Antrim Grove. The proposed basement will maintain a 1.20m to 2.10m wide zone of undisturbed ground between the basement wall and the boundary with the Antrim Grove pavement. It is understood the basement will be excavated in a minimum of 2 stages, i.e. excavate to a pre-arranged depth and form that section of wall before commencing excavation to greater depth. It is considered that this method of construction will be sufficient to allow the construction of the scheme, and for maintenance of the highway and footway alongside.

Q13 – Basements of similar extent have been approved and constructed at the adjacent properties to the west, and the proposed scheme at No6 Antrim Grove is expected to have minimal impact upon them. To the other side, No4, it will be necessary to undertake some underpinning of the shared wall with No4 prior to commencement of construction of the proposed basement at No6.

Knapp Hicks consider that it is feasible that the proposed scheme can be constructed by a competent contractor without causing damage to adjacent properties and infrastructure. However, this is conditional on the Basement Contractor, and their structural engineers, giving full consideration in their design and construction methodology to the location of the site, and all neighbouring properties and infrastructure, in relation to their proposed method of basement construction, the form of construction of all affected or potentially affected structures and infrastructure, and all appertaining ground and groundwater conditions.

It is the responsibility of the basement contractor to develop appropriate techniques to avoid all adverse effects to neighbouring property. This concurs with the recommendations and advice provided in Camden Planning Guidance Document CPG4: Basements & Lightwells, all related guidance, and the recommendations made in Section 5 of this BIA Report.

Notwithstanding the above statements, the BIA document includes the findings of site investigations undertaken at the time of BIA preparation to help identify the critical issues which might affect the basement construction. The attached cross-section through the property serves as a Conceptual Model for the scheme and illustrates the following factors which must be taken into consideration:

- 6 Antrim Grove shares an adjoining party wall with 4 Antrim Grove, which is effectively a similar property.
- The boundary with 8 Antrim Grove is occupied by a passageway with the boundary fence dividing the passage between Nos 8 and 6. The recently constructed basement below 8 Antrim Grove, and an associated lightwell of lesser depth, extends to the site boundary.
- The geology below the site typically consists of a sequence of 1.50m of HEAD deposits consisting of firm gravelly CLAY and clayey GRAVEL resting on London Clay which is known to extend to greater than 10.0mbgl in this area. The Head/London Clay boundary is expected to be a relatively horizontal boundary but may undulate. The London Clay was typically stiff, becoming very stiff with depth.
- No groundwater was encountered in the investigations at No6 Antrim Grove but perched water overlying the London Clay has been recorded during basement construction at Nos 8 and 10. The London Clay is expected to provide a relatively impermeable formation for the basement.

The detailed method of construction will be prepared in due course by a structural engineer on behalf of a basement contractor, but we would anticipate that the preferred method of construction will be a 2-stage excavation, with the existing walls being underpinned following a pre-determined sequence of underpins (i.e. Hit and miss as described in the industry standard reference document: Design and construction of deep basements including cut-and-cover structures, Institution of Structural Engineers, 2004).

Following the above method, the first stage of excavation would prove and fully penetrate the London Clay to create an impermeable seal through the overlying and potentially water bearing Head Deposits as described above.

The construction methodology will be required to incorporate measures to ensure that settlement of adjacent and nearby structures is within tolerable limits as defined by the Burland Damage Category Chart (CIRIA C580), as reproduced in CPG4, i.e. Category 2 (Slight) or lower. Such measures must include the following:

- (a) Undertake pre-construction Condition Surveys on potentially affected properties and infrastructure, to include trial pits to confirm details of the foundations to 4 Antrim Grove.
- (b) Incorporation of a scheme of movement monitoring, checks and controls
- (c) Design the basement to be water resisting
- (d) Design the basement to resist uplift from a water table 0.5m below the existing ground level
- (e) Incorporate a scheme of groundwater investigation and monitoring to identify potential higher permeability water bearing layers around the perimeter of the proposed scheme before commencement of construction/excavation, particularly towards the rear end of the site.

- (f) Incorporate groundwater control measures to address the potential temporary works issues associated with potential water bearing strata. Subject to the findings of (e), this may include permeation grouting using chemical injection to create a cut-off around the perimeter of the basement during the underpinning and excavation procedures. As described above, the reinforced concrete underpins and raft floor slab shall be designed to resist water pressure. The effectiveness of this approach should be tested by trials in advance of construction.

Q14 – No tunnels have been identified passing underneath or close to the footprint of the site.

4. RESULTS OF THE SCREENING PROCESS

The basement has been assessed in accordance with the three flow charts detailed in Appendix E of London Borough of Camden document CPG4 Basement and Lightwells.

Part 3A which considers surface water and flooding issues has raised one issue with regard to the development, which is that potentially the basement may extend below a perched water table. However, recent similar works at the next door property, No8, reported minor quantities of perched water in the Head Deposits and it is concluded that the situation at no6 will be similar and can be dealt with by routine temporary works measures and incorporation of appropriate water resisting measures in the structure. The increase in roof area at the back of the building will be offset by the installation of a sedum roof. At the front of the property the garden will be reinstated similar to existing i.e. with shrub beds and gravel.

Part 3B which covers subterranean (groundwater) flow has returned two potential issues with regard to the development: (1) Groundwater has been encountered in recent site investigation holes above the proposed formation of the basement in adjacent property. It is considered that this can be overcome by sump pumping during excavation and by incorporation of groundwater control / tanking measures in the basement walls and floor. It is recommended that some trial holes be excavated to proposed formation level to check the rate of inflow to excavations, particularly towards the rear of the site, which penetrate deeper than the water levels recorded in nearby site investigation holes. Following these investigations, specialist advice may be sought as required to confirm appropriate groundwater control measures both for the temporary and the permanent works. (2) The proposed development will marginally increase the impermeable/permeable area ratio for the site; however this will largely be offset by the provision of a green roof to the basement extension and the front garden will be reinstated with shrub beds and gravel over the top of the basement, i.e. to the same as existing.

Part 2C covers slope stability. The screening flowchart has returned two affirmative answers as follows: (1) Question 12 which confirms the location of the basement in relation to the public highway which can be dealt with through staged excavation and the design of appropriate temporary and permanent works to ensure the stability of the highway, and (2) Question 13 concerning the change in differential depth of the foundations between the new development and adjacent property. Again this can be dealt with through the design of appropriate temporary and permanent works to ensure the stability of the adjacent properties.

5. CONCLUSIONS AND RECOMMENDATIONS

The basement formation is expected to extend below a perched water table. It is acknowledged that there may be perched water within the made ground, and groundwater may arise from claystones and fissures in the London Clay above formation level. Groundwater level can also be subject to seasonal and other changes. However, Knapp Hicks propose that, subject to consultation with a reputable basement contractor and the contractor responsible for existing recent basement excavations at Nos 10 and 8 Antrim Grove, the groundwater and any related ground stability issues may be satisfactorily dealt with by following good industry practice for the construction of basements.

It is recommended that the rate of seepage into excavations penetrating to the proposed formation level be confirmed in advance of construction as this information will assist with selection of appropriate waterproofing techniques and decisions on the use of traditional underpinning techniques vs contiguous or secant piling techniques for the basement retaining walls. It is recommended that these investigations include CCTV condition surveys of all public and private sewers passing close to the boundaries of the proposed scheme.

Where the basement is located adjacent the highway boundaries, the designer will ensure that the basement wall and any temporary works are designed to accommodate the required highway loadings. Further, this wall will be constructed using techniques which prevent the highway land and any associated infrastructure from being destabilised. The designer will also ensure that appropriate temporary works are in place to ensure that no party walls with adjacent properties are undermined during the project.

