



daylight&sunlight

Daylight and Sunlight Report
for the Proposed Development at
18 and 20 Denmark Road, Twickenham, TW2 5EN

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1. Executive Summary

1.1 Scope of Service

- 1.1.1 We have been instructed by Gillett MacLeod Partnership to consider the potential impact upon the amenity of the surrounding residential properties, which may arise from the proposed development at 18 and 20 Denmark Road, Twickenham, TW2 5EN.

1.2 BRE Assessment Criteria

- 1.2.1 To ensure that this assessment has been appropriately considered, daylight and sunlight assessments have been undertaken in accordance with the Building Research Establishment Report 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice' 2022 (the "BRE guide"). It is intended to be used with BS EN 17037, and its UK National Annex, which gives specific minimum recommendations for habitable rooms in dwellings in the United Kingdom.
- 1.2.2 The standards and tests applied within this assessment are briefly described at section 3.

1.3 Daylight and Sunlight

- 1.3.1 Regarding the surrounding properties, the proposed development is in accordance with the BRE guidelines for daylight, sunlight and overshadowing.

1.4 Generally

- 1.4.1 When considering the numerical results, it is important to approach and interpret the BRE guidelines flexibly along with the following material mitigating factors:

*The BRE guidelines recognises that buildings located uncommonly close to the site boundary, as is the case here, may be considered as "bad" neighbours, taking more than their fair share of light. Accordingly, a greater reduction in daylight or sunlight may be unavoidable and so the local authority may wish to apply different target values.

*Where buildings match the height and proportions of existing surrounding buildings some transgressions will be inevitable.

* Also, where the sites are undeveloped or are infill sites, again a higher degree of obstruction may be unavoidable, leading to a higher frequency of non-compliance

*Kitchens and bedrooms are given less weighting than that of a living room.



2. Introduction

2.1 Scope of Service

2.1.1 We have been instructed by Gillett MacLeod Partnership to consider the potential impact upon the amenity of the surrounding residential properties, which may arise from the proposed development at 18 and 20 Denmark Road, Twickenham, TW2 5EN.

2.2 Assessment

2.2.1 To ensure that this assessment has been appropriately considered, daylight and sunlight assessments have been undertaken in accordance with the Building Research Establishment Report 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice' 2022 (the "BRE guide"). It is intended to be used with BS EN 17037, and its UK National Annex, which gives specific minimum recommendations for habitable rooms in dwellings in the United Kingdom.

2.2.2 The standards and tests applied within this assessment are briefly described at section 3.

2.2.3 The existing buildings adjacent to the site are shown on the Site Location Plan below.

Site Location Plan





2.2.4 The existing buildings adjacent to the site considered for this report are listed in the following table. Some of these buildings may not require a comprehensive assessment with the reasons for these findings given later in this report under section 3: Results and Consideration.

Adjacent Building Summary Table		
Name/Address of Building	Assumed Use of Building	Position in Relation to the Proposed Development
16 Denmark Road	Residential	North
22 Denmark Road	Residential	South

2.3 Limitations

- 2.3.1 Our assessment is based on the proposed development drawings by Gillett MacLeod Partnership.
- 2.3.2 Topographical survey information was not provided. Where buildings were not surveyed, the locations and heights were derived from site photographs and oblique aerial photography.
- 2.3.3 We refer you to the drawings which accompany this report for a list of the third party information relied upon which our 3D computer model and resultant analyses are based.



3. BRE Criteria and Mitigating Factors

3.1 BRE Daylight Criteria

- 3.1.1 The BRE guide target value for the Vertical Sky Component Assessment (VSC) is 27%. However, where the values are lower than this in the existing situation, the BRE allows a reduction of 20%, *subject to mitigating factors*.
- 3.1.2 For Daylight Distribution, namely, sky visibility at table level, the BRE allows a reduction of 20%, *subject to mitigating factors*.

