

10.23 Building 6 Solar and Daylight Access



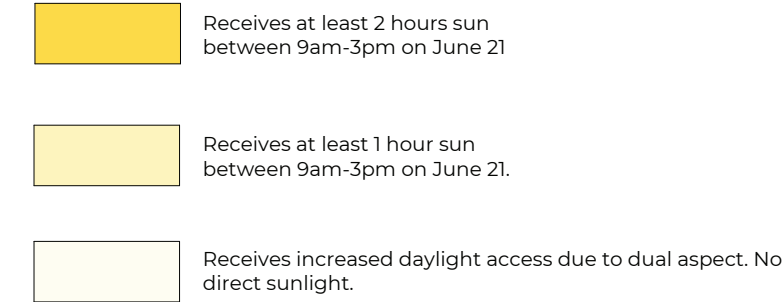
Typical Lower Floor



Typical Middle Floor



Typical Upper Floor



TOTAL APARTMENTS: 186

UNITS WITH >2 HRS BETWEEN 9AM-3PM: 126 (68%)

UNITS WITH <2HRS BETWEEN 9AM-3PM: 29 (15%)

NO DIRECT SUNLIGHT: 31 (17%)

Conclusions:

- North facing apartments achieve solar in all levels.
- East facing unit receives indirect light due to its dual aspect orientation as well as the openness and long views of Crescent St. However, this unit achieves minimum 2 hrs solar access in the upper 4 levels.
- West facing units achieve minimum 2 hrs solar access when counted until 4pm.

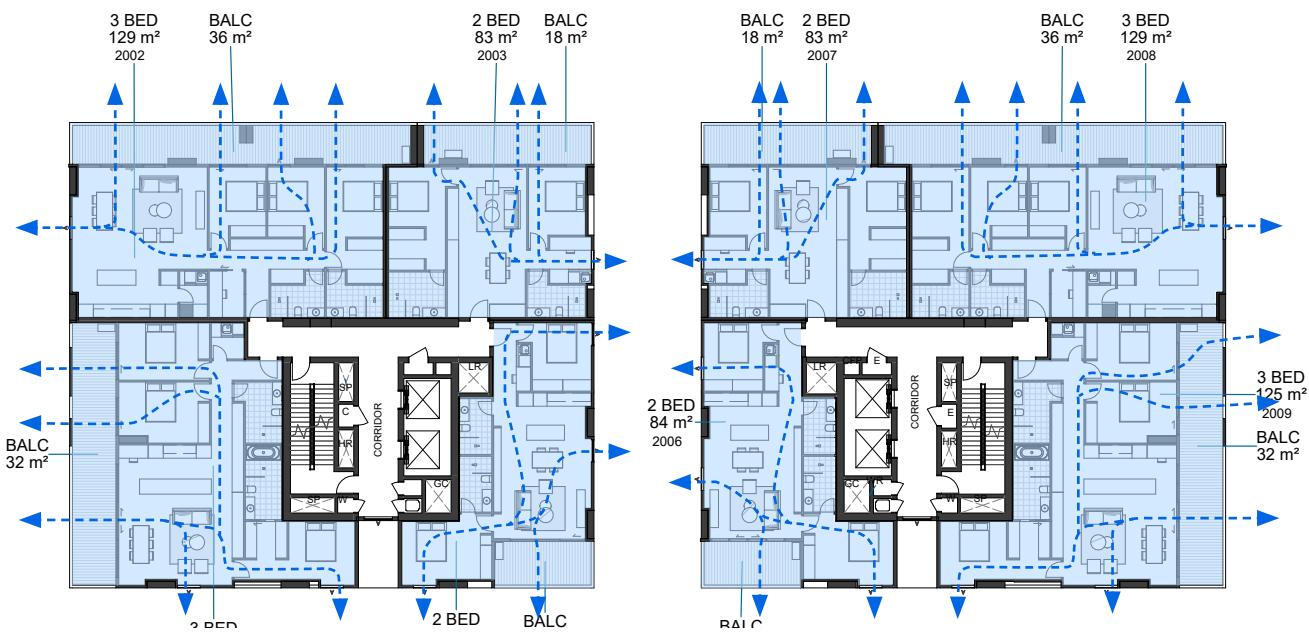
ADG Objective 4A-1:
Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter. Achieving the design criteria may not be possible on some sites. This includes:

- Where greater residential amenity can be achieved
- A busy road or rail line by orientating the living rooms away from the noise source on south facing sloping sites
- Where significant views are oriented away from the desired aspect for direct sunlight

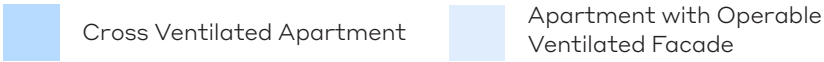
Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective.