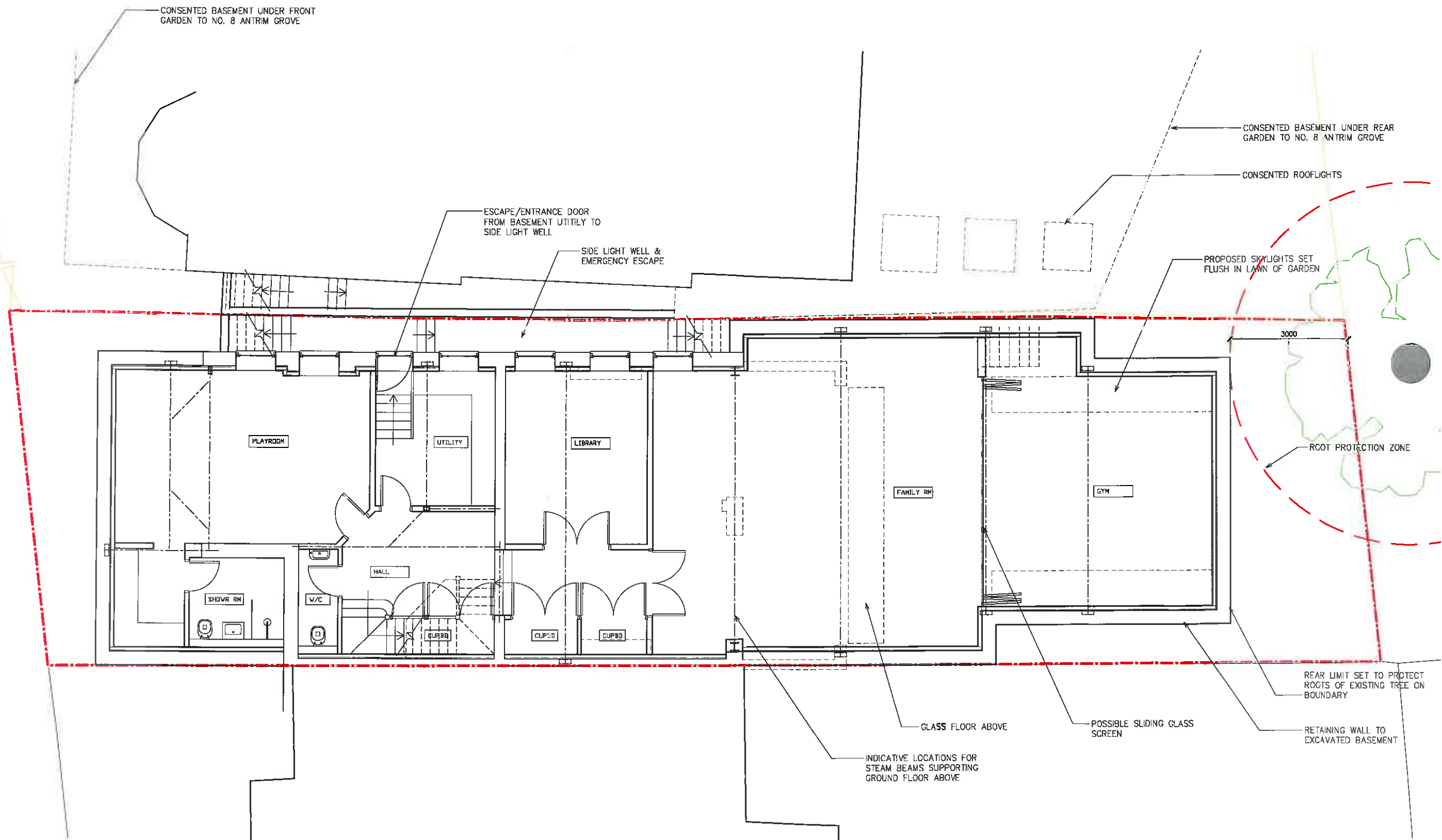
REFERENCES

1. Camden Planning Guidance: Basements and Lightwells, CPG4
2. ACS Consulting, Letter Reference ha/letrpt1/8antrimgrv, Tree Protection and Construction at: 8 Antrim Grove, London NW3, dated 27th January, 2012.

APPENDIX A

Site Plans & Cross Sections (Existing & Proposed)

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1 PROPOSED BASEMENT LEVEL PLAN
1 : 100

Bchitecture
11A Beresford Road London N2 8AT
t 07932 796 107 e Bchitecture@gmail.com

LOCATION
6 Antrim Grove, Belsize Park
London NW3 4XR

DRAWING TITLE
PROPOSED PLANS

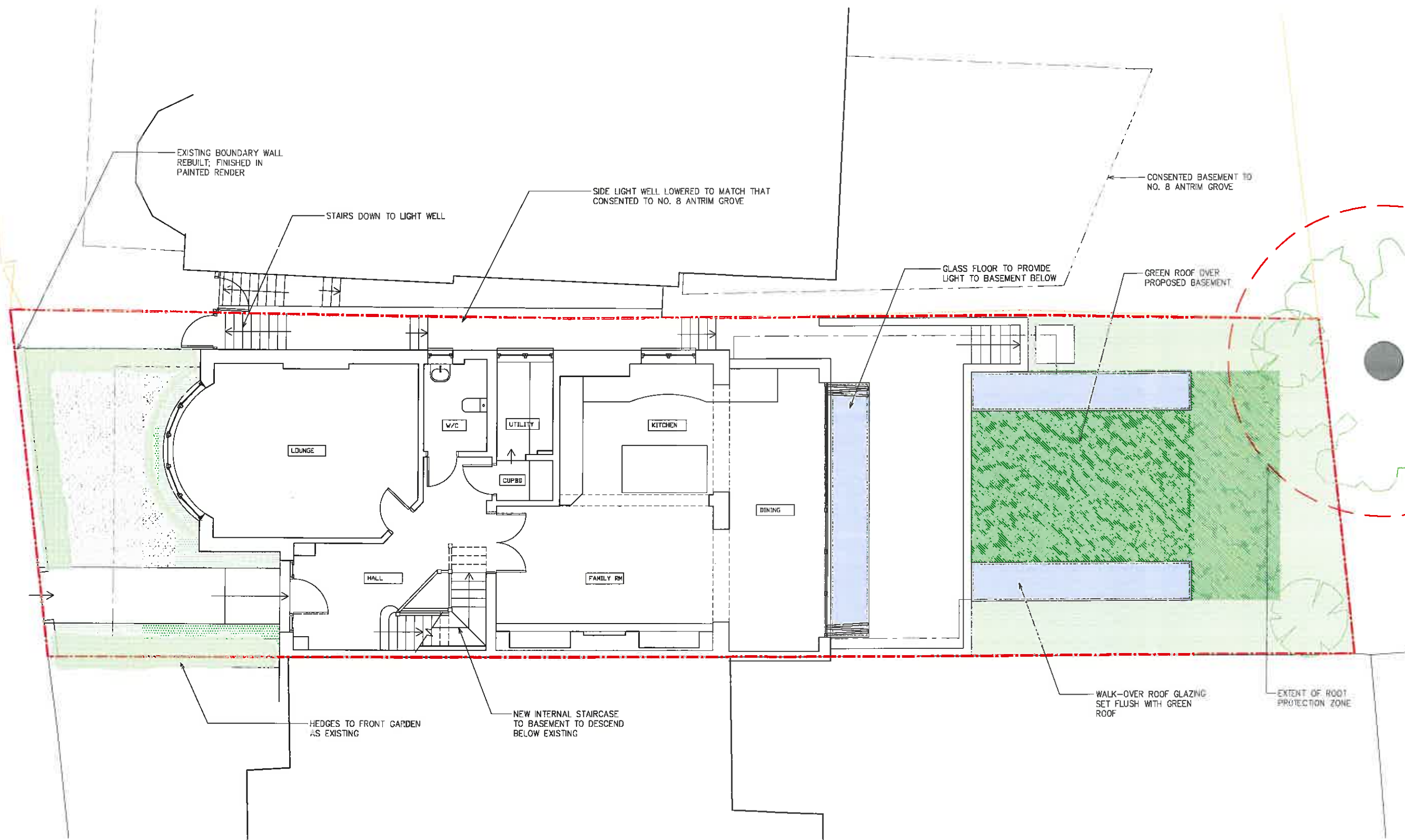
DATE
DEC 2013

SCALE
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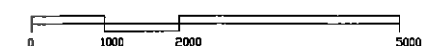
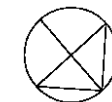
JOB NO
1310

