

"Veil House" London April 2011

- Supplementary Design and Access Report
- Rochester Road/6 Wilmot Place

### Introduction:

This Supplementary planning document forms part of the full planning and conservation area application for a proposed new single family dwelling on Rochester road.

It aims to demonstrate the case for the following:

1. The demolition of the existing garages.

2. The design of a new, contemporary and sustainable family home which will enhance the street and conservation area as a whole.

The report contains the following sections:

- 1. The Conservation Area and history.
- 2. Existing site plan and aerial photograph.
- 3. Photographic study of the existing garages and site.
- 4. The case for the demolition of the existing garages.
- 5. Local precedent.
- 6. Information from pre-planning consultations with the Camden planning team.
- 7. Previously approved planning application.
- 8. Design statement and appraisal of the Local Development Framework.
- 9. Visuals/artists impressions of the dwelling in context with existing street view.
- 10. Lifetime homes statement.
- 11 Sustainability strategy.

#### **The Rochester Road Conservation Area:**

NB: This text is taken from the Camden Conservation Area Statement 36.

Rochester Conservation Area was designated by the London Borough of Camden on 12 December 2001.

1. Character and Appearance of the area:

"Through out the Conservation Area the contribution of the streetscape is significant and a feeling of elegance is captured through the Architecture, the open expanse of Rochester Terrace Gardens, the relatively low height of buildings and the gaps between buildings giving glimpses to the rear back gardens. In nearly every view, large mature trees have a presence."

"Rochester Terrace Gardens are sandwiched between Rochester Road and Rochester Terrace, forming an enclave of open space and a green lung in the dense urban environment of Kentish Town. The gardens have been refenced with iron railings painted black.

The gardens are intrinsic to the Conservation Area, providing an interesting focus and communal area for residents, whilst softening the surrounding urban environment. Wilmot Place closes Rochetser Terace Gardens to the South East and has been laid out in a North/South West direction, stretching from Rochester Road in the North to St Pancras Way in the South. Rochester Place lies to the south West of Rochester Terrace in the form of a mews."

#### 2. Main Building types:

"Rochester Road, Rochester Terrace, Rochester Place and Wilmot Place were laid out in the 1840's. The 1841 census shows that the earliest house building began in Wilmot Place in 1846, followed by the development of housing in Rochester Road in 1848, and then in Rochester Terrace in the 1850's. The three streets comprise a mixture of two or three storey semi-detached villas, or terraces. Some have half basements and elevated ground floors. This Architectural style, which began duirng the Regency (1811-50) period. lasted until the middle of the 19th century, evolving from the late Georgian period."

"The scale and symmetry of buildings within the Conservation Area is relatively uniform and there is continuity in rooflines, building lines and in the formal fenestration contained within each block. While there is fluidity in the overall design and style of buildings, there are slight variations between villas in terms of individual Architectural features, some of which are now lost. All of the villas are set back from the road and have small front gardens, usually enclosed by low brick walls, surmounted by black iron railings and punctuated by solid brick piers."

"Virtually all of the houses have painted white stuccoed ground floors with incised lines intended to simulate stone blocks, while the upper level has been constructed in yellow London stock brick. Windows are emphasised with stucco pediments or surrounds on ground and upper levels, and are typically timber sash painted white with two horixontal and two vertical glazing bars on each window. The original Regency and early Victorian front doors, were unadorned and simple, typically varying from four panelled doors with upper glazed vertical panels and rectangular fanlights in some properties, to the sompler two and four panelled timber doors with rectangular fanlight above. Entrances were given prominence and much attention. Recessed el; evated font porches and porticoes with Roman Doric columns adorned in white stucco, emphasise and frame the front doors and add harmony and graceful continuity to the Conservation Area."

3. Rochester Road:

"Nos. 48-55 is a terrace lining the South Western end of Rochester Road. Nos. 21, 22 and 23 Rochester Terrace form part of this terraced development, which has half basements. The upper level is constructed in yellow stock brick and the ground floors have painted white rusticated stucco. The terrace is set back from the road behind low stuccoed walls with surmounted iron railings, some of which are original, while hedges and raised stuccoed walls have replaced the original iron railings, in other properties. The small front gardens contain shrubs, hedges and trees."

"Further East towards Nos. 56-59, the lock-up garages detract from the setting of the villa style properties and from the general character of the Conservation Area. The traditional lamp columns, in Victorian style, with modern luminaires make a significant contribution to the Conservation Areas overall historic townscape guality and distinctive appearance."

"At the Western end of the road Nos. 45-36 were originally built in three blocks of four and are three storeys each in height. Their grand appearance was reinforced through the deliberate design of grouping them to resemble one large villa. Nos. 45&44 form one block, Nos. 43,42,41&40 form the second block and Nos. 39, 38, 37 & 36 form the third block. Entrance wings located on either side of each block link the large terraces. These blocks were constructed in yellow stock brick and were decorated with stucco plasterwork at ground floor level, which had the finished appearance of stonework. However, virtually all of upper level brick work on the front elevation, in all of the properties, has been rendered and painted white, cream or in a pastel shade. The exception is No.45. On upper floors each property contains two large windows with large central glazing panes and narrow margin lights placed at either side. To the detriment of the Conservation Area many of the properties within this group have incurred piecemeal alterations and unsympathetic painting over the years and have as a consequence lost many of their original charactersitics. The original low brick walls with surmounted iron railings defining the front boundary of the property have largely been replaced or altered and this has detracted from the setting of these buildings."

