32 Willoughby Road

Design Report - Basement

04.11.2024

30-38 Willoughby Road

Rear of No.s 30/32 Willoughby Road seen from Carlingford Road

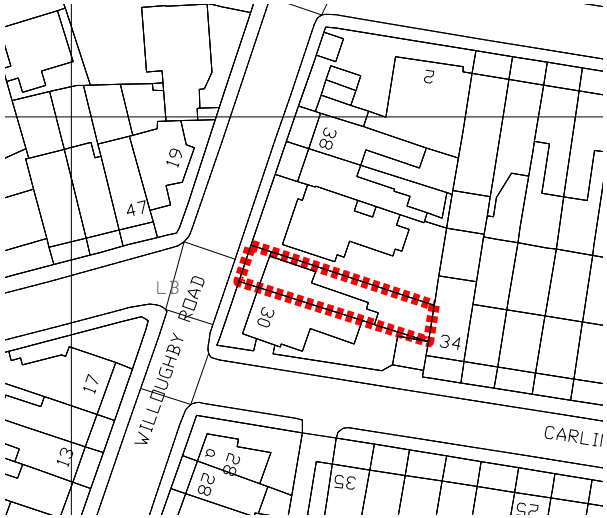
Aerial view

Introduction
This Design Report accompanies a householder planning application for a new basement, replacement of the existing two-storey rear outrigger and a two-storey part-width rear infill extension, and refurbishment at 32 Willoughby Road, NW3.

Site and Context
Willoughby Road is mainly residential in character. The street slopes down from Hampstead High Street at the south-west end to Willow Road at the north-east end. The houses along the street vary in style and form, with a mix of older residential properties and more contemporary housing. This creates a rich and interesting street scene.

The property is in the London Borough of Camden. It falls within the Hampstead Conservation Area and is noted in the CA Statement as making a positive contribution to the character and appearance of the CA.

The house was built when the surrounding streets were developed on the grounds of Carlisle House. In the late Victorian period, towards the end of the 19th century.



Site plan

Birds-eye view from the South

Birds-eye view from the East

Existing Building
The existing building is a three-storey, four-bedroom semi-detached house.

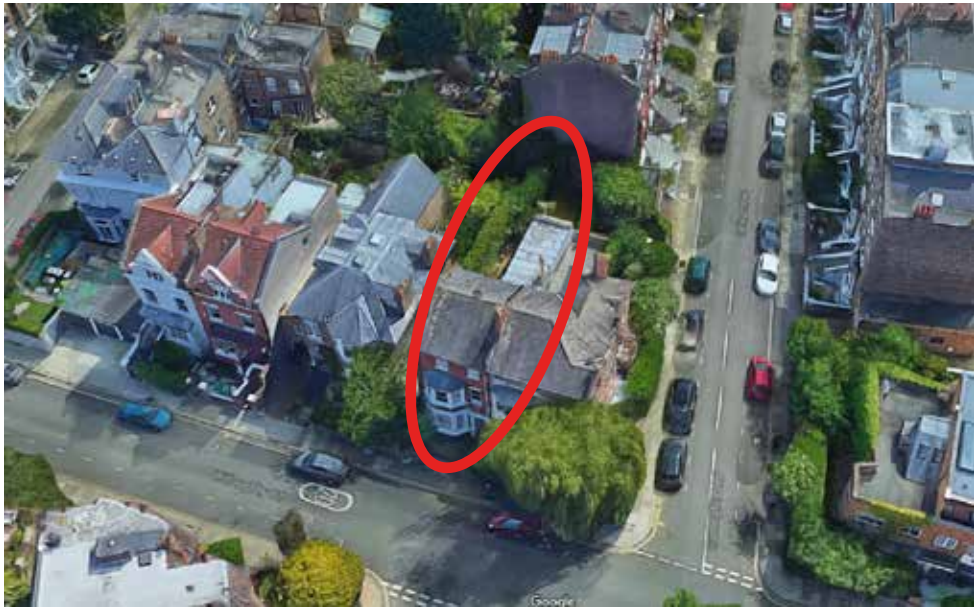
The house sits on the east side of Willoughby Road opposite the end of Rudall Crescent. The rear garden faces east on to the gable wall of No 34 Carlingford Road. The garden contains a small shed and beds with mature planting. A side passage links the rear garden to the street, separated by a high security fence.

