Block
Architecture

Design & Access Statement

Vine Cottage, Gayton Road Hampstead.

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Design & Access Statement

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1.0

Introduction & Context

1.1

Introduction

This Design and Access Statement has been prepared in support of our application for Conservation Area Consent for the demolition of Vine Cottage, Gayton Road and Planning Permission for the erection of a new dwelling house in its place. It describes our approach to the site and design development and is to be read in conjunction with the following set of 1:50 drawings prepared by Block Architecture.

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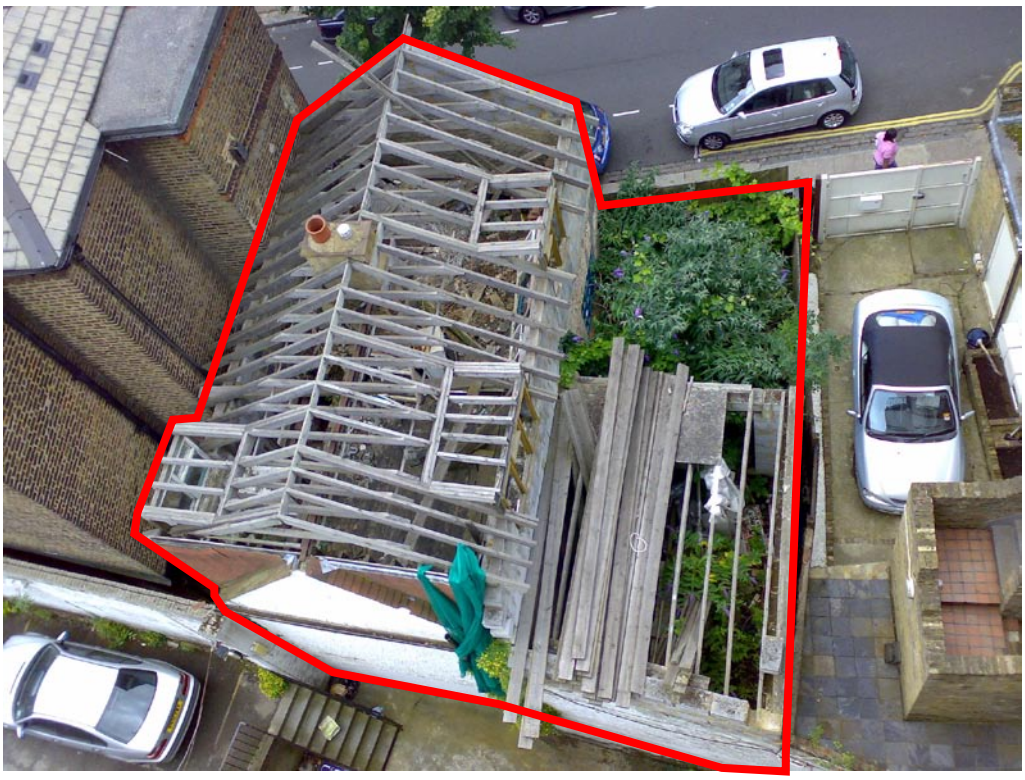
Vine cottage was purchased in July 2007 by our clients Mr & Mrs McKay (the "applicants") with the intention of building a home for a family of five. Our understanding is that the property has remained in a state of visible disrepair with an uncompleted blockwork and timber framed extension (see image below).

Our clients are keen to remedy this situation and have appointed our company with the intention to replace the existing unfinished construction with an elegant, contemporary house that will sit well within its immediate context and the context of Hampstead Village Conservation Area as a whole.

In short it is proposed that the new building will be a high quality single family house arranged over Ground, first and second floors with an additional basement floor with sunken courtyard garden and south facing roof terrace.

It is the purpose of this Design And Access Statement to describe the design development of the new building along with its layout, scale, and appearance. We have also provided information on our approach to Access and Sustainability in relation to the scheme.

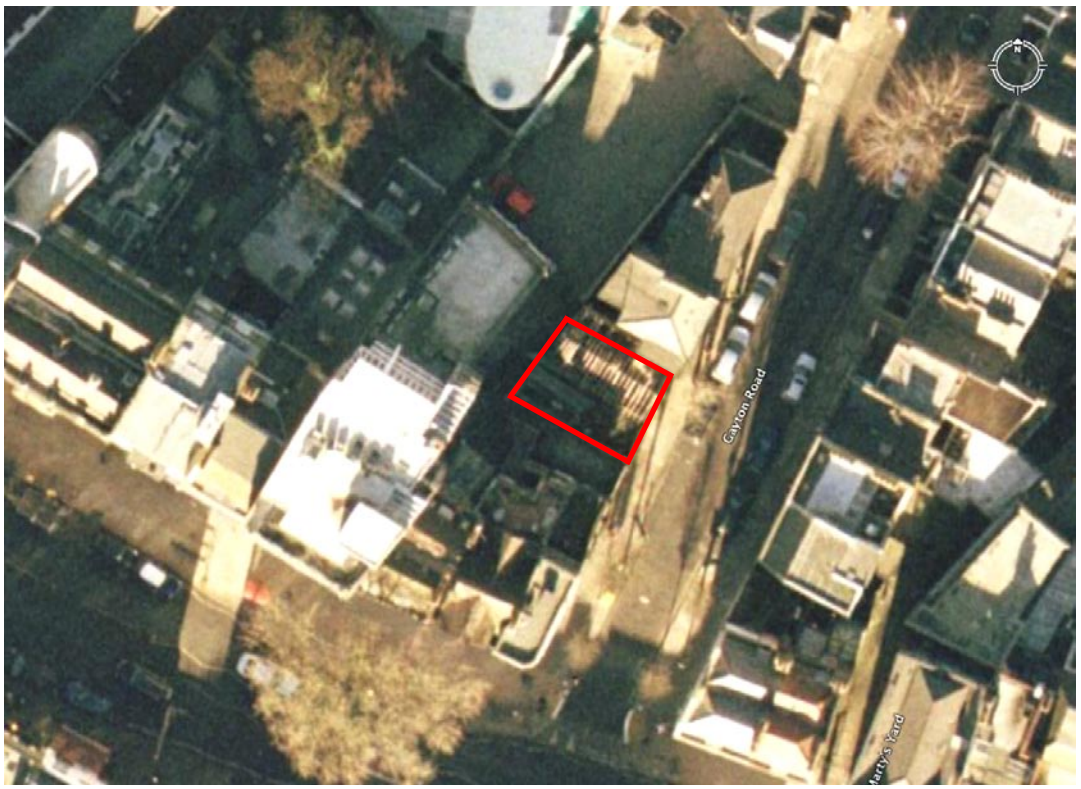


Aerial photograph of site

Site

The site is located in a prominent position at the south end of Gayton Road and is visible from the adjoining Hampstead High Street. The property sits just within Hampstead Village Conservation Area.