"No.s 34 and 35 were built as one block containing three properties, three storeys, an elevated ground floor and half basements. This block is similar in scale and style to Nos. 39-36 and is connected to the East elevation of No.36 by an entrance wing. No.s 23-32 from five blocks, which are grouped in pairs. The buildings consist of two storey semi-detached villas with half basements and elevated ground floors. The buildings are uniform in character and principal elevations are flat with pairs of sash windows defining the upper floor level."

"Nos. 17-22 is a post war development of three storey flats constructed in brick with a horizontal emphasis and overhanging eaves to the pitched roof. The building is in scale with its surroundings and is considered a neutral element."

"No.s 11-13 is a three storey terrace constructed between 1846-1856. The terrace has half basements and elevated ground floors leading to porticoes. During the Georgian period, terraces had their own hierarchy with the centre or mid terrace the most desirable, followed by the end blocks."

### **The Rochester Road Conservation Area:**

#### 4. Rochester Place:

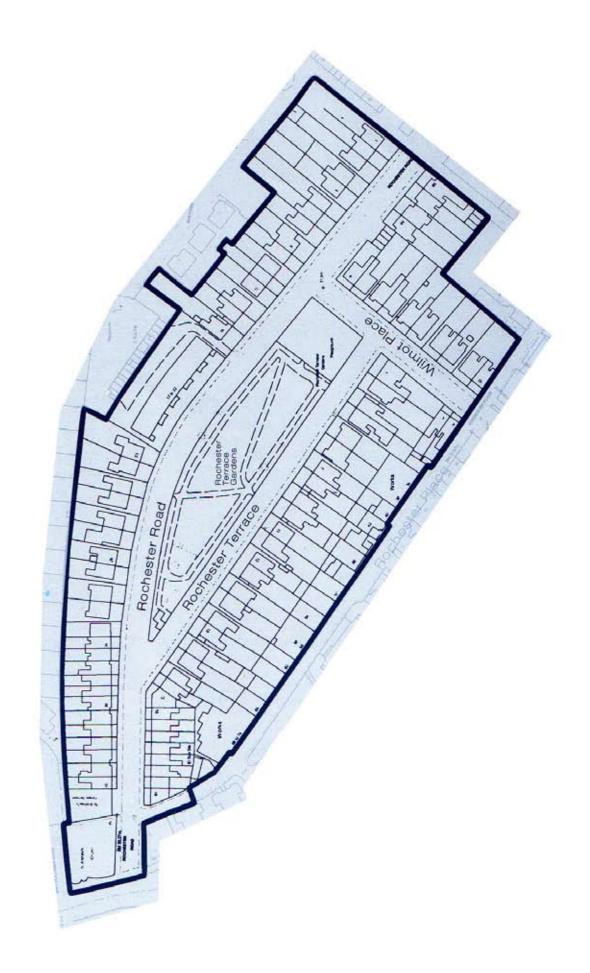
"The street opens in a gentle curve off Rochester Road and lies South of Rochester Terrace rear gardens. Rochester Place is characterised by low mews type buildings, originally built from the 1870's to serve the properties in Rochester Terrace. The street provides an interesting contrast to the wide roads and villa style properties that dominate the Conservation Area."

#### 5. Wilmot Place:

"Facing Rochester Terrace Gardens at its Northern end this street has a group of distinctive propoerties seen across the park. Nos. 4-5 & 6-15 form the earliest development in the Conservation Area which began in Wilmot Place in 1846. No.s 6-15 are five pairs of semi-detached houses with pediments over central bays. No.s 6 & 7 have a pair of tripartite windows with hooded cornices and console supports on a central projecting facade. The ground floor has a rusticated stuccoed effect and recessed front entrance. Nos. 8-11 have a slightly recessed central facade and projecting side entrances. Nos. 12-15 have a flush facade, recessed front entrance and central tripartite windows on three levels. Nos. 4-5 situated to the West of Wilmot Place are more modest properties built during the same period and have one central bay on each level with pediments and decorative iron detail on first floor level. The ground floor also has a rusticated stuccoed effect and a small recessed front entrance to the side of the central bays. The building is set behind low stuccoed walls surmounted by black iron railings and punctuated by tall stuccoed gate piers. The small front gardens in all of the properties contain a variety of shrubs and plants."

6. Buildings or features which detract from the character of the area:

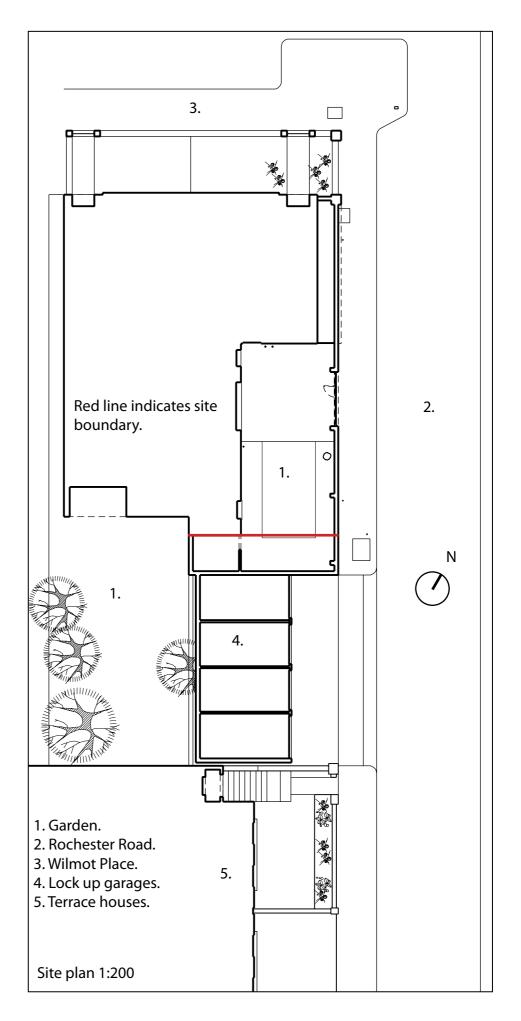
"Rochester Road: The lock up garages between Nos. 56 Rochester Road and No.6 Wilmot Place detract from the setting of the surrounding buildings."