The house is accessed via a relatively narrow hall which kinks around the main stairs. At ground floor there are two reception rooms in the front area. The kitchen occupies part of the long, narrow rear closet wing. There are stairs from the kitchen up to the rear bedroom/study at 1st floor. This is linked to a 'Jack and Jill' family bathroom which is also accessed from the main landing. Also at first floor is the master bedroom suite with attached dressing area. At second floor there are two bedrooms. The loft space above has relatively low headroom. The house has retained some historic features, both inside and out but does require refurbishment and updating throughout. The external walls are solid blockwork and the singled-glazed windows suffer from condensation issues. The house requires significant energy use to maintain occupier comfort during the colder months,

The attached property No 30 Willoughby Road is three storeys in the shares a two-storey outrigger with No 32. It also has a three-storey element which wraps the corner of Carlingford Road and has a hipped roof. The end of terrace house at 34 Carlingford Road, adjoining the bottom of the garden of the subject properties is four-five storeys in height.

The detached property at No 34 Willoughby Road is three-storeys, including accommodation within the converted hipped roof, dropping to two storeys to the rear outrigger with a dual pitched roof over. Further along Willoughby Road, No.s 36 and 38 and No.s 4-12 Denning Road have rear outriggers which are three-storeys where they adjoin the main body of the buildings.

Birds-eye view from the North



Birds-eye view from the West

Proposals:
The scope of the proposed project can be split into the following elements:

1. Basement extension to run under the footprint of the house, into the rear side return and rear garden. The new basement level would house an open plan family living area to the rear, with a utility/ plant rooms and gym / cinema room towards the front. Daylight would be provided via a front lightwell, a double height stairway and a walk-on rooflight to the rear.
2. Replacement of the existing rear outrigger/ closet wing with a slightly wider building for better proportioned rooms and provision for home working, with amended fenestration.
3. A two-storey rear extension consisting at side infill extension at ground and first floors.
4. Creation of a roof window to second floor.
5. New windows openings to the side gable.
6. Replacement of existing windows to the front elevation.
7. Gate and fence to side passage for security/storage
8. Upgrade of the building fabric with significant improvements to insulation and airtightness.

Pre-Application Advice:
On the 16th of September 2002 approval was granted by LB Camden (reference 2022/2877/P) for the replacement of the existing rear outrigger/closet wing with a wider structure built in a traditional style and a contemporary styled side infill extension at ground floor finished in weathered steel. Plus a lean-to bike store in the side passage and a roof window to the main rear roof. On the 12th of December 2022, approval was granted for a subsequent submission (reference 2022/4631/P) which increased the height of the rear infill to two-storeys.

In the reasons for granting permission the case officer stated that the “development is considered to preserve the character and appearance of the Conservation Area.”

The proposals to replace the rear outrigger and form a two-storey part width extension contained in this application are generally the same as those approved under 2022/4631/P.

Pre-application advice was requested from LB Camden regarding the proposed basement among other elements in late 2021, with responses received in April 2022. At that point the basement footprint, which extended beyond the rear of the existing house, was thought not to comply with policy.

A follow-up request for pre-application advice, which focussed on a proposed basement of reduce size, was submitted in July 2022. With responses received in a letter dated 1st of March 2023. These proposals included a basement extension under the footprint of the house and extending to part width of the rear garden, beside the re-built outrigger.

The Council’s pre-application response advised the basement as proposed would be of an appropriate scale, “subordinate to the existing dwelling and therefore considered acceptable.”

Front elevation

Rear elevation

Side passage

Side access

Rear garden

Rear elevation from rear outrigger roof

Design, Scale and Amount:
The proposed basement would run under the footprint of the existing house, and extend into the garden space beside the outrigger. The area excavated for the basement would measure circa 5.7m wide by 20.2m long. The new floor level would be circa 3.4m below garden level. With internal dimensions of 4.8m by 18.3m with 2.75m high ceiling height. The new internal area created by the basement would be 85.5m2.

The basement would accommodate a large open plan kitchen/dining/family living space to the rear, with daylight provided by the double-height stairwell and a walk-on rooflight in the garden. There would be a lightwell shaped around the front bay providing daylight to the cinema room/gym. The centre of the plan would accommodate utility and plant spaces and a secondary access stair/fire escape.

The front lightwell would have metal grillage over the opening and be screened by planting.

The replacement rear outrigger/closet wing and ground/first floor infill extension proposed in this application are as previously approved under 2022/4631/P in terms of scale and layout.

