behan partnership LLP
chartered surveyors

**DAYLIGHT & SUNLIGHT STUDY**
**NEIGHBOURING AND SELF-TEST ASSESSMENTS**

*Of*

**18 Hanway Street, London W1**

*on behalf of*

**Soho Housing Association**

**Revision Reference: Final**
**Reference No. 2011873**
**Date of Publication: 06 October 2011**

**Behan Partnership LLP**
**New Barnes Mill**
**Cottonmill Lane**
**St Albans**
**Hertfordshire**
**AL1 2HA**
**Phone: 01727 800075**

# Contents



## Appendices

| | | |
|---|---|---|
| Appendix 1- | Drawings 2011873/01 - 10 | (Existing & Proposed model, views) |
| | Drawings 2011873/11 - 13 | (Window Map) |
| | Tables; VSC, ADF, Sunlight | |
| Appendix 2- | Drawings 2011873/21 - 23 | (Daylight Distribution, Neighbouring Study) |
| | Tables; DD | |
| Appendix 3- | Drawings 2011873/24 - 25 | (Window Map) |
| | Tables; VSC, Sunlight, ADF | |
| Appendix 4- | Drawings 2011873/26 - 29 | (Daylight Distribution, Self-Test Study) |
| | Tables; DD | |

.....

Prepared & Authorised by
**Mark Behan BSc (Hons) MRICS**

Date: 06 October 2011

## 1. INTRODUCTION

As part of the redevelopment review process, we have carried out an analysis of the proposals designed by TF Architecture for Soho Housing Association on 18 Hanway Street, London W1 to ensure it meets the BRE minimum standards for daylighting and sunlighting on the neighbouring residential properties and within the residential element of the development itself on Hanway Street and Hanway Place.

We have a good idea of the extent of the proposed development and from the information that is available we have constructed a 3D model of the existing and proposed site.

### Policy Guidelines

1.1 This study has been carried out in accordance with the recommendations of the Building Research Establishment Report "Site Layout Planning for Daylight & Sunlight 1991". This is the adopted standard within Camden's Unitary Development Plan by which daylight and sunlight are measured.

### Methodology

1.2 The Daylight & Sunlight assessments have been undertaken by reference to the Building Research Establishment (BRE) Guidelines "Site Layout Planning for Daylight & Sunlight. A Guide to Good Practice".

1.3 The BRE Report advises that daylight and sunlight levels should be assessed for the main habitable rooms of neighbouring residential properties. Habitable rooms in residential properties are defined as kitchens, living rooms and dining rooms. Bedrooms are less important as they are mainly occupied at night time. The Report also makes reference to other property types, which may be regarded as "sensitive receptors" such as schools, hospitals, hotels and hostels, small workshops and most offices.

### Daylight

1.4 The BRE Guide states that:-

> *"If, for any part of the new development, the angle from the centre of the lowest affected window to the head of the new development is more than 25°, then a more detailed check is needed to find the loss of skylight to the existing buildings."*

1.5 The BRE Guidelines propose several methods for calculating daylight. The 3 main methods predominantly used are those involving the measurement of the total amount of skylight available:-

- vertical sky component (VSC)
- Average Daylight factor (ADF)
- Daylight Distribution (DD) or No-Sky Line

i. The VSC calculation is a general test of potential for daylight to a building, measuring the light available on the outside plane of windows.

ii. The second recognised method of assessment for daylight is the Average Daylight Factor (ADF) calculation which assesses the quality and distribution of light within a room served by a window and takes into account the VSC value, the size and number of the windows and room and the use to which the room is put. The ADF is the effective proportion of sky visibility available as luminance within a room. Rather than simply assessing the external obstructions as seen from a window, as in the VSC analysis, the ADF calculation takes the external sky visibility and incorporates it within a calculation that takes account of window size, number of windows, internal room surface area, glass transmittance and internal surface reflectance.

Where the analysis shows that the VSC results show values outside the BRE standards, we would then analyse the ADF results and this has been provided for completeness.

The ADF is calculated using the following formula:-

$$df = \frac{TAw\theta\ \%}{A(1-R^2)}$$

Where:

- T is the diffuse visible transmittance of the glazing, including corrections for dirt on glass and any blinds or curtains. (For clean clear single glass, a value of 0.8 can be used)
- Aw is the net glazed area of the window ($m^2$)
- A is the total area of the room surfaces: ceiling, floor, walls, doors and windows ($m^2$)
- R is their average reflectance. For fairly light-coloured rooms a value of 0.5 can be taken
- Θ is the angle of visible sky in degrees derived from the vertical sky component

The BRE Report advises that, where supplementary electric lighting is available, the minimum standards of ADF that should be attained are 2% for kitchens, 1.5% for living rooms and 1% for bedrooms.

Our workings identify the key data used for the ADF analysis and the results for the rooms, in comparison with the room use. The theta value in the calculation has been derived from the same VSC results also reported in this summary.

1.6 The ADF assesses actual light distribution within defined room areas, whereas the VSC considers potential light. British Standard 8206, Code of Practice for Daylighting recommends ADF values of 1% in bedrooms, 1.5% in living rooms and 2% in kitchens. For other uses, where it is expected that supplementary electric lighting will be used throughout the daytime, such as in offices, the ADF value should be 2%. The Average Daylight Factor is a reliable daylight test. This is because the Average Daylight Factor test takes into account a range of variables, for example, the size of the window and whether the room has more than one window. These are important factors which affect the level of illumination within a room.

1.7 The third method, Daylight Distribution (DD), divides those areas of the working plane (850mm above floor level) which can receive direct skylight, from those which cannot. A room may be adversely affected if; following the development, the area of the working plane that can receive direct skylight is less than 0.8 times its former value.

1.8 At the time of the assessment, we were able to source detailed and accurate information available on the internal arrangements of several of the neighbouring properties adjacent to the site therefore we have applied these layouts to each property assessed for realistic simulation purposes.

1.9 The daylight assessment has been undertaken using all methods. All windows serving habitable rooms have been considered for each of these methods.

**Sunlight**

1.10 The BRE have produced sunlight templates for London, Manchester and Edinburgh, indicating the Annual probable Sunlight Hours (APSH) for these regions. The London template has been selected for this study as the London indicator template is the closest of the three available from BRE in terms of latitude.

1.11 Sunlight analysis is undertaken by measuring annual probable sunlight hours (APSH) for the main windows of rooms which face within $90^{o}$ of due south. The maximum number of annual probable sunlight hours for the London orientation is 1,486 hours. The BRE guidelines propose that the

appropriate date for undertaking a sunlight assessment is on 21st March, being the spring equinox. Calculations of both summer and winter availability are made with the winter analysis covering the period from the 21st September to 21st March. For residential accommodation, the main requirement for sunlight is in living rooms and it is regarded as less important in bedrooms and kitchens.

**Significant Criteria**

1.12 In describing the significance criteria as set out below, it should be noted that they have been developed to protect residential properties, which are the most sensitive receptors.

1.13 The Guidance given by BRE has been used as a basis for the criteria to assess the Development's potential impacts. The BRE guidance specifies:

"…In special circumstances the developer or planning authority may wish to use different target values. For example, in an historic city centre a higher degree of obstruction may be unavoidable…"

1.14 The report adds:

"…Different criteria may be used, based on the requirements for daylighting in an area viewed against other site layout constraints."

1.15 In consideration of the above, it is important to note that the Site is located in an urban centre that, in parts, currently experiences daylight levels below the BRE recommendations. This is discussed within the 'Baseline Conditions' section of this report. Thus, in these instances the BRE guidance states that the:

"…guidelines should be applied sensibly and flexibly".

1.16 Under these circumstances, the less stringent, higher BRE target percentage loss values and significance criteria may be justifiable.

**Daylight and Sunlight**

1.17 The BRE Guidance is summarised in the below table and this has been used as the basis for the criteria used in the assessment of daylight and sunlight impacts.

| Test: | Building Research Establishment (BRE) Criteria: |
|---|---|
| **Daylight** | A window may be adversely affected if the vertical sky component (VSC) measured at the centre of the window is less than 27% and less than 0.8 times its former value.<br><br>A room may be adversely affected if the average daylight factor (ADF) is less than 1% for a bedroom, 1.5% for a living room or 2% for a kitchen. For offices a minimum figure of 2% is required.<br><br>Daylight distribution (DD); a room may be adversely affected if, following the development, the area of the working plane that can receive direct skylight is less than 0.8 times its former value. |
| **Sunlight** | A window may be adversely affected if a point at the centre of the window receives in the year less than 25% of the annual probable sunlight hours including at least 5% of the annual probable sunlight hours during the winter months (21 September to 21 March) and less than 0.8 times its former sunlight hours during either period. |

1.18 A room within a neighbouring residential property is considered to suffer a materially adverse impact if, as a result of development proposals, the room fails to meet the minimum BRE standard for any of the three assessments. It should be noted that VSC results which can only be viewed as "…a general test of potential for daylight." The BRE Guide intends this assessment to be used as a tool to aid window positioning during the building design process. When testing neighbouring properties it should, be accompanied by an assessment of internal daylight distribution by calculation of the Daylight Distribution (DD). It is noted that the DD form of assessment is an accurate indication of the distribution of light within a room and takes the room and window dimensions into account.

1.19 The BRE guidance has been used to generate significance criteria that have been used to assess the impact of the development.

1.20 For VSC, Sunlight and Daylight Distribution this is:-

- Windows experiencing less than 20% reduction represent negligible to minor beneficial impacts;
- Windows experiencing between 20 and 29.9% reduction represent minor adverse impacts;
- Windows experiencing between 30 and 39.9% reduction represent moderate adverse impacts; and
- Windows experiencing greater than 40% reduction represents substantial adverse impacts.

### Baseline Conditions

1.21 An analysis of the impact of the existing buildings (the baseline conditions) against which to compare any potential impact arising from the development has been undertaken based on the existing building information provided by TF Architecture and photographic evidence from a site inspection. The detailed results of this analysis are presented in the table appended at Appendix 1 & 2.

## 2. RESULTS

## Neighbouring Assessment

### Daylight VSC

2.1 The results of the Vertical Sky Component (VSC) analysis on the relevant residential overlooking the development of 18 Hanway Street are presented on the drawings and tables at Appendix 1. The room use for these properties is understood from plans derived from the Camden planning department which are listed within the drawing legend on all drawings within the appendices. They have all been assessed against the BRE minimum standards for daylighting. Two properties have been assessed due to their habitable use, 14 Hanway Street, 5 and 6 Hanway Place. The windows that have been assessed are the nearest residential windows that serve habitable rooms and that whilst there are other windows in the vicinity, these are either commercial or are non-habitable residential windows. On 14 Hanway Street only window was assessed at first floor level, all other windows are considered to be non-habitable and have not been assessed.

2.2 It can be seen from the VSC table that all of the windows assessed will automatically meet BRE criteria by virtue of the fact that the results are either the same or within 20% of the baseline figure. This is a total of 13 windows meeting BRE criteria for VSC. The overall pass percentage on neighbouring windows is considered to be 100%.

2.3 The results demonstrate that the scheme will meet BRE criteria for daylight VSC If perceived from an urban context the results are classed as excellent.

### Average Daylight Factor

2.4 The results of the Average Daylight Factor (ADF) analysis on the relevant residential overlooking the development of 18 Hanway Street are presented on the drawings and tables at Appendix 1.

2.5 It can be seen from the table that all rooms will receive results above their minimum use or alternatively within 20% of the baseline figure, therefore all rooms are considered to meet BRE criteria for ADF.

**Daylight Distribution**

2.6 The results of the daylight distribution (DD) analysis on the relevant residential premises overlooking the development of 18 Hanway Street are presented on the drawings and tables at Appendix 2.

2.7 It can be seen from the results on DD table that the majority of rooms assessed will meet BRE criteria for DD by virtue of the fact that the level of light in the proposed scenario is either above 80% or within 20% of the baseline figure. Of the 9 rooms assessed 4 rooms will experience a negligible impact.

2.8 There is one room (Kitchen, 14 Hanway Street) which falls below BRE criteria for DD assessment; however this room will experience a minor adverse impact. If an urban setting of 50% of the floor area lit is applied then all rooms are considered to be left well lit. It could be argued that this room is not considered to be habitable as the floor area is well below 13m².

2.9 Within 5 Hanway Place there are mezzanine levels above the first and second floors, however these are set well back from the window openings to create a void to the main floor levels. The results show that in both the existing and proposed scenario no direct light reaches the working plane of the mezzanine levels.

2.10 Therefore in an urban environment such as this location it is considered that the results of the DD analysis are considered on the whole to create a negligible impact to the neighbouring amenity.

**Sunlight APSH**

2.11 The results of the sunlight analysis (APSH and Winter) on the relevant residential (and commercial premises) overlooking the development of 18 Hanway Street are presented on the drawings and tables at Appendix 1.

2.12 The results show that all windows on 5 Hanway Street will meet BRE criteria for ASPH sunlight, the same can be said for winter sunlight with the exception of window 3 on the first floor, however the two neighbouring windows 1 and 2 within room 1 pass therefore the room is considered to receive adequate winter sunlight.

2.13 The result on 14 Hanway Street shows that the levels of sunlight reaching the kitchen window are relatively low, however this is mainly due to the orientation of this window facing in a eastern direction. It could be argued that this room should be discounted from the assessment as the room is too small to considered habitable less than 13m².

2.14 Therefore is urban environment such as this it is considered that the scheme fulfils sunlight criteria on neighbouring properties.

## Self-Test Assessment

### Daylight VSC

2.15 The results of the VSC assessment are shown on the self-test table in Appendix 3. The automatic pass rate for VSC is 27%. There are 8 windows within the development that will automatically meet BRE criteria with a VSC figure of 27% or higher. These are naturally on the upper floors of the buildings where one would expect a better degree of sky visibility.

2.16 All other windows will still see a good level of sky visibility for their use considering their urban location. Due to the use of a retained façade in the construction the VSC figures are fixed and beyond any design control.

### Average Daylight Factor

2.17 The ADF results for the habitable rooms are shown on the self-test table in Appendix 3. Of 12 Rooms assessed all 12 will meet the BRE guidelines for either 1% for a bedroom or 1.5% for mixed used room such as a kitchen / living room / diner.

2.18 Therefore it has been demonstrated that all habitable rooms have been designed to ensure they meet BRE guidelines for Average Daylight Factor.

### Daylight Distribution

2.19 The results for the relevant habitable rooms DD assessment are shown on the self-test table in Appendix 4. Due to the urban context of the site the more realistic 50% pass rate benchmark has been employed instead of the sub urban value of 80%. Based on these standards 10 proposed habitable rooms of the 12 assessed meet BRE criteria.

2.20 The two remaining rooms that fall short of BRE criteria will meet BRE criteria for ADF and VSC.

2.21 When the results are considered as a whole and the site's urban location is taken into account along with the constraints that arise from a conversion rather than a new build, the habitable rooms in the development are considered to receive adequate lighting.

**Sunlight APSH**

2.22 The sunlight results within the development are shown on the table within Appendix 3.

2.23 The results indicate that of the 16 south facing rooms windows assessed for APSH Sunlight all windows will automatically meet BRE guidelines as they will receive an APSH of 25% or above.

2.24 The same can be said for the Winter sunlight assessment from second – fourth floors with all windows receiving a Winter figure of 5% or above. The first floor figures are just short of BRE guidelines but are good considering the urban location and the use of the retained façade which takes control away from the design in terms of winter sunlight. Therefore it has been demonstrated that all windows that qualify for sunlight analysis will fulfil BRE criteria for sunlight.

## 3. Conclusion

3.1 The site is situated in the London Borough of Camden on the cusp of the City of Westminster and is in close proximity to the adjacent properties to the north, south, east and west which is considered to be in a dense urban environment. A daylight and sunlight assessment has been carried out on the neighbouring residential properties 14 Hanway Street, 5 and 6 Hanway Place, all other properties are considered to be non-habitable used for commercial use and have not been assessed. The proposed habitable areas with the scheme itself have also been assessed to ensure they have been designed with daylight and sunlight measures in line with BRE criteria, below is a summary of the findings of the assessments.

## Neighbouring Assessment

3.2 To assess the development's potential impact on daylight and sunlight on the neighbouring properties a baseline assessment was undertaken using the Vertical Sky Component (VSC) and daylight distribution (DD) method for daylight analysis using the Waldram diagram template drawings; the sunlight analysis is undertaken by measuring annual probable sunlight hours (APSH) for the main windows of rooms which face within $90^{o}$ of due south provided by the Building Research Establishment.

3.3 The VSC and ADF daylight analysis indicates that all of neighbouring windows and rooms will remain adequately lit as a result of the development proposals and will comply with the BRE criteria.

3.4 The DD indicates that the majority of neighbouring rooms will remain adequately lit as a result of the development proposals and will comply with the BRE criteria. If the rooms that fall short of BRE criteria are considered in an urban context such as this the results should be deemed to be satisfactory.

3.5 All neighbouring rooms served by windows that qualify for sunlight assessment are considered to be well lit for their urban environment and meet BRE criteria for APSH and winter sunlight.

## Self-Test Assessment

3.6 To assess the potential for light within the development itself a daylight VSC, DD, ADF and sunlight assessment was undertaken on the proposed fourth floor and retained façade fenestrations on Hanway Street and Hanway Place of 18 Hanway Street development.

3.7 The daylight analysis revealed that all of the proposed habitable rooms have been designed to ensure they receive enough light whereby they will experience a negligible impact.

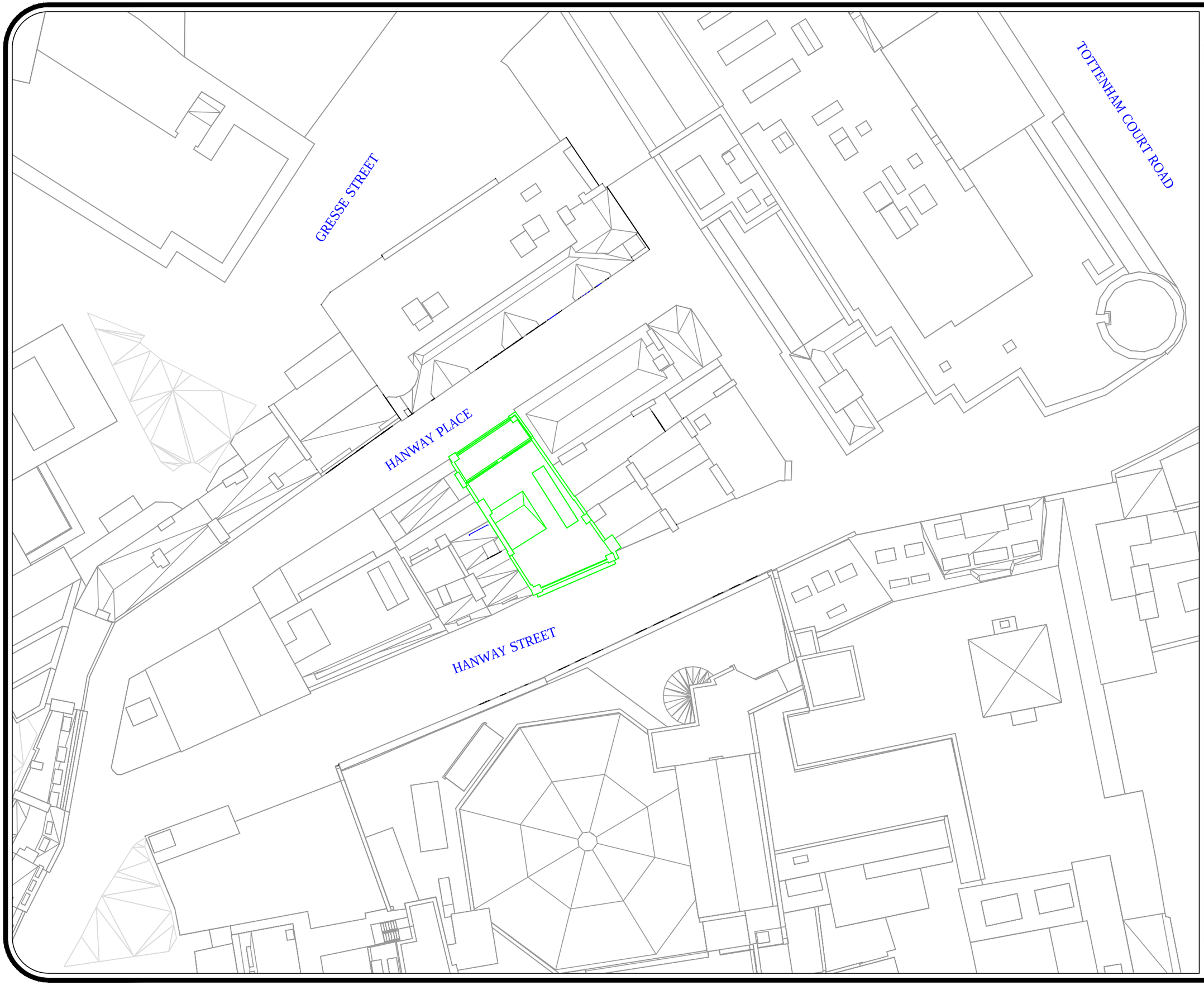
3.8 The sunlight assessment shows that the scheme has been designed to ensure that all rooms with southern aspect windows receive enough direct sunlight above the minimum BRE criteria.

3.9 The development should therefore be considered to meet the requirements of the London Borough of Camden's UDP in daylight and sunlight terms.

**Mark Behan BSc (Hons) MRICS**
**Chartered Building Surveyor**

***APPENDIX 1***

| | |
|---|---|
| Drawings 2011873/01 - 10 | (Existing & Proposed model, views) |
| Drawings 2011873/11 - 13 | (Window Map) |
| Tables; VSC, ADF, Sunlight | |




LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

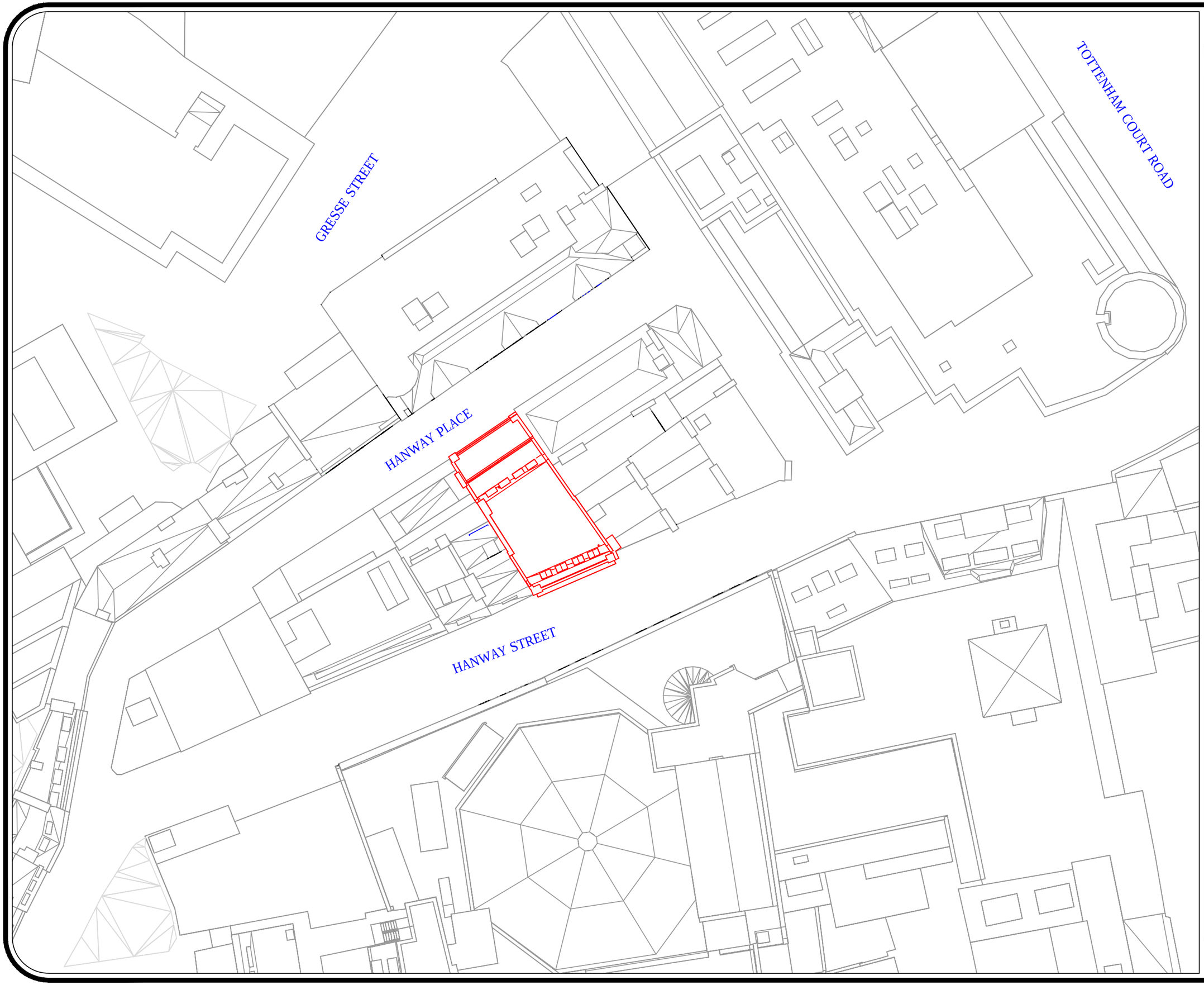
Drawing Description
SITE LAYOUT PLAN
EXISTING BUILDING

Project Reference
2011873

Drawing Sheet No
873/01

Date
15/08/2011

Scale
NTS




LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

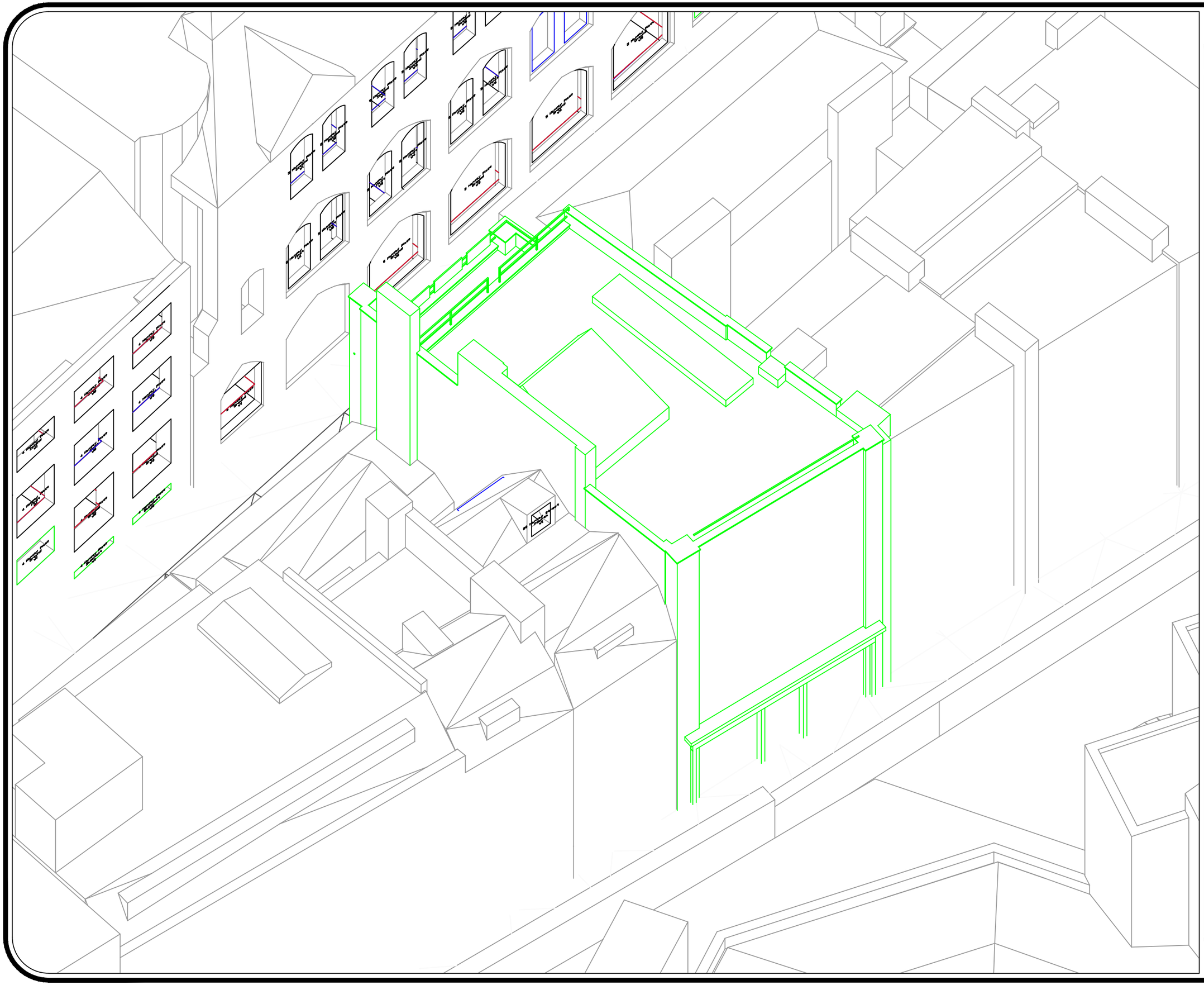
Drawing Description
SITE LAYOUT PLAN
PROPOSED SCHEME

Project Reference
2011873

Drawing Sheet No
873/02

Date
15/08/2011

Scale
NTS



LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

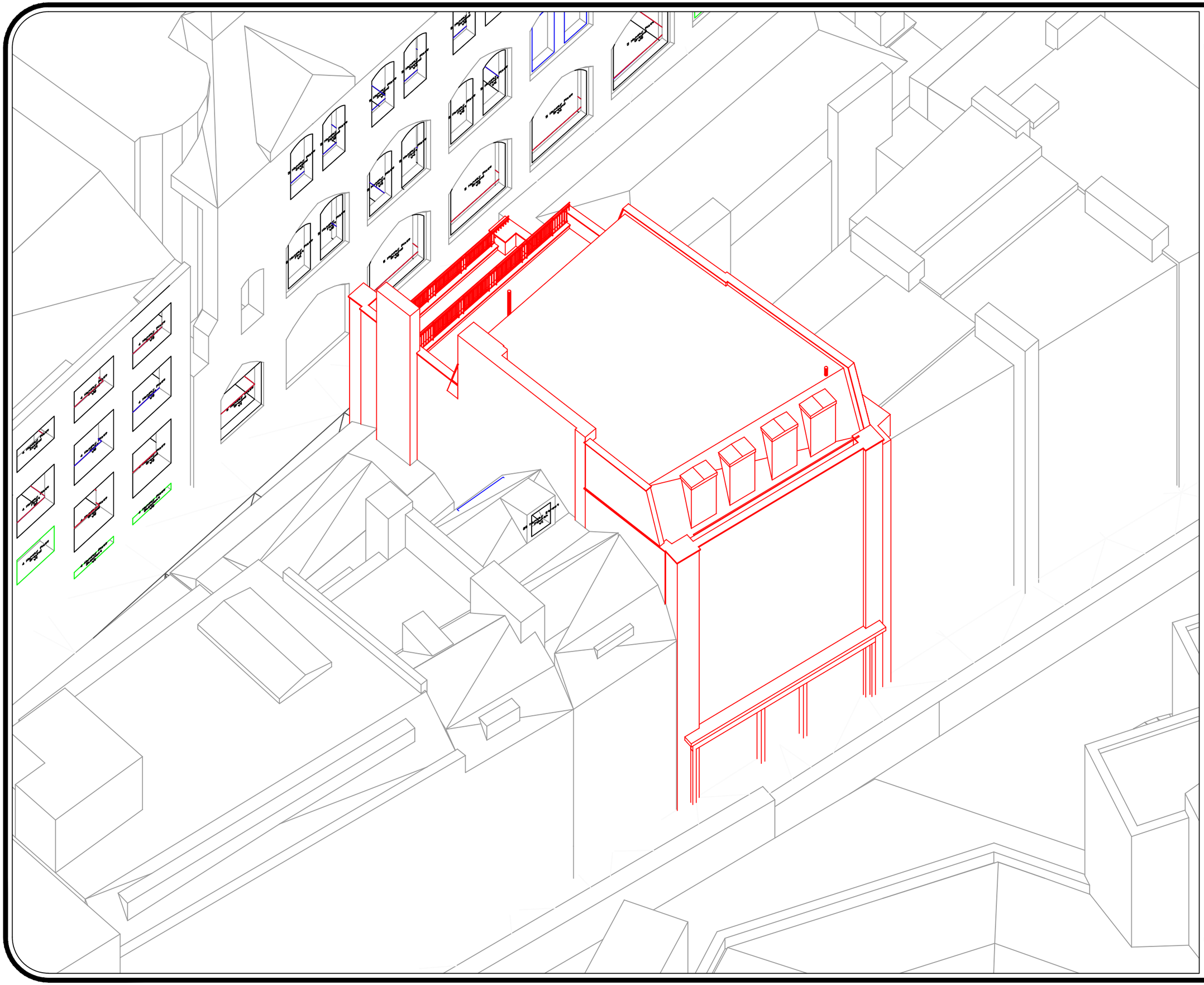
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
3D VIEW
EXISTING BUILDING

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/03 |
| Date: 15/08/2011 | |
| Scale: NTS | |



LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
3D VIEW
PROPOSED SCHEME

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/04 |
| Date: 15/08/2011 | |
| Scale: NTS | |

LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

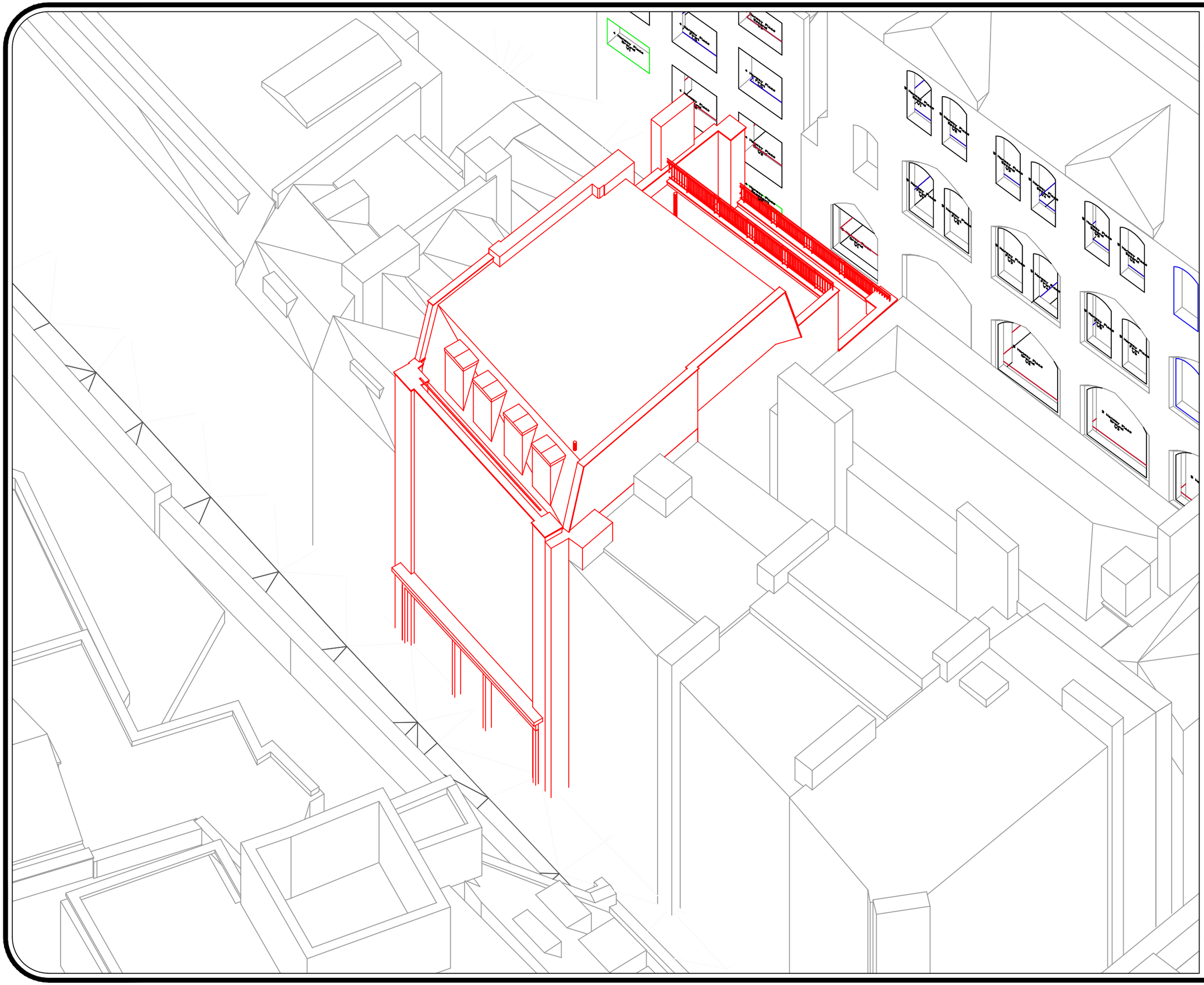
Drawing Description
3D VIEW
EXISTING BUILDING

Project Reference
2011873

Drawing Sheet No
873/05

Date
15/08/2011

Scale
NTS



LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

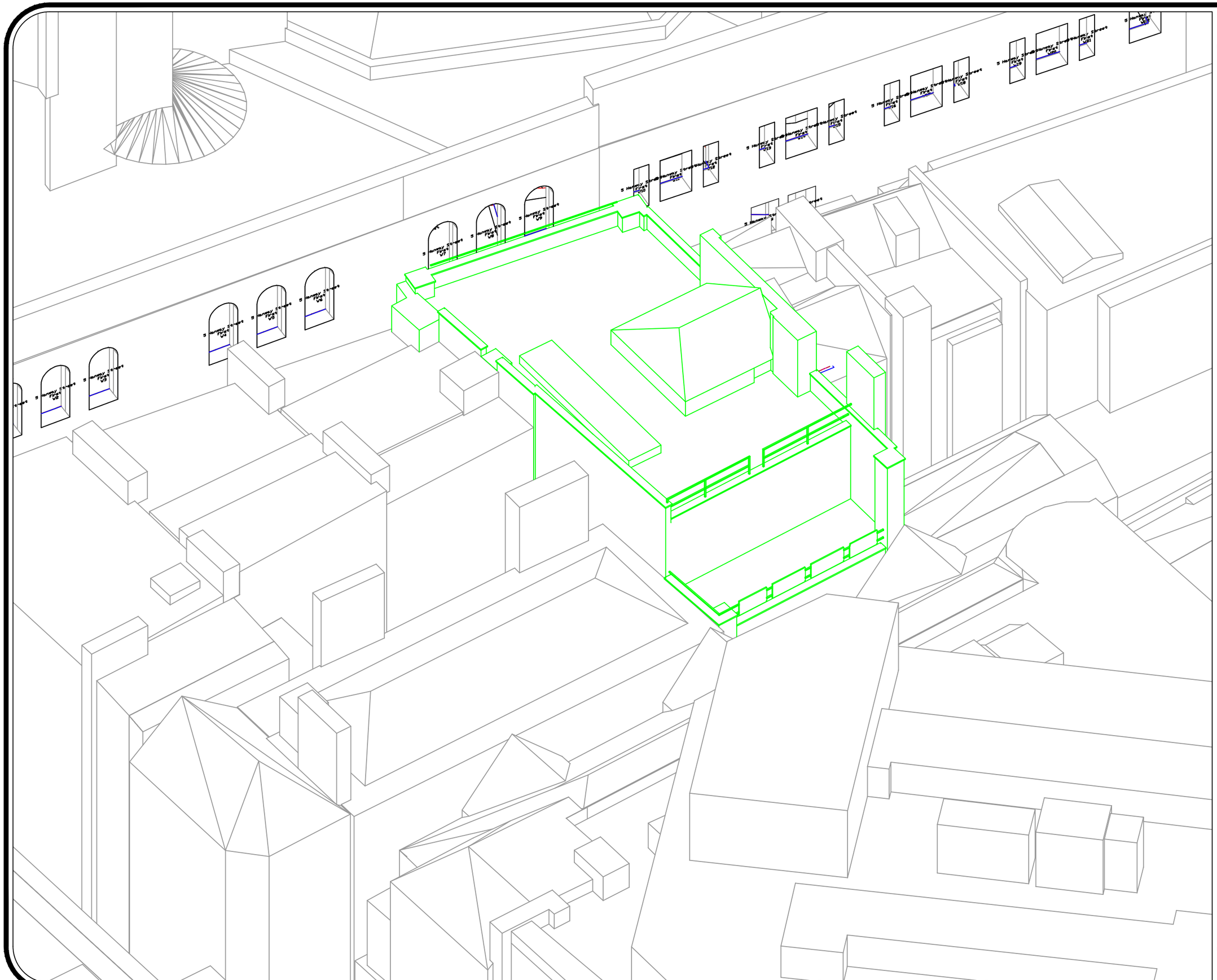
Drawing Description
3D VIEW
PROPOSED SCHEME

Project Reference
2011873

Drawing Sheet No
873/06

Date
15/08/2011

Scale
NTS



LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

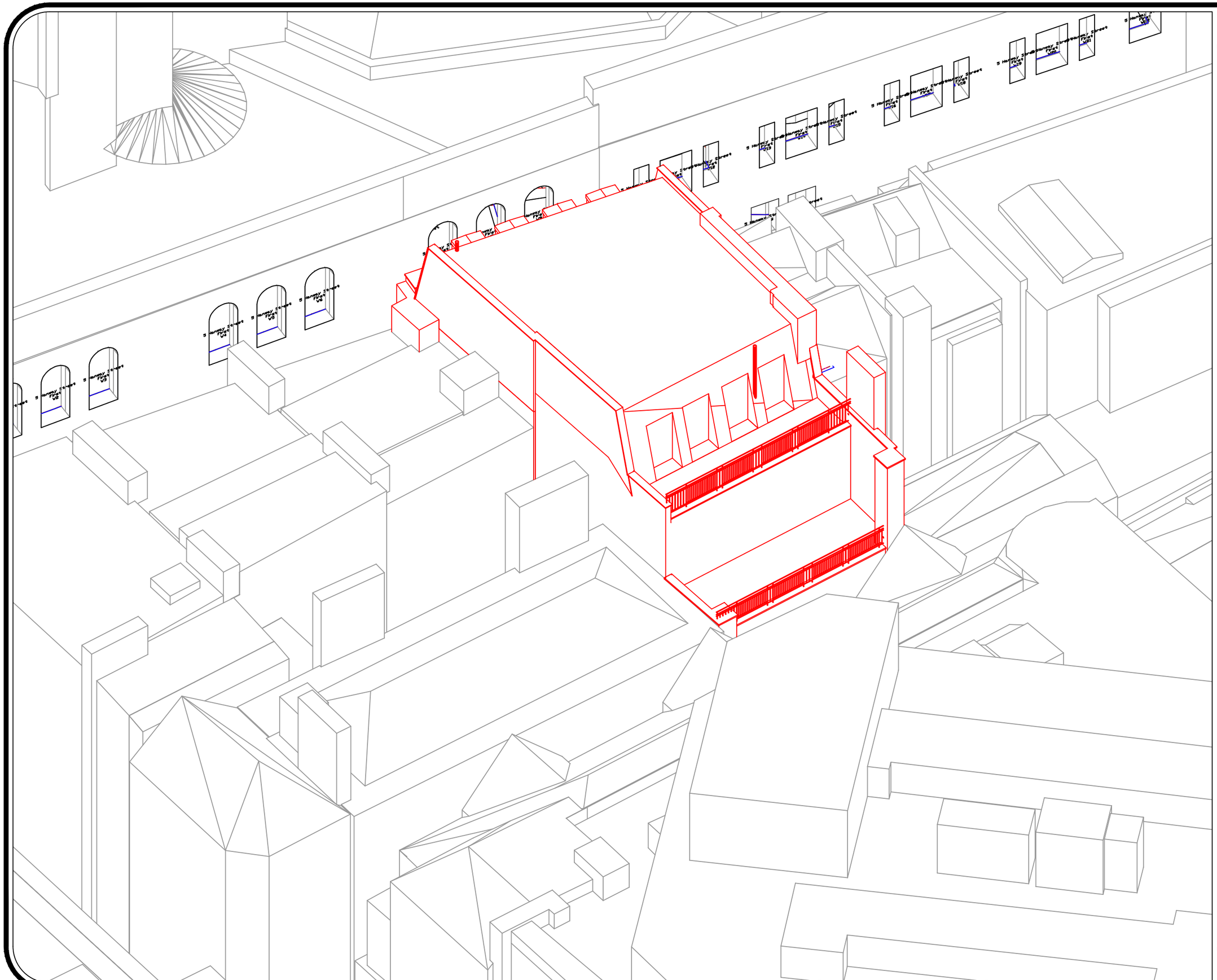
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
3D VIEW
EXISTING BUILDING

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/07 |
| Date: 15/08/2011 | |
| Scale: NTS | |



LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

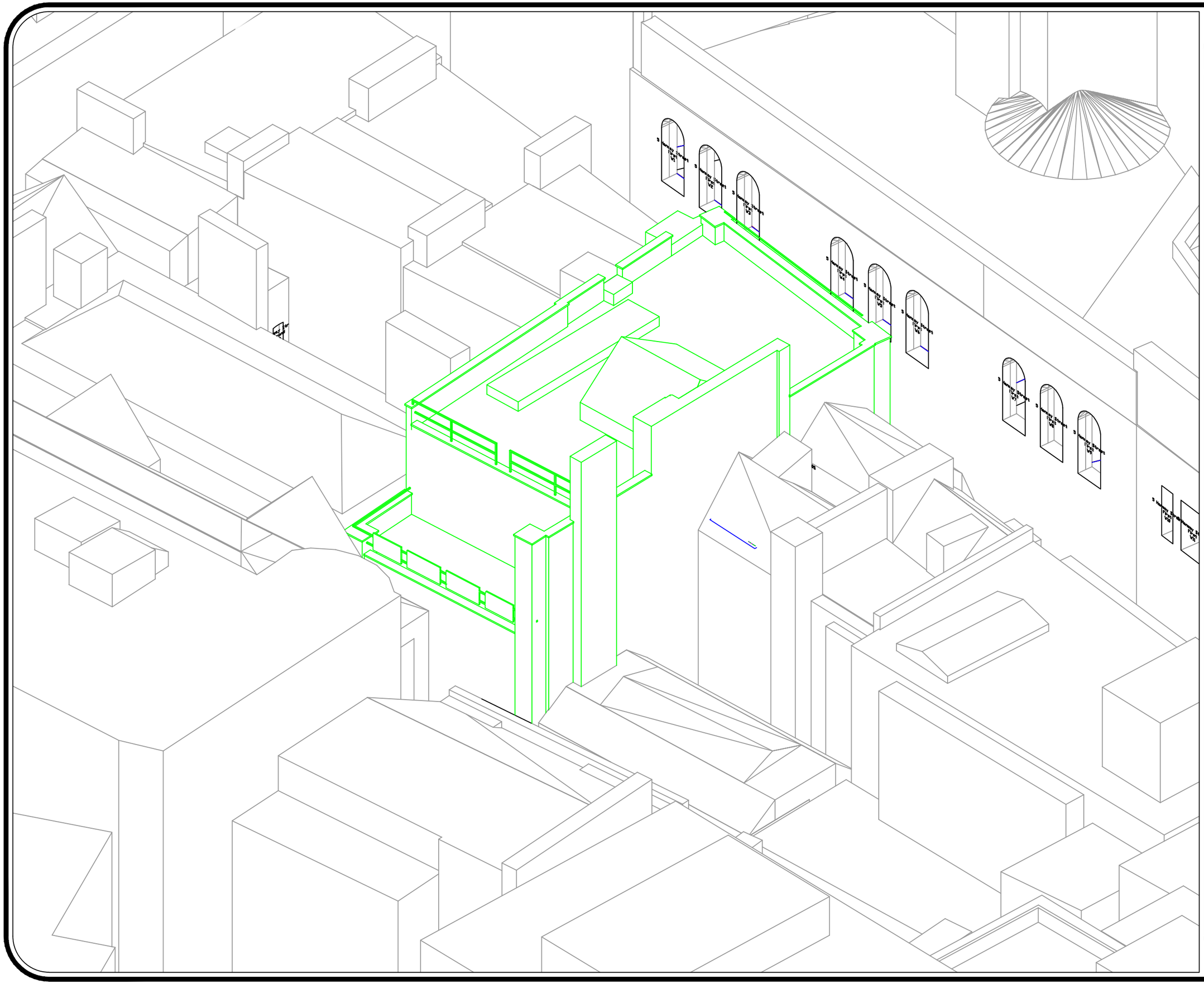
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
3D VIEW
PROPOSED SCHEME

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/08 |
| Date: 15/08/2011 | |
| Scale: NTS | |



LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

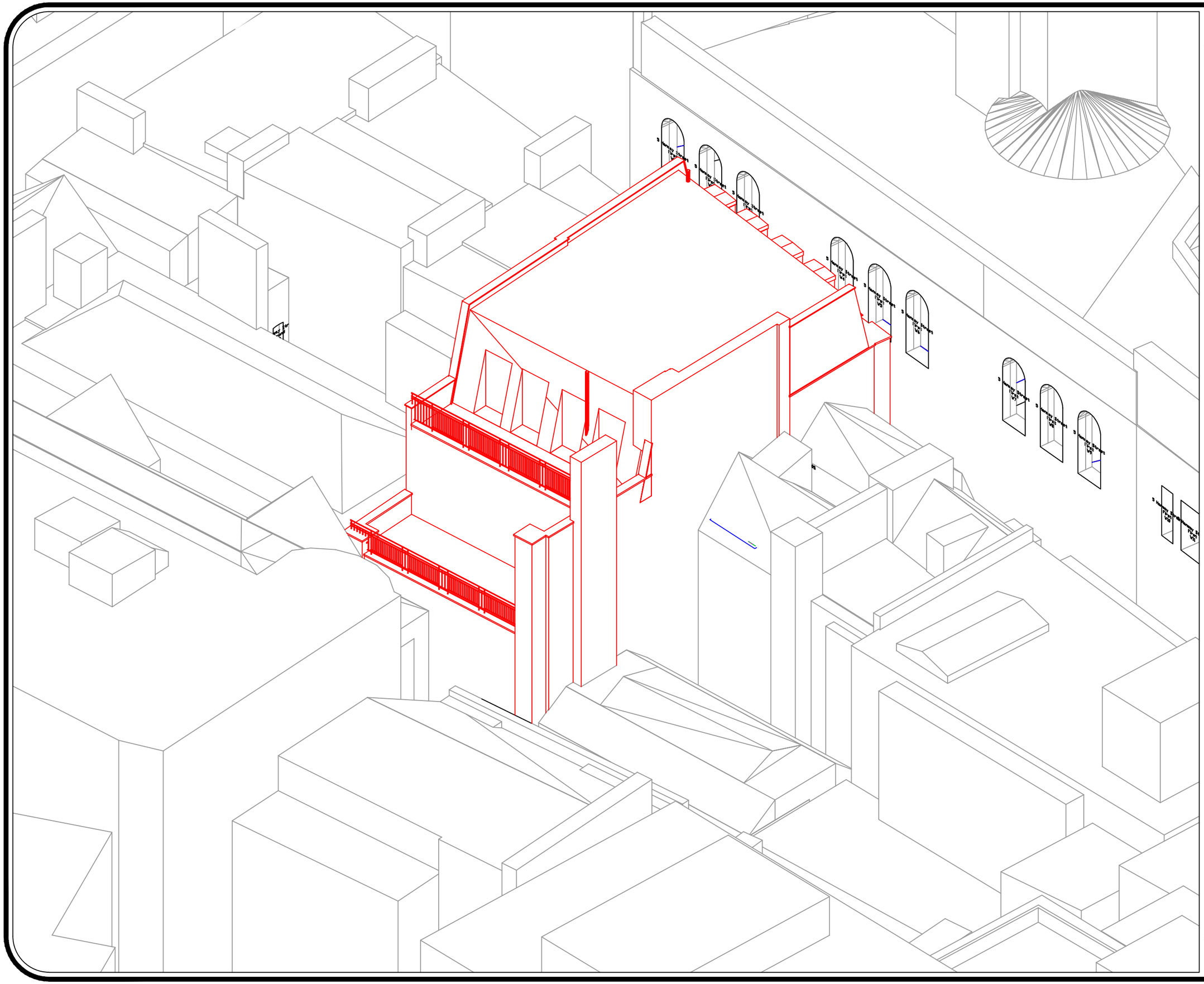
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
3D VIEW
EXISTING BUILDING

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/09 |
| Date: 15/08/2011 | |
| Scale: NTS | |



LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

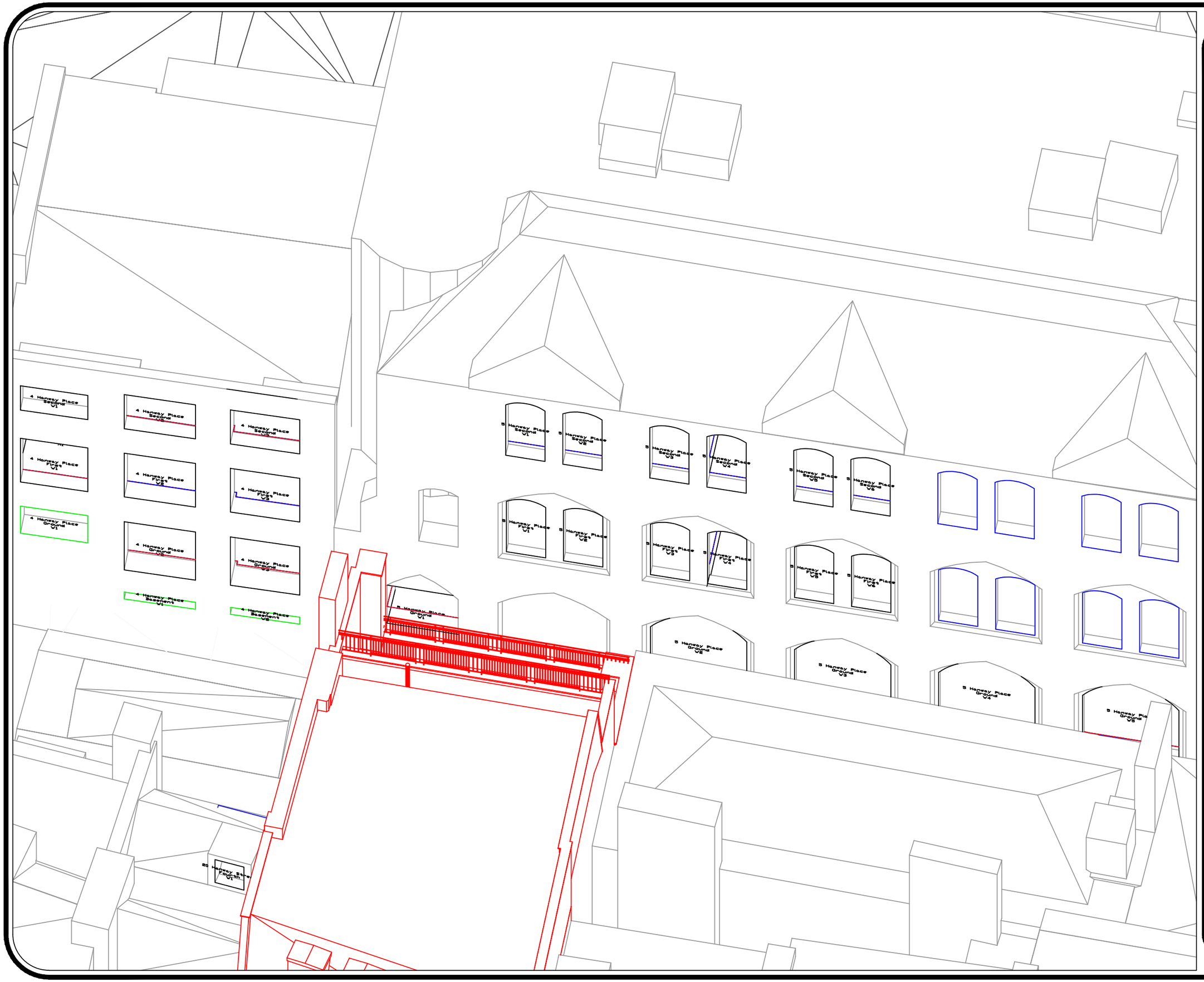
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
3D VIEW
PROPOSED SCHEME

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/10 |
| Date: 15/08/2011 | |
| Scale: NTS | |




LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

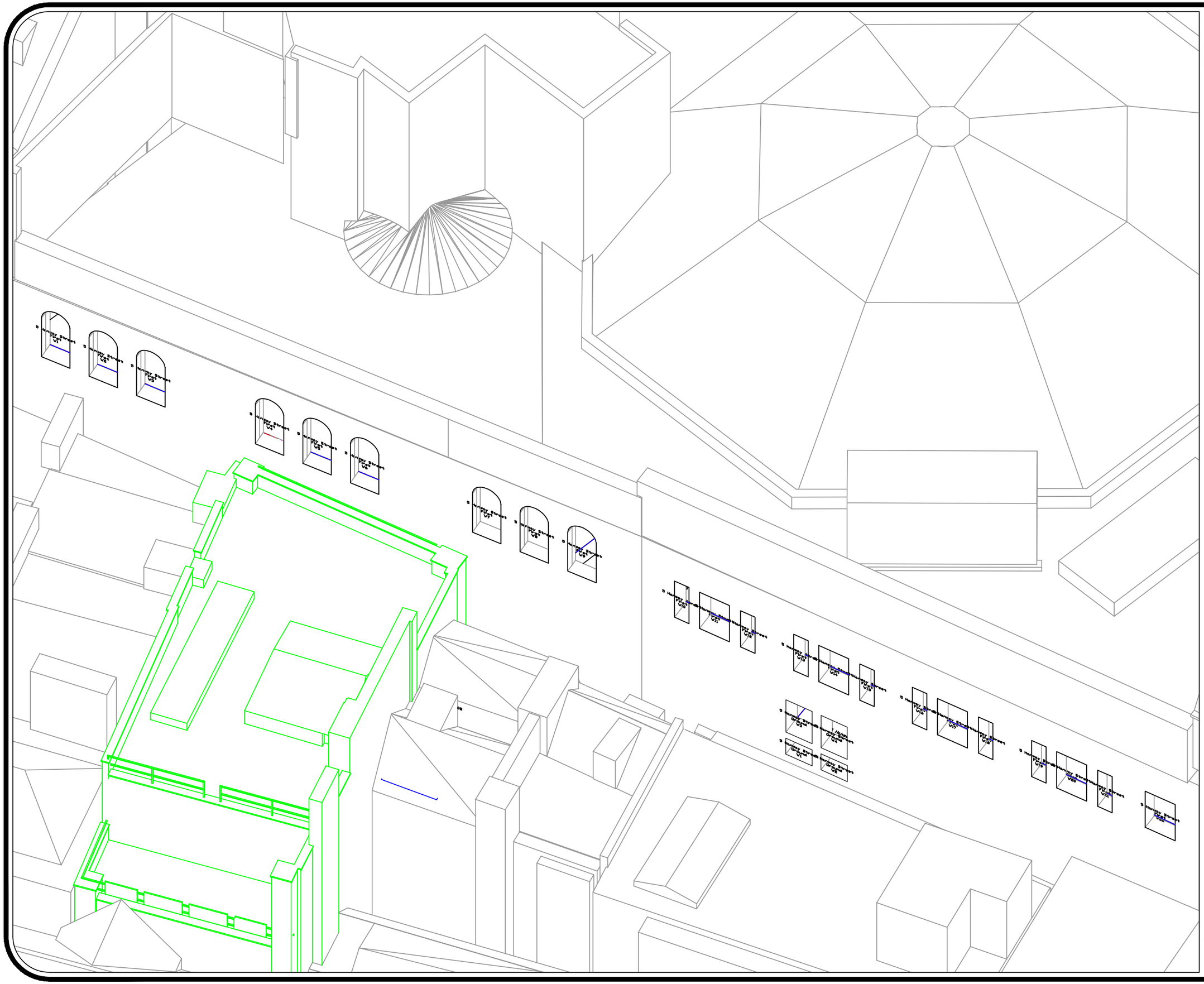
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
WINDOW MAP
4 & 5 HANWAY PLACE

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/11 |
| Date: 31/08/2011 | |
| Scale: NTS | |



LEGEND

3D MODEL BEHAN PARTNERSHIP LLP &
ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING
SEARCHES AT CAMDEN AND WESTMINSTER
BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

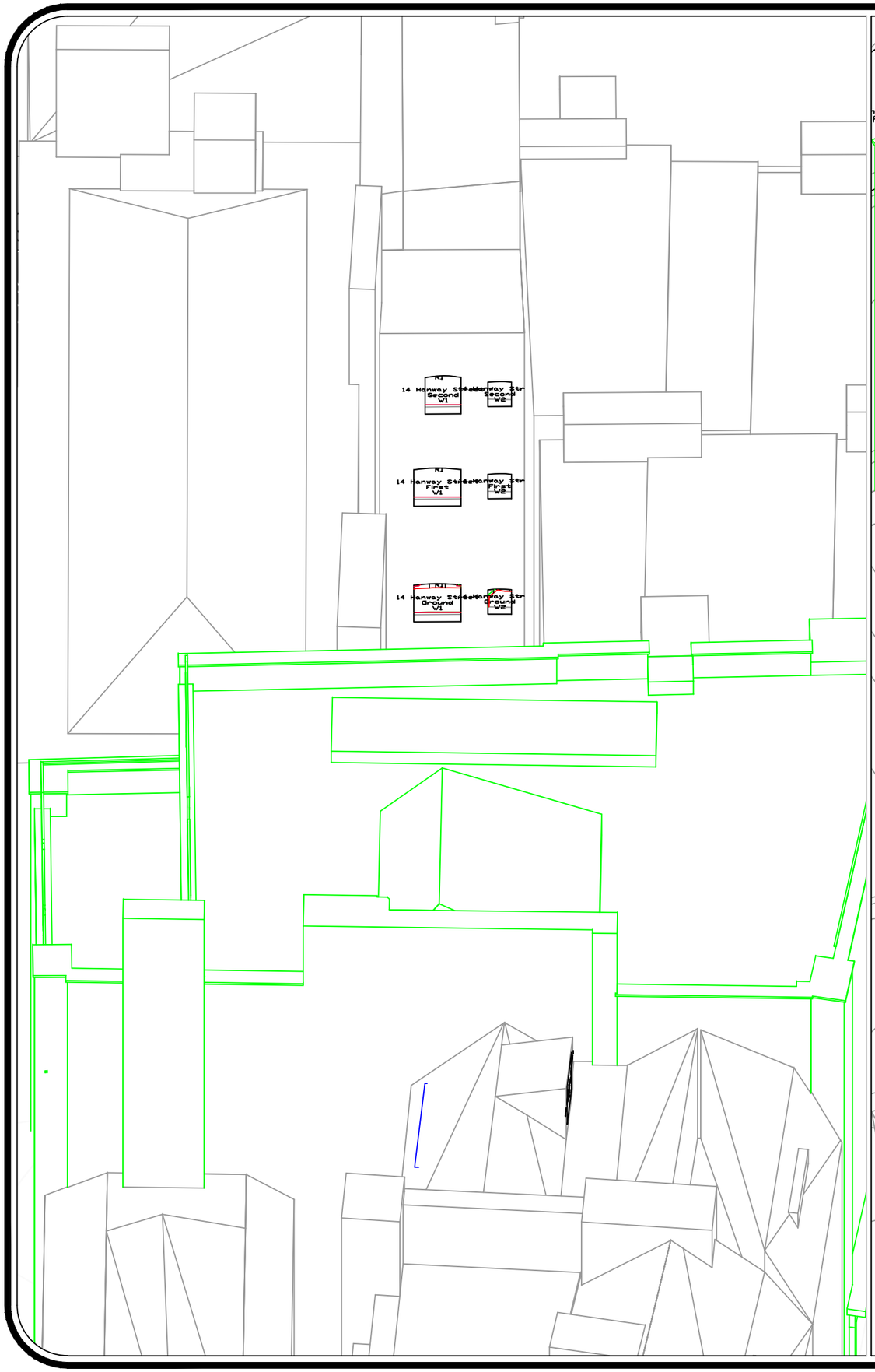
behan partnership LLP
chartered surveyors

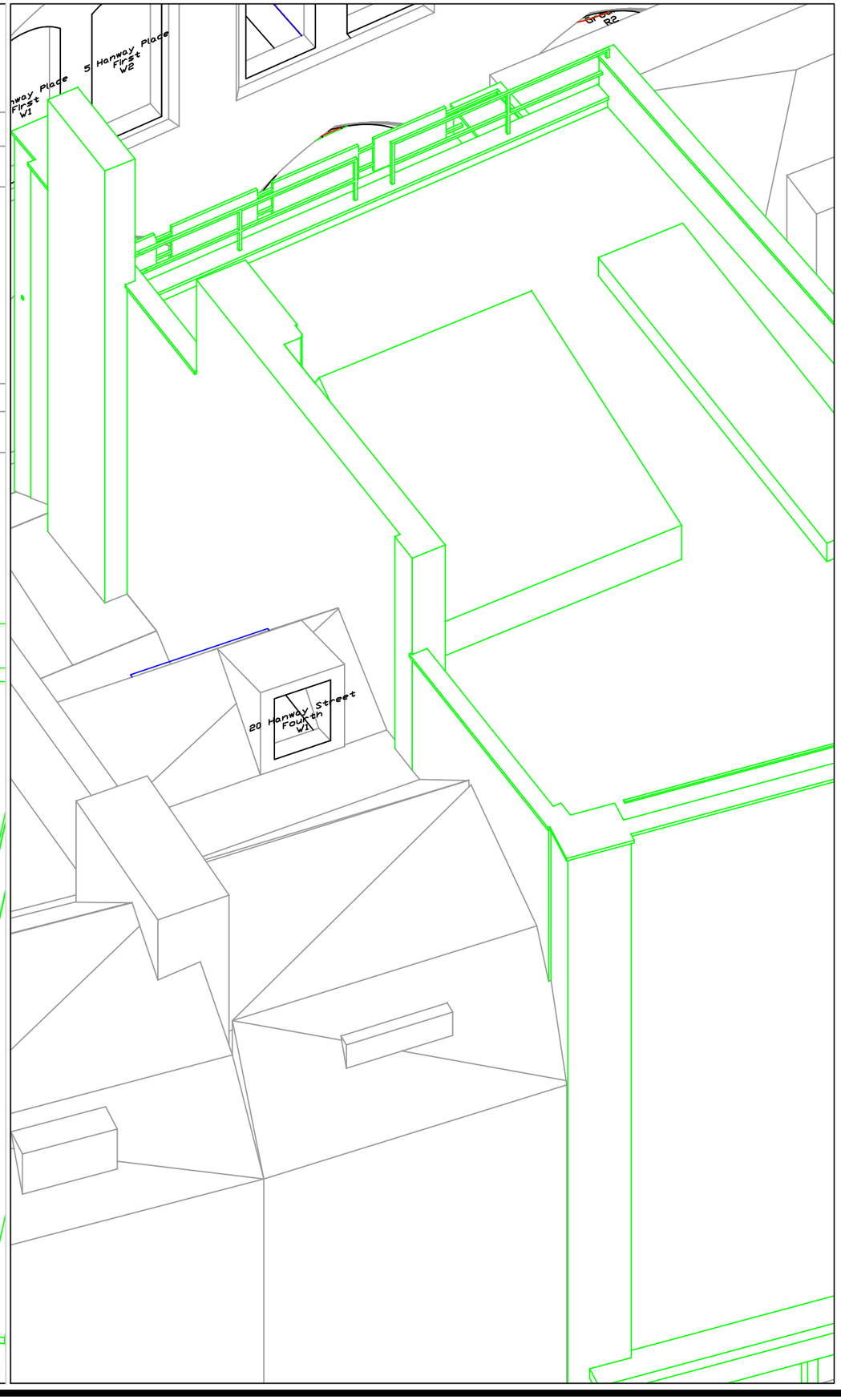

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk


Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
WINDOW MAP
5 HANWAY STREET

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/12 |
| Date: 31/08/2011 | |
| Scale: NTS | |




LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
WINDOW MAP
14 & 20 HANWAY STREET

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/13 |
| Date: 31/08/2011 | |
| Scale: NTS | |

behan partnership LLP
chartered surveyors

First Floor Annexe
New Barnes Mill
Cottonmill Lane
St Albans
Hertfordshire
AL1 2HA

**T**: 01727 800075
**www.behanllp.co.uk**

PROJECT: 18 Hanway Street
APPENDIX 1
Daylight & Sunlight Neighbouring Property Assessment
Daylight VSC & Sunlight APSH and Winter

| Floor Ref. | Room Ref. | Room | Use. | Window Ref. | Scenario | VSC | Difference | Pass / Fail | Available Sunlight Hours | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Annual % | Diff % | Pass / Fail | Winter % | Diff % | Pass / Fail |
| **14 Hanway Street** | | | | | | | | | | | | | | |
| First | R1 | Kitchen | W1 | Existing | 5.04 | 0.84 | PASS | 7 | 0.43 | NO | 0 | 0.00 | PASS | |
| | | | | Proposed | 4.26 | | | 3 | | | 0 | | | |
| **5 Hanway Place** | | | | | | | | | | | | | | |
| First | R1 | Living Room | W1 | Existing | 21.82 | 0.97 | PASS | 41 | 0.98 | PASS | 6 | 1.00 | PASS | |
| | | | | Proposed | 21.08 | | | 40 | | | 6 | | | |
| First | R1 | Living Room | W2 | Existing | 21.60 | 0.97 | PASS | 43 | 0.98 | PASS | 8 | 0.88 | PASS | |
| | | | | Proposed | 20.87 | | | 42 | | | 7 | | | |
| First | R1 | Living Room | W3 | Existing | 21.81 | 0.97 | PASS | 40 | 0.98 | PASS | 4 | 0.75 | NO | |
| | | | | Proposed | 21.17 | | | 39 | | | 3 | | | |
| First | R2 | Living Room | W4 | Existing | 22.10 | 0.97 | PASS | 42 | 0.98 | PASS | 6 | 0.83 | PASS | |
| | | | | Proposed | 21.47 | | | 41 | | | 5 | | | |
| First | R2 | Living Room | W5 | Existing | 22.55 | 0.97 | PASS | 44 | 1.00 | PASS | 7 | 1.00 | PASS | |
| | | | | Proposed | 21.94 | | | 44 | | | 7 | | | |
| First | R2 | Living Room | W6 | Existing | 22.82 | 0.98 | PASS | 43 | 0.98 | PASS | 7 | 0.86 | PASS | |
| | | | | Proposed | 22.25 | | | 42 | | | 6 | | | |
| Second | R1 | Living Room | W1 | Existing | 32.43 | 0.97 | PASS | 58 | 0.98 | PASS | 19 | 0.95 | PASS | |
| | | | | Proposed | 31.36 | | | 57 | | | 18 | | | |
| Second | R1 | Living Room | W2 | Existing | 32.60 | 0.96 | PASS | 60 | 0.97 | PASS | 21 | 0.90 | PASS | |
| | | | | Proposed | 31.36 | | | 58 | | | 19 | | | |
| Second | R1 | Living Room | W3 | Existing | 32.74 | 0.97 | PASS | 59 | 0.97 | PASS | 20 | 0.90 | PASS | |
| | | | | Proposed | 31.79 | | | 57 | | | 18 | | | |
| Second | R2 | Living Room | W4 | Existing | 32.79 | 0.98 | PASS | 59 | 0.95 | PASS | 20 | 0.85 | PASS | |
| | | | | Proposed | 32.01 | | | 56 | | | 17 | | | |
| Second | R2 | Living Room | W5 | Existing | 32.80 | 0.98 | PASS | 60 | 0.98 | PASS | 21 | 0.95 | PASS | |
| | | | | Proposed | 32.30 | | | 59 | | | 20 | | | |
| Second | R2 | Living Room | W6 | Existing | 32.73 | 0.99 | PASS | 60 | 1.00 | PASS | 21 | 1.00 | PASS | |
| | | | | Proposed | 32.37 | | | 60 | | | 21 | | | |

* Window faces within 90 degrees of North

behan partnership LLP
chartered surveyors

First Floor Annexe
New Barnes Mill
Cottonmill Lane
St Albans
Hertfordshire
AL1 2HA

**T**: 01727 800075
**www.behanllp.co.uk**

PROJECT: 18 Hanway Street
APPENDIX 1
Daylight & Sunlight Neighbouring Property Assessment
Average Daylight Factor

| Floor Ref. | Room Ref. | Room Use. | Window Ref. | Glass Transmittance | Glazed Area | Clear Sky Angle Existing | Clear Sky Angle Proposed | Room Surface Area | Average Surface Reflectance | ADF Existing | ADF Proposed | Req'd Value | % Diff | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **14 Hanway Street** | | | | | | | | | | | | | | |
| First | R1 | Kitchen | W1 | 0.80 | 0.83 | 24.58 | 22.55 | 23.45 | 0.50 | 0.93 | 0.86 | | | |
| | | | | | | | | | | 0.93 | 0.86 | 2.0 | 0.92 | PASS |
| **5 Hanway Place** | | | | | | | | | | | | | | |
| First | R1 | Living room | W1 | 0.80 | 2.38 | 55.76 | 54.55 | 146.92 | 0.50 | 0.96 | 0.94 | | | |
| | | | W2 | 0.80 | 2.38 | 55.41 | 54.20 | 146.92 | 0.50 | 0.96 | 0.94 | | | |
| | | | W3 | 0.80 | 2.38 | 55.75 | 54.70 | 146.92 | 0.50 | 0.96 | 0.95 | | | |
| | | | | | | | | | | 2.88 | 2.82 | 1.5 | 0.98 | PASS |
| First | R2 | Living room | W4 | 0.80 | 2.38 | 56.23 | 55.19 | 146.92 | 0.50 | 0.97 | 0.95 | | | |
| | | | W5 | 0.80 | 2.38 | 56.96 | 55.97 | 146.92 | 0.50 | 0.98 | 0.97 | | | |
| | | | W6 | 0.80 | 2.38 | 57.41 | 56.48 | 146.92 | 0.50 | 0.99 | 0.98 | | | |
| | | | | | | | | | | 2.95 | 2.90 | 1.5 | 0.98 | PASS |

PROJECT: 18 Hanway Street
APPENDIX 1
Daylight & Sunlight Neighbouring Property Assessment
Average Daylight Factor

| Floor Ref. | Room Ref. | Room Use. | Window Ref. | Glass Transmittance | Glazed Area | Clear Sky Angle Existing | Clear Sky Angle Proposed | Room Surface Area | Average Surface Reflectance | ADF Existing | ADF Proposed | Req'd Value | % Diff | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| First Mezzanine | R1 | Kitchen | W1 | 0.80 | 2.38 | 55.76 | 54.55 | 108.51 | 0.50 | 1.30 | 1.28 | | | |
| | | | W2 | 0.80 | 2.38 | 55.41 | 54.20 | 108.51 | 0.50 | 1.30 | 1.27 | | | |
| | | | W3 | 0.80 | 2.38 | 55.75 | 54.70 | 108.51 | 0.50 | 1.30 | 1.28 | | | |
| | | | | | | | | | | 3.91 | 3.82 | 2.0 | 0.98 | PASS |
| First Mezzanine | R2 | Kitchen | W4 | 0.80 | 2.38 | 56.23 | 55.19 | 108.51 | 0.50 | 1.32 | 1.29 | | | |
| | | | W5 | 0.80 | 2.38 | 56.96 | 55.97 | 108.51 | 0.50 | 1.33 | 1.31 | | | |
| | | | W6 | 0.80 | 2.38 | 57.41 | 56.48 | 108.51 | 0.50 | 1.34 | 1.32 | | | |
| | | | | | | | | | | 3.99 | 3.92 | 2.0 | 0.98 | PASS |
| Second | R1 | Living room | W1 | 0.80 | 2.38 | 74.14 | 72.13 | 146.91 | 0.50 | 1.28 | 1.25 | | | |
| | | | W2 | 0.80 | 2.38 | 74.47 | 72.14 | 146.91 | 0.50 | 1.29 | 1.25 | | | |
| | | | W3 | 0.80 | 2.38 | 74.73 | 72.93 | 146.91 | 0.50 | 1.29 | 1.26 | | | |
| | | | | | | | | | | 3.86 | 3.75 | 1.5 | 0.97 | PASS |
| Second | R2 | Living room | W4 | 0.80 | 2.38 | 74.84 | 73.34 | 146.91 | 0.50 | 1.29 | 1.27 | | | |
| | | | W5 | 0.80 | 2.38 | 74.86 | 73.89 | 146.91 | 0.50 | 1.29 | 1.28 | | | |
| | | | W6 | 0.80 | 2.38 | 74.72 | 74.03 | 146.91 | 0.50 | 1.29 | 1.28 | | | |
| | | | | | | | | | | 3.88 | 3.82 | 1.5 | 0.99 | PASS |
| Second Mezzanine | R1 | Kitchen | W1 | 0.80 | 2.38 | 74.14 | 72.13 | 108.51 | 0.50 | 1.73 | 1.69 | | | |
| | | | W2 | 0.80 | 2.38 | 74.47 | 72.14 | 108.51 | 0.50 | 1.74 | 1.69 | | | |
| | | | W3 | 0.80 | 2.38 | 74.73 | 72.93 | 108.51 | 0.50 | 1.75 | 1.71 | | | |
| | | | | | | | | | | 5.23 | 5.08 | 2.0 | 0.97 | PASS |
| Second Mezzanine | R2 | Kitchen | W4 | 0.80 | 2.38 | 74.84 | 73.34 | 108.51 | 0.50 | 1.75 | 1.72 | | | |
| | | | W5 | 0.80 | 2.38 | 74.86 | 73.89 | 108.51 | 0.50 | 1.75 | 1.73 | | | |
| | | | W6 | 0.80 | 2.38 | 74.72 | 74.03 | 108.51 | 0.50 | 1.75 | 1.73 | | | |
| | | | | | | | | | | 5.25 | 5.18 | 2.0 | 0.99 | PASS |

***APPENDIX 2***

Drawings 2011873/21 - 23 (Daylight Distribution, Neighbouring Study)

Tables; DD

behan partnership LLP
chartered surveyors

First Floor Annexe
New Barnes Mill
Cottonmill Lane
St Albans
Hertfordshire
AL1 2HA

**T**: 01727 800075
**www.behanllp.co.uk**

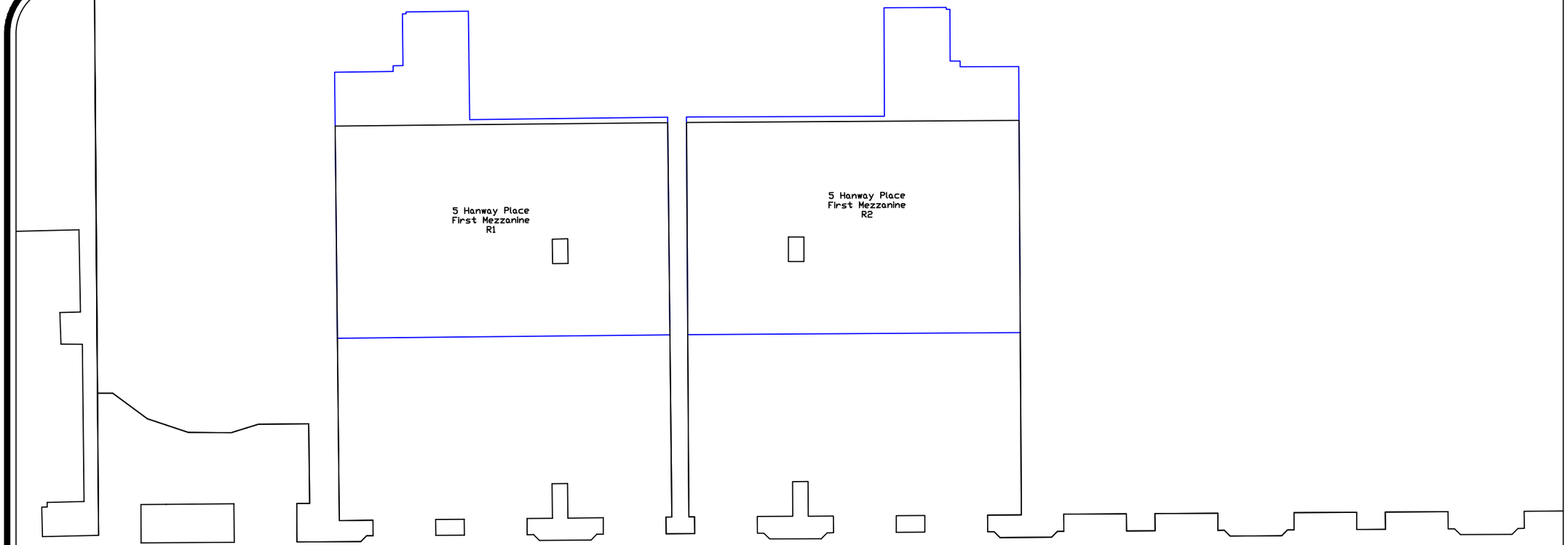
PROJECT: 18 Hanway Street
APPENDIX 2
Daylight & Sunlight Neighbouring Property Assessment
Daylight Distribution

**14 Hanway Street**

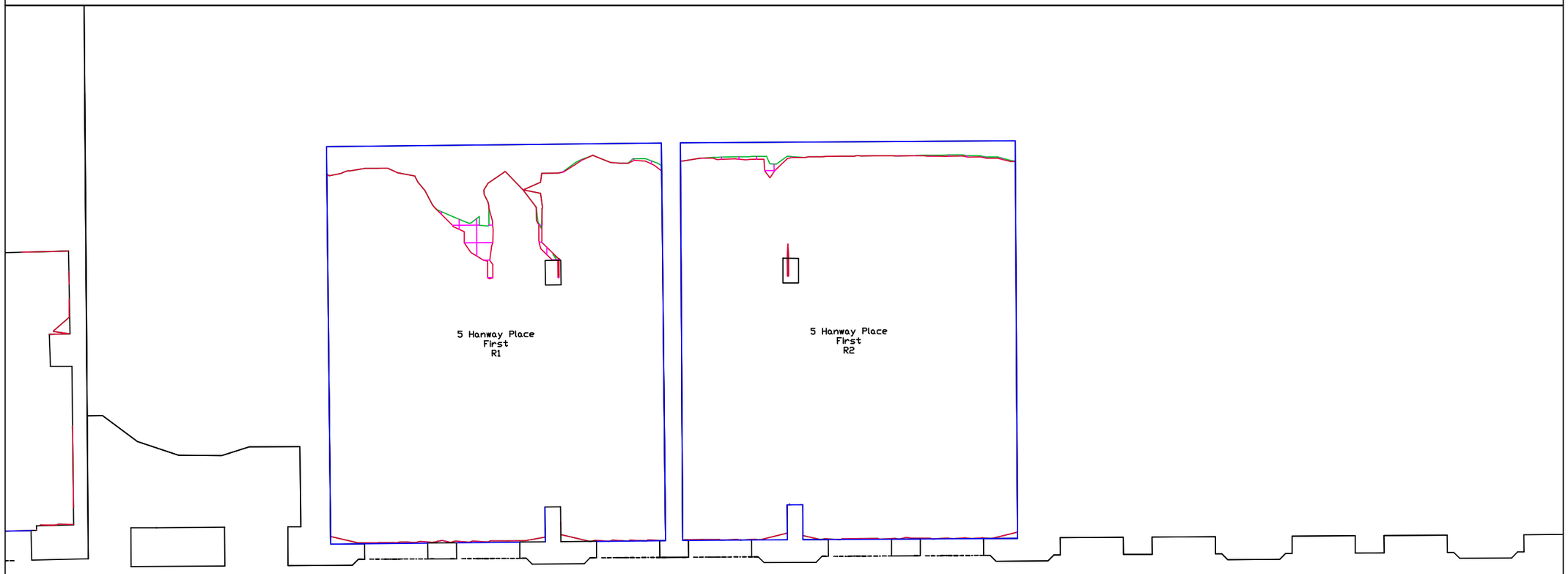
| Floor Ref. | Room Ref. | Room Use. | | Room Area | Lit Area Existing | Lit Area Proposed | Difference % | Pass / Fail |
|---|---|---|---|---|---|---|---|---|
| First | R1 | Kitchen | Area $m^2$ | 2.82 | 2.14 | 1.63 | 0.76 | PASS |
| | | | % of room | | 76% | 58% | | |

**5 Hanway Place**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| First | R1 | Living room | Area $m^2$ | 40.10 | 36.43 | 35.97 | 0.99 | PASS |
| | | | % of room | | 91% | 90% | | |
| First | R2 | Living room | Area $m^2$ | 40.10 | 38.46 | 38.33 | 1.00 | PASS |
| | | | % of room | | 96% | 96% | | |
| First Mezzanine | R1 | Kitchen | Area $m^2$ | 25.42 | 0.00 | 0.00 | 0.00 | PASS |
| | | | % of room | | 0% | 0% | | |
| First Mezzanine | R2 | Kitchen | Area $m^2$ | 25.42 | 0.00 | 0.00 | 0.00 | PASS |
| | | | % of room | | 0% | 0% | | |
| Second | R1 | Living room | Area $m^2$ | 40.10 | 40.09 | 40.09 | 1.00 | PASS |
| | | | % of room | | 100% | 100% | | |
| Second | R2 | Living room | Area $m^2$ | 40.10 | 40.09 | 40.09 | 1.00 | PASS |
| | | | % of room | | 100% | 100% | | |
| Second Mezzanine | R1 | Kitchen | Area $m^2$ | 25.42 | 0.00 | 0.00 | 0.00 | PASS |
| | | | % of room | | 0% | 0% | | |
| Second Mezzanine | R2 | Kitchen | Area $m^2$ | 25.42 | 0.00 | 0.00 | 0.00 | PASS |
| | | | % of room | | 0% | 0% | | |




FIRST FLOOR MEZZANINE




FIRST FLOOR

LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

LEGEND

KEY

- Room Area (Measured Layout)
- Room Area (Assumed Layout)
- Existing Lit Area
- Proposed Lit Area
- Area of Loss/Gain

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

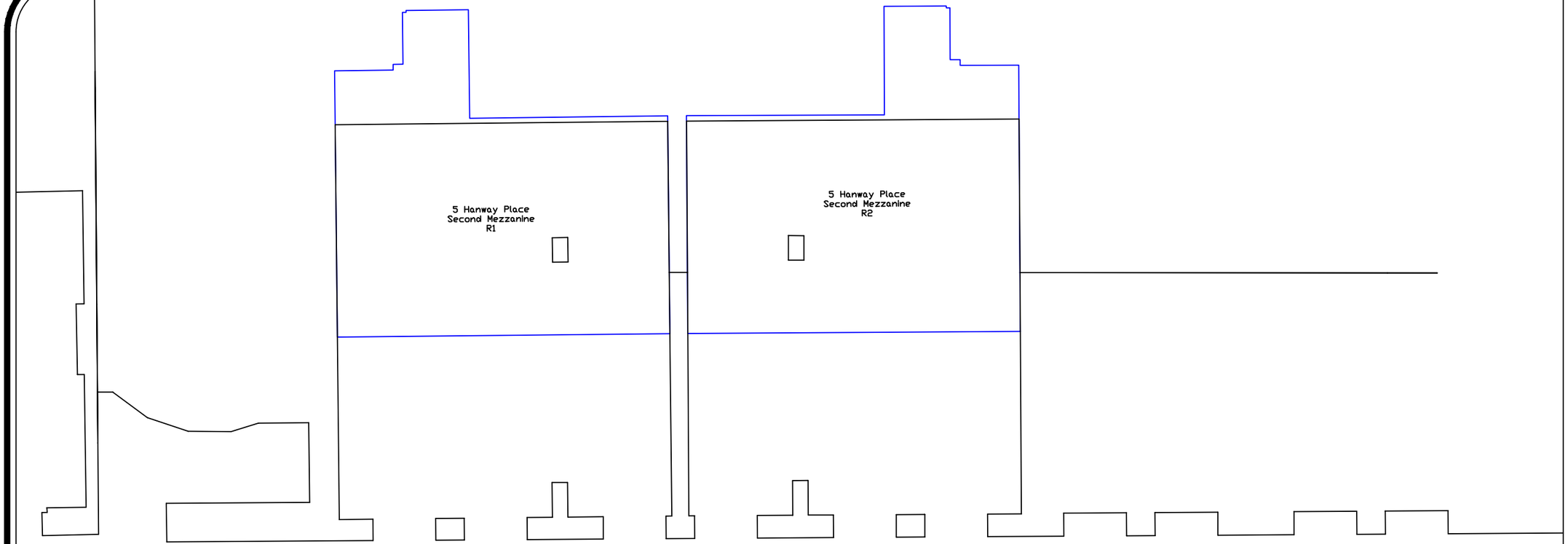
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

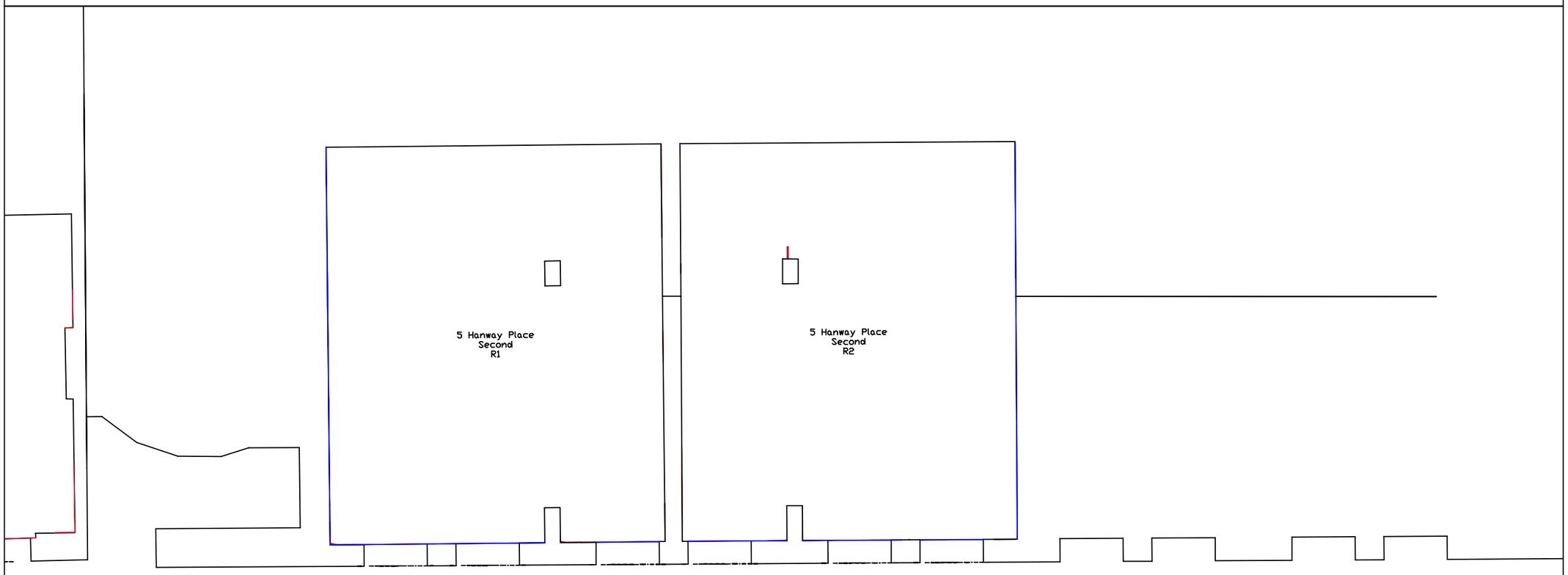
Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
DAYLIGHT DISTRIBUTION
5 HANWAY PLACE
FIRST FLOOR & MEZZANINE

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/21 |
| Date: 31/08/2011 | |
| Scale: NTS | |




SECOND FLOOR MEZZANINE




SECOND FLOOR

LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

LEGEND

KEY

- Room Area (Measured Layout)
- Room Area (Assumed Layout)
- Existing Lit Area
- Proposed Lit Area
- Area of Loss/Gain

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

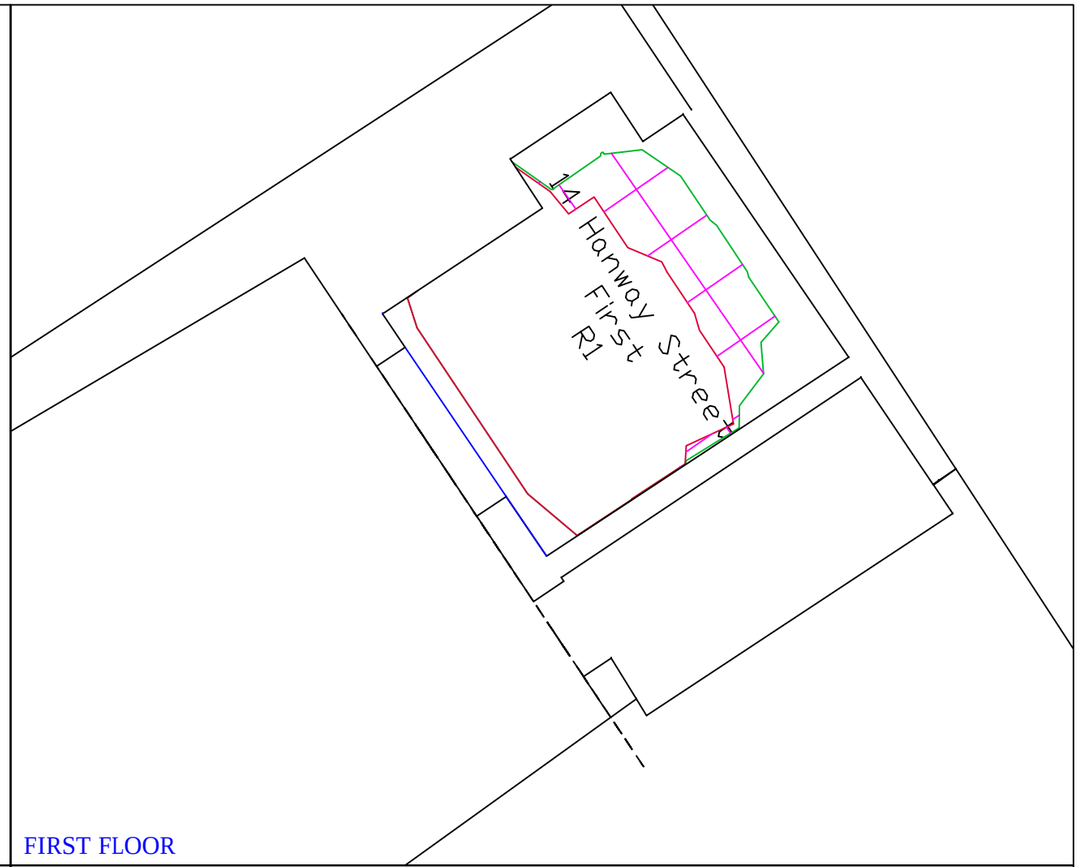
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
DAYLIGHT DISTRIBUTION
5 HANWAY PLACE
SECOND FLOOR & MEZZANINE

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/22 |
| Date: 31/08/2011 | |
| Scale: NTS | |




FIRST FLOOR

LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

LEGEND

KEY

- Room Area (Measured Layout)
- Room Area (Assumed Layout)
- Existing Lit Area
- Proposed Lit Area
- Area of Loss/Gain

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
DAYLIGHT DISTRIBUTION
14 HANWAY STREET
FIRST FLOOR

Project Reference
2011873

Drawing Sheet No
873/23

Date
31/08/2011

Scale
NTS

***APPENDIX 3***

Drawings 2011873/24 - 25 (Window Map)

Tables; VSC, Sunlight, ADF

behan partnership LLP
chartered surveyors

First Floor Annexe
New Barnes Mill
Cottonmill Lane
St Albans
Hertfordshire
AL1 2HA

**T**: 01727 800075
**www.behanllp.co.uk**

PROJECT: 18 Hanway Street
APPENDIX 3
Daylight & Sunlight Self-Test Assessment
Daylight VSC & Sunlight APSH and Winter

**18 Hanway Street**

| Floor Ref. | Room Ref. | Room Use. | Window Ref. | Scenario | VSC | Automatic Pass | Available Sunlight Hours | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Annual % | Automatic Pass | Winter % | Automatic Pass |
| First | R1 | Living room | W1 | Proposed | 19.26 | NO | 32.00 | APSH YES | 4.00 | WINT NO |
| First | R1 | Living room | W2 | Proposed | 19.25 | NO | 32.00 | APSH YES | 4.00 | WINT NO |
| First | R2 | Kitchen/Dining Room/Living Room | W3 | Proposed | 19.02 | NO | 32.00 | APSH YES | 4.00 | WINT NO |
| First | R2 | Kitchen/Dining Room/Living Room | W4 | Proposed | 18.56 | NO | 30.00 | APSH YES | 3.00 | WINT NO |
| First | R3 | Kitchen/Dining Room/Living Room | W5 | Proposed | 6.85 | NO | *North Facing | | | |
| First | R3 | Kitchen/Dining Room/Living Room | W6 | Proposed | 7.43 | NO | *North Facing | | | |
| First | R4 | Bedroom | W7 | Proposed | 7.87 | NO | *North Facing | | | |
| First | R4 | Bedroom | W8 | Proposed | 8.11 | NO | *North Facing | | | |
| Second | R1 | Living room | W1 | Proposed | 24.34 | NO | 41.00 | APSH YES | 9.00 | WINT YES |
| Second | R1 | Living room | W2 | Proposed | 24.29 | NO | 41.00 | APSH YES | 9.00 | WINT YES |
| Second | R2 | Kitchen/Dining Room/Living Room | W3 | Proposed | 24.07 | NO | 40.00 | APSH YES | 10.00 | WINT YES |
| Second | R2 | Kitchen/Dining Room/Living Room | W4 | Proposed | 23.56 | NO | 40.00 | APSH YES | 10.00 | WINT YES |
| Second | R3 | Kitchen/Dining Room/Living Room | W5 | Proposed | 12.09 | NO | *North Facing | | | |
| Second | R3 | Kitchen/Dining Room/Living Room | W6 | Proposed | 12.74 | NO | *North Facing | | | |
| Second | R4 | Bedroom | W7 | Proposed | 13.53 | NO | *North Facing | | | |
| Second | R4 | Bedroom | W8 | Proposed | 14.35 | NO | *North Facing | | | |
| Third | R1 | Bedroom | W1 | Proposed | 27.60 | YES | 45.00 | APSH YES | 12.00 | WINT YES |
| Third | R1 | Bedroom | W2 | Proposed | 27.62 | YES | 45.00 | APSH YES | 12.00 | WINT YES |
| Third | R2 | Bedroom | W3 | Proposed | 27.50 | YES | 45.00 | APSH YES | 13.00 | WINT YES |
| Third | R2 | Bedroom | W4 | Proposed | 27.19 | YES | 45.00 | APSH YES | 13.00 | WINT YES |
| Third | R3 | Bedroom | W5 | Proposed | 21.32 | NO | *North Facing | | | |
| Third | R3 | Bedroom | W6 | Proposed | 20.02 | NO | *North Facing | | | |
| Fourth | R1 | Kitchen/Dining Room/Living Room | W1 | Proposed | 31.30 | YES | 54.00 | APSH YES | 20.00 | WINT YES |
| Fourth | R1 | Kitchen/Dining Room/Living Room | W2 | Proposed | 31.27 | YES | 54.00 | APSH YES | 20.00 | WINT YES |

PROJECT: 18 Hanway Street
APPENDIX 3
Daylight & Sunlight Self-Test Assessment
Daylight VSC & Sunlight APSH and Winter

| Floor Ref. | Room Ref. | Room Use. | Window Ref. | Scenario | VSC | Automatic Pass | Available Sunlight Hours | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Annual % | Automatic Pass | Winter % | Automatic Pass |
| Fourth | R1 | Kitchen/Dining Room/Living Room | W3 | Proposed | 31.27 | YES | 53.00 | APSH YES | 20.00 | WINT YES |
| Fourth | R1 | Kitchen/Dining Room/Living Room | W4 | Proposed | 31.20 | YES | 53.00 | APSH YES | 19.00 | WINT YES |
| Fourth | R1 | Kitchen/Dining Room/Living Room | W5 | Proposed | 26.03 | NO | *North Facing | | | |
| Fourth | R1 | Kitchen/Dining Room/Living Room | W6 | Proposed | 26.12 | NO | *North Facing | | | |
| Fourth | R1 | Kitchen/Dining Room/Living Room | W7 | Proposed | 24.96 | NO | *North Facing | | | |
| Fourth | R1 | Kitchen/Dining Room/Living Room | W8 | Proposed | 23.68 | NO | *North Facing | | | |

* Window faces within 90 degrees of North

behan partnership LLP
chartered surveyors

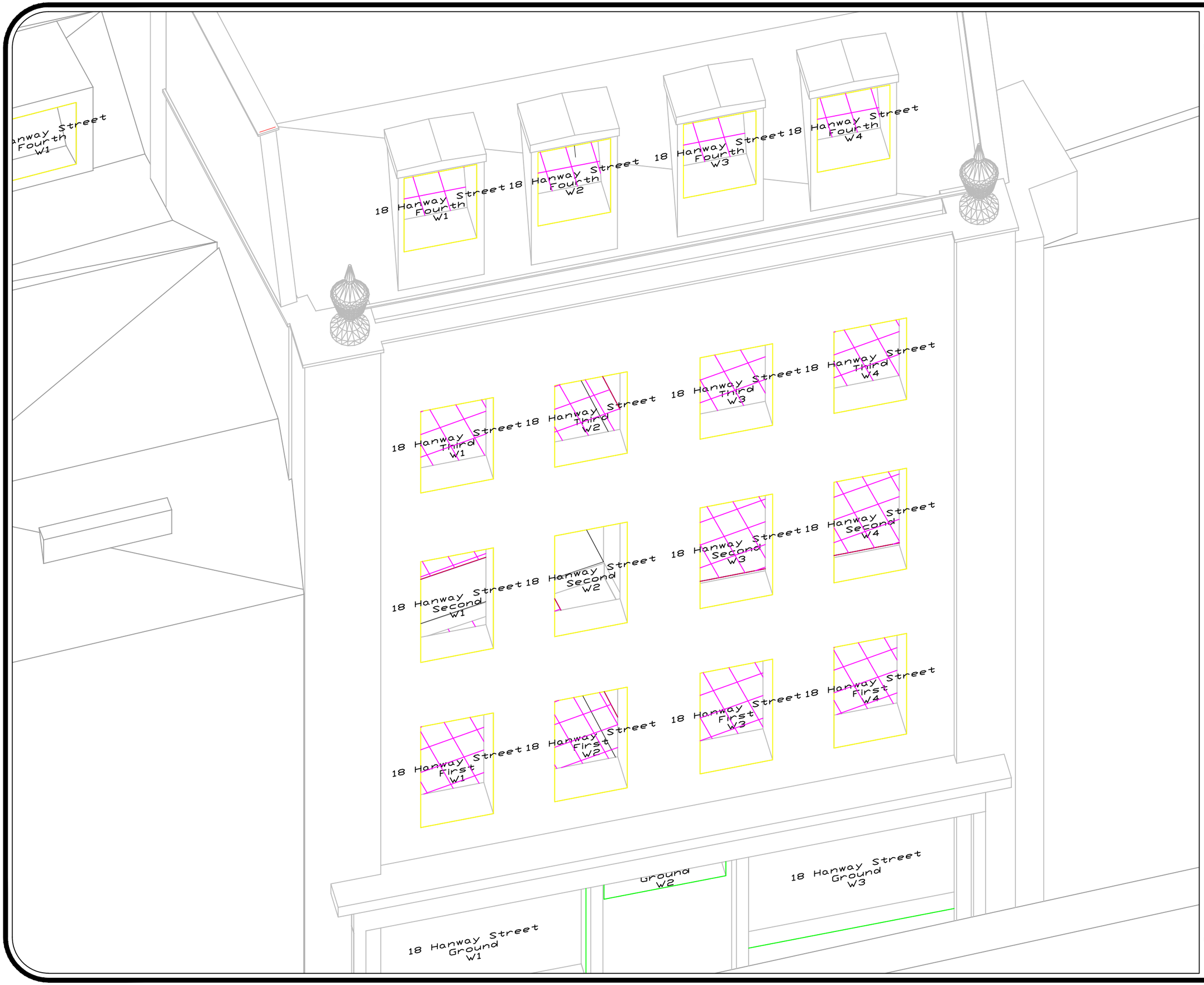
First Floor Annexe
New Barnes Mill
Cottonmill Lane
St Albans
Hertfordshire
AL1 2HA

**T**: 01727 800075
**www.behanllp.co.uk**

PROJECT: 18 Hanway Street
APPENDIX 3
Daylight & Sunlight Self-Test Assessment
Average Daylight Factor

**18 Hanway Street**

| Floor Ref. | Room Ref. | Room Use. | Window Ref. | Glass Transmittance | Glazed Area | Clear Sky Angle Proposed | Room Surface Area | Average Surface Reflectance | ADF Proposed | Req'd Value | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|
| First | R1 | Living room | W1 | 0.80 | 1.32 | 51.54 | 57.00 | 0.50 | 1.28 | | |
| | | | W2 | 0.80 | 1.32 | 51.54 | 57.00 | 0.50 | 1.28 | | |
| | | | W1 | 0.80 | 1.32 | 59.94 | 57.00 | 0.50 | 1.49 | | |
| | | | W2 | 0.80 | 1.32 | 59.86 | 57.00 | 0.50 | 1.48 | | |
| | | | | | | | | | 5.52 | 1.5 | PASS |
| First | R2 | Kitchen/ Dinin / Living Room | W3 | 0.80 | 1.32 | 51.16 | 75.11 | 0.50 | 0.96 | | |
| | | | W4 | 0.80 | 1.32 | 50.40 | 75.11 | 0.50 | 0.95 | | |
| | | | | | | | | | 1.91 | 1.5 | PASS |
| First | R3 | Living room | W5 | 0.80 | 1.49 | 28.85 | 61.09 | 0.50 | 0.75 | | |
| | | | W6 | 0.80 | 1.49 | 30.14 | 61.09 | 0.50 | 0.78 | | |
| | | | | | | | | | 1.53 | 1.5 | PASS |
| First | R4 | Bedroom | W7 | 0.80 | 1.49 | 31.06 | 48.43 | 0.50 | 1.02 | | |
| | | | W8 | 0.80 | 1.49 | 31.58 | 48.43 | 0.50 | 1.03 | | |
| | | | | | | | | | 2.05 | 1.0 | PASS |
| Second | R1 | Bedroom | W1 | 0.80 | 1.32 | 59.94 | 56.49 | 0.50 | 1.50 | | |
| | | | W2 | 0.80 | 1.32 | 59.86 | 56.49 | 0.50 | 1.50 | | |
| | | | | | | | | | 3.00 | 1.0 | PASS |
| Second | R2 | Kitchen/ Dinin / Living Room | W3 | 0.80 | 1.32 | 59.48 | 76.19 | 0.50 | 1.10 | | |
| | | | W4 | 0.80 | 1.32 | 58.63 | 76.19 | 0.50 | 1.09 | | |
| | | | | | | | | | 2.19 | 1.5 | PASS |
| Second | R3 | Living room | W5 | 0.80 | 1.49 | 39.27 | 62.54 | 0.50 | 1.00 | | |
| | | | W6 | 0.80 | 1.49 | 40.45 | 62.54 | 0.50 | 1.03 | | |
| | | | | | | | | | 2.02 | 1.5 | PASS |
| Second | R4 | Bedroom | W7 | 0.80 | 1.49 | 41.85 | 49.04 | 0.50 | 1.35 | | |
| | | | W8 | 0.80 | 1.49 | 43.28 | 49.04 | 0.50 | 1.40 | | |
| | | | | | | | | | 2.76 | 1.0 | PASS |
| Third | R1 | Bedroom | W1 | 0.80 | 1.07 | 65.45 | 56.36 | 0.50 | 1.33 | | |
| | | | W2 | 0.80 | 1.07 | 65.48 | 56.36 | 0.50 | 1.33 | | |
| | | | | | | | | | 2.66 | 1.0 | PASS |
| Third | R2 | Bedroom | W3 | 0.80 | 1.07 | 65.28 | 70.73 | 0.50 | 1.06 | | |
| | | | W4 | 0.80 | 1.07 | 64.73 | 70.73 | 0.50 | 1.05 | | |
| | | | | | | | | | 2.10 | 1.0 | PASS |
| Third | R3 | Bedroom | W5 | 0.80 | 2.55 | 54.94 | 74.38 | 0.50 | 2.01 | | |
| | | | W6 | 0.80 | 1.79 | 52.81 | 74.38 | 0.50 | 1.36 | | |
| | | | | | | | | | 3.37 | 1.0 | PASS |
| Fourth | R1 | Kitchen/ Dinin / Living Room | W1 | 0.80 | 0.97 | 72.01 | 232.90 | 0.50 | 0.32 | | |
| | | | W2 | 0.80 | 0.97 | 71.97 | 232.90 | 0.50 | 0.32 | | |
| | | | W3 | 0.80 | 0.97 | 71.97 | 232.90 | 0.50 | 0.32 | | |
| | | | W4 | 0.80 | 0.97 | 71.84 | 232.90 | 0.50 | 0.32 | | |
| | | | W5 | 0.80 | 1.83 | 62.76 | 232.90 | 0.50 | 0.52 | | |
| | | | W6 | 0.80 | 1.83 | 62.91 | 232.90 | 0.50 | 0.53 | | |
| | | | W7 | 0.80 | 1.83 | 60.97 | 232.90 | 0.50 | 0.51 | | |
| | | | W8 | 0.80 | 1.83 | 58.84 | 232.90 | 0.50 | 0.49 | | |
| | | | | | | | | | 3.33 | 1.5 | PASS |




LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

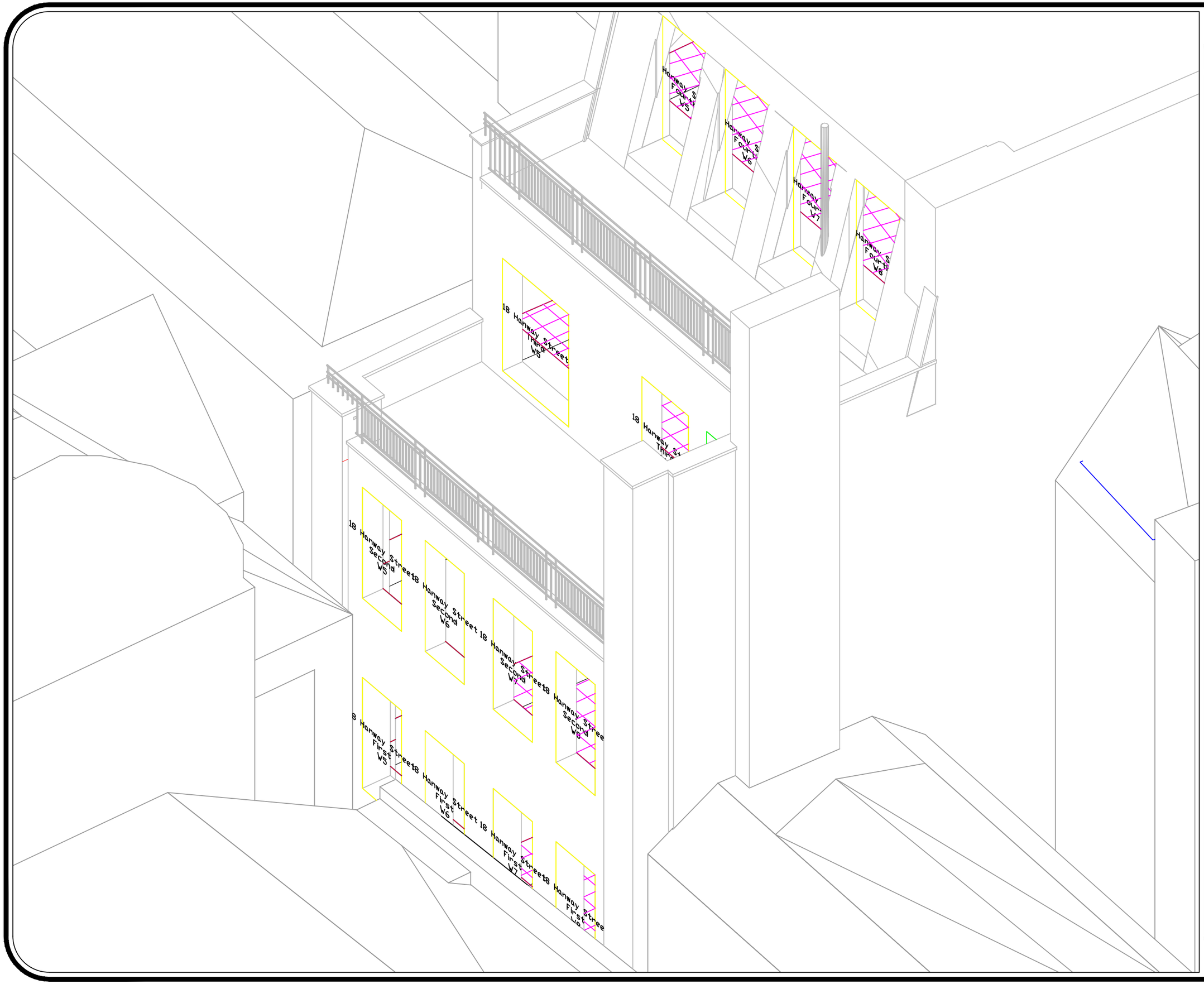
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
WINDOW MAP
18 HANWAY STREET
FRONT ELEVATION

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/24 |
| Date: 31/08/2011 | |
| Scale: NTS | |




LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
WINDOW MAP
18 HANWAY STREET
REAR ELEVATION

Project Reference
2011873

Drawing Sheet No
873/25

Date
31/08/2011

Scale
NTS

***APPENDIX 4***

Drawings 2011873/26 - 29 (Daylight Distribution, Self-Test Study)

Tables; DD

behan partnership LLP
chartered surveyors

First Floor Annexe
New Barnes Mill
Cottonmill Lane
St Albans
Hertfordshire
AL1 2HA

**T**: 01727 800075
**www.behanllp.co.uk**

PROJECT: 18 Hanway Street
APPENDIX 4
Daylight & Sunlight Assessment
Daylight Distribution

**18 Hanway Street**

| Floor Ref. | Room Ref. | Room Use. | | Room Area | Lit Area Proposed | Pass / Fail |
|---|---|---|---|---|---|---|
| First | R1 | Living room | Area $m^2$<br>% of room | 11.13 | 10.52<br>94% | Pass |
| First | R2 | Kitchen/Dining Room/Living Room | Area $m^2$<br>% of room | 16.55 | 11.07<br>67% | Urban Pass |
| First | R3 | Living room | Area $m^2$<br>% of room | 12.08 | 3.05<br>25% | Fail |
| First | R4 | Bedroom | Area $m^2$<br>% of room | 9.06 | 4.20<br>46% | Fail |
| Second | R1 | Bedroom | Area $m^2$<br>% of room | 10.75 | 10.31<br>96% | Pass |
| Second | R2 | Kitchen/Dining Room/Living Room | Area $m^2$<br>% of room | 16.93 | 15.15<br>89% | Pass |
| Second | R3 | Living room | Area $m^2$<br>% of room | 12.48 | 6.74<br>54% | Urban Pass |
| Second | R4 | Bedroom | Area $m^2$<br>% of room | 9.25 | 8.10<br>88% | Pass |
| Third | R1 | Bedroom | Area $m^2$<br>% of room | 11.29 | 11.28<br>100% | Pass |
| Third | R2 | Bedroom | Area $m^2$<br>% of room | 15.55 | 15.52<br>100% | Pass |
| Third | R3 | Bedroom | Area $m^2$<br>% of room | 16.56 | 14.56<br>88% | Pass |
| Fourth | R1 | Kitchen/Dining Room/Living Room | Area $m^2$<br>% of room | 68.42 | 67.12<br>98% | Pass |


LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
DAYLIGHT DISTRIBUTION
18 HANWAY STREET
FIRST FLOOR

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/26 |
| Date: 31/08/2011 | |
| Scale: NTS | |


LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

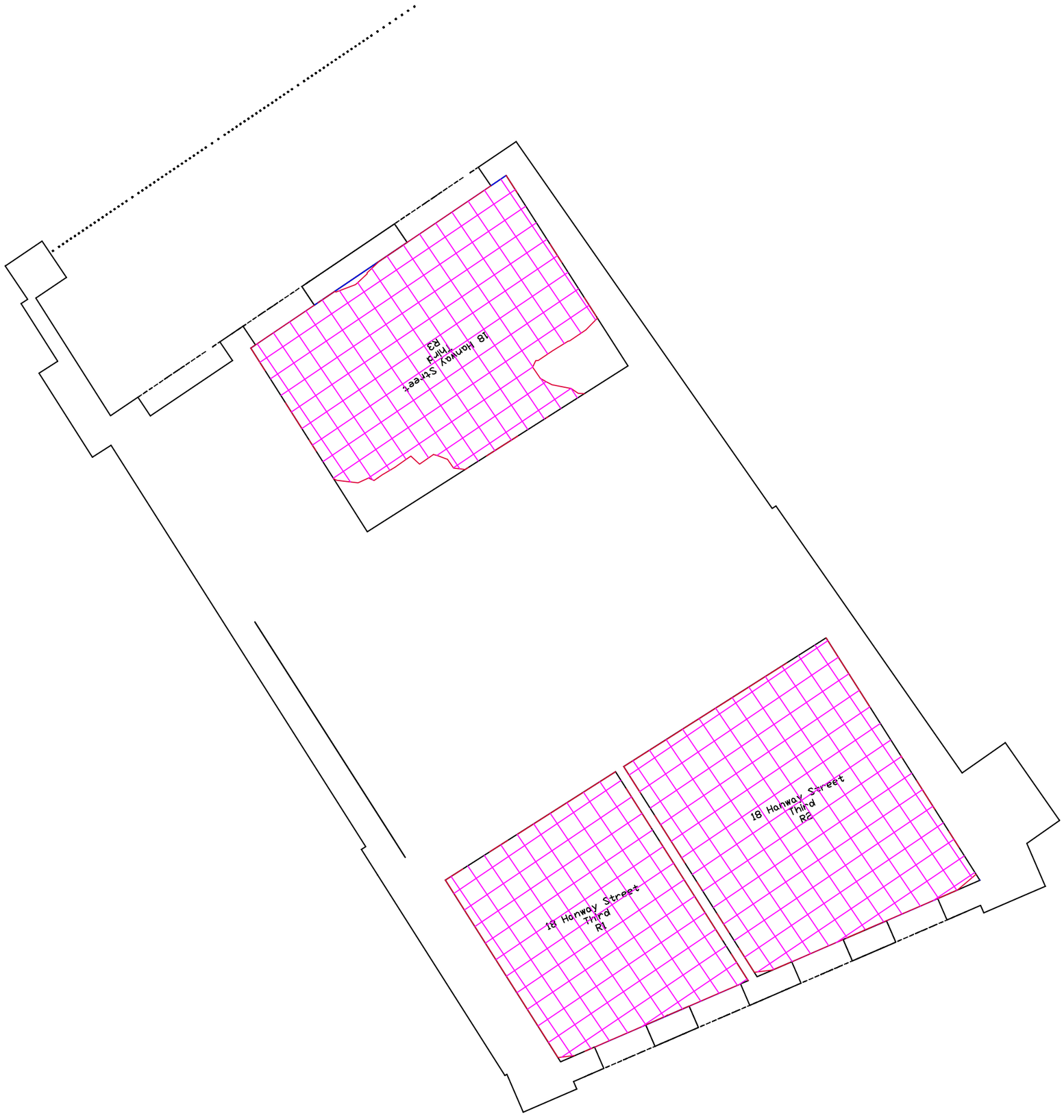
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
DAYLIGHT DISTRIBUTION
18 HANWAY STREET
SECOND FLOOR

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/27 |
| Date: 31/08/2011 | |
| Scale: NTS | |




LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

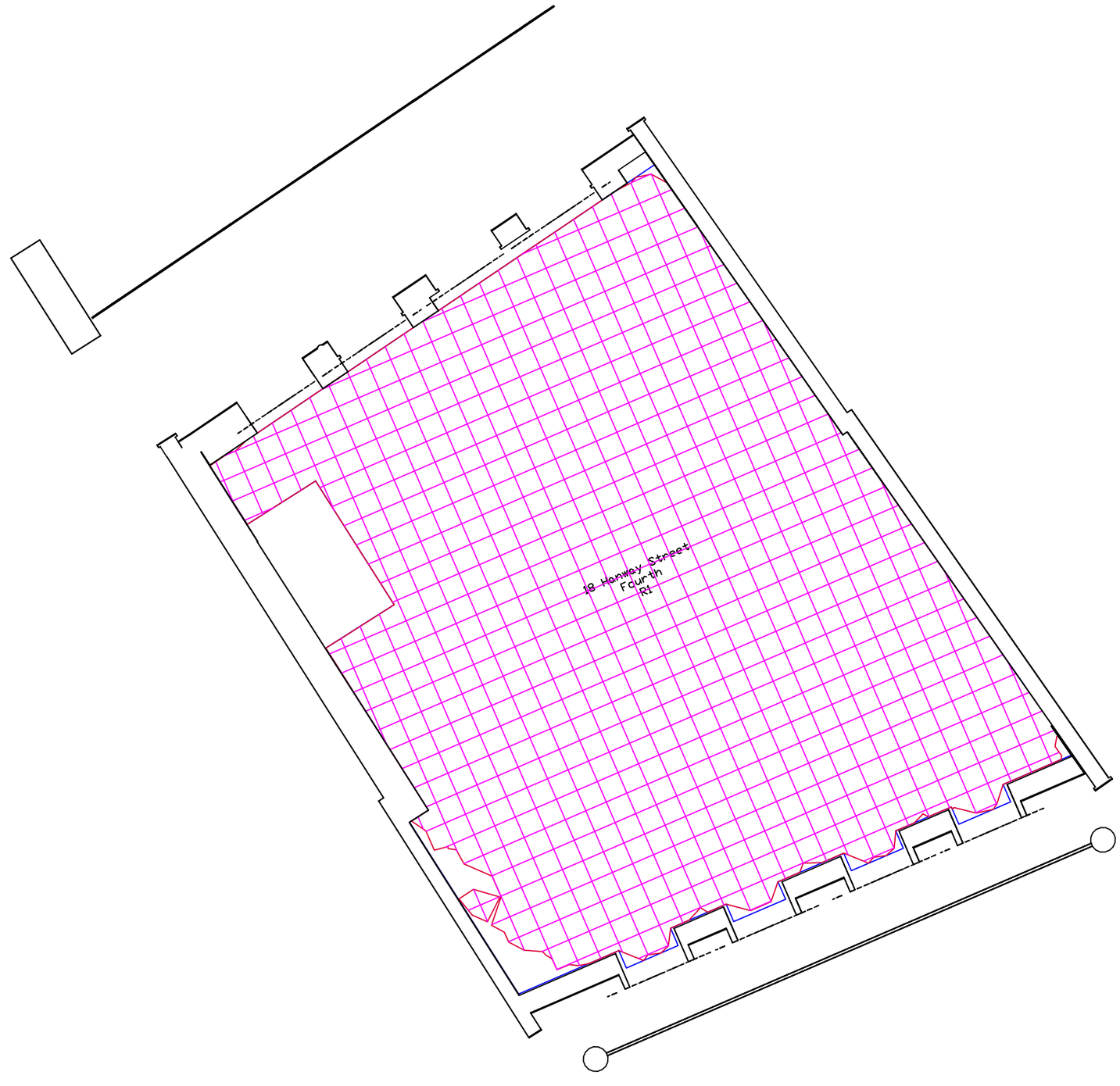
behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
DAYLIGHT DISTRIBUTION
18 HANWAY STREET
THIRD FLOOR

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/28 |
| Date: 31/08/2011 | |
| Scale: NTS | |




LEGEND

3D MODEL BEHAN PARTNERSHIP LLP & ZMAPPING LTD.

TF ARCHITECTURE
EX.001, 002, 003, 004, 005, 006, 007 & 008.
PR.001, 002, 003, 004, 005, 006, 007 & 008.

SURROUNDING PROPERTIES,
DRAWINGS DERIVED FROM PLANNING SEARCHES AT CAMDEN AND WESTMINSTER BOROUGH PLANNING DEPARTMENTS.

| No. | Revision/Issue | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

behan partnership LLP
chartered surveyors

Behan Partnership LLP
Chartered Surveyors
Party Wall & Rights to Light
Experts
New Barnes Mill, Cottonmill Lane
St Albans, Hertfordshire AL1 2HA
01727 800075
mark@behanllp.co.uk

Project Name and Address
18 HANWAY STREET
LONDON

Drawing Description
DAYLIGHT DISTRIBUTION
18 HANWAY STREET
FOURTH FLOOR

| Project Reference | Drawing Sheet No |
|---|---|
| 2011873 | 873/29 |
| Date: 31/08/2011 | |
| Scale: NTS | |