Location Map



Aerial photograph of site

1.3

Detail photograph of rear of property

Aerial photograph of property

Existing Building

The existing building is part single storey and part extention with a street façade to 2 storeys above ground level plus the apex of the pitched roof. The footprint of the building is L-shaped with an adjoining single storey extension to the south side. The buildings' main facade faces perpendicular to Gayton Road and, if completed, would have presented a rather blank frontage to the street with a solitary small window at ground floor level.

The site has a planning history dating back to 1999. The most recent application dated 2003 was approved for the construction of an additional storey, however this was not completed. What construction there is is of very poor quality and the building currently stands in a state of dilapidation. As a result we believe that the building has a negative impact on the character and appearance of the street and surrounding Conservation Area.

The rear of the building currently trespasses on the neighbouring owners land where the single storey construction has been built on top of the party wall. We understand that this has been done without a Party Wall Award being in place. Understandably, this is an issue that our client is being pushed to rectify.

View from Gayton Road.

1.4

Surrounding Context

To the north(right) of the site are 2 Victorian 3 storey blocks. Both blocks have shallow pitched rooves that are not visible from the street level. To the south (left) of the site is another a 3 storey Victorian block although in this case it is arranged over a number of levels one of which forms a roof terrace of relatively recent construction. To the rear of the site is a 6 storey concrete escape stair visible through the gap between the 3 storey blocks.

On the opposite side of the street some of the plots that are closer to the High Street have retail units on the ground floor. The properties immediately opposite the site exhibit different examples of mansard roof construction. More contemporary roof extensions are also visible above the parapet. At the rear of the property is a new build house in a contemporary style is currently under construction, although this is not immediately visible from Gayton Road.

Elevation of Gayton Road showing concrete escape stair to rear of site.

Adjoining property (south) showing roof terrace at 3rd floor level.

3 storey buildings opposite showing mansard roof construction.---

Concrete escape stair visible through the gap between blocks

Contemporary house construction immediately behind site.

1.5

Planning & Conservation

In the development of this proposal we have consulted Camden Councils' Conservation Area Statement 2 / Hampsterad Village along with Camden Planning Guidance and UDP documents.

Conservation Area Statement

The site falls just within the boundary of Hampstead Village Conservation Area, sub area 1 - see map below. From our many visits to the area we appreciate that the immediate vicinity has a rich mix of building typology and architectural syle with predominantly Victorian housing stock in the roads leading off the High Street.Gayton Road is one such road and includes some examples of 3 storey housing blocks along its length and in particular (as shown on the previous page) immediately either side of the site. The existing building creates a break in this typology and offers views of the sky though to the rear of the site and adjoining buildings. The concrete escape stair visible in this view is actually mentioned in the Conservation Area Statement where it is described as "...looming over Gayton Road"

We appreciate that the break in typology offered by the existing building may be desirable and that the gap in a continuous street frontage provides relief and interest to the passer-by. However it is fairly evident to us that the concrete stair visible through this gap can not, in any way, be described as being a desirable view and does not add to the appearance and character of the Conservation Area.

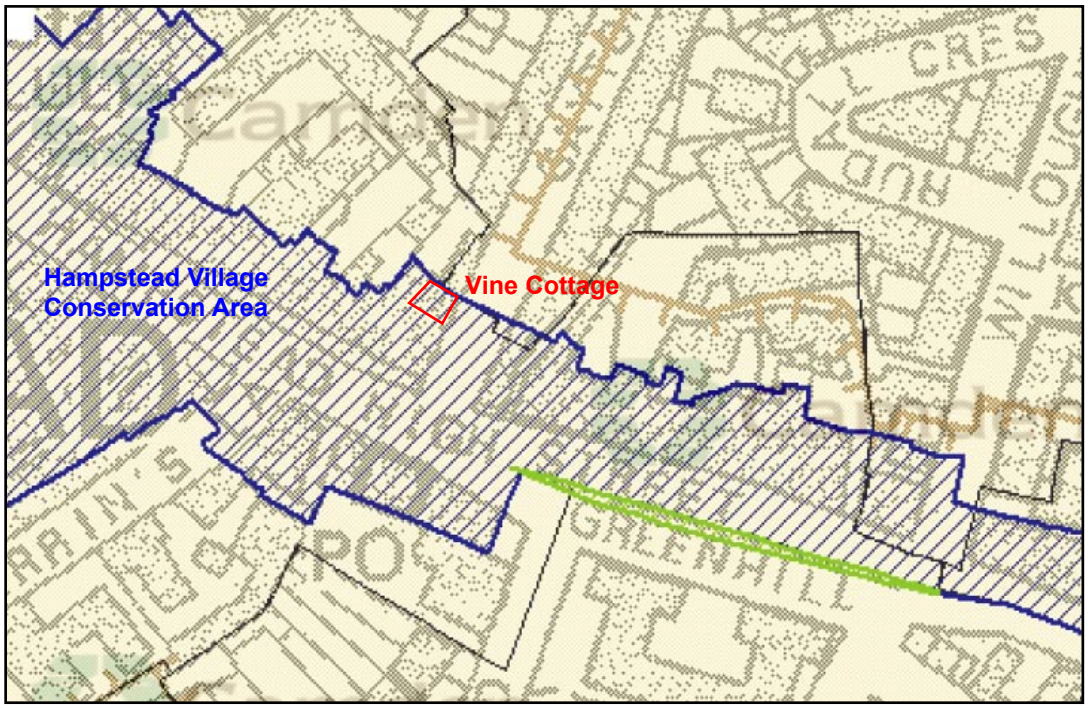
Camden Planning Guidance

On reading policy 15.8 on Design we would suggest that the proposed building described in this statement *"...respects the form, character, history, archaeology and nature of buildings immediately adjacent to the site and in the surrounding area."*

We have also taken on board the need to retain this change in typology through the orgaisation of the proposed plan allowing for a visible gap between adjoining buildings. This is in line with *"...consideration of openness and/or verdant views provided by gap sites."* We would however propose that this is assessed in the immediate context of the site and the aforementioned concrete escape stair visible through the 'gap' in typology.

We also take the view that the proposals *"... provide visual interest for onlookers from all aspects and distances..."* through the form and detailing of the proposed building.

While we have developed this proposal with the aim of producing an elegant contemporary piece of architecture, we will of course seek to address any concerns and feedback from the Conservation Area Team and Local Residents throughout the course of this application.



Camden Council - UDP Map Excerpt

1.6/1.7 UDP Policy Acknowledgement

Our design approach has responded to a positive leading statement in the Built Environemnt section of Camden's UDP, stating that the borough is *"...committed to design excellence...and seeks to encourage outstanding architecture and design..."* and that *"...high quality contemporary design within the policy framework will be welcomed..."* As architects we would commend this committment and aim to deliver a high quality, contemporary piece of architecture to meet the vision of this agenda.