The existing rear outrigger would be re-built widened slightly and the roof level raised slightly. This would improve the proportion of the rooms/spaces in the outrigger, providing an extra 6.7m2 floor space at ground and first floor levels.

The outrigger would increase in height to provide a better ceiling height at first floor and accommodate additional roof insulation to meet building regulations.

The design of the wider outrigger would echo that of the existing, with the fenestration at first floor level detailed and styled to match the existing as closely as possible. At ground floor, which would be much less visible, the windows/doors would be modern in design - large full-height glazed panes.

The existing chimney stack over the rear outrigger would rebuilt to match the existing.

No.34 from Rear Outrigger roof

No.38 from Rear Outrigger roof

No.38 from Rear Outrigger roof

Carlingford Road from Rear Outrigger roof

Existing side passage with No 34

Rear outrigger

The existing outrigger measures circa 10.3m long by 3.1m wide externally. It is roughly 5.4m high at gutter level, with the rear parapet slightly higher at 6m. The proposed rebuilding of the outrigger would result in the width increasing to circa 3.7m, with the length remaining the same. The height at gutter level would be 5.7m and the rear parapet 6.1m.

The proposed two-storey rear extension has been designed to clearly differentiate it from the host building. It has been conceived as a cuboid form clad in metal, with punctures for glazing. It would be 1.55m wide at ground and first floors with a total width of 3.35m. The extension would project from the existing rear elevation by 4.4m at ground floor sitting slightly back from the rear bay of No. 34. At first floor the extension would project 3.2m from the existing rear elevation, again mirroring there wall of No. 34 next door. The extension would read as a metal clad box of 3.2m in length and at ground floor a 3.1m high glass box would project out of the metal element a further 1.2m into the garden. A side window would improve the daylight provision to the existing reception room. At first floor there would be one obscured glazed window facing No. 34 and one facing the rear garden. The infill extension would provide 6.8m2 at ground floor and 4.4m2 of additional floor space at first floor level.

In total the above ground extensions would provide an additional 24.5m2 of floor space. Combined with the basement extension the additional internal floor area would total 110m2.

The replacement rear outrigger and the two-storey extension would have flat roofs. These would be finished in extensive sedum blanket to improve biodiversity, retain/slow rainwater run-off and provide visual amenity. This would provide approximately 35sq of green roof.

The new roof window to the existing main pitched roof over 2nd floor would improve the daylight to the landing area. A conservation style roof light to minimise impact.

New windows are proposed to the side elevations at first and second floors. The wider outrigger/rear extension would cover the existing rear first floor window - the room that this served would become an en-suite bath-

Use of Corten steel and glass in London extensions

Use of Corten steel and glass in London extensions

room / dressing room therefore only a small replacement window would be required.

To the narrow side passage between No. 32 and 34. it is proposed to add a gate to the front and a fence over the boundary wall for security and to provide some external storage. The gate would be set back from the front elevation by circa 0.9m - to align with the facade of No. 34. The fence on the boundary wall would be 2m above floor level. The existing security fence in the line of the rear elevation would be retained.

Materials:
The wider rear outrigger would be extended/rebuilt in reclaimed London stock brick, laid in Flemish bond to match the existing. Original bricks reclaimed from the existing building would be used as far as possible.

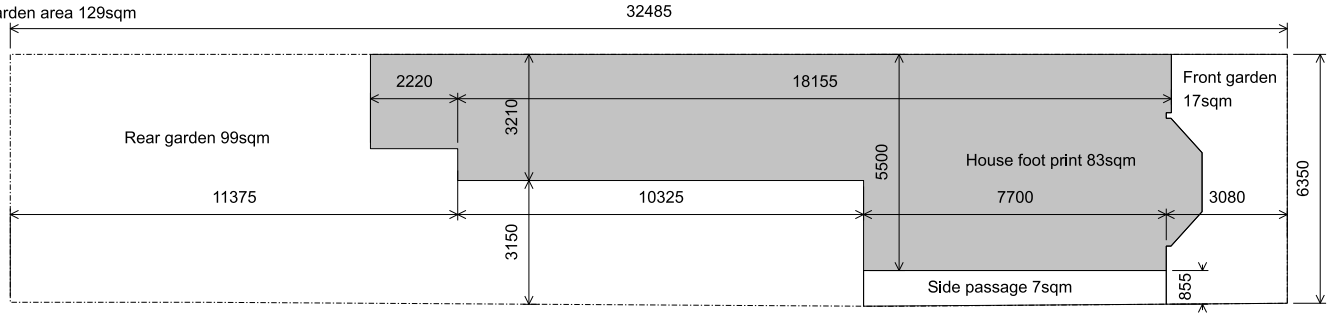
The new / replacement windows to the first floor outrigger, the front elevation and the side gable would be traditionally styled and timber framed to match the existing. The glazing panes would be double-glazed for improved energy efficiency. The non-original oriel window to the existing rear outrigger would be replicated in the replacement in a similar position. An additional oriel window is proposed at the rear of the outrigger at first floor level, to the rear bedroom.