10.24 Building 6

Ventilation and Private Open Space



Level 07



CROSS VENTILATION SUMMARY

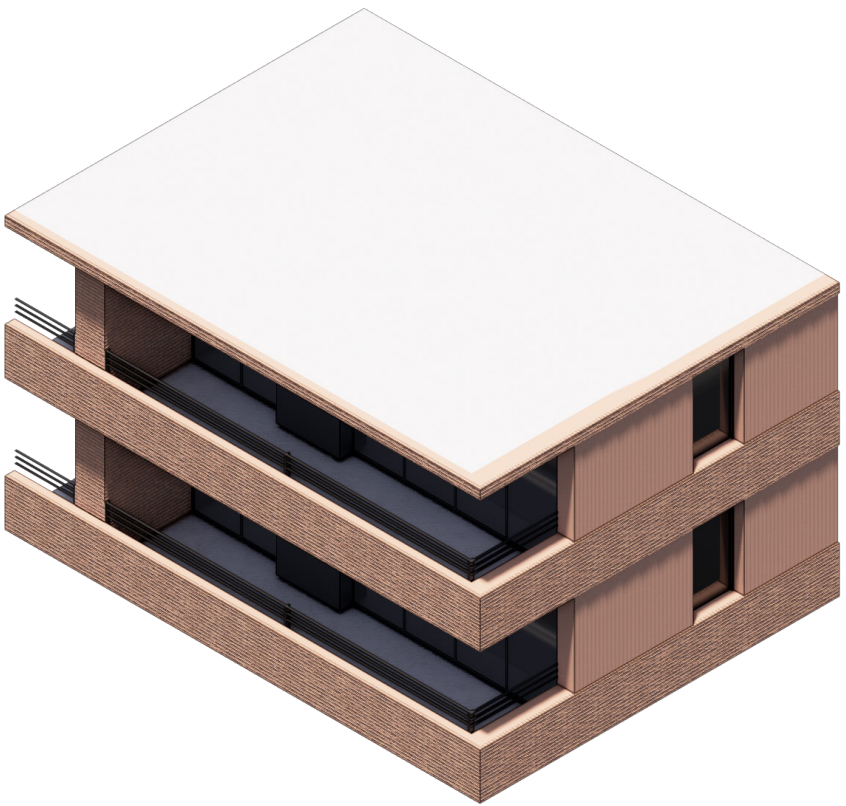
LVL LG	2/6
LVL GF	0/2
LVL 1-5	2/6
LVL 6-7	8/10
TOTAL	28/58 Apartments 48%

At least 48% of apartments are naturally cross ventilated in the first nine storeys of the building.

Despite double height storey cross ventilation is not technically compliant, due to their height and layout, these units will achieve better ventilation than a single storey apartment.

Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.

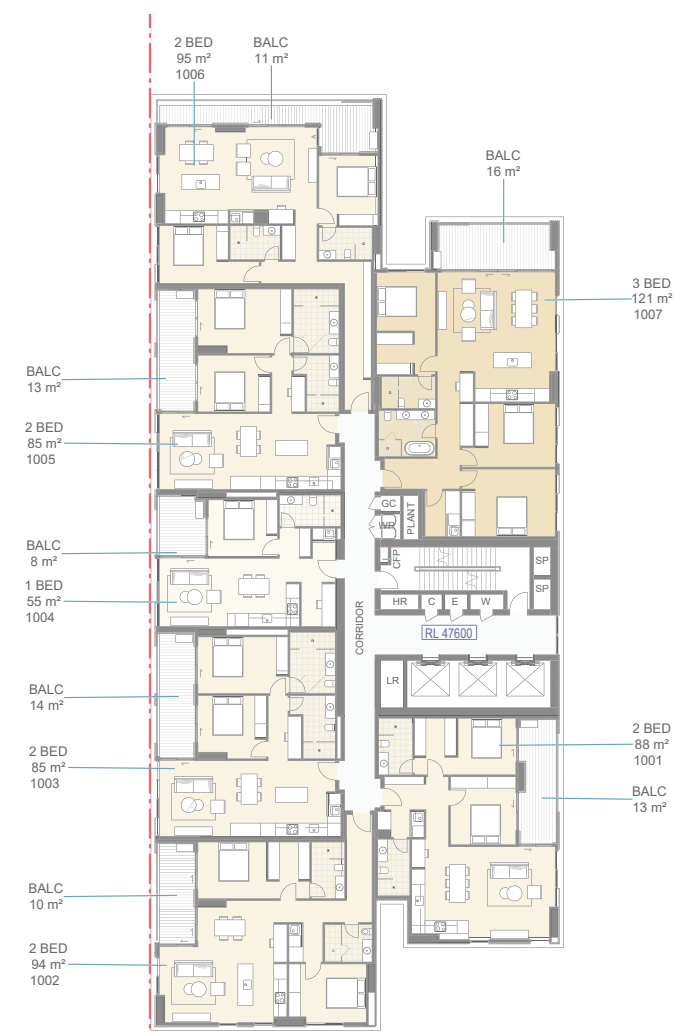
Note: As per the ADG design criteria, first 9 building levels to be counted towards cross ventilation.