3.2 BRE Sunlight Criteria

- 3.2.1 The BRE guide target value for the Annual Probable Sunlight Hours (APSH) to a living room, is 25%, 5% of which should be enjoyed during the winter months. However, where the values are lower than this in the existing situation, the BRE allows a reduction of 20%, again, *subject to mitigating factors*.
- 3.2.2 The overshadowing assessment is undertaken on 21 March, the spring equinox. This assessment shows areas of a subject amenity area where less than 2 hours of sunlight will be available during the winter period, however, the subject area may still receive some sunlight during the summer. If an open amenity area, is more than 50% in shade for more than 2 hours in either existing or proposed situations, and is reduced by more than 20% of its existing value by a new development, then that loss is likely to be noticeable.
- 3.2.3 These criteria are, however, purely numerical guidelines. They can be misinterpreted as a hard and fast rule, which is of course an unsustainable argument at planning. A loss of greater than 20% implies that the loss may be noticeable by its occupants, but noticeable does not mean, significant or adverse, it just means that it needs to be considered in the broader context. Namely, is the development acceptable in respect of all the surrounding circumstances? This leads us on to the mitigating factors.

3.3 Mitigating Factors

- 3.3.1 As with all development sites, it would be helpful at this stage to outline the mitigating factors.
- 3.3.2 Mitigating factors are to be considered in conjunction with the numerical data, particularly with regards to the specific surrounding circumstances, to arrive at a more balanced view.
- 3.3.3 By balanced, it is meant that the two often conflicting material considerations at planning, (to have amenity protected (neighbours) and to utilise adjacent land in a reasonable manner (developer), need to be considered fairly.
- 3.3.4 The BRE guidelines states at the beginning and throughout that it is “to be interpreted flexibly”; “not intended to constrain but help the designer”; and “not to be used as an instrument of planning policy”.
- 3.3.5 The simplest way of approaching all of the above is to keep in mind one basic question – “is it [the development] fair/balanced/acceptable in consideration of all the surrounding circumstances”.



Mitigating Factor #1

- 3.3.6 The main mitigating factor is, that where buildings located uncommonly close to the site boundary, they may be considered as “bad” neighbours, taking more than their fair share of light. Accordingly, a greater reduction in daylight or sunlight may be unavoidable and so the local authority may wish to apply different target values.

Mitigating Factor #2

- 3.3.7 Where sites are undeveloped or are infill sites, again a higher degree of obstruction may be unavoidable, leading to a higher frequency of non-compliance. So, for example, you have a gap in a line of terraced properties, or an existing street scape of 6-storey high buildings. Where a developer wishes to fill this gap, or indeed reinstate a previous building, it would certainly be acceptable in planning terms, irrespective of the potential effect on surrounding buildings.

Mitigating Factor #3

- 3.3.8 The BRE guidelines also recognises that where buildings match the height and proportions of existing surrounding buildings a higher degree of obstruction may be unavoidable, leading to a higher frequency of non-compliance.

Mitigating Factor #4

- 3.3.9 Additionally, kitchens and bedrooms are generally given less weighting than that of a principal room such as a living room.



4. Results and Consideration

4.1 Daylight

4.1.1 Detailed test results are shown in Appendix A.

Existing Baseline

4.1.2 The site is situated to the south side of Denmark Road. It is currently a pair of mid-terraced dwellings with single storey rear extensions, see accompanying drawing 2091/DSO/01.

Proposed Development

4.1.3 The proposed development will enlarge the ground floor rear extension at #18 and introduce minor first floor level extensions at both #18 and #20, see accompanying drawing 2091/DSO/02, see accompanying drawing 2091/DSO/02.

4.1.4 We have considered and/or assessed the habitable windows and rooms of the adjacent buildings at that are most likely to be affected by the proposed development.

4.1.5 In accordance with the BRE guidelines, circulation space, hallways, storerooms, toilets and bathrooms need not be assessed.

16 Denmark Road

4.1.6 This dwelling is situated immediately to the north of the site along the common boundary, see accompanying drawing 2091/DSO/01.

4.1.7 It is substantially the same as many of the properties along the north side of Denmark Road, namely, a living room to the ground level and a bedroom at first floor level of the rear elevation, and a kitchen to the single storey rear extension.

4.1.8 Turning now to the assessment results, the windows and habitable rooms were assessed for Vertical Sky Component (VSC), Daylight Distribution (DD) respectively.

4.1.9 Regarding VSC, all windows assessed meet the BRE criteria.

4.1.10 Regarding Daylight Distribution, all rooms assessed meet the BRE criteria.

4.1.11 The same is true of sunlight (APSH).

4.1.12 On a technical note, we have assessed rooms with multiple windows as rooms as a whole (as opposed to individual windows in isolation) in accordance with paragraph 2.2.8 of the BRE guidelines.

4.1.13 The windows and rooms will be left with a good level of natural light with the proposed extension in place, and this is evidenced by the residual VSC readings being in excess of 27% VSC.



