



**20 WELL ROAD  
WINDOWS -  
DESIGN AND ACCESS STATEMENT**

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**BAYNESANDMITCHELLARCHITECTS**

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## I.0 INTRODUCTION

### PROJECT BACKGROUND

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- I.1 The building this application relates to is 20 Well Road, London, NW3 1LH. This property is a subdivision of what was once a large individual property historically known as The Logs.
- I.2 The Logs in Well Road Hampstead dates from 1868. The house was subdivided in 1952. At that time the original Conservatory was demolished and the building now known at 20 Well Road was constructed in its place. In 1983, alterations were made at roof level. In 1987 a single storey side extension was added.
- I.3 20 Well Road has approved planning for roofworks, including new dormer windows, and extensive internal alterations which are currently being undertaken.



FIGURE I. SATELLITE MAP HIGHLIGHTING LOCATION OF 20 WELL ROAD

LOCATION PLAN

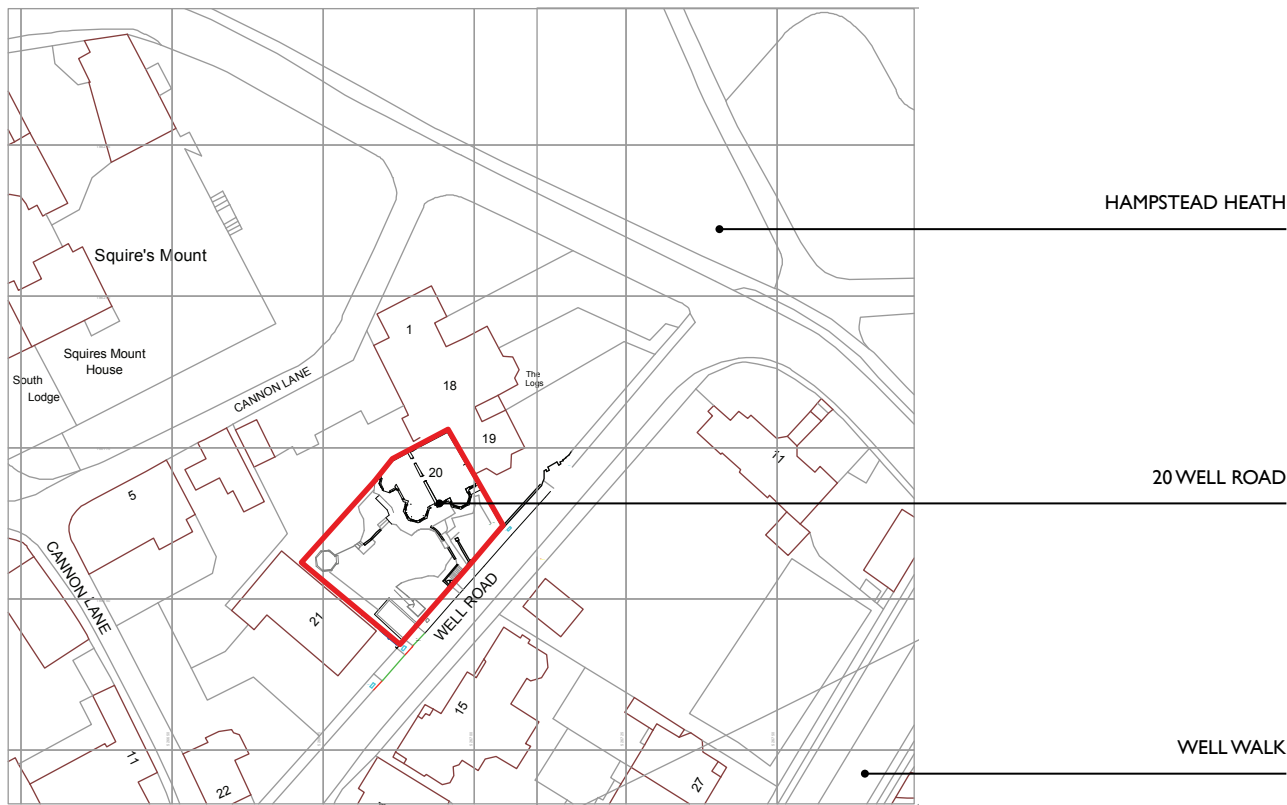


FIGURE 2. LOCATION PLAN DESCRIBING ADJACENT FEATURES

## 2.0 SITE

### SITE CONTEXT

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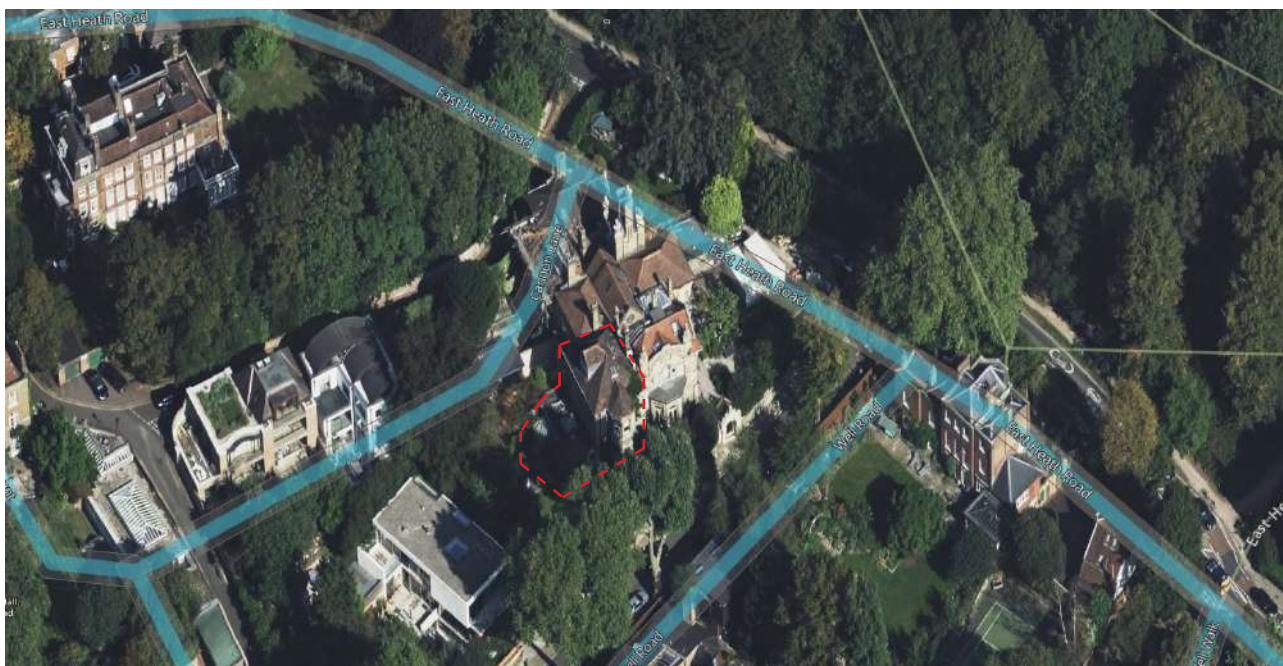


FIGURE 3. AERIAL VIEW OF 20 WELL ROAD

- 2.1 20 Well Road is an individual dwelling that is a later addition to a larger building that encompasses multiple residences.
- 2.2 The entrance is off Well Road to the South-East of the site.
- 2.3 The site is close to Hampstead Heath and a short walk from Hampstead railway station.

## 3.0 PROPOSALS

### DESCRIPTION OF PROPOSALS

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- 3.1 20 Well Road is a 1952 addition to the original house constructed on the site of the demolished conservatory.
- 3.2 There are eighteen single glazed timber sash windows in the property of varying shape and size.
- 3.3 All windows are in a serious state of decay and are in need of replacement. Many of the rotten sills have been lined with lead sheet in an attempt to slow down the deterioration (see pictures).
- 3.4 New windows will reduce considerably the energy loss caused by leaks. This application seeks approval to install double glazed units within the replacement windows. All mouldings and sight lines of the existing windows will be meticulously respected.
- 3.5 Double-glazed units would be constructed as 22mm thick (6-10-6) and argon filled in order to minimise heat loss. Glazing spacers would be coloured black.
- 3.6 There will be no changes made to the structural openings. Stone sills beneath windows appear to be in good condition and would be repaired as necessary and retained.
- 3.7 New windows would be constructed in hardwood (iroko or merranti) and painted.

## 4.0 U-VALUES

### COMPARISON

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#### U-VALUE

- 3.9 Replacing the existing single glazed units with double glazed alternatives will significantly reduce heat loss and the building will require less energy to heat.
- 3.10 Based on an internal temperature of 20°C and an external temperature of 5°C, a single glazed unit has an annual heat loss of 735.84 kWh per square meter. Our proposal for double glazed low emissivity glass with an argon filled cavity has an estimated annual heat loss of just 197.10 kWh per square meter.
- 3.11 This gives an annual saving of 538.75 kWh per square meter of window which equates to a saving of 19,395 kWh per year for the whole house.
- 3.12 Converting a single glazed property to double glazing also saves up to save 335kg of carbon dioxide per year.

Window Type	U-Value (w/m <sup>2</sup> K)
Single glazed window	5.6 w/m <sup>2</sup> K
Single glazed window, with secondary glazing	2.7 w/m <sup>2</sup> K
Double glazed window, with standard air cavity	2.8 w/m <sup>2</sup> K
Double glazed window, with argon filled cavity	2.6 w/m <sup>2</sup> K
Double glazed window, (low E glass) with standard air cavity	1.8 w/m <sup>2</sup> K
Double glazed window, (low E glass) with argon-filled cavity	1.5 w/m <sup>2</sup> K

FIGURE 4. WINDOW TYPE U-VALUE TABLE

## 5.0 APPROVED DOCUMENT PART L

### WINDOWS

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- 4.1 Within the Building Regulations Approved Document Part L it is stated in Section 4 (Limiting heat gains and losses) that there are certain requirements to be met pertaining to new and replacement elements in existing dwellings.
- 4.2 The requirements state:
- The U-value of a replacement fabric element in an existing dwelling should both:
- a. be no worse than that of the element being replaced
  - b. meet the limiting standards in Table 4.2.
- 4.3 Table 4.2 states the maximum u-value of replacement windows to be 1.4 w/m<sup>2</sup>K or Window Energy Rating Band B minimum.
- 4.4 This value can only be achieved with double or triple glazing. A single glazed window cannot meet the required standard.
- 4.5 Secondary glazing could be considered however this will only partially meet the energy requirement and the arched heads of a number of the existing windows makes secondary glazing in this property very challenging.

# Limiting standards in existing dwellings

## New and replacement elements

- 4.7 New fabric elements in existing dwellings should meet the limiting standards in Table 4.2.
- 4.8 The U-value of a replacement fabric element in an existing dwelling should both:
- a. be no worse than that of the element being replaced
  - b. meet the limiting standards in Table 4.2.
- 4.9 Guidance on when a new element must meet the standards in Table 4.2 is given in Section 10. Elements that should meet the standards include both of the following.
- a. Elements in extensions to existing dwellings.
  - b. New or replacement elements in existing dwellings.
- 4.10 If windows or fully glazed external pedestrian doors cannot meet the requirements of Table 4.2 because of the need to maintain the character of the building, either of the following should be met.
- a. These fittings should not exceed a centre pane U-value of 1.2W/(m².K).
  - b. Single glazing should be supplemented with low-emissivity secondary glazing.

Table 4.2 Limiting U-values for new fabric elements in existing dwellings	
Element type	Maximum U-value <sup>(1)</sup> W/(m².K)
Roof <sup>(2)</sup>	0.15
Wall <sup>(2)(3)</sup>	0.18
Floor <sup>(4)(5)</sup>	0.18
Swimming pool basin <sup>(6)</sup>	0.25
Window <sup>(7)(8)(9)</sup>	1.4 or Window Energy Rating <sup>(10)</sup> Band B minimum
Rooflight <sup>(11)(12)</sup>	2.2
Doors with >60% of internal face glazed <sup>(13)</sup>	1.4 or Doorset Energy Rating <sup>(10)</sup> Band C minimum
Other doors <sup>(13)(14)</sup>	1.4 or Doorset Energy Rating <sup>(10)</sup> Band B minimum

FIGURE 5. EXERTS FROM APPROVED DOCUMENT PART L

## 6.0 PHOTO REPORT

### WINDOWS

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PROFILES AND SIGHT LINES OF EXISTING WINDOWS WILL BE METICULOUSLY RESPECTED



WINDOWS ARE IN A SERIOUS STATE OF DECAY

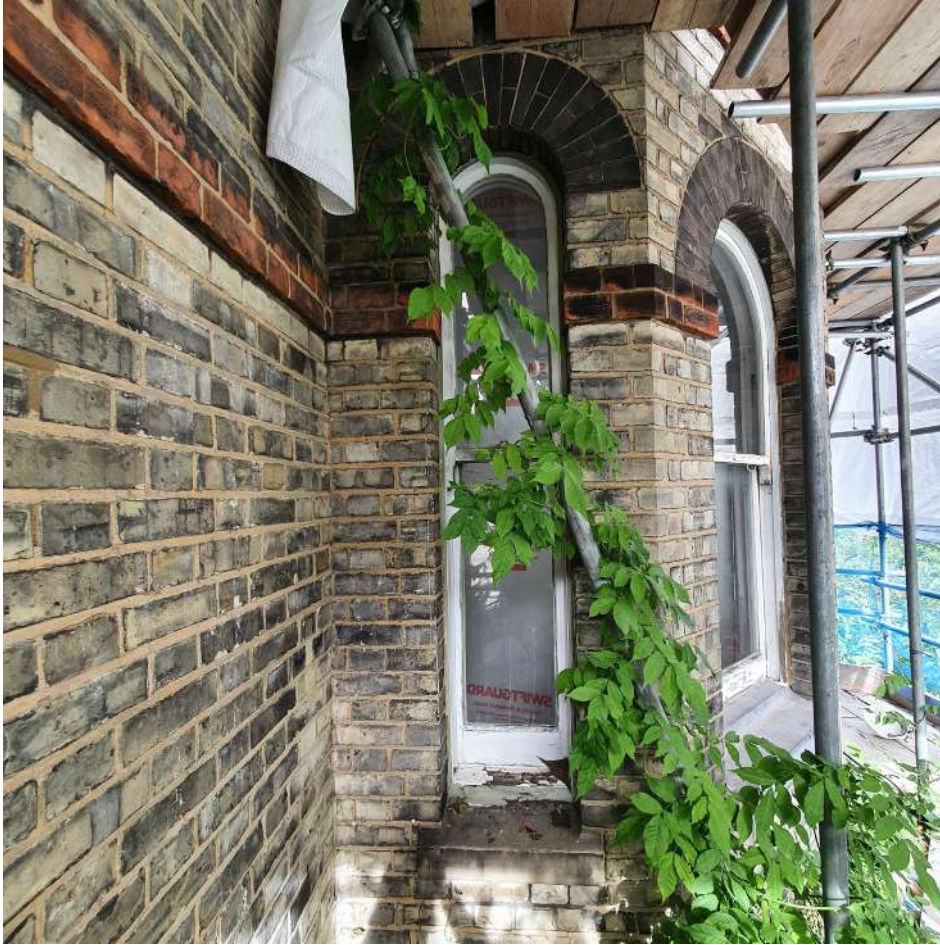




THERE WILL BE NO CHANGES MADE TO THE STRUCTURAL OPENINGS



MANY OF THE ROTTEN SILLS HAVE BEEN LINED WITH LEAD SHEET IN ORDER TO SAVE THEM FROM FURTHER DECAY





STONE SILLS BENEATH WINDOWS APPEAR TO BE IN GOOD CONDITION AND WILL BE REPAIRED AS NECESSARY AND RETAINED.





## 7.0 CONCLUSION

### CONCLUSION AND SUMMARY

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- 5.1 Despite the buildings Grade II listing we consider the heritage value of its windows (it being a 1950's addition to the original house) to be less important than the need to protect against excessive energy loss. Installation of double glazed windows will not detrimentally alter the view from the street or the overall character of the building - particularly as the proposed windows will fully respect the material details and sight-lines of the originals.
- 5.2 The current windows have reached the end of their life cycle and are no longer fit for purpose. They have already had a number of remedial works carried out and a full replacement is now necessary.
- 5.3 Due to the number and size of windows in the property this will significantly reduce the properties energy loss.
- 5.4 With the current climate emergency, measures should be taken whenever the opportunity arises to improve the energy efficiency of homes.