10.25

Building 7

Typical Apartment Units



COMPLIANCE SUMMARY

Acoustic measures:

After discussion with the acoustic consultants, measures introduced into Building 7 include:

- Majority of apartments face onto parkland away from traffic noise sources.

Typical floor summary:

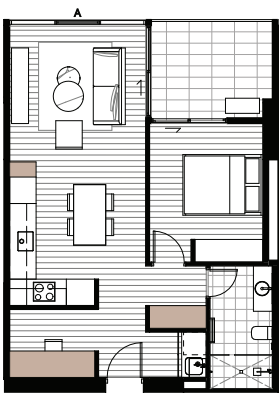
1 x 1 Bed

5 x 2 Bed

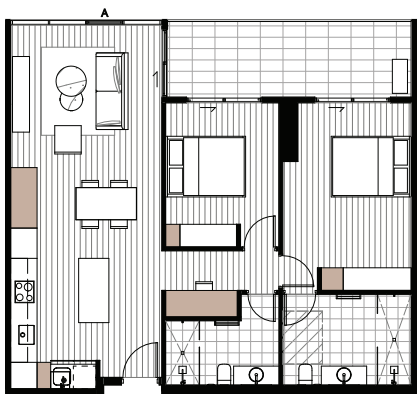
1 x 3 Bed

Total units per floor: 7

Total Building Units = 148



1 Bedroom



2 Bedroom



3 Bedroom

Typical Level

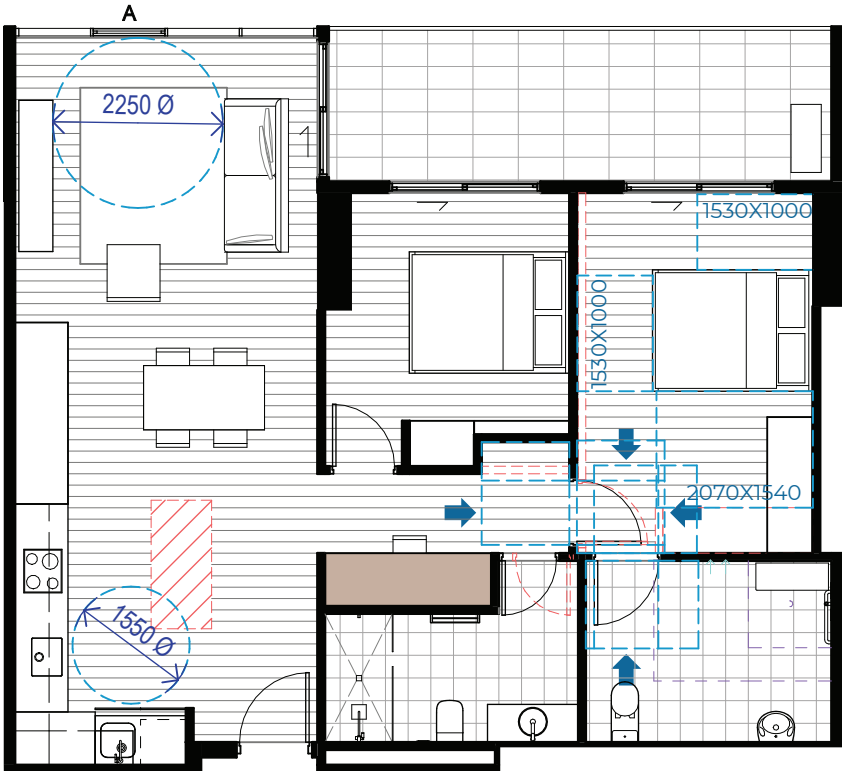
SDRP 2 FEEDBACK		REFER TO
18.0	Acoustic measures, such as winter gardens, podium setbacks, and the location of habitable rooms and private open space.	See page 08.02 & Compliance Chapter 10
20.0	That the objective of 4F-1 of the ADG will be able to be achieved.	See Compliance Chapter 10

10.26

Building 7
Adaptable Units



Pre adaptation layout



Post adaptation layout

SDRP 2 FEEDBACK

19.0 Façade articulation must be adequately sized where it will be relied upon to provide cross ventilation.

REFER TO

See Compliance Chapter 10



Successful build-to-rent developments offer communal spaces that instill a sense of community, such as gyms, entertainment areas or workspaces. These give residents benefits such as opportunities to get to know their neighbours and live healthier lifestyles. These spaces also encourage activity normally done in an apartment and may allow for smaller but functional apartment sizes.

Apartment size and layout is an important aspect of amenity. Apartments should demonstrate that all necessary furniture can fit while still allowing plenty of space for residents to move about.

NSW Build-to-rent housing and flexible design fact sheet, Feb 2023



BTR
FRAMEWORK

Build to Rent layouts are dictated by usability rather than meeting a standard.

The apartment layouts reflect additional resident's preferences such as breakfast bars, separate kitchen and dining area, dressing spaces and king beds. Greystar apartments capture all of the elements required to create a comfortable home for the resident with the ability to meet changing resident needs.

10.27 Building 7

Solar and Daylight Access



SOLAR ACCESS SUMMARY

ADG Objective 4A-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. Achieving the design criteria may not be possible on some sites. This includes:

- Where greater residential amenity can be achieved
- Along a busy road or rail line by orientating the living rooms away from the noise source on south facing sloping sites
- Where significant views are oriented away from the desired aspect for direct sunlight

Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective.

TOTAL APARTMENTS: 148

UNITS WITH >2 HRS BETWEEN 9AM-3PM: 132 (89%)

UNITS WITH <2HRS BETWEEN 9AM-3PM: 4 (3%)

NO DIRECT SUNLIGHT: 12 (8%)

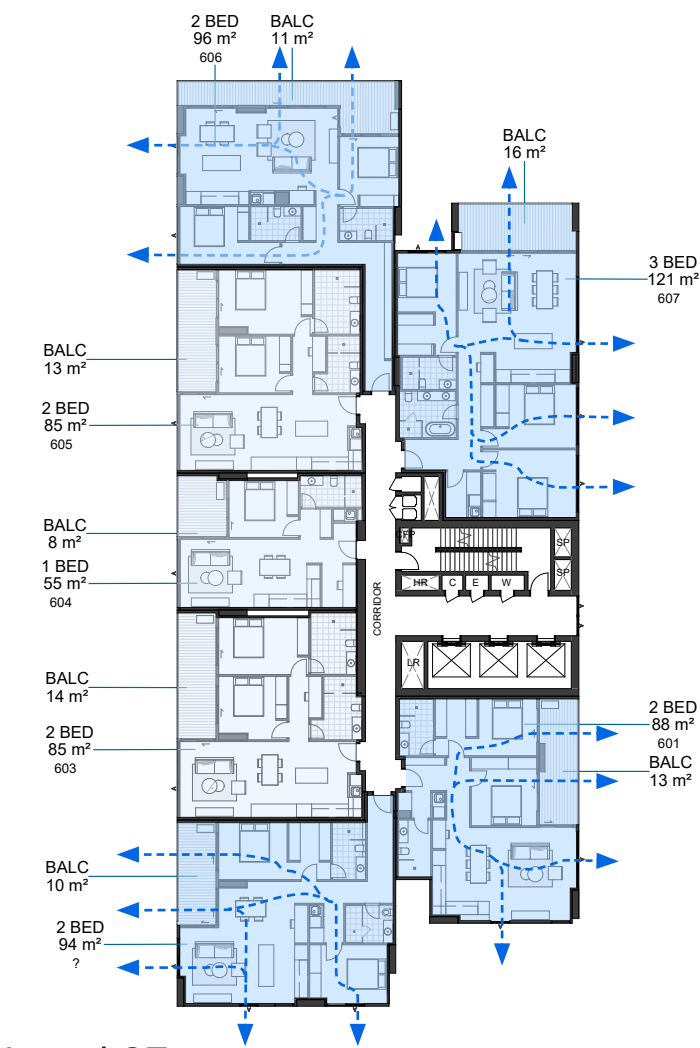
Conclusions:

- North facing apartments achieve solar in all levels.
- East facing unit receives indirect light due to its dual aspect orientation as well as the openness and long views of Crescent St. However, this unit achieves minimum 2 hrs solar access in the upper 6 levels.

10.28

Building 7

Ventilation and Private Open Space



Level 07



CROSS VENTILATION SUMMARY

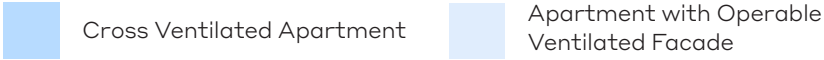
LVL LG	N/A
LVL GF	4/6
LVL 1-7	4/7
TTOTAL	32/55 Apartments 58%

At least 58% of apartments are naturally cross ventilated in the first nine storeys of the building.

Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.

The 2% variance to the required 60% will be resolved during Detail Design, where opportunities such as the structure or facade could allow the proposal achieve the design criteria.

Note: As per the ADG design criteria, first 9 building levels to be counted towards cross ventilation.



10.29 Site Wide Shadow Analysis Winter Solstice

Dividing the proposed scheme into 7 distinct buildings reduces the bulk and city wall affect of the site, allowing for greater sunlight that is able to penetrate though the site throughout the day, minimizing shadow impact on neighbours.

In addition to this strategy, locating the building masses along the northern edge of their respective podium has further shorten the shadows cast., thus ensuring residential properties along Wallace street are minimally impacted by shadows prior to 3pm.

Between 11 am -1pm, overshadowing by the buildings are cast mostly onto backyard structures such as sheds leaving most habitable spaces unaffected.

Legend

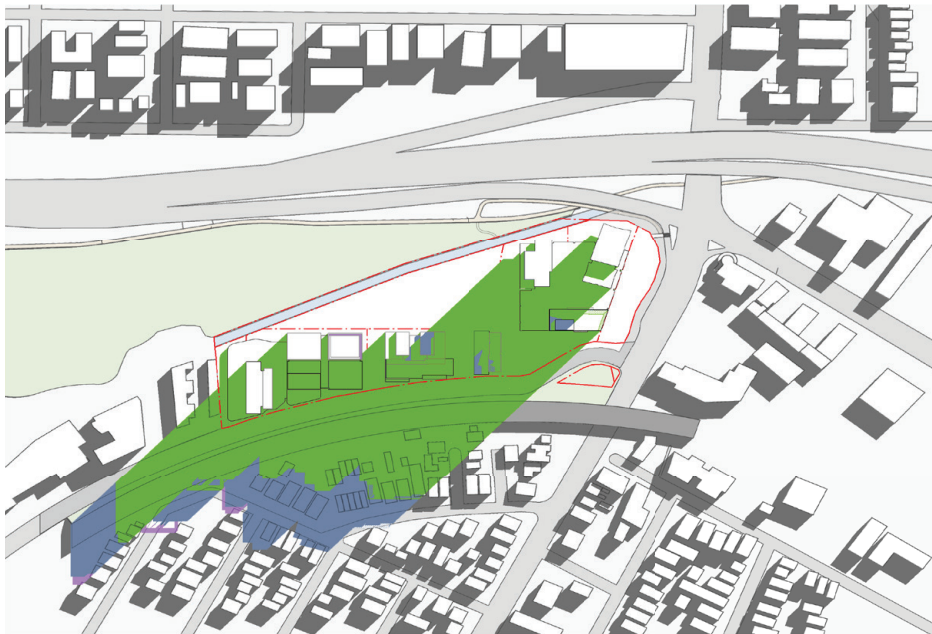
Max LEP Building Shadows

30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

Surrounding Context Shadows

Shadow Coverage	Approx. Area (m ²)
LEP Max	43,390
30% Uplift	10,716
Roof Feature	436
TOTAL	54,542

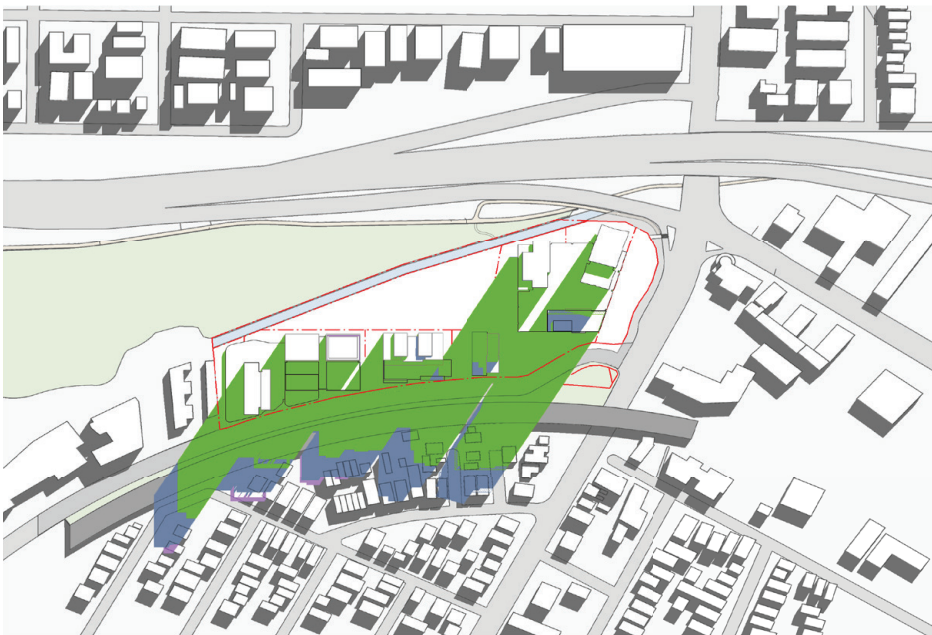


09:00 AM

Shadow Coverage	Approx. Area (m ²)
LEP Max	27,321
30% Uplift	6,057
Roof Feature	280
TOTAL	33,658



11:00 AM



10:00 AM

Shadow Coverage	Approx. Area (m ²)
LEP Max	33,910
30% Uplift	7,960
Roof Feature	384
TOTAL	42,254

10.29 Site Wide Shadow Analysis

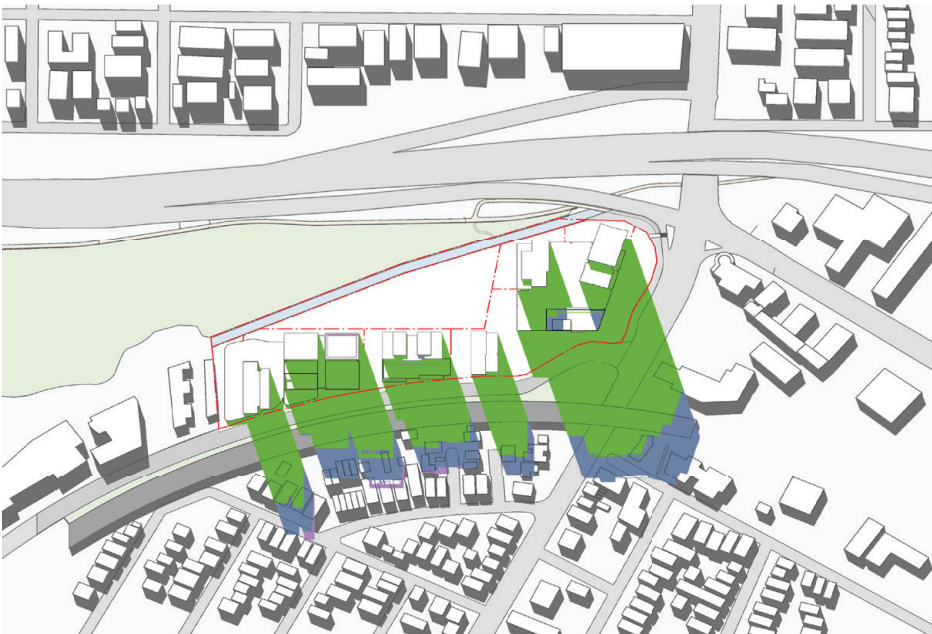
Winter Solstice

- Legend**
- Max LEP Building Shadows
 - 30% Uplift Building Shadows
 - Roof Feature Shadows (Above Height Plane)
 - Surrounding Context Shadows



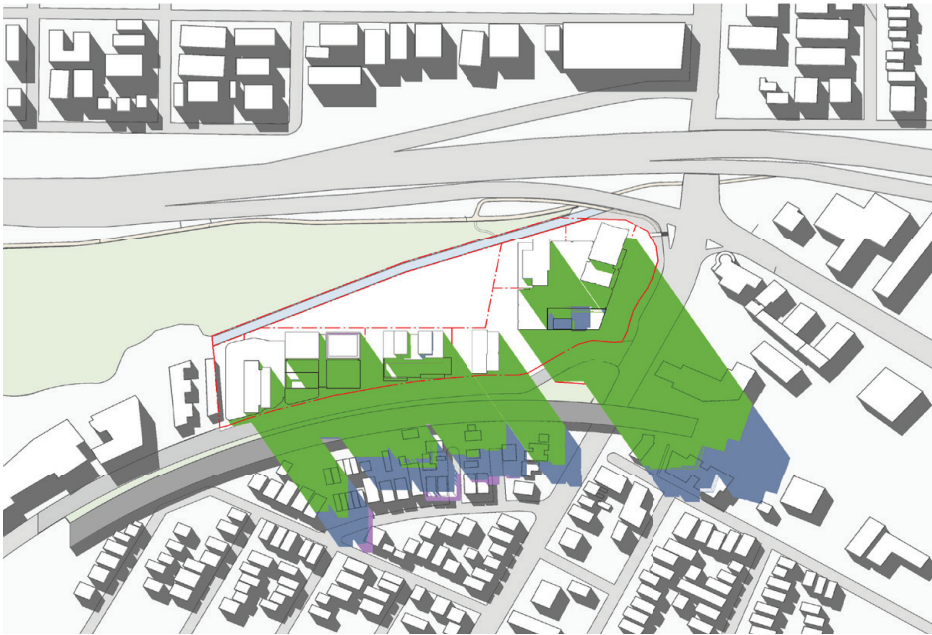
Shadow Coverage	Approx. Area (m ²)
LEP Max	25,063
30% Uplift	6,356
Roof Feature	254
TOTAL	31,673

12:00 PM



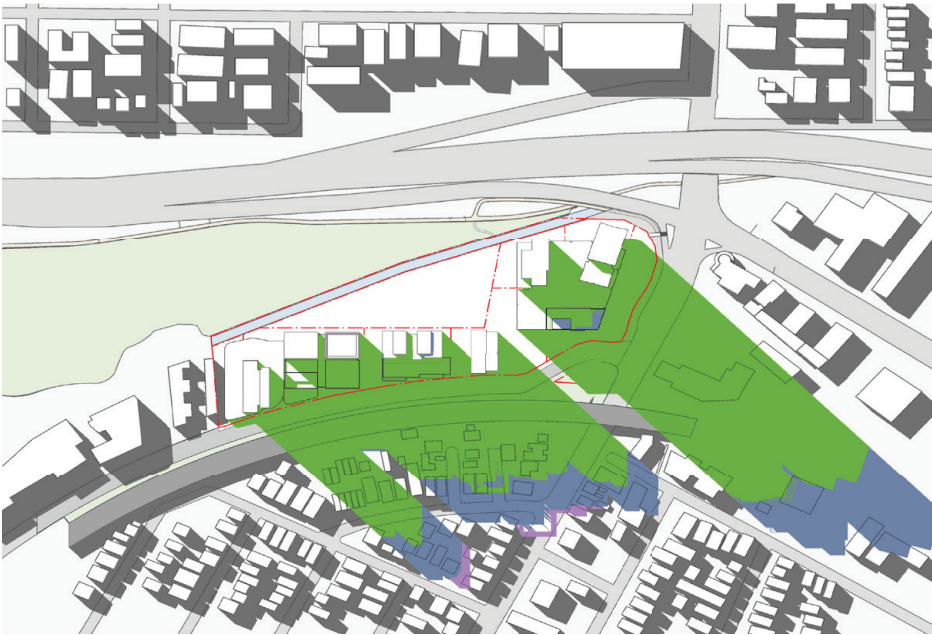
Shadow Coverage	Approx. Area (m ²)
LEP Max	32,897
30% Uplift	8,268
Roof Feature	417
TOTAL	41,582