# Site plan and Photograph:



Aerial photograph.



# Photographic study of the existing site:



Street view.



Street view.



Street view.



Street view.

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# Photographic study of the existing site:



Street view.



Street view.



Street view.



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# Photographic study of the local context:



Street view, Rochester Gardens.



Street view, Wilmot Place and Rochester Road.



Street view, Rochester Road.



Street view, Rochester Road.

# The case for the demolition of the existing garages:

The new proposals for Rochester Road include the demolition of the existing lock up garages and we understand that this will involve demolition in a Conservation Area, and shall refer to Camdens CDP (Camden Development Policy) which offers guidance regarding this. The new proposal will need to enhance the local context and compliment the Rochester Conversation Area.

Reasons for demolition:

1. The garages are of low Architectural value and not of significant importance.

The existing garages are single storey simple red brick buildings with a flat bitumen roof. The doors are black painted up and over garage doors. The garages are 4 in number. Over time the garage doors have been used for graffiti which detracts from the conservation area.

2. The garages are not of the same typology as the remainder of the street, which are dwellings.

The existing garages are an in fill type of building between the terrace houses along Wilmot Place and Rochester Road. They offer an interesting site which forms a transition place between the two terraces but also addresses Rochester Road with its elevation.

3. The garages are listed in the local Conservation Area statement as being of poor quality.

"Further East towards Nos. 56-59, the lock-up garages detract from the setting of the villa style properties and from the general character of the Conservation Area."



Simple red bricked garages.



Low quality brick garages.

# Local precedent of modern buildings:

Camden has an eclectic mix of residential architectural styles. Materials range from rendered surfaces to steel. Quite often in fill sites have been used to provide space for new residential projects.

There are a few examples of modern insertions below:



Modern residential insertion close to **Rochester Place.** 



Modern residential insertion close to **Rochester Place.** 



Modern residential insertion close to **Rochester Place.** 

#### Pre - planning consultation meeting:

During the design and pre - planning stage of the scheme we undertook a consultation with the Duty Planner at Camden Development Control as we were aware of our location within the Rochester road conservation area. The following points are a summary of our discussions with Anette de Klerk on the 5th of July 2010. We presented a scheme with one storey at ground level with a similar height to that of the existing garages and with one storey below ground:

1. We were advised that we should review the latest LDF and demonstrate how we meet the requirements of the LDF for a house with a lower ground floor and light well.

We have enclosed our response to the review of the LDF.

2. The light well at the front of the house should be adequate as amenity space for a two bedroom house.

The amenity space has been increased with an out door area as well as the light well.

3. The use of a sedum, green roof was encouraged.

We are proposing to use a Green roof.

4. We should demonstrate that what is proposed is not obtrusive compared to the existing garages. We should demonstrate that the proposal is not worse than what is existing.

Please see design statement.

- 5. There will not be an allowance for off street parking on the site.
- We have not allowed for off street parking apart from cycles.
- 6. We should document similar developments in the area.

Please see attached.

8. We should check the use of painted metal railings along the front elevation with the Conservation officer. We should illustrate a part solid and part railings approach.

We have included the above with the application.

9. It would be acceptable to have a bicycle storage.

Included.

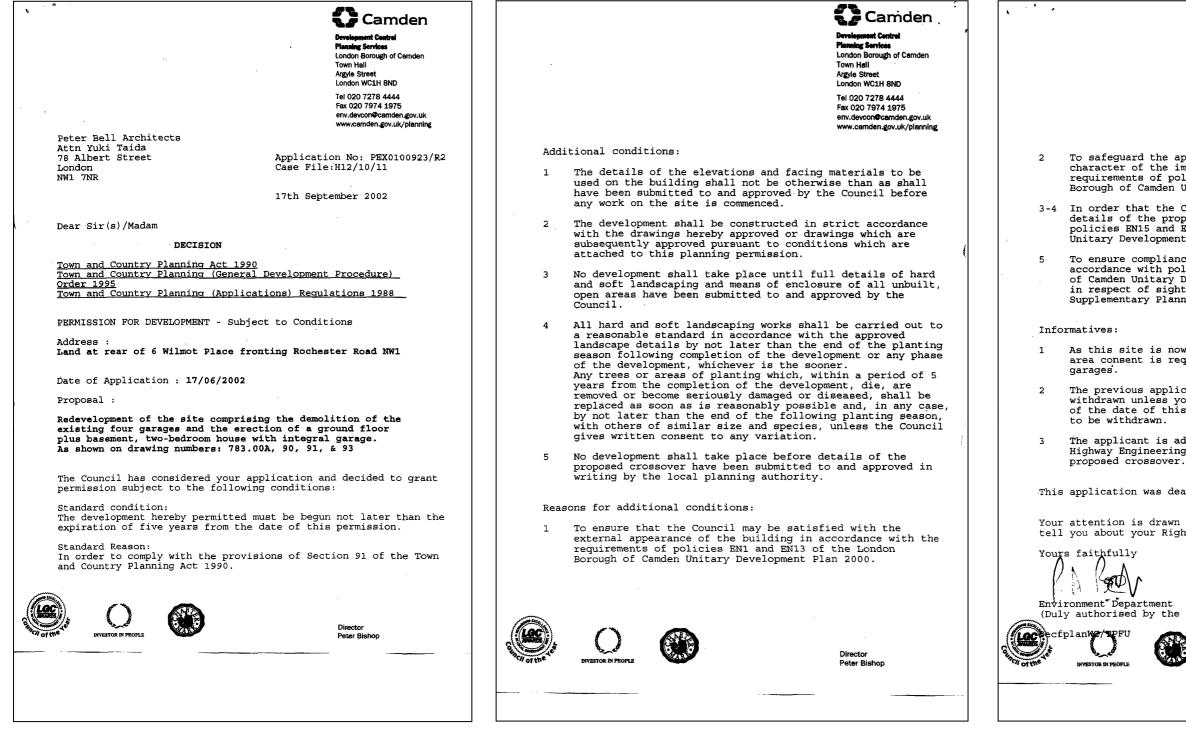
10. We should demonstrate an acceptable waste and recycling strategy.