DWG NO./REV
110/C

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1 PROPOSED GROUND LEVEL PLAN
1 : 100



Bchitecture
11A Bessford Road London N2 8AT
t.07932 796 407 e.bchitecture@gmail.com

LOCATION
6 Antrim Grove, Belsize Park
London NW3 4XR

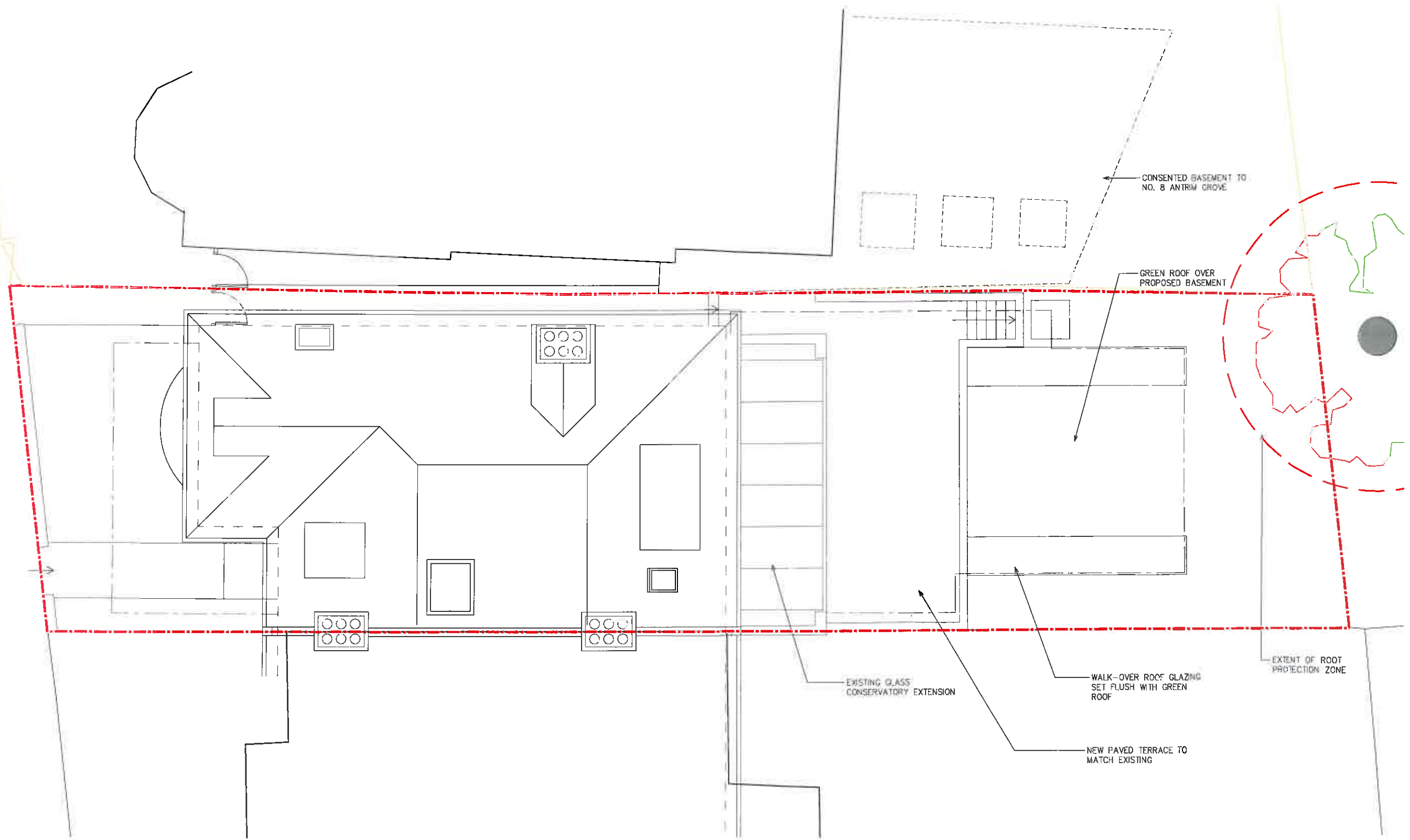
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PROPOSED PLANS

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1 PROPOSED ROOF LEVEL PLAN
1 : 100

Bchitecture
11A Baresford Road London N2 8AT
t:07932 796 407 e: Bchitecture@gmail.com

LOCATION
6 Antrim Grove, Belsize Park
London NW3 4XR

DRAWING TITLE
PROPOSED PLANS

DATE
1:100@A3 JAN 2014

SCALE
1310

JOB NO.
112/A

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1

PROPOSED REAR ELEVATION

1 : 100

EXISTING BRICK CHIMNEY
BEYOND

EXISTING GLASS
CONSERVATORY EXTENSION

PROFILE OF EXISTING
BOUNDARY WALL

PROPOSED BASEMENT
BEYOND

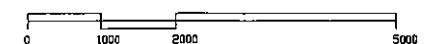
PROPOSED BASEMENT
EXTENSION



2

PROPOSED FRONT ELEVATION

1 : 100



Bchitecture
11A Beresford Road London N2 8AT
t 07992 796 407 e Bchitecture@gmail.com