The new windows at ground floor would have painted aluminium frames and double-glazed units. The aluminium frames would incorporate modern profile shapes.

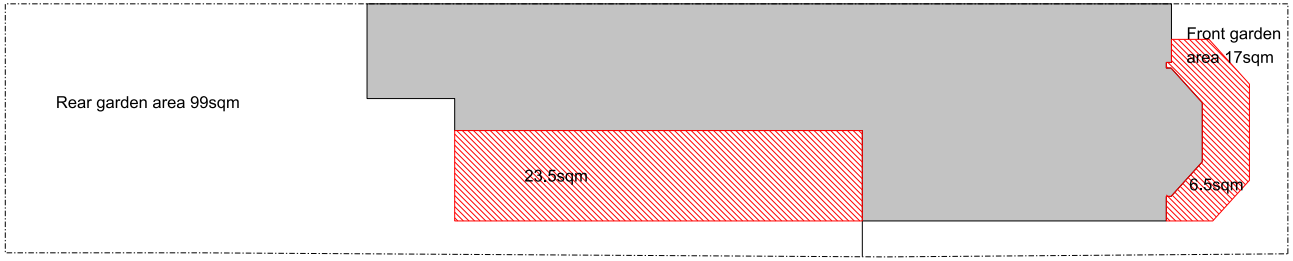
The two-storey rear extension would be faced in Corten steel (pre-oxidised) panels – aka weathered steel. While clearly a contemporary use of this material, it would sit comfortably next to the texture and colour of London Stock brick - as demonstrated by the examples on thi page. This material was approved for the two-storey infill extension under 2022/4631/P.

The new gate and fence to the side passage would be constructed in vertical timber, painted black.

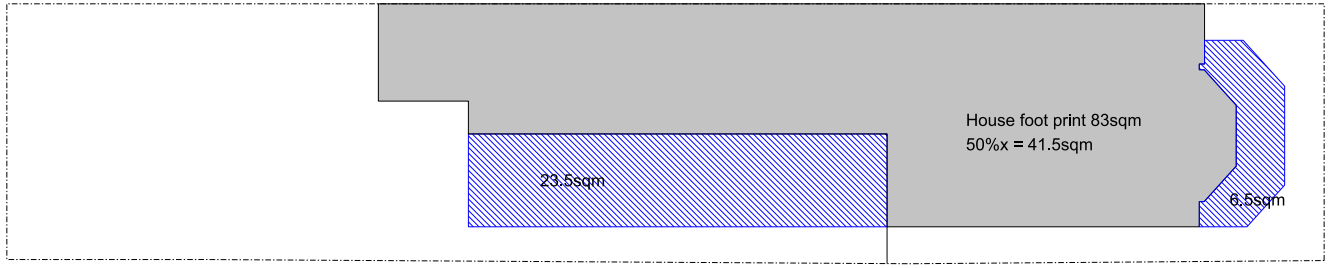
EXISTING
Plot area 206sqm
Total garden area 129sqm



POLICY h.
Max 50% of each garden can be basement



POLICY i.
Basement no more than 1.5 footprint of house (ie 50% extra footprint)



Basement Impact:
The engineering considerations and impacts related to the formation of the proposed basement are reviewed in the Basement Impact Assessment (BIA) authored by Key-GS and submitted together with the application. Extensive data analysis and intrusive site investigation was carried out to produce the BIA.