We would also comment that the bi-annual Camden Design Awards, which *"....promote and recognise innovative, sustainable and high quality design in the local built environment..."* further underline this committment.

1.8 In the development of our proposals we have drawn reference from your General Design Principles - B1, in particular that new development should:
- "Resepct its site and setting"
- "Be sustainable, by promoting energy efficiency and efficient use of resources"
- " Seek to improve the attractiveness of an area and not harm its appearance or amenity."

We have also taken guidance from your likely assessment proceedures cited in the UDP and considered:
-" Building lines and plot size"
- "The existing pattern of routes and spaces"
- The height bulk and scale of neighbouring buildings"
- Existing natural features such as trees"
- The design of neighbouring buildings"
- The quality and appropriateness of detailing and materials used."
- The provision of visually interesting frontages at street level and impact on views and skylines."

UDP Policy B7 - Conservation Areas

We appreciate and understand that the Council will not grant Conservation Area Consent for *"...the total demolition of an unlisted proprerty that makes a positive contribution to the character or appearance of a conservation area, unless exceptional circumstances are shown that outweigh the case for retention."* While we would wholly agree that the difference in the typology from the streetfront is importnat to retain we would argue that, given the current dilapidation of the existing structure it does not, in its current state, make a positive contribution to the street or the Conservation Area. Further to this, we would also argue that the proposals are in acordance with Built Environment policy 3.70 in that the replacement building will *'...enhance the conservation area to an appreciably greater extent than the existing building."*

Residents Association

We have contacted Gayton Road Residents Association prior to lodging this application to seek their thoughts on the proposals at an outline stage. It is our intention to continue this dialogue in an effort to arrive at a proposal that will please our clients but also those who live in the immediate area.

2.0

Design

2.1

Introduction

Careful consideration has been given to the proposed new building and its Conservation Area context. We believe that the replacement building is not only a vast improvement on the existing but that it would enhance the character of the street and surrounding townscape.

2.2

Design Approach

Our design approach has been one that aims to integrate high quality contemporary design within a conservation area in a way that acknowledges the history of its location. To this end the form of original building has been reinterpreted in a contemporary manner, proposing a modern addition to the streetscape, and that contributes to the Conservation Area in a positive way. The new building, it is intended, will be elegant through its proportion and considered detailing, subtle through the architectural simplicity of its form and engaging through its interesting use of materials.

The proposal is for a 4 bedroom family dwelling. The building comprises of a 3 storey element to the north of the site in place of the existing cottage, with an adjoining 2 storey construction to the south, set back from the street, forming an L-shaped plan on the same footprint as the existing building shell. In addition it is propsoed that the building has a basement level with an open central courtyard, accessed from all low level rooms. It is intended that through the identification of two parts to the body of the building, a hierarchy is established which places emphasis on the pitched element, where an important relationship to the street is formed. (see elevation)

Photo of Gayton Road Elevation

Gayton Road Elevation

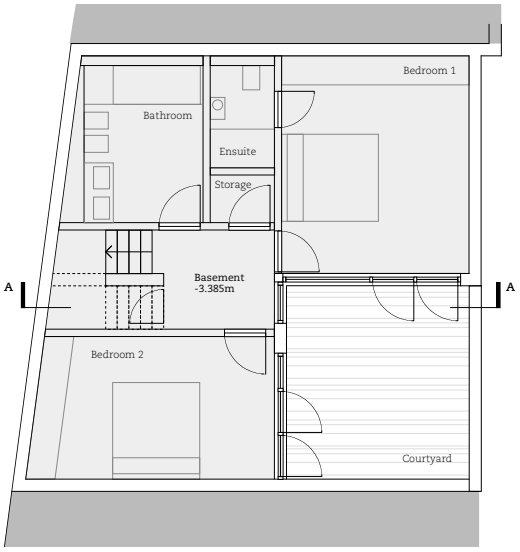
Layout

3.1 General Arrangement

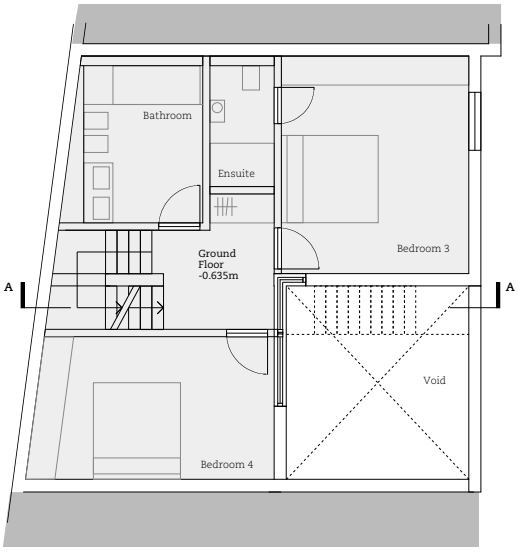
Over the 4 floors the plan arrangement has adopted a split in fuction between private spaces (bedrooms & bathrooms) and more communal spaces (kitchen, living and dining).

Four Bedrooms are located over the Basement and Ground floor levels. Two bedrooms at Basement level open into the open courtyard allowing direct access to outdoor space, and two bedrooms at ground floor level overlook the courtyard. The entrance to the house is located within the courtyard at a level raised from the street, with access through a door directly from Gayton Road. This opens onto a platform above the courtyard with stairs leading up to the main entrance at 1st floor level. Access in general is further discussed in the access statement.

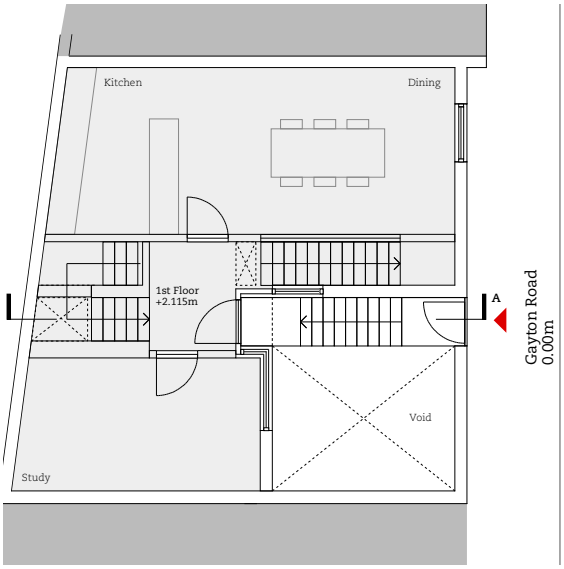
A large kitchen and dining room are positioned at 1st floor level, (entry level) within the north element of the building with windows facing onto Gayton Road. A study is located within the 2 storey south extension, with a view to the street across the open courtyard. A large living space is located at 2nd floor level where the pitched roof form is internally expressed, creating a high, light and airy space. The living area has access to external space through a recessed south facing 'loggia' on the 2nd floor facade. This loggia sits above a separate access stair to the 2nd floor living room allowing entry to the space along the length of the building.