Please see attached design statement.



### Precedent with previously approved application:

A similar scheme for the site comprising the demolition of the existing garages and the erection of a ground floor plus basement, two bedroom house was approved in September 2002.





at Centre London Borough of Camder Town Hall Argyle Street London WC1H 8ND Tel 020 7278 4444 Fax 020 7974 1975 env.devcon@camden.gov.uk www.camden.gov.uk/planning

To safeguard the appearance of the premises and the character of the immediate area in accordance with the requirements of policies EN1, EN14, EN31 of the London Borough of Camden Unitary Development Plan 2000.

3-4 In order that the Council may give consideration to the details of the proposed development in accordance with policies EN15 and EN31 of the London Borough of Camden Unitary Development Plan 2000 as amended..

To ensure compliance with local and national standards in accordance with policies TR21 and DS8 of the London Borough of Camden Unitary Development Plan 2000 as well as guidance in respect of sightlines contained in the Council's Supplementary Planning Guidance.

As this site is now in a conservation area, conservation area consent is required for demolition of the existing

The previous application for this site (PEX0100532) will be withdrawn unless you inform the Council within three weeks of the date of this decision notice that you do not wish it

The applicant is advised to contact Stephen Hands of the Highway Engineering Team (Tel 7974 6956) in respect of the

This application was dealt with by Jenny Reid on 020 7974 5809.

Your attention is drawn to the notes attached to this notice which tell you about your Rights of Appeal and other information.

Environment Department (Duly authorised by the Council to sign this document)



Peter Bishop

## **Design Statement:**

The following statement relates to Local development framework. DP-22, DP-24, DP-25, DP-26, DP-27,

DP-28, DP-29.

1. Use:

The application site is currently called land to the rear of 6 Wilmot place, facing Rochester Road and forms part of the Rochester Conservation Area.

The proposal is to demolish the existing garages and a portion of the garden wall and out building and to replace with a new sustainable contemporary private dwelling and hard landscaping which will enhance and conserve the Conservation Area.

2. Amount:

The proposed dwelling is a single aspect two storey dwelling with the lower floor sunken into the site.

Gross internal areas:

Lower ground: 52 sgm. Ground: 58 sqm.

Total: 110 sqm.

3. Layout:

The design is for a semi detached dwelling that encompasses the essence of an inner city home with both private guiet spaces and more public open spaces. The use of lightly rendered materials and full height glazing to the lower ground floor bedrooms will allow the courtyard space to feel as part of the house.

The house is split vertically with the lower ground floor accommodating the private sleeping areas, bathroom and storage. This floor is of a single aspect nature with access onto the sunken courtyard, which in addition offers privacy for the two bedrooms. The lower ground floor is also sunken to lower the overall height and profile of the house and to maximise thermal mass.

The ground floor is designed around a more public open plan living, dining and eating space with a single aspect glazed and brick screened North facing elevation. The circulation, entrance, W.C. elements are all on the right hand side of the plan entered via an enclosed private courtyard which contains a seat and bin/recycling storage.

The roof accommodates a green sedum roof.

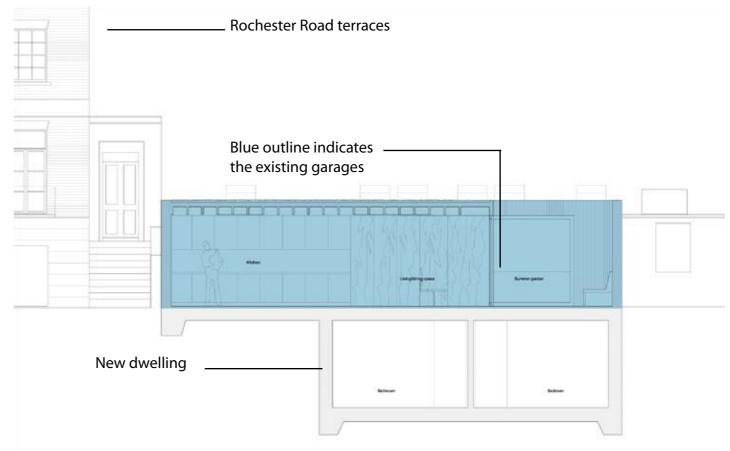
The proposed design sits between 3 storey terraced houses along Rochester Road and a 3 storey house and garden at 6 Wilmot Place. The new dwelling sits far enough away from the adjacent house at 6 Wilmot Place to avoid any negative impact upon their amenity space, light or views. The new dwelling also sits in the same foot print as the existing garages and of a similar height so there will not be any change to the quality of light, amenity space or views for the adjacent terrace houses along Rochester Road as a result of the new dwelling.

4. Scale:

The scale of the design is in keeping with the scale of the surrounding context. Indeed the height and massing, scale of the new dwelling is similar to that of the existing garages. As a result the proposal will be lower than the surrounding houses. The dwelling at its highest point is in line with the existing top of the garage parapet and garden, boundary walls.

The attached visuals and existing photograph demonstrate that the proposal retains the same height and overall mass as the existing garages.

The section diagram below illustrates the dwelling and its relation to the context and existing garage.

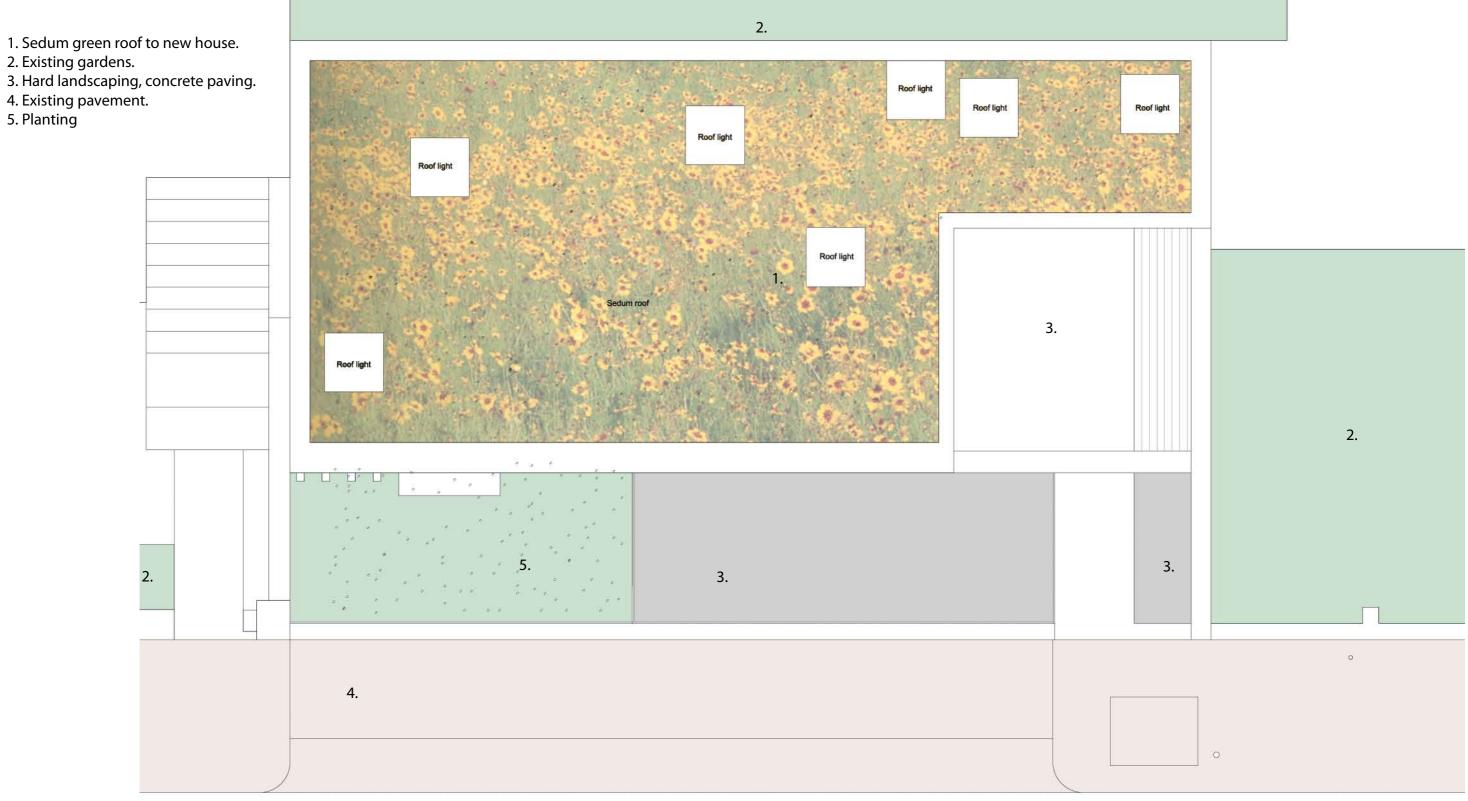


Section study 1:100 @ A3

## **Design Statement:**

5. Landscaping and amenity:

The landscaping for the dwelling involves a lower ground floor courtyard with hard landscaping and a raised planter. The roof will have a green sedum roof to assist with water attenuation and to enhance and conserve the Conservation Area. In addition to the dwellings courtyard amenity space, further amenity space is available at Rochester Gardens a short walk away.



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## **Design Statement:**

6. Appearance and materials:

The proposed dwelling is designed using contextual materials where possible. The surrounding buildings in the Rochester Conservation Area are a mixture of London stock brick and white render with slate roofing.

The approach and strategy for the materiality of the house is as follows:

Walls:

To enhance and compliment the Conservation Area, the pallette of materials for the walls reflects the local context, with the ground floor being brick and the lower ground floor render.

The lower ground floor courtyard walls will be clad with white external textured render. which will reflect natural light into the lower ground floor bedrooms.

