

## Structure and Mechanical & Electrical

### Structural Engineers

The proposed supporting information has been gathered:

- Existing assessment report has been carried out. This identifies any localised repairs required to the existing structure.
- Method Statement. This proposes a strategy for the key structural alterations / repairs, including:
  - Alterations to ceilings and roofs
  - Lowering the lower ground floor level
  - Additional structure to new openings and existing areas in need
- Drainage survey. A full drainage survey has been undertaken to assess the existing condition, and a drainage strategy with remedial works will be proposed follow these results. Overall, all the sewers surveyed are in reasonably good condition.

### Mechanical and Electrical Engineers

The proposed supporting information has been gathered:

- Assessment of existing services
- Method Statement
  - Seperate services for units
  - Meter store
  - Removing the water tank from roof space
- It is assumed at this stage that all mains services and drainage connections and all the mechanical and electrical service installations will be renewed as the condition of the existing is not suitable for reuse.

### Energy efficiency planning guidance for conservation areas, Camden

The below strategies will be incorporated to maximise the energy efficiency of the building whilst maintaining the character and appearance:

- Adding floor insulation to all floor build-ups, between the existing joists.
- Adding roof insulation, improve roof construction & repair slates.
- Repairing rainwater goods.
- Repairing windows and shutters, include draft proofing.
- Proposed laminated glazing to lower ground floor and ground floor windows to improve heat loss and noise levels, as well as security of the building.
- Inclusion of curtains in interior design.
- New heating system including underfloor heating, radiators & fireplaces, as well as new vents for chimneys and existing windows for natural cross ventilation.



Our Ref: JM/JM/51649

November 2016

**Suggested Method Statement  
For Proposed structural alterations to  
4 Keats Grove, Hampstead  
London NW3**

**1.0 General**

- 1.1 The house is a grade II Listed substantial 4 story terraced house, located at 4 Keats Grove, Hampstead, London. The proposed works will include structural repairs and alterations to the external and internal masonry, strengthening of suspended timber floors, and re-ordering of internal areas, as well as reducing the lower ground floor level.

**2.0 Proposed Alterations.**

- 2.1 The principal alteration will involve lowering of the existing concrete floor level, to form a new insulated concrete slab incorporating under floor heating.
- 2.2 Some masonry strengthening works to any cracks seen in the brick work, involving possible brick stitching and helibar repairs.
- 2.3 The installation of new service ducting within the lower floor zone, which will need to ensure that the existing foundations are NOT undermined.
- 2.4 The method statement is considered as a suggested sequence of structural works that the main contractor may utilise to get from the existing condition to the proposed end construction without compromising the structural integrity and fabric of the building.
- 2.4 The main contractor will need to provide his own method statement for approved prior to works commencing.
- 2.5 This document is to enable planning conditions to be discharged.

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**3.0 Enabling Works**

- 3.1 Enabling works have already been carried out in terms of some trial holes to confirm that the existing foundations on the whole are suitable, and it is unlikely that the foundations will be undermined during the course of excavation to lower the floor level.
- 3.2 Where the existing suspended timber floors have been confirmed, we envisage that the existing timber floors will in general be adequate for the proposed use, with the likelihood of strengthening floors to accommodate the increase in dead load for bathrooms areas.
- 3.3 Where the existing roofs are to be altered (Proposed TV Room & Main Roof), in terms of altering their structural shape, we envisage that the roofs will be stripped, removing the dead load, structural roof changes made, allowing the new roof structures to transfer their loads as designed.
- 3.4 Once the external scaffold has been erected, it will be possible to inspect the fabric of the building and carry out appropriate repairs.

**4.0 Construction Works**

- 4.1 Whilst the principal contractor will be responsible for all temporary works, and given the current stripped out condition of the property, we suggest that as part of the pre-construction risk assessments that the proposed level of propping through the building is outline for consideration by the Structural Engineer.
- 4.2 The proposals will more than likely involve a sequence of needling for the existing structural masonry walls/ floors; with an agreed demolition plan for proposed alterations for careful removal of the brick work walls, and temporary propping of the appropriate floor structure. The temporary works may require back propping down to the lower ground floor level.

