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20 May 2020

Dear Joseph

Re: Vastern Road, Reading - Daylight and Sunlight

Introduction

1. A planning application under local authority reference no. 200188 was submitted for the demolition of existing structures and erection of a series of buildings ranging in height from 1 to 11 storeys, together with a new north-south pedestrian link, connecting Christchurch Bridge to Vastern Road (known hereafter as "the Proposal"). As part of the submission, eb7 Limited prepared a Daylight and Sunlight Report dated 21 January 2020 (the '2020 Report').
2. Following submission of the scheme, a neighbouring application (known hereafter as "the Potential Future Scheme") has subsequently been validated under local authority reference no.200328. This neighbouring application site is situated across Vastern Road to the south / south west and the scheme description is as follows:

Outline planning permission for Demolition and redevelopment to comprise up to 115,000 sqm GEA in one or more land uses comprising Residential (Class C3 and including PRS), Offices (Use Class B1(a), development in Use Classes A1, A2, A3 (retail), A4 (public house), A5 (take away), C1 (hotel), D1 and D2 (community and leisure), car parking, provision of new plant and renewable energy equipment, creation of servicing areas and provision of associated services, including waste, refuse, cycle storage, and lighting, and for the laying out of the buildings (hereafter known as the "Potential Future Scheme")

3. As these schemes are in close proximity, further technical analysis of the effects has been undertaken to understand the cumulative effect of these developments. The neighbouring proposals under reference no.200328 are comprised of 3 proposed schemes with variations of the outline extents. Whilst the outline extents vary in height, we have reviewed the mixed use proposals as these are largest in the areas most proximate to the Proposal site. It should be noted that as the neighbouring proposal put forwards are outline extents, the massing utilised in the technical analysis mentioned below is the maximum parameter

'worst case' scenario. Any potential scheme will be subject to a further planning application and it is likely to be refined from this outline position.

4. This letter is supplementary to the analysis provided in the Daylight and Sunlight Report dated 21 January 2020.

Daylight / Sunlight for the surrounding properties

5. The latest scheme proposal received in December 2019 was tested with the neighbouring Potential Future Scheme in place. The image below shows the Proposal, Potential Future Scheme and the surrounding context:



Figure 1: Plan view

6. As the results of the showing the impacts of the Proposal have been presented in the Daylight and Sunlight report dated 21 January 2020, a comparison of the results with neighbouring consented scheme has been undertaken.

2 Lymouth Road

7. This end of terrace house is situated to the west / north west of the Proposal site and may enjoy an oblique view towards the Potential Future scheme.

Daylight

8. The results of the VSC analysis show that of the windows to see a noticeable reduction in VSC levels with the Proposal in place will see a minor alteration with the Potential Future scheme in place. The results show the absolute VSC levels remain within 1% absolute VSC of the results described in the 2020 Report. Whilst the results show a marginal shift, the effects do not materially change from the reported position.

9. The results of the NSC analysis have shown that the majority of rooms would see little change in the NSC levels previously stated. The results for R2 on the ground and first floors each see additional reductions in NSC, however these rooms are particularly sensitive given the windows are limited in outlook due to an overhang. The overall effects with the Potential Future Scheme in place is minor when compared with the proposed scenario.

Sunlight

10. The results of the APSH analysis show where rooms indicate a noticeable effect with the Proposal in place, the increased impact is marginal in absolute terms. The results show the total and winter APSH levels change by up to 1% in absolute when compared with the position set out in the 2020 Report.

4 – 28 Lynmouth Road

11. This row of terraced houses is situated to the west / north west of the Proposal site and given the proximity may enjoy an oblique view towards the Potential Future scheme.

Daylight

12. The results of the VSC analysis show that of the windows to see a noticeable reduction in VSC levels with the Proposal in place will see a minor alteration with the Potential Future scheme in place. The results show the absolute VSC levels remain within 1% absolute VSC of the results described in the 2020 Report. Whilst the results show a marginal shift, the effects are not considered material from the 2020 Report position.

13. The results of the NSC analysis have shown little material change in the NSC levels and again the effects as stated in the 21 January 2020 report remain.

Sunlight

14. The results of the APSH analysis show where rooms indicate a noticeable effect with the Proposal in place, the increased impact is marginal in absolute terms. The results show the total and winter APSH levels change by up to 2% in absolute which is considered to be a minor change from the 2020 Report position.

5 Lynmouth Court

15. This property has an oblique view of the Proposal and a direct view towards the Potential Future Scheme.

Daylight

16. The results of the VSC analysis have shown all windows retained VSC levels in excess of 27% VSC with the Proposal and the Potential Future Scheme in place. The results are therefore in line with the BRE targets.

17. In addition, the results for the NSC analysis have shown no noticeable reduction in NSC levels and is therefore compliant with the BRE criteria.

Sunlight

18. The results of the APSH assessment show all rooms assessed retain APSH levels in line with the BRE targets.

6 Lynmouth Court

19. This property has an oblique view of the Proposal and a direct view towards the Potential Future Scheme.

Daylight

20. The results of the VSC analysis have shown that 4 of the 5 windows relevant for assessment would retain absolute VSC levels in line with the BRE targets. The remaining window is situated at ground floor and shows levels just below the BRE targets, with levels of c.24% VSC. The difference between the Proposed scenario in isolation and with the Potential Future scheme in place is minor being less than c.1.8% VSC.

21. All rooms within this property are compliant with regards to NSC.

22. Given the isolated VSC reductions, coupled with the full compliance with NSC, the results should be considered in line with the 2020 Report and in line with the intentions of the BRE guidelines.

Sunlight

23. The results of the APSH assessment show all rooms assessed retain APSH levels in line with the BRE targets.

7-12 Lynmouth Court

24. The rear elevation of this block of flats has been assessed as they look towards the proposal and may have an oblique view towards the Potential Future Scheme.

25. The results for the VSC assessment have shown the vast majority of primary windows see little material difference between the Proposal and the Proposal plus Future Potential Scheme. The results show that the main windows show a marginal alteration from the Proposed position with the difference being no more than c.0.4% absolute VSC of the results described in the 2020 Report. Whilst the results show a marginal shift, the effects are not considered material from the 2020 Report position.

26. In addition, the results of the NSC assessment also shows little noticeable alteration in NSC levels.

Sunlight

27. The results of the APSH analysis show where rooms indicate a noticeable effect with the Proposal in place, there is no material change in the APSH levels.

51 Vastern Road

28. The flank elevation of this property faces the Proposal site. The windows within this elevation are either secondary windows, with the primary windows being situated within the front elevation or serve auxiliary circulation space. Given the orientation of this property, the Proposal does not impact the primary windows serving habitable room use.

Daylight and Sunlight

29. As the flank elevation is dual aspect, additional windows / rooms have been assessed within our technical analysis. This windows / rooms however look directly towards the Potential Future scheme and as such, the results under this alternative scenario show a decrease in daylight and sunlight. These reductions are however driven directly by the Potential Future Scheme, with the Proposal having limited impact.

30. Given the impacts are driven by the neighbouring Potential Future Scheme, the proposal should be considered in line with the BRE criteria for this property.

Daylight and Sunlight potential within the Potential Future Scheme

31. To test ensure the Proposal does not fetter the development potential of the Potential Future scheme. The facades studies show the daylight (VSC) and sunlight (APSH) potential within the Proposed scheme and the results of this assessment are appended at appendix 3.
32. The results of the studies show high daylight / sunlight potential within the facades directly facing the Proposal. The results of the daylight façade studies show the facades facing Vastern Road would experience VSC levels close to or in excess of 27% VSC.
33. The facades within the Potential Future scheme that face the Proposal are not oriented towards 90 degrees of due south and therefore unlikely to see direct sunlight. The analysis does however show that sunlight is available to the remaining facades.
34. The results of the façade studies confirm high levels of daylight and sunlight potential within the Potential Future scheme.

Internal amenity

35. The amenity levels of the proposed accommodation has been considered with the Potential Future Scheme in place. The results of the daylight studies can be found at appendix 4. It should be noted that the Potential Future scheme considered in this analysis is the maximum outline extents and therefore it is likely a smaller and more refined detailed scheme will come forward that would have lesser effects.

Daylight

36. Following on from submission of the scheme, eb7 Limited have worked alongside the architects on a further optimisation exercise in an effort to improve internal daylight levels where there are deviations from the targets. These changes include removing overhanging balconies and increasing glazing area.
37. Given the above, the analysis considers the revised layouts and the results of the analysis show that the majority of rooms directly facing the Potential Future Scheme continue to show ADF levels in line with the targets.
38. The analysis for the south facing Vastern Road elevations of Blocks A and B have shown that 28 of the 36 rooms would achieve ADF levels in line with the BRE targets. The results have shown all bedrooms achieve ADF levels in excess of the BRE targets. The remaining 8 rooms are L/K/D's and show ADF levels between 1.0 – 1.4% which is just below the suggested target of 1.5% for this multi room use.
39. Whilst the results indicate deviations from the suggested targets, these deviations are just below the targets with no rooms seeing an ADF below 1%. It should be noted that the analysis considers the maximum parameter massing for the neighbour which presents a considerable obstruction. Should the massing of this neighbour be less than that assessed, the internal daylight to the proposed development would improve. We feel that the design alterations made go as far as possible to maximise daylight to the rooms facing this neighbour.

Sunlight

40. The main living areas within the south facing Vastern Road elevations of Blocks A and B have shown that with the Proposed Future Scheme in place, 6 of the 12 rooms would experience APSH levels in line with the BRE targets. The results have shown that the 6 L/K/D's within Block B would achieve APSH levels in excess of the total target of 25% and 5% during the winter months. The 6 L/K/D's within Block A have shown high total APSH levels, with only the winter levels falling below the targets (being between c.1 – 4%). Sunlight during winter is more sensitive to obstruction as the sun sits low in the sky and given the location and size of the neighbouring scheme, the results are not unusual.

The living spaces within the façade fronting Vastern Road continue to see total APSH levels in excess of the BRE targets, with the deviation affecting some of winter sun levels. It should be noted that the analysis considers the maximum parameter massing for the neighbour which presents a considerable obstruction. Should the massing of this neighbour be less than that assessed, the sunlight levels would improve.

Summary

41. A Daylight and Sunlight report dated 20 January 2020 was provided alongside the planning application for the site at Vastern Road. Subsequent to the submission of the planning application, a neighbouring scheme has come forward and this note is supplementary to the original analysis. This note summarises the impacts with the neighbouring proposal in place.
42. The results of the technical analysis with both schemes in place show a reduction in daylight and sunlight to some of the surrounding properties relevant for assessment. These changes are however minor and therefore the commentary provided within the Daylight and Sunlight Report dated 20 January 2020 remains valid. Where there are instances of larger effects such as 51 Vastern Road, these impacts are largely driven by the neighbouring proposal.
43. An assessment of the daylight and sunlight amenity within the Potential Future Scheme has been undertaken and the results confirm high levels of amenity potential.
44. Finally, analysis of the daylight / sunlight within the proposal accommodation has been considered. Further design amendments have been undertaken in an effort to improve amenity levels within the proposal. With the neighbouring scheme in place, the results for the revised scheme show good levels of overall compliance. The analysis shows instances of lower daylight and sunlight amenity however these are not unusual for a scheme of this size in an urban context. In addition, the analysis considers the maximum parameters extents for the neighbouring scheme and should the massing of this neighbour be less than that assessed, the internal daylight to the proposed development would improve.
45. The proposal is situated in an emerging urban context in Reading, in an area designated for residential development and as such, deviations from the targets are not unusual. Overall, the cumulative effect of the schemes is considered acceptable.

Yours sincerely,

eb7 Limited



Appendix 1

Drawings of the Existing, Proposal and Potential Future Scheme and surrounding properties



Sources of information

- Survey**
33440Asit01P00-3D.dwg
Received 29/01/2019
- Berkeley Homes Ltd**
448.SK.001_ AODs update.pdf
Received 05/12/2019
Vastern_Master_03_CAD.max
Vastern_Master_03a_geometry.max
Received 04/12/2019
- EB7 Ltd**
Site Photographs
Ordnance Survey

Key:

-  Existing
-  Proposed

NORTH



Project River Gate, Vastern Road
Reading
RG1 8BU

Title Existing Condition
Plan View

Drawn	AD	Checked	JC
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Date	19/12/2019	Project	3591
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Rel no.	Prefix	Page no.
05	DS01	01



Sources of information

Survey
33440Asit01P00-3D.dwg
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Berkeley Homes Ltd
448.SK.001_ AODs update.pdf
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Vastern_Master_03_CAD.max
Vastern_Master_03a_geometry.max
Received 04/12/2019

EB7 Ltd
Site Photographs
Ordnance Survey

Key:

- Existing
- Proposed

Notes:
All heights and dimensions are in AOD

Project River Gate, Vastern Road
Reading
RG1 8BU

Title Existing Condition
3D View

Drawn	AD	Checked	JC
Date	19/12/2019	Project	3591
Rel no.	05	Prefix	DS01
		Page no.	02



Sources of information

- Survey**
33440Asit01P00-3D.dwg
Received 29/01/2019
- Berkeley Homes Ltd**
448.SK.001_ AODs update.pdf
Received 05/12/2019
Vastern_Master_03_CAD.max
Vastern_Master_03a_geometry.max
Received 04/12/2019
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Site Photographs
Ordnance Survey