The ground floor will be clad with a mixture of white render, black timber screens and London stock brick. The white render will be on the East, West and South elevations. The North facing facade will be a brick "veil" with glazing behind constructed of London stock bricks in a "hit and miss" bond. The brick veil allows for areas of openness within the hit and miss patterning and bond of the wall, thus creating a play of solid and void across the facade. The solid areas of brick have protruding courses which mirror the open areas of the veil. This veil will provide privacy to the open plan living spaces along a busy street as well as an enhanced contextual approach within the Conservation Area.

#### Windows:

The windows to the lower ground floor bedrooms will be fixed and opening black painted timber. The fixed portion of the dressing room window at lower ground floor will be translucent glazing. At ground floor level, the windows will be fixed and opening black painted timber. The windows will run behind the brick veil.

Velux roof lights will be used on the green roof to allow natural light to flood into the living spaces.

Doors:

The front door in the veil will be a black painted T&G door with fixed glazed panel above. The waste storage door will be a black painted timber slatted door at the same height as the entrance door.

The entrance is recessed away from the facade to create a space to wait and protection from the elements with a timber framed glazed door.

The doors from the lower ground floor bedrooms are also black painted timber framed glazed doors to match the entrance.

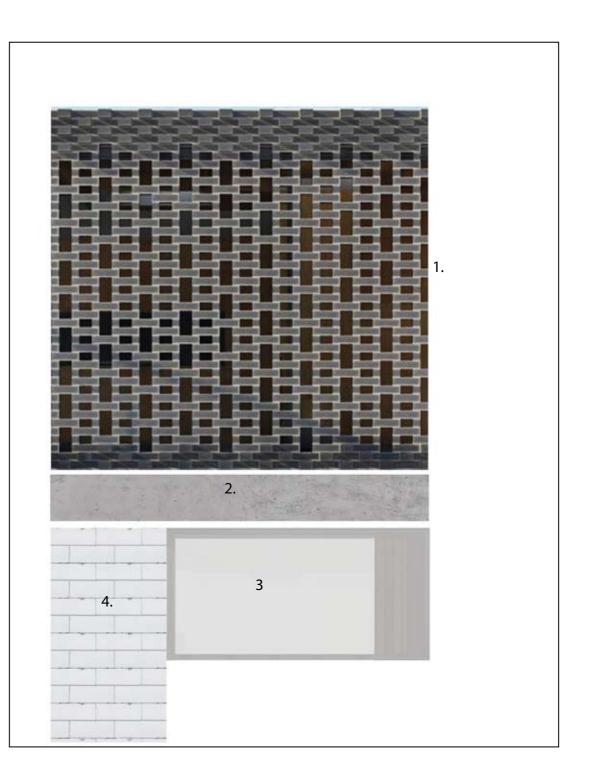
Roof:

The roof to the dwelling will be a flat roof with a sedum green roof. In addition we are proposing the use of renewables where possible. The roof will have solar thermal panels.

Key:

1. Light grey/buff brick work veil with hit and miss bonding.

- 2. Concrete bridge.
- 3. Painted light grey timber windows.
- 4. White rendered wall finishes.

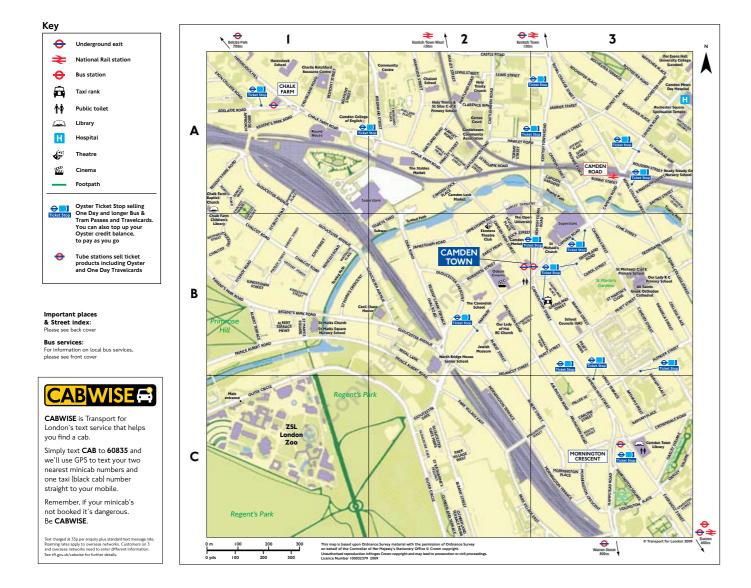


7. Access:

Vehicular and Transport links.

The site sits facing Rochester Road. Rochester road connects to Camden Road. The site has excellent links to public transport, with bus, train and tube connections within walking distance.

Camden also has dedicated cycle lanes as part of a national cycle route. The access to the dwelling will be flat and will comply with Part M of the building regulations and Lifetime homes.



### **Response to key sections of the LDF:**

1. PP2 - Making full use of Camdens capacity for housing.

"a) expecting the maximum appropriate contribution to supply o housing on sites that are under used or vacant, taking into account any other uses that are needed on the site."

We are proposing to make use of a vacant and under used site which distracts from the Conservation Area.

2. DP2 - 2.8

"Housing is regarded as the priority land use of the local development frame work and the council will make housing its top priority when considering the future of unused and under used land and buildings."

We are proposing a new residential dwelling on an under used site.

3. DP2 - 5.4

"Dwelling size priority table information - Market for 2 bedroom house is very high"

We are proposing a new two bedroom house.