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## Mechanical & Electrical: Method Statement



**SGA Consulting Ltd**  
Building & Environmental Services  
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73 Mornington Street,  
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Date:- 29/11/16

Ref:- J1329 Keats Grove –  
MEPH Method Statement



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### -KEATS GROVE-

## METHOD STATEMENT FOR THE MECHANICAL, ELECTRICAL AND PUBLIC HEALTH SERVICES SYSTEMS

### EXISTING SERVICES ASSESSMENT

The existing services at Keats Grove are not useable, except for the incoming services of which only the water supply needs be altered.

The existing rainwater system is in a poor state of repair. Much of the external rainwater goods are in a poor state. Much of the external soil and waste pipes are redundant.

### INCOMING SERVICES AND METERING

The Services Store, located beneath the porch, separate from the dwellings, will house the incoming services and the associated meters:

Electricity Supply – Existing 100A supply retained as it is in the current location, entering the Services Store.

Gas Supply – Existing gas supply to be diverted to Services Store. Meters currently located externally in LGF Communal Courtyard. To be relocated into Services Store.

Water Supply – Existing 25mm water supply to be upgraded to 50mm dia. Existing point of entry in lower ground floor unit. To be relocated to Services Store.

Separate meters will be provided for electric, gas and water supplies for all 3 units.

- The studio
- The lower ground floor unit
- The main house unit – part of the lower ground floor, all of the ground, first and second floor

### WATER TANK

The existing water tank is located in the roof void. The tank is to be mechanically cut up, allowing it to be removed from the building through the existing access hatch. No hot works will be permitted.

A 7-day water pressure testing analysis shows the pressure to be more than adequate to supply the building without a water tank, so no replacement tank will be installed.

### ROUTING OF SERVICES

New internal services will be concealed.

Services pipework and cables will run within the structural floor; new partition walls or within new risers hidden within existing recesses.

Services in the structural floor are run parallel to joists wherever possible. Where services need to cross the run of joists, existing holes and notches will be re-used. However, some drilling/notching of joists will inevitably be needed. In this case standard structural guidelines will be followed to maintain the integrity of the joist.

Existing foul drainage branch pipes made redundant by the renovation will be removed from the façade of the building. Internal drainage will replace these. The overall effect will be to 'clean up' the façade. Rainwater goods will be renewed with the appropriate pipework.

Penetrations through the external wall will be limited. Where such penetrations are unavoidable, these will be located sympathetically. Traditional ironwork is likely to be used in these openings.

New heating will be provided. Generally, this will be underfloor heating. The underfloor heating offers an even distribution of heat at floor level, the heat rising from low level provides warmth to the occupants more directly than conventional radiators meaning less heat input is needed. The underfloor heating is to be fitted in between existing joists resting on battens nailed laterally into floor joists.

In 5 rooms fire places will be reinstated. Building control may require each of these rooms to have permanently open ventilation in order to comply with part J. If required, grilles will be installed at low level on the rear façade to provide ventilation to grilles on the internal walls. All grilles will be at low level with an effort to locate them inconspicuously in corners. The style of the grilles will be in keeping with the building's character. The largest of these grilles will be approximately 0.15m<sup>2</sup> in area (equivalent to 450m x 350mm). For safety reasons ceiling mounted carbon monoxide monitors will also be located in these rooms.

## Camden Planning Policy & Listed Building Consent

### **The National Planning Policy Framework (NPPF) (March 2012)**

The National Planning Policy Framework (NPPF) (March 2012) contains twelve core principles, with two relating directly to heritage conservation and environmental sustainability.

On heritage, any development should:

*"...conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations."*

On energy conservation, any development should:

*"...support the transition to a low carbon future... (and) encourage the reuse of existing resources, including conversion of existing buildings and encourage the use of renewable resources."*

We have reviewed the below policies in preparing these proposals:

**CPG1 Design, London Borough of Camden, July 2015**

**CPG2 Housing, London Borough of Camden, July 2015**

**CPG3 Sustainability, London Borough of Camden, July 2015**

**CPG4 Basements and Lightwells, London Borough of Camden, July 2015**

**Conservation Area Statement, Hampstead, Camden.**

**Hampstead Conservation Area Design Guide, Camden, Oct 2001.**

**Hampstead Conservation Area Streetscape Audit, Camden.**

**Hampstead Conservation Area Appraisal, Camden**

The site does not fall under Article 4 Direction.

## Response to Pre-Application feedback

*'The main issues to be considered are:*

- *the impact of the proposal on the special character of the Listed Building and the appearance of the property and the wider conservation area;*
- *the standard of the resulting residential accommodation'*

*Principle of conversion: The principle of conversion to three units remains acceptable subject to the detailing and impact on the listed building.'*

**Response:**

The reconfiguration of the buildings into 3 units, has been carefully considered in relation to existing features of significance, historic plan forms and optimizing functionality today. The new design, architectural detailing and proposed materials are all of the highest quality, and respect the historic character of the listed building.

The proposed alterations and repairs to the exterior have been kept to a minimum, and where necessary will be undertaken in traditional materials and in keeping with the character of the conservation area.

*'The lowering of the floor at lower ground level in the main house: this was previously considered acceptable. No further comments are made on this aspect due to its being previously supported, as long as the proposed alterations (depths etc.) are exactly as that previously approved.'*

**Response:**

A detailed drawing of the proposed floor build-up for the lower ground floor, as well as the Structural Engineer's structural report and method statement submitted alongside this document, cover the lowering of the LGF in more detail. The depth of the proposed floor and its finished floor level are both the same at the previously approved proposal.

*'Further clarification with an application is required on the proposed floor detailing (including samples), and the exact loss of historic timbers. Drawings (existing and proposed) are required where UFH and acoustic insulation will be proposed to ensure no change of floor build up/loss of historic fabric.'*

**Response:**

Typical detailed floor build-ups and location plans have been submitted to be referred to alongside this document. Areas of new flooring and reused existing floorboards, have been carefully considered to ensure the difference between them at the thresholds and any changes to existing architectural features has been minimised.

Currently no room has a complete floor of historic floor boards. The continuous reconfiguration and alterations to the buildings has meant the majority of the floors have been affected; floor boards have been removed, replaced or altered. Where new floor build-ups and finishes have been proposed, any remaining historic floorboards in these areas will be bought together and reused in the other areas specified with the aim of completing the rooms fully in historic floorboards.

*'Lowering of floor at ground level in kitchen: the previous consent did not allow for any change to the floor level of the kitchen at ground floor level. This would be discouraged due to the change in proportions of the room, and therefore impacting upon the character, appearance and hierarchy of this space. It would be preferable that the steps in the existing location are retained.'*

**Response:**

The previous application had consent to relocate the steps from the reception room into the existing opening to the small kitchen, whilst increasing the openings height accordingly to make this possible. We have adapted our design since pre-application and are now proposing to take the previous consent forward to increase the openings height, but locating the steps just inside the small kitchen to allow for a more comfortable approach into this space, whilst also minimising the effect on the room and its proportioning as a whole.

*'Alterations to chimneys:*

*The chimney in the Stables: there is evidence of alteration to the fabric of this chimney and its reposition and alteration is considered acceptable subject to further information and detailed plans to ensure no major impact upon the fabric and significance of this element.*

*The chimney in the existing extension: the chimney to the west extension of the main house however is seen to result in substantial loss of important historic fabric, which also contributes to the character, proportions, evolution and hierarchy of these spaces and the existing should be retained at each floor level. The existing chimney at higher external level also contributes the external character and appearance along with that of the Conservation Area.'*

**Response:**

The relocation of the more recent chimney to the stables has been considered carefully by the designers and Structural Engineers. The alteration will not lose any historic fabric as this chimney and surrounding roof has been rebuilt in recent years, and has modern slate and lead finishes. The realigning of the chimney is of a minimal distance, and therefore will not impact the streetscape.

This proposal still seeks to remove the chimney to the 4-storey extension, as this feature is of low significance. The extension was built in the later c.19th and due to multiple alterations over the years the rooms have little historic fabric remaining and the chimney stack, as currently configured, has been truncated, and does not make any impact on the architectural appearance. The additional space and flexibility gained by their removal allows the more effective use of these rooms today. The positive aspects gained, outweighs any historical presence the chimney breasts have within the rooms today.

## Response to Pre-Application feedback

*'Works to second floor/attic space: The information provided at this stage states that the second floor level may be a later addition to the main house and that the roof was replaced in the 1970s following a fire. The proposed works including the loss of a ceiling level and installation of large glazed walls however will substantially change the proportions, character and impact upon the plan form and hierarchy of the building – therefore would be discouraged. These works were not included within the previous application.'*

**Response:**

The pre-application design has been revised to take the above comments into consideration. The second floor is still believed to be of low historical significance. It was a later addition to the house, there is little historic fabric remaining and no significant features. Additionally the original plan form has been lost.

The new proposed walls have been located where the existing and previous walls were believed to be, with the aim of reinstating the historic plan form. The detailing proposed, including the two-panel doors are in keeping with the hierarchy of the buildings architectural details.

The benefits gained from the repairs and alterations, including improved energy efficiency, structural stability and more efficient use of the rooms today, outweigh any perceived impact on the space.

*'Replacement Porch: Previous consent allowed the removal and replacement of a much smaller porch to that existing and that now proposed. The replacement porch now proposed albeit designed in a way to wrap around/ provide visibility of historic decorative elements is seen to detract from the special qualities, character and appearance of the listed building due to the proposed detailing. It was previously allowed to be removed due to the enhancement of the existing façade.*

*That now proposed would further clutter this elevation and bring additional compromising detailing. It is appreciated that previously the existing conservatory was allowed to be removed and it was stated that it makes no significance contribution to the special interest – the glazing design and colours are seen to be iconic and a clear reference to the age of its construction. It is therefore advised that either the previously approved replacement porch is pursued or that existing retained and be upgraded/ enhanced. A new replacement porch similar to that now proposed would not be considered acceptable.'*

**Response:**

Following on from the pre-application feedback this proposal now takes the approach of retaining the existing porch and proposing to refurbish it and make improvements in order to ensure its more efficient use today.

The proposed refurbishment of the Porch would not negatively impact the function, configuration or most importantly the street presence of the existing building. The changes seek to rectify later alterations to the original Victorian structure that detract from its visual appearance and architectural significance, and also seek to improve the Porch's useability today.

The proposal retains the same pitch externally, but will enhance the existing doorway by ensuring the roof shape internally reflects the fanlight and more of the moulding is revealed. It will also replace the modern PVC glazed roof that was added after 2004, and detracts from the character of the Porch.

The proposed changes to the side elevation glazing will bring more light into the space and create a better connection between this external space and the surrounding mature garden. The improvements will not

detract from the street elevation as they will not be visible.

*The previous consent allowed for alterations to the windows, however it did not allow for any replacement of single to double nor the repositioning of windows at second floor.*

*In general double glazing is not considered acceptable in listed buildings where it includes the loss of historic fabric and where the proposals are likely to impact upon the character and appearance of the building (i.e reflectivity change in the glazing). It is appreciated that the current proposals wish to upgrade the security and thermal performance. However it is not acceptable to remove historic windows and glazing and this element of the works are discouraged.*

*Where it is clear that the windows are of later installation and are not sympathetic to the buildings character or appearance, works to replace these with a more sensitive design, detail and material would be supported. A justified proposal here for DG units would however depend on the proposed detail of the window, the window location and the likely impact of the reflectivity and character of the DG units.*

**Response:**

Taking the pre-application feedback on board, we have revised our proposal and now seek to only replace the LGF and GF glazing with laminated glass. This will help to improve security, heat loss and noise levels in the building, whilst also having minimal impact on the appearance of the elevations. As previously explained the windows and doors have been inspected more closely by a specialist and the fabric and glazing is all believed to have been replaced in the 1980s with poor quality soft wood and modern glass.

The replacements and repairs proposed will not equate to the loss of any significant historic fabric, and will have no effect on the street elevation or on the surrounding Conservation Area, as the windows on the front elevation are obscured by planting and the Porch.

## Response to Pre-Application feedback

*'Previous consent allowed for the lowering of the lower ground floor and subsequently replacement doors to allow for additional height at this level. Any other traditional doors at other levels should be retained, along with historic glass. Where new doors are proposed following alteration to the floor plan, doors which are of traditional detail and design relevant to this property would be acceptable.'*

**Response:**

The new doors proposed will be of a high quality, made using traditional materials and their detailing will match existing examples found within the building. The doors being replaced have no historical significance, having been added or altered in the 1980s.

*'Proposals to reposition the windows at second floor level are acceptable. There is evidence that this floor level was added following the main construction of this building and as such the fabric is considered to be later and the minimal loss is seen to have little overall harm to the buildings significance. The repositioning is seen to enhance the overall proportions and character to this elevation.'*

**Response:**

The proposal to reposition the 2F windows at pre-application will still be taken forward within this application. As stated in the feedback the repositioning is seen to enhance the overall proportioning and character of the elevation.

*'Railings and rear balustrades*

*It is not clear within the application why the existing railings and gate require replacement. If this element of the proposal is to be pursued, justification and clear evidence of the age and detailing must be submitted – supported by photographs etc. The application simply states 'the existing railings are not original'. If clear evidence is provided that they are not original, their replacement of railings of traditional detailing and proportions would be considered acceptable.*

*It is also noted that some alterations have taken place by the replacement of the gate which shows evidence of its increase in height by the bending of the lateral bars providing support to the gate. The increase in height of the replacement would not be considered acceptable, being contrary to policy where the Council resist any development creating a gated community feel.*

*The replacement balustrading to match those existing to the rear elevation is considered acceptable – along with the extension of the central balcony at ground floor level.'*

**Response:**

The existing front railings are now proposed to be retained and refurbished rather than replaced and increased in height as shown at pre-application. The gate is in a poor condition so will still be replaced, but it will be reinstated to match the existing detailing and the surrounding railings. An additional overthrow and lantern is also being proposed. The design of these features are in keeping with other examples in the Conservation Area, as well as traditional details from the period.

*'Landscaping: That proposed is considered acceptable subject to further details/samples of new steps, gates, paving and bin store.'*

**Response:**

Further details and examples for the proposed landscaping have been included within this application. They have been chosen to be in keeping with the existing materials found on site and have minimal negative impact on the conservation area.

## Conclusion

### **Benefit**

The benefits of the proposals include energy efficiency measures, reinstatement or retention of original plan form, repair of listed building fabric and a sustainable division of uses.

### **Conservation Area**

The proposals have sought to follow the principles of the Conservation Area. Therefore the redevelopment will add to and enhance the Conservation Area.

### **Policy**

Overall the proposed works will preserve the character and appearance of the Grade II listed property. Therefore the proposed extension and internal alterations fully comply with the Hampstead Conservation Area Design Guide and policies CPG1,2,3 and 4 and in general accordance with the NPPF/PPG.