LOCATION
6 Antrim Grove, Belsize Park
London NW3 4XR

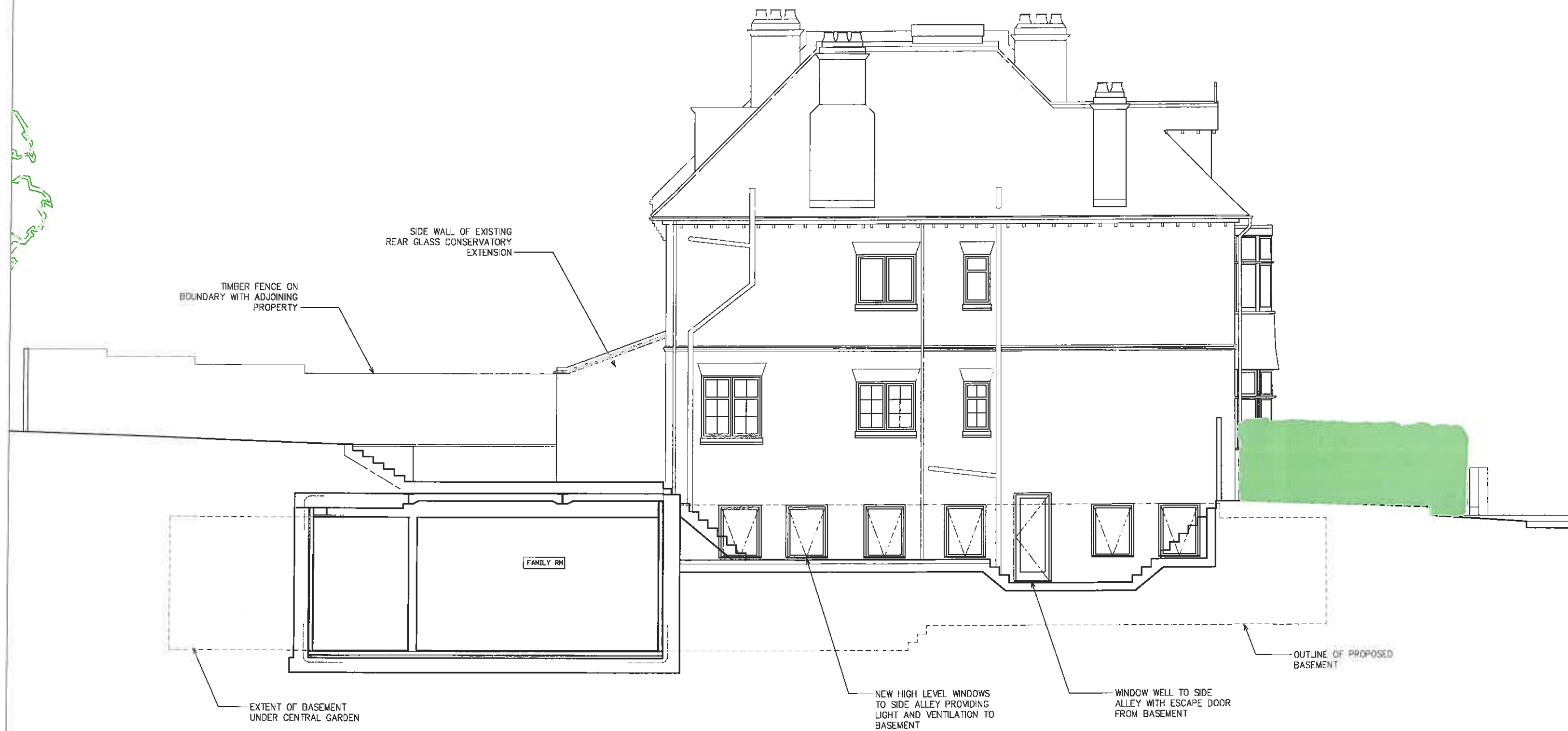
DRAWING TITLE
PROPOSED ELEVATIONS

DATE
1:100@A3 JAN 2014

JOB NO
1310

DWG NO/REV
113/A

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1 PROPOSED SIDE ELEVATION
1 : 100

Bchitecture
11A Baresford Road London N2 8AT
t:07932 796 407 e:Bchitecture@gmail.com

LOCATION
6 Antrim Grove, Belsize Park
London NW3 4XR

DRAWING TITLE
PROPOSED ELEVATIONS

DATE
1:100@A3 JAN 2014

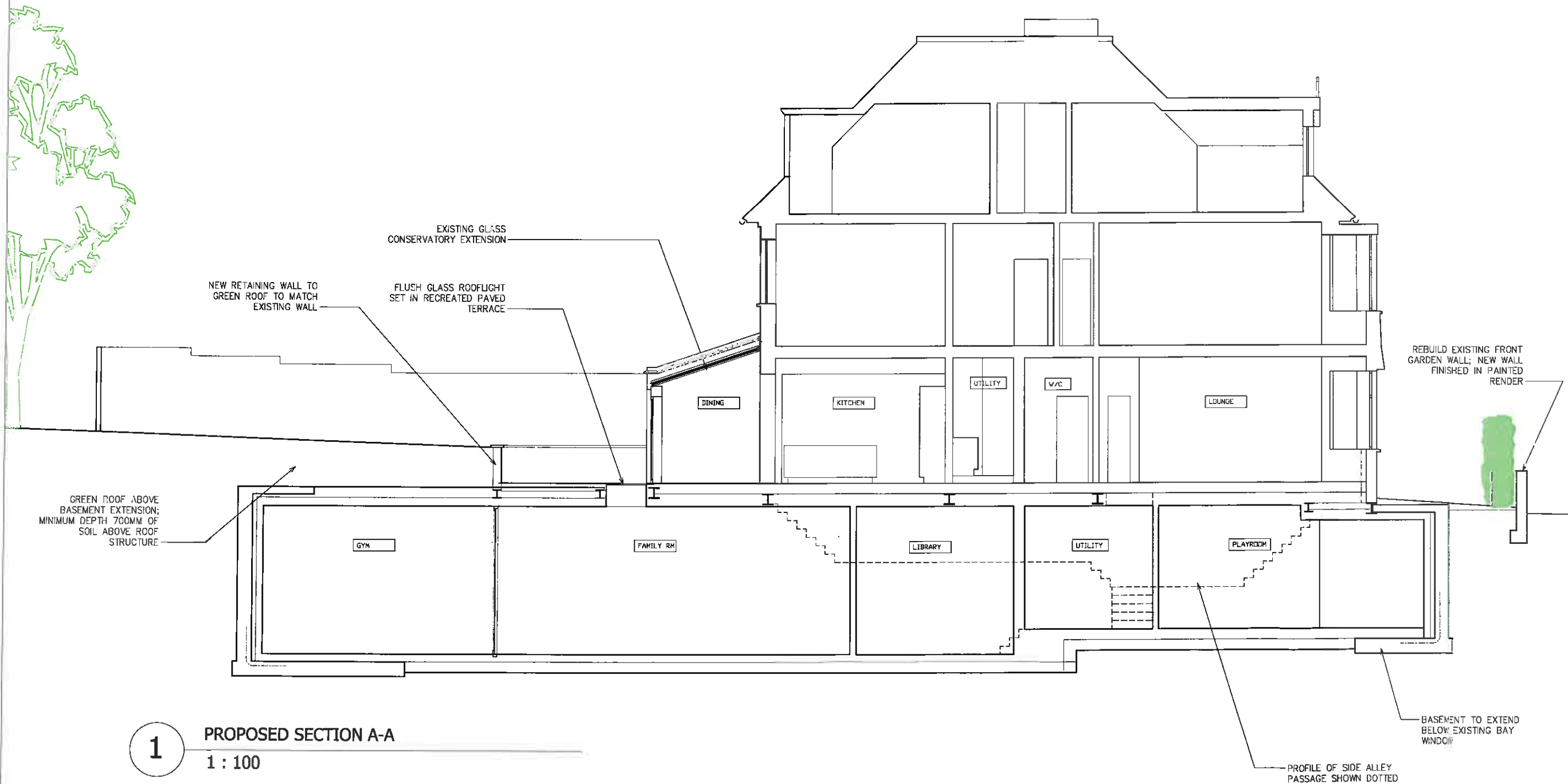
SCALE
1310

FIG NO/REV
114/A

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Bchitecture
11A Beresford Road London N2 8AT
t 07932 796 407 e Bchitecture@gmail.com

LOCATION

6 Antrim Grove, Belsize Park
London NW3 4XR

DRAWING TITLE

PROPOSED SECTIONS

DATE

14 JAN 2014

SCALE

1:100@A3

JOB NO

1310

DWG NO/REV

115/A

0.3.17
0.8.17

EXISTING LIGHTWELL
EXISTING BASEMENT

EXISTING GROUND LEVEL

BT WSI

FOUNDATION 1.5m 0.7m

MAX. DIG 4.1m

UNDERPINNING REQUIRED

GROUNDWATER (POLLUTED) LEVELS RECORDED AT 8 ANTRIM GROVE

4 ANTRIM GROVE

SCALE 0 5m

APPENDIX B

Photographs – Existing Site



Photo 1 – Detailed view of front of house from garden



**Photo 2 – View along side passage between No8 and No6 Antrim Grove
Viewed from front including view of trial pit to check existing foundations**



Photo 3 – View along side passage between No8 and No6 from front including boundary fence between No 6 and No 8



Photo 4 - View of rear of house



Photo 5 – View from patio of rear garden and site boundaries.
Note small retaining wall, higher garden level. A set of steps is present to left of frame.