4. DP27 - basements and light wells.

"In determining applications for light wells, the council will consider whether:

a. The Architectural character of the building is protected. b. The character and appearance of the surrounding areas is harmed; and c. The development results in the loss of more than 50% of the front garden of amenity space."

a. Our proposed lower ground floor is new so will not affect an existing character.

b. The character of the surrounding areas will not be affected as the dwelling is detached and away from surrounding buildings.

c. The development is a new dwelling so the 50% is not applicable.

5. DP -229

"A basement that does not extend beyond the foot print of the original building and is no deeper than one full storey below ground level (approx 3m) is often the most appropriate way to extend a building below ground."

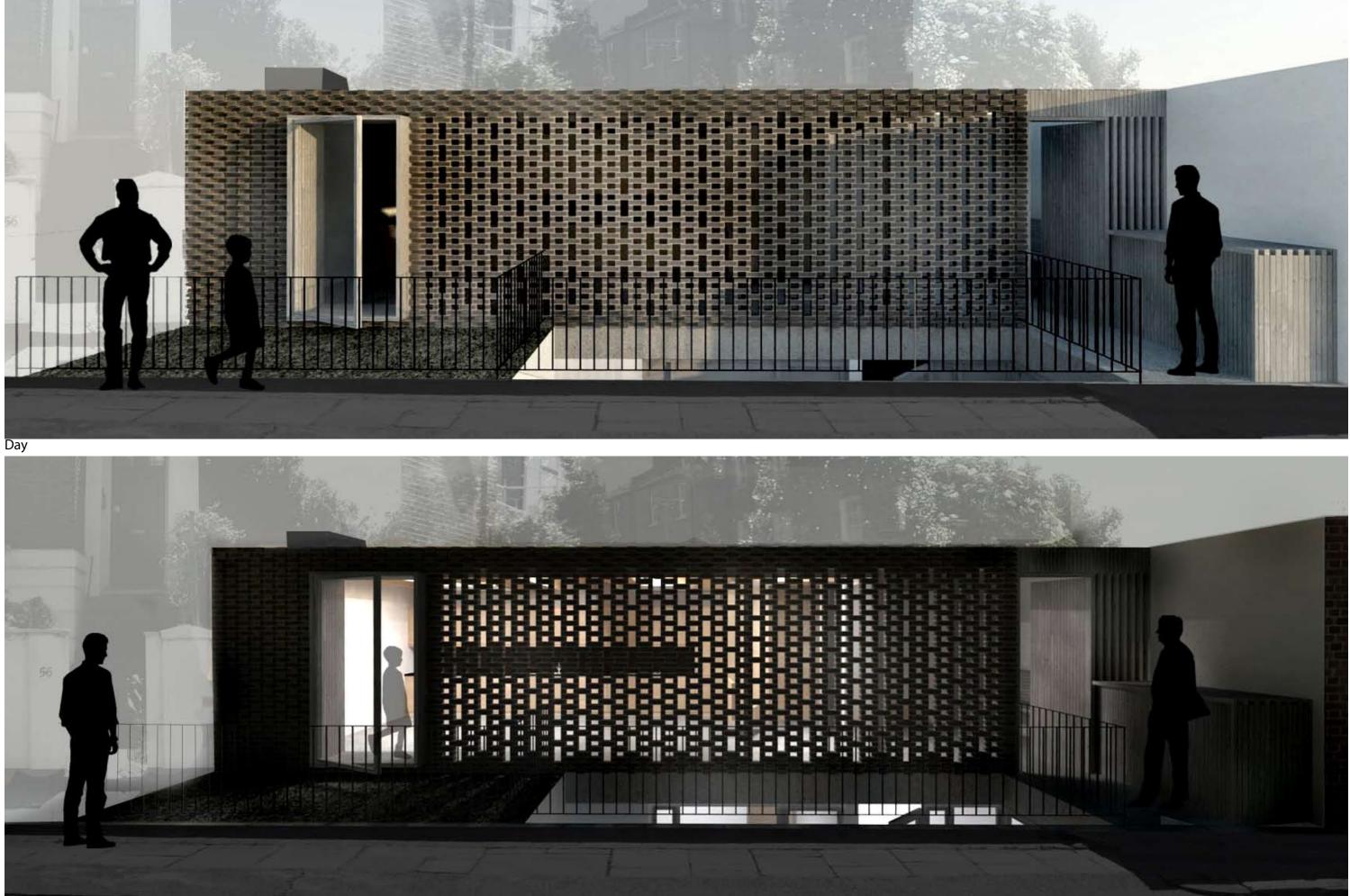
Although our proposal is for a new dwelling and lower ground floor, the above has been applied to our scheme.

Existing view along Rochester Road:



Poor quality garages -facing Rochester Road

# Visual 1: View from Rochester Road



# Visual 2: View of courtyard and brick "veil"



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### **Lifetime Homes Statement:**

Although the house is only a two bedroom dwelling and the Lifetime Homes requirements only apply to a new dwelling with three bedrooms or more, we have still aimed to meet the requirements where necessary.

1. Car parking width.

The proposed dwelling will not have off street parking provision to comply with the planning regulations for the site. However there will be provision for cycle storage.

2. Access from street level.

The access to the house from the street, pavement level will be flat, level and consistent. The bridge link will be wide enough for wheel chair access at 900mm clear.

3. Entrances:

The main entrance to the house is recessed with a covered area. The entrance, courtyard and bridge will be illuminated with lights.

4. Communal stairs and lifts.

This not applicable as the dwelling is a single occupancy.

5. Door ways and hallways.

All new doors will have a clear opening of at least 800mm. The front door has a 300mm nib to one side of the door. All corridors are a minimum 900mm a 1500mm turning circle is possible in the entrance area.

6. Wheel chair accessibility.

The proposed house will be wheel chair accessible on the ground floor.

7. Living room.

As illustrated the living room is at ground floor level.

8. Entrance level bed space.

The large open plan space could be sectioned off at a later date to provide an entrance level bedroom.

9. Entrance level W.C.

The new ground floor W.C is at entrance level and adjacent to the entrance. The W.C meets the Part M accessible toilet requirements with a wide door opening out, and a 750mm clear zone allowed for in front of the W.C.

There is also a shower gully in the toilet for later use.

10. Bathroom and W.C walls.

The bathroom and W.C walls are adaptable to be able to accommodate handrails at a later date. The walls are constructed from timber framing with plywood linings.

11. Stair lift.

The staircase to the lower ground floor is 900mm wide to allow for the later fitting of a stair lift.

12. Tracking hoist route.

The bathroom is adjacent to the bedrooms, the walls between the bedroom and bathroom could be removed and a hoist could be fitted at a later date.

13. Bathroom layout.

As illustrated on the drawings, the family bathroom layout is generous in size and allows for a clear 1100mm in front of the toilet.

14. Window specification.

The windows are all timber framed and can be opened at heights which are accessible.

15. Controls and fixtures and fittings.

The BT and power sockets will be at 450mm above finished floor level. The light switches will be below 1200mm in height.

## Sustainability Strategy:

DP-22 promoting sustainable design and construction.

Current attitudes towards sustainability and reduction of carbon emissions, coupled with our own ethos and approach to design, mean that we are very keen for the house to employ sustainable technologies and building materials. We propose that the house will meet Code 3 for Sustainable Homes by doing the following:

- 1. Improved thermal and acoustic efficiency, with high insulation levels.
- 2. Correct orientation.
- 3. Improving air tightness with the use of robust detailing and membranes.
- 4. The installation of a high efficiency A\* condensing boiler.
- 5. Reduction of thermal bridging with the use of robust detailing.
- 6. The use of solar thermal panels for hot water.
- 7. The use of duel flush toilets.
- 8. The use of reduced flow shower fittings and a standard sized bath.
- 9. The use of high grade sustainable materials from the BRE green guide.
- 10. The use of waste management and recycling facilities.
- 11. The provision of drying space in the house with an airing cupboard.
- 12. The use of low voltage light fittings.
- 13. The provision of cycle storage.
- 14. The provision of a home office.
- 15. Reducing the amount of water that runs off the site into storm drains.
- 16. Enhanced security of the home.
- 17. The use of a green roof.

1. Thermal efficiency:

The house will be constructed with a timber frame above ground level, this allows us to incorporate a high level of thermal insulation in the roof and walls. We will aim for 200mm thick insulation within the roof.

#### 2. Orientation:

We have situated the proposed house so that it maximises the daylight entering the spaces at different times of the day and year. The main glazing is on the North facade to avoid solar gain.

3. Improved air tightness:

As a practice we have experience with creating an air tight envelope through the use of membranes and detailing. We have recently achieved 1.5 ac per hour in a Victorian terraced house in Hampstead.

4. Installation of a high efficiency boiler.

We propose the use of an A\* rated condensing boiler located in the plant room/W.C.

# Sustainability Strategy:

5. Reduction of thermal bridging:

Through the use of robust detailing and thermal breaks with insulation thermal bridging between internal and external spaces will be reduced.

6. The use of solar thermal panels:

We propose to install an integrated solar thermal panel and hot water system. This will enable the hot water and under floor heating systems to be supplied by the solar thermal panels. The use of thermal mass in the lower ground floor will aid with the thermal performance of the house.

7. The use of duel flush toilets:

We propose to use duel flush toilets in both the bathroom and the W.C to reduce the water consumption of the house.

8. The use of reduced flow shower fittings and a standard sized bath tub:

By using low flow fittings and a standard sized bath tub in the bathroom, we will be able to reduce the water consumption of the house.

9. The use of high grade materials:

We propose to use London stock brick for the North elevation, white render with a high recycled content. The timber structure, doors and window frames will all be FSC rated from sustainable sources.

10. The use of waste management facilities:

The house will have a designated recycling bin store for bottles, paper and composting. This is located adjacent to the entrance.

11. The provision of drying space:

The boiler is located in a plant space within the W.C. Slatted shelving above will provide drying space for clothes to avoid the need for a dryer.

12. Lighting:

We propose to maximise natural light with roof lights and carefully positioned windows. In addition the white planes of the lower ground floor courtyard will bounce light into the bedrooms. Light fittings will be low voltage.

13. Cycle storage provision:

Cycles could be stored either inside the house or in the lower ground floor light well.

## Sustainability Strategy:

14. Home office provision:

A facility for home office has been allowed for in the living room joinery. In addition one of the bedrooms could be used as a home office too.

15. Reducing the amount of water run off:

By using a green roof and adequate guttering the water run off will be reduced.

16. The enhanced security of the home:

By using metal railings along the front of the courtyard and double glazed toughened glazing the house aims to be secure. Solid locks and alarms will add to the security. In addition access to the house is via a bridge link which affords the owner a view of any one approaching the house.

17. The use of a green roof:

The new roof of the house will have an intensive green roof, effectively lifting the ground below onto the roof. The advantages of this are:

The control of precipitation and rain water is improved. We can increase the energy conservation, through an increase in thermal insulation values. The air quality is improved due to the conversion of carbon dioxide by photosynthesis. The green roof also aids with noise reduction, the vegetation dampens any noise pollution. In addition by using a green roof we can create a sustainable solution to traditional roofs.