- 4.1.14 For overshadowing, we have assessed the rear garden of #16 on 21 March, the spring equinox. We found that the sun on ground was 26% in the existing situation, reducing to 23% in the proposed situation. This equates to a relative increase in shade of 12%, which is well within the BRE guidelines.
- 4.1.15 It should however be noted that, due to the rear garden of #16 being almost covered by development such as the rear extension and garage, we consider that it would be wholly unreasonable for the occupiers to seek protection for the very small amount of remaining garden, particularly given its orientation and juxtaposition to the adjacent properties.

22 Denmark Road

- 4.1.16 This dwelling is situated immediately to the south of the site along the common boundary, see accompanying drawing 2091/DSO/01. Again, it is very similar in design and layout to #16, but facing the opposite direction.
- 4.1.17 Regarding VSC, all windows assessed meet the BRE criteria.
- 4.1.18 Regarding Daylight Distribution, all rooms assessed meet the BRE criteria.
- 4.1.19 For sunlight, no windows face within 90 degrees of due south and so they have not been assessed (these windows that face due north of east or west are classed as “north” facing in the accompanying spreadsheets).

5. Conclusion

5.1 Daylight and Sunlight

- 5.1.1 Regarding the surrounding properties, the proposed development is in accordance with the BRE guidelines for daylight, sunlight and overshadowing.

5.2 Generally

- 5.2.1 When considering the numerical results, it is important to approach and interpret the BRE guidelines flexibly along with the following material mitigating factors:

*The BRE guidelines recognises that buildings located uncommonly close to the site boundary, as is the case here, may be considered as “bad” neighbours, taking more than their fair share of light. Accordingly, a greater reduction in daylight or sunlight may be unavoidable and so the local authority may wish to apply different target values.

*Where buildings match the height and proportions of existing surrounding buildings some transgressions will be inevitable.

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*Kitchens and bedrooms are given less weighting than that of a living room.

Appendix A

Daylight Results / Sunlight Result



Vertical Sky Component (VSC) Assessment/ Sunlight (APSH) Assessment

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Scenario	VSC Difference	Condn	Total VSC for Room			Available Sunlight Hours				Total APSH for Room											
							Room VSC	Pr/Ex	Meets BRE Criteria	Annual %	Diff %	Condn	Winter %	Diff %	Condn	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria				
16 Denmark Road																									
Ground	R1	Kitchen	W1	Existing Proposed	30.57 27.63	0.90	YES				53.00 49.00	0.92	YES	9.00	0.56	YES									
			W2	Existing Proposed	26.07 21.47	0.82	YES				41.00 33.00	0.80	YES	3.00	0.33	NO									
			W3	Existing Proposed	21.48 16.30	0.76	NO				26.00 14.00	0.54	NO	1.00	0.00	NO									
		R2	Living Room	W4	Existing Proposed	30.02 26.35	0.88	YES	26.03 21.88	0.84	YES	*North	*North	*North	*North	*North	*North	9.00 5.00	0.92	YES	0.56	YES			
First	R1	Bedroom	W1	Existing Proposed	39.60 38.94	0.98	YES	30.02 26.35	0.88	YES	*North	*North	*North	*North	*North	*North	*North								
								39.60 38.94	0.98	YES	*North	*North	*North	*North	*North	*North	*North								
22 Denmark Road																									
Ground	R1	Kitchen	W1	Existing Proposed	23.64 21.86	0.92	YES					*North	*North	*North	*North	*North									
			W2	Existing Proposed	25.62 22.46	0.88	YES				*North	*North	*North	*North	*North	*North									
			W3	Existing Proposed	20.87 16.00	0.77	NO				*North	*North	*North	*North	*North	*North									
		R2	Living Room	W4	Existing Proposed	28.59 25.89	0.91	YES	23.32 20.41	0.88	YES	*North	*North	*North	*North	*North	*North								
								28.59 25.89	0.91	YES	*North	*North	*North	*North	*North	*North									



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Vertical Sky Component (VSC) Assessment/ Sunlight (APSH) Assessment

Floor Ref.	Room Ref.	Room	Use.	Window Ref.	Scenario	VSC	Difference	Total VSC for Room			Available Sunlight Hours				Total APSH for Room					
								Condn	Room VSC	Pr/Ex	Meets BRE Criteria	Annual %	Diff %	Condn	Winter %	Diff %	Condn	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria
First	R1	Bedroom		W1	Existing Proposed	39.58 38.92	0.98	YES		39.58 38.92	0.98	YES	*North	*North	*North	*North	*North	*North	*North	*North

Appendix B

Context Drawings

Appendix C

Proposed Accommodation Results



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Daylight Distribution (DD) Assessment

Floor Ref.	Room Ref.	Room Attribute	Property Type	Room Use.		Room Area	Lit Area Proposed	Meets BRE Criteria
16 Denmark Road								
Ground	R1	Kitchen	Area m2	10.18	10.00	10.00		
			% of room		98.18%	98.18%	1.00	YES
	R2	Living Room	Area m2	11.58	10.72	9.46		
			% of room		92.52%	81.64%	0.88	YES
First	R1	Bedroom	Area m2	10.42	9.92	9.92		
			% of room		95.21%	95.20%	1.00	YES
22 Denmark Road								
Ground	R1	Kitchen	Area m2	11.71	11.52	11.52		
			% of room		98.44%	98.44%	1.00	YES
	R2	Living Room	Area m2	11.58	10.85	9.55		
			% of room		93.68%	82.43%	0.88	YES
First	R1	Bedroom	Area m2	10.43	9.97	9.96		
			% of room		95.56%	95.55%	1.00	YES

Appendix D

Supporting Information

1) ALL DIMENSIONS TO BE CHECKED ON SITE AND NOT
 2) DAYLIGHT AND SUNLIGHT SHALL BE INFORMED
 3) ALL DIMENSIONS ARE IN MMS

SOURCES OF INFORMATION

KEY

- EXISTING BUILDING
- PROPOSED BUILDING
- EXITING BUILDING PROFILE

TITLE

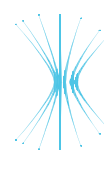
Plan and 3D View
 Existing Buildings

CLIENT

GA & A Design

PROJECT

Adrian Court
 Pinner Road,
 Harrow, HA1 4HL



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DRAWN BY

JN

DATE

July 2024

SCALE

NTS

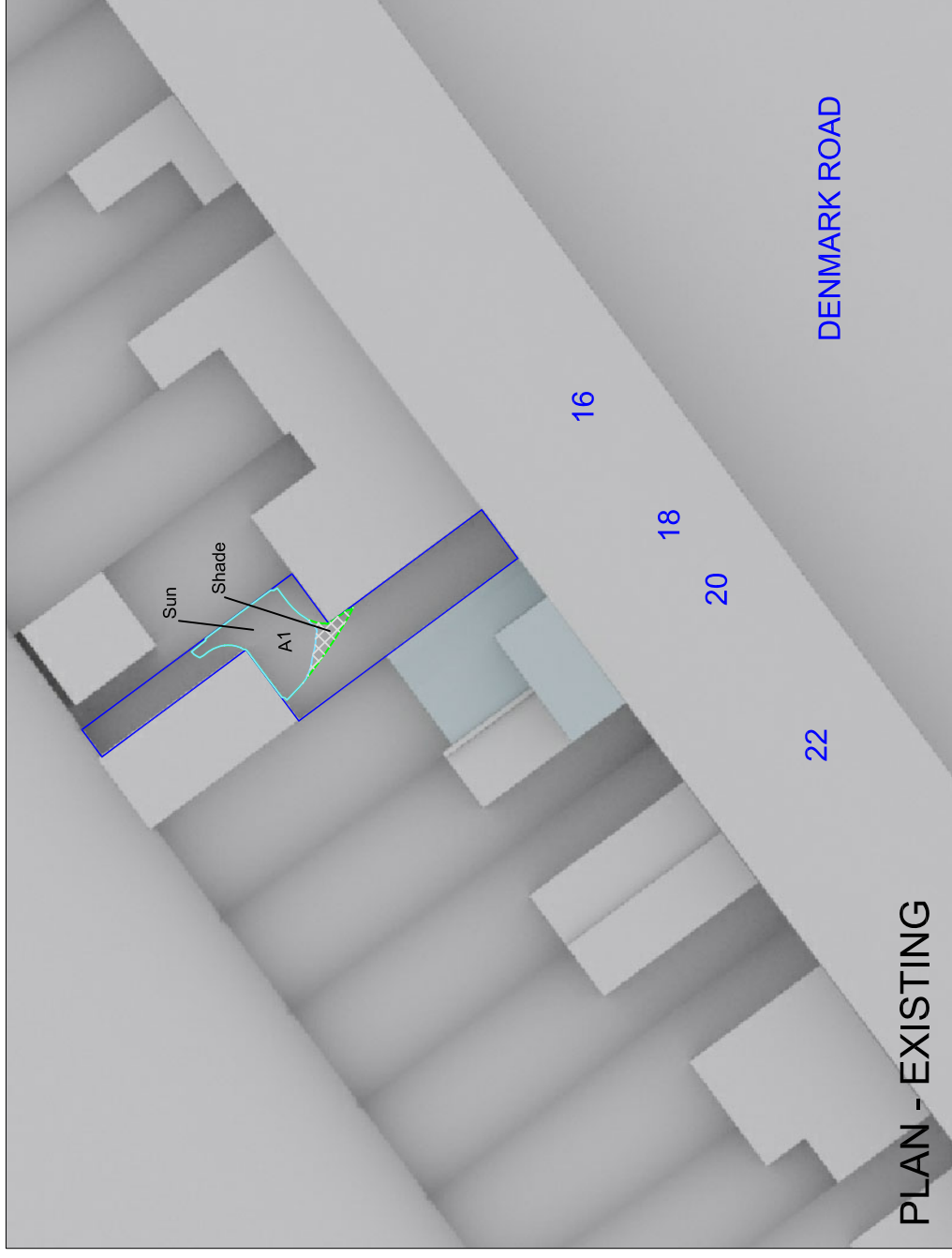
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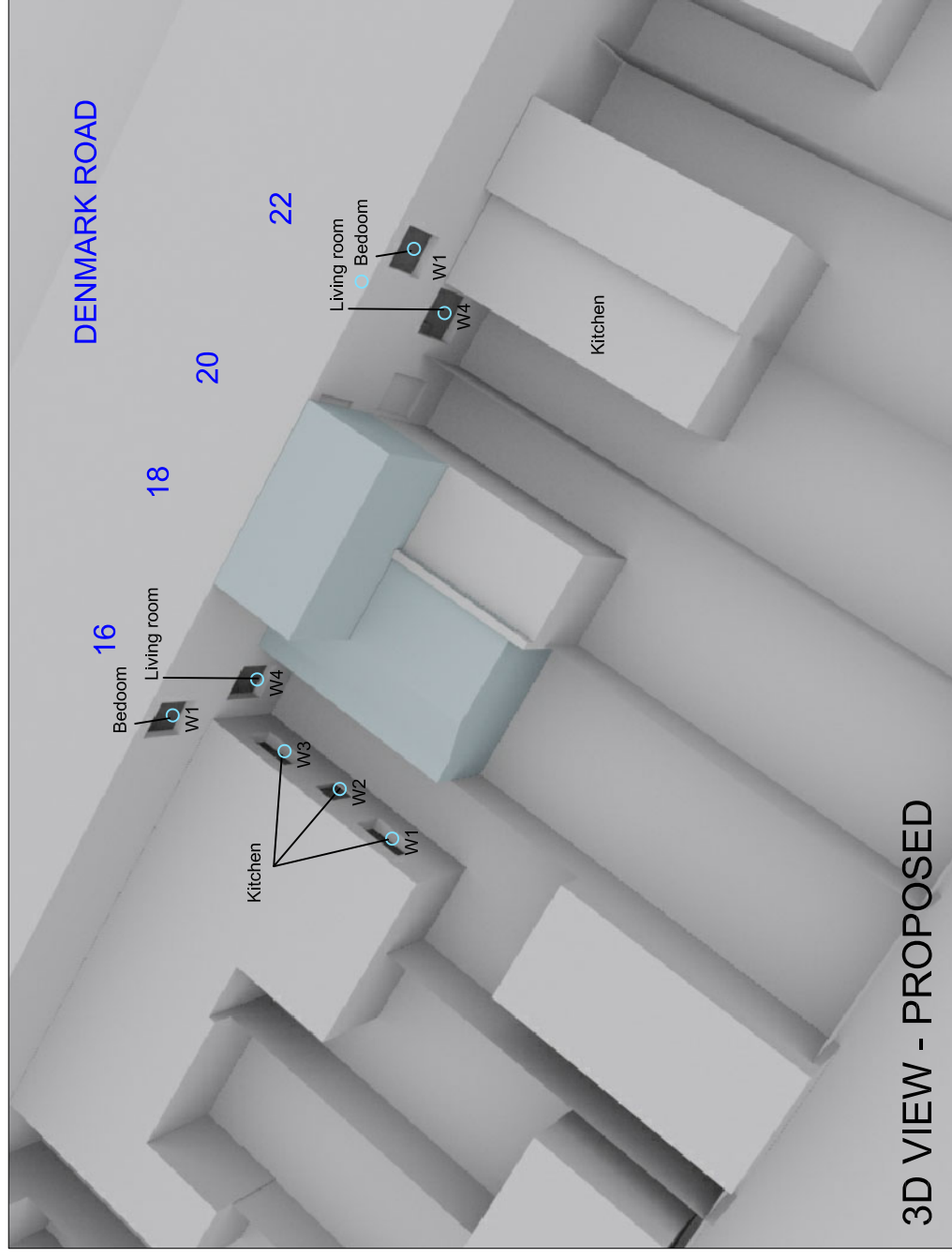
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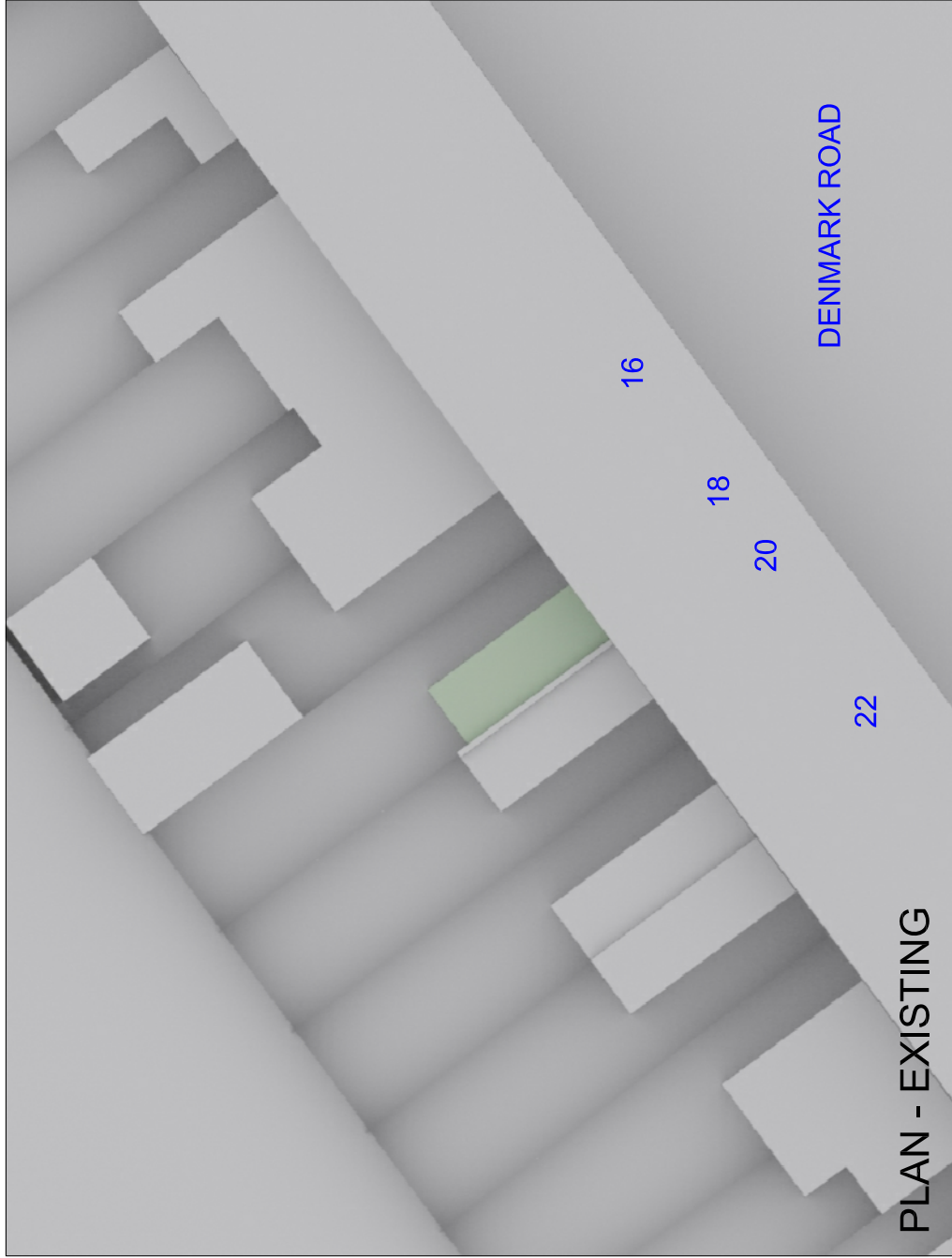
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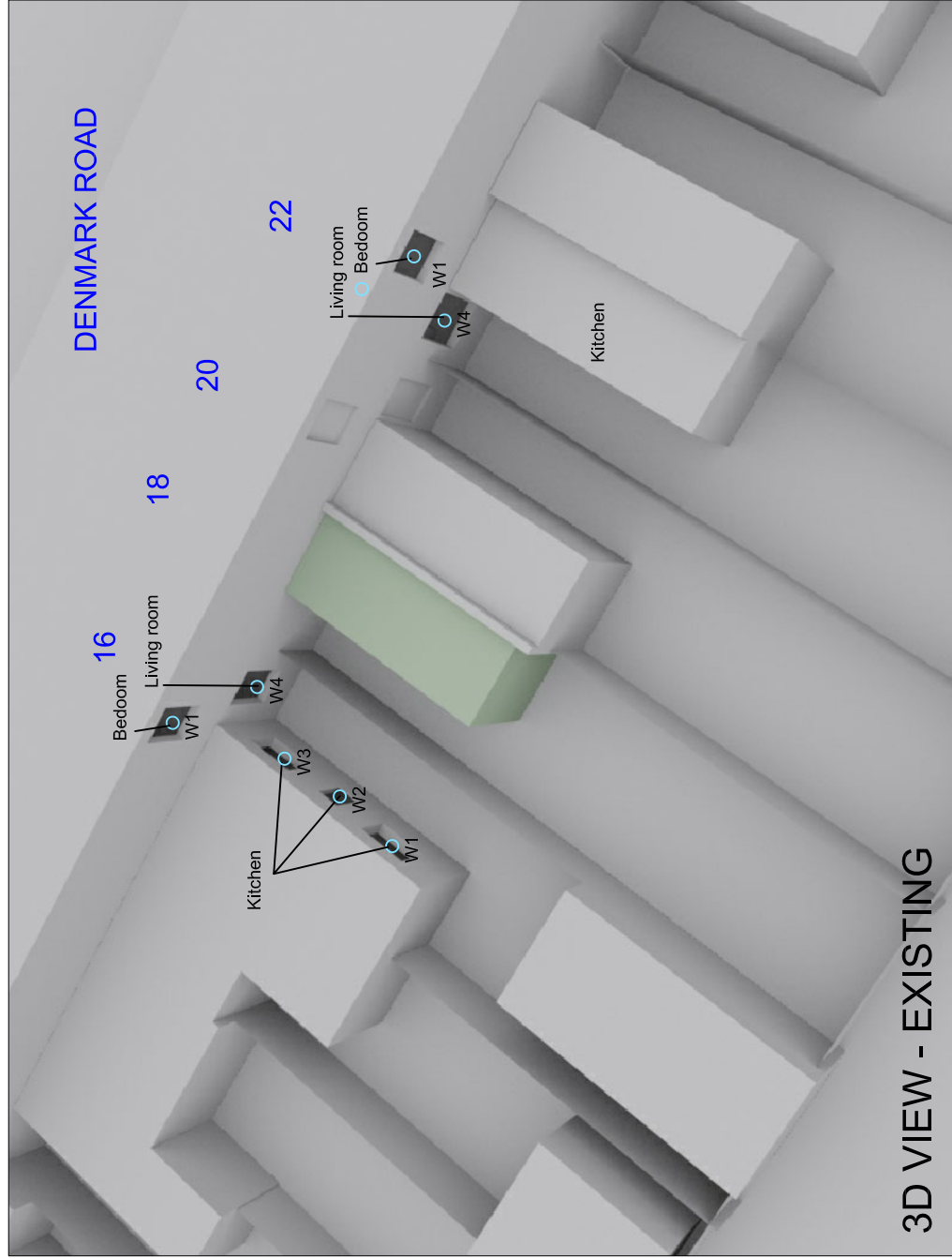
PLAN - EXISTING



3D VIEW - PROPOSED



PLAN - EXISTING



3D VIEW - EXISTING