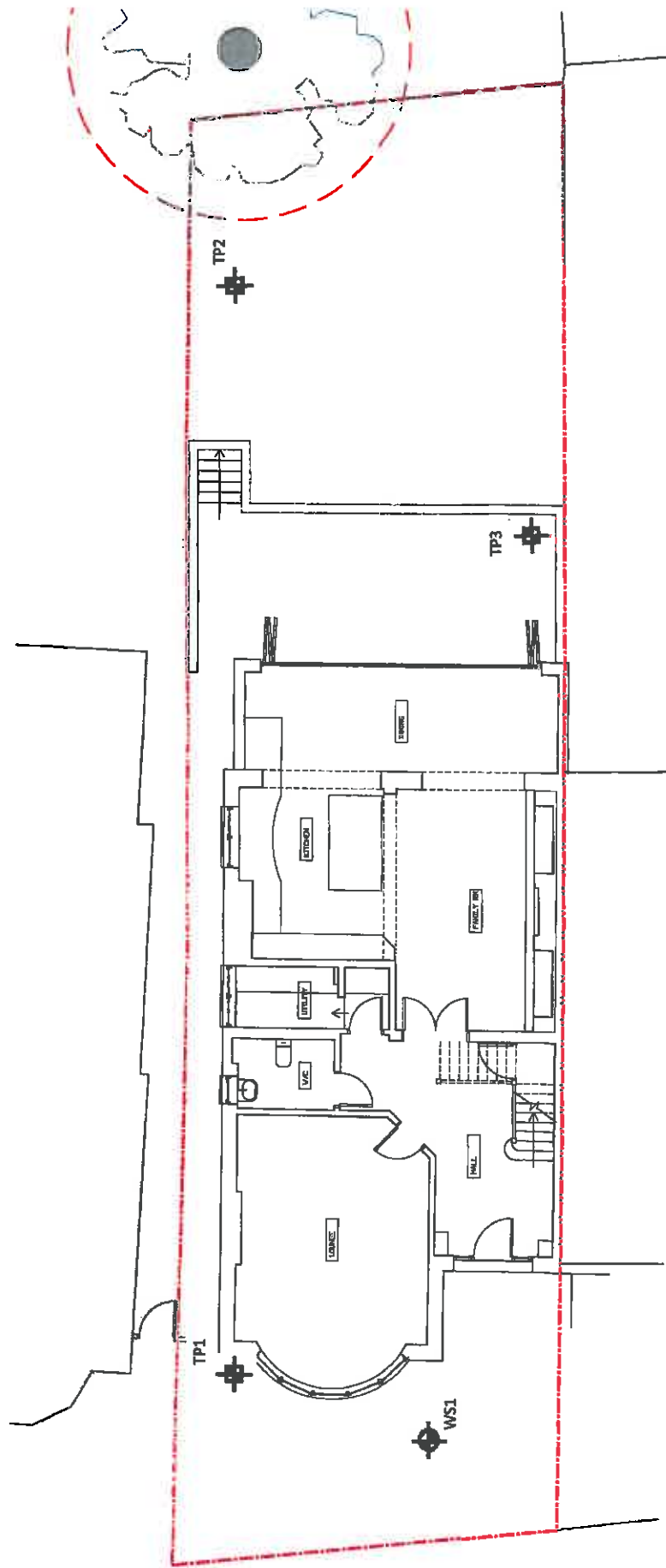
Photo 6 – View towards rear of house from back garden

APPENDIX C

Ground Investigation Records

1. **Knapp Hicks Window Sampler Borehole logs (Dec 2012)**
2. **Geotechnical Laboratory Test Results**
3. **Waste Acceptance Criteria (WAC) Test Results**

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KEY:		Window Sampler Borehole
		Trial Pit

Site	Site Location Plan
Site	6 Antrim Grove
Job Number	32027
Date	December 2013
Scale	1:100 at A3

6 Antrim Grove, Belsize Park**WINDOW SAMPLE AND TRIAL PIT LOGS**

WINDOW SAMPLE WS1	
GL – 0.10m	Orangish brown GRAVEL. Gravel is subrounded to rounded, fine to coarse of flint. (MADE GROUND)
0.10 – 0.50m	Blackish brown clayey gravelly SAND. Sand is fine to coarse. Gravel is subangular to subrounded, fine to coarse of brick, clinker, concrete, flint, metal and tile. (MADE GROUND)
0.50 – 1.50m	Medium dense orangish brown clayey sandy GRAVEL. Sand is fine to coarse. Gravel is subangular to rounded, fine to coarse of flint. (RIVER TERRACE GRAVELS)
1.50 – 3.40m	Stiff to very stiff indistinctly fissured brown mottled blue CLAY. (LONDON CLAY)
3.40 – 5.60m	Very stiff indistinctly fissured brown CLAY. (LONDON CLAY)
5.60 – 7.40m	Very stiff indistinctly fissured greyish brown CLAY. (LONDON CLAY)
7.40m	<i>End of Window Sample</i>

- Upon completion the window sampler was backfilled with arisings.
- No water was noted in the window sampler.
- No live roots and rootlets recorded below 1.70mbgl, rotted rootlets noted to 3.00mbgl.
- SPT Results as follows:
 - 1.00m: N = 17 (1/2/4/4/4/5)
 - 2.00m: N = 6 (1/0/1/1/2/2)
 - 3.00m: N = 8 (1/1/1/2/2/3)
 - 3.80m: N = 10 (1/2/2/2/3/3)
 - 4.80m: N = 12 (1/2/3/3/3/3)
 - 5.60m: N = 17 (3/3/3/4/5/5)
 - 6.60m: N = 18 (4/5/4/5/4/5)

TRIAL PIT TP1	
GL – 0.10m	Orangish brown GRAVEL. Gravel is subrounded to rounded, fine to coarse of flint. (MADE GROUND)
0.10 – 0.38m	Blackish brown clayey gravelly SAND. Sand is fine to coarse. Gravel is subangular to subrounded, fine to coarse of brick, clinker, concrete, flint, metal and tile. (MADE GROUND)
0.38m	<i>End of Trial Pit – Terminated due to services.</i>

- Upon completion the trial pit was backfilled with arisings.
- No groundwater was noted during excavation.
- No roots or rootlets noted.
- Base of footing was not uncovered due to a number of services in the pit and in the vicinity of the pit, for details of foundation please see separate drawing.

TRIAL PIT TP2	GL – Approximately 1.50m above the ground level of the rest of the site.
GL – 0.60m	Dark brown very clayey gravelly SAND. Sand is fine to coarse. Gravel is subangular to subrounded, fine to coarse of brick and tile. (MADE GROUND)
0.60 – 1.80m	Firm brown mottled blue slightly sandy CLAY. Sand is fine to coarse. (HEAD DEPOSITS?)
1.80m	<i>End of Trial Pit – Refused on suspected gravels.</i>

- Upon completion the trial pit was backfilled with arisings.
- No water was noted in the trial pit.
- Rootlets were noted to the base of the trial pit.
- It was attempted to extend the trial pit using hand augering techniques, but the auger refused at the top of the gravels.

TRIAL PIT TP3	
GL – 0.01m	PAVING SLAB
0.01 – 0.35m	CONCRETE
0.35 – 0.60m	Very soft brownish black slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded, fine to coarse of concrete, brick and clinker. (MADE GROUND)
0.60m	<i>End of Trial Pit – Refused on suspected gravels.</i>

- Upon completion the trial pit was backfilled with arisings.
- No water was noted in the trial pit.
- No roots or rootlets noted.
- It was attempted to extend the trial pit using hand augering techniques, but the auger refused at the top of the gravels.