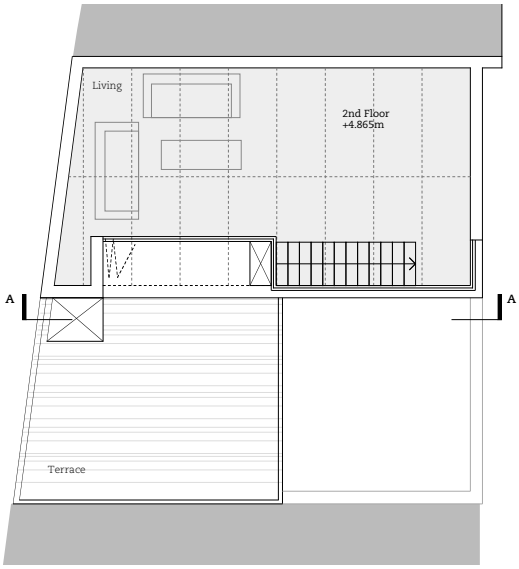
Basement - Bedrooms / Bathrooms



Ground Floor - Bedrooms / Bathrooms



1st Floor - Dining / Kitchen



2nd Floor - Living Room

4.0

Scale

4.1

Massing

The overall massing of the building has been considered as a three dimensional form rather than as a two dimensional street frontage. The gap in the streetscape between Vine Cottage and it's neighbour to the south is substantial enough to allow the building to be viewed from two sides on the approach to Gayton Road from Hampstead High Street. This has also informed the use of a single material to define the north element of the building. Conversely, these vantage points have been reflected internally where glazing to the Living space at 2nd floor level runs continuously along the south façade facing towards Hampstead High Street and around a corner to the east façade onto Gayton Road.

4.2

Visual Privacy & Outlook

The proposals acknowledge the need for visual privacy between adjoining properties along with the need to respect their outlook. The glazing to the east facing street frontage has been kept to a minimum so as to maintain visual privacy for the properties across Gayton Road. The plan suggests that all windows for the new building face into a private courtyard. The courtyard is screened to the south to increase privacy from the adjoining property. Consideration will also be given to a 'growing' screen for the roof terrace to protect if from overlooking by the neighbouring property to the south.

View from Hampstead High street

4.3

Street Frontage & Scale

Careful consideration has been given to the gap in the townscape, which is retained by keeping the south extension below 2 storeys. We appreciate the importance of a varied and interesting street frontage in this location, the gap between the neighbouring buildings helps to break the rhythm of adjoining façades. To this end the proposal retains the footprint of the existing building, with the south extension set back from the street. While we understand the value of maintaining the gap in typology and parapet, we would reiterate that the break in the street frontage is marred by the 6 storey concrete escape stair to the rear of a building on Hampstead High street (see photo below). In view of this we have suggested that a break in the street frontage is balanced with a positive move to try to mask the view of this concrete stair.

It is understood that the application submitted in 1999 was, in part, refused on the basis of inappropriate scale. We appreciate that the 1999 proposal may have been over-sized in relation to the historical context of the site and neighbouring building to the south. Our proposals have acknowledged this in terms of the overall height of the street façade by lowering the Ground floor below the level of the street in order to retain a 2 storey height at eaves level where the new building adjoins it's neighbour to the north.

Similarly, by considering this south extension of the building as under 2 storeys (due to the lowered ground floor level) a more comfortable relationship is also established between the new building and it's neighbour to the south.

Street view of Gayton Road showing 'gap' between building typologies

Street Facade drawing showing gap maintained and concrete escape stair

5.0

Appearance

5.1

Bellhouse by NORD Architecture

Form

The fomal approach has been to design the house as a contemporary reinterpretation of a traditional residential “pitched roof” dwelling. This is deliberately reminiscent of the existing structure as the proportional relationship between main building and lower ‘extension’ is retained. The award winning contemporary projects illustrated here, such as NORD Architectures’ “Bellhouse” project (left), have adopted this approach. In our view this makes their contextual relationships stronger while at the same time accentuating their inherently contemporary character, adding to visual interest. The bellhouse project also gives an indication of the type of interior space we intend for the 2nd floor living room with top light adding a spacious and airy quality.

Materials

With consideration given to this and the relationship of the building to the street frontage (and in relation to adjoining and neighbouring buildings), a decision was taken to use one continuous material to wrap the upper 2 storeys of the north element, including the roof. A stained timber cladding from a sustainable source, is proposed to define the upper storeys of the building, and is intended to visually complement the surrounding context. An example of this is illustrated below in Riach and Halls recent Stromness Arts Centre. Here the cut openings in the facade appear warm and welcoming against the darker cladding. This is a quality we are very keen on achieving in the building. The rest of the external surface of the building is intended to be recessive in relation to the timber element and will be of solid construction with finish yet to be specified. Both these projects we think are highly contextual yet highly original.

Pier Arts Centre Stromness Orkney, Riach and Hall Architects

6.0

Accessibility

6.1

Accessibility Statement

As a company we will always aim to improve access and facilities for end users, be they able bodied, visually impaired or require the use of wheelchairs for example.

In this instance the assessment of the sloping topography of the site determines that a ramp would be necessary to form a level entrance to the building. The footpath adjacent to the property is however, narrow and outwith the boundary of the site, making a ramped approach unfeasible. A stepped approach therefore is determined by the nature of the site.

Consideration of limiting the scale of the building in a conservation area resulted in a decision to lower the Ground Floor level below the level of the street to reduce the overall height. A stepped approach to the entrance at 1st floor level has been designed to provide ambulant disabled access.

Should it become necessary, the design allows for the possibility of a platform lift to be located at the entry point from the street, providing direct access down to the Basement courtyard, where a secondary entrance into the building could be located. The layout of the floor plans could then potentially accommodate a disabled lift platform, accessing all floors.

All internal stairs have been designed to be ambulant disabled and wide enough to take stair lifts if required.

WC's have been provided on all bedroom floors. We are aware that a WC may also be required on the entrance level (1st floor) and would be able to accommodate this if required.

7.0

Sustainability

7.1

General Statement

Block Architecture aim, wherever possible, to limit our impact on the environment and the resultant contribution to climate change. We have assessed this impact under a number of headings and keep under review agreed directives so as to meet and exceed best practice guidelines as Architects and also as owners of a small business.

Specification & Design

As is best practice in Architecture, the sustainability agenda is at the forefront of all design decisions. This includes material sourcing, where an understanding of embodied energy, location, recyclability and availability of other similar products all have to be assessed in the process of specifying a project. Similarly sustainability assessments are carried out on each project at various stages of design to ensure that the environmental impact of the proposal is always fully understood and mitigated. This includes the necessity for printing drawings. In a similar way, heating and cooling systems are also specified to have a minimal carbon footprint. We will consider Renewable Energy sources such as wood chip boilers, Ground Source Heat Pumps and Solar Thermal hot water and heating systems

It is intended that, as is integral to our design process, a sustainable approach will be adopted in the design of the building and selection of materials. At more detailed design stage, environmental assessments will be undertaken to measure the overall performance of the building against sustainable design principles.

