SOLAR ACCESS

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RESIDENTIAL FLAT BUILDING

32 GOLF AVENUE MONA VALE

10th June 2025 – Revision A

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1.0 PRELIMINARIES AND SUMMARY

1.1 PRELIMINARIES

1.1.1 This expert opinion report is an analysis and verification of projected **solar access and overshadowing** compliance for the DA proposal comprising of 11 apartments at 32 Golf Avenue Mona Vale.

1.1.2 Our qualifications and experience are summarized in *A.0 APPENDIX A: CREDENTIALS*.

1.1.3 The documents referred to in this report are detailed in *2.1 DOCUMENTS*.

1.2 SUMMARY OF DA SCHEME

1.2.1 SOLAR ACCESS FOR APARTMENTS

To undertake the analysis we use a 3D model of the proposal located in the surrounding context. We then take hourly views from the sun (Appendix B), and a detailed compliance table of the Amended DA scheme is prepared (Appendix C).

7/11 (63.6%) of the dwellings achieve 2 hours or more sunlight to the living area glazing and Private Open Space (POS) between 9am-3pm on June 21st. This is only one apartment short and is solely because of the Private Open Spaces that face the street and golf course, as if looking at Living Rooms only then the solar access is 90.9%. Whilst there is not full compliance with design criterion 1 of the ADG Objective 4A-1, we believe the objectives are met for the reasons detailed in part 4.0 of this report.

0/11 (0%) of the dwellings are projected to achieve no sun 9am - 3pm June 21. **This represents full compliance with design criterion 3 of the ADG Objective 4A-1**

1.3 SUMMARY OF OVERSHADOWING IMPACTS

We have reviewed the overshadowing impacts to neighbouring sites. 34-38 Golf Avenue would still have at least 73% of dwellings receiving a minimum of 3 hours to living rooms and private open spaces, with over 85% receiving 2 hours. For a site in an area undergoing planning reform, we believe this is a reasonable outcome for the site and it is our opinion that compliance with Objective 3B-2 is satisfied.

2.0 DOCUMENTS AND INFORMATION

2.1 DOCUMENTS

2.1.1 We base our analysis and opinion on drawings by Walsh Architects:

DRAWING NO.	DRAWING NAME	ISSUE
DA040	PROPOSED SITE PLAN	B
DA102	GROUND FLOOR PLAN	A
DA103	LEVEL 1 PLAN	A
DA104	LEVEL 2 PLAN	A
DA105	LEVEL 3 PLAN	A
DA106	ROOF TERRACE PLAN	B
DA107	UPPER ROOF PLAN	B
DA201	LONG SECTION A-A	A
DA202	LONG SECTION B-B	B
DA203	CROSS SECTIONS	A
DA204	CROSS SECTIONS	B
DA205	CROSS SECTIONS	A
DA300	ELEVATIONS	B
DA301	ELEVATIONS	B
DA302	ELEVATIONS	B

3D digital model in Revit 2025.
Survey information from Bee & Lethbridge dated 09/01/2024.
GIPA Requests to Northern Beaches Council
Strata Plans of Neighbouring sites

2.2 SITE

The site is generally rectangle in shape with the long boundaries facing North-West and South-East. There are residential buildings to the east, north and west of the site, all of which contain residential buildings. To the south is the road and golf course including the carpark.

The site has a gentle slope from front to the rear boundary. The site has had a previous application approved for a two storey building of 6 dwellings.