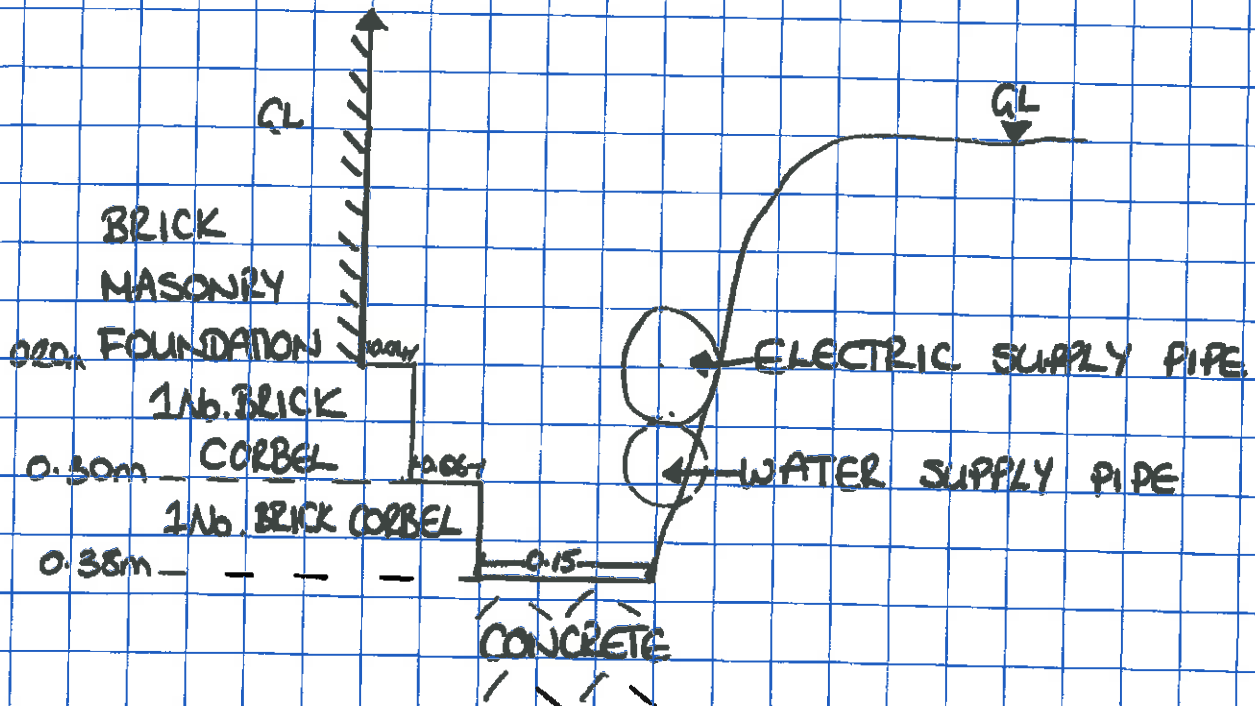


KNAPP HICKS & PARTNERS LTD
CONSULTING STRUCTURAL, CIVIL
& GEOTECHNICAL ENGINEERS

Kington House, The Long Barrow, Orbital Park,
Ashford, Kent, TN24 0GP
Tel: 01233 502255 Fax: 01233 502288



Project: 6 ANTRIM GROVE, BELSIZE PARK, NWS 4XR	Job Ref: 32027	Page No.
Designed by: MKP	Date: NOV 2013	Checked by: RJM
		Date: NOV 2013



FOR DETAILS OF SOILS ENCOUNTERED PLEASE
SEE SEPARATE SHEET.