Camden planning policy (local plan policy A5):

The Council will only permit basement development where it is demonstrated to its satisfaction that the proposal would not cause harm to:

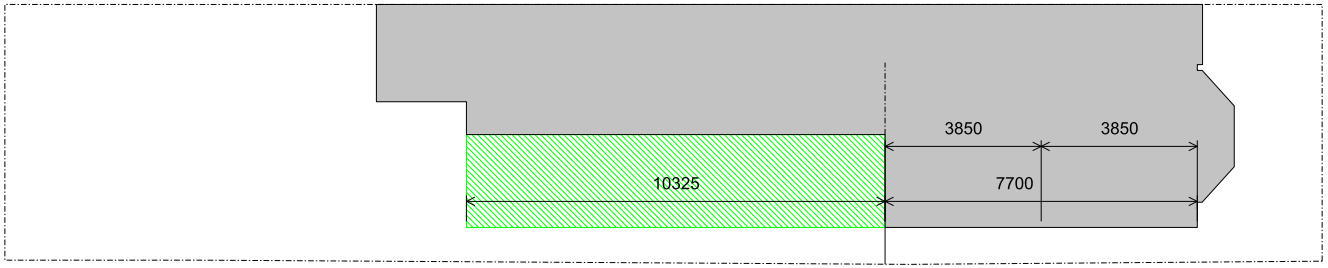
a. neighbouring properties;
b. the structural, ground, or water conditions of the area;
c. the character and amenity of the area;
d. the architectural character of the building; and
e. the significance of heritage assets.

In determining proposals for basements and other underground development, the Council will require an assessment of the scheme's impact on drainage, flooding, groundwater conditions and structural stability in the form of a Basement Impact Assessment and where appropriate, a Basement Construction Plan.

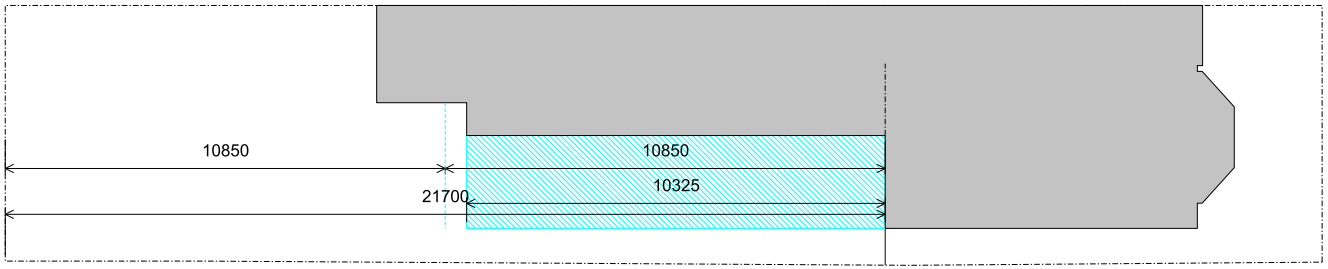
The siting, location, scale and design of basements must have minimal impact on, and be subordinate to, the host building and property. Basement development should:

f. not comprise of more than one storey;
g. not be built under an existing basement;
h. not exceed 50% of each garden within the property;
i. be less than 1.5 times the footprint of the host building in area;
j. extend into the garden no further than 50% of the depth of the host building measured from the principal rear elevation;
k. not extend into or underneath the garden further than 50% of the depth of the garden;
l. be set back from neighbouring property boundaries where it extends beyond the footprint of the host build-

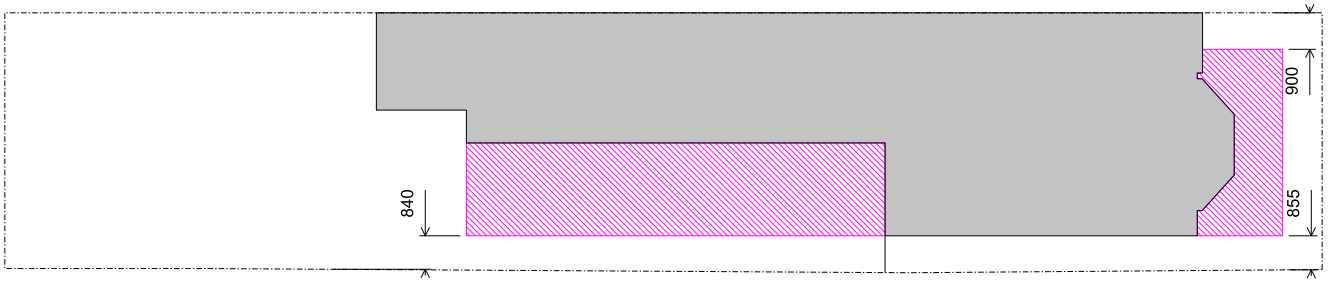
POLICY j.
Basement can't extend more than 50% depth of the host building measured from the principal rear elevation



POLICY k.
Basement extends under less than 50% depth of the garden



POLICY l.
Set-back from boundaries where extending beyond footprint of host building



Camden planning policy (local plan policy A5):

Policy j., shows the dimensions taken from the rear elevation of the widest part of the house (as per diagram). However, the rear outrigger / closet wing at No. 32 is atypical given both its length and width (wider than half the widest part of the house) therefore the principal elevation for the purposes of policy j could be taken as the end of this section.