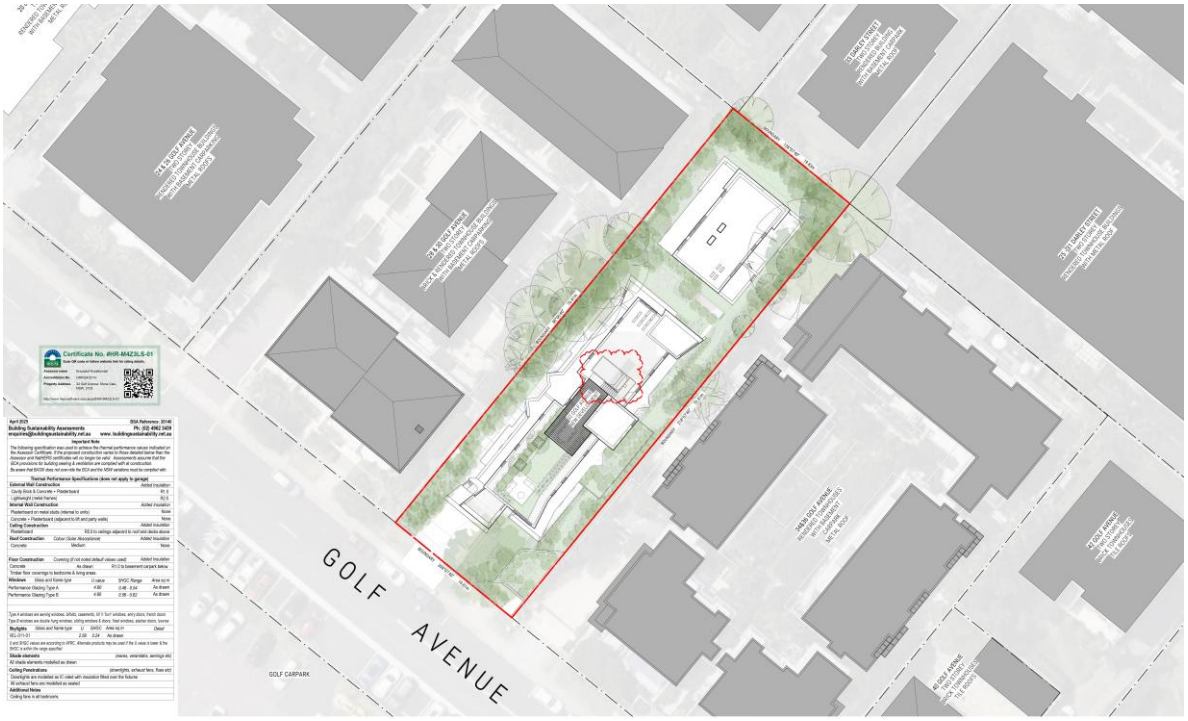

Figure 1: Site Plan

3.0 SOLAR ACCESS

3.1 RELEVANT SOLAR ACCESS STANDARDS

3.1.1 SEPP HOUSING 2021 CHAPTER 4

SEPP65 was repealed and replaced with SEPP Housing 2021 Chapter 4. The following is an extract from this document.

> **147 Determination of development applications and modification applications for residential apartment development**
>
> (1) Development consent must not be granted to residential apartment development, and a development consent for residential apartment development must not be modified, unless the consent authority has considered the following—
>
> (a) the quality of the design of the development, evaluated in accordance with the design principles for residential apartment development set out in Schedule 9,
>
> (b) the Apartment Design Guide,

We will shortly discuss the items in the Apartment Design Guide (ADG), but it is important to note that 147 (3) states the following:

> (3) To avoid doubt, subsection (1)(b) does not require a consent authority to require compliance with design criteria specified in the Apartment Design Guide.

The above shows that the consent authority needs to consider the ADG; but, that they do not require compliance with the design criteria.

There are also items of Case Law that discuss the status of the Design Criteria that are within the ADG. In Huajun Investments Pty Ltd v City of Canada Bay Council (No 3) [2019] NSWLEC 42 at [289] His Honour writes "the Apartment Design Guide guidelines do not have the status of development standards and strict compliance is not, in any fashion, mandated." This also referenced in the more recent decision of Construction Development Management Services Pty Ltd v City of Sydney [2023] NSWLEC 1620. In this case, [38] shows page 11 of the ADG which states:

> "Achieving the objectives
> Parts 3 and 4 of the Apartment Design Guide provide objectives, design criteria and design guidance for the siting, design and amenity of apartment development. Each topic area is structured to provide the user with:
> 1. a **description** of the topic and an explanation of its role and importance
> 2. **objectives** that describe the desired design outcomes
> 3. **design criteria** that provide the measurable requirements for how an objective can be achieved.
> 4. **design guidance** that provides advice on how the objectives and design criteria can be achieved through appropriate design responses, or in cases where design criteria cannot be met."

Commissioner Horton then continues at [52(1)]

> While 70% of apartments do not receive the sunlight required by design criteria 1, the criteria is not, of itself, a development standard but one means of achieving the objective at 4A-1 of the ADG.

This decision will be further discussed later in his report; but, the above shows meeting design criteria is not the focus, and per the Housing SEPP Chapter 4, it is not required.

3.1.2 APARTMENT DESIGN GUIDE

The *Apartment Design Guide (ADG)* gives effect to SEPP Housing 2021 Chapter 4 for assessing solar access and other amenity provisions. As noted in 3.1.1, the focus is on the objective and it is not a requirement to achieve compliance with the design criteria.

Objective 4A-1	
To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	
Design criteria	
1.	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas
2.	In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter
3.	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter

3.1.3 LOCAL CONTROLS

We note that Clause 149 of SEPP Housing 2021 shows that ADG prevails over development control plans. This includes in 149 (1) (b) solar and daylight access.

In quantifying the compliance for solar access for this application, we rely on satisfying the ADG objectives as also satisfying the DCP requirement.

3.2 PREDICTED SOLAR ACCESS: METHODOLOGY

We employ the following analysis methodology.

3.2.1 3D DIGITAL MODEL

For a detailed analysis of overshadowing and solar access, we refer to a 3D model that we have prepared using survey data as well as modelling in Autodesk Revit 2023.

3.2.2 MODEL LOCATION

We have independently geo-located the model and verified the direction of North.

3.2.3 ACCURACY OF THE MODEL

From the model, we have summarily checked topographical and building dimensions that might otherwise give rise to any errors, by reference to figured RL dimensions. Having established the accuracy of the key points, we feel confident to rely on the general accuracy of the modelling.

3.2.4 VIEWS FROM THE SUN

The Autodesk Revit software prepares the shadow projections by reference to accurate solar geometry. Because of the complexity of demonstrating the quantification of solar access to glazing and private open space of various orientations, our detailed analysis was performed primarily by using projections known as **'View from the Sun'** taken at half hourly intervals.