In broader terms the following will be considered in relation to the proposals

Construction

Methods of construction to minimise disturbance to local amenity and residents are to be considered at an early design stage.Through incorporation of sustainable design principles the following objectives for the building are defined. To be exemplary in terms of sustainable design and promote Camden's commitment to achieving sustainable development. To achieve a rating of Very Good or Excellent using the Ecohomes Assessment.

Insulation

The intention is to provide a building envelope which is as airtight as possible, and optimally insulated. Better insulation than that required by the current Part L regulations will be installed.

Lighting

Large windows will provide high levels of daylighting, reducing lighting load and providing passive solar gain. Specification of Low e glass and high quality glazing units will help exceed the required U-value of 2.0. Reductions on the electrical loading will be considered through the installation of energy efficient lighting.

Ventilation

Provision of a healthy living environment with generous natural ventilation in the summer. Consideration of a strategy that utilises cross ventilation, both natural and forced, to provide plenty of fresh air.

Conservation of energy and resources

This will be considered through:
Energy efficient design. Proposals would also be considered for a reduction in water usage through spray taps and combination flushes.

3.0

Supporting Information

3.1

Aboricultural Report

During the development of our design, a report was commissioned to assess the likely impact of the proposal to excavate a basement on a tree situated on the public footpath.

It is our intention to retain the tree if at all possible in order to reduce the impact of the proposals on the existing street frontage. We have been advised that this tree is relatively hardy species and that careful pruning of the root bulb may be possible without irreparable damage to the tree. The report also assesses the removal of the tree and highlights a potential problem with the visible split in the structure of the trunk.

The tree report was carried out by Simon Pryce, an Aboriultural Association Registered Consultant, and is included in the following pages. During the production of the report 2 trial pits were dug in the ground floor of the existing cottage to assess the position and extent of root penetration into the site.

View of Ginkgo Biloba Tree on Gayton Road

Simon Pryce, Arboricultural Consultant

Report

Client:	**Mr B McKay**
Site:	**Vine Cottage, Gayton Road, London, NW3**
Instruction:	**Block Architecture, London, E2, on behalf of Mr McKay**
Subject:	**Tree growing in front of the building and the arboricultural implications of the proposed building work.**
Inspection date:	**22 August 2007**
Report date:	**1 September 2007**
Reference:	**07/136**
Author:	**Simon Pryce, B.Sc., F.Arbor.A, C.Biol, M.I.Biol, MICFor Arboricultural Association Registered Consultant**

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Arboricultural Association
REGISTERED CONSULTANT

1 Introduction

1.1 This report has been prepared on the instructions of Block Architecture, who are acting for Mr B.McKay, the owner of the site.

1.2 It is proposed to demolish the existing building, which is severely dilapidated and to build a new house on the site. There is a tree growing in the street in front and I have been asked to inspect it, assess its condition and amenity value and to advise on the arboricultural implications of the proposal.

1.3 I visited the site and inspected the tree on the morning of 22 August 2007. The weather was wet but that did not impede the inspection. It had been intended to investigate ground conditions at the same time, but in the event this was done on 24th. The results are appended and discussed below, with the other findings.

1.4 Left and right are used as if facing the building from the front, unless noted otherwise.

2 Site and surroundings

2.1 The house is about 30m from the junction with Hampstead High Street on the north west side of Gayton Road. Most houses in the road front directly onto the pavement, but there is a range of street trees, including middle aged limes and other substantial broadleaves and a few smaller ornamental species. There are also some large mature London planes in Hampstead High Street. The site is in the Hampstead Conservation Area.

2.2 Vine Cottage is a single storey house of unknown age, probably at least 100 years old. At some point a previous owner started to add a second storey, but this was abandoned before being completed and the building is now in a state of advanced dilapidation. It is at the right hand side of the plot and occupies about half of its width. Its front elevation and entrance face the former yard or garden to the left, as seen from the street, and the flank wall is next to the pavement with a single window and a small raised bed running the length of the wall.

2.3 There are a grape vine and several buddleias growing in the yard, but the only significant vegetation near the house is a ginkgo [maidenhair fern tree] growing in the pavement in front of the flank wall.

3 Proposal

3.1 This has not been finalised in detail, but it is intended to demolish the house and to build a replacement in more or less the same place. It is intended to have a basement, although the exact size and position of this depend to some degree on the findings of this investigation.

4 Site investigation

4.1 The main purpose of this was to establish what, if any root growth was present under the building. This was to have been carried out by CET Group on 22 August but accumulated debris inside the house prevented any access, so they returned and did the work on 24th.

4.2 A trial pit [TP1] was dug just inside the flank wall of the house to expose the base of the foundations, then a bore hole [BH1] was sunk to 5m from the base of the pit to assess ground conditions at depth. Following this a second bore hole, BH2, was sunk 2m back inside the building. As well as recording the observations soil and root samples were taken but have not been analysed or identified at this stage, as this is considered unlikely to yield any further relevant information.

TP/BH1

4.3 The results are attached but in summary TP/BH1 showed that the building has a brick foundation 1.1m deep measured from the concrete oversite inside the house. The material in the trial pit is made ground consisting of dark brown clayey, sandy, silty material with brick and pot fragments and some flint. This continues down to 1.5m before giving way to a stiff mid brown clay that becomes very stiff from 2.5m and continues to the base of the bore hole at 5m. It softens slightly between 3.3 and 3.8m where there is some sand and silt and water seepage.

4.4 Roots up to 13mm diameter were found in the trial pit and just below the base of the foundations and roots up to 9mm diameter were found down to 2m. No roots were recorded below that.

BH2

4.5 This was set back about 2m into the house and revealed similar made ground down to 1.7m, followed by stiff brown clay that became very stiff from 2.5m. The same band of silt and sand with water seepage was noted, though here it was at about 3m.

4.6 Roots up to 3mm diameter were found down to 0.8m and 2mm roots from there down to 2m, below which there were no roots.

5 The tree

5.1 This is a maidenhair fern tree or ginkgo [*Ginkgo biloba*] and is growing in the pavement about 1.8m from the flank wall of the house. It is about 11m high and has a single trunk 350mm in diameter. This leans towards the road and divides at about 2.5m into two main ascending limbs, which have a narrow fork at the junction and are in contact with each other for about the first 600mm above that. The first main branches start at about 5m and the crown is uneven in shape and asymmetrical, with a radial spread of about 2m towards the building, increasing to about 5m over the road.

5.2 The foliage is dense and healthy looking and there is no appreciable dead wood in the crown. Some small lower branches have been removed in the past but there are no signs of any reduction or other major work.

6 Appraisal and discussion

Condition and amenity value of the tree

6.1 The tree is relatively young, probably 20 - 30 years old, and in reasonable health physiologically. Narrow forks are often a structural weakness and susceptible to splitting, especially if the bark becomes ingrown, preventing a lateral connection from forming between the main limbs. The lower part of the fork in this tree is fairly strong at present, but the two stems are in contact with each other for some distance above that. Therefore as it grows and increases in diameter the bark will become increasingly ingrown and the likelihood of splitting will increase. This can be addressed by pruning to reduce the weight and wind resistance of the crown or by installing braces between the limbs, but neither is an ideal solution. If left to mature the tree will need regular inspection and increasingly intensive management. This could have been prevented by removing one of the stems when the tree was much smaller, but at this stage that would leave a large wound.

6.2 The tree provides some greenery in an urban environment, but the asymmetrical and uneven crown detracts from its appearance. There are a number of other, better specimens in the street nearby and some much larger planes in the High Street, so its individual contribution to local amenity is modest.

Effects of work on the tree

6.3 British Standard 5837: 2005, Tree in Relation to Construction – Recommendations, specifies measures to avoid or minimise damage to trees that are retained on or near construction sites. One of the more important recommendations is that root protection areas [RPAs] are established round retained trees and that no ground work takes place within these areas. The size of the RPA is based on the size of the tree concerned. The starting point is that for a single trunked tree it is a circle with a radius 12 times the trunk diameter, but its shape and layout can be modified, if this is deemed appropriate by a suitably qualified arboriculturalist. With this tree a circular RPA would be 4.2m in radius.

6.4 In most street trees the root system is highly irregular in shape as the carriageway normally has a hard compacted sub base in which, few, if any roots will be found. The foundations of buildings and other structures can also act as barriers to root growth, so in many street trees the majority of main roots are under the pavement, or in front gardens if these are present. This can mean that in some cases there are no roots in parts of the RPA, so ground work or building there would not harm the tree.

6.5 In this case the roots found in the site investigation are extremely unlikely to have come from anything other than the ginkgo in the street. The trial pit did not sample the entire area behind the wall but does show that some roots have grown under the foundation, albeit fewer than would have been present in completely open ground with no foundation to act as a partial barrier. Those that grew beyond the foundation have grown upwards into the made ground immediately under the house floor, probably because growing conditions, in particular the air and water supply, are better there than in the underlying clay.

6.6 The new foundation will inevitably have to extend through the made ground into the clay, cutting off most or all of the roots under the existing building. The largest ones found were 13mm diameter, which is not particularly large, given the size of the tree. Ginkgos are one of the more resilient species in urban conditions, but the loss of much of the root system behind the wall could impair the tree's vitality and its stability, given its lean away from the building. If retained after that some crown reduction would be advisable, in order to lessen any risk of failure, and it would need regular reinspection.

6.7 The second bore hole was set back from the first at about the edge of the RPA. Relatively few roots were present and they were small, so excavation for foundations and a basement at that distance from the tree is highly unlikely to cause any problems over and above what would be caused by work near the site boundary.

Effect of the tree on the building

6.8 Tree roots grow with little force, but can damage buildings and other heavy structures indirectly if the sub soil is a clay that shrinks as it is dried by the roots extracting water and the foundations do not extend below the zone affected. Soil samples were not analysed but it is a clay and from local experience this is London clay, which typically has a high potential for shrinkage and swelling with changes in moisture content. Camden's Building Control department will require this to be taken into account, so the new foundations will need to be designed to take into account any likely effects of the tree. In such cases they are normally built in accordance with NHBC Standards Chapter 4.2, which specifies depths on the basis of relevant factors, including the type of soil, the species of tree, its proximity to the building and likely mature size. The Standard does not list ginkgo, but the nearest match is the moderate water demanding conifers. Ginkgos can attain a height of about 20m in urban conditions and on that basis the new house would need a foundation 2.2m deep if the tree were retained. This could be achieved by piling, but a beam spanning the piles would be needed; these are typically 500mm or more deep and keeping it above ground would raise the rest of the building by that amount. Significant excavation on the boundary is therefore inevitable. It would also be necessary to remove most or all of the existing foundation in order to sink piles, causing almost as much damage as a conventional deep strip foundation. In view of this it would probably make little overall difference to have a basement extending to the front of the building.

Summary

6.9 If the tree is retained the new house is going to need a foundation at least 2.2m deep, which will involve a considerable amount of root disturbance, even using piles. It would probably make little difference if the design included a basement. The tree would probably survive that, but some pruning would be needed, followed by regular reinspection. An alternative would be to remove the tree, following which the house could be demolished and rebuilt without taking any particular precautions. This would have some visual impact in the immediate vicinity, but it would be mitigated significantly by the other trees and could be compensated for by planting a replacement once building is complete. New trees adapt to ground conditions as they grow, so a suitable replacement could establish and develop satisfactorily. In the longer term the character of the Conservation Area would not be drastically or irrevocably affected. Detailed consideration of the building is beyond the scope of this report, but almost anything replacing it would improve local amenity.

cont...

7 Conclusions

7.1 The tree is in reasonable health but the narrow fork is a structural defect that will become increasingly significant as it grows. It makes some contribution to local amenity but this is modest.

7.2 Some roots have grown under the building and would be cut by the demolition and new construction. The tree would probably survive this, but some pruning would be advisable, followed by regular inspection.

7.3 Any new building would be required to have foundations at least 2.2m deep. Building these, even with piles, would cause a considerable amount of disturbance and having a basement would probably make little difference.

7.4 An alternative would be to remove the tree and to plant a replacement after work is complete. Trees adapt to ground conditions as they grow, so this would avoid the problems associated with trying to retain and work round the existing one. The new foundations would need to be designed accordingly, but that is a straightforward matter.

7.5 There would be some loss of amenity, but this would be mitigated by the other trees and, combined with the replacement of the badly dilapidated building, there would be a significant long term improvement to the character of the area.

Simon Pryce B.Sc, F.Arbor.A, C.Biol, M.I.Biol, MICFor
Arboricultural Association Registered Consultant

Investigation Layout Plan

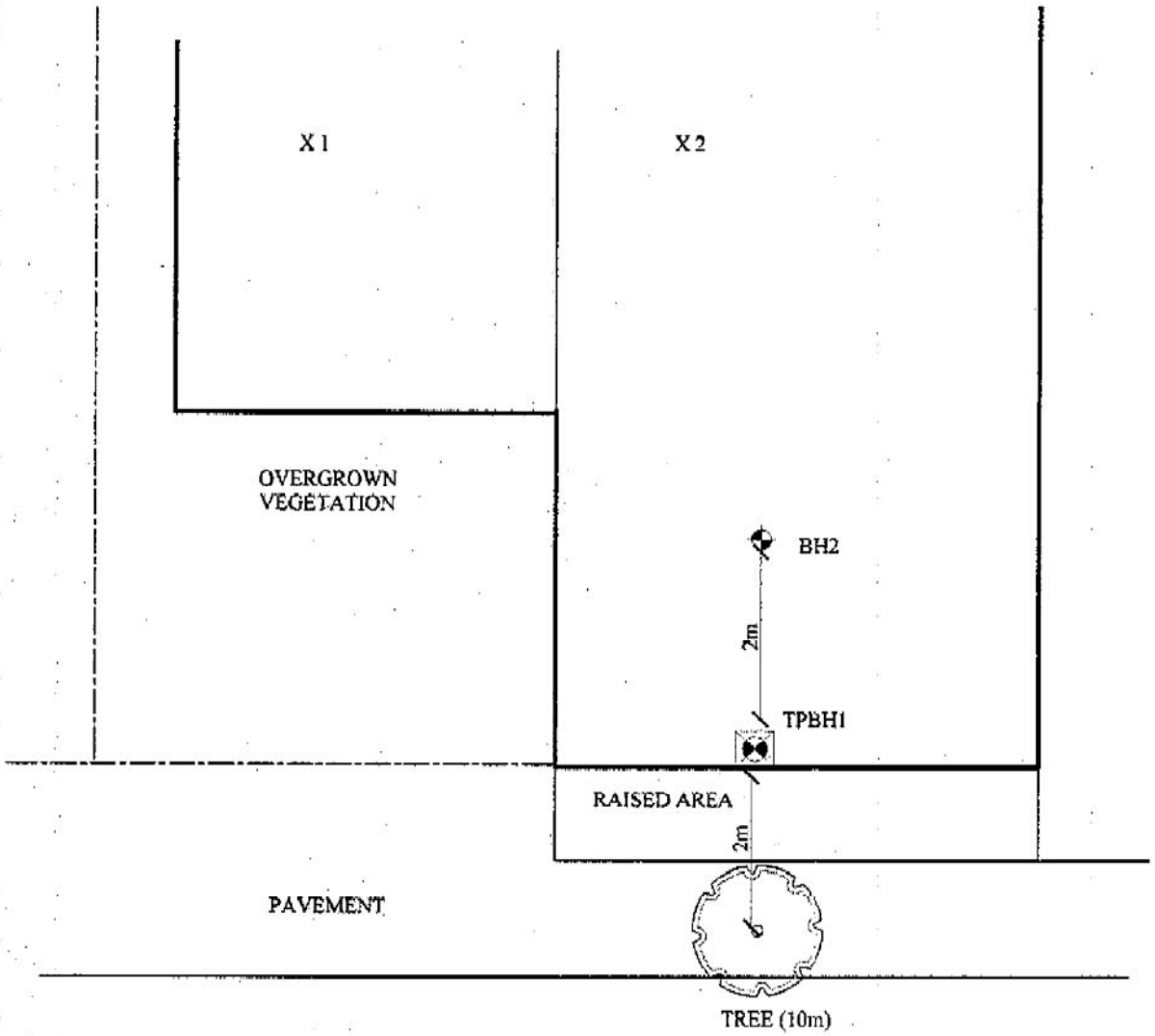
Sheet: 1 of 1
Job No: 48368
Date: 22.8.07

Site: Fine Cottage, Gayton Road, NW3

Work carried out for: Mr McKay

JMC (Sl) SE (Checked) KEL (Drawn)

Weather: Rain



ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks:

ENGINEER ON SITE

Scale: N.T.S.

Key:

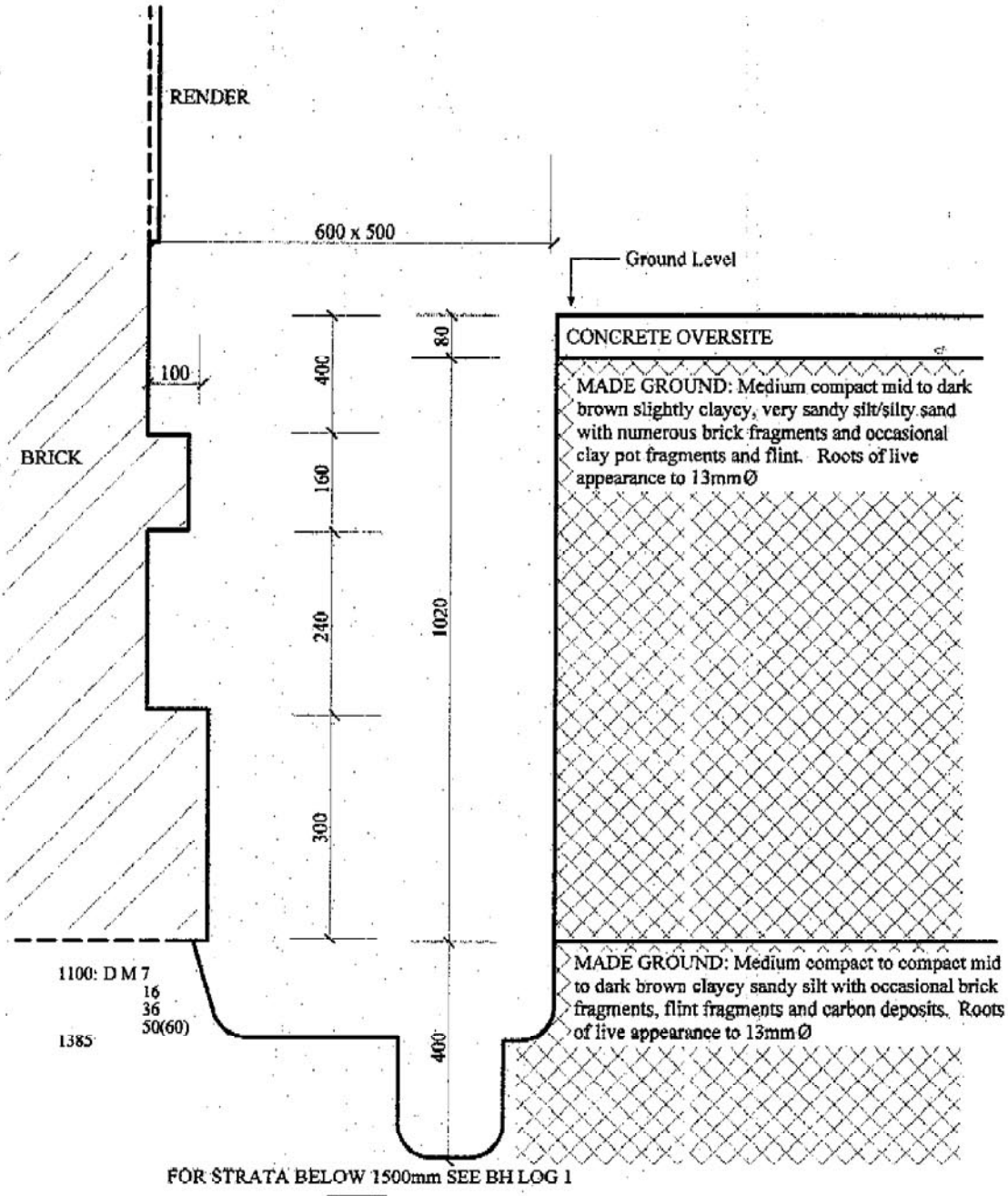
Combined Gulley	RWWG	Surface Water Drain	
Manhole	MH	Foul Water Drain	
Rain Water Pipe	RWP	Tree / Bush (approx. ht in m)	
Rain Water Gulley	RWG	Trial Pit	
Soil Vent Pipe	SVP	Borehole	
Waste Gulley	WG		
Waste Pipe	WP		