INDEX PROPERTIES

BS 1377 : Part 2 : 1990

Project : 6 Antrim Grove

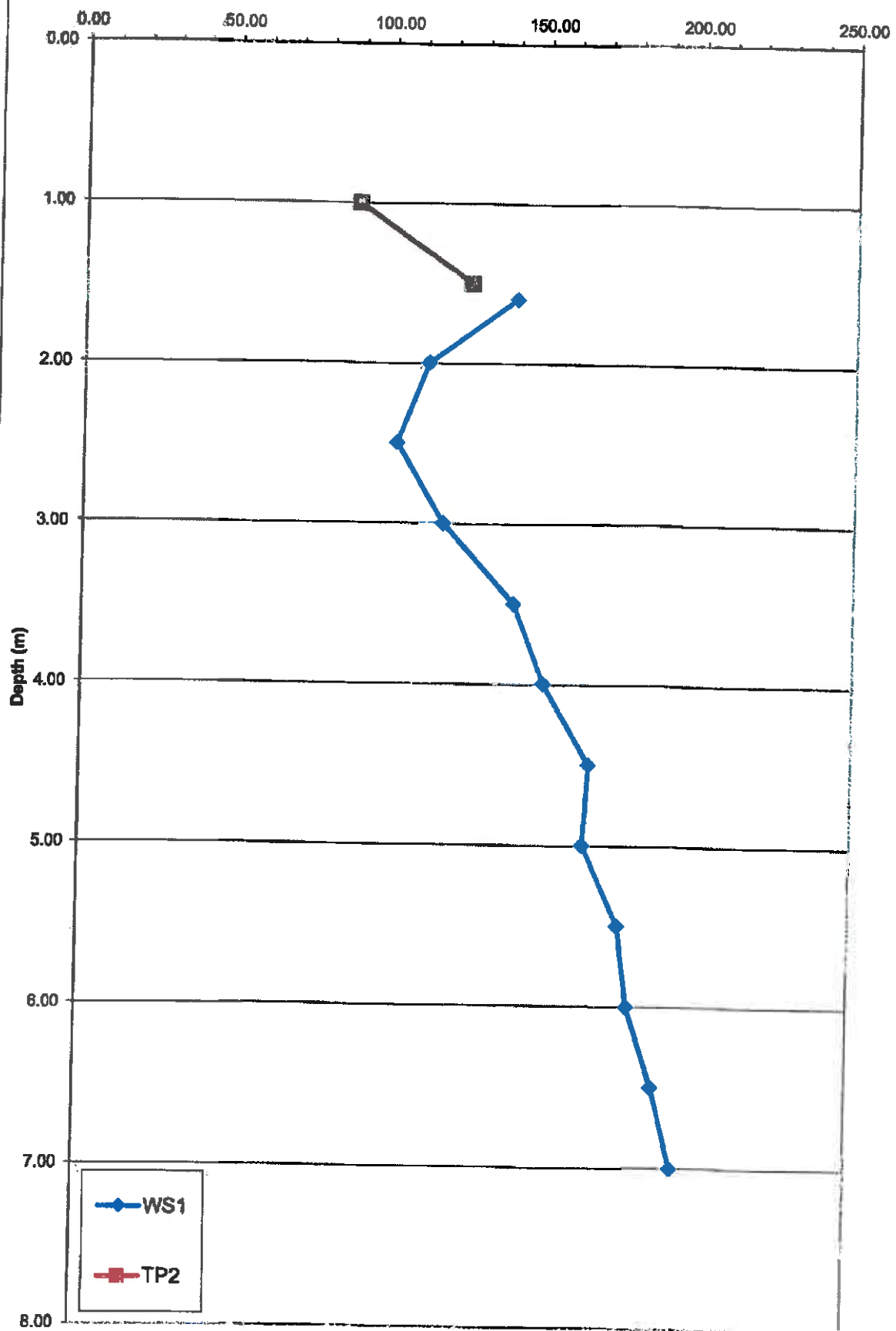
Job No. : 32027A

Order No.: 5042

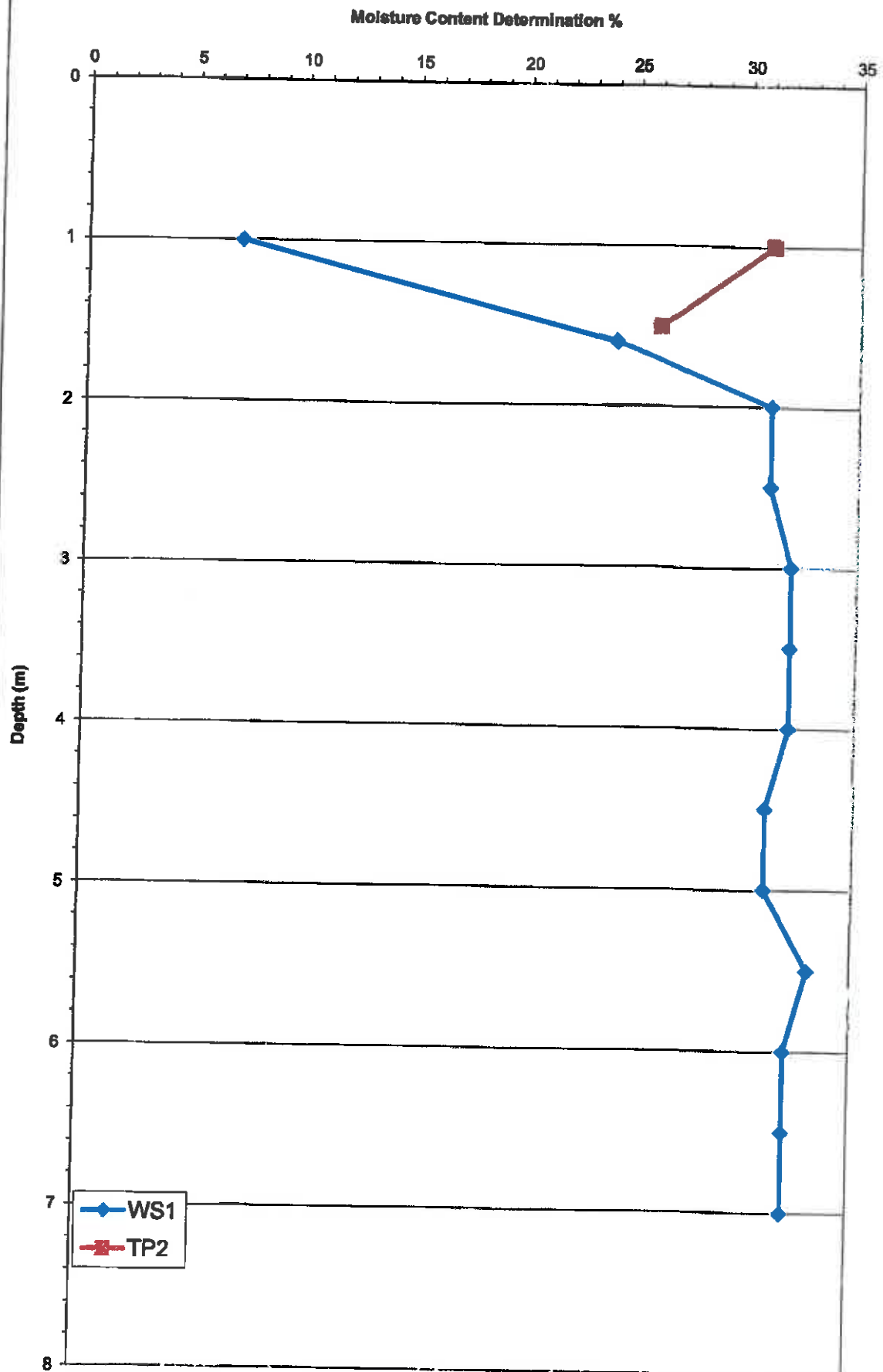
Borehole / Trial Pit	Sample No	Depth (m)	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index	Passing 0.425mm (%)	Classification		
TP2 WS1		1.00	31	54	18	36	*98	CH		
		1.50	26							
		1.00	7							
		1.60	24	74	27	47	*98	CV		
		2.00	31							
		2.50	31							
		3.00	32							
		3.50	32							
		4.00	32	73	29	44	*98	CV		
		4.50	31							
		5.00	31							
		5.50	33							
		6.00	32	78	29	49	*98	CV		
		6.50	32							
		7.00	32							

6 Antrim Grove, Belsize Park (KH Job No. 32027)

Undrained Shear Strength (KN/m2 derived from PP)



6 Antrim Grove, Belsize Park (KH Job No. 32027)



APPENDIX D

THAMES WATER SEWER RECORDS

Asset Location Search



Jennifer Sturman
Knapp Hicks & Partners Ltd
Kingston House
The Long Barrow
ASHFORD
TN24 0GP

Search address supplied 8
Antrim Grove
NW3 4XR

Your reference N/A

Our reference ALS/ALS Standard/2012_2252033

Search date 12 June 2012

You are now able to order your Asset Location Search requests online by visiting
www.thameswater-propertysearches.co.uk

Thames Water Utilities Ltd

Property Searches
PO Box 3189
Slough SL1 4WW

DX 151280 Slough 13

T 0118 925 1504
F 0118 923 6655/57
E searches@thameswater.co.uk
I www.thameswater-propertysearches.co.uk

Registered in England and Wales
No. 2366661, Registered office
Clearwater Court, Vastern Road
Reading RG1 8DB

Asset Location Search



Search address supplied: 8, Antrim Grove, NW3 4XR

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0118 925 1504, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Tel: 0118 925 1504
Fax: 0118 923 6657

Email: searches@thameswater.co.uk
Web: www.thameswater-propertysearches.co.uk

Thames Water Utilities Ltd

Property Searches
PO Box 3189
Slough SL1 4WW

DX 151280 Slough 13

T 0118 925 1504
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Registered in England and Wales
No. 2366661, Registered office
Clearwater Court, Vastern Road
Reading RG1 8DB

Asset Location Search



Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0845 920 0800. The Customer Centre can

Thames Water Utilities Ltd

Property Searches
PO Box 3189
Slough SL1 4WW

DX 151280 Slough 13

T 0118 925 1504
F 0118 923 6855/57
E searches@thameswater.co.uk
I www.thameswater-propertysearches.co.uk

Registered in England and Wales
No. 2386681, Registered office
Clearwater Court, Vastern Road
Reading RG1 8DB

Asset Location Search



also arrange for a full flow and pressure test to be carried out for a fee.

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

An invoice is enclosed. Please send remittance to Thames Water Utilities Ltd., PO Box 223, Swindon, SN38 2TW.

Thames Water Utilities Ltd

Property Searches
PO Box 3189
Slough SL1 4WW

DX 151280 Slough 13

T 0118 925 1504
F 0118 923 6655/57
E searches@thameswater.co.uk
I www.thameswater-propertysearches.co.uk

Registered in England and Wales
No. 2386881, Registered office
Clearwater Court, Vastern Road
Reading RG1 8DB

Asset Location Search



Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0845 850 2777
Fax: 0118 923 6613
Email: developer.services@thameswater.co.uk

Should you require any further information regarding budget estimates, diversions or stopping up notices then please contact:

DevCon Team
Asset Investment
Thames Water
Maple Lodge STW
Denham Way
Rickmansworth
Hertfordshire
WD3 9SQ

Tel: 01923 898 072
Fax: 01923 898 106
Email: devcon.team@thameswater.co.uk

Thames Water Utilities Ltd

Property Searches
PO Box 3189
Slough SL1 4VW

DX 151280 Slough 13

T 0118 925 1504
F 0118 923 6655/57
E searches@thameswater.co.uk
I www.thameswater-propertysearches.co.uk

Registered in England and Wales
No. 2366661, Registered office
Clearwater Court, Vastern Road
Reading RG1 8DB

Asset Location Search



Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0845 850 2777
Fax: 0208 213 8833
Email: developer.services@thameswater.co.uk

Thames Water Utilities Ltd

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Slough SL1 4WW

DX 151280 Slough 13

T 0118 925 1504
F 0118 923 6855/57
E searches@thameswater.co.uk
I www.thameswater-propertysearches.co.uk

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No. 2366661, Registered office
Clearwater Court, Vastern Road
Reading RG1 8DB



The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. WU298557 Crown Copyright Reserved.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
5901	58.93	54.97
5903	60.87	56.22
57BI	n/a	n/a
5802	n/a	n/a
47CB	n/a	n/a
57BH	n/a	n/a
47BJ	n/a	n/a
47CA	n/a	n/a
47BI	n/a	n/a
4801	63	58.43
-	-	-
5801	59.22	53.73
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.		



ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

	Foul: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	Surface Water: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	Combined: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	Trunk Surface Water
	Trunk Foul
	Storm Relief
	Trunk Combined
	Bio-solids (Sludge)
	Proposed Thames Surface Water Sewer
	Proposed Thames Foul Sewer
	Gallery
	Surface Water Rising Main
	Sludge Rising Main
	Vacuum

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or '0' on a manhole level indicates that data is unavailable.