A view from the sun shows all sunlit surfaces at a given time and date. It therefore allows a very precise count of sunlight hours on any glazing or horizontal surface, with little or no requirement for secondary calculations or interpolation. The technique is illustrated in Figure 1.

Note that a 'view from the sun' by definition does not show any shadows.

Figure 2: View from the sun, 12pm June 21

3.3 CHARACTERISATION OF SOLAR ACCESS COMPLIANCE

3.3.1 SUN PATCHES ON GLAZING

For the purpose of calculating the compliance with the control, we examine sun patches on the relevant glazing line of each apartment. Because of its key importance in the determination of what is 'effective sunlight' for characterisation of compliance, for both glazing and private open space, we refer specifically to the relevant *L+EC Planning Principle (The Benevolent Society v Waverley Council [2010] NSWLEC 1082)* in that:

- We quantify as complying all sun patches of 'reasonable size', which we generally take to be a minimum of approximately $1m^2$.
- We ignore very large angles of incidence to the glazing surface, and unusably small areas of sunlit glazing.

There is no accepted standard for the absolute limit of acceptable area of the sun patch on partly shaded glazing. In accordance with the Court's Planning Principle, we consider this to be approximately $1m^2$ (on the basis that it exceeds 50% of the area of a standard window 1500 x 1200 high which would normally be accepted as complying).

3.3.2 SUN TO BEDROOMS

Periods of sun available to bedrooms contribute significantly to the amenity of any apartment that may have an otherwise unfavourably oriented or overshadowed living area. This characterisation is consistent with the interpretation of *the BenSoc Principle* (and its predecessor *Parsonage Principle*) as previously accepted by the Land and Environment Court, and by various Councils.

That said, in evaluating this development, we ***do not*** *rely on periods of sun to bedrooms in lieu of living areas to characterise apartments as complying with the ADG Design criterion.*

3.3.3 SUN TO BOTH POS AND LIVING

Objective 4A-1 of the ADG states "Living rooms **and** private open spaces". The use of the conjuctive "and" has been tested in the Land and Environment Court in the case *Landmark Group Australia Pty Ltd v Council of the City of Sydney [2019] NSWLEC 1338* where in 227, Commissioner Smithson did not agree that a development could count living rooms **or** private open space. We have for this site given figures for Private Open Space and Living Rooms, but there is nothing in the controls that state these need to occur in the same apartment; therefore, we have presented both figures independently.

3.3.4 STRICT COMPLIANCE VERSES MEETING OBJECTIVES

The objective of 4A-1 is "To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space" which is what is required to be demonstrated. As discussed previously, strict compliance with the Design Criteria is not required. This was also made clear in Construction Development Management Services Pty Ltd v City of Sydney [2023] NSWLEC 1620 where Commissioner Horton made it clear that the intent of the ADG was to demonstrate how the objectives have been met; therefore, we have looked at this when doing our analysis of each apartment. Discussing these will be important in the conclusions of this site.

4.0 SOLAR ACCESS

4.1 PREDICTED SOLAR ACCESS OF APARTMENTS

Table 1 below summarises the projected solar access for the living area glazing and private open space of the Development Application. Appendix C records the detailed solar access for individual apartments.

Total number of Apartments	11	
Apartments which achieve 2 hours or more sunlight to living and POS 9am - 3pm June 21	6	**63.6%**
Units with no sun between 9am and 3pm June 21	0	**0%**

Table 1: Summary of solar access for DA scheme

The ADG Design criteria recommends a minimum of 70% of apartments should have the amenity of two hours winter sun between 9 AM and 3 PM. This Development Application has 63.6% (6/11) total of such apartments. Whilst this does not represent full compliance with the design criteria 1 of Objective 4A-1, there are significant views from the site towards the south which have been the focus of some of the layouts, which is referenced in the guidance of 4A. Further, if we look at living rooms only, the development received over 90% solar compliance. Overall, the development meets the objective of 4A-1 as we have tried to optimise solar access in locations that are possible.

The ADG design criteria recommends that a maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter. This amended Development Application has 0% (0/11) total of such apartments **Overall compliance for solar access is therefore fully satisfied.**

The proposed development also has maximised indirect light to all of the apartments, with appropriate ceiling heights and floor-to-ceiling glazing along the living space of each of the apartments. As such, the proposed apartments should feel light and airy.

With any shortfall from the ADG Design criterion recommendation, one has to be mindful of:

- The explicit design guidance in the ADG, which now explicitly acknowledges that on some sites full compliance with the Design criterion may not be possible.
- The interpretation by the Land and Environment Court where the controls are applied to a site with constraints on the achievable solar access.
- The aim of the Objective 4A-1 is "To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space". This development achieves the aim of the objective.

In our opinion, the development represents considerable design effort to meet the performance for solar access amenity under the ADG.

5.0 OVERSHADOWING IMPACT ON NEIGHBOURING PROPERTIES

The same views from the sun employed for the solar access analysis for the subject site are also the most effective technique for identifying potential overshadowing impacts for neighbouring properties.

5.1 OVERSHADOWING OF NEIGHBOURING PROPERTIES

The neighbouring properties to the north east and north west are unaffected by the proposed development. To the south is mainly the road and golf course carpark which are not considered items that require solar access retention.

The main focus of the overshadowing has been on the neighbours at the property address of 34-38 Golf Avenue.

Prior to the DA Lodgement, the applicant had done a GIPA request to council, to which the applicant was provided with external plans only. The applicant then subsequently purchased the Strata Plan for the site which forms the PT numbers referenced in Appendix D. Further to this, the applicant researched sales data of the neighbours to try to piece together the internal floor plans so that we could understand what windows are living areas verse bedrooms etc. These floor plans have been shown in the Architectural Master set of drawings on Ground and Level 1 Plans.

The results show that the site in the current format has 14/15 dwellings receiving three hours of solar access to the living room and private open space. Under the current proposal, this would be reduced to have 11/15 dwellings (73.3%) having 3 hours of solar access. If this was reduced to 2 hours as required in line with ADG 4A-1, then it would be 13/15 (86.7%).

We note that this site has also been given uplift under the Low and Mid Rise Housing reforms. This would allow this site to increase in height to 4 stories, with an increase in FSR also. Any future development if designed in a considered manner, would easily achieve the 70% solar access in 4A-1; however, it is noted with views towards the ocean and golf course, the future application may choose to not optimize solar access.

It is our considered opinion that compliance with Objective 3B-2 of the Apartment Design Guide is met as the applicant has considered the overshadowing impacts and tried to minimise the overshadowing impacts and allow at least 70% of dwellings to maintain compliant solar access. Further, there are gaps in the building forms that allow sun in the afternoon to some of these neighbouring living rooms showing the crafting of the building mass to minimise overshadowing. Further, the area is undergoing change with the recent change in planning allowances, thus any future building could comply.

6.0 CONCLUSIONS

6.1 SOLAR ACCESS FOR APARTMENTS

6.1.1 ADG COMPLIANCE

The ADG *Design criteria* recommends a minimum of 70% of apartments should have the amenity of two hours winter sun between 9 AM and 3 PM.

7/11 (63.6%) of the dwellings achieve 2 hours or more sunlight to the living area glazing and Private Open Space (POS) between 9am-3pm on June 21st. This is only one apartment short and is solely because of the Private Open Spaces that face the street and golf course, as if looking at Living Rooms only then the solar access is 90.9%. Whilst there is not full compliance with design criterion 1 of the ADG Objective 4A-1, we believe the objectives are met for the reasons detailed in part 4.0 of this report.

0/11 (0%) of the dwellings are projected to achieve no sun 9am - 3pm June 21. **This represents full compliance with design criterion 3 of the ADG Objective 4A-1**

6.2 OVERSHADOWING OF NEIGHBOURING SITES

We have reviewed the overshadowing impacts to neighbouring sites. 34-38 Golf Avenue would still have at least 73% of dwellings receiving a minimum of 3 hours to living rooms and private open spaces, with over 85% receiving 2 hours. For a site in an area undergoing planning reform, we believe this is a reasonable outcome for the site and it is our opinion that compliance with Objective 3B-2 is satisfied.

A.0 APPENDIX A: CREDENTIALS

Walsh Architects provides opinion-based services primarily in relation to analysis and reporting of solar access and overshadowing compliance of multi residential projects.

Scott Walsh is a Director of Walsh Architects. He developed his specialised expertise under Steve King, a well-known expert in the field.

Scott started working for Steve King in 2011 as a tutor of Environmental Design at the University of New South Wales. From 2013 Scott has contracted to Steve King to undertake modelling and numerical analysis of solar access to large apartment projects. Over a number of years Scott contributed significantly to fine-tune the way the analysis was undertaken, and assisted in providing to the architects feedback in regards to areas that could be adjusted to improve solar access. From 2015 onwards, Scott started servicing all of Steves clients due to Steve's illness, which then formed the Solar Access Analysis company that is still running today.

Scott holds a Masters of Architecture from the University of New South Wales as well as a Bachelor of Architecture. He is a registered architect in the Australian Capital Territory *(2624)* with Automatic Mutual Recognition in NSW and a director of Walsh Architects.

Scott has done work for private clients, as well as Peer Reviews for Department of Infrastructure, Planning and Environment as well as large organisations such as NSW Metro.

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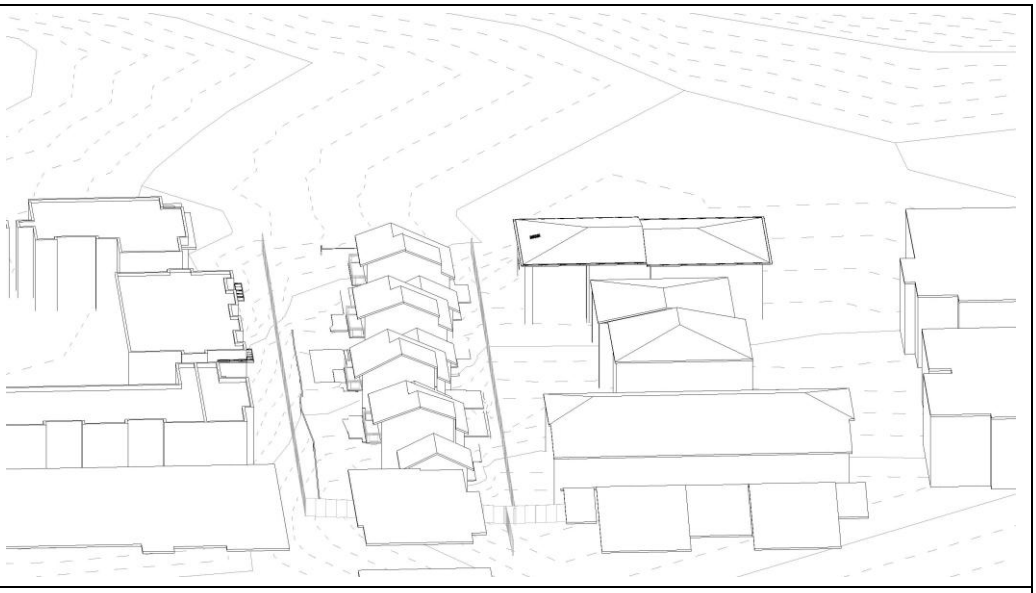
B.0 APPENDIX B: VIEWS FROM THE SUN

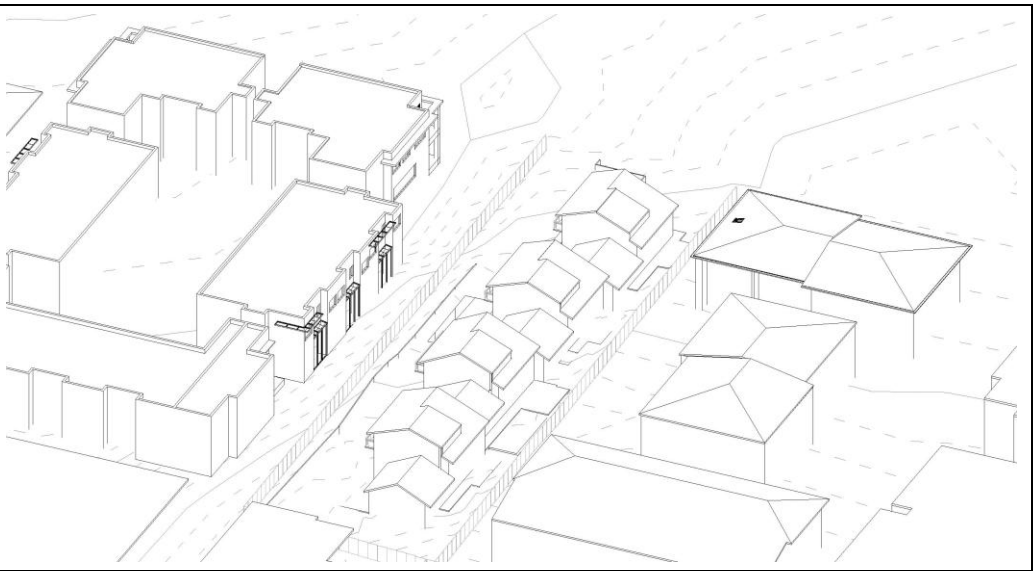
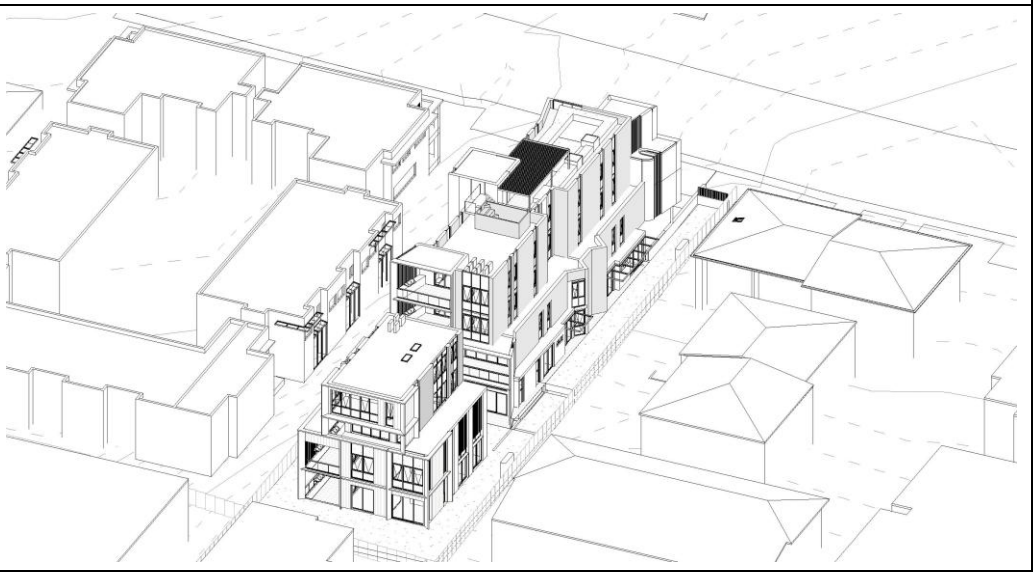
The table shows half-hourly views of solar access projections for June 21.

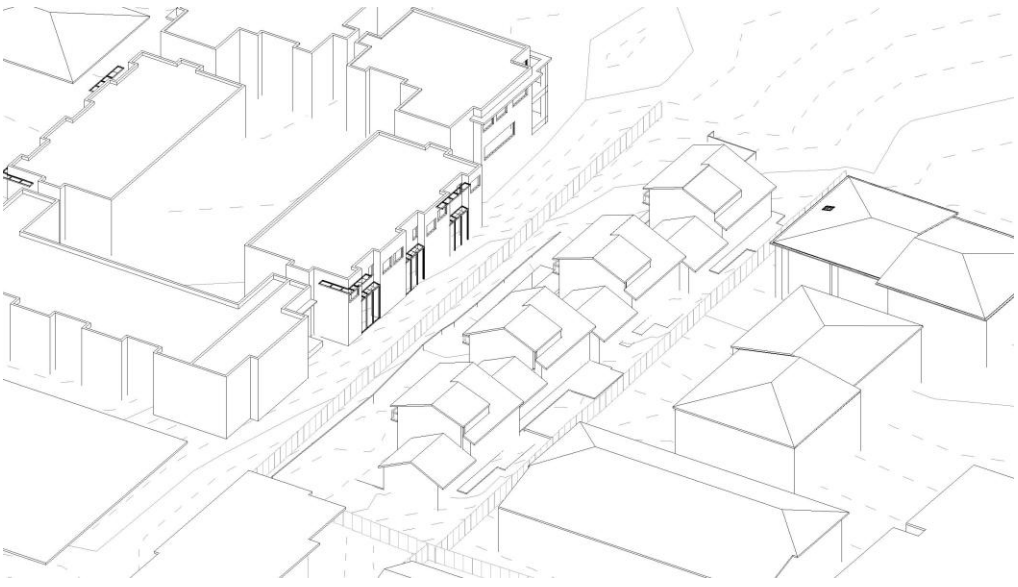
9.00 EXISTING	
9.00 PROPOSED	

9.30 EXISTING	
9.30 PROPOSED	

10.00 EXISTING	
10.00 PROPOSED	

10.30 EXISTING	
10.30 PROPOSED	

11.00 EXISTING	
11.00 PROPOSED	

11.30 EXISTING	
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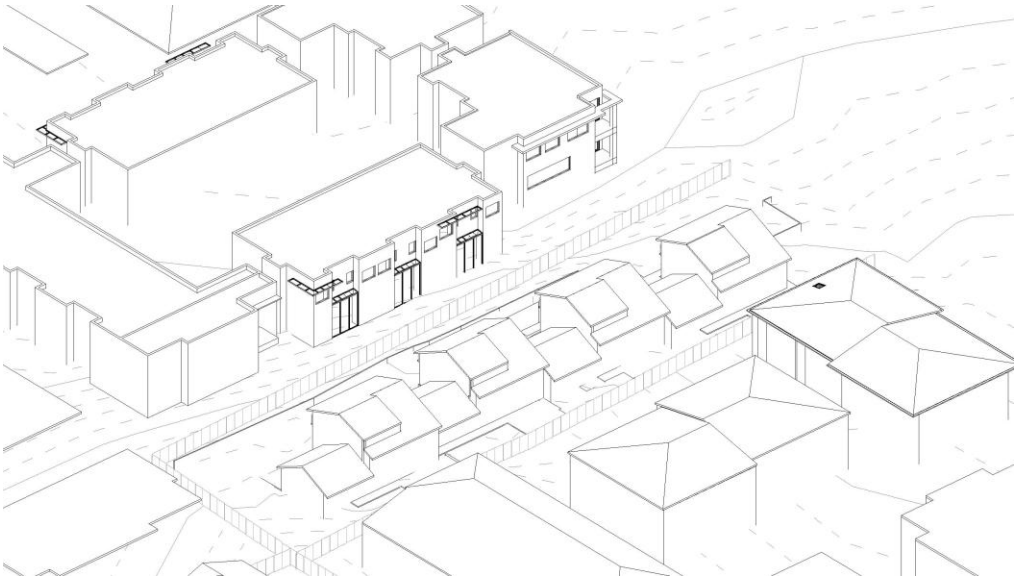
12.00 EXISTING	
12.00 PROPOSED	

12.30 EXISTING	
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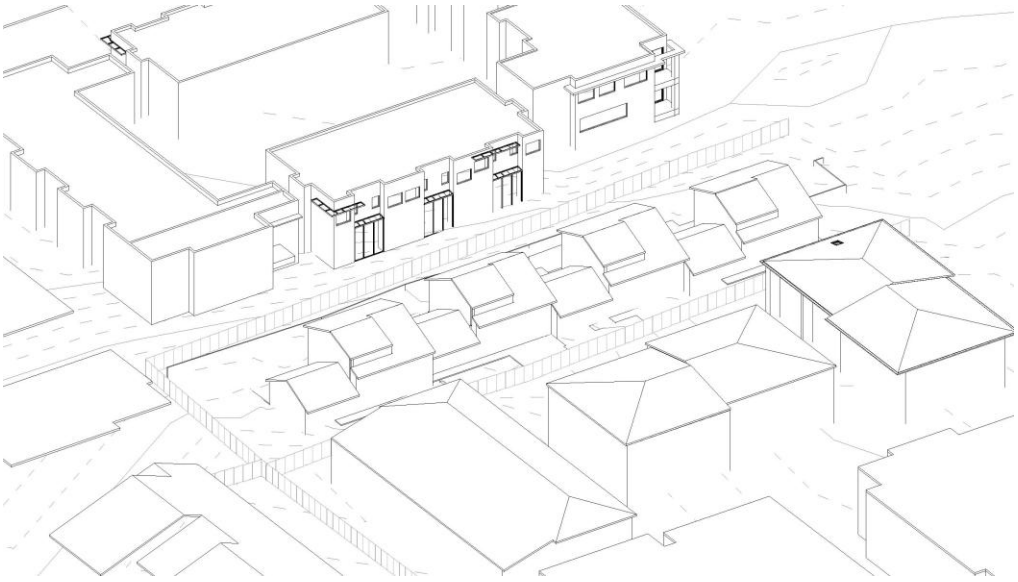
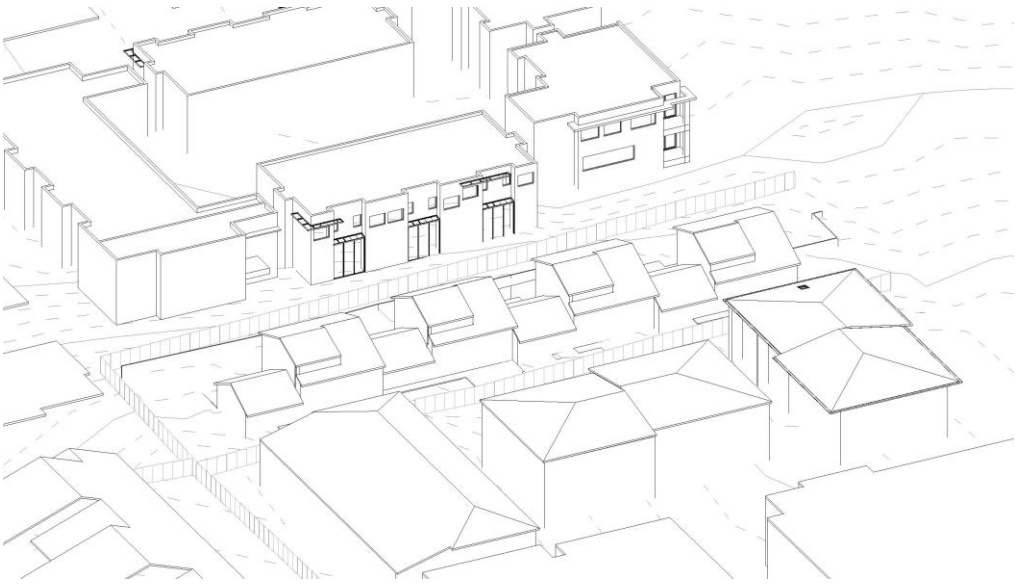
13.00 EXISTING	
13.00 PROPOSED	

13.30 EXISTING	
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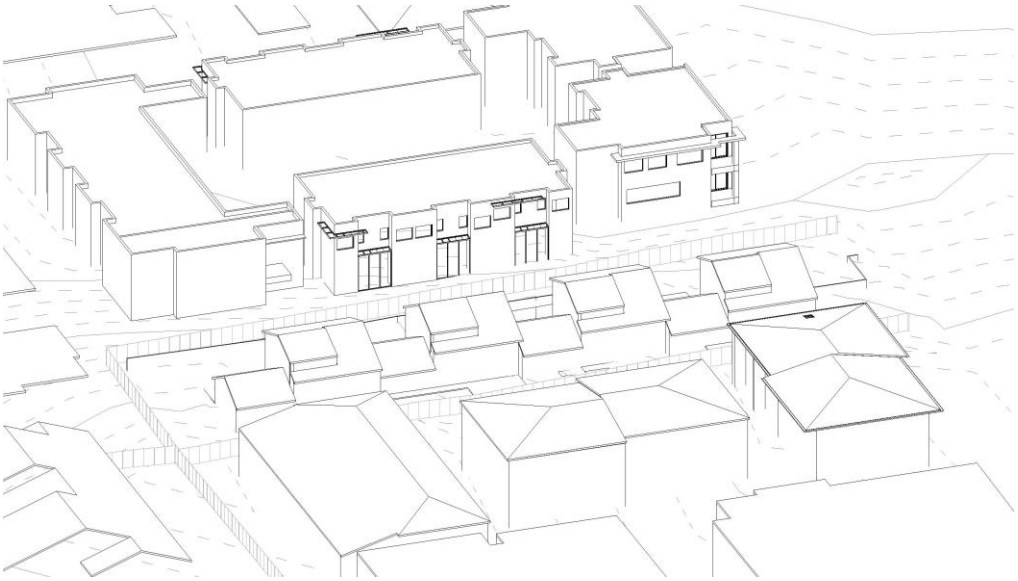
14.00 EXISTING	
14.00 PROPOSED	

14.30 EXISTING	
14.30 PROPOSED	

15.00 EXISTING	
15.00 PROPOSED	

C.0 APPENDIX C: DETAILED COMPLIANCE TABLE

The following table sets out in detail the solar access status of each Apartment in the amended DA Scheme.

LEVEL	UNIT NUM.	ROOM	9	930	10	1030	11	1130	12	1230	13	1330	14	1430	15	>2 hrs 9-3	Comply for Living + POS >2 hrs	No sun
GROUND	01	Living	N	N	H	H	H	H	H	H	H	H	H	H	H			
		POS	N	N	N	N	N	N	N	N	N	N	Y	Y	Y			N/A
	02	Living	N	H	H	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	
		POS	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A
	09	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	H	YES	YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A
LEVEL 1	03	Living	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES		
		POS	N	N	N	N	N	N	N	N	N	N	N	N	N			N/A
	04	Living	Y	H	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	YES.		N/A
	10	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	H	YES	YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	YES.		N/A
LEVEL 2	05	Living	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES		
		POS	N	N	N	N	N	N	N	N	N	N	N	N	N			N/A
	06	Living	Y	Y	Y	Y	Y	H	H	H	H	H	H	H	H	YES	YES	
		POS	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	YES.		N/A
	11	Living	Y	Y	Y	Y	Y	Y	H	H	H	Y	Y	Y	N	YES	YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A
LEVEL 3	07	Living	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES		
		POS	N	N	N	N	N	N	N	N	N	N	N	N	N			N/A
	08	Living	Y	Y	Y	Y	Y	Y	H	H	H	H	H	H	H	YES	YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	YES.		N/A

11		
10	7	0
90.9%	63.6%	0.0%
	63.6%	0.0%

Note: Unit 06 at 0930 technically is overshadowed but we have adjusted as total 2 hours received as it receives sun past 1100.

LEGEND

Y	RECEIVES COMPLIANT SUN
H	HABITABLE SPACES RECEIVES COMPLIANT SUN
N	DOES NOT COMPLY

D.0 APPENDIX D: OVERSHADOWING COMPLIANCE TABLE

The following table sets out in detail the solar access status of the neighbouring buildings

UNIT NUM.	ROOM	9	930	10	1030	11	1130	12	1230	13	1330	14	1430	15	>2 hrs 9-3	Comply for Living + POS >2 hrs	>2 hrs 9-3	Comply for Living + POS >2 hrs	No sun
PT1	Living	H	H	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT2	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	YES.		YES.		N/A
PT3	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT4	Living	Y	H	H	H	H	H	H	H	H	H	H	H	H					
	POS	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N					N/A
PT5	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A
PT6	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A
PT7	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A
PT8	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT9	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT10	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT11	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT12	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT13	Living	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A
PT14	Living	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A
PT15	Living	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A
EXISTING SOLAR COMPLIANCE																			
15																14		14	0
																93.3%		93.3%	0.0%
																93.3%		93.3%	0.0%

PROPOSED SOLAR COMPLIANCE																			
PT1	Living	H	H	Y	Y	Y	Y	Y	HH	HH	HH	N	N	Y	YES	YES			
	POS	N	N	Y	Y	Y	Y	Y	N	N	N	N	N	N	YES.				N/A
PT2	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	YES.		YES.		N/A
PT3	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A
PT4	Living	Y	H	H	H	H	H	H	H	H	H	H	H	H					
	POS	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N					N/A
PT5	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A
PT6	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A
PT7	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	YES.		YES.		N/A

PT8	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT9	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT10	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT11	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT12	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		YES.		N/A
PT13	Living	N	N	Y	Y	Y	Y	Y	HH	HH	Y	Y	Y	Y	YES	YES	YES	YES	
	POS	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	N	YES.		YES.		N/A
PT14	Living	N	N	Y	Y	Y	Y	Y	HH	N	N	N	N	N	YES	YES			
	POS	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	YES.		YES.		N/A
PT15	Living	N	N	Y	Y	Y	HH	HH	HH	N	N	N	N	N					
	POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES.				N/A

15

	13		11	0
	86.7%		73.3%	0.0%
	86.7%		**73.3%**	**0.0%**

LEGEND

Y	RECEIVES COMPLIANT SUN
H	HABITABLE SPACES RECEIVES COMPLIANT SUN
N	DOES NOT COMPLY
HH	PREVIOUSLY COMPLIANT, NOW HABITABLE SPACE RECIEVES SUN
N	LOSS OF SOLAR ACCESS