Sustainability:
The design has been developed with consideration to reducing energy use whilst increasing occupier comfort. With regard to LB Camden's policies CC1 and CC2, CPG Energy efficiency and adaptation and the energy hierarchy, the following sustainable measures are proposed in the application:

- Fenestration design optimised to provide excellent daylight penetration to all habitable rooms.
- The existing solid brick external walls to the house will be lined internally with insulation, joisted ground floors and the roof will be insulated. The new extensions will incorporate insulation which exceeds current Building Regulations requirements.
- A continuous airtight membrane will be installed to external walls, ground floors and roofs throughout.
- Replacement of the existing single glazed, draughty windows with replacement double-glazed windows – matching the style and design of the existing.
- Ventilation would be provided using MVHR, minimising heat loss whilst providing continuous fresh air to the whole property in all weathers.
- The measures above will significantly reduce the energy required for space and water heating. At detail design stage analysis will be carried out explore options and compare whether a high-efficiency gas boiler or air-source heat pump would be best suited. If an ASHP will be specified the necessary planning permissions will be sought at that stage.
- The roof window over main stair will allow natural ventilation via the stack effect and help to keep the house cool in the summer months.

Extensive sedum roof covering

Grille to lightwell by bay

- Incorporating 35m2 of green roof which will assist with temperature regulation, slow rainwater run-off and increase biodiversity.
- All artificial lighting and appliances will be low energy/high efficiency.
- It would not currently be viable to connect the property to a decentralised power network. However, the occupiers can choose energy suppliers and/or tariffs that use renewable sources.

The applicant is reviewing the viability of installing PV solar panels to the rear roof/s of the property to generate some power on site and offset that drawn from the grid. Any proposals for solar panels would be made in a separate application.

Landscaping:
An arboricultural survey of the site was carried out in January 2023 to assess the existing trees on and around the site and to establish measures to be undertaken during construction. The report and plan are submitted together with this application. The arboriculturalist found that no tress would be affected by the proposed basement, subject to following tree protection measures as set out in his report.

In addition to the sedum blanket proposed to the new / flat roofs, evergreen planting will be introduced to the front garden to screen the basement lightwell and grill from the street.

In the rear garden the basement and extension will occupy an area which is already hard landscaped. New pavers will be installed to this area once the building works are complete. The rest of the existing planted beds and hard landscaping to the rear garden will be retained.

Conclusion:
The proposed basement extension has been designed and scaled to provide the applicants and their family with high levels of comfort whilst having minimal impact on the character of the host building. The only visible cues from the street frontage would be oblique views of the front lightwell through evergreen planting. To the

rear only the walk-on rooflight would be visible. The Council's pre-application advice stated that the basement as proposed would be "subordinate to the existing dwelling and therefore considered acceptable." The engineering of the basement excavation and construction has been considered in detail in the accompanying Basement Impact Statement.

The alterations to the existing outrigger, including making it wider and slightly taller, would vastly improve the living space within this wing of the house. It would be rebuilt with finishes and upper windows to match the original, with the chimney stack rebuilt, therefore there would be no loss of character. There would be little impact on No 34. due to the space between the respective outriggers (over 8m).

The proposed two-storey rear infill extension has been designed to contrast with but complement the host building. The more solid element of this would sit in line with the principle rear elevation of No. 34 next door. At ground floor a more transparent glass element would project further to the rear - aligning with the rear bay to No. 34. The selection of weathered steel for the cladding material of this relatively modest extension would differentiate it from the larger original/traditionally elements finished in London stock brick, with the extension therefore reading subordinate.

The new window openings to the side gable would improve daylight to the rooms without overlooking the garden spaces to No 34. The roof window to the main rear roof pitch would be modest in size and traditionally styled. The replacement windows to the front elevation would match the existing in style and design but offer significant thermal improvement. The proposed alterations to the fabric would offer significant improvements to the energy efficiency of the property. The green roofs would improve rainwater runoff and biodiversity.

The modest scale and design of the proposed gate and fence to the existing side passage would make this element very discreet.

All the proposed alterations have been carefully considered within the context of the host building and the character of the wider area.