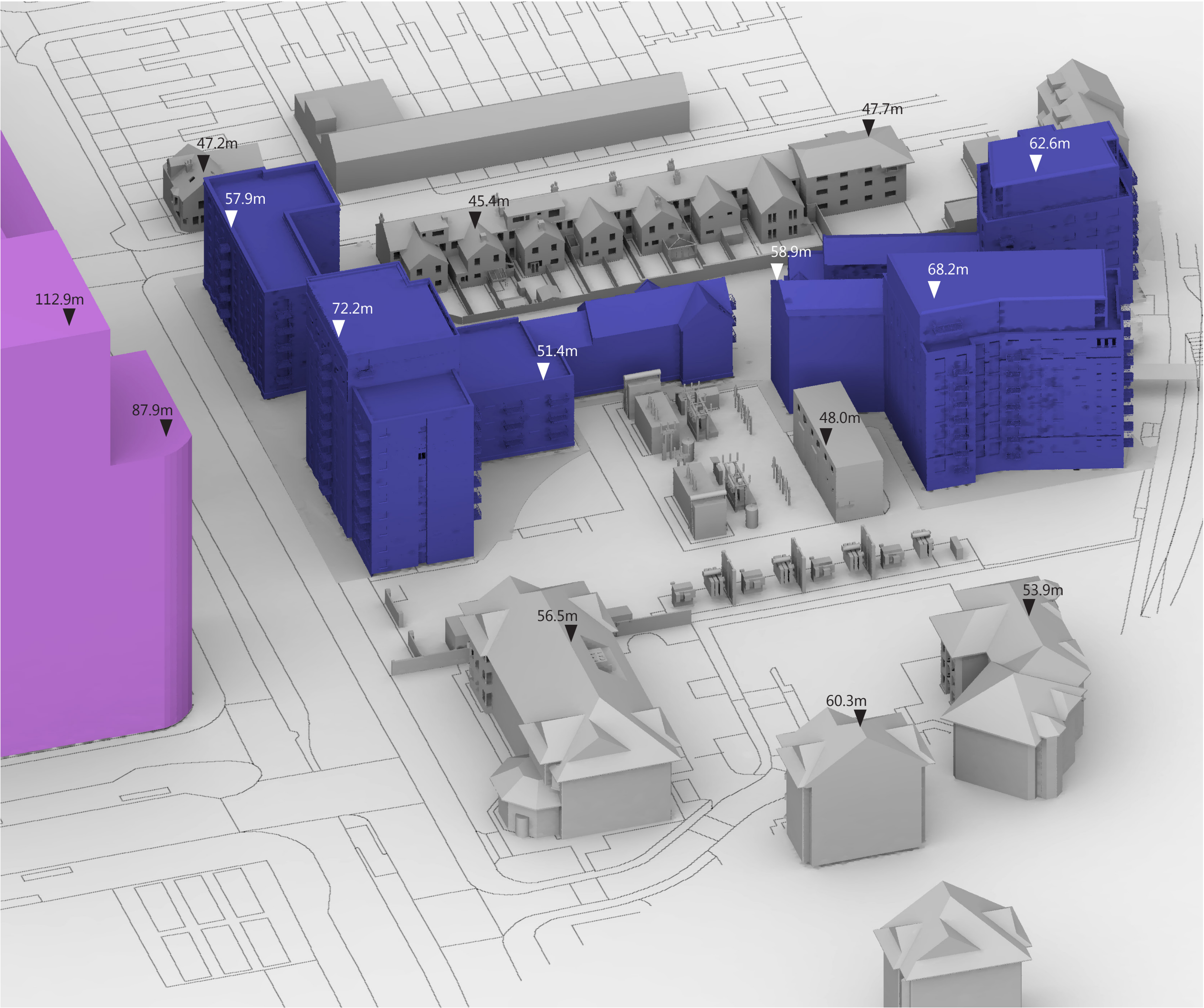
Key:

- Existing
- Proposed
- Potential Future Scheme



Project	River Gate, Vastern Road Reading RG1 8BU		
Title	Proposed Development Plan View		

Drawn	MR	Checked	--
Date	06/04/2020	Project	3591
Rel no.	06	Prefix	DS01
		Page no.	03



Sources of information

Survey
33440Asit01P00-3D.dwg
Received 29/01/2019

Berkeley Homes Ltd
448.SK.001_ AODs update.pdf
Received 05/12/2019
Vastern_Master_03_CAD.max
Vastern_Master_03a_geometry.max
Received 04/12/2019

EB7 Ltd
Site Photographs
Ordnance Survey

Key:

Existing

Proposed

Potential Future Scheme

Notes:
All heights and dimensions are in AOD

Project River Gate, Vastern Road
Reading
RG1 8BU

Title Proposed Development
3D View

Drawn	MR	Checked	--
Date	06/04/2020	Project	3591
Rel no.	06	Prefix	DS01
		Page no.	04



Appendix 2

Results of the daylighting / sunlighting assessment for surrounding properties (with Potential Future Scheme)

Address	Room	Window	Room Use	Existing VSC	Proposed VSC	Proposed and Potential Future Scheme VSC	Proposed and Potential Future Difference	Room Area	Existing NSC	Proposed NSC	Proposed and Potential Future Scheme NSC	Proposed and Potential Future Difference	Existing Total	APSH Winter	Proposed Total	APSH Winter	Proposed and Potential Future Scheme APSH Total	Proposed and Potential Future Scheme APSH Winter	Difference Total	Difference Winter
2 Lynmouth Road																				
Ground	R1	W1-L W1-U	Residential	0.5	0.1	0.1	0.0	78.1	54.0	21.6	21.5	-0.1	1	1	0	0	0	0	0	0
Ground	R2	W2 W3	Residential	0.3 2.4	0.1 1.2	0.1 0.9	0.0 -0.3	72.9	31.2	17.5	11.4	-6.1	14	4	11	2	9	0	-2	-2
Ground	R3	W4 W5	Residential	18.5 29.9	9.6 23.5	9.2 22.8	-0.4 -0.7	45.0	44.3	44.0	43.0	-1.0	65	11	36	2	35	1	-1	-1
First	R1	W1-L W1-U	Residential	28.6	21.9	21.4	-0.5	65.2	64.5	60.1	60.1	0.0	53	16	34	4	32	2	-2	-2
First	R2	W2-L W2-U	Residential	34.3	26.0	25.1	-0.9	120.1	117.4	55.7	50.7	-5.0	60	17	41	2	40	1	-1	-1
4 Lynmouth Road																				
Ground	R1	W1 W2 W3	Kitchen	31.4 10.0 7.9	24.3 9.8 7.7	23.5 9.8 7.7	-0.8 0.0 0.0	122.2	111.8	90.9	89.4	-1.5	58	15	40	3	39	2	-1	-1
Ground	R2	W4-L W4-U	Dining Room	10.9	10.3	10.3	0.0	92.9	78.9	77.8	77.8	0.0	11	1	10	0	10	0	0	0
First	R2	W2-L W2-U	Bedroom	28.3	24.7	24.6	-0.1	67.1	66.2	66.2	66.2	0.0	46	7	41	4	41	4	0	0
Second	R2	W2	Bedroom	37.8	30.0	28.7	-1.3	156.5	146.0	145.9	146.0	0.1	66	23	52	10	49	7	-3	-3
6 Lynmouth Road																				
Ground	R1	W1 W2	Residential	31.8 31.6	24.6 24.3	23.8 23.5	-0.8 -0.8	40.8	39.9	39.9	39.9	0.0	58	16	41	6	38	3	-3	-3
Ground	R2	W3	Residential	31.2	24.5	23.6	-0.9	63.0	60.0	59.1	58.5	-0.6	58	16	42	7	38	3	-4	-4
First	R1	W1-L W1-U	Residential	36.0	27.5	26.4	-1.1	120.4	117.7	87.5	86.9	-0.5	63	20	48	10	43	5	-5	-5
Second	R1	W1	Residential	28.3	23.9	23.2	-0.7	77.1	76.0	76.0	76.0	0.0	48	13	43	8	41	6	-2	-2
8 Lynmouth Road																				
Ground	R1	W1-L W1-U W2 W3 W4 W5-L W5-U W6-L W6-U W7-L W7-U	Residential	30.4 69.5 70.7 73.0 21.4 20.7 20.7 20.7 18.9	23.5 64.0 65.3 67.7 20.7 19.6 17.6	22.8 63.1 64.4 66.8 20.7 19.6 17.6	-0.6 -0.9 -0.9 -0.9 0.0 0.0 0.0	51.0	51.0	51.0	51.0	0.0	70	20	51	8	47	4	-4	-4
Ground	R2	W8 W9	Residential	30.6 41.0	22.5 39.6	22.5 39.6	-0.1 0.0	62.2	62.2	62.2	62.2	0.0	43	10	29	3	28	2	-1	-1
First	R1	W1-L W1-U	Residential	36.3	27.8	26.7	-1.1	61.5	59.0	58.7	58.8	0.1	64	21	48	11	43	6	-5	-5
First	R2	W3-L W3-U	Residential	28.4	25.0	25.0	0.0	67.1	66.0	66.0	66.0	0.0	44	6	39	4	39	4	0	0
First	R3	W2	Residential	16.0	14.9	14.9	0.0	37.1	23.6	23.6	23.4	-0.2	N/F	N/F	N/F	N/F	N/F	N/F	N/F	N/F
10 Lynmouth Road																				
Ground	R1	W1-L W1-U	Living Room	12.0	10.6	10.6	0.0	105.0	59.5	51.8	51.7	-0.1	24	4	22	2	22	2	0	0
Ground	R2	W2 W3 W4-L W4-U W5 W6-L W6-U W7	Kitchen	11.7 34.8 33.1 35.5 32.4 35.1	10.1 25.9 25.2 26.4 25.0 26.0	10.1 25.1 24.4 25.5 24.2 25.1	0.0 -0.9 -0.8 -0.9 -0.8 -0.9	104.2	103.8	101.0	101.0	0.1	69	22	50	10	47	7	-3	-3
First	R1	W1	Bedroom	26.7	23.1	22.8	-0.3	82.8	76.2	73.1	73.0	-0.1	48	13	42	8	41	7	-1	-1
Second	R1	W1 W3 W4	Bedroom	37.0 85.1 86.2	30.8 84.8 86.0	29.5 83.8 84.2	-1.3 -1.0 -1.7	166.3	164.4	163.2	163.2	0.0	98	29	90	23	80	13	-10	-10
12 Lynmouth Road																				
Ground	R1	W1 W2 W3	Residential	35.3 12.5 8.2	25.9 10.7 7.2	25.1 10.7 7.2	-0.8 0.0 0.0	121.6	119.7	101.9	101.7	-0.2	67	23	48	11	44	7	-4	-4
Ground	R2	W4-L W4-U	Residential	13.3	10.9	10.9	0.0	72.6	69.5	69.5	69.5	0.0	17	2	13	0	13	0	0	0
First	R1	W1-L W1-U	Residential	37.3	28.2	27.2	-1.0	67.5	64.8	64.8	64.8	0.0	67	23	49	12	46	9	-3	-3
First	R2	W3	Residential	27.2	24.1	24.1	0.0	67.2	66.3	66.3	66.2	-0.1	40	5	35	3	35	3	0	0
First	R3	W2	Residential	17.4	16.2	16.2	0.0	30.6	19.5	19.5	19.4	-0.1	N/F	N/F	N/F	N/F	N/F	N/F	N/F	N/F
Second	R1	W1	Residential	36.7	30.4	29.2	-1.3	52.8	47.3	47.3	47.3	0.0	60	20	52	15	47	10	-5	-5
Second	R2	W2-L W2-U	Residential	37.3	31.0	30.0	-1.1	96.6	96.2	96.2	96.4	0.2	63	20	55	15	51	11	-4	-4
14 Lynmouth Road																				
Ground	R1	W1	Residential	37.3	35.9	35.9	0.0	39.3	39.3	39.3	39.3	0.0	36	6	32	3	32	3	0	0

Address				Energy Performance				Carbon Footprint					Renewable Energy				Compliance			
				Existing VSC	Proposed VSC	Proposed and Potential Future Scheme VSC	Proposed and Potential Future Difference	Room Area	Existing NSC	Proposed NSC	Proposed and Potential Future Scheme NSC	Proposed and Potential Future Difference	Existing AP50 Total	Existing AP50 Winter	Proposed AP50 Total	Proposed AP50 Winter	Proposed and Potential Future Scheme AP50 Total	Proposed and Potential Future Scheme AP50 Winter	Difference Total	Difference Winter
Ground	R2	W2-W3	Residential	35.9 35.9	26.1 26.1	25.3 25.3	-0.8 -0.8													
First	R1	W1	Residential	27.0	23.6	23.5	-0.1	67.2	66.4	66.4	66.4	0.0	49	14	43	9	43	9		
First	R2	W2-L W2-U	Residential	37.6	28.1	27.3	-0.8	64.8	61.6	61.6	61.6	-0.1	66	23	50	13	48	11		
16 Lynmouth Road																				
Ground	R1	W1-W2 W3	Kitchen	35.7 12.2 8.4	25.8 10.5 7.2	25.1 10.5 7.2	-0.7 0.0 0.0	133.7	131.6	118.4	118.3	-0.1	65	22	49	12	46	9		
Ground	R2	W4-L W4-U W5-L W5-U W6-L W6-U W7-L W7-U	Living Room	13.6 29.5 31.4 28.3	10.6 29.5 31.4 28.3	10.6 29.5 30.5 25.7	0.0 0.0 -0.9 -2.6	245.3	202.0	199.6	199.5	-0.1	50	10	46	8	41	3		
First	R1	W1-L W1-U	Bedroom	37.7	28.0	27.2	-0.8	112.9	109.8	92.6	92.7	0.1	66	23	52	14	48	10		
18 Lynmouth Road																				
Ground	R1	W1-L W1-U	Residential	13.5	10.7	10.7	0.0	62.7	58.9	58.9	58.9	-0.1	25	5	22	2	22	2		
Ground	R2	W2-W3 W4 W5	Residential	8.2 12.2 35.2 32.6	7.4 10.6 25.9 25.4	7.4 10.6 25.3 24.8	0.0 0.0 -0.6 -0.6	127.6	124.8	115.7	115.7	0.0	66	22	51	13	48	10		
First	R1	W1-L W1-U	Residential	26.7	23.7	23.6	-0.1	67.0	66.2	66.2	66.2	0.0	49	14	43	10	43	10		
First	R2	W2-L W2-U	Residential	38.0	28.1	27.4	-0.7	63.8	60.4	60.1	60.2	0.1	65	22	52	14	49	11		
20 Lynmouth Road																				
Ground	R1	W1-L W1-U W2-L W2-U W3-L W3-U W4-L W4-U W5 W6 W7	Kitchen	34.0 33.1 32.8 32.9 64.4 88.8 80.5	24.8 24.7 24.7 24.7 60.9 81.1 76.5	24.3 24.2 24.2 24.2 59.6 80.2 76.3	-0.5 -0.5 -0.5 -0.5 -1.3 -0.9 -0.2	145.6	145.6	145.6	145.6	0.0	79	23	64	15	61	12		
First	R1	W1-L W1-U	Bedroom	38.1	28.3	27.6	-0.6	77.7	73.9	63.7	63.6	-0.2	65	22	53	17	50	14		
First	R3	W3-L W3-U	Bedroom	27.5	24.1	24.1	0.0	96.4	92.4	91.4	91.4	0.0	41	5	37	3	37	3		
22 Lynmouth Road																				
Ground	R1	W1-L W1-U	Residential	12.1	11.1	11.1	0.0	115.7	76.1	70.6	70.4	-0.2	23	3	21	1	21	1		
Ground	R2	W2-W3	Residential	8.3 12.2	8.0 11.6	8.0 11.6	0.0 0.0	75.7	45.1	42.0	41.9	-0.1	31	5	30	4	30	4		
Ground	R3	W4	Residential	35.2	25.9	25.5	-0.5	48.7	43.5	43.5	43.5	0.0	65	22	48	13	46	11		
First	R1	W1-L W1-U	Residential	27.5	24.7	24.6	0.0	115.7	102.5	98.6	97.7	-0.9	47	12	43	10	43	10		
First	R2	W2-L W2-U	Residential	21.1	19.8	19.7	-0.2	75.7	15.8	10.5	10.1	-0.4	48	13	46	11	46	11		
First	R3	W3	Residential	38.0	28.4	27.8	-0.6	48.7	43.6	41.5	40.1	-1.4	66	23	55	17	52	14		
24 Lynmouth Road																				
Ground	R1	W1-L W1-U W2-L W2-U	Residential	8.7 7.0	7.7 6.4	7.7 6.4	0.0 0.0	121.6	14.0	12.1	12.0	-0.1	N/F	N/F	N/F	N/F	N/F	N/F		
Ground	R2	W3	Residential	1.2	0.8	0.8	0.0	48.1	0.5	0.5	0.5	0.0	N/F	N/F	N/F	N/F	N/F	N/F		
Ground	R3	W4-L W4-U	Residential	4.8	2.7	2.7	0.0	67.1	58.6	28.5	28.6	0.2	7	2	4	0	4	0		
First	R1	W1	Residential	37.3	28.1	27.5	-0.6	129.4	123.7	85.0	85.0	-0.1	65	23	55	17	52	14		
First	R3	W3-L W3-U	Residential	24.0	21.1	21.1	0.0	67.1	66.3	63.9	63.9	0.0	34	3	30	1	30	1		
26 Lynmouth Road																				
Ground	R1	W1	Residential	11.8	10.2	10.2	0.0	64.9	55.4	49.6	49.5	-0.2	21	3	20	2	20	2		
Ground	R2	W2	Residential	8.8	8.2	8.2	0.0	73.5	18.3	18.3	18.2	0.0	25	4	24	3	24	3		
Ground	R3	W3-L W3-U W4-L W4-U	Residential	32.5 32.4	24.1 24.0	23.6 23.6	-0.4 -0.4	107.4	103.9	77.1	77.1	0.1	64	21	51	15	48	12		
First	R1	W1	Residential	20.4	18.5	18.5	0.0	66.8	65.2	62.5	62.3	-0.2	41	13	39	11	39	11		
First	R2	W2	Residential	24.1	23.4	23.3	-0.1	73.5	59.5	59.5	59.5	0.0	55	16	54	15	54	15		
First	R3	W3-L	Residential	38.0	26.8	26.4	-0.5													

Address	Room	Window	Room Use	Existing	Proposed	Proposed and	Proposed and	Room Area	Existing	Proposed	Proposed and	Proposed and	Proposed and	Existing	APSH	Proposed	APSH	Proposed and	Difference					
				VSC	VSC	Potential Future Scheme VSC	Potential Future Difference		NSC	NSC	Potential Future Scheme NSC	Potential Future Difference	Total					Winter			Total	Winter	Total	Winter
28 Lynmouth Road		W3-U W4-L W4-U		38.1	26.8	26.3	-0.5		107.4	103.5	85.5	85.6	0.1	63	22	50	16	47	13	-3	-3			
	Ground	R1	W1-L W1-U W2-L W2-U	Residential	31.7	23.6	23.2	-0.4																
					31.3	23.4	23.0	-0.4		109.3	105.7	71.3	71.5	0.2	63	21	48	13	46	11	-2	-2		
	Ground	R2	W3	Residential	3.5	2.7	2.7	0.0	76.2	5.9	5.6	5.6	0.0	N/F	N/F	N/F	N/F	N/F	N/F	N/F	N/F			
	Ground	R3	W4	Residential	7.8	5.6	5.6	0.0	66.6	58.9	44.7	45.0	0.3	11	2	7	0	7	0	0	0			
First	R1	W1-L W1-U W2-L W2-U	Residential	38.1	26.3	25.9	-0.4																	
				38.1	26.1	25.7	-0.4		109.3	105.3	83.0	83.0	0.0	64	21	49	13	46	10	-3	-3			
	First	R2	W3	Residential	5.4	4.0	4.0	0.0	76.3	6.8	6.7	7.2	0.4	N/F	N/F	N/F	N/F	N/F	N/F	N/F	N/F			
	First	R3	W4	Residential	12.8	10.0	10.0	0.0	66.6	61.0	46.7	46.5	-0.1	17	2	13	0	13	0	0	0			
	5 Lynmouth Court																							
Ground	R1	W1-L W1-U	Residential	35.1	30.4	28.7	-1.7		100.5	83.9	83.5	87.8	4.4	73	24	61	18	59	16	-2	-2			
				36.0	30.6	28.1	-2.4		100.5	83.9	83.3	80.4	-2.9	74	27	62	19	60	17	-2	-2			
	First	R2	W2-L W2-U	Residential	35.9	29.7	27.3	-2.4		111.4	92.8	92.4	83.5	-8.9	74	27	60	18	58	16	-2	-2		
	Second	R1	W1-L W1-U W2-L W2-U	Residential	38.3	32.9	29.9	-3.0																
					38.2	32.2	29.2	-2.9		133.7	127.6	126.6	118.2	-8.4	82	28	67	20	64	17	-3	-3		
6 Lynmouth Court																								
Ground	R2	W2-L W2-U	Residential	35.7	25.8	24.0	-1.8		100.5	83.9	83.1	86.5	3.3	76	27	44	13	43	12	-1	-1			
				35.9	28.7	26.2	-2.4		111.4	92.7	92.4	83.7	-8.7	73	27	56	16	55	15	-1	-1			
	First	R2	W2-L W2-U	Residential	36.0	27.2	24.8	-2.4		100.5	83.9	83.8	78.1	-5.6	75	27	51	15	50	14	-1	-1		
	Second	R1	W1-L W1-U W2-L W2-U	Residential	38.2	30.8	27.9	-2.9																
					38.2	29.7	26.8	-2.9		133.7	127.5	127.1	116.6	-10.5	81	28	61	18	59	16	-2	-2		
7-12 Lynmouth Court																								
Ground	R1	W1	Residential	29.6	19.6	19.6	0.0	155.8	151.9	96.8	96.6	-0.2	44	3	32	0	32	0	0	0	0			
				35.2	22.8	22.8	-0.1	149.2	144.2	87.8	87.9	0.0	59	17	43	11	42	10	-1	-1				
	Ground	R3	W3	Residential	36.0	22.3	22.1	-0.2	149.2	144.3	80.4	80.6	0.2	61	19	42	12	41	11	-1	-1			
	Ground	R4	W4 W5	Residential	35.7	21.6	21.3	-0.2																
					34.1	30.2	30.2	0.0	183.7	182.5	180.5	180.3	-0.2	60	19	40	10	39	9	-1	-1			
	First	R1	W1	Residential	36.3	25.4	25.4	0.0	155.8	154.1	102.2	102.0	-0.2	58	17	47	13	47	13	0	0			
	First	R2	W2	Residential	37.3	25.1	24.9	-0.2	149.2	145.7	87.4	87.1	-0.3	59	19	46	15	45	14	-1	-1			
	First	R3	W3	Residential	37.1	24.1	23.8	-0.3	149.2	145.6	78.7	78.6	-0.1	61	21	45	16	41	12	-4	-4			
	First	R4	W4 W5	Residential	35.5	21.8	21.4	-0.3																
					34.1	30.3	30.3	0.0	183.7	182.5	182.5	182.2	-0.3	60	21	42	15	38	11	-4	-4			
	Second	R1	W1-L W1-U	Residential	30.2	20.1	19.7	-0.4																
					155.8	153.8	96.6	95.8	-0.8	47	17	37	14	34	11	-3	-3							
	Second	R2	W2-L W2-U	Residential	30.3	19.5	19.1	-0.4																
					149.2	145.5	80.7	79.8	-0.9	47	17	37	14	34	11	-3	-3							
	Second	R3	W3-L W3-U	Residential	29.9	18.4	18.0	-0.4																
149.2					144.0	70.9	71.0	0.1	47	17	34	14	31	11	-3	-3								
Second	R4	W4-L W4-U W5-L W5-U W6-L W6-U W7-L W7-U W8-L W8-U W9-L W9-U	Residential	9.5	7.1	5.6	-1.5																	
				32.5	19.9	19.5	-0.4																	
				6.7	1.9	1.9	0.0																	
				6.6	2.5	2.5	0.0																	
				30.8	27.7	27.7	0.0																	
				13.9	13.9	13.9	0.0																	
				183.7	181.6	180.6	177.2	-3.4	54	20	40	17	36	13	-4	-4								
				51 Vastern Road																				
				Ground	R1	W1	Dining Room	12.3	12.3	12.3	0.0	91.9	79.8	79.8	79.6	-0.2	N/F	N/F	N/F	N/F	N/F	N/F	N/F	N/F
Ground	R2	W2 W3-L W3-U W4 W5 W6-L W6-U W7-L W7-U	Kitchen	12.8	12.8	12.8	0.0																	
				14.4	14.4	14.4	0.0																	
				31.7	31.3	31.3	0.0																	
				32.3	31.9	31.9	0.0																	
				30.9	21.4	18.2	-3.2																	
				30.7	20.8	16.6	-4.2																	
Ground	R4	W11	Living Room	31.7	22.5	15.6	-6.9																	

Address	Room	Window	Room Use	Existing VSC	Proposed VSC	Proposed and Potential Future Scheme VSC	Proposed and Potential Future Difference	Room Area	Existing NSC	Proposed NSC	Proposed and Potential Future Scheme NSC	Proposed and Potential Future Difference	Existing APSPH Total	Winter APSPH	Proposed APSPH Total	Winter APSPH	Proposed and Potential Future Scheme APSPH Total	Winter APSPH	Difference Total	Difference Winter
		W12		32.2	23.4	16.3	-7.1													
		W13		31.9	28.4	13.1	-15.3													
		W14		7.9	7.6	1.4	-6.2													
		W15		29.5	29.5	9.7	-19.8													
First	R1	W1-L W1-U	Bedroom	27.3	27.3	27.3	0.0	182.7	182.6	182.4	181.7	-0.7	94	28	80	28	48	4	-32	-24
First	R3	W3-L W3-U	Bedroom	35.7	35.0	35.0	0.0	104.7	101.2	101.2	101.1	0.0	N/F	N/F	N/F	N/F	N/F	N/F	N/F	N/F
				85.4	82.4	82.4	0.1						N/F	N/F	N/F	N/F	N/F	N/F	N/F	N/F
First	R5	W5-L W5-U W6-L W6-U W7-L W7-U W8-L W8-U	Bedroom	34.6	24.4	17.4	-7.0													
		W6-L		35.4	33.6	17.7	-15.9													
		W7-L		38.8	38.8	18.9	-19.9													
		W8-L W8-U		35.0	35.0	21.6	-13.4													
Second	R1	W1	Bedroom	83.6	80.2	80.2	0.0	188.7	187.0	186.8	155.2	-31.6	96	29	81	28	53	6	-28	-22
		W2-L		36.9	25.8	19.1	-6.7													
		W2-U W3		82.2	80.6	63.4	-17.2													
								155.6	148.8	148.8	155.3	6.5	98	30	85	27	59	5	-26	-22



Appendix 3

Results of the internal daylighting / sunlighting assessment (with Potential Future Scheme)

