

# **Daylight and Sunlight Report**

**83 Clerkenwell Road**

**London**

**EC1R 5AR**

**CBRE Global Investors**

15<sup>th</sup> June 2020



9 Heneage Street, Spitalfields, London E1 5LJ

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## CONTENTS

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1	Introduction and Scope of Report .....	2
2	Sources of Information and Limitations .....	3
3	Daylight and Sunlight Standards.....	4
4	Scheme Assessment .....	10
5	Summary and Conclusion .....	12

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## APPENDICES

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1	Drawing Nos: CR2019-002-06-1000 to 1005
2	Drawing Nos: CR2019-002-06-3000 to 3002
3	Vertical Sky Component (VSC) Table
4	No Skyline Daylight Distribution Table
5	Sunlight (APSH) Table

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## INTRODUCTION AND SCOPE OF REPORT

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- 1.1 Lumina London Limited are retained by CBRE Global Investors to assess the performance and impact of the proposed alterations to 83 Clerkenwell Road, London EC1R 5AR to create a roof terrace which will necessitate the extension of the core and relocation of roof plant together with a small rear extension into Black Bull Yard.
- 1.2 The purpose of this Report is to assess the impact of the proposed development on the Daylight and Sunlight enjoyed by existing neighbouring residential buildings to ensure that there will be no material effect on daylight and sunlight amenity. Those impacts have been tested in accordance with the standards in the Building Research Establishment (BRE) Guidelines “*Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice*” 2011.

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## SOURCES OF INFORMATION AND LIMITATIONS

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2.1 The existing and surrounding buildings have been modelled from a detailed survey produced by Murphy Surveys ref:

- MSL32903-E-01-RevB,
- MSL32903-E-02-RevB,
- MSL32903-FP1
- MSL32903-FP2,
- MSL32903-FP2,
- MSL32903-FP3
- MSL32903-FPG,
- MSL32903-FPLG,
- MSL32903-RP
- MSL32903-T-RevB,
- MSL32903-XS
- City Vision 3D Model Farringdon\_3D.

and additional measurements and photographs taken on site.

2.2 Record drawings of:

- Black Bull Yard
- 16 Hatton Wall
- Black Bull Court
- The Lever Building

have been obtained from Camden's Planning archives and the room uses and layouts from those record drawings have been used in the analysis.

2.3 For the proposed alterations we have relied on the GPAD Architecture & Interior Design Drawing Nos:

- 3D Model 83 Clerkenwell\_External\_Combined.dwg

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## DAYLIGHT AND SUNLIGHT STANDARDS

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3.1 The BRE Guidelines: “*Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice*” are well established and are adopted by most Local Authorities, including the London Borough of Camden as the appropriate scientific and empirical methods for measuring daylight and sunlight in order to provide objective data on which to apply their planning policies. The guidelines are not fixed standards but should be applied flexibly to take account of the specific circumstances of each case. Those circumstances apply to the general context of development in the area where the site is situated in terms of the height and block spacing of existing neighbouring buildings and certain design features that can disproportionately distort the outputs from the tests.

3.2 The Introduction of the Guidelines states that:

*“The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the developer. Although it gives numerical guidelines, these should be interpreted flexibly because natural light is only one of many factors in site layout design.”*

3.3 The “flexibility” recommended in the Guidelines should reflect the specific circumstances of each case being considered. For example, as the numerical standards using absolute rather than comparison data within the Guidelines have been derived on the basis of a low density suburban housing model, it is entirely appropriate and logical to apply a more flexible approach when dealing with a denser urban environment where the height and scale of buildings is generally greater. In addition, where existing and proposed buildings have specific design features such as projecting balconies, deep recesses, bay windows etc....., it is equally valid to apply a degree of flexibility to take account of the effect of these particular design features. This does not mean that the recommendations and targets within the Guidelines can be disregarded, but instead, the “flexibility” that should be applied should be founded on sound scientific principles that can be supported and justified by the science. This requires a certain level of professional value-

judgement and experience, but helpful general guidance on setting alternative numerical targets in such circumstances, is set out in Appendix F of the Guidelines.

### **Daylighting**

- 3.4 The primary method for measuring the adequacy of daylight received by existing neighbouring buildings is the use of Vertical Sky Components (VSC).
- 3.5 VSC is a “spot” measurement of daylight taken on the face of the window and is a measure of the availability of direct light from the sky received from over and around the “existing” and “proposed” obstruction caused by the buildings or structures in front of the window. As it is measured on the outside face of the window, one of the inevitable shortcomings is that it does not take account of the size of the window or the size of the room served by the window. For this reason, the BRE Guidelines recommend that where the internal layouts of the neighbouring properties are known, the internal Daylight Distribution is measured in addition to VSC to determine the extent of daylight penetration and direct sky visibility seen from within the room.
- 3.6 The maximum VSC value that can be achieved for a totally unobstructed vertical window is 40% VSC. The target VSC value for good daylighting conditions in a low density environment is 27% VSC and this represents a typical VSC value that would be achieved on the face of a window on the main elevation of a well-spaced two storey suburban housing development.
- 3.7 In simple terms, 27% VSC equates to being able to see 27% of the Sky Dome, i.e. the hemisphere of sky above a given reference point. A VSC value of 27% will be achieved where the obstruction in front of a vertical window is continuous and parallel to the plane of that window and where it subtends a vertical angle of 25° when measured from the midpoint of that window. It therefore follows that if a proposed new development is below a vertical angle of 25°, the resultant VSC value will remain above 27%. This is the scientific basis for the initial “screening” test in the BRE Guidelines where it is unnecessary for any further daylight (or sunlight) tests to be undertaken where a proposed development will remain below a vertical angle of 25°. It is clear that in an inner city urban or high-density environment, the relationship with the vast majority of existing buildings will already exceed a vertical angle of 25° and the general profile of the skyline is usually irregular. The VSC values that prevail will therefore

invariably be below 27% VSC as a norm. In such circumstances, VSC values in the mid-teens are typical and therefore represent the reasonable expectation of daylight in an urban environment and values in excess of 20% of VSC will be considered to be good. It is only where VSC values fall in single figures that it becomes difficult to achieve good interior lighting conditions without the need to provide supplementary artificial lighting for longer periods during the day. The application of these alternative targets has been supported by the Mayor in the context of the London Plan and accepted by the Planning Inspectorate at appeal.

- 3.8 The effect of projecting balconies, canopies and recesses also needs to be factored-in to the numerical targets for VSC and Daylight Distribution as such design features substantially distort the output data.
- 3.9 For the purpose of the Guidelines, a “*habitable*” room is defined as a Kitchen, Living Room or Bedroom. Bathrooms, hallways and corridors are excluded from this definition. In addition, there is often a further distinction in respect of small kitchens. Where the internal area of a small kitchen is not of sufficient size to accommodate some other form of “*habitable*” use such as dining and is only used for food preparation, the kitchen need not be classed as a “*habitable*” room in its own right. A net area of 13m<sup>2</sup> is usually taken as an appropriate threshold. This can also apply to relatively small internalised or galley-type kitchens and can also apply to relatively small kitchen areas which form part of a larger Living/Kitchen/Diner.
- 3.10 The “No Skyline” contour plotted for the purpose of measuring internal Daylight Distribution, identifies those areas within the room, usually measured on a horizontal working plane set at worktop level, where there is direct sky visibility. This therefore represents those parts within the room where the sky can be seen through the window. The second measure takes account of the size of the window, number of windows where a room is served by more than one window and the size of the room, and when interpreted with the VSC value, it is easier to determine the likely internal lighting conditions, and hence the overall quality of lighting within the room can be assessed. It is however only of value where the use of rooms and layouts are known but can still be tested using estimated and assumed room layouts where that information is not available. In such circumstances it should be recognized that less weight should be placed on Daylight Distribution results based on estimates and assumptions.

3.11 For VSC, the Guidelines state that:

*“If this Vertical Sky Component is greater than 27% then enough skylight should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the Vertical Sky Component with the new development in place is both less than 27% and less than 0.8 times its former value, then the occupants of the existing building will notice the reduction in the amount of skylight”.*

We have emphasised the word “notice” as just because a change in lighting conditions is noticeable does not necessarily equate to the loss of light being a material reduction to the level of amenity enjoyed by the neighbouring property.

3.12 In context, as mentioned above, the maximum VSC value that can be achieved for a totally unobstructed vertical window is 40%VSC. It is therefore permissible for an obstruction to reduce the amount of visible sky seen from that window by 13% of the Sky Dome to 27% VSC or 32.5% of a clear outlook, before the level of daylight received by the window will even be below standard. There are however many circumstances where the VSC value is already below 27%. In such circumstances, it is permissible to reduce existing VSC values by a factor of 0.2 (i.e. 20%) so that the VSC value under “proposed” conditions remains more than 0.8 times its former value. The scientific foundation for this permissible margin is that through the research undertaken at the Building Research Establishment, they have found that existing daylight (and sunlight) levels can be reduced by a factor of 20% before the loss becomes materially noticeable. This factor of reduction applies to VSC, Daylight Distribution, Sunlight and Overshadowing. Where existing windows enjoy very high levels of daylight under existing conditions, the percentage reduction can be higher provided that the residual VSC value remains adequate. This is the footing upon which the Mayor and Planning Inspectorate accept that residual VSC values in the mid-teens is acceptable in a denser urban environment.

### **Sunlighting**

3.13 The requirements for protecting sunlight to existing residential buildings are set out in Section 3.2 of the BRE Guidelines. As with daylight, it is unnecessary for detailed sunlight tests to be undertaken if a proposed development will be below a vertical angle of 25° drawn from the

midpoint of the lowest window serving a habitable room, as in such circumstances, the availability of sunlight will remain adequate.

3.14 The availability of sunlight varies throughout the year, with the maximum amount of sunlight being available on the summer solstice and the minimum on the winter solstice. In view of this, the internationally accepted test date for measuring sunlight is the median between the two, the Spring Equinox (21<sup>st</sup> March), on which day the United Kingdom has equal periods of daylight and darkness and sunlight is available from approximately 0830 to 1730. In addition, on that date, sunlight received perpendicular to the face of a window will only be received where that window faces within 90 degrees of due south. The BRE Guidelines therefore limit the extent of testing for sunlight to where a window faces within 90 degrees of due south.

3.15 The sunlight standards are normally applied to the principal Living Room within each dwelling rather than to Kitchens and Bedrooms.

3.16 The recommendation for sunlight is:

*“If this window reference point can receive more than one quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during the winter months of 21<sup>st</sup> September and 21<sup>st</sup> March, then the room should receive enough sunlight.....any reduction in sunlight access below this level should be kept to a minimum. If the availability of sunlight hours are both less than the amounts given and less than 0.8 times their former value, either over the whole year or just during the winter months, then the occupants of the existing building will notice the loss of sunlight”.*

3.17 A good level of sunlight will therefore be achieved where a window receives more than 25% APSH, of which 5% APSH should be received in the winter months. Where sunlight levels fall below this suggested recommendation, a comparison with the existing condition should be undertaken and if the reduction ratio is less than 0.2, i.e. the window continues to receive more than 0.8 times its existing sunlight levels, the impact on sunlight will be acceptable.

3.18 It should however be noted that during the winter months, the angle of the sun is much lower, and sunlight is only available at relatively low vertical angles. The consequence of this is that

even relatively small and modest increases in the height or “massing” of a new development can have a disproportionate and misleading impact on the availability of winter sunlight. This is a further example of where greater flexibility and interpretation may be appropriate.

### **Overshadowing**

- 3.19 The Overshadowing recommendations in the BRE Guidelines should be applied to gardens and other amenity and recreational areas such as playgrounds and areas used for sitting-out. General areas of hardstanding and car parking which are not used as designated amenity space are not usually included although it is important to avoid large areas that will be in permanent shadow especially where there is soft landscaping.
- 3.20 The recommendation in the BRE Guidelines is that for an existing garden or amenity area to remain adequately sunlit throughout the year, at least 50% of the garden or amenity area should remain capable of receiving at least two hours of sun-on-the-ground on the Spring Equinox, (21<sup>st</sup> March). If as a result of new development in existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21<sup>st</sup> March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.

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## 4 SCHEME ASSESSMENT

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4.1 Annexed at Appendix 1 Drawing Nos. CR2019-002-06-1000 to 1005 are images of the Site Plan and 3D massing models of the existing neighbouring buildings and proposed alterations and extensions. They are followed in Appendix 2 by Drawing Nos. CR2019-002-06-3000 to 3002 which are the No Skyline Daylight Distribution contour plans for the neighbouring residential dwellings. Appendices 3, 4 and 5 are the tables setting out the numerical results of the VSC, Daylight Distribution and APSH results.

4.2 From our review of the neighbouring buildings around the site, the extent of existing residential dwellings that need to be assessed comprise:

- 16 Hatton Wall
- 18 Hatton Wall
- The top two floors of Black Bull Yard, 22-26 Hatton Wall

The top two floors of Black Bull Yard have been included in the analysis even though the flats are situated higher than the proposed roof terrace.

4.4 Starting with the VSC measurements, the results show that there will be full compliance with the BRE Guidelines with no neighbouring residential window experiencing a change in VSC in excess of 20%. Unsurprisingly there is virtually no difference in the readings for the flats in Blackbull Yard as the reference points for measuring the VSC values are above the level of the proposed new roof terrace and privacy screen.

4.5 For the results of the Daylight Distribution Analysis, three of rooms in the rear of 16 Hatton Wall will experience losses marginally above the BRE recommendations being 37.88%, 28.75% and 20.09%. A review of the planning history of 16 Hatton Wall shows that the upper parts were originally extended for workshop use and were subsequently used for residential purposes which was only recently ratified by way of a Certificate of Lawfulness under Planning Ref: 2019/2493/P. The former workshops are now used as deep living rooms and have windows on

the boundary facing directly onto the flank and rear of the existing building at 83 Clerkenwell Road and have a very limited outlook. The current arrangement is particularly unneighbourly in the context of residential buildings and falls considerably short of current design practice. However, as the residential use is lawful, they need to be afforded the same status as any conventional habitable room. The tight enclosed and unneighbourly relationship does however make the rooms/windows more sensitive to obstructions in front of the windows which explains the minor shortfalls in the Daylight Distribution results. However, none of those results are materially below target and when the full compliance of the VSC results is considered, the balanced conclusion is that any impact will be extremely small.

- 4.6 One ground floor room in the rear of 18 Hatton Wall also recorded a small shortfall in the Daylight Distribution results (Room R1 where the loss was 26.13%). We could find no record drawings to determine the use of this room in the planning archives and believe that this part of the ground floor of 18 Hatton Wall does not contain habitable rooms. However, as there is some uncertainty, the rooms/windows have been included for completeness.
- 4.7 All other rooms in the neighbouring dwellings show full compliance with the BRE Daylight Distribution standards.
- 4.8 The BRE Sunlight standards only apply to windows that face with 90 degrees of due south. They therefore only apply to two windows in Black Bull Yard, 22-26, Hatton Wall. The results are set out in the APSH Table at Appendix 5 and unsurprisingly, as those windows are higher than the proposed roof terrace, there will be no change in the levels of Annual and Winter Sunlight received by those windows.
- 4.9 No gardens or residential amenity space that could be affected by overshadowing has been identified. The BRE Overshadowing criteria therefore does not apply.

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## 5 SUMMARY AND CONCLUSION

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- 5.1 The results demonstrate that the proposed development will not result in any material loss of daylight or sunlight received by existing neighbouring residential premises so as to have an unreasonable effect on amenity. It should therefore follow that the Camden's policy standards will be met.

**Lumina London Ltd**

## APPENDIX 1

Drawing Nos: Drawing Nos: CR2019-002-06-1000 to 1005

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VIEWS

Legend

- Existing Site
- Proposed Scheme
- Analysed Buildings
- Surrounding Buildings

Source of Information

**Existing And Surrounding Buildings**  
**Murphy Surveys**  
Drawing No's:  
MSL32903-E-01-RevB, MSL32903-E-02-RevB, MSL32903-FP1  
MSL32903-FP2, MSL32903-FP2, MSL32903-FP3  
MSL32903-FPG, MSL32903-FPLG, MSL32903-RP  
MSL32903-T-RevB, MSL32903-XS

City Vision  
3D Model  
Farringdon\_3D.dwg

**Proposed Scheme**  
**GPAD Architecture & Interior Design**  
3D Model  
Clerkenwell\_External\_Combined.dwg

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conjunction with any specifications, schedules and Consultants  
drawings and details.


**Project Title**  
83 Clerkenwell Road  
London  
EC1R

**Client**  
Dorset County Pension Fund

**Drawing Title**  
Existing Site Plan

<b>Drawn By</b> Mo	<b>Scale @A3</b> N/A
<b>Project No</b> CR2019-002	<b>Date</b> 11/06/2020
<b>Drawing No</b> 06- 1000	<b>Rev</b>





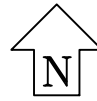
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VIEWS

Legend

- Existing Site
- Proposed Scheme
- Analysed Buildings
- Surrounding Buildings



Source of Information

**Existing And Surrounding Buildings**  
**Murphy Surveys**  
Drawing No's:  
MSL32903-E-01-RevB, MSL32903-E-02-RevB, MSL32903-FP1  
MSL32903-FP2, MSL32903-FP2, MSL32903-FP3  
MSL32903-FPG, MSL32903-FPLG, MSL32903-RP  
MSL32903-T-RevB, MSL32903-XS

City Vision  
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**Proposed Scheme**  
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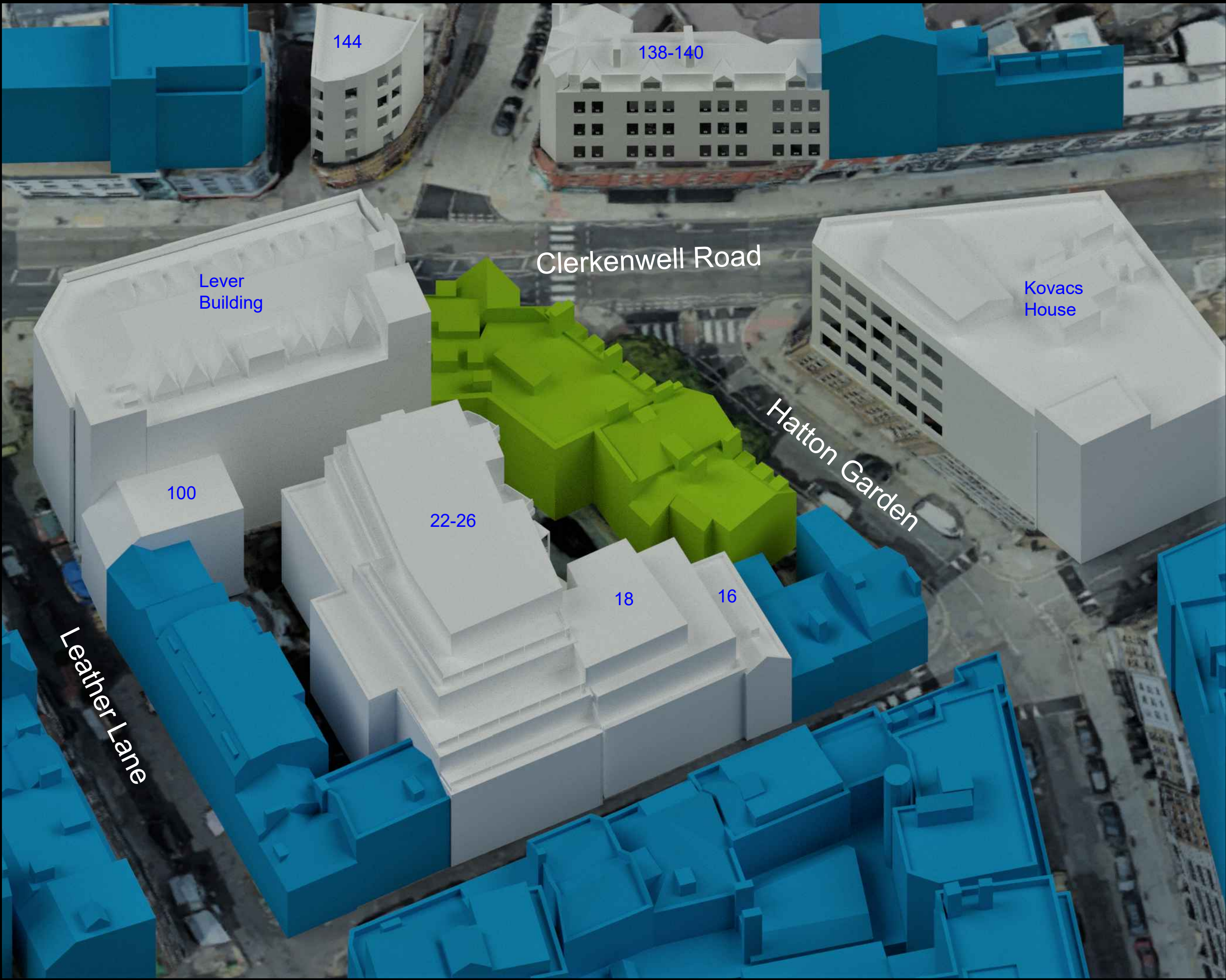
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EC1R

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Dorset County Pension Fund

**Drawing Title**  
Existing 3D View

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<b>Drawing No</b> 06- 1001	<b>Rev</b>





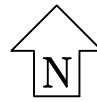
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Source of Information

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MSL32903-FP2, MSL32903-FP2, MSL32903-FP3  
MSL32903-FPG, MSL32903-FPLG, MSL32903-RP  
MSL32903-T-RevB, MSL32903-XS

City Vision  
3D Model  
Farringdon\_3D.dwg

**Proposed Scheme**  
**GPAD Architecture & Interior Design**  
3D Model  
Clerkenwell\_External\_Combined.dwg

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**Project Title**  
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EC1R

**Client**  
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**Drawing Title**  
Existing 3D View

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<b>Drawing No</b> 06- 1002	<b>Rev</b>





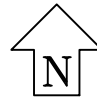
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### VIEWS

Legend

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### Source of Information

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MSL32903-FPG, MSL32903-FPLG, MSL32903-RP  
MSL32903-T-RevB, MSL32903-XS

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Farringdon\_3D.dwg

**Proposed Scheme**  
**GPAD Architecture & Interior Design**  
3D Model  
Clerkenwell\_External\_Combined.dwg

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**Drawing Title**  
Proposed Site Plan  
With Rear Extension

<b>Drawn By</b> Mo	<b>Scale @A3</b> N/A
<b>Project No</b> CR2019-002	<b>Date</b> 11/06/2020
<b>Drawing No</b> 06- 1003	<b>Rev</b>





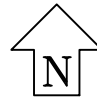
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VIEWS

Legend

- Existing Site
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N

Source of Information

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MSL32903-T-RevB, MSL32903-XS

City Vision  
3D Model  
Farrington\_3D.dwg

**Proposed Scheme**  
**GPAD Architecture & Interior Design**  
3D Model  
Clerkenwell\_External\_Combined.dwg

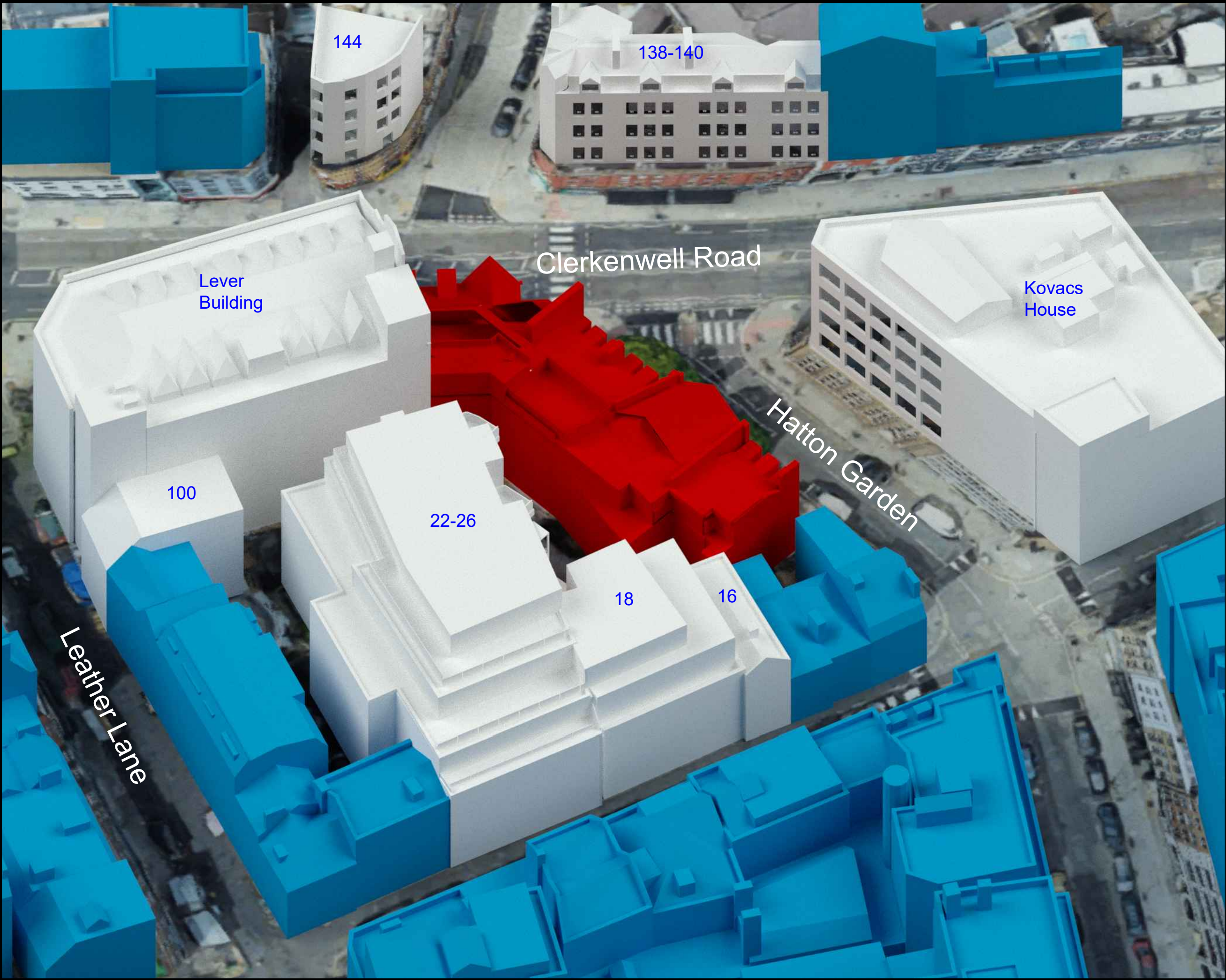
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**Project Title**  
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EC1R

**Client**  
Dorset County Pension Fund

**Drawing Title**  
Proposed 3D View  
With Rear Extension

<b>Drawn By</b> Mo	<b>Scale @A3</b> N/A
<b>Project No</b> CR2019-002	<b>Date</b> 11/06/2020
<b>Drawing No</b> 06- 1004	<b>Rev</b>





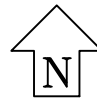
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VIEWS

Legend

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- Surrounding Buildings



Source of Information

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**Murphy Surveys**  
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City Vision  
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**Proposed Scheme**  
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**Client**  
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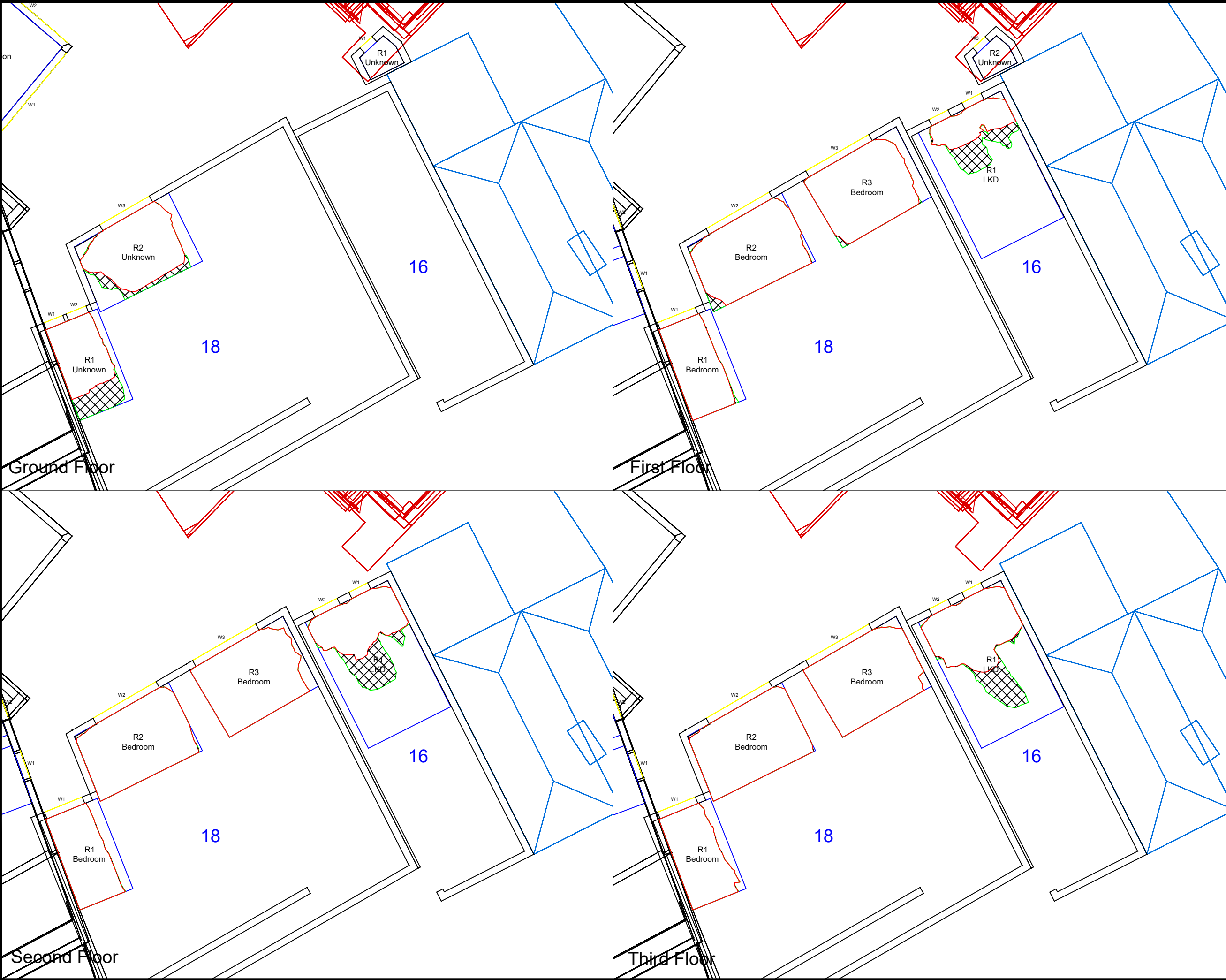
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Proposed 3D View  
With Rear Extension

<b>Drawn By</b> Mo	<b>Scale @A3</b> N/A
<b>Project No</b> CR2019-002	<b>Date</b> 11/06/2020
<b>Drawing No</b> 06- 1005	<b>Rev</b>

## APPENDIX 2

Drawing Nos: CR2019-002-06-3000 to 3002

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9 Heneage Street, Spitalfields, London, E1 5LJ Tel: 0203 6375691

DAYLIGHT

Legend

- Existing Site
- Proposed Scheme
- Analysed Buildings
- Surrounding Buildings

Existing Contour

Room Layout

Proposed Contour

1ft Grid Loss Hatching

Source of Information

**Existing And Surrounding Buildings**  
**Murphy Surveys**  
Drawing No's:  
MSL32903-E-01-RevB, MSL32903-E-02-RevB, MSL32903-FP1  
MSL32903-FP2, MSL32903-FP2, MSL32903-FP3  
MSL32903-FPG, MSL32903-FPLG, MSL32903-RP  
MSL32903-T-RevB, MSL32903-XS

City Vision  
3D Model  
Farrington\_3D.dwg

**Proposed Scheme**  
**GPAD Architecture & Interior Design**  
3D Model  
Clerkenwell\_External\_Combined.dwg

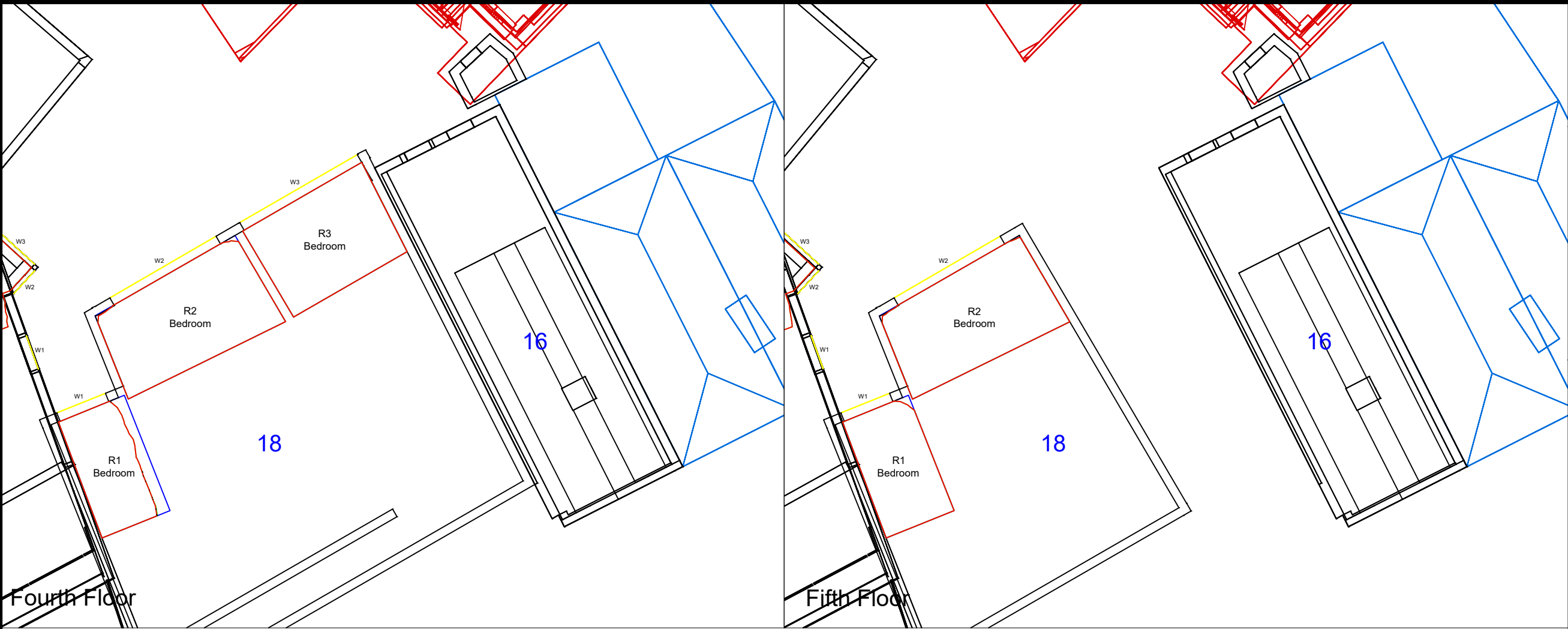
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conjunction with any specifications, schedules and Consultants  
drawings and details.


**Project Title**  
83 Clerkenwell Road  
London  
EC1R

**Client**  
Dorset County Pension Fund

**Drawing Title**  
Daylight Analysis  
16 & 18 Hatton Wall

<b>Drawn By</b> Mo	<b>Scale @A3</b> 1/150
<b>Project No</b> CR2019-002	<b>Date</b> 11/06/2020
<b>Drawing No</b> 06-3000	<b>Rev</b>





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DAYLIGHT

Legend

- Existing Site
- Proposed Scheme
- Analysed Buildings
- Surrounding Buildings

Existing Contour

Room Layout

Proposed Contour

1ft Grid Loss Hatching

Source of Information

Existing And Surrounding Buildings

Murphy Surveys

Drawing No's:

MSL32903-E-01-RevB, MSL32903-E-02-RevB, MSL32903-FP1

MSL32903-FP2, MSL32903-FP2, MSL32903-FP3

MSL32903-FPG, MSL32903-FPLG, MSL32903-RP

MSL32903-T-RevB, MSL32903-XS

City Vision

3D Model

Farrington\_3D.dwg

Proposed Scheme

GPAD Architecture & Interior Design

3D Model

Clerkenwell\_External\_Combined.dwg

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Project Title

83 Clerkenwell Road  
London  
EC1R

Client

Dorset County Pension Fund

Drawing Title

Daylight Analysis  
16 & 18 Hatton Wall

Drawn By

Mo

Scale @A3

1/150

Project No

CR2019-002

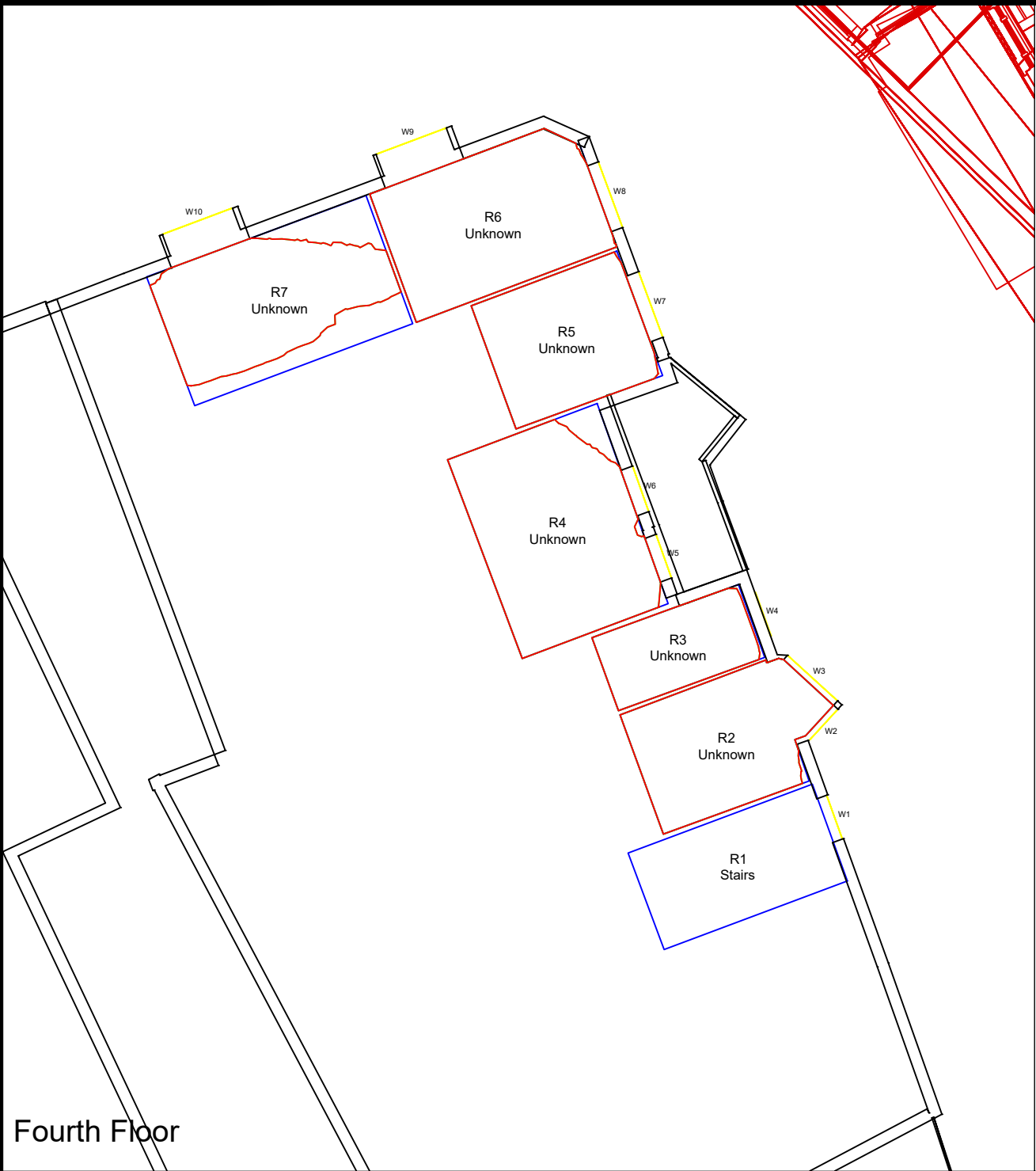
Date

11/06/2020

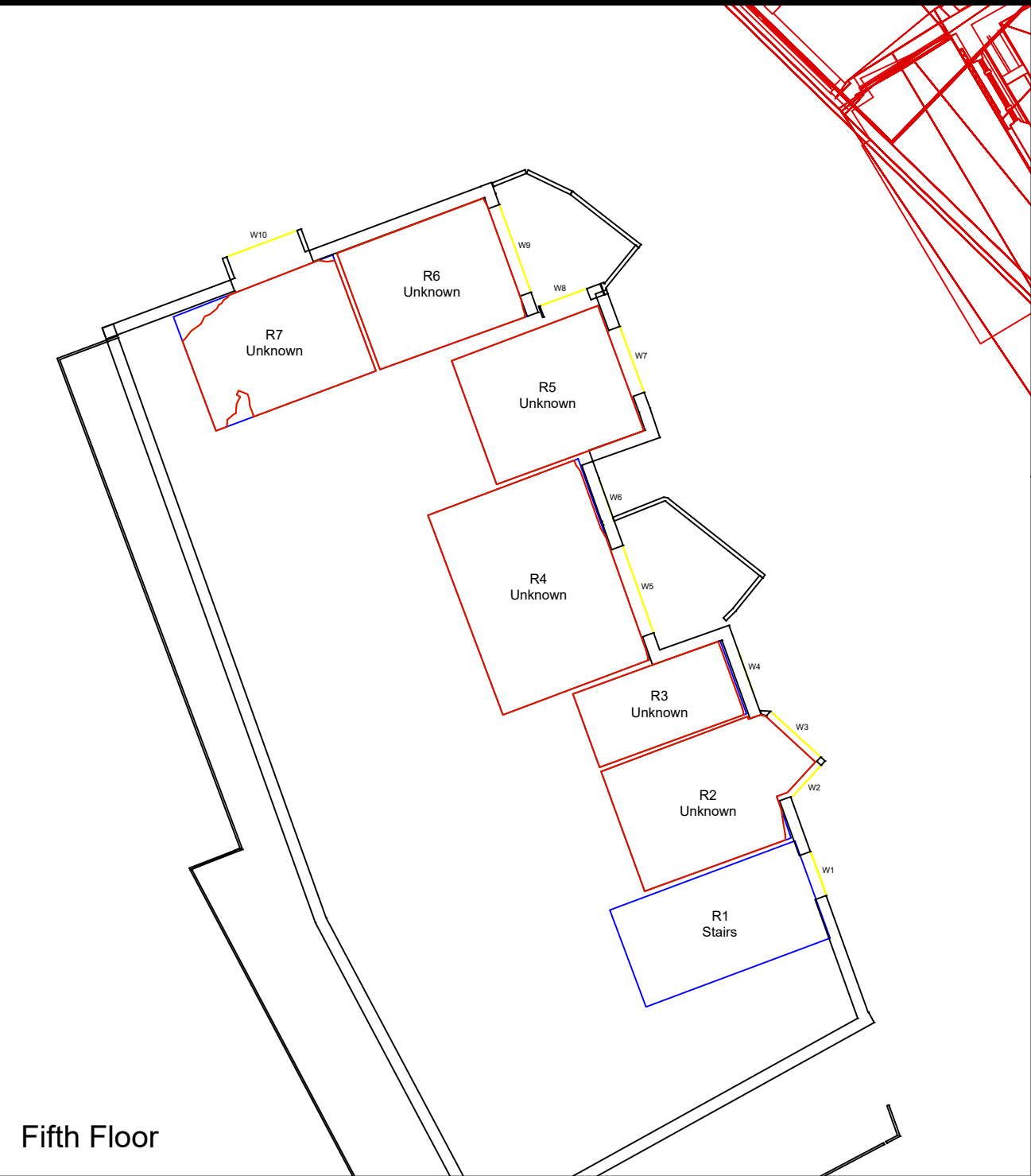
Drawing No

06-3001


Rev



Fourth Floor



Fifth Floor



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DAYLIGHT

Legend

- Existing Site
- Proposed Scheme
- Analysed Buildings
- Surrounding Buildings

Existing Contour

Room Layout

Proposed Contour

1ft Grid Loss Hatching

Source of Information

Existing And Surrounding Buildings

Murphy Surveys

Drawing No's:

MSL32903-E-01-RevB, MSL32903-E-02-RevB, MSL32903-FP1

MSL32903-FP2, MSL32903-FP2, MSL32903-FP3

MSL32903-FPG, MSL32903-FPLG, MSL32903-RP

MSL32903-T-RevB, MSL32903-XS

City Vision

3D Model

Farringdon\_3D.dwg

Proposed Scheme

GPAD Architecture & Interior Design

3D Model

Clerkenwell\_External\_Combined.dwg

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Project Title

83 Clerkenwell Road  
London  
EC1R

Client

Dorset County Pension Fund

Drawing Title

Daylight Analysis  
22-26 Hatton Wall

Drawn By	Scale @A3
Mo	1/150

Project No	Date
CR2019-002	11/06/2020

Drawing No	Rev
06-3002	

APPENDIX 3

Vertical Sky Component (VSC) Table

**VSC Analysis**  
**83 Clerkenwell Road**  
**With Rear Extension**

ROOM	Window	Room Use	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
16 Hatton Wall						
First						
R1	W1	LKD	7.12	6.46	0.65	9.17%
R1	W2	LKD	9.26	7.52	1.73	18.73%
Second						
R1	W1	LKD	10.56	10.36	0.21	1.95%
R1	W2	LKD	13.80	12.64	1.16	8.44%
Third						
R1	W1	LKD	18.15	17.31	0.84	4.64%
R1	W2	LKD	20.22	19.21	1.01	5.00%
18 Hatton Wall						
Ground						
R1	W1	Unknown	5.48	4.73	0.75	13.66%
R1	W2	Unknown	3.30	2.85	0.44	13.47%
R2	W3	Unknown	9.47	8.11	1.36	14.41%
First						
R1	W1	Bedroom	5.48	4.85	0.63	11.42%
R2	W2	Bedroom	12.40	11.00	1.40	11.31%
R3	W3	Bedroom	12.04	10.14	1.90	15.82%
Second						
R1	W1	Bedroom	6.28	5.67	0.61	9.72%
R2	W2	Bedroom	16.21	14.87	1.34	8.24%
R3	W3	Bedroom	16.94	15.45	1.49	8.82%
Third						
R1	W1	Bedroom	7.03	6.55	0.47	6.73%
R2	W2	Bedroom	20.37	19.46	0.91	4.47%
R3	W3	Bedroom	23.39	22.40	0.99	4.22%
Fourth						
R1	W1	Bedroom	8.01	7.74	0.26	3.31%
R2	W2	Bedroom	25.32	24.97	0.35	1.39%
R3	W3	Bedroom	30.25	30.06	0.19	0.63%
Fifth						
R1	W1	Bedroom	12.49	12.46	0.03	0.22%
R2	W2	Bedroom	29.81	29.76	0.04	0.15%

**VSC Analysis**  
**83 Clerkenwell Road**  
**With Rear Extension**

			EXISTING	PROPOSED	LOSS	%LOSS
ROOM	Window	Room Use	VSC	VSC	VSC	VSC
22-26 Hatton Wall						
Fourth						
R2	W2	Unknown	16.77	16.77	0.00	0.00%
R2	W3	Unknown	33.69	33.64	0.05	0.15%
R3	W4	Unknown	34.58	34.58	0.00	0.01%
R4	W5	Unknown	3.49	3.49	0.00	0.00%
R4	W6	Unknown	8.75	8.75	0.00	0.00%
R5	W7	Unknown	37.19	37.12	0.07	0.20%
R6	W8	Unknown	32.95	32.81	0.15	0.45%
R6	W9	Unknown	21.17	20.88	0.28	1.34%
R7	W10	Unknown	17.26	17.23	0.03	0.20%
Fifth						
R2	W2	Unknown	31.38	31.38	0.00	0.00%
R2	W3	Unknown	38.63	38.63	0.00	0.00%
R3	W4	Unknown	38.64	38.64	0.00	0.00%
R4	W5	Unknown	32.74	32.74	0.00	0.00%
R4	W6	Unknown	31.48	31.48	0.00	0.00%
R5	W7	Unknown	39.10	39.10	0.00	0.00%
R5	W8	Unknown	24.60	24.60	0.00	0.00%
R6	W9	Unknown	34.01	34.01	0.00	0.00%
R7	W10	Unknown	24.90	24.90	0.00	0.00%

## APPENDIX 4

### No Skyline Daylight Distribution Table

**Daylight Analysis**  
**83 Clerkenwell Road**  
**With Rear Extension**

Room/ Floor	Room Use	Whole Room	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss
16 Hatton Wall						
First						
R1	LKD	262.86	76.86	47.75	29.11	37.88%
Second						
R1	LKD	262.86	119.94	85.46	34.48	28.75%
Third						
R1	LKD	262.86	138.01	110.29	27.72	20.09%
18 Hatton Wall						
Ground						
R1	Unknown	110.35	97.16	71.78	25.39	26.13%
R2	Unknown	163.63	128.59	115.39	13.19	10.26%
First						
R1	Bedroom	110.35	90.35	89.68	0.66	0.73%
R2	Bedroom	163.63	159.20	155.74	3.47	2.18%
R3	Bedroom	165.63	148.68	147.35	1.33	0.89%
Second						
R1	Bedroom	110.35	90.52	90.28	0.24	0.26%
R2	Bedroom	163.63	160.79	160.67	0.13	0.08%
R3	Bedroom	165.63	152.84	152.84	0.00	0.00%
Third						
R1	Bedroom	110.35	93.70	93.66	0.05	0.05%
R2	Bedroom	163.63	162.17	162.15	0.03	0.02%
R3	Bedroom	165.63	160.25	160.25	0.00	0.00%
Fourth						
R1	Bedroom	110.35	93.50	93.40	0.10	0.10%
R2	Bedroom	196.04	195.04	195.04	0.00	0.00%
R3	Bedroom	165.63	165.63	165.63	0.00	0.00%
Fifth						
R1	Bedroom	110.35	109.20	109.20	0.00	0.00%
R2	Bedroom	196.04	195.48	195.48	0.00	0.00%

**Daylight Analysis**  
**83 Clerkenwell Road**  
**With Rear Extension**

Room/ Floor	Room Use	Whole Room	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss
22-26 Hatton Wall						
Fourth						
R2	Unknown	158.93	158.02	158.01	0.00	0.00%
R3	Unknown	85.73	84.34	84.34	0.00	0.00%
R4	Unknown	237.43	225.20	225.20	0.00	0.00%
R5	Unknown	145.55	145.00	145.00	0.00	0.00%
R6	Unknown	204.43	204.10	204.10	0.00	0.00%
R7	Unknown	226.62	164.03	164.03	0.00	0.00%
Fifth						
R2	Unknown	158.93	158.36	158.36	0.00	0.00%
R3	Unknown	85.73	84.61	84.61	0.00	0.00%
R4	Unknown	237.43	236.16	236.16	0.00	0.00%
R5	Unknown	145.55	145.55	145.55	0.00	0.00%
R6	Unknown	137.92	137.74	137.74	0.00	0.00%
R7	Unknown	147.35	138.39	138.39	0.00	0.00%

APPENDIX 5

Sunlight (APSH) Table

**APSH Analysis**  
**83 Clerkenwell Road**  
**With Rear Extension**



Position	Room Use	Existing			Proposed			% Loss	
		Summer	Winter	Total	Summer	Winter	Total	Winter	Total
22-26 Hatton Wall									
Fourth									
W2	Unknown	17	2	19	17	2	19	0.00%	0.00%
Fifth									
W2	Unknown	35	12	47	35	12	47	0.00%	0.00%