Trial Pit No: 1

Sheet: 1 of 1
Job No: 48368
Date: 24.8.07

Site: Fine Cottage, Gayton Road, NW3
Work carried out for: Mr McKay

Excavation Method: Hand Tools
Weather: Rain
Drawn by: KEL
Ground Level mOD:



Remarks: All measurements in millimetres.

Key:
D Small disturbed sample
B Bulk disturbed sample
W Water sample
TDTD Too dense to drive
J Jar sample
V Pilcon Vane (kPa)
M Mackintosh probe

Logged: JMC | Checked: SE | Approved: | Scale: N.T.S.

Borehole No: 1

Sheet: 1 of 1
Job No: 48368
Date: 24.8.07

Site: Fine Cottage, Gayton Road NW3
Work Carried out for: Mr McKay

Boring Method: Hand Auger
Diameter: 70mm Coordinates:
Ground Level mOD:

Depth (m)	Description of Strata	Thickness (m)	Legend	Sample	Test Type	Test Result	Depth (m)	Field Records/Comments	Depth to water (m)
	As Trial Pit 1	1.50							
1.50	Very stiff mid brown very silty CLAY with partings of orange silt and fine sand, occasional carbon flecks.	0.20		D	V	140+ 140+	1.50	9mm dia Roots of live appearance to 2m	
1.70	Stiff mid brown/mottled orange grey veined slightly sandy very silty CLAY thinly laminated with orange silt and fine sand.	0.80		D	M	45 50 40 43	2.00	No roots observed below 2m	
2.50	Very stiff mid brown/orange grey veined very silty CLAY with occasional crystals thinly laminated with orange silt and fine sand.	0.80		D	V	140+ 140+	2.50		
3.30	Very stiff/medium dense to dense moist mid brown/orange laminated CLAY,SILT and fine SAND.	0.50		D	V	140+ 140+	3.00		
3.80	Very stiff mid brown/orange grey veined very silty CLAY thickly laminated with orange/reddish brown silt and fine sand.	1.20		D	M	50(60) 50(30) TDTD	3.50	Slight water seepage at 3.5m	
				D	V	140+ 140+	4.00		
				D	V	140+ 140+	4.50		
5.00	Borehole Ends at 5m			D	V	140+ 140+	5.00		

Remarks:
Borehole moist and collapsing to 4.8m on completion.

Key: T.D.T.D. Too Dense to Drive
D Small disturbed sample
B Bulk disturbed sample
W Water sample
J Jar sample
V Pilcon Vane (kPa)
M Mackintosh Probe

Logged: JMC Checked: SE Approved:
Scale: NTS
Weather:

Borehole No: 2	Sheet: 1 of 2	Site: Fine Cottage, Gayton Road
Boring Method: Hand Auger	Job No: 48368	NW3
Diameter: 70mm Coordinates:	Date: 24.8.07	Work Carried out for: Mr McKay
	Ground Level mOD:	

Depth (m)	Description of Strata	Thickness (m)	Legend	Sample	Test Type	Test Result	Depth (m)	Field Records/Comments	Depth to water (m)
G/L	Concrete oversite	0.08							
0.08	MADE GROUND: Medium compact clayey very sandy silt/silty sand with numerous brick fragments and occasional clay pot fragments, medium flints and carbon deposits.	0.72		D	M	12 12 13 11	0.50	3mm dia roots of live appearance to 0.8m	
0.80	MADE GROUND: Medium compact dark brown very silty clay with numerous brick fragments, fine gravel, occasional chalk nodules and carbon flecks.	0.60		D	M	15 13 16 15	1.00		
1.40	MADE GROUND: Medium compact mid brown/orange very silty clay with partings of orange and brown silt and fine sand occasional brick fragments and carbon deposits.	0.30		D	M	15 18 20 30	1.50		
1.70	Stiff becoming very stiff mid brown/ mottled orange grey veined very silty CLAY thickly laminated with orange silt and fine sand.	0.80		D	V	130 140+	2.00	2mm dia roots of live appearnce to 2m No roots observed below 2m	
2.50	Very stiff light brown/mottled orange grey veined very silty CLAY thinly laminated with orange and brown silt and fine sand.	0.30		D	V	140+ 140+	2.50		
2.80	Very stiff/medium dense to dense moist mid brown/orange laminated CLAY, SILT and fine SAND.	1.00		D	M	50(50) 50(50)	3.00	Water seepage at 3m	
3.80	Very stiff mid brown/orange grey veined very silty CLAY thickly laminated with orange/brown silt and fine sand.			D	M	50(60) 50 50 50(50)	3.50		

Remarks:

Key: T.D.T.D. Too Dense to Drive
D Small disturbed sample J Jar sample
B Bulk disturbed sample V Pilcon Vane (kPa)
W Water sample M Mackintosh Probe

Logged: JMC	Checked: SE	Approved:	Scale: NTS	Weather:

Borehole No: 2		Sheet: 2 of 2								
		Job No: 48368	Site: Fine Cottage, Gayton Road							
Boring Method: Hand Auger		Date: 24.8.07	NW3							
Diameter: 70mm	Coordinates:	Ground Level mOD:	Work Carried out for: Mr McKay							

Depth (m)	Description of Strata	Thick-ness (m)	Legend	Sample	Test Type	Test Result	Depth (m)	Field Records/Comments	Depth to water (m)
		1.20		D	V	140+ 140+	4.00		
				D	V	140+ 140+	4.50		
5.00	Borehole Ends at 5m			D	V	140+ 140+	5.00		

Remarks:
Small sample taken at 5m due to water suction in BH
Borehole moist and collapsing to 4.8m on completion.

Key: T.D.T.D. Too Dense to Drive
D Small disturbed sample J Jar sample
B Bulk disturbed sample V Pilcon Vane (kPa)
W Water sample M Mackintosh Probe

Logged: JMC Checked: SF Approved: Scale: NTS Weather: