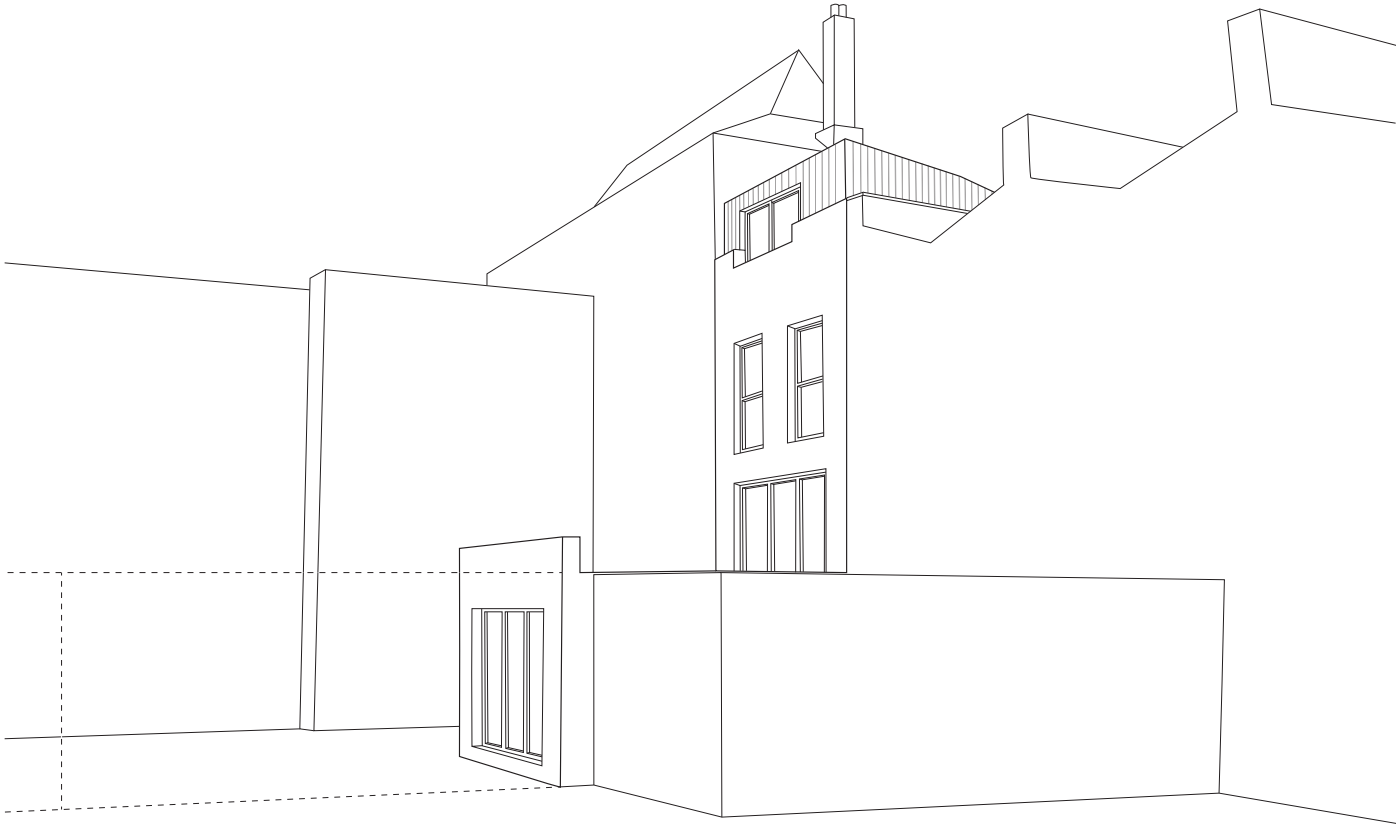

Design and Access Statement

136_Grafton

December 2020

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ARCHITECTURE | DESIGN | ECOLOGY

Table of Contents

01/ Introduction

This Design and Access Statement has been prepared in support of the full planning application for the demolition and rebuilding of a roof extension and an eco-retrofit of 24 Grafton Road, Kentish Town, NW5 3DU.

The property is a mid-terrace, three story house, with a small front garden and a rear garden built as part of a local development in 2012. The property was built to high environmental standards: it was 50% better than the energy standards at the time, including achieving high levels of airtightness, an exhaust air source heat pump instead of a gas boiler and achieved a Code for Sustainable Homes Level 3. The proposal aims to further improve the overall performance of the house, using sustainable and low-carbon materials, aiming to reach as far as possible towards Zero-Carbon.

The purpose of this report is to provide a detailed explanation of the design process and describe why the proposal is appropriate for the users, existing site and urban context.

The property is in the Inkerman conservation area and is located between a terrace of three storey town houses and the Grade II listed St. Pancras Public Baths in the Inkerman Conservation area in the London Borough of Camden. There is an Article 4 directive in place.

Site and location plan

02/ Reference Documents

This statement should be read in conjunction with the attached reference documents as follows:

Architect's Documents - Arboreal Architecture:

136_1.00_Site and Location Plan

136_2.00_Existing Ground Floor Plan
136_2.01_Existing First Floor Plan
136_2.02_Existing Second Floor Plan
136_2.03_Existing Roof Plan
136_2.10_Proposed Ground Floor Plan
136_2.11_Proposed First Floor Plan
136_2.12_Proposed Second Floor Plan
136_2.13_Proposed Extension Floor Plan
136_2.14_Proposed Roof Plan

136_3.00_Existing Section AA
136_3.01_Existing Section BB
136_3.02_Existing Section CC
136_3.10_Proposed Section AA
136_3.11_Proposed Section BB
136_3.12_Proposed Section CC

136_4.00_Existing Elevations
136_4.10_Proposed Elevations
136_4.11_Proposed Side Elevation
136_4.12_Proposed Roof Wall Elevations

03/ Conservation, Context and Historic Value

Grafton Road

The site, 24 Grafton Road, is located between a terrace of three storey town houses and the Grade II listed St. Pancras Public Baths in the Inkerman Conservation area in the London Borough of Camden.

Grafton Road has a dense urban feel with residential, industrial, commercial and retail uses all contributing to the character of the street. All of the properties in Grafton Road form part of a series of three storey terraced developments, although the date and style in which they were constructed varies.

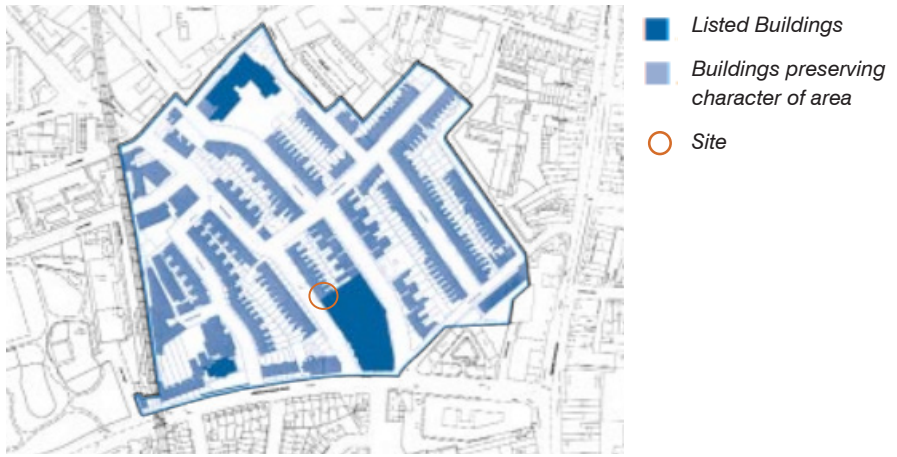
The east side of the street was fully constructed before 1855. In 1898, nos.2-24 were demolished in order to make land available for the red brick and terracotta St Pancras Public Baths at the south end of Grafton Road. The Public Baths were built between 1898-1900 and were opened in 1901. A washhouse and public hall formerly occupied the building, which is currently in use as a swimming baths and sports centre. The external appearance of no. 24 and fenestration aims to retain the character of the street. 24 Grafton Road was originally the public bath's laundry which was later demolished, leaving the site undeveloped for decades.

Inkerman Conservation Area

The Inkerman Road Conservation Area is the heart of Kentish Town. The main building typology is residential, with a few corner shops on ground floor. There are also institutional, educational, light industrial and commercial uses. The majority of the buildings were built in the 1850s and 1860s. The later buildings and the mix of uses give the area diversity and contribute to the character of the Conservation Area.

The Conservation area holds two main building types, mid-Victorian and late-Victorian. All of the houses were built of London stock brick and most have stucco surrounds to windows and doors. Iron railings defined the front boundary of the small front gardens. The slate roof lines were of the butterfly form with a central gutter and strong linear stuccoed parapets with bold cornices.

Source: <https://www.camden.gov.uk/documents/20142/7629312/Inkerman.pdf/>



Inkerman Conservation Area Boundary

St. Pancras Public Baths, South of Grafton Road

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04/ Site Context

Existing Building Description

The 3 storey property faces south-west and the back of the house faces north-east. The main entrance is accessible from Grafton Road, and the house also has a small-sized back garden with two meter high brick boundary walls. The ground floor comprises a living/dining room and kitchen. The first floor has the master bedroom and a bathroom. The second floor is split between two bedrooms, the rear bedroom has a loft hatch to the roof space. The roof has a 1.3m high parapet with a flat roof, unlike the neighbouring houses which have butterfly roofs.

Aerial view of 24 Grafton Road

Front of 24 Grafton Road

Rear of 24 Grafton Road

Bird eye's view (from north) of 24 Grafton Road

05/ Ownership and Site Layout

Ownership

Thomas Gilles Lefevre and Celine Fornaro are the freehold owners of 24 Grafton Road, Kentish Town NW5 3DU under title number NGL924717 - see document below.

Land Registry
Transfer of part of registered title(s) TP1

If you need more room than is provided for in a panel, and your software allows, you can expand any panel in the form. Alternatively use continuation sheet CS and attach it to this form.

Leave blank if not yet registered.

1 Title number(s) out of which the property is transferred:
NGL924717

When application for registration is made these title number(s) should be entered in panel 2 of Form AP1.

2 Other title number(s) against which matters contained in this transfer are to be registered or noted, if any:

Insert address, including postcode (if any), or other description of the property transferred. Any physical exclusions, such as mines and minerals, should be defined.

Place 'X' in the appropriate box and complete the statement.

For example 'edged red'.

For example 'edged and numbered 1 in blue'.

Any plan lodged must be signed by the transferor.

3 Property:
24 GRAFTON ROAD
KENTISH TOWN
LONDON NW5 3DU

The property is identified

☒ on the attached plan and shown:
EDGED RED

☐ on the title plan(s) of the above titles and shown:

4 Date:

Give full name(s).

5 Transferor:
[redacted]

Complete as appropriate where the transferor is a company.

For UK incorporated companies/LLPs
Registered number of company or limited liability partnership including any prefix:

For overseas companies
(a) Territory of incorporation:

(b) Registered number in the United Kingdom including any prefix:

Give full name(s).

6 Transferee for entry in the register:
THOMAS GILLES LEFEVRE AND CELINE FORNARO

Complete as appropriate where the transferee is a company. Also, for an overseas company, unless an arrangement with Land Registry exists, lodge either a certificate in Form 7 in Schedule 3 to the Land Registration Rules 2003 or a certified copy of the constitution in English or Welsh, or other evidence permitted by rule 183 of the Land Registration Rules 2003.

For UK incorporated companies/LLPs
Registered number of company or limited liability partnership including any prefix:

For overseas companies
(a) Territory of incorporation:

(b) Registered number in the United Kingdom including any prefix:

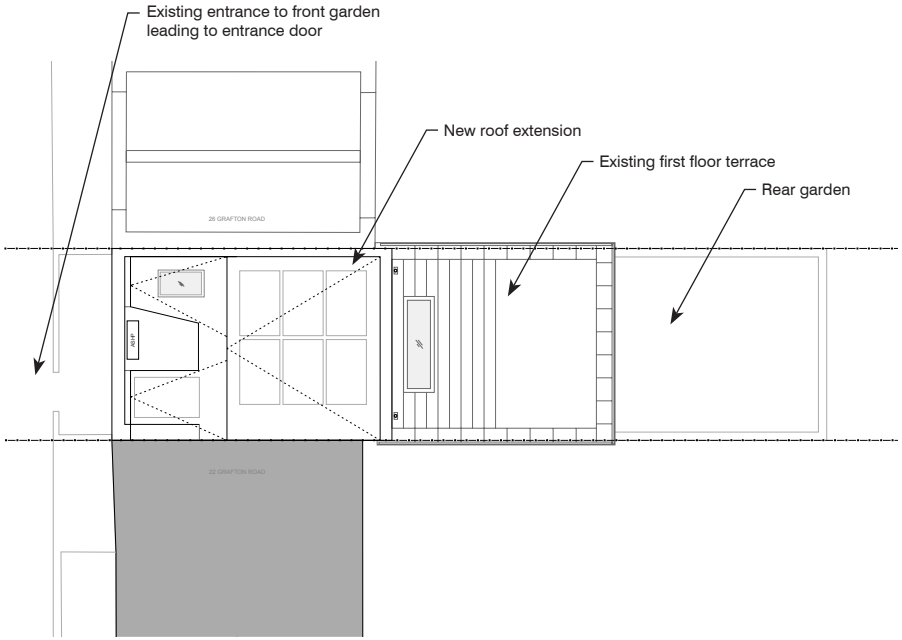
Each transferee may give up to three addresses for service, one of which must be a postal address whether or not in the UK (including the postcode, if any). The others can be any combination of a postal address, a UK DX box number or an electronic address.

7 Transferee's intended address(es) for service for entry in the register:
24 GRAFTON ROAD
KENTISH TOWN
LONDON NW5 3DU

Site Layout

The site layout will remain the same and the access to the property from the street will remain unchanged.

The rear terrace, the rear garden and the boundary walls will remain untouched.



Proposed Roof plan (drawing 136_2.14)

06/ **Building Assessment:** Conservation and Development

Responding to the Inkerman Conservation Area Statement

The Inkerman Conservation area statement has pre-defined guidelines which aim to preserve the historic character of the area. Guidelines relevant to this project can be found on Page 29 in the *"Roof Extension"* section (see Appendix A for extract of Conservation Area Statement).

The following points provide an insight of the design guidelines of this project:

- The extension will not be visible from the street, ensuring the design is not detrimental to the form and character of the existing building. It will not have an adverse effect on the Grafton Road street scene or skyline.
- Viewed from the rear, the extension has a simple composition which follows the layout of the existing window positions and composition of the existing rear facades.
- The design of the roof extension does not include dormer windows and has a roof that has been designed to be non-visible from the street, accommodate PV panels and ensure easy to maintain drainage.
- The design aims to retain existing interesting features and characterful elements relevant to the conservation area (in this case, the parapet).

Responding to the Kentish Town Local Development Framework

The design follows the design principles stated in *Policy D3* of the Kentish Town Local development framework by:

- Basing the proposals on a comprehensive understanding of the site and its context, integrating the design in the surroundings.
- It proposes solutions towards the net-zero carbon initiatives by the Mayor of London in addition to highest quality sustainable materials.

Responding to the Camden Local Plan 2017

The design follows "Policy *D1 Design*" by providing high ecological and sustainable conservation standards of design that respect and complement local context and character. It also promotes *"Policy CC1 Climate change mitigation*" by aiming to achieve net zero-carbon supporting climate change mitigation.

View from front of 24 Grafton Road - Point 2 (Drawing extract from 3D model)

06/ **Planning:** Context and History

The diagram below shows some of the most recent approved applications in the immediate context of 24 Grafton Road.

24 Grafton Road
Proposal location (2020)

21 Grafton Road
Roof extension with 2no. front windows visible from street (1984)

8 Ryland Road
Recently granted roof extension with 2no. front windows visible from street (2016). Four other roof extensions are present on the neighbouring buildings.

42 Wiles Road
A *roof extension with side window within the rear valley roofslope (2011)*

52 Grafton Road
Rear roof extension with side window within the rear valley roofslope (2000)

94, 96, 98 Grafton Road
Multiple mansard roof extensions visible from road *(2007)*

84 Grafton Road
Mansard roof extension visible from road *(1994)*

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06/ **Planning:** Neighbouring Dwellings

8 Ryland Road

The most recent granted mansard roof extension is located on Ryland Road which runs parallel to Grafton Road and is also in the Inkerman Conservation Area. The roof extension was granted in 2016 following multiple applications. It had been previously refused due to the impact of the mansard to the street scene and roofscape. Below is an extract from the planning officer's final decision notice:

'*This proposal would be set back behind the butterfly roof parapet. During the course of the application, the proposal has been significantly revised to set the mansard further back behind the front and rear parapet and the size and the position of the windows has been altered. Given the appeal decision, the retention of the butterfly roof profile and the subsequent amendments, the proposed mansard roof extension is considered acceptable. Overall, it is considered the proposed roof extension is sympathetic to the host building and will not be detrimental to the character and appearance of the Inkerman Conservation Area'*

The application was granted as the mansard roof extension has been significantly set back in comparison to other roof extension precedents in the area, nevertheless, its is still visible from the street (as shown on the street view photo on the right).

Granted mansard roof extension drawings 2016/17

Extract from proposed section BB 8 Ryland Road <camden.gov.uk>

Photo of front elevation 8 Ryland Road (2018) <google.com/maps/>

07/ **Design:** Summary

Summary of Proposal

The proposal aims to improve the overall thermal performance and lower the energy consumption and carbon emissions of the house. It is essential that a holistic approach to the building is taken to ensure long-term building robustness. The retrofit strategy includes: thermal upgrade to walls, floors, roofs and openings, where necessary and ensuring that moisture related sources (from rain or high levels of internal humidity) are removed. The proposal aims to get as close to zero-carbon standards as possible.

The design also proposes a new low-carbon roof extension which follows resource efficient and low embodied carbon principles. The design has been carefully crafted in order for it not to be visible from the street.

Use and Amount

The current and historic use of the property is C3-Dwelling. No changes of use are proposed.

The total area of the building will increase by a total of 23m^2 following the construction of a roof extension, to provide one more bedroom thus making it become a more comfortable family home. The roof extension proposal abides step by step to the "*Roof Extensions"* sections *"Ink24 to Ink28"* of the Inkerman Conservation Area Statement.

Scale

The building immediately adjacent to 24 Grafton Road (formerly part of the Sports Centre) was refurbished into flats in 2013 and as that it is rougly 2m higher than 24 Grafton Road.

The scale will slightly increase following the construction of the roof extension, it will not be evident as the extension will not be visible from street level.

Existing front elevation

07/ **Design:** Proposal

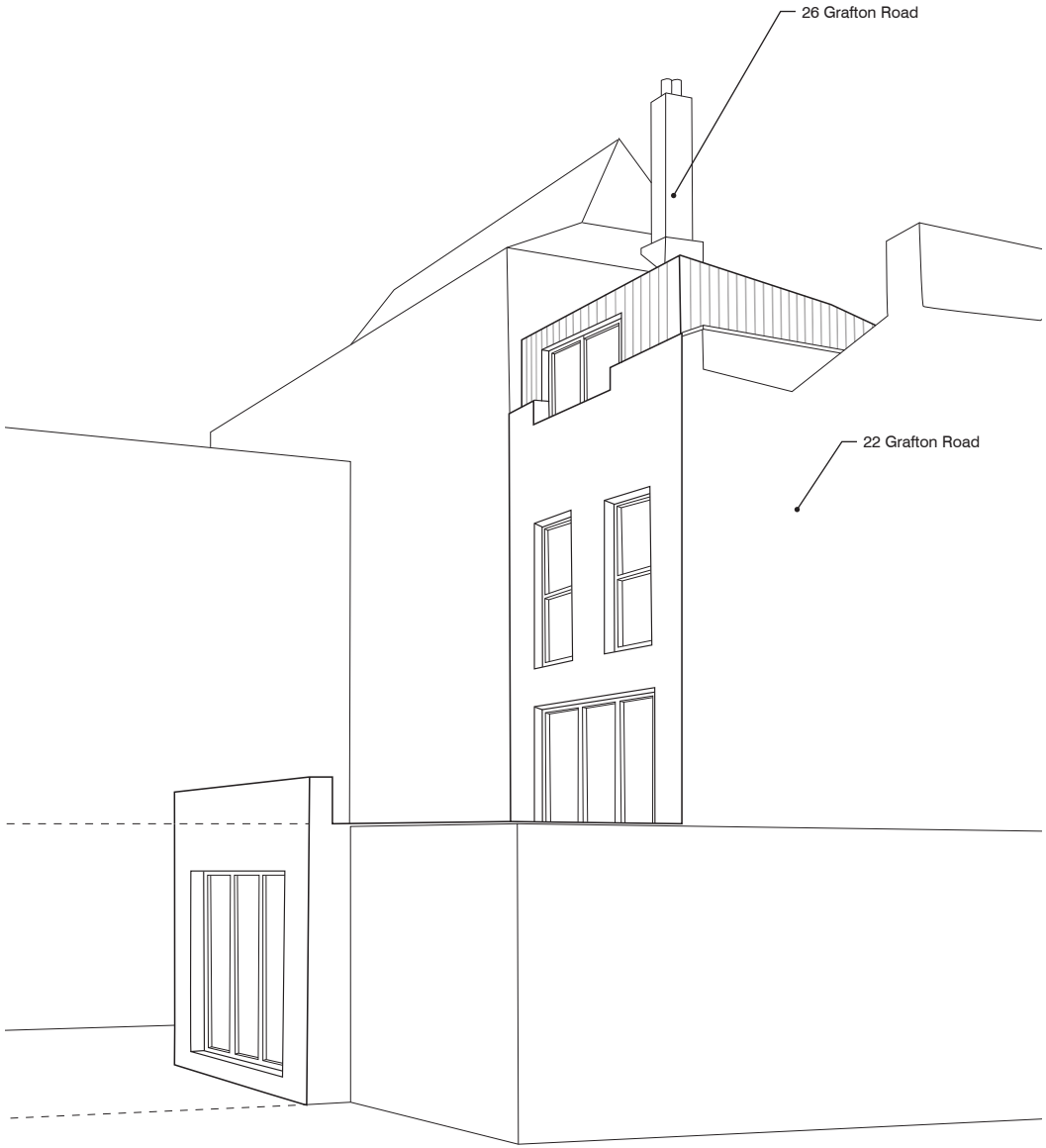
Appearance
A detailed description of the proposed alterations is provided below:

Front Elevation:
- Replacement of double glazed existing second floor timber frame sliding sash windows to triple glazed windows to match existing.

Rear Elevation:
- Replacement of double glazed first floor existing doors to triple glazed to match existing.
- New roof extension visible on rear facade.

New Roof:
- High quality standing seam copper cladding over new extension envelope.
- Install solar pv panels on sloped roof plane, offset from the roof plane by less than 150mm.

Existing Terrace:
- New triple glazed, toughened glass walk-on roof light to improve light levels in the kitchen space on ground floor.



Proposed Bird's eye View from neighbours garden

07/ **Design:** Proposal

Proposed Materials

Standing seam copper is the proposed material for the roof extension, a high quality material which matches the materiality of the roof of the Grade II listed building next door. Copper is a relatively low embodied carbon material which has a very low environmental impact in comparison to other common extension materials such as lead and aluminium. The extension materiality will only be visible from the rear elevation. The rear elevation of the building will be formed of the existing brick, the rear window and the standing seam copper cladding.

Extension Design

The extension will create a new bedroom with a small en-suite shower room. The extension has one rear window overlooking the garden and a small door to the front to access for cleaning, PV and heat pump maintenance and relevant services. The views from these windows are no different to those of the floors below, therefore cause no new impact on the privacy or amenity of the neighbouring properties.

Solar PV

The proposed solar PV will not project more than 150mm from the roof plane and will not be visible from the street. These PV panels are a very important addition to the design to facilitate the achieving of net zero carbon. (See page 18 for more info.)

Proposed Rear Elevation

07/ **Design:** Windows

Front Facade

The proposed triple glazed sash windows will be manufactured by green building store to match existing. These will be bespoke, triple glazed timber windows with a painted white finish. As shown in the example below Green Building Store have supplied numerous bespoke windows specifically for conservation areas and have been part of multiple projects which have achieved net zero carbon. Examples below:

Example of traditional timber framed triple glazed sash window

Rear Facade

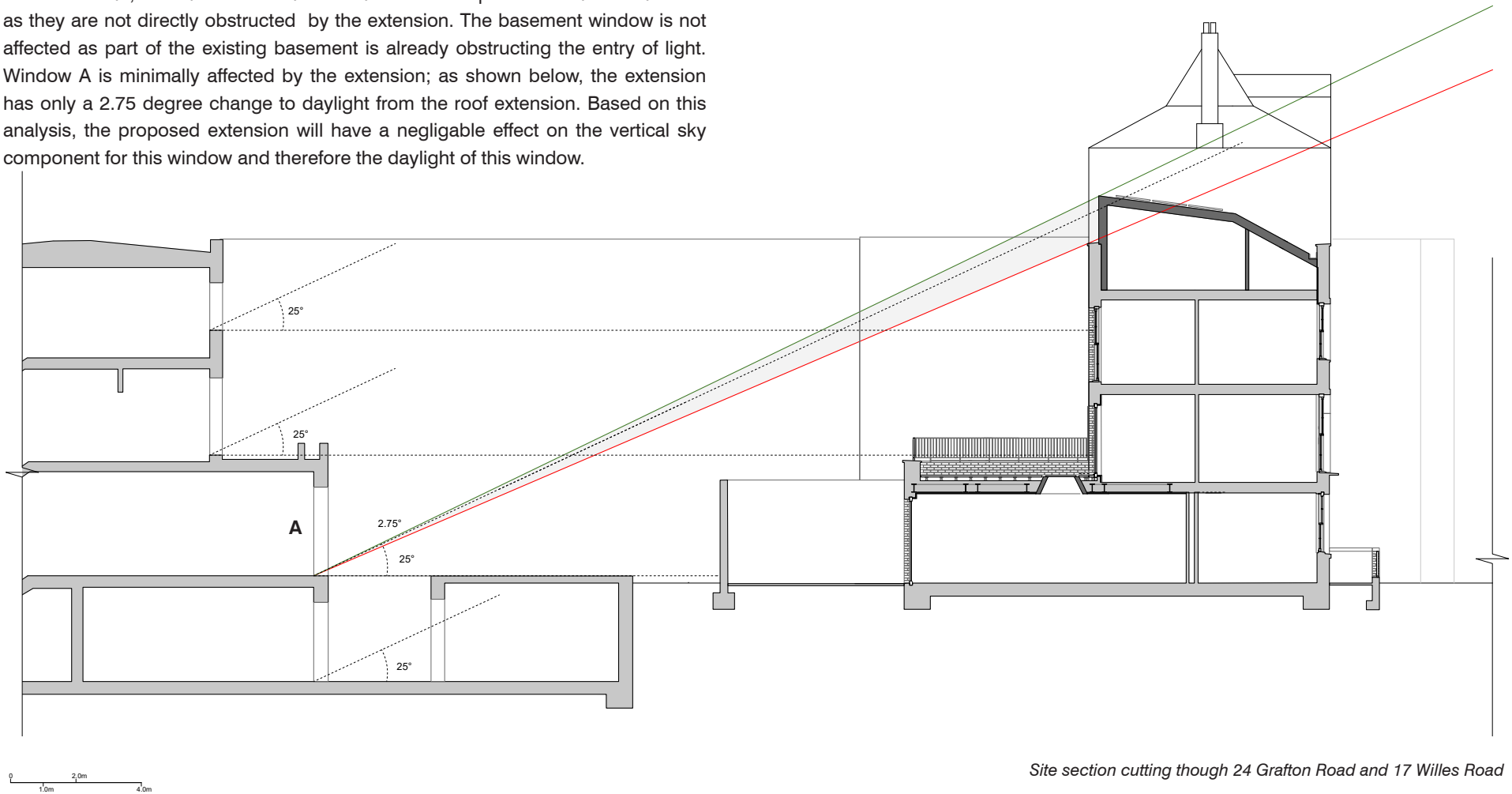
The rooftop extension window will be a triple glazed solid pine timber frame, covered with a thin black aluminium frame. Windows have a 50mm frame profile thickness with a slim and elegant appearance as shown below:

Example of a timber frame alu-clad triple glazed window with minimal sight-lines

07/ **Design:** Daylight

25 Degree Rule of Thumb

The drawing below illustrates the 25° degree rule of thumb from the windows in the 17 Willes Road, the back of 24 Grafton Road. The two top windows are not affected as they are not directly obstructed by the extension. The basement window is not affected as part of the existing basement is already obstructing the entry of light. Window A is minimally affected by the extension; as shown below, the extension has only a 2.75 degree change to daylight from the roof extension. Based on this analysis, the proposed extension will have a negligable effect on the vertical sky component for this window and therefore the daylight of this window.



Site section cutting though 24 Grafton Road and 17 Willes Road

07/ **Design:** Sustainability and Net-Zero Carbon

Introduction
The house was built in 2012 to a good environmental standard: it was 50% better than the energy standards at the time, included an exhaust air source heat pump instead of a gas boiler and achieved a Code for Sustainable Homes Level 3.

The client, the managing director an engineering consultancy specialises in low energy and net zero buildings is conscious that a higher level of energy and carbon performance can be achieved. In order to respond to the climate emergency, we need to go further with our homes: reduce energy use and generate more renewable energy. Along with the roof extension: doing everything we can to be as close to Net Zero Carbon is therefore a key objective of these proposals.

These proposals aim to set an example of best practice zero carbon home retrofit for Camden and beyond. It uses an extension project as a trigger to improve the energy performance of the house: more than a third of the budget will be dedicated to this objective.

Zero Carbon Definitions and Targets
At its most basic, a Net Zero Carbon house is one which uses an ultra-low level of energy and generates an equivalent amount from an on-site renewable energy source. This is the aim which has driven the design behind these proposals. Attention was also paid to embodied carbon: the overall impact in terms of whole life carbon was considered in the choices.

The Team
The team involved in the preparation of these proposals include some of the leading practices in low energy buildings in the UK. Their credentials should be the evidence of our ambition and commitment.

Client: Thomas Lefevre is the Managing Director of Etude, a company specialising in Passivhaus and Net Zero Carbon buildings, as well as climate change policy for Local Authorities.

Architect: Harry Paticas is a director of Arboreal Architecture, is a technical expert at the STBA (Sustainable Traditional Buildings Association) and is a certified passivhaus designer. He has lectured for Historic England, Historic Scotland and the SPAB. Arboreal is an award winning low carbon architecture and design company specialising in eco-retrofit and PassivHaus design.

Services engineer: Enhabit designed and delivered the first two Passivhaus retrofits in the UK (one of which won a CIBSE Award for energy efficiency in buildings) and the first Enerphit retrofit in London.

Summary of retrofit measures
The design proposes a set of measures for the retrofit and the extension which will reduce energy use by more than 50% (despite the house becoming slightly larger):

- All new windows will be triple-glazed and a number of existing double-glazed windows will be replaced by triple-glazed windows.
- Additional high performance insulation will be installed where necessary and where windows will be replaced.
- Airtightness will be improved throughout the house.
- A new Passivhaus certified Mechanical Ventilation with Heat Recovery (MVHR) will be installed with inlet and outlet ducts hidden on the roof.
- A top of the range Air Source Heat Pump (ASHP) is proposed, continuing the owner's commitment to no fossil fuels / gas being used in the house. The roof extension will be built entirely in highly sustainable materials which have a low embodied carbon index; timber, woodfibre, copper etc. In addition, the extension will be built to very high performance standards, consistent with Passivhaus.

Finally, six PV panels are proposed. It is anticipated that they will generate 40% of the house energy use on an annual basis. Overall, it is estimated that the emissions of the new house over the period 2020-2050 will be more than 93% less the emissions associated with a typical house in London heated by a gas boiler.

07/ **Design:** Sustainability and Net-Zero Carbon

Optimisation of heating demand

The retrofit and extension will aim to achieve a building with high performance standards. The overall energy consumption of the building will result in savings in energy and carbon emissions of **52%**. Preliminary designs have been thermally modelled to verify this. The walls, floors and roof of the extension will be insulated with u-values of around 0.15W/m²K and there will be high performance triple glazed windows.

Electric and Net-zero

The proposal has been designed to achieve a home set up for a carbon neutral future. This means shifting to low carbon heating with an Air Source Heat Pump.

Demolition, circular economy and reuse

It is proposed that as many materials as possible will be reclaimed or recycled from the demolition of the existing building. The materials will be carefully dismantled, documented and set aside for future purpouse.

Summary of Energy Usage

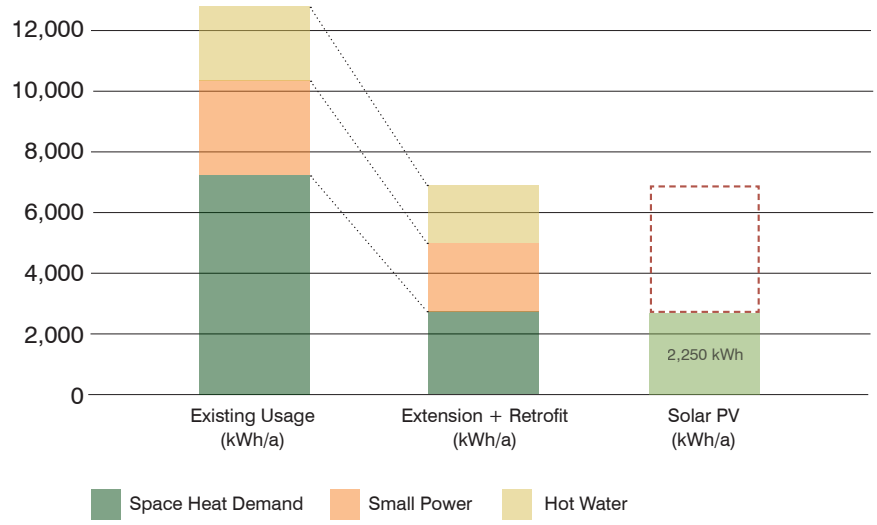
	Total Energy (kWh)	Space heat demand (kWh)	Small Power (kWh)	Hot Water (kWh)
Actual use	12,500	7,000	3000	2500
EPC	8,625	4,871	2,087	1,667
Existing PHPP (AAL 2020)	12,516	7016	3000	2500
Proposed PHPP (AAL 2020)*	7,088	3,588	2000	1500

* Proposed Retrofit to 31.2 kWh/m2/y

Calculated

Estimated

Existing and Proposed Heat Demand



* Small power: lighting, fans and pump

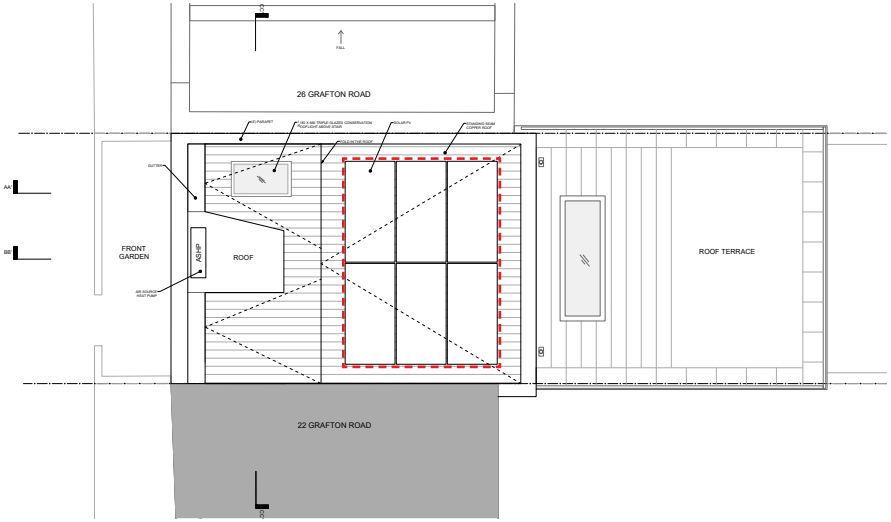
07/ Design: PV

Photovoltaic renewable energy

The roof will accommodate 6no. x 410Wp solar photovoltaic panels. The yield of the solar panels would provide a high energy output which will cover a large part of the energy consumption of the house.

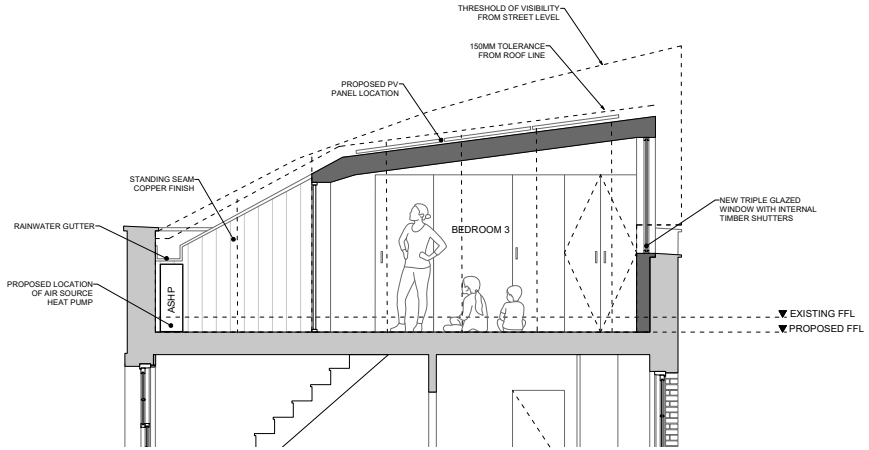
PV Layout

The extract of the roof plan to the right shows the symmetrial distibution of the PV panels on the roof at a 25mm distance between one another. To achieve a neat detail the PV panels will be clamped with special standing seam clamps (S5). This will allow a projection of the PV panels from the roof to be less than 150mm, ensuring no visibility from the street. The right hand side section shows the PV panels within the visibility line from the street (Please refer to Section 7 for Visibility and Site Lines).



Extract from drawing 136_2.14_Proposed Roof Plan (Not to Scale)

Example of S5 Clamp for fixing PV to standing seam roof



Extract from drawing 136_3.11_Proposed Section BB (Not to Scale)

08/ **Building Assessment:** Site Lines

Sight Lines from three different locations on Grafton Road help define the visibility of area above the roof of 24 Grafton Road. The lowest points of the intersecting sight lines define the maximum height of buildable area for the roof top extension not visible from the street.

Sight lines and visibility from three locations on map:

1 North of the site - Visibility reduced due to existing tree at junction with Grafton Road. Views from point one define maximum height of non-visible rooftop extension as this is the furthest point from which the site is visible. This is best illustrated on elevation drawing on following page.

2 Directly in front of the site - Outcome of site lines illustrated on the section.

3 South of the site - Visibility limited as Kentish Town Sports Centre is significantly taller than 24, Grafton Road.

Grafton Road Context (Drawing not to scale)

08/ **Building Assessment:** Site Lines

1

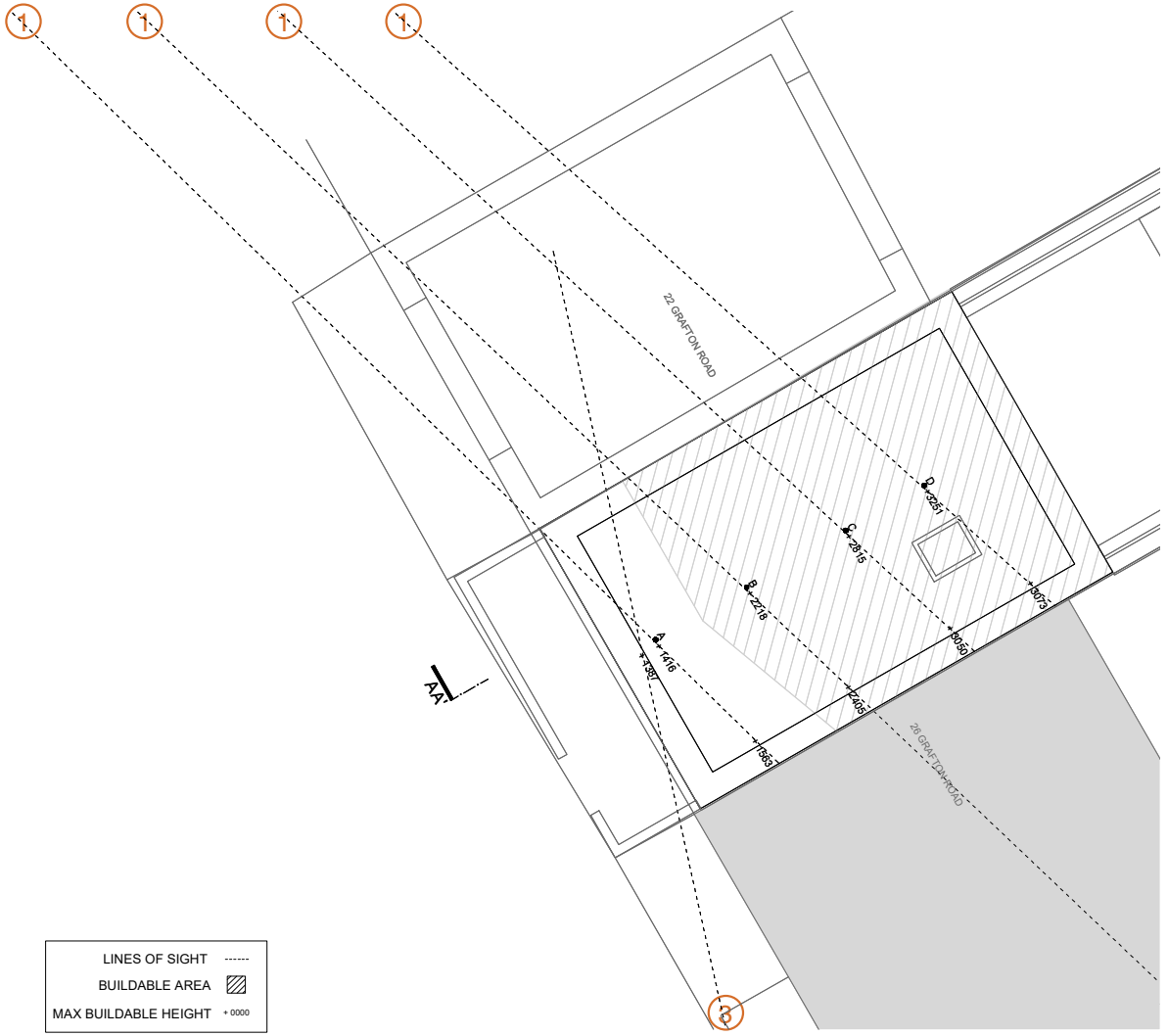
Point 1 - North of the site

2

Point 2 - Front of the site

3

Point 3 - South of the site



Grafton Road Roof Plan (Drawing not to scale)

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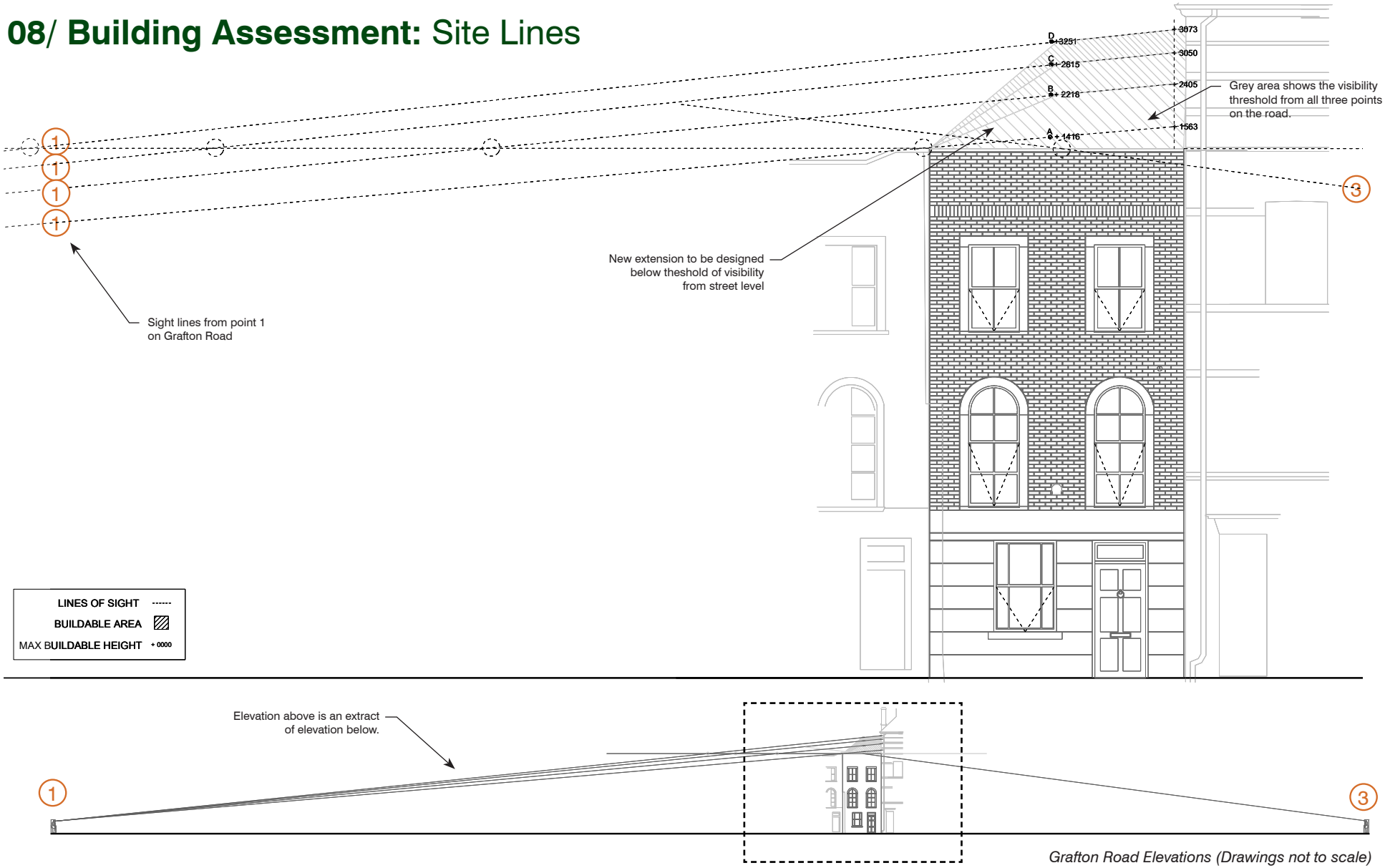
08/ Building Assessment: Site Lines



Grafton Road Elevations (Drawings not to scale)

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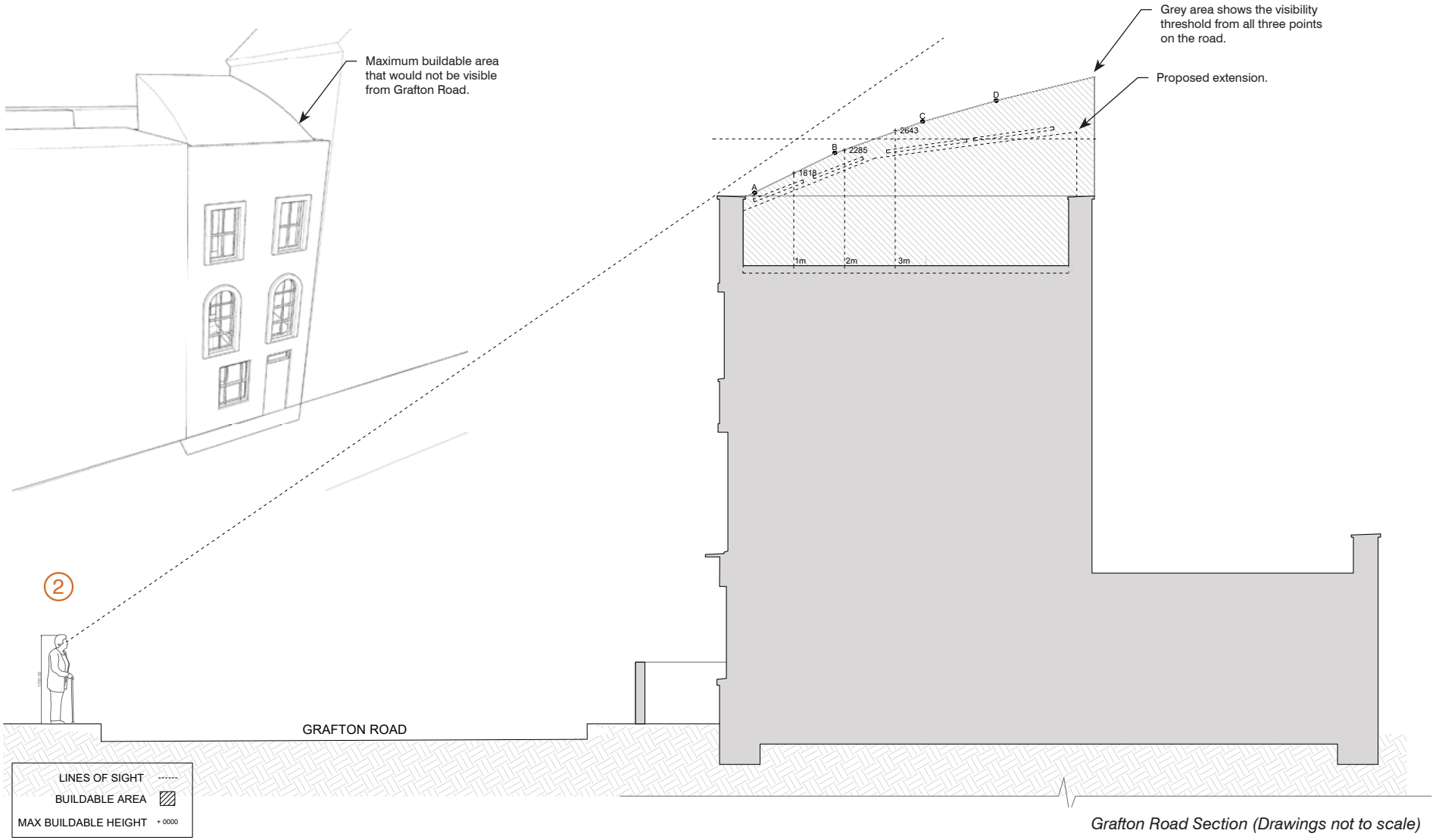
08/ **Building Assessment:** Site Lines



Grafton Road Section (Drawings not to scale)

09/ Summary

‘Pre-dated’ Design

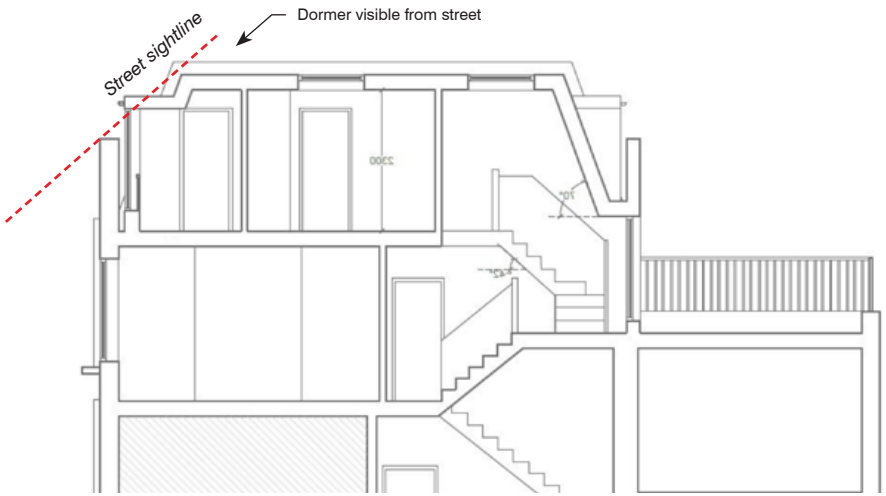
The approval for planning applications for rooftop extensions in the Inkerman conservation area has been denied in recent years, due to the proposed designs not abiding to the conservation area statement guidelines. Refusal was due to the proposals altering the roof form in a way which is harmful to the context and character of the area. The commonly proposed designs don’t consider the impacts of the visibility from the street and the effect of the mansard extensions on the continuity of the conservation area parapet skyline. Precedents of approved extensions with this type of design, date back to prior to the 1990’s. These are referred to as approvals by ‘pre-dated’ policies which also have ‘pre-dated’ designs.

A New Approach

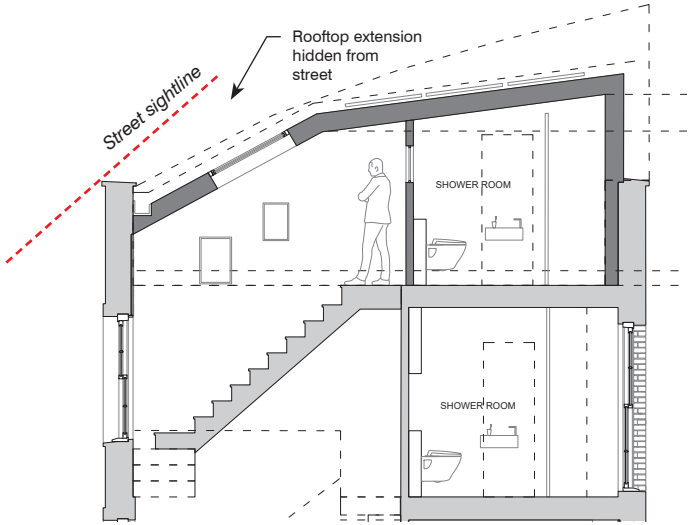
The conservation area character needs to be nurtured and preserved alongside the needs of its inhabitants. Growing families with changing requirements, need to be able to accommodate for these changes within their own homes. New and innovative designs which consider both the conservation area’s needs and those of its inhabitants, point towards a proposal which allows for extra living space which is not visible from the street and does not harm the skyline.

The recently approved mansard roof extension on 8 Ryland Road has raised material for discussions about roof extensions recently raised by the ‘*Inkerman Area Resident’s Association Ltd.*’ Residents push to retain this model of extension to be replicated throughout the conservation area, but 24 Greafton Road could be an exemplary project demonstrating that extensions can be achieved without harming the roof line of the conservation area.

In conclusion the proposed design aims to enhance the conservation area’s potential to grow and innovate while preserving its valued character and history.



Extract From Denied Planning Application on Grafton Road 2018 <camden.gov.uk>



Extract From Drawing 136_3.11 included in planning application drawing package for 24 Grafton Road

10/ **Appendix A:** Conservation Area Statement Extract - Page 29

ROOF EXTENSIONS

Ink24 Planning permission is required for alterations to the roof, at the front, rear and side within the Conservation Area. Some alterations at roof level including the side and rear have had a harmful impact on the Conservation Area. Because of the varied design of roofs in the Conservation Area it will be necessary to assess proposals on an individual basis with regard to the design of the building, the adjoining properties and the streetscape. Where the principal of an extension is acceptable they should respect the integrity of the existing roof form and existing original details should be precisely matched. roof extensions are unlikely to be acceptable where:

- It would be detrimental to the form and character of the existing building
- The property forms part of a group or terrace which remains largely, but not necessarily completely, unimpaired
- The property forms part of a symmetrical composition, the balance of which would be upset
- The roof is prominent, particularly in long views
- The building is higher than many of its surrounding neighbours. Any further roof extensions are therefore likely to be unacceptably prominent.

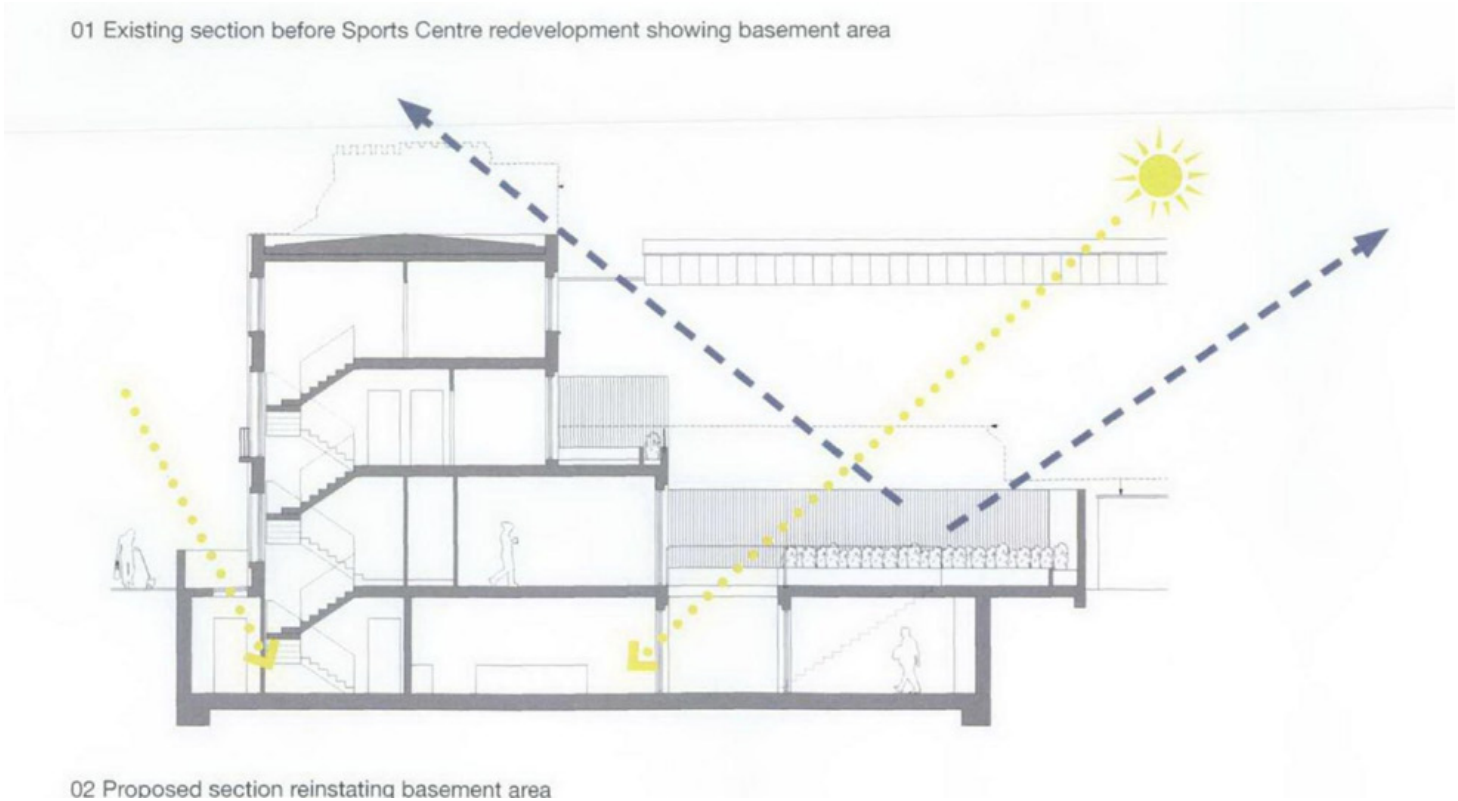
Ink25 Mansard additions and other forms of roof extension, which fundamentally change the roof form, are uncharacteristic of the Conservation Area. The introduction of roof addition of this nature is unlikely to be acceptable due to the adverse affect on the skyline and surrounding streetscene.

Ink26 Further dormers or 'velux' type windows at the rear will normally be allowed if sensitively designed in relation to the building and other adjacent roofs. Dormers at the front and the side will not be allowed where a cluster of roofs remain largely, but not necessarily completely, unimpaired.

Ink27 Generally the roofs have a shallow pitch and therefore the scale and position of the dormer in the roof slope should respect the ridge and hip lines and general proportions of the building.

Ink28 The retention or reinstatement of any architecturally interesting features and characteristic decorative elements such as parapets, cornices and chimneystacks and pots will be encouraged.

10/ **Appendix B:** Extract from Design and Access Statement 04, Willes Road Town Houses - Camden.gov



10/ **Appendix C:** Site Photos

View of 24 Grafton Road and Kentish Town Sport Center

Rear of 24 Grafton Road - View of Development in Willes Road

Front Elevation visibility from Point B

Rear Elevation

arboreal