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve
	Dam Chase
	Fitting
	Meter
	Vent Column

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Control Valve
	Drop Pipe
	Ancillary
	Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol. Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Outfall
	Undefined End
	Inlet

Other Symbols

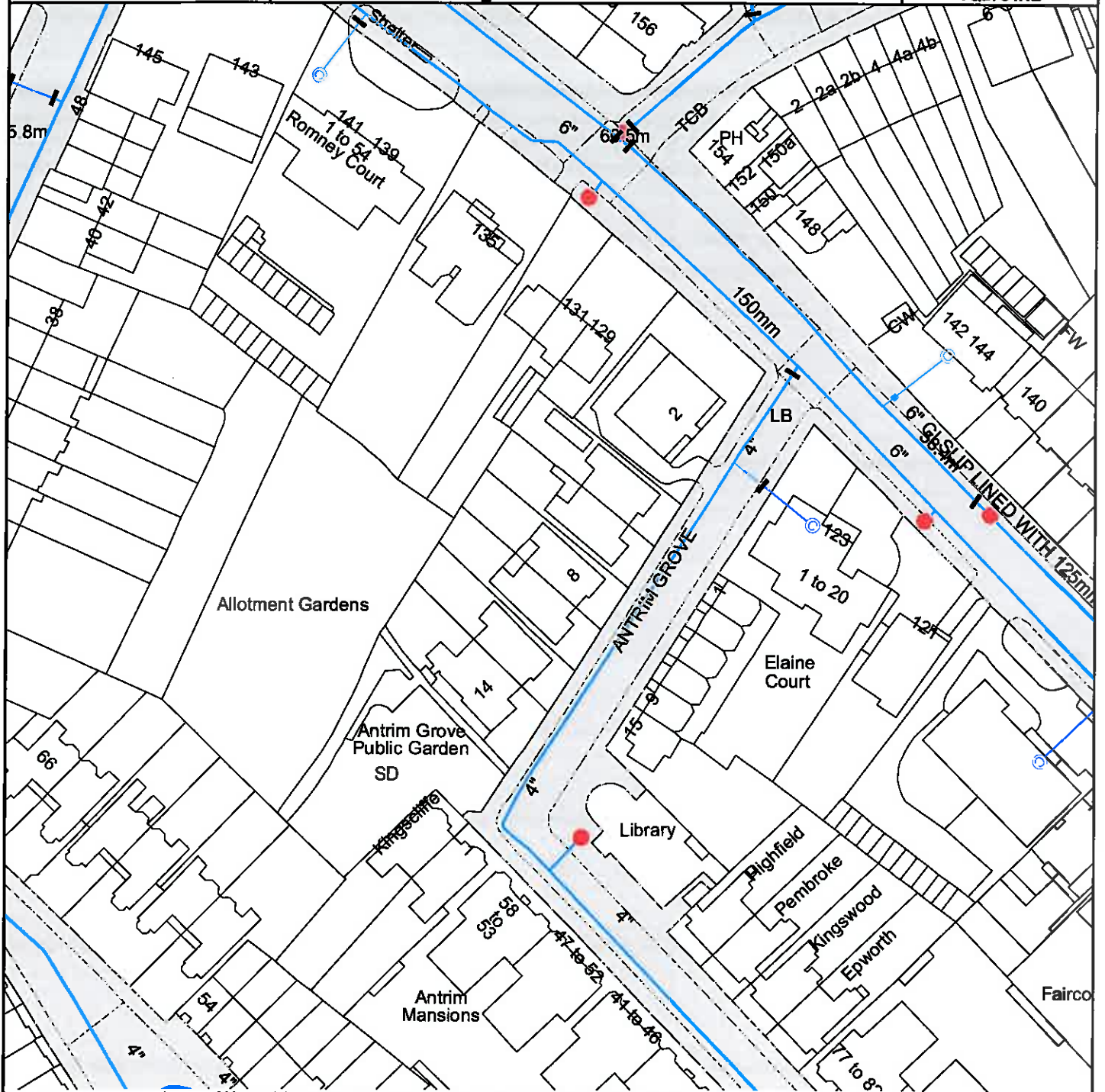
Symbols used on maps which do not fall under other general categories

	Public/Private Pumping Station
	Change of characteristic indicator (C.O.C.I.)
	Invert Level
	Summit
	Areas
	Lines denoting areas of underground surveys, etc.
	Agreement
	Operational Site
	Chamber
	Tunnel
	Conduit Bridge

Other Sewer Types (Not Operated or Maintained by Thames Water)

	Foul Sewer
	Combined Sewer
	Culverted Watercourse
	Surface Water Sewer
	Gully
	Proposed
	Abandoned Sewer

6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property insight on 0118 925 1504.



The width of the displayed area is 200m and the centre of the map is located at OS coordinates 527506,184879

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

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ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

4"
Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.

18"
Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.

3" SUPPLY
Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.

3" FIRE
Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.

3" METERED
Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.

Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.

Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

Hydrants

- Single Hydrant

Meters

- Meter

End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

Other Symbols

- Data Logger

Other Water Pipes (Not Operated or Maintained by Thames Water)

Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.

Private Main: Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL's terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0845 9200 800.

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to him at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to WaterVoice Thames on 0845 758 1658 (it will cost you the same as a local call) or write to them at 4th Floor (South), High Holborn House, 52-54 High Holborn, London WC1V 6RL.

Ways to pay your bill

By Post – Cheque only , made payable to 'Thames Water Utilities Ltd' writing your Thames Water account number on the back. Please fill in the payment slip below and send it with your cheque to Thames Water Utilities Ltd., PO Box 223, Swindon SN38 2TW	By BACS Payment direct to our bank on account number 90478703, sort code 60-00-01 may be made. A remittance advice must be sent to Thames Water Utilities Ltd., PO Box 223, Swindon SN38 2TW. Or fax to 01793 424599 or email: cashoperations@thameswater.co.uk	Telephone Banking By calling your bank and quoting your invoice number and the Thames Water's bank account number 90478703 and sort code 60-00-01	By Swift Transfer You may make your payment via SWIFT by quoting NWBKGB2L together with our bank account number 90478703, sort code 60-00-01 and invoice number
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Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.

Invoice



Jennifer Sturman

Knapp Hicks & Partners Ltd

The Long Barrow
Ashford
TN24 0GP

Thames Water Utilities Ltd.
PO Box 223
Swindon
SN38 2TW

Customer Reference: N/A

Customer Number: ADS119054
Purchase Order No:

Invoice No: ADS12329792
Our Ref: ALS/ALS
Standard/2012_2252033

Posting Date: 12-06-2012
Due Date: 26-06-2012

Search Address Supplied: 8, Antrim Grove, NW3 4XR

Description of Charges	Qty	Unit Price	VAT (20%)	Amount (Inc VAT)
Asset Location Search	1	£46.00	£9.20	£55.20

OUTSTANDING AMOUNT (Inc. VAT)

£55.20

Please send any outstanding amount to Thames Water, PO Box 223, Swindon, SN38 2TW..

Your payment terms are within 14 days. Please see previous page for ways to pay.

For queries please contact the Property Searches Customer Support Team on Tel: 0118 925 1504.

VAT Reg. No GB 537456915



Payment slip

bank giro credit



Girobank plc Boodle Merseyside GBR 0AA

138
208
70

Reference (customer account number)

ADS119054 / ADS12329792

Credit account number

257 1706

Amount due
(40p fee payable at PO counter)

£ 55.2

By transfer from Alliance and Leicester
Giro account number

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Cheque NOT acceptable at Post Offices

Cashiers
stamp and initials

Signature

Knapp Hicks & Partners Ltd

The Long Barrow
Ashford
TN24 0GP

Date

NatWest
Collection Account
Thames Water
Utilities Ltd

Cash

Cheques

£

57-17-06

Please do not write or mark below this line and do not fold this counterfoil

010010003297921 V7702571706 000055204 74 X



Search Code

IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Thames Water Property Searches, Clearwater Court, Vastern Road, Reading RG1 8DB, which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom
- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if he finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details:

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE