schroedersbegg
Chartered Surveyors

Prepared by: Schroeders Begg (UK) LLP
Vox Studios, Unit 411,
1-45 Durham Street, London SE11 5JH
T 020 7582 8800 • E info@sbegg.co.uk

DAYLIGHT & SUNLIGHT REPORT

relating to the

PROPOSED REDEVELOPMENT

at

**29-31 HIGH STREET
HAMPTON COURT
KINGSTON UPON THAMES
KT1 4DA**

JANUARY 2021
Ref: 2093/J rev01

CONTENTS

APPENDICES

1.0 EXECUTIVE SUMMARY

1.1 This Daylight and Sunlight Report considers the impact of the proposal upon daylight and sunlight to neighbouring residential property.

1.2 The findings from this analysis review report are that the proposal will have relatively limited effects on the surrounding residential properties assessed in respect of daylight and sunlight.

1.3 The results of our examination are based upon the standard assessment procedure of the BRE Guide 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice' Edition 2011 (The BRE Guide). Based upon the analysis considered and submitted herein, for the daylight Vertical Sky Component (VSC) analysis to 32 No applicable neighbouring windows that serve habitable rooms, confirms the reductions to 26 No windows meet BRE Guide target criteria.

1.4 For the isolated windows that have reductions not meeting target criteria, these relate to 6 No windows to 25-27 High Street, albeit in real terms, the actual reduction in VSC value is limited (reductions in VSC value ranging 1.6 to 4.2). It is not known for certain which room use these windows are serving but the majority of these windows are anticipated to serve bedrooms and perhaps one living room. The reductions to these windows in terms of daylight VSC could be considered as typically 'minor adverse' and relating to the lower floors where there is already some inherent sensitivity due to some of these windows having existing low VSC levels / facing within a lower level courtyard arrangement.

1.5 For sunlight review to applicable neighbouring windows / rooms, where reductions are applicable, these all meet BRE Guide default target criteria.

1.6 Overall, in our opinion, we consider reductions to neighbouring daylight and sunlight are acceptable and highlight that the majority of applicable reductions meet BRE Guide target criteria.

1.7 For the proposed new-build habitable rooms (self-test), all rooms satisfy the target criteria in terms of provision of suitable daylight (Average Daylight Factor) so that the proposals meet the BRE Guide target criteria (ADF within BS8206) for daylight and the scheme has good provision of sunlight availability to the new habitable living rooms in consideration of a multi-unit development.

2.0 OVERVIEW

2.1 The proposal is for a mixed-use scheme comprising commercial at ground storey (plus basement as applicable) and residential above. The scheme is arranged in two blocks each being ground + 2 (with Block 1 plus basement). The scheme provides 8 No residential units. The scheme has been prepared by Fletcher Crane Architects.

2.2 The proposal has been carefully developed and in context with the surrounding massing to limit the effects of the proposed massing / volume upon daylight and sunlight to neighbouring properties.

2.3 In terms neighbouring properties applicable for review, this relates to those properties with windows serving habitable rooms, primarily relating to Nos 25-27, 33 and the upper floors of Nos. 21, 23 and 35 High Street (for Nos 21, 23 & 35 High Street ordinarily, the commercial areas at ground floor are not reviewed for daylight and sunlight).

2.4 The proposals are shown in detail on the planning drawings. However, 3D perspective views (existing and proposed) with neighbouring context (along with associated window references relating to the analysis tables) are provided within **Appendix A**, to enable the analysis tables and other descriptions within this report to be understood.

3.0 NEIGHBOURING REVIEW – DAYLIGHT & SUNLIGHT

3.1 BACKGROUND

3.1.1 Daylight and sunlight amenities are considerations that the local planning authority can take into account when determining planning applications. There is no national planning policy relating to daylight and sunlight and overshadowing impacts. General guidance is, however, given on the need to protect existing amenity as set out in the National Planning Policy Framework.

3.1.2 At a Regional level, the London Plan sets out at Policy 7.6 that buildings should *"not cause unacceptable harm to the surrounding land and buildings, particularly residential buildings…."*

3.1.3 The Building Research Establishment's (BRE) 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice' (2011) (The BRE Guide) enables an objective assessment to be made as to whether the proposals will adversely affect the daylight and sunlight reaching neighbouring habitable rooms. The BRE Guide has been utilised for this review.

3.1.4 When considering the Guide's requirements, it is important to remember that the Guide is not a set of planning rules, which are either passed or failed. Numerical values are given and used, not as proscriptive or prescriptive values but as a way of comparing situations and coming to a judgement. The Guide is conceived as an aid to planning officers and designers by giving objective means of making assessments. The values given as desirable in the Guide may not be obtainable in dense urban areas where the grain of development is tight while higher values might well be desirable in suburban or rural areas where the grain is contrastingly open.

3.2 METHODOLOGY

3.2.1 We have undertaken analysis of the existing and proposed situations following the methodology set out in the BRE Guide on Site Layout Planning for Daylight and Sunlight (2nd Ed / 2011).

3.2.2 In the first instance we have considered the BRE Guides initial consideration of the '25° test' which a number of neighbouring properties readily satisfy and need not be considered further. For those neighbouring properties not satisfying the '25° test', we have considered daylight review in terms of Vertical Sky Component (VSC) analysis and have also considered sunlight (again, by the method set out in the Guide) to review as applicable, the proportion of the annual probable sunlight hours (APSHs) and winter hours, that the surrounding windows will benefit from in the existing and proposed scenario. Whilst ordinarily, we would review daylight distribution, given that we have not been able to determine the likely room arrangements, we are unable to undertake review of this aspect (please see later background comments).

3.2.3 We have utilised OS data, site survey info, an existing and proposed 3D model with neighbouring massing context from the architect (plus a set of their design drawings) and details from site review. Our analysis has utilised industry recognised specialist software for daylight/sunlight review. As the scheme drawings form part of the formal submission, these are not reproduced here.

3.2.4 In terms of neighbouring properties applicable for detailed daylight/sunlight review, we have assessed the effects of the proposals on applicable windows and rooms within the following residential properties;

High Street : Nos 25-27 & 33 and upper parts of for Nos 21, 23 & 35 High Street (ordinarily, the commercial areas at ground floor are not reviewed for daylight and sunlight).

3.2.5 In reference to neighbouring No 3 St John's Road and No 11 High St, in reference to the BRE Guide 25° test, it has not been necessary to undertake detailed daylight and sunlight review of these neighbouring properties.

3.2.6 Finally, we have not accessed neighbouring properties, and in terms of internal room arrangements, it has not been possible to obtain in this particular instance, any conclusive details upon room layouts within the public realm (e.g. based upon historic planning portal info, estate agents details etc). Therefore, given room arrangements are unknown, we do not consider it is appropriate in this instance to infer layouts due to the potential errors that could arise within the review of daylight distribution. We also

refer to the BRE Guide which states within para. 2.2.8 *'where room layouts are known, the impact on the daylight distribution in the existing building can be found by plotting the 'no sky line' in each of the main rooms.'* In summary, we do not know the room layouts or consider these can be reasonably inferred in this instance thus review of daylight distribution has not be undertaken.

3.3 DAYLIGHT BRE GUIDE 25° REVIEW

3.3.1 For daylight review to neighbouring residential properties we have examined the benchmark test as set out in paragraph 2.2.5 of BRE Guide, namely (part extract):-

3.3.2 "First draw a section in a plane perpendicular to each affected main window wall of the existing building. Measure the angle to the horizontal subtended by the new development at the level of the centre of the lowest window. If this angle is less than 25° for the whole of the development then it is unlikely to have a substantial effect on the diffuse skylight enjoyed by the existing building. If, for any part of the new development, this angle is more than 25°, a more detailed check is needed to find the loss of skylight to the existing building.."

3.3.3 In terms of the BRE Guide 25° test, we have taken the main window wall as the main rear elevation and utilised a vertical height above ground of the industry standard default of 1.6 metres (which is also the sample height utilised in the case of floor to ceiling windows such as a patio doors / reference within the BRE Guide).

3.3.4 Within Appendix B, we present the BRE Guide 25° test respectively for No 3 St John's Road (section AA and BB considered) and also for 11 High Street (section CC); these are presented as 2D section images (sections taken as indicated on the Section Plan for the applicable rear elevations under consideration).

3.3.5 From these respective sections, it can readily be seen that in respect of the BRE Guide 25° review, the proposal does not breach the 25° line from the horizontal (taken at the 1.6 metres above ground level along the main window wall / rear wall of the sampled properties) for No 3 St John's Road (section AA and BB considered) and also for 11 High Street (section CC). Accordingly, we have not considered it necessary to consider further neighbouring 3 St John's Road and 11 High Street; the BRE Guide 25° test is satisfied.

3.3.6 For the remaining neighbouring properties applicable for assessment, we have considered review of daylight VSC.

3.4 DAYLIGHT VERTICAL SKY COMPONENT (VSC)

3.4.1 The BRE Guide considers that in terms of Vertical Sky Component (VSC), as a target value, if the VSC with the new development in place is both, less than 27% and less than 0.8 times its former value (i.e. the latter, if exceeding a 20% reduction), occupants of the existing building will notice the reduction in the amount of skylight. The maximum value obtainable at a flat window in a vertical wall is effectively 40%.

3.4.2 VSC represents a ratio of the part of illuminance at a point on a given vertical plane (usually the centre point of window on the window wall face), that would be received directly from an overcast sky (CIE standard overcast sky) to illuminance on a horizontal plane due to an unobstructed hemisphere of this sky. The VSC does not include reflected light, either from the ground or from other buildings.

3.4.3 A total of 32 No neighbouring windows have been analysed.

3.4.4 **Table 1** – VSC and sunlight for surrounding buildings within **Appendix B** sets out the results of our analysis review with the existing and proposed VSC values presented along with the proportion of the former value stated from which we summarise the results as follows;

3.4.5 High Street:

Nos. 21 & 23 : VSC reductions range up to 6% thus readily not exceeding 20%.

Nos. 25-27 : 15 No windows have been reviewed and where reductions are applicable, these would readily meet BRE Guide target criteria to 9 No windows. For the remaining 6 No windows where reduction in percentage terms does not meet BRE Guide target criteria, we highlight that the actual reduction in real terms ranges from a reduction in VSC value of 1.6 to 4.2. For these given low reductions, in real terms, it is not considered to result in an significant change to the daylight VSC to these rooms which already experience as existing, some limitation to daylight VSC value and presumably on that basis, some degree of reliance on artificial lighting. To place this into some context, a loss of a VSC value of 4 applicable to a higher and more meaningful existing VSC value of say 20, would meet the BRE Guide target criteria as a 20% reduction in VSC i.e. 0.8 times former value which would represent a reduction in VSC value of 4 (VSC Value 20 to 16) in real terms. In such an example, BRE Guide target criteria would be met. It is evident that some of the existing lower value VSCs are resulting in a disproportional reduction in 'percentage terms' but not in real terms.

No.33: VSC reductions range up to 3% thus readily not exceeding 20%. Indeed, conversely, there are also some isolated gains / improvements to VSC of up to 7% due to the proposed massing changes on site.

No 35 : VSC reductions range up to 8% thus readily not exceeding 20%.

1.8 **Summary** : Daylight VSC analysis to 32 No applicable neighbouring windows that serve habitable rooms, confirms the reductions to 26 No windows meet BRE Guide target criteria. For the isolated windows that have reductions not meeting target criteria, these relate to 6 No windows to 25-27 High Street, albeit in real terms, the actual reduction in VSC value is limited (reductions in VSC value ranging 1.6 to 4.2). It is not known for certain which room use these windows are serving but the majority of these windows are anticipated to serve bedrooms and perhaps one living room. The reductions to these windows in terms of daylight VSC could be considered as typically 'minor adverse' and relating to the lower floors where there is already some inherent sensitivity due to some of these windows having existing low VSC levels / facing within a lower level courtyard arrangement. Overall, in our opinion, we consider reductions to neighbouring daylight are acceptable and highlight that the majority of applicable reductions meet BRE Guide target criteria.

3.5 SUNLIGHT

3.5.1 For sunlight, only windows that face within 90° of South, that is to say, facing from 90° to 270°, are ordinarily considered in reference to sunlight BRE Guide review.

3.5.2 The BRE Guide recommendation is that windows facing within 90° of South, should have 25% of Annual Probable Sunlight Hours (APSHs) with 5% in the winter months (from the autumn equinox to the spring equinox). Where reductions below the recommended levels are contemplated, these should be targeted so that the proposed value is 0.8 times former value or above (unless a reduction of sunlight received over the whole year is not greater than 4% of annual probable sunlight hours).

3.5.3 To highlight, focus of analysis review of windows primarily relates to main living rooms and conservatories i.e. sun important rooms as per the BRE Guide. Notwithstanding this, we have analysed all habitable windows for sunlight review as considered previously for daylight.

3.5.4 **Table 1** – VSC and sunlight for surrounding buildings within **Appendix B** sets out the results of our analysis review with the existing and proposed APSHs values (plus winter hours) presented along with the proportion of the former value stated. The analysis results for all neighbouring habitable rooms assessed (that face within 90° of South and notwithstanding whether they are living rooms / sun important rooms), where reductions are applicable, these adhere to the BRE Guide default target criteria in reference to both APSH and winter ('Total suns per room' – existing and proposed).

3.5.5 Summary : Sunlight analysis to applicable neighbouring windows / rooms, confirms that for where reductions are applicable, these all meet BRE Guide default target criteria and thus such reductions should be considered readily acceptable.

4.0 PROPOSAL SELF-TEST – DAYLIGHT & SUNLIGHT PROVISION

4.1 The proposed new accommodation has been analysed to determine whether or not the new proposed habitable rooms will be provided with adequate daylight, in reference to the Average Daylight Factors (ADFs). The ADF is an overall calculation / combined consideration of such aspects as available sky at the window face (the angle of visible sky 'theta' derived from VSC), the area of the glazing and size of the room served by such glazing, the average reflectance's of the surfaces inside the room, etc. This gives a detailed assessment of the daylight that will be available within the room.

4.2 BS 8206 Pt2 (whilst recently withdrawn), is still incorporated into the current BRE Guide and advise from the BRE Guide is that this method can still be utilised for ADF review (as opposed to utilising BSEN17037:2018 Daylight in buildings which the BRE is currently considering, how to incorporate within the BRE Guide). BS 8206 Pt2 sets minimum target ADFs values for residential as 1% for bedrooms, 1.5% for living rooms and 2% for kitchens. In instances of any applicable open-plan arrangements for 'kitchen/ living/ dining room', we have taken the target ADF for the predominant room use which being primarily 'living/ dining room', we have allowed a target ADF of 1.5 (which differs to the default methodology within the BRE Guide).

4.3 **Table 2** – Self-test ADF within **Appendix C** sets out the results of our analysis review along with a window / room reference plan. The analysis confirms that all the proposed habitable rooms, these meet / exceed the ADF target criteria that has been considered, indeed some by a considerable margin. Therefore, suitable ADF daylighting is provided to the proposed habitable rooms.

4.4 In terms of sunlight, the BRE Guide recommends that living rooms should have an availability of 25% of annual probable sunlight hours and with 5% available in the winter months but for new development group dwellings, this is an aim and not a requirement for all dwellings (as not all living rooms can necessarily have windows which face within 90° of South due to inevitable site constraints). **Table 3** – Self-test Sunlight within **Appendix C** sets out the results of our analysis review confirms that with focus on sun important living rooms, all rooms applicable for assessment i.e. windows within 90° of South (and representing a suitable proportion of all living rooms within the proposal) meet target BRE Guide for sunlight (both in terms of APSH and winter hours). This should be considered acceptable in an urban multi-unit development.

4.5 **Summary** : The provision of daylight (review in reference to ADF) confirms that such levels will meet / exceed target criteria for the proposed dwellings / new habitable rooms within the proposal. For sunlight provision with focus on sun important living rooms, all

rooms applicable for assessment (and representing a suitable proportion of all living rooms within the proposal) meet target BRE Guide for sunlight (both in terms of APSH and winter hours).

5.0 CONCLUSION

5.1 The impact from the proposal in respect of daylight and sunlight to neighbouring residential properties typically meets the BRE Guide default target criteria with the isolated exception to a small number of neighbouring windows and in such instances, reductions are still limited in real terms (VSC value) and not unreasonable for an urban context. On this basis, we consider such impact could be considered acceptable.

5.2 For the proposed new-build habitable rooms (self-test), all rooms satisfy the target criteria in terms of provision of suitable daylight (Average Daylight Factor) so that the proposals meet the BRE Guide target criteria (ADF within BS8206) for daylight and the scheme has good provision of sunlight availability to the new habitable living rooms in consideration of a multi-unit development.

APPENDICES

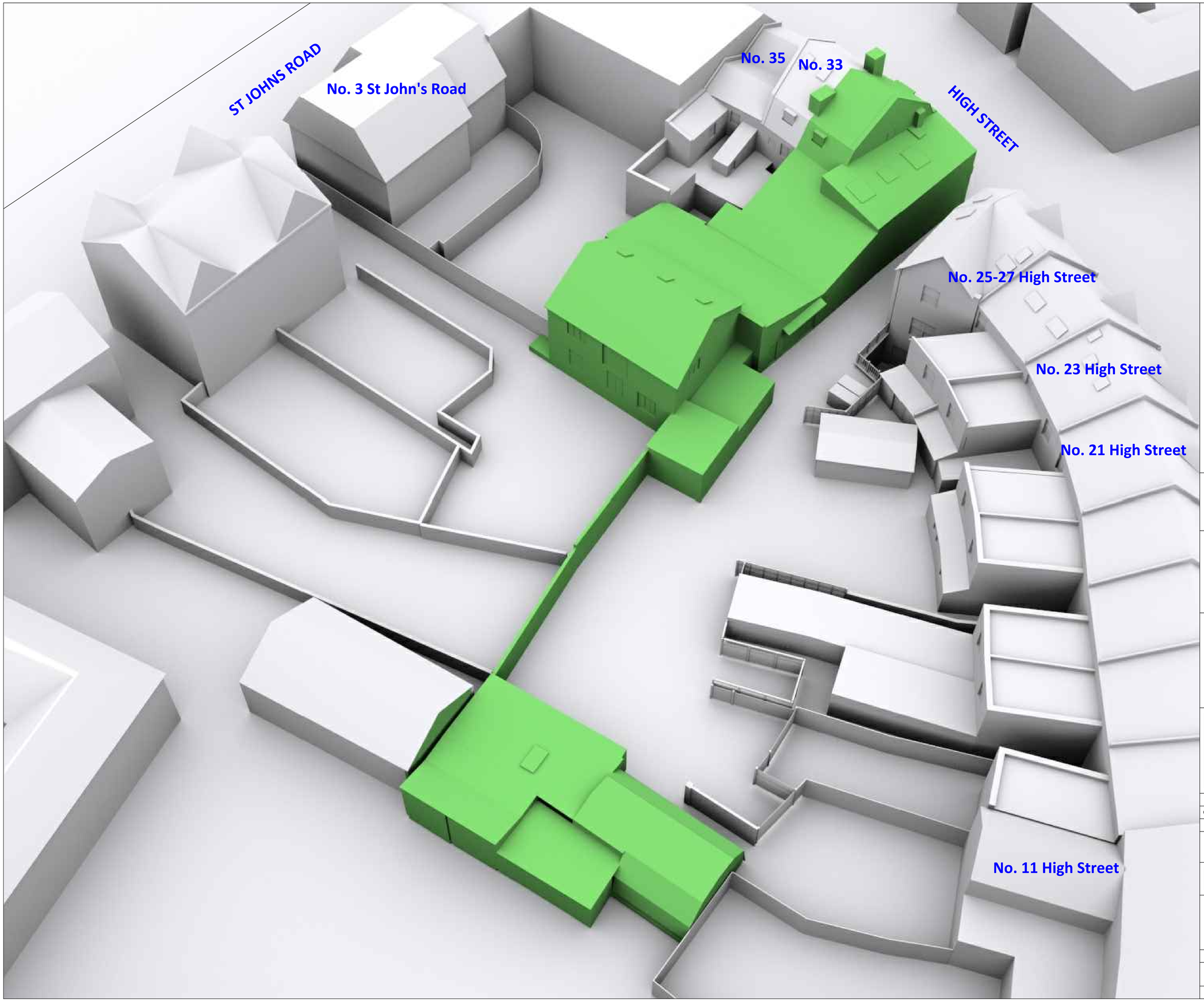
A. **3D Perspective Views with Neighbouring Context**
(existing and proposed) and associated Window / Room Reference Plans

B. **Neighbouring Analysis:**
Daylight BRE Guide 25° Review (Section Plan and Sections AA, BB & CC)
Table 1 - VSC and Sunlight for surrounding buildings

C. **Proposal Self-test Analysis:**
Table 2 – Self-test ADF
Table 3 – Self-test Sunlight
Window / Room Reference Plans

Appendix A

3D Perspective Views with Neighbouring Context (existing and proposed) and associated Window / Room Reference Plans



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Notes:

schroedersbegg
CHARTERED BUILDING SURVEYORS
Chartered Building Surveyors
Vox Studios - Unit 410, Durham Street, London SE11 5JH
T 020 7582 880 E info@sbegg.co.uk W www.sbegg.co.uk

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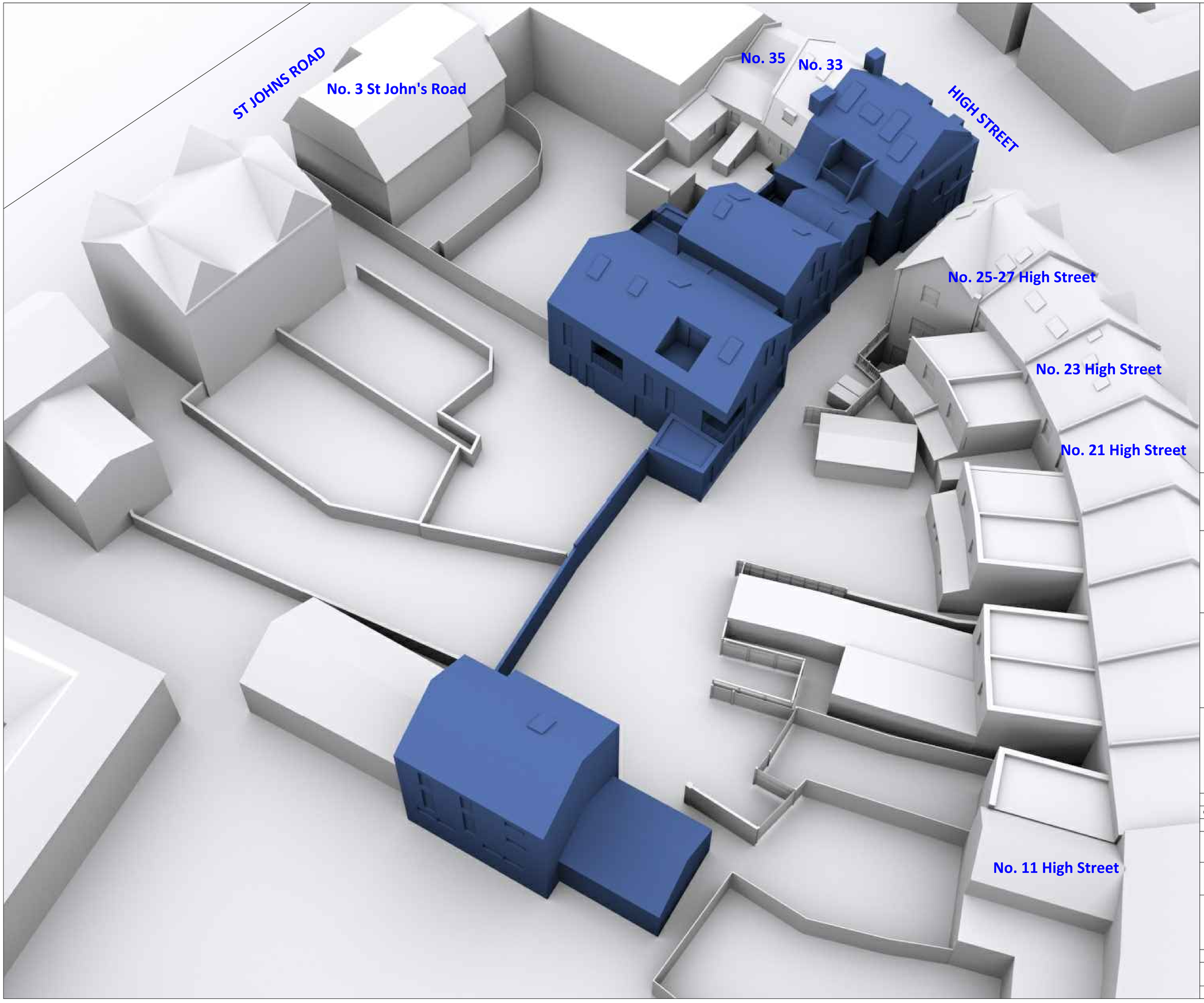
29-31 High Street, Hampton Wick

Existing 3d View

Job No	Rev	Drawing Number
2093J	-	100

Date : 18.01.2021



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29-31 High Street, Hampton Wick

Proposed 3d View

Job No	Rev	Drawing Number
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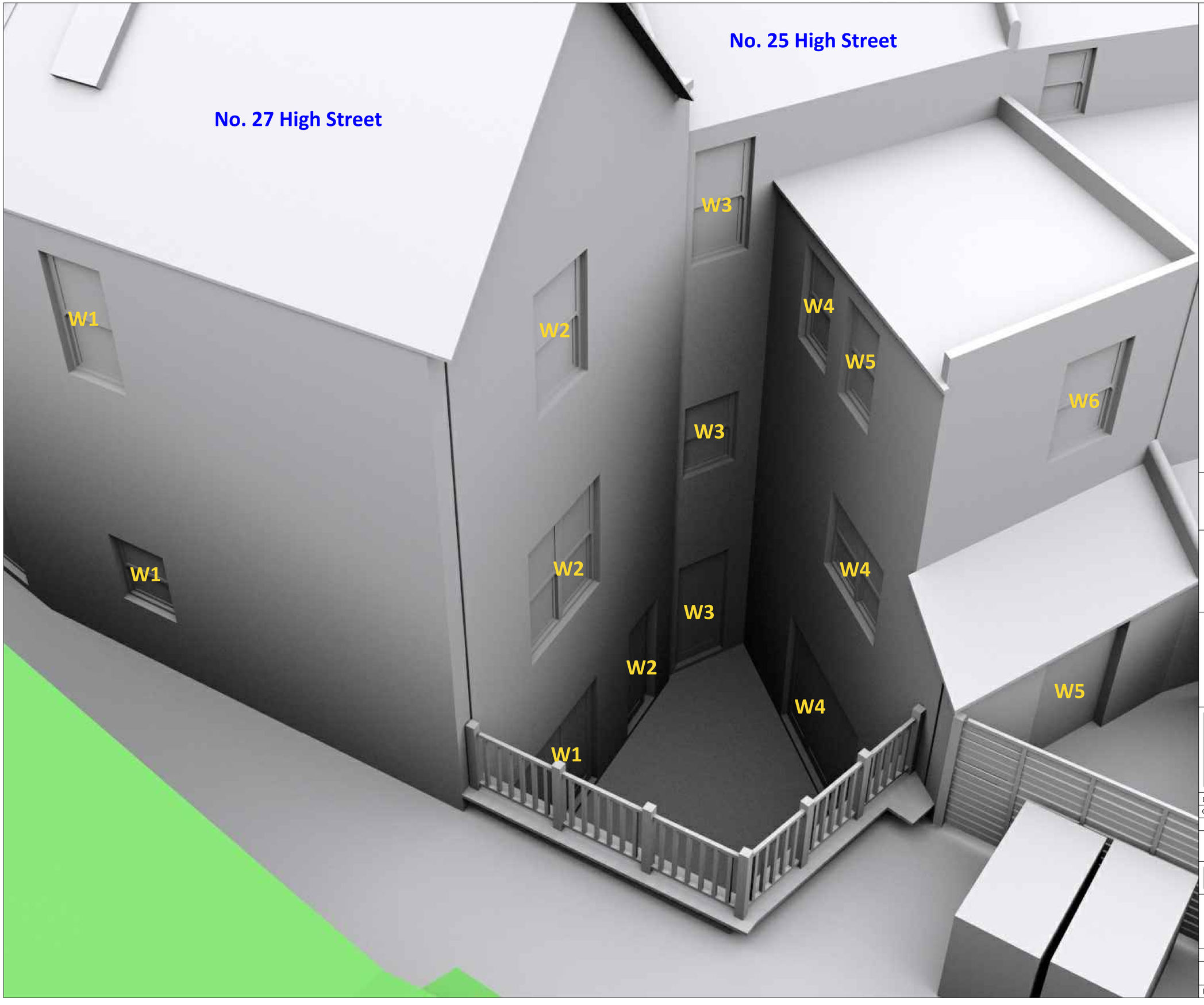

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No. 25-27 High Street
Neighbouring Window Reference

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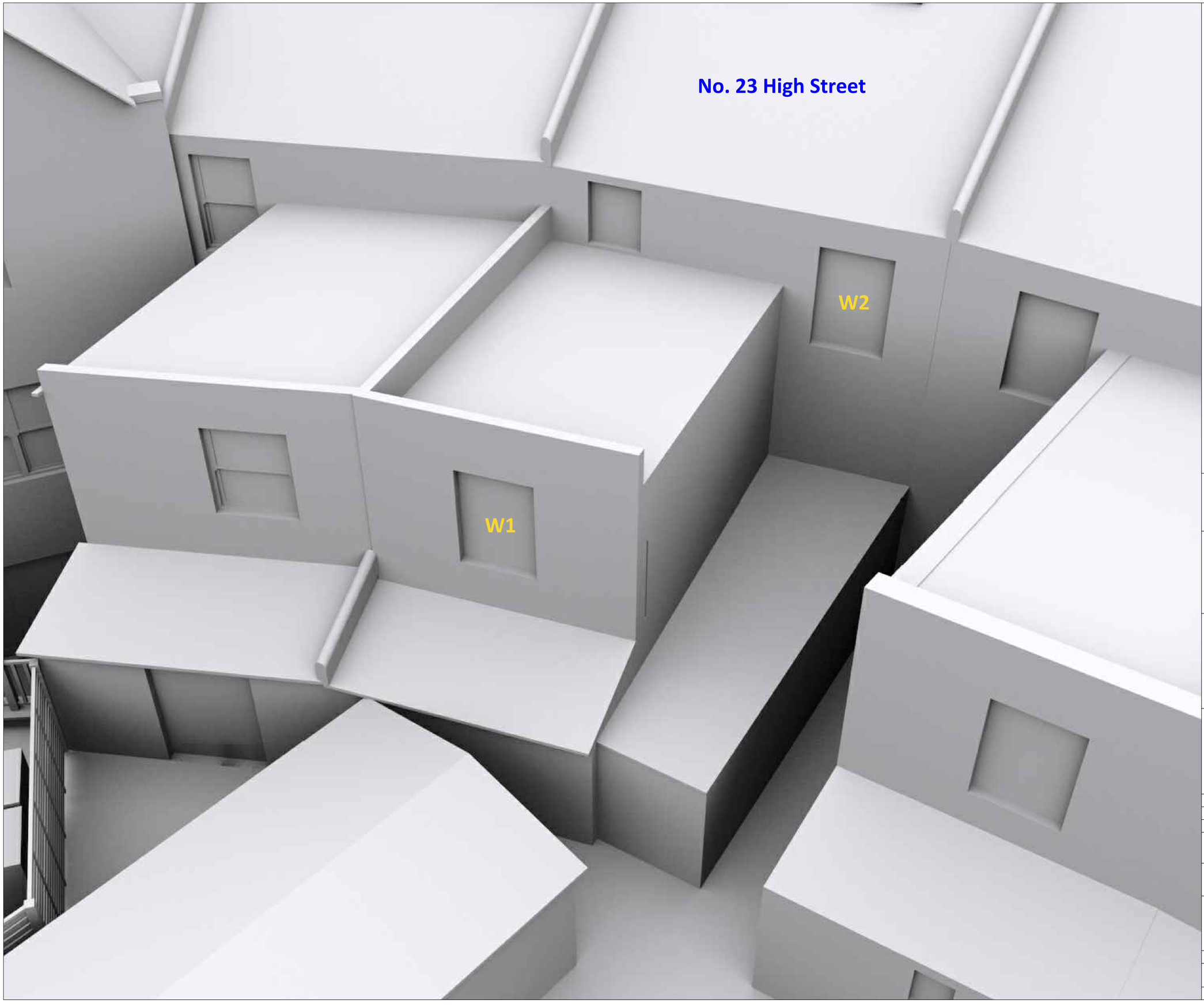

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No. 23 High Street
Neighbouring Window Reference

Job No	Rev	Drawing Number
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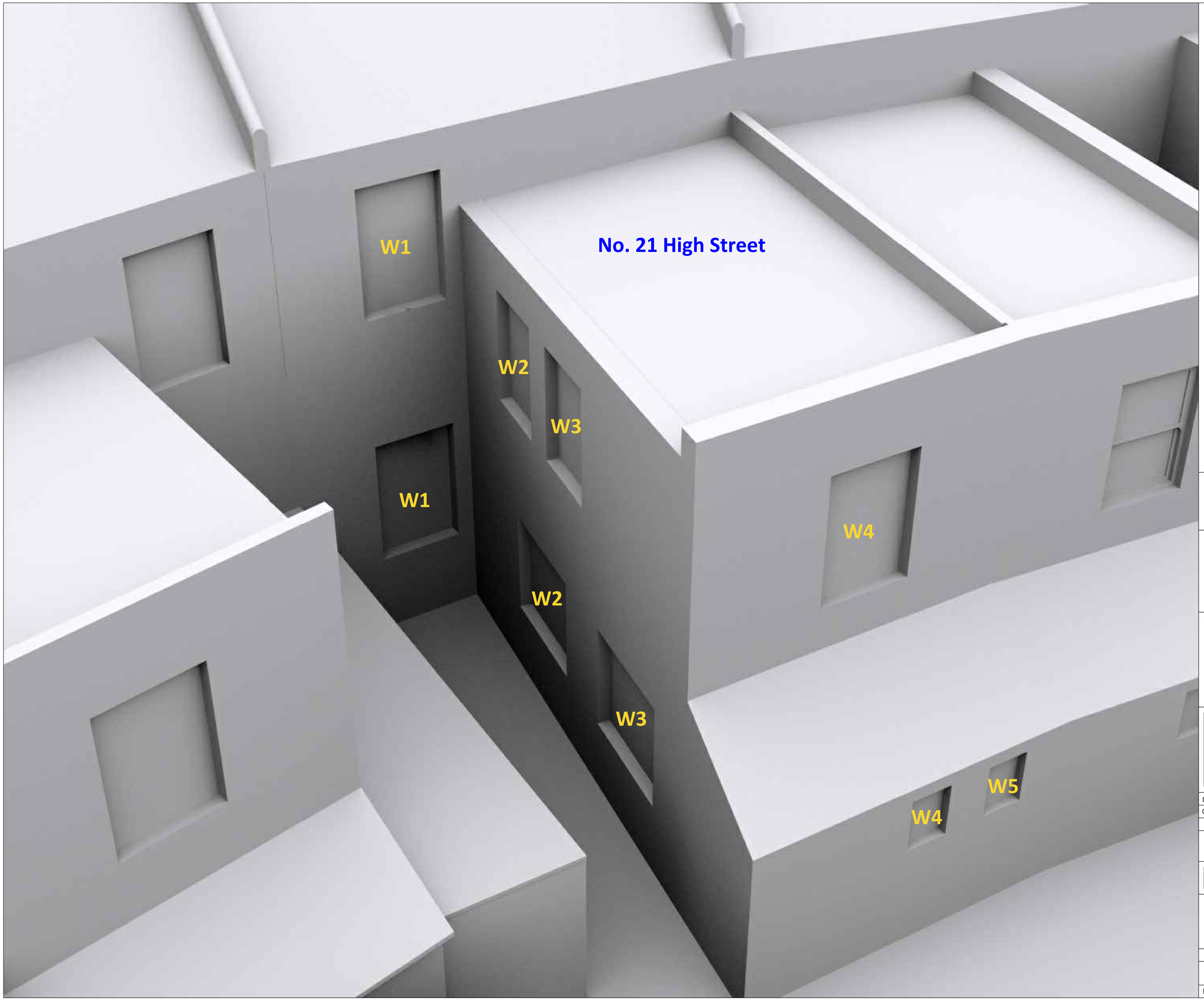
Date : 18.01.2021



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No. 21 High Street
Neighbouring Window Reference

Job No	Rev	Drawing Number
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29-31 High Street, Hampton Wick

No. 33 High Street
Neighbouring Window Reference
View 1

Job No	Rev	Drawing Number
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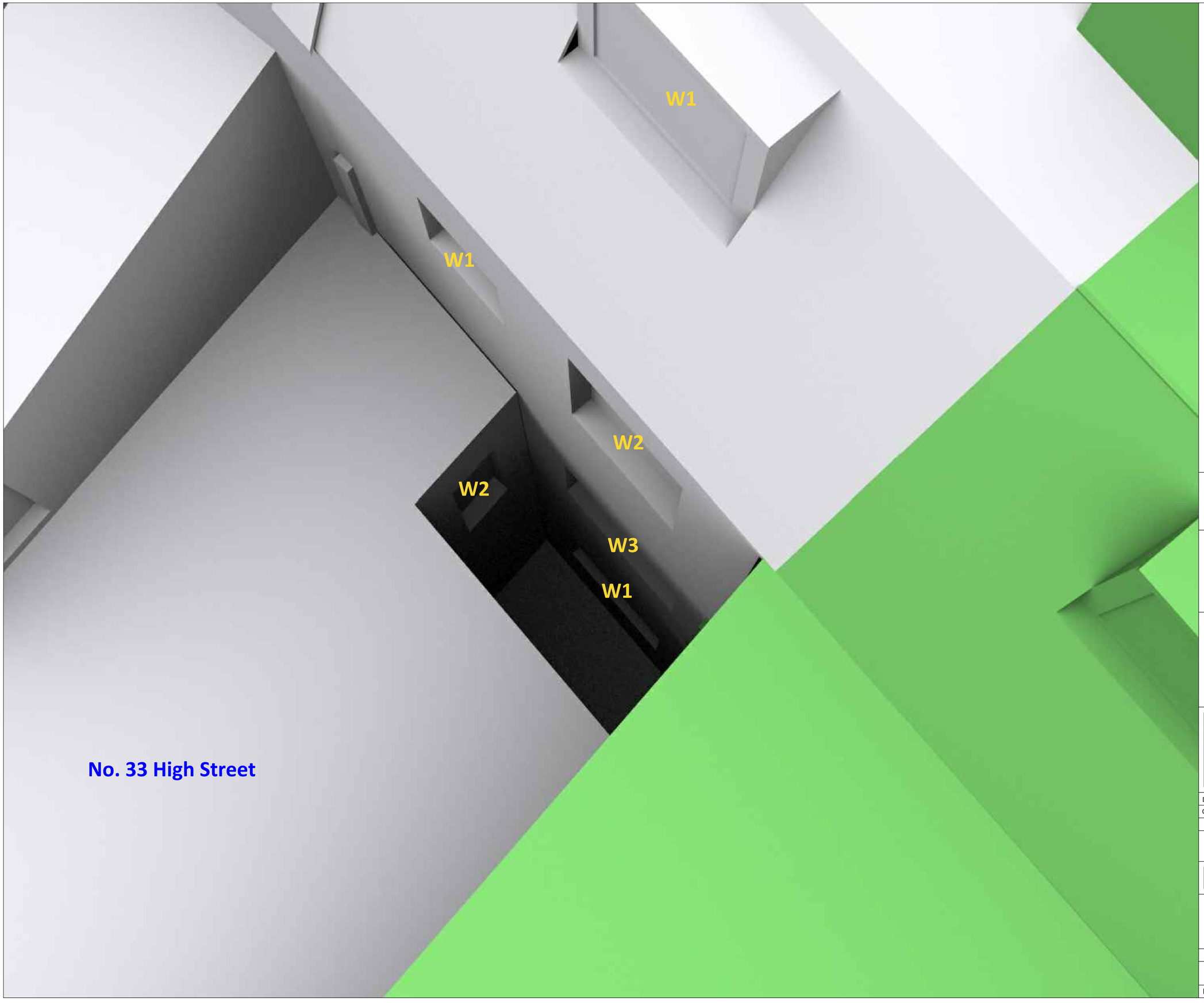

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29-31 High Street, Hampton Wick

No. 33 High Street
Neighbouring Window Reference
View 2

Job No	Rev	Drawing Number
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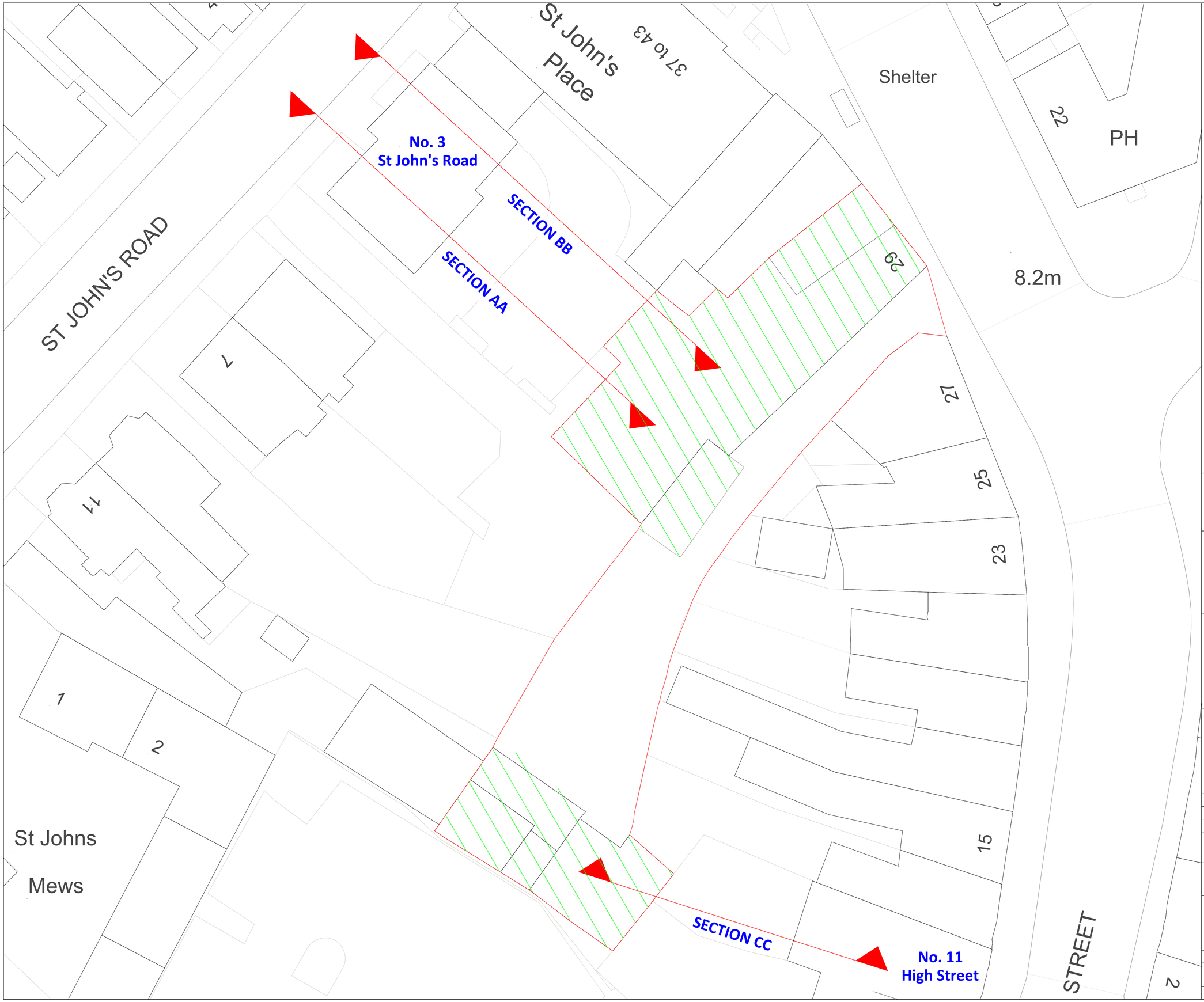
Appendix B

Neighbouring Analysis:

Daylight BRE Guide 25° Review (Section Plan and Sections AA, BB & CC)
Table 1 - VSC and Sunlight for surrounding buildings



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29-31 High Street, Hampton Wick

2d BRE Daylight Sections
Section Plan

Job No	Rev	Drawing Number
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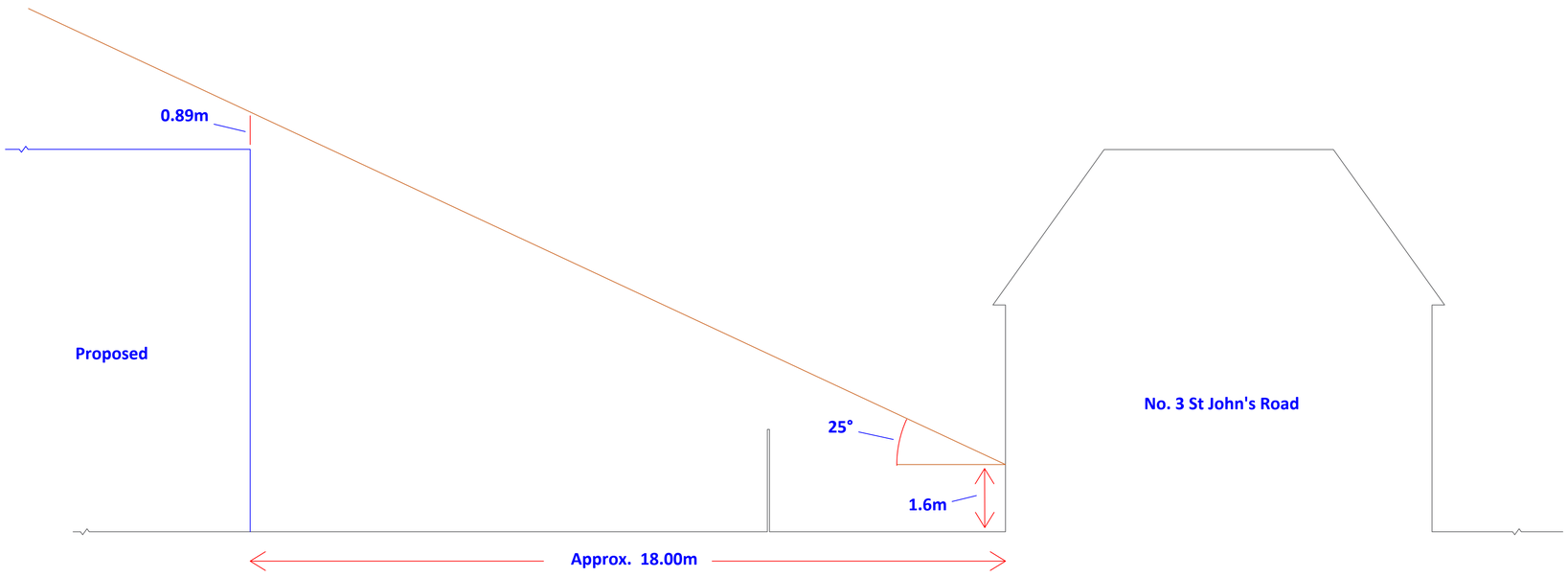

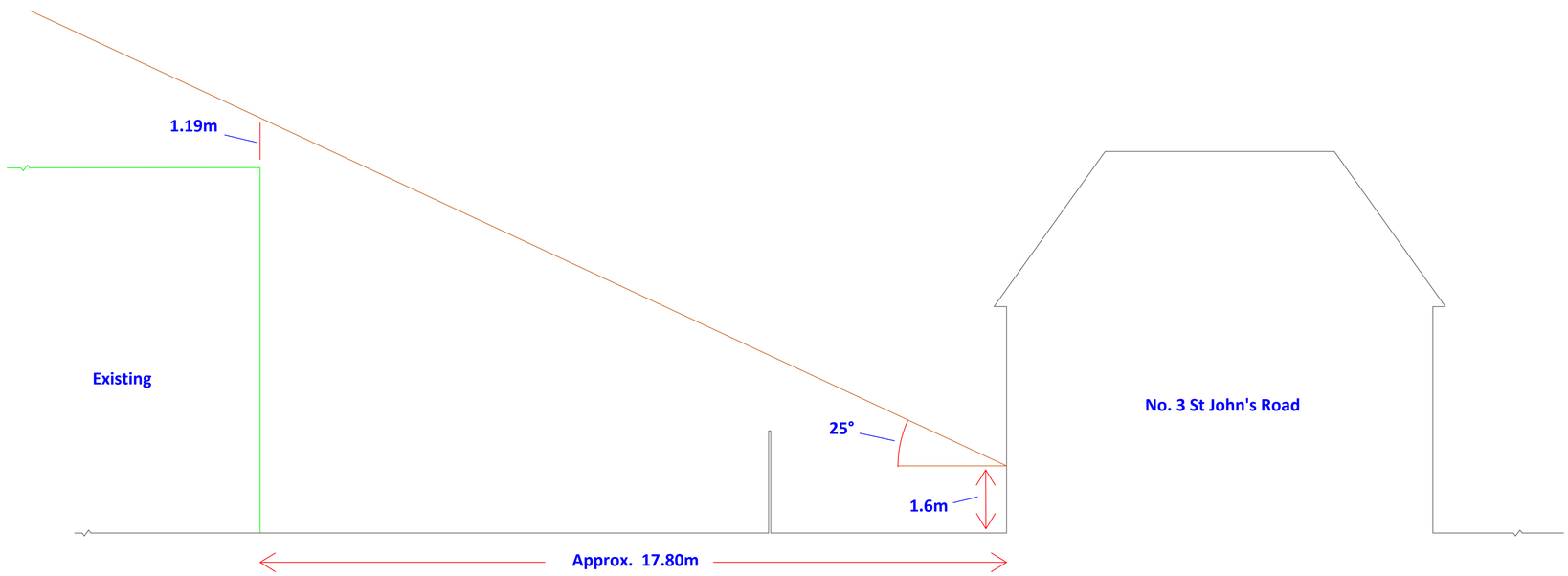

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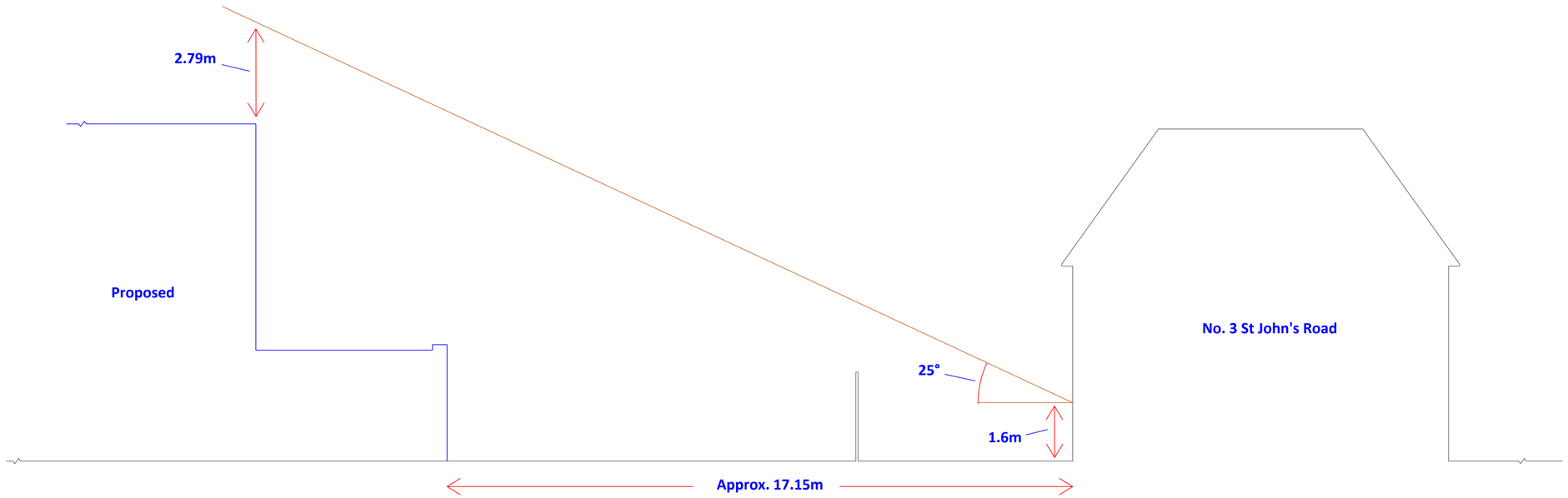
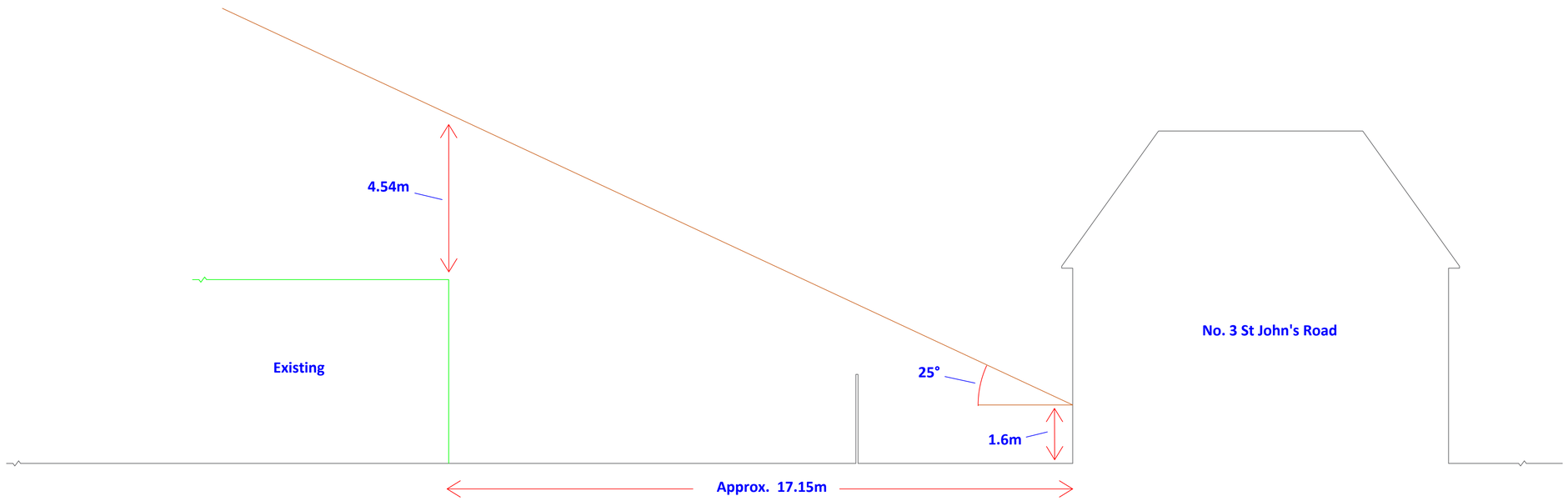
2d BRE Daylight Section
No. 3 St John's Road
Section AA

Job No	Rev	Drawing Number
2093/J	-	501

Date : 18.01.2021





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29-31 High Street, Hampton Wick

2d BRE Daylight Section
No. 3 St John's Road
Section BB

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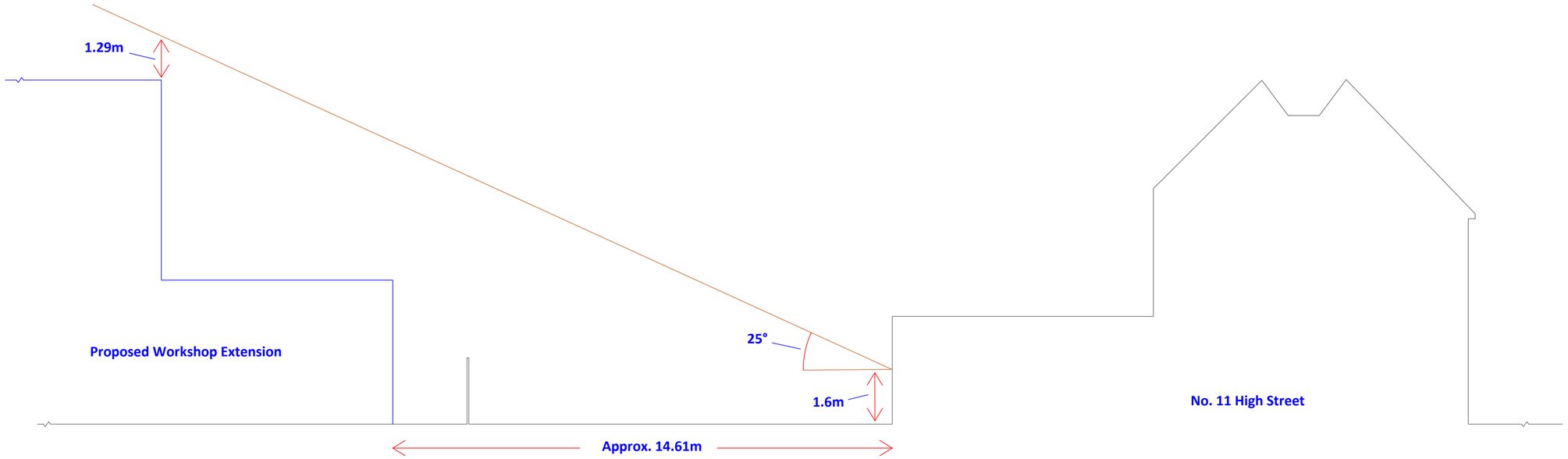
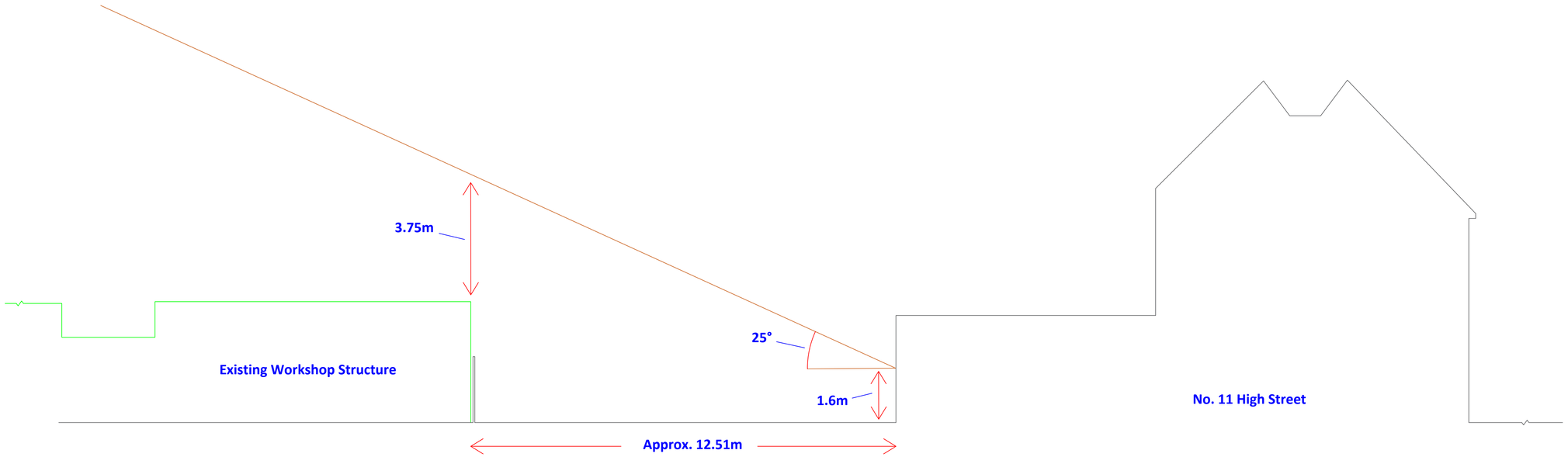
Date : 18.01.2021





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2d BRE Daylight Section
No. 11 High Street
Section CC

Job No	Rev	Drawing Number
2093/J	-	503

Date : 18.01.2021

Table 1 - VSC and Sunlight for surrounding buildings

Floor Ref.	Room Ref.	Property Type	Room Use.	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Winter	Pr/Ex	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria
No. 33 High St																
Lower Ground	R1	Residential	Bedroom	W1	Existing	0.45	1.01	YES	0.00	1.00	0.00	1.00				
					Proposed	0.46			0.00		0.00					
													0.00		0.00	
													0.00	YES	0.00	YES
Ground	R1	Residential	Living Room	W1	Existing	10.14	1.03	YES	11.00	1.00	0.00	1.00				
					Proposed	10.40			11.00		0.00					
				W2	Existing	1.70	1.07	YES	1.00	1.00	0.00	1.00				
					Proposed	1.81			1.00		0.00					
													12.00		0.00	
													12.00	YES	0.00	YES
	R2	Residential	Kitchen/Diner	W3	Existing	7.40	1.01	YES	3.00	1.00	0.00	1.00				
					Proposed	7.49			3.00		0.00					
													3.00		0.00	
													3.00	YES	0.00	YES
First	R1	Residential	Bathroom	W1	Existing	n/a - non-habitable										
					Proposed											
	R2	Residential	Kitchen	W2	Existing	30.46	0.97	YES	51.00	1.00	10.00	1.00				
					Proposed	29.51			51.00		10.00					
													51.00		10.00	
													51.00	YES	10.00	YES
Second	R1	Residential	Residential	W1	Existing	37.27	0.97	YES	66.00	0.98	24.00	0.96				
					Proposed	36.16			65.00		23.00					
													66.00		24.00	
													65.00	YES	23.00	YES
No. 25-27 High St																
Lower Ground	R1	Residential	Living Room	W1	Existing	10.71	0.92	YES	11.00	0.91	0.00	1.00				
					Proposed	9.85			10.00		0.00					
													11.00		0.00	
													10.00	YES	0.00	YES
	R2	Residential	Bedroom	W2	Existing	7.34	0.78	below	7.00	0.57	0.00	1.00				
					Proposed	5.73			4.00		0.00					
													7.00		0.00	
													4.00	YES	0.00	YES
	R3	Residential	Bedroom	W3	Existing	8.58	0.72	below	2.00	0.50	0.00	1.00				
					Proposed	6.14			1.00		0.00					
													2.00		0.00	
													1.00	YES	0.00	YES
	R4	Residential	Living Room	W4	Existing	6.99	0.67	below		*North*		*North*				
					Proposed	4.67										
													North	*North*	*North*	*North*
Ground	R1	Residential	Bedroom	W1	Existing	15.57	0.73	below		*North*		*North*				
					Proposed	11.39										
													North	*North*	*North*	*North*
	R2	Residential	Living Room	W2	Existing	24.16	0.85	YES	43.00	0.84	5.00	0.80				
					Proposed	20.45			36.00		4.00					
													43.00		5.00	
													36.00	YES	4.00	YES
	R3	Residential	Bedroom	W3	Existing	12.65	0.78	below	8.00	0.63	0.00	1.00				
					Proposed	9.87			5.00		0.00					
													8.00		0.00	
													5.00	YES	0.00	YES
	R4	Residential	unknown	W4	Existing	13.78	0.70	below		*North*		*North*				
					Proposed	9.59							*North*	*North*	*North*	*North*
				W5	Existing	24.03	0.85	YES	37.00	0.89	6.00	1.00				
					Proposed	20.49			33.00		6.00					
													38.00		6.00	
													33.00	YES	6.00	YES
	R5	Commercial	Retail	W6	Existing		n/a									
					Proposed											
				W7	Existing		n/a									
					Proposed											
				W8	Existing		n/a									
First	R1	Residential	unknown	W1	Existing	33.57	0.83	YES		*North*		*North*				
					Proposed	27.79										
													North	*North*	*North*	*North*
	R2	Residential	Bedroom	W2	Existing	36.09	0.95	YES	74.00	0.89	27.00	0.93				
					Proposed	34.19			66.00		25.00					
													74.00		27.00	
													66.00	YES	25.00	YES
	R3	Residential	unknown	W3	Existing	33.89	0.96	YES	59.00	0.92	20.00	0.90				
					Proposed	32.47			54.00		18.00					
													59.00		20.00	
													54.00	YES	18.00	YES

Table 1 - VSC and Sunlight for surrounding buildings

Floor Ref.	Room Ref.	Property Type	Room Use.	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Winter	Pr/Ex	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria
	R4	Residential	unknown	W4	Existing	12.48	0.90	YES		*North*		*North*				
					Proposed	11.18										
				W5	Existing	16.97	0.88	YES		*North*		*North*				
					Proposed	14.98										
				W6	Existing	36.36	0.93	YES	60.00	0.95	20.00	0.95				
					Proposed	33.82			57.00		19.00					
													60.00		20.00	
													59.00	YES	19.00	YES
No. 23 High St																
First	R1	Residential	Bedroom	W1	Existing	36.38	0.94	YES	55.00	0.93	19.00	0.95				
					Proposed	34.31			51.00		18.00					
													55.00		19.00	
													51.00	YES	18.00	YES
	R2	Residential	unknown	W2	Existing	36.71	0.99	YES	52.00	1.00	16.00	1.00				
					Proposed	36.31			52.00		16.00					
													52.00		16.00	
													52.00	YES	16.00	YES
No. 35 High St																
Ground	R14	Commercial	circulation	W1	Existing		n/a									
					Proposed											
First	R1	Residential	Residential	W1	Existing	27.63	0.92	YES	58.00	0.95	22.00	0.86				
					Proposed	25.41			55.00		19.00					
													58.00		22.00	
													55.00	YES	19.00	YES
	R2	Residential	Unknown	W2	Existing	28.87	0.94	YES	60.00	0.97	22.00	0.91				
					Proposed	27.23			58.00		20.00					
													60.00		22.00	
													58.00	YES	20.00	YES
No. 21 High St																
Ground	R1	Commercial	Unknown	W1	Existing		n/a									
					Proposed											
	R2	Commercial	Unknown	W2	Existing		n/a									
					Proposed											
	R3	Commercial	Unknown	W3	Existing		n/a									
					Proposed											
	R4	Commercial	Unknown	W4	Existing		n/a									
					Proposed											
				W5	Existing		n/a									
					Proposed											
First	R1	Residential	Residential	W2	Existing	22.47	0.99	YES		*North*		*North*				
					Proposed	22.34										
				W3	Existing	26.19	0.98	YES		*North*		*North*				
					Proposed	25.80										
				W4	Existing	36.69	0.97	YES		*North*		*North*				
						35.59										
													North	*North*	*North*	*North*
	R2	Residential	Unknown	W1	Existing	33.45	0.99	YES	42.00	0.98	7.00	1.00				
					Proposed	33.14			41.00		7.00					
													42.00		7.00	
													41.00	YES	7.00	YES
No. 19 High St																
Ground	R1	Commercial	Unknown	W1	Existing		n/a									
					Proposed											
No. 9 High St																
Ground	R1	Commercial	Library	W1	Existing	32.34	0.97	YES		*North*		*North*				
					Proposed	31.35										
				W2	Existing	32.83	0.97	YES		*North*		*North*				
					Proposed	31.84										
				W3	Existing	33.96	0.97	YES		*North*		*North*				
					Proposed	33.01										
													North	*North*	*North*	*North*
	R2	Commercial	WC	W4	Existing		n/a									
					Proposed											

Appendix C

Proposal Self-test Analysis:

Table 2 – Self-test ADF
Table 3 – Self-test Sunlight
Window / Room Reference Plans

Table 2 - Self-test ADF

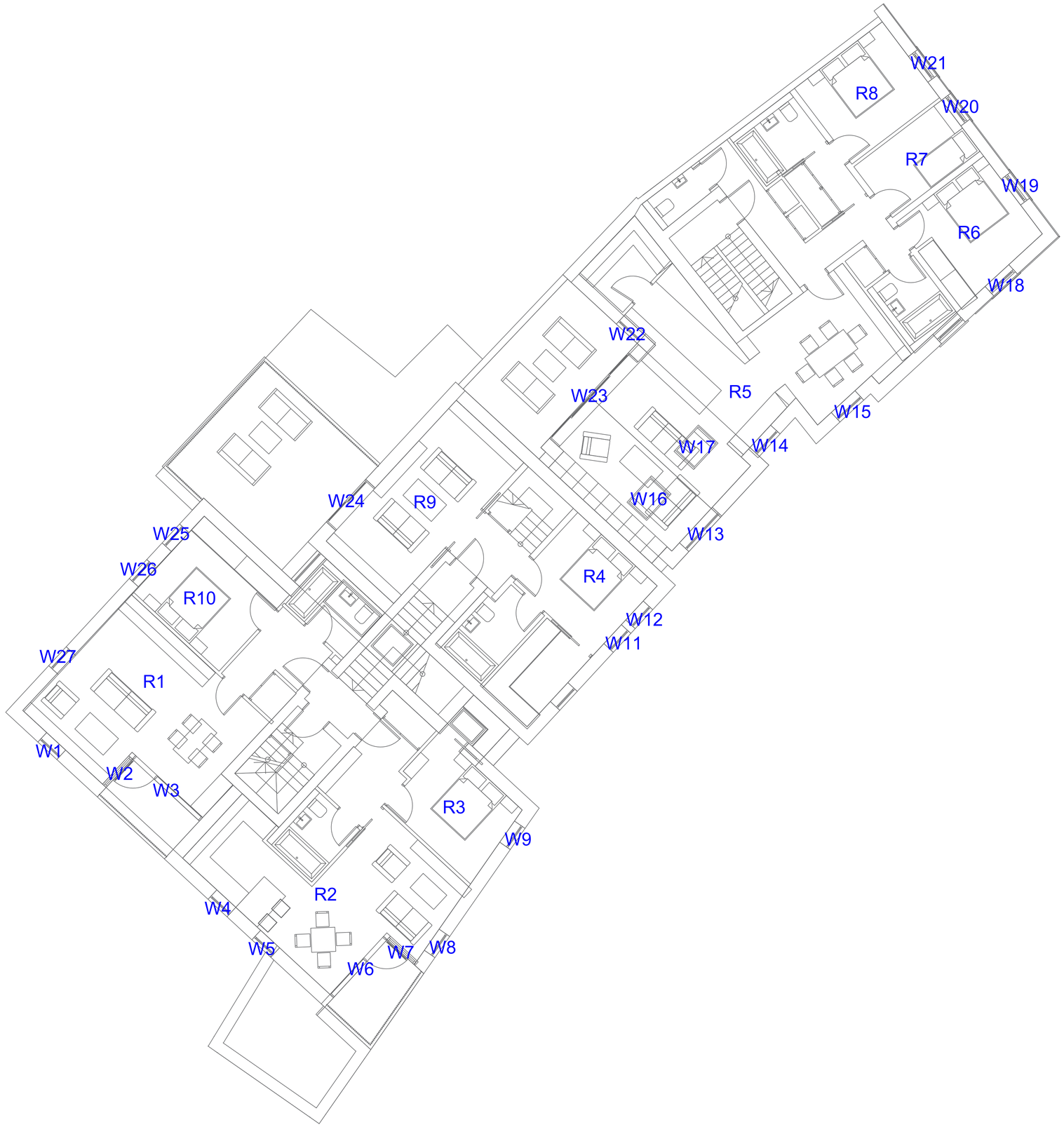
Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Trans	Maintenance Factor	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Target Value	Meets BRE Criteria
Block 1													
First	R1	Living Room	W1-L	0.68	0.92	0.54	74.56	105.84	0.65	0.40	0.17		
			W1-U	0.68	0.92	0.98	75.56	105.84	0.65	1.00	0.76		
			W2	0.68	0.92	1.44	22.51	105.84	0.65	1.00	0.33		
			W3-L	0.68	0.92	1.93	40.62	105.84	0.65	0.40	0.32		
			W3-U	0.68	0.92	3.51	28.92	105.84	0.65	1.00	1.04		
			W27-L	0.68	0.92	0.54	69.68	105.84	0.65	0.40	0.16		
			W27-U	0.68	0.92	0.98	71.54	105.84	0.65	1.00	0.72		
											3.49	1.50	YES
First	R2	Living Room	W4-L	0.68	0.92	0.54	75.33	115.53	0.66	0.40	0.16		
			W4-U	0.68	0.92	0.98	76.21	115.53	0.66	1.00	0.71		
			W5-L	0.68	0.92	0.54	75.39	115.53	0.66	0.40	0.16		
			W5-U	0.68	0.92	0.98	76.27	115.53	0.66	1.00	0.71		
			W6-L	0.68	0.92	1.67	43.98	115.53	0.66	0.40	0.28		
			W6-U	0.68	0.92	3.04	28.38	115.53	0.66	1.00	0.82		
			W7-L	0.68	0.92	0.77	33.26	115.53	0.66	0.40	0.10		
			W7-U	0.68	0.92	1.40	24.22	115.53	0.66	1.00	0.32		
			W8-L	0.68	0.92	0.54	69.63	115.53	0.66	0.40	0.14		
			W8-U	0.68	0.92	0.98	71.35	115.53	0.66	1.00	0.66		
											4.05	1.50	YES
First	R3	Bedroom	W9-L	0.68	0.92	0.54	67.65	52.19	0.66	0.40	0.31		
			W9-U	0.68	0.92	0.98	69.76	52.19	0.66	1.00	1.46		
											1.77	1.00	YES
First	R4	Bedroom	W11-L	0.68	0.92	0.54	63.48	50.05	0.66	0.40	0.31		
			W11-U	0.68	0.92	0.98	66.17	50.05	0.66	1.00	1.44		
			W12-L	0.68	0.92	0.54	62.17	50.05	0.66	0.40	0.30		
			W12-U	0.68	0.92	0.98	65.03	50.05	0.66	1.00	1.41		
											3.45	1.00	YES
First	R5	LKD	W13-L	0.68	0.92	0.67	58.32	189.50	0.65	0.40	0.09		
			W13-U	0.68	0.92	2.18	61.95	189.50	0.65	1.00	0.77		
			W14-L	0.68	0.92	0.42	36.44	189.50	0.65	0.40	0.04		
			W14-U	0.68	0.92	0.96	40.04	189.50	0.65	1.00	0.22		
			W15-L	0.68	0.92	0.08	46.86	189.50	0.65	0.40	0.01		
			W15-U	0.68	0.92	1.18	49.85	189.50	0.65	1.00	0.34		
			W16	0.68	0.84	0.69	N/A	189.50	0.65	1.00	0.44		
			W17	0.68	0.84	0.69	N/A	189.50	0.65	1.00	0.48		
			W22-L	0.68	0.92	0.38	37.97	189.50	0.65	0.40	0.03		
			W22-U	0.68	0.92	0.90	43.79	189.50	0.65	1.00	0.23		
			W23-L	0.68	0.92	2.45	51.62	189.50	0.65	0.40	0.29		
			W23-U	0.68	0.92	4.44	62.31	189.50	0.65	1.00	1.58		
											4.52	2.00	YES
First	R6	Bedroom	W18-L	0.68	0.92	0.09	62.60	53.32	0.66	0.40	0.05		
			W18-U	0.68	0.92	1.18	64.97	53.32	0.66	1.00	1.59		
			W19-L	0.68	0.92	0.09	72.72	53.32	0.66	0.40	0.05		
			W19-U	0.68	0.92	1.18	73.79	53.32	0.66	1.00	1.80		
											3.49	1.00	YES
First	R7	Bedroom	W20-L	0.68	0.92	0.09	73.09	39.40	0.67	0.40	0.07		
			W20-U	0.68	0.92	1.18	74.14	39.40	0.67	1.00	2.49		
											2.56	1.00	YES
First	R8	Bedroom	W21-L	0.68	0.92	0.09	73.57	50.71	0.66	0.40	0.06		
			W21-U	0.68	0.92	1.18	74.56	50.71	0.66	1.00	1.92		
											1.98	1.00	YES
First	R9	Living Room	W24-L	0.68	0.92	1.22	65.66	76.20	0.66	0.40	0.46		
			W24-U	0.68	0.92	2.20	70.54	76.20	0.66	1.00	2.23		
											2.70	1.50	YES
First	R10	Bedroom	W25-L	0.68	0.92	0.54	68.15	55.92	0.66	0.40	0.29		
			W25-U	0.68	0.92	0.98	71.08	55.92	0.66	1.00	1.37		
			W26-L	0.68	0.92	0.54	69.17	55.92	0.66	0.40	0.30		
			W26-U	0.68	0.92	0.98	71.27	55.92	0.66	1.00	1.38		
											3.34	1.00	YES
Second	R1	Bedroom	W1-L	0.68	0.92	0.53	76.00	75.34	0.66	0.40	0.24		
			W1-U	0.68	0.92	0.77	76.70	75.34	0.66	1.00	0.86		
			W2-L	0.68	0.92	0.53	75.98	75.34	0.66	0.40	0.24		
			W2-U	0.68	0.92	0.77	76.61	75.34	0.66	1.00	0.86		
			W3	0.68	0.84	1.05	N/A	75.34	0.66	1.00	2.28		
											4.48	1.00	YES

Table 2 - Self-test ADF

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Trans	Maintenance Factor	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Target Value	Meets BRE Criteria
Second	R2	Living Room	W4-L	0.68	0.92	1.95	59.19	99.95	0.66	0.40	0.51		
			W4-U	0.68	0.92	2.85	75.88	99.95	0.66	1.00	2.37		
			W5	0.68	0.92	0.73	48.80	99.95	0.66	1.00	0.39		
			W6	0.68	0.84	1.05	N/A	99.95	0.66	1.00	1.73		
			W7-L	0.68	0.92	0.53	75.52	99.95	0.66	0.40	0.18		
			W7-U	0.68	0.92	0.76	75.90	99.95	0.66	1.00	0.63		
			W8-L	0.68	0.92	0.53	75.29	99.95	0.66	0.40	0.18		
			W8-U	0.68	0.92	0.76	75.74	99.95	0.66	1.00	0.63		
											6.61	1.50	YES
Second	R3	KD	W9-L	0.68	0.92	0.53	72.67	83.79	0.66	0.40	0.20		
			W9-U	0.68	0.92	0.76	73.94	83.79	0.66	1.00	0.74		
			W10-L	0.68	0.92	0.53	71.83	83.79	0.66	0.40	0.20		
			W10-U	0.68	0.92	0.76	73.39	83.79	0.66	1.00	0.74		
			W11	0.68	0.84	0.69	N/A	83.79	0.66	1.00	1.35		
											3.23	2.00	YES
Second	R4	Bedroom	W12	0.68	0.84	1.61	N/A	61.96	0.67	1.00	4.25		
			W13	0.68	0.92	0.80	67.70	61.96	0.67	1.00	0.99		
											5.25	1.00	YES
Second	R5	Bedroom	W14	0.68	0.92	0.64	76.84	77.39	0.67	1.00	0.72		
			W20	0.68	0.92	0.80	74.35	77.39	0.67	1.00	0.87		
											1.59	1.00	YES
Second	R6	Living Room	W15	0.68	0.92	1.80	79.04	136.32	0.66	1.00	1.17		
			W16	0.68	0.84	1.80	N/A	136.32	0.66	1.00	1.97		
											3.14	1.50	YES
Second	R7	Bedroom	W17	0.68	0.84	1.05	N/A	69.00	0.66	1.00	2.52		
			W18	0.68	0.84	0.69	N/A	69.00	0.66	1.00	1.55		
			W19-L	0.68	0.92	0.53	75.75	69.00	0.66	0.40	0.26		
			W19-U	0.68	0.92	0.77	77.04	69.00	0.66	1.00	0.96		
											5.29	1.00	YES
							Block 2						
First	R1	Bedroom	W1-L	0.68	0.92	0.54	72.35	67.79	0.66	0.40	0.26		
			W1-U	0.68	0.92	0.98	73.86	67.79	0.66	1.00	1.17		
			W2-L	0.68	0.92	0.54	72.36	67.79	0.66	0.40	0.26		
			W2-U	0.68	0.92	0.98	73.85	67.79	0.66	1.00	1.17		
											2.86	1.00	YES
First	R2	Living Room	W3-L	0.68	0.92	0.54	74.60	101.17	0.65	0.40	0.17		
			W3-U	0.68	0.92	0.98	75.63	101.17	0.65	1.00	0.80		
			W4-L	0.68	0.92	0.54	74.70	101.17	0.65	0.40	0.17		
			W4-U	0.68	0.92	0.98	75.73	101.17	0.65	1.00	0.80		
			W5-L	0.68	0.92	1.02	39.39	101.17	0.65	0.40	0.17		
			W5-U	0.68	0.92	1.86	25.21	101.17	0.65	1.00	0.50		
			W6-L	0.68	0.92	1.43	46.50	101.17	0.65	0.40	0.29		
			W6-U	0.68	0.92	2.60	27.52	101.17	0.65	1.00	0.77		
											3.68	1.50	YES
Second	R1	Bedroom	W1-L	0.68	0.92	0.53	77.70	83.89	0.67	0.40	0.22		
			W1-U	0.68	0.92	0.48	73.97	83.89	0.67	1.00	0.47		
			W2-L	0.68	0.92	0.53	77.65	83.89	0.67	0.40	0.22		
			W2-U	0.68	0.92	0.48	73.91	83.89	0.67	1.00	0.47		
											1.39	1.00	YES
Second	R2	Living Room	W3-L	0.68	0.92	0.53	78.78	130.73	0.66	0.40	0.14		
			W3-U	0.68	0.92	0.49	74.98	130.73	0.66	1.00	0.32		
			W4-L	0.68	0.92	0.53	78.86	130.73	0.66	0.40	0.14		
			W4-U	0.68	0.92	0.49	75.06	130.73	0.66	1.00	0.32		
			W5-L	0.68	0.92	1.02	53.99	130.73	0.66	0.40	0.19		
			W5-U	0.68	0.92	1.39	51.67	130.73	0.66	1.00	0.61		
			W6-L	0.68	0.92	1.43	62.40	130.73	0.66	0.40	0.30		
			W6-U	0.68	0.92	2.60	55.33	130.73	0.66	1.00	1.23		
											3.25	1.50	YES

Table 3 - Self-test Sunlight

Floor Ref.	Room Ref.	Room Use.	Window Ref.	VSC	Meets BRE Criteria	Window Orientation	Annual	Meets BRE Criteria	Winter	Meets BRE Criteria	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria
Block 1														
First	R1	Living Room	W1	N/R	N/A	223°	69.00	YES	26.00	YES				
			W2	N/R	N/A	133°	13.00	below	12.00	YES				
			W3	N/R	N/A	223°	22.00	below	14.00	YES				
			W27	N/R	N/A	313°N	23.00	below	5.00	YES				
											69.00	YES	26.00	YES
	R2	Living Room	W4	N/R	N/A	223°	72.00	YES	26.00	YES				
			W5	N/R	N/A	223°	72.00	YES	26.00	YES				
			W6	N/R	N/A	133°	29.00	YES	19.00	YES				
			W7	N/R	N/A	223°	24.00	below	17.00	YES				
			W8	N/R	N/A	125°	64.00	YES	21.00	YES				
											95.00	YES	28.00	YES
	R5	LKD	W13	N/R	N/A	133°	48.00	YES	17.00	YES				
			W14	N/R	N/A	133°	26.00	YES	3.00	below				
			W15	N/R	N/A	137°	48.00	YES	9.00	YES				
			W16	N/R	N/A	223° Inc	59.00	YES	11.00	YES				
			W17	N/R	N/A	43°N	69.00	YES	10.00	YES				
			W22	N/R	N/A	223°	19.00	below	0.00	below				
			W23	N/R	N/A	313°N	4.00	below	0.00	below				
											86.00	YES	22.00	YES
	R9	Living Room	W24	N/R	N/A	313°N	"north"		"north"					
											"north"		"north"	
Second	R2	Living Room	W4	N/R	N/A	223°	56.00	YES	18.00	YES				
			W5	N/R	N/A	313°N	27.00	YES	5.00	YES				
			W6	N/R	N/A	223° Inc	94.00	YES	29.00	YES				
			W7	N/R	N/A	125°	66.00	YES	22.00	YES				
			W8	N/R	N/A	125°	66.00	YES	22.00	YES				
											99.00	YES	30.00	YES
	R3	KD	W9	N/R	N/A	133°	68.00	YES	22.00	YES				
			W10	N/R	N/A	133°	67.00	YES	22.00	YES				
			W11	N/R	N/A	43°N	79.00	YES	15.00	YES				
											88.00	YES	24.00	YES
	R6	Living Room	W15	N/R	N/A	52°N	30.00	YES	5.00	YES				
			W16	N/R	N/A	232° Inc	89.00	YES	27.00	YES				
											99.00	YES	30.00	YES
Block 2														
First	R2	Living Room	W3	N/R	N/A	34°N	"north"		"north"					
			W4	N/R	N/A	34°N	"north"		"north"					
			W5	N/R	N/A	304°N	"north"		"north"					
			W6	N/R	N/A	34°N	"north"		"north"					
											"north"		"north"	
Second	R1	Bedroom	W1	N/R	N/A	214°	78.00	YES	27.00	YES				
			W2	N/R	N/A	214°	78.00	YES	27.00	YES				
											78.00	YES	27.00	YES
	R2	Living Room	W3	N/R	N/A	34°N	"north"		"north"					
			W4	N/R	N/A	34°N	"north"		"north"					
			W5	N/R	N/A	304°N	"north"		"north"					
			W6	N/R	N/A	34°N	"north"		"north"					
											"north"		"north"	



FIRST FLOOR

REV.	NOTES	DWN	DATE

Notes:

schroedersbegg
CHARTERED BUILDING SURVEYORS
Chartered Building Surveyors
Vox Studios - Unit 410, Durham Street, London SE11 5JH
T 020 7582 880 E info@sbegg.co.uk W www.sbegg.co.uk

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SCALE

NTS (A3 Sheet)

29-31 High Street, Hampton Wick

Proposed Internal Room Reference Plan
Proposed Main Building
First Floor

Job No	Rev	Drawing Number
2093/J	-	600

Date : 12.02.2021

SECOND FLOOR

REV.	NOTES	DWN	DATE

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SCALE

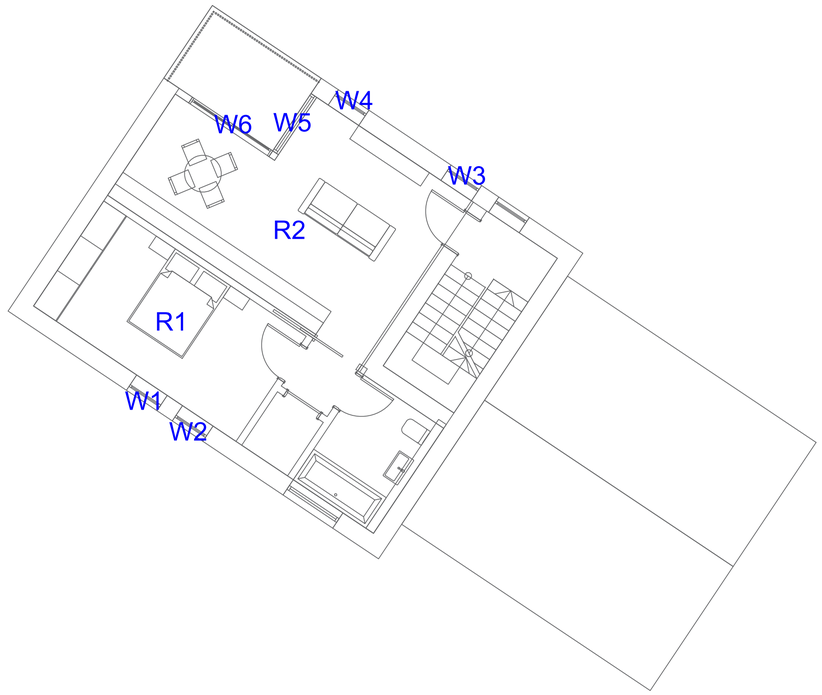
NTS (A3 Sheet)

29-31 High Street, Hampton Wick

Proposed Internal Room Reference Plan
Proposed Main Building
Second Floor

Job No	Rev	Drawing Number
2093/J	-	601

Date : 12.02.2021



FIRST FLOOR

REV.	NOTES	DWN	DATE

Notes:

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Chartered Building Surveyors
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SCALE

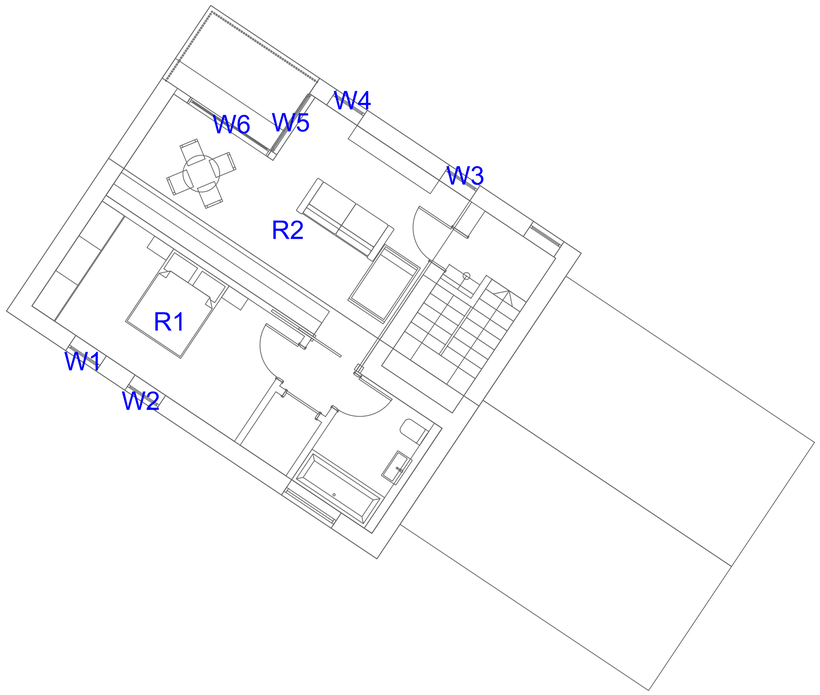
NTS (A3 Sheet)

29-31 High Street, Hampton Wick

Proposed Internal Room Reference Plan
Proposed Rear Workshop
First Floor

Job No	Rev	Drawing Number
2093/J	-	602

Date : 12.02.2021



SECOND FLOOR

REV.	NOTES	DWN	DATE

Notes:

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Chartered Building Surveyors
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SCALE

NTS (A3 Sheet)

29-31 High Street, Hampton Wick

Proposed Internal Room Reference Plan
Proposed Rear Workshop
Second Floor

Job No	Rev	Drawing Number
2093/J	-	603

Date : 12.02.2021