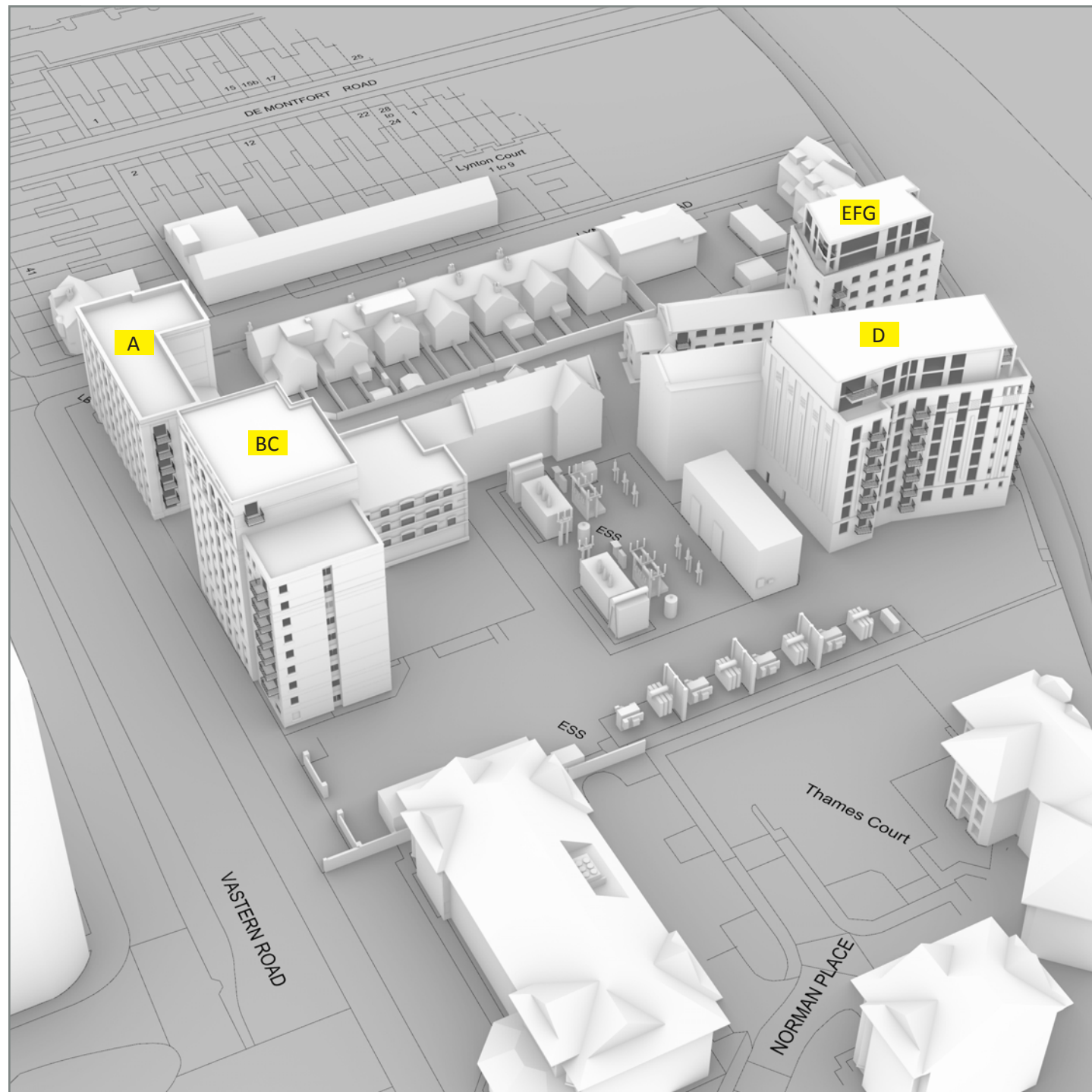


Fig. 1: Bird's Eye View



Fig. 2: Top View



Fig. 3: Ground Floor Plan



Fig. 4: First Floor Plan

		Daylight Quantum	Sunlight Probability	
Room ID	Room use		ADF	APSH Total
A - Floor GF				
A-01	LKD	2.6	13	1
A-02	Bedroom	3.5		
A-03	Bedroom	3.1		
A-04	LKD	3.6		
A-05	LKD	1.8	42	3
A-06	Bedroom	3.0		
A-07	Bedroom	1.9		
A-08	LKD	1.1	35	1
A-09	Bedroom	2.8		
A-10	Bedroom	1.8		
A-11	Bedroom	1.8		
A-12	Bedroom	2.7		
A-13	LKD	1.0	35	4

		Daylight Quantum	Sunlight Probability	
Room ID	Room use		ADF	APSH Total
A - Floor 1F				
A-14	LKD	3.3	14	1
A-15	Bedroom	3.4		
A-16	LKD	1.6		
A-17	Bedroom	3.9		
A-18	Bedroom	2.0		
A-19	Bedroom	3.5		
A-20	LKD	4.3		
A-21	LKD	2.0	42	3
A-22	Bedroom	3.1		
A-23	Bedroom	2.0		
A-24	LKD	1.1	35	1
A-25	Bedroom	2.9		
A-26	Bedroom	1.9		
A-27	Bedroom	1.9		
A-28	Bedroom	2.8		
A-29	LKD	1.1	38	4

Table 1: Results

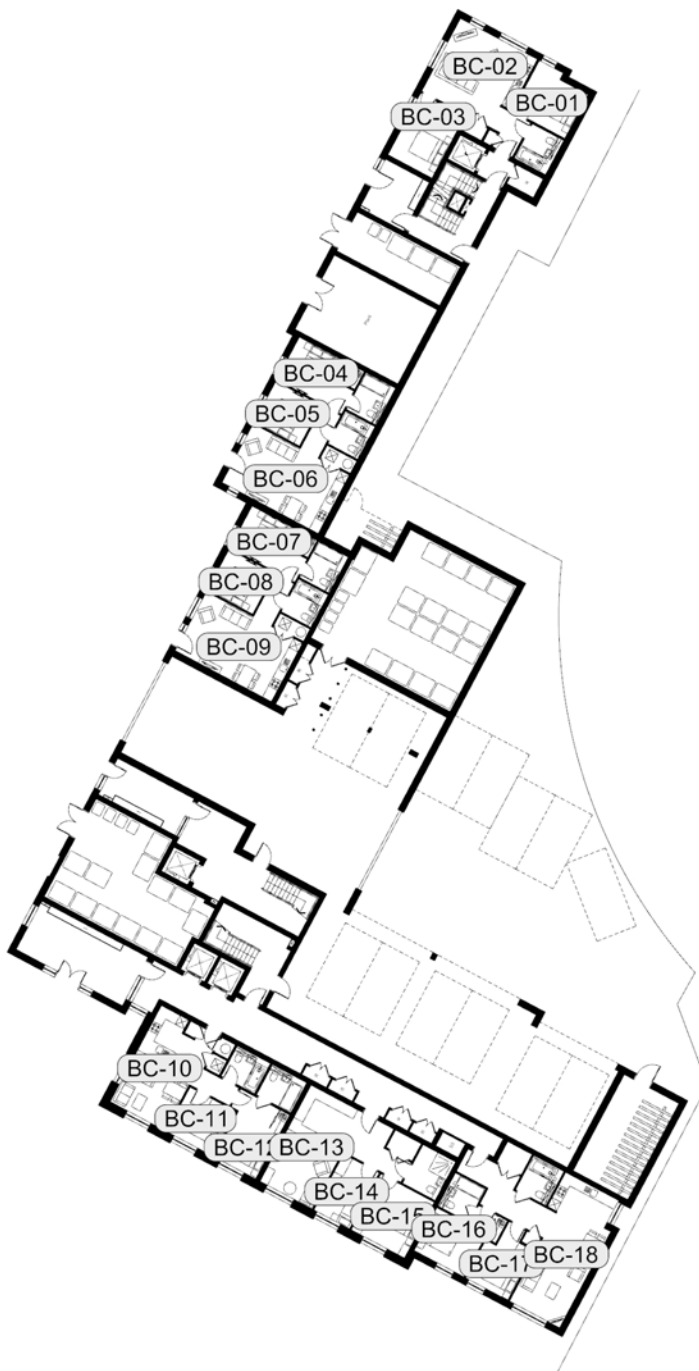


Fig. 5: Ground Floor Plan

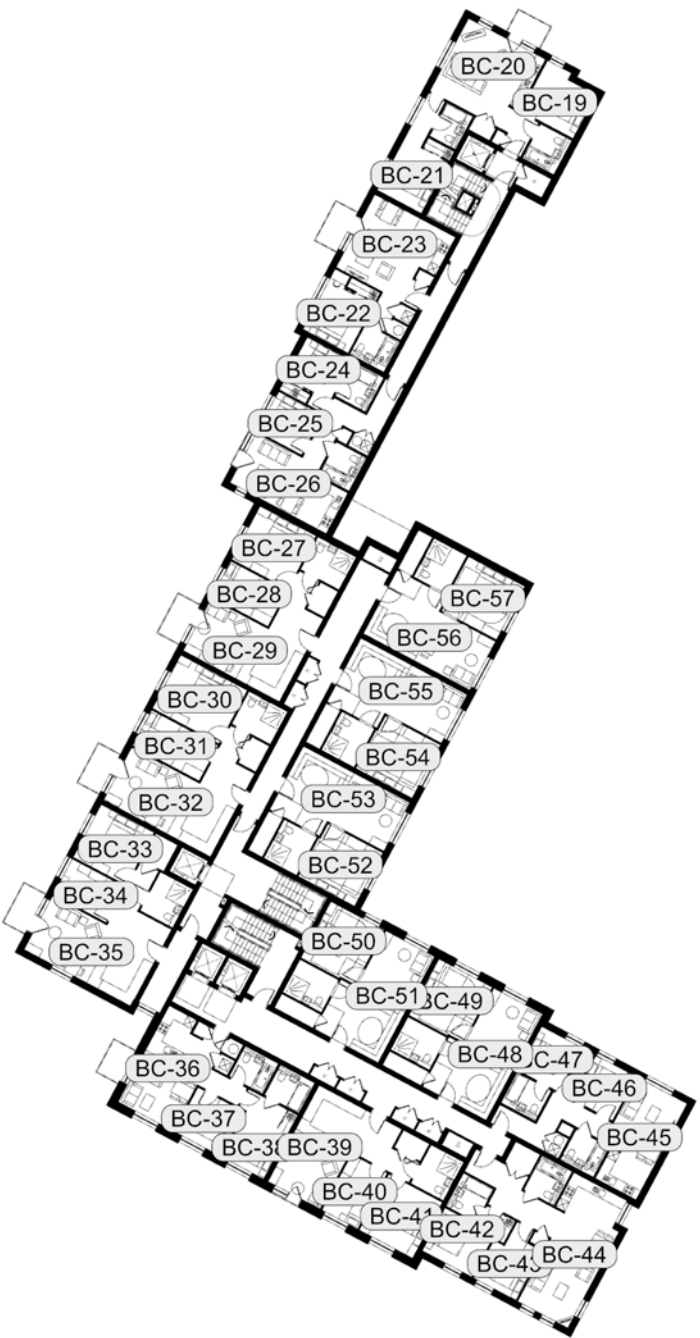


Fig. 6: First Floor Plan

			Daylight Quantum	Sunlight Probability	
	Room ID	Room use	ADF	APSH Total	APSH Winter
BC - Floor GF					
	BC-01	Bedroom	0.9		
	BC-02	LKD	3.4		
	BC-03	Bedroom	3.0		
	BC-04	Bedroom	2.1		
	BC-05	Bedroom	2.6		
	BC-06	LKD	1.9	29	1
	BC-07	Bedroom	2.0		
	BC-08	Bedroom	2.6		
	BC-09	LKD	0.9		
	BC-10	LKD	1.2	35	5
	BC-11	Bedroom	2.0		
	BC-12	Bedroom	1.8		
	BC-13	LKD	1.2	39	8
	BC-14	Bedroom	2.2		
	BC-15	Bedroom	1.6		
	BC-16	Bedroom	1.5		
	BC-17	Bedroom	1.6		
	BC-18	LKD	2.1	66	13
				</	

Table 2: Results

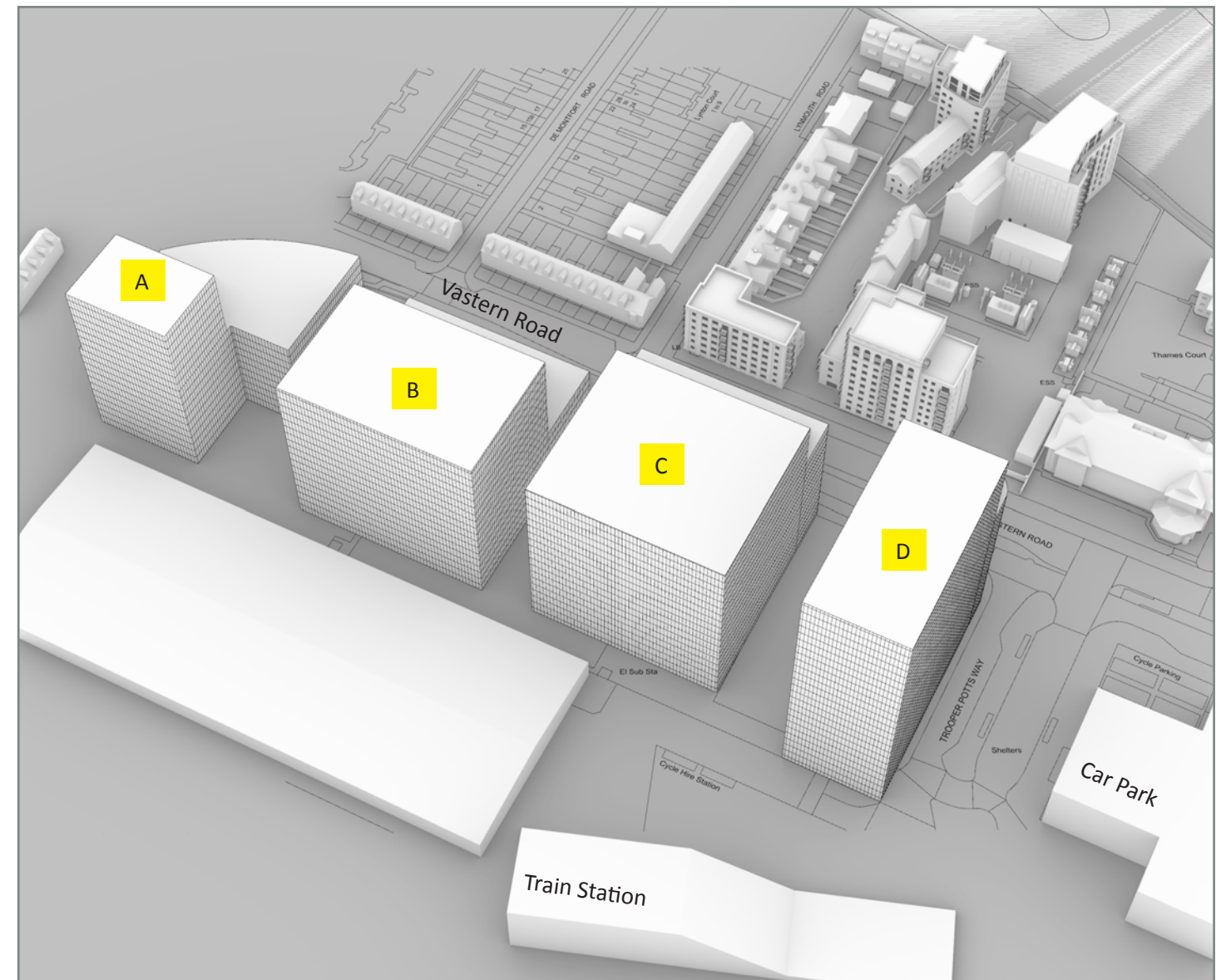


Appendix 4

Façade Studies



Fig. 1: Site Plan



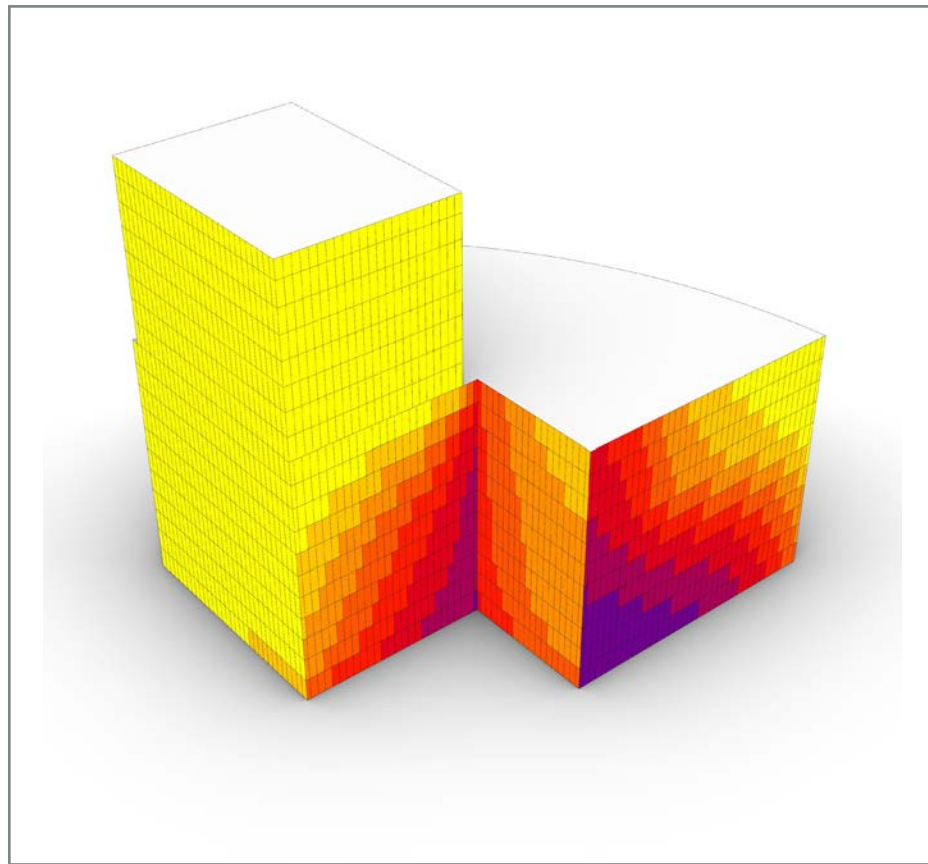


Fig. 9: View V1 - Vertical Sky Component

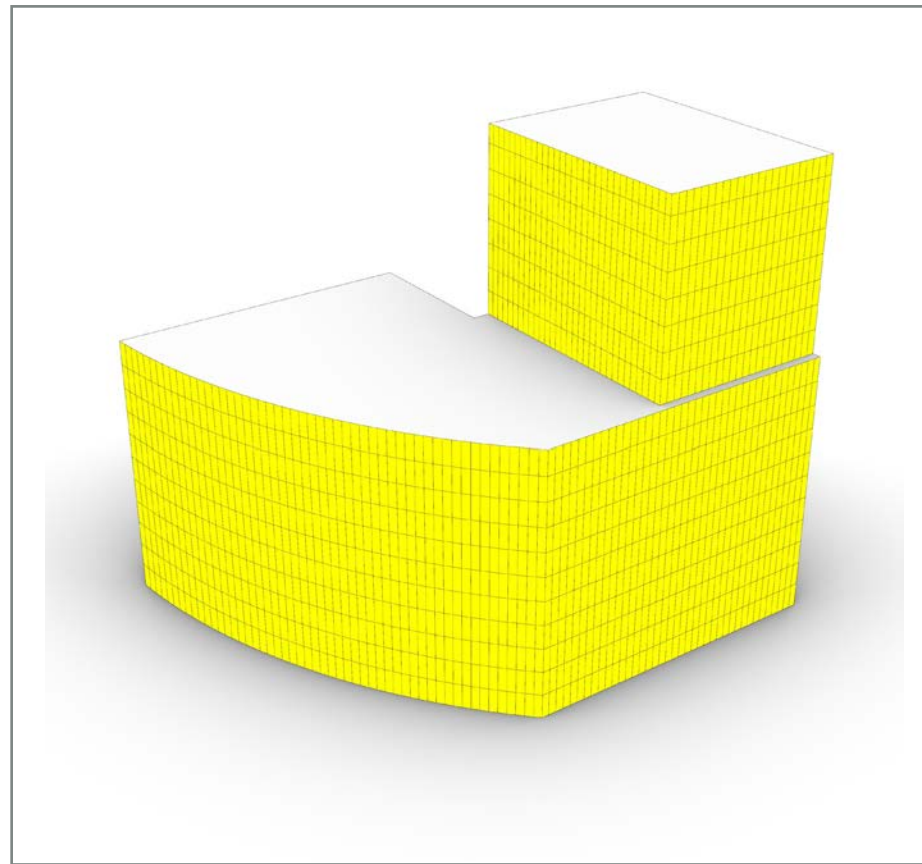


Fig. 10: View V2 - Vertical Sky Component

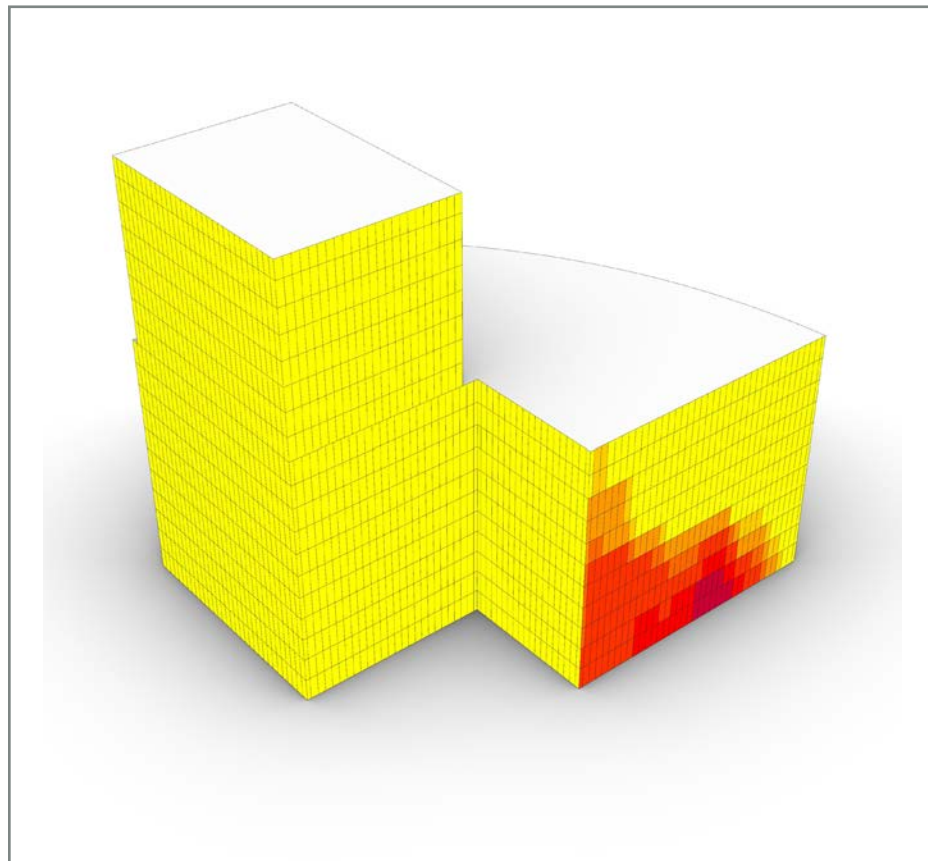
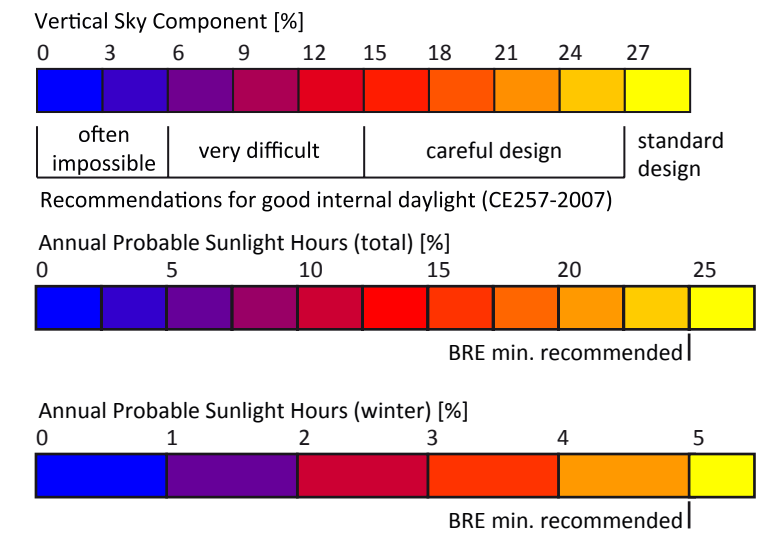


Fig. 11: View V1 - Annual Probable Sunlight Hours (total)

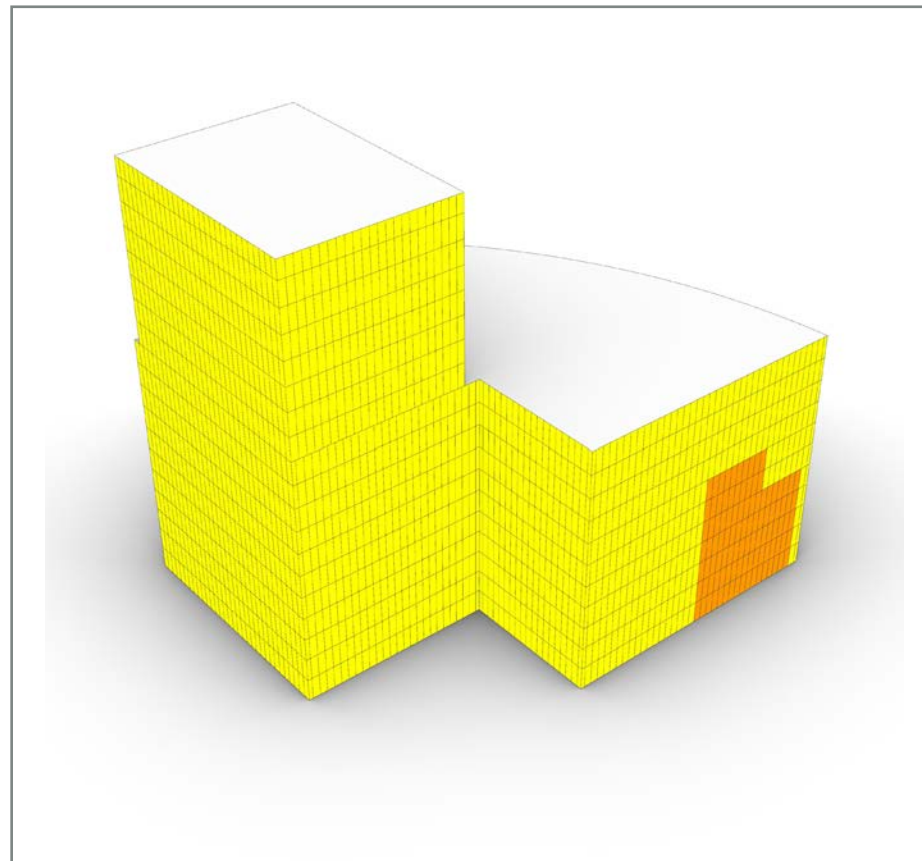
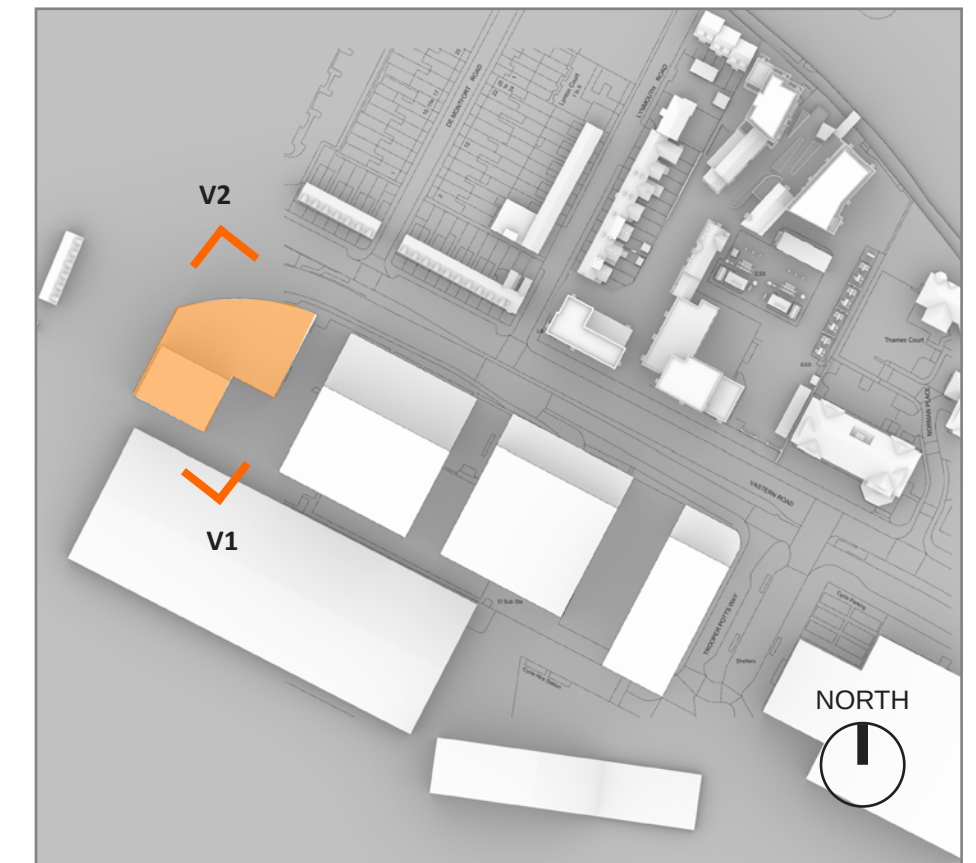


Fig. 12: View V1 - Annual Probable Sunlight Hours (winter)



Reference Plan

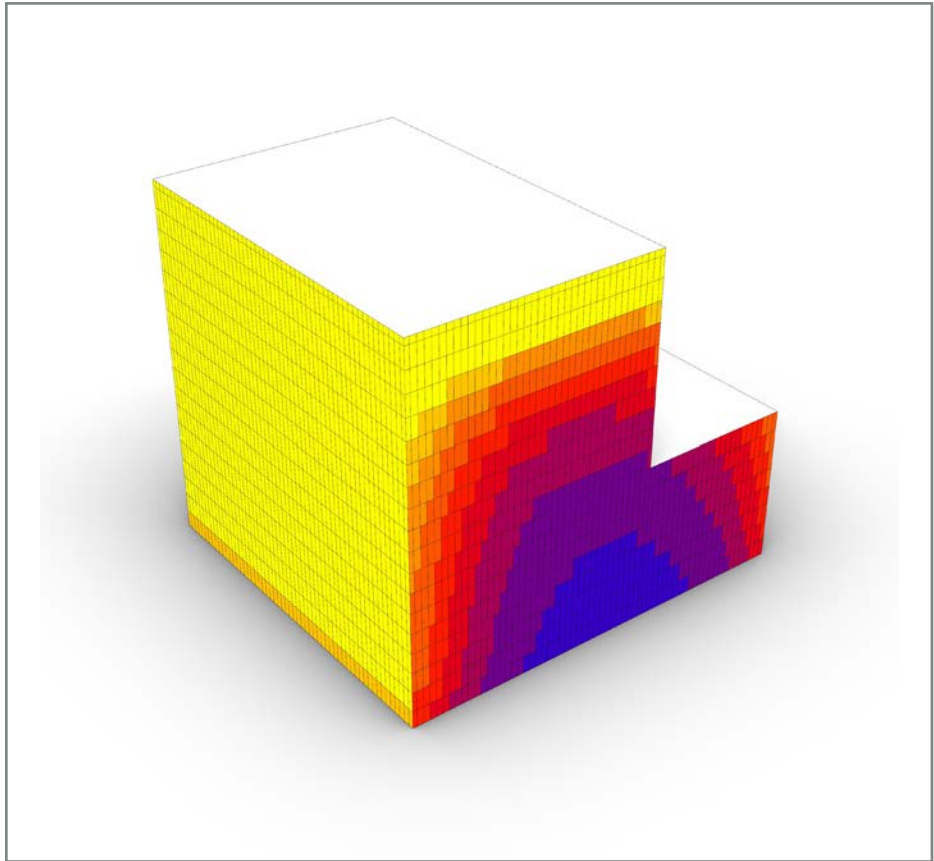


Fig. 9: View V1 - Vertical Sky Component

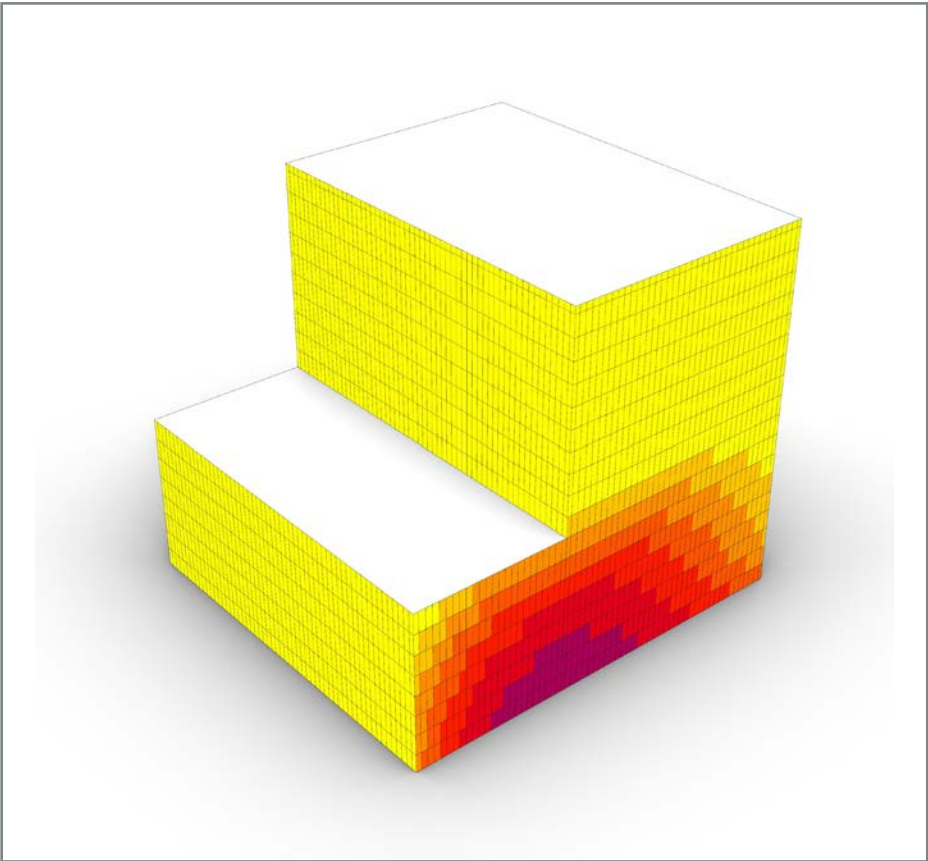


Fig. 10: View V2 - Vertical Sky Component

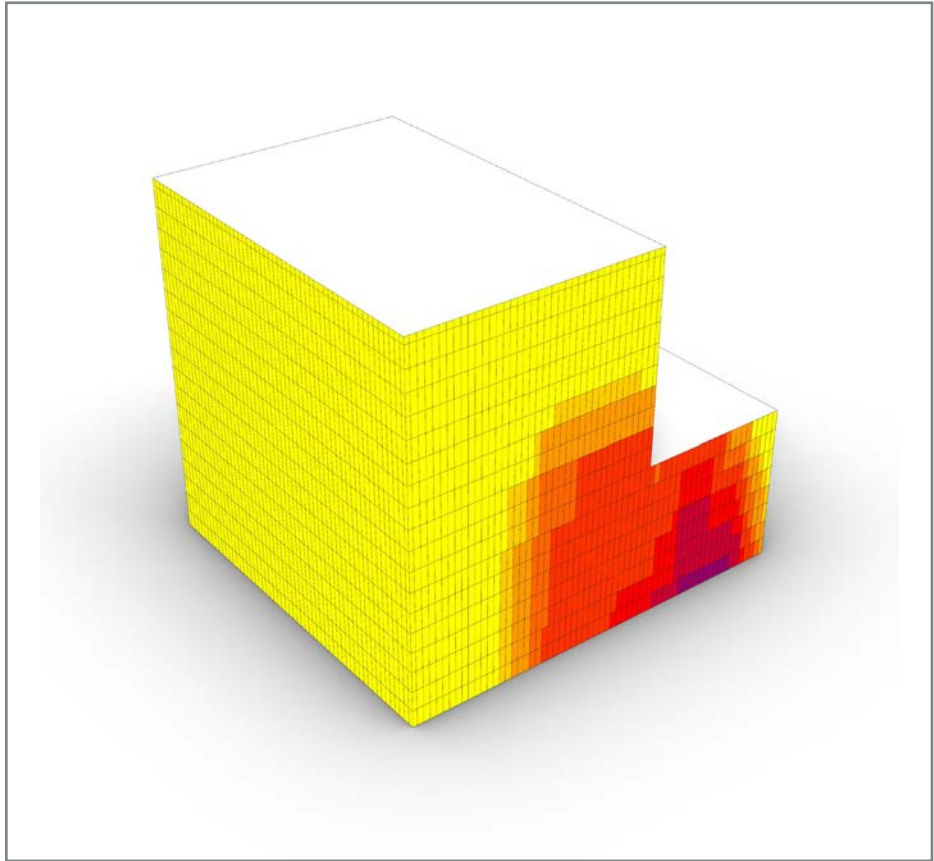
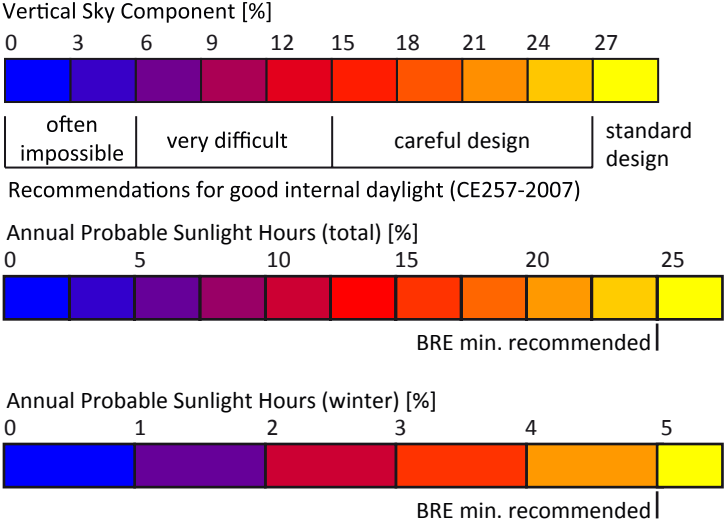


Fig. 11: View V1 - Annual Probable Sunlight Hours (total)

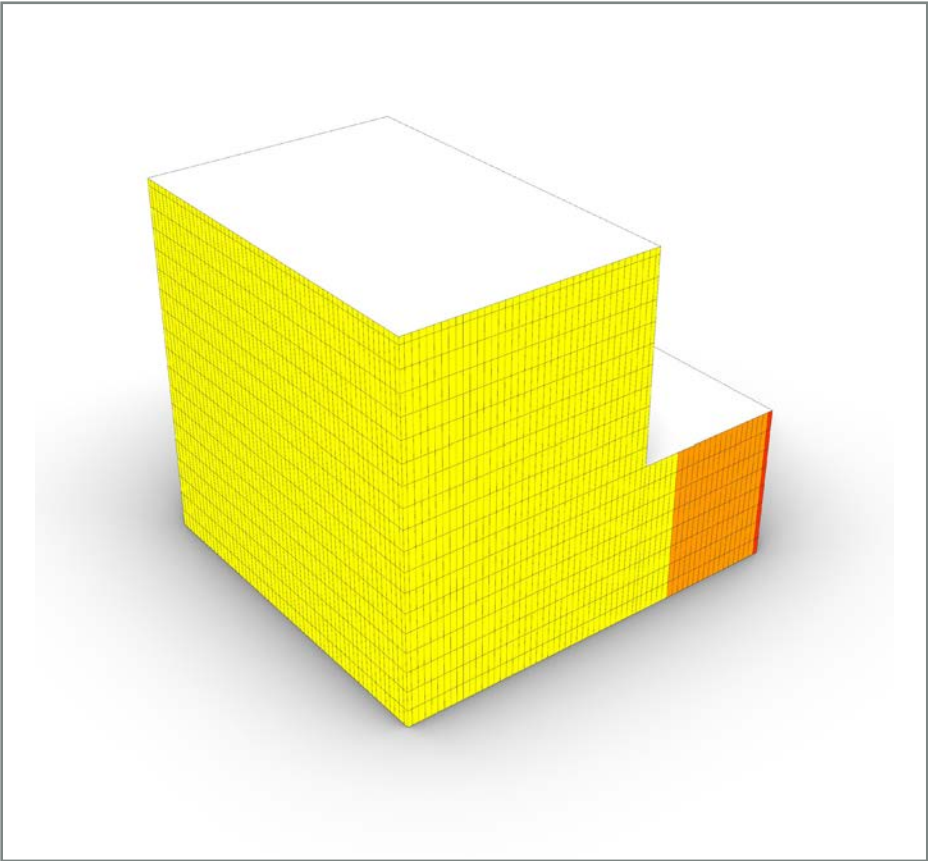
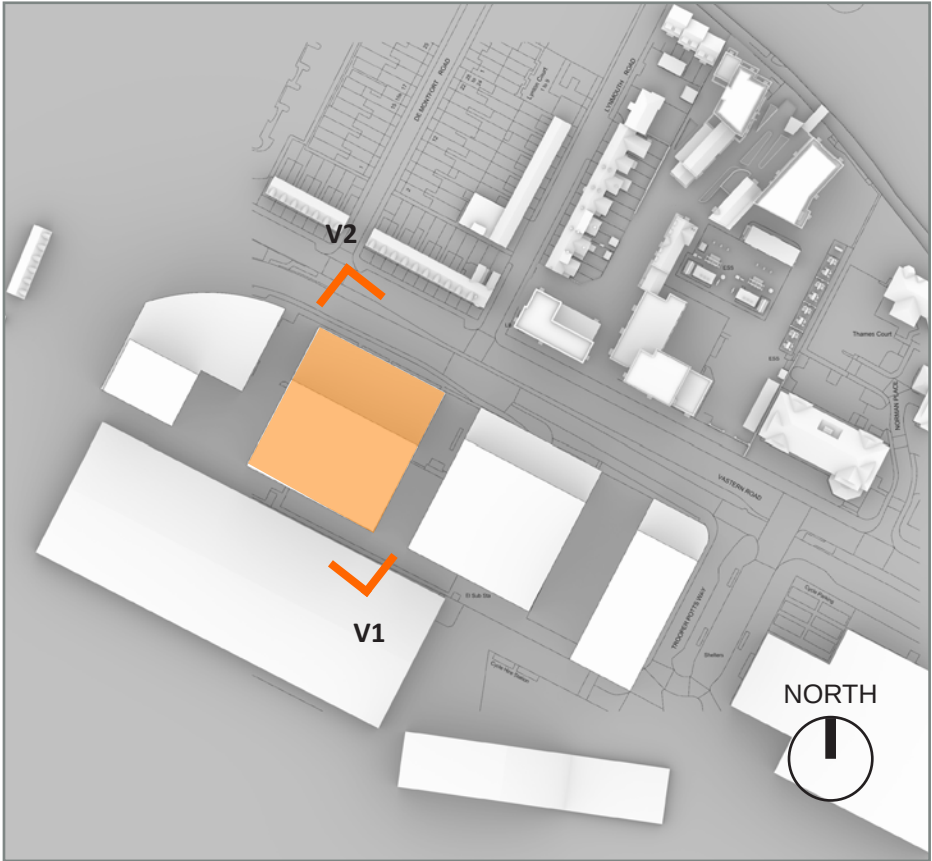


Fig. 12: View V1 - Annual Probable Sunlight Hours (winter)



Reference Plan

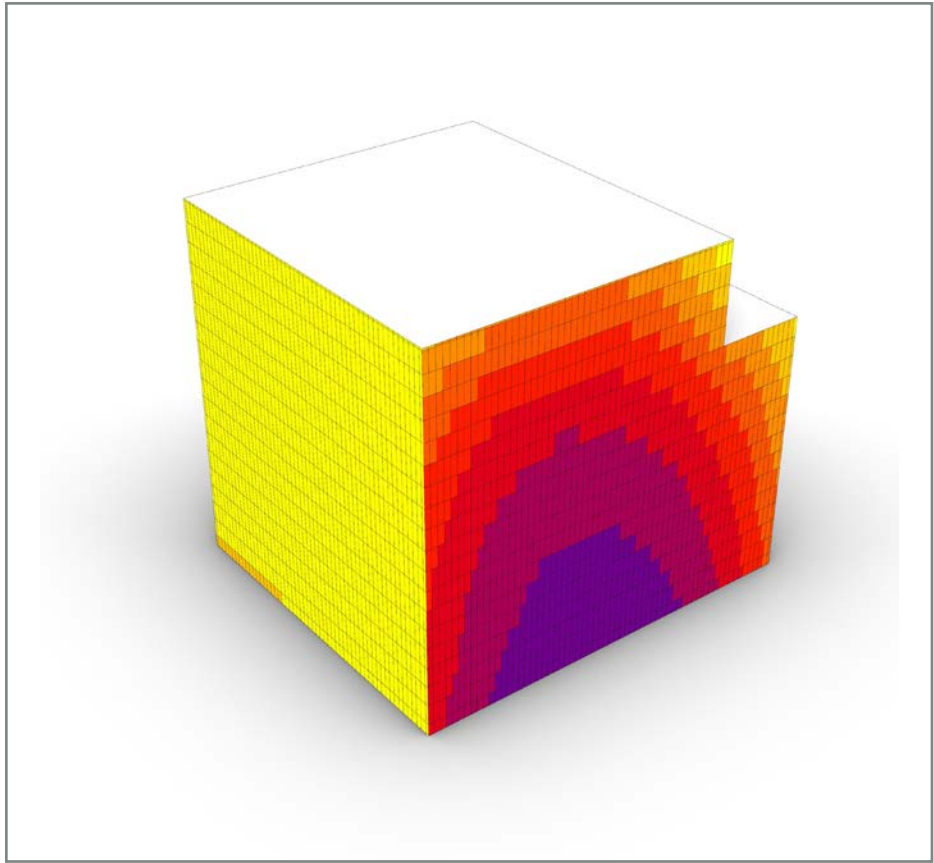


Fig. 9: View V1 - Vertical Sky Component

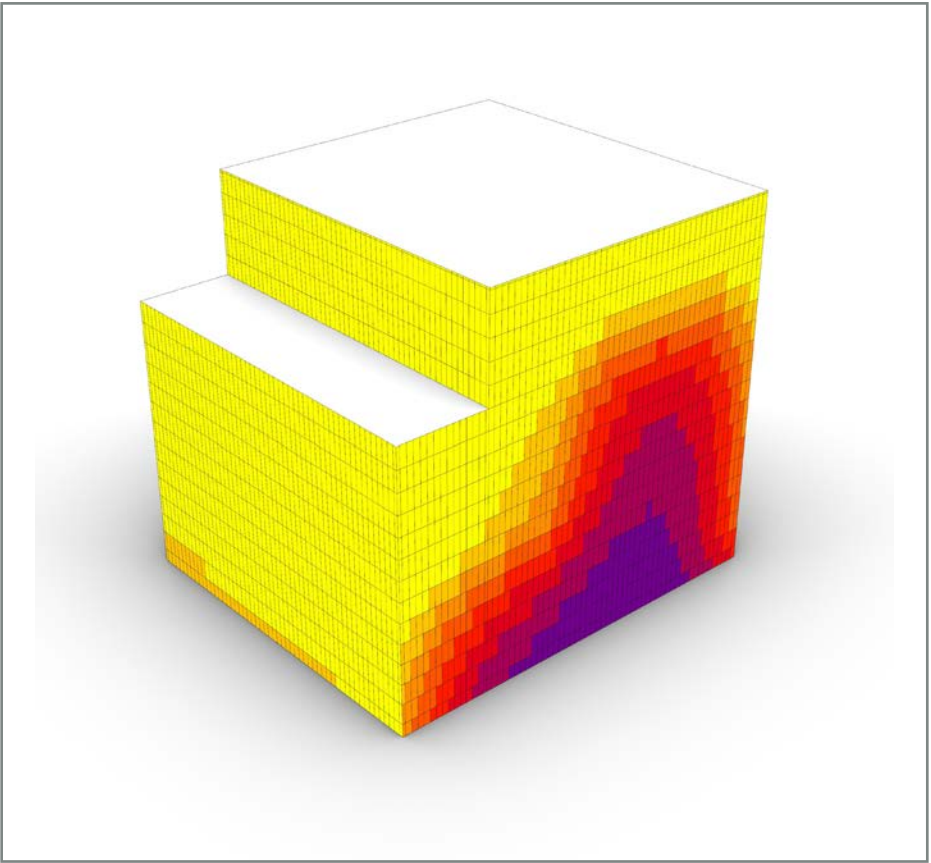


Fig. 10: View V2 - Vertical Sky Component

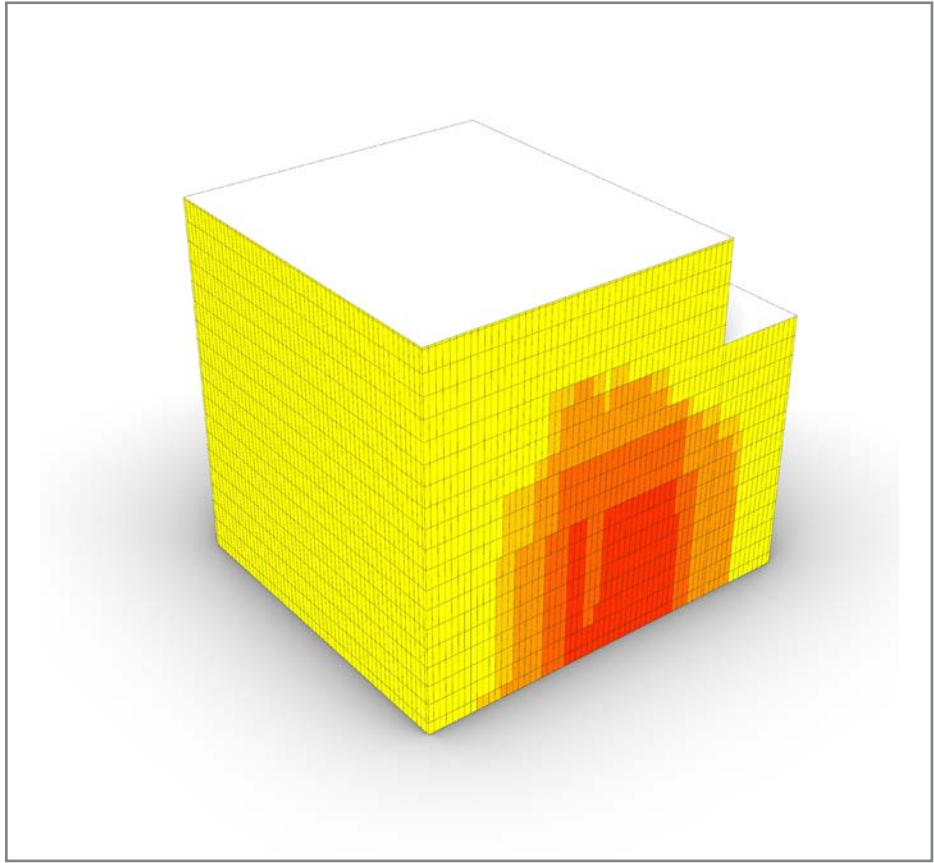
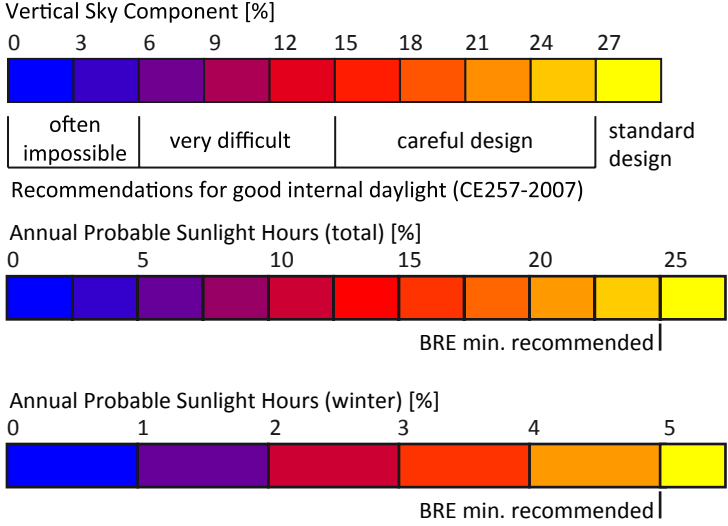


Fig. 11: View V1 - Annual Probable Sunlight Hours (total)

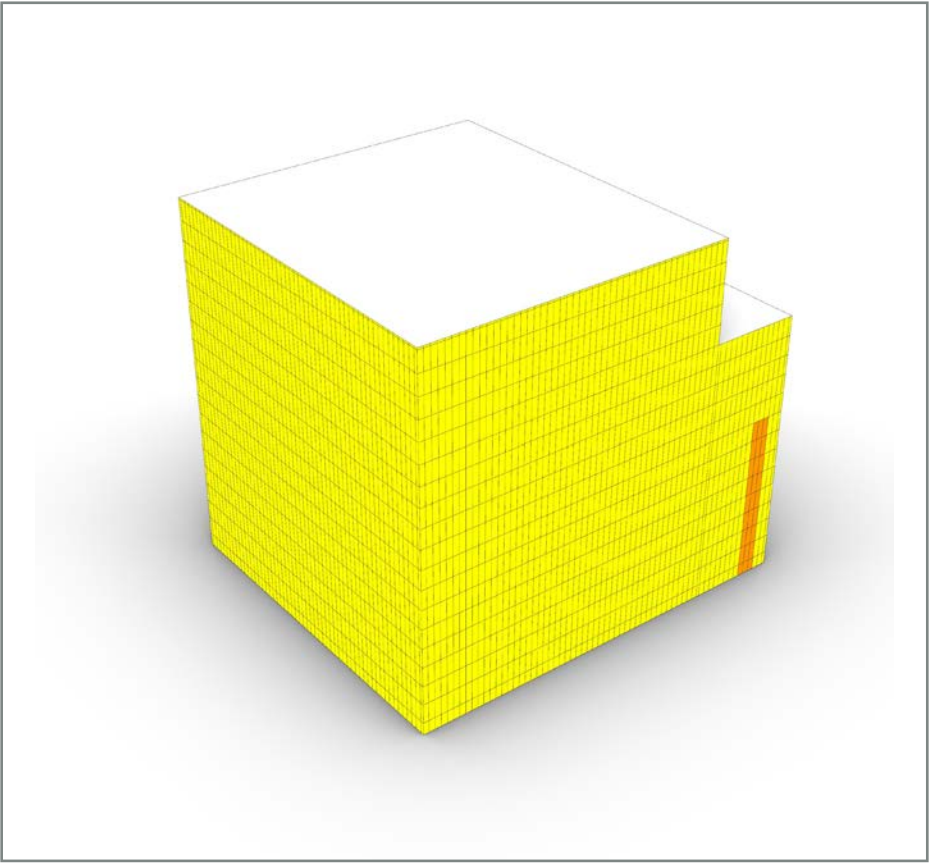
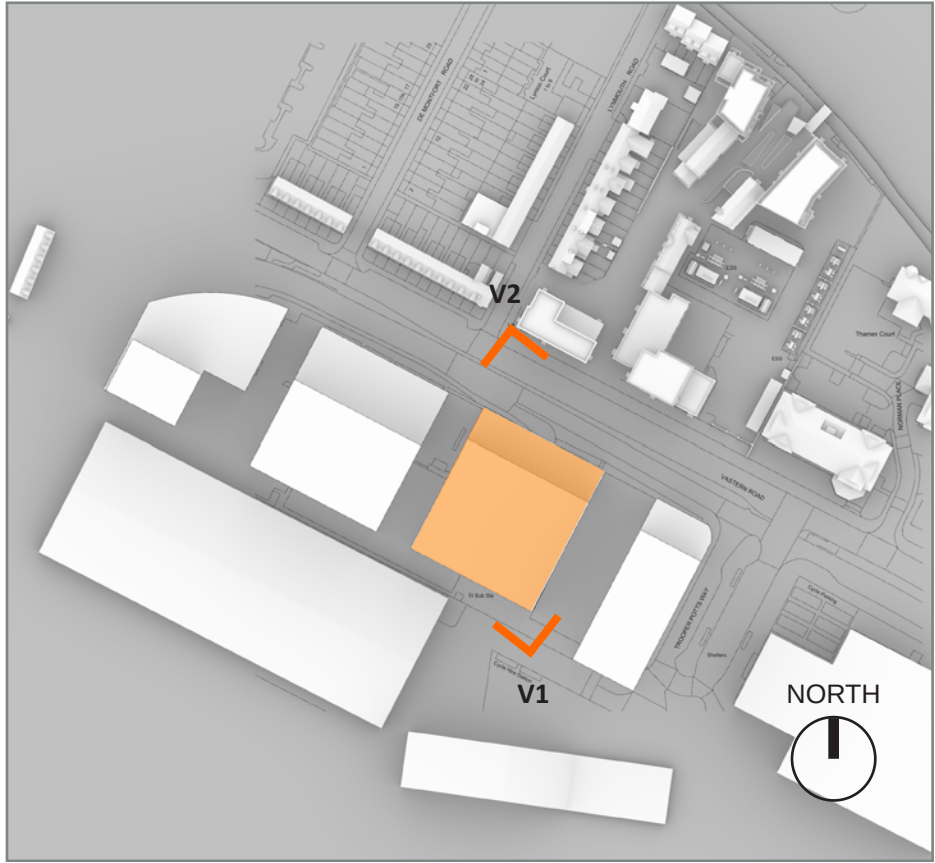


Fig. 12: View V1 - Annual Probable Sunlight Hours (winter)



Reference Plan

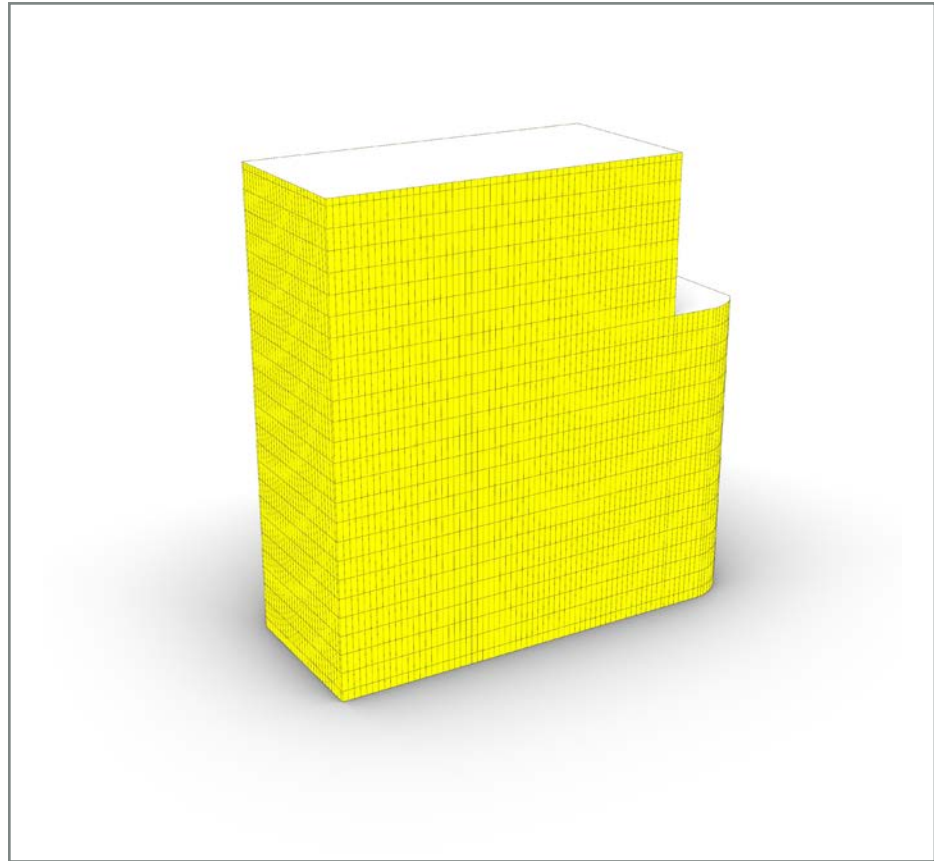


Fig. 9: View V1 - Vertical Sky Component

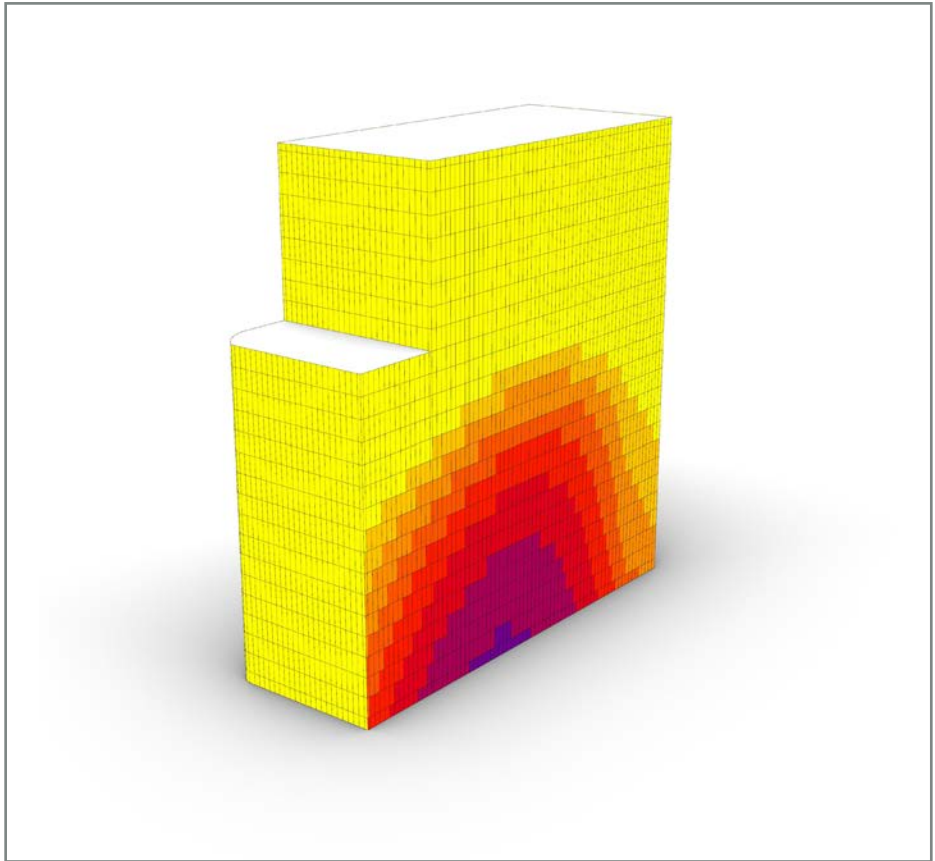


Fig. 10: View V2 - Vertical Sky Component

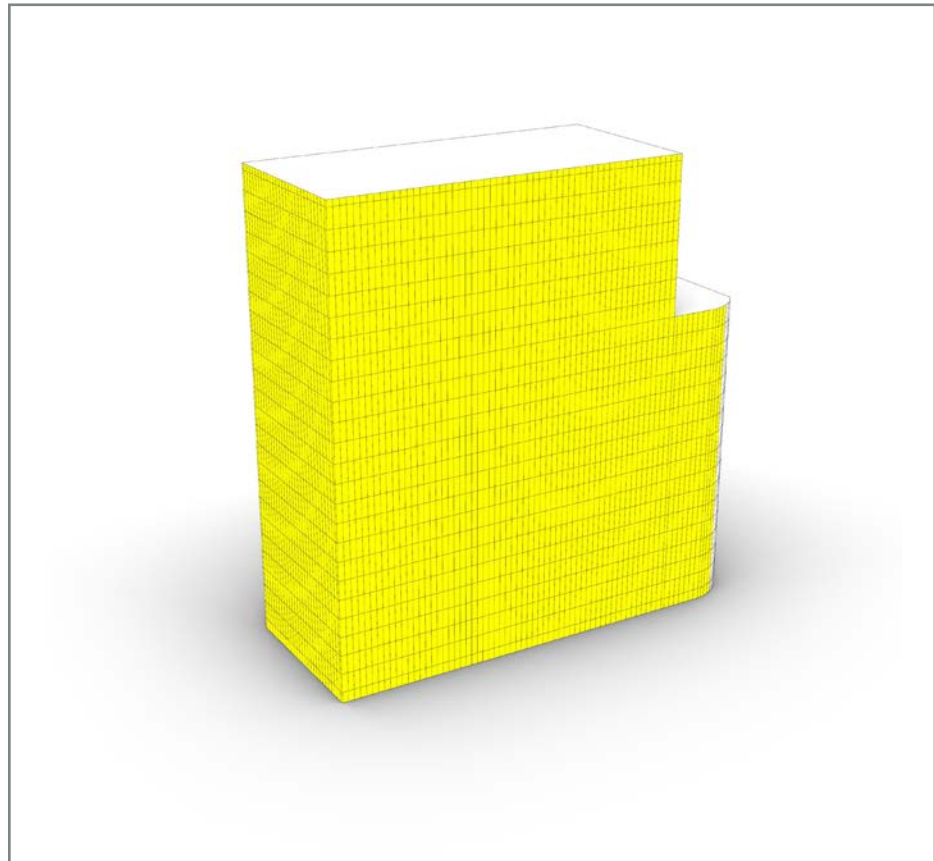
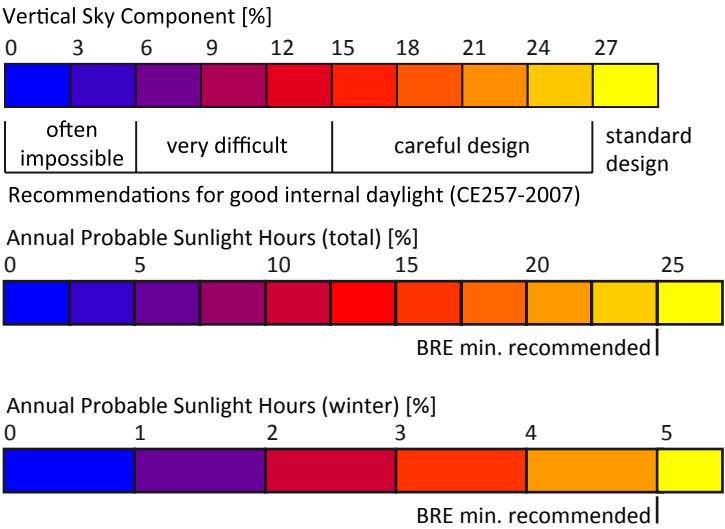


Fig. 11: View V1 - Annual Probable Sunlight Hours (total)

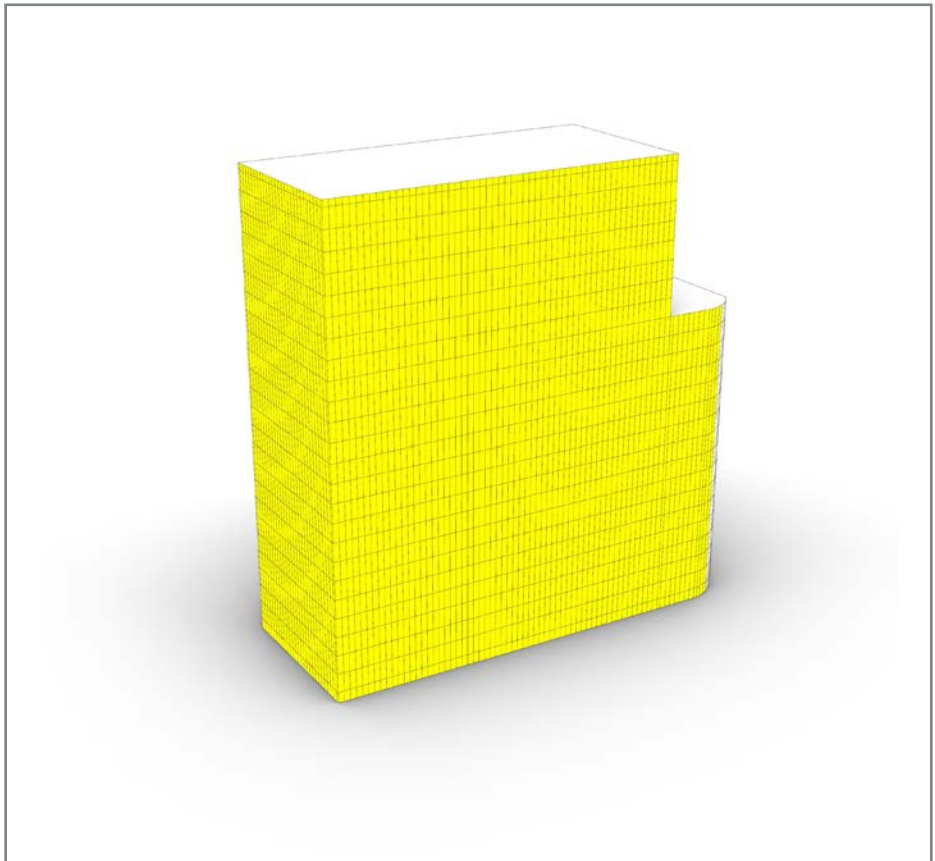
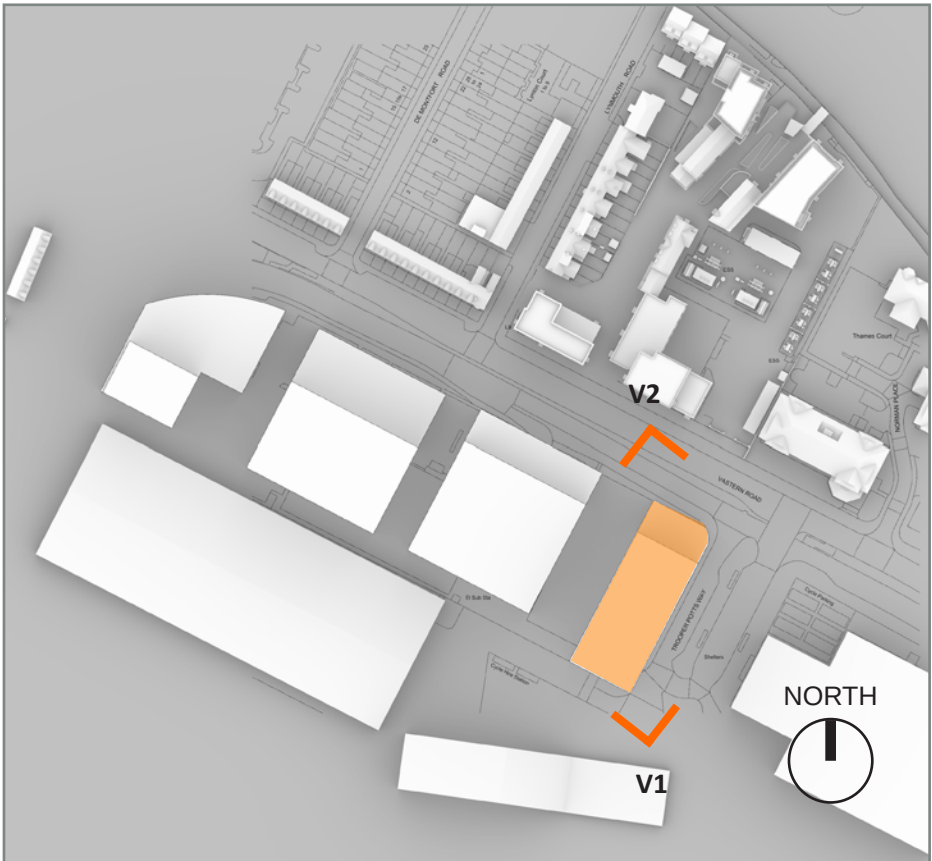


Fig. 12: View V1 - Annual Probable Sunlight Hours (winter)



Reference Plan