01:00 PM



Shadow Coverage	Approx. Area (m ²)
LEP Max	44,795
30% Uplift	11,070
Roof Feature	555
TOTAL	56,420

02:00 PM



Shadow Coverage	Approx. Area (m ²)
LEP Max	65,512
30% Uplift	16,885
Roof Feature	890
TOTAL	83,287

03:00 PM

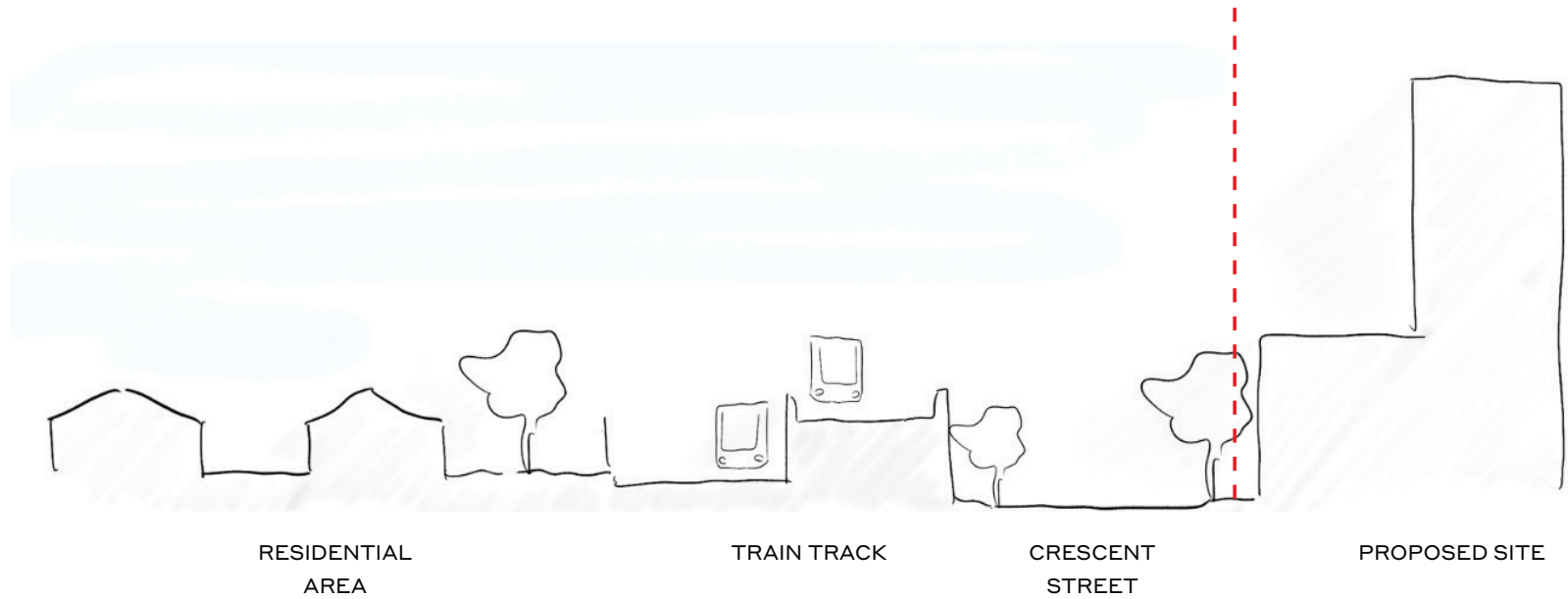
10.29

Site Wide Shadow Analysis

Winter Solstice

OVERSHADOWING AREA ANALYSIS								
		9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM
LEP Max	Within Proposed Site	18,554	15,368	11,033	8,875	10,623	12,454	13,318
	Outside Proposed Site	24,836	18,542	16,288	16,188	22,274	32,341	52,194
Total		43,390	33,910	27,321	25,063	32,897	44,795	65,512
%		80	80	81	79	79	79	79
30% Uplift		10,716	7,960	6,057	6,356	8,268	11,070	16,885
%		20	19	18	20	20	20	20
Roof Feature		436	384	280	254	417	555	890
%		1	1	1	1	1	1	1
TOTAL		54,542	42,254	33,658	31,673	41,582	56,420	83,287

Summary table includes the shadows that are cast within the proposed site as well as the surrounding context.



10.29 Site Wide Shadow Analysis

Winter Solstice

Despite the building height proposal, not every residential property along the south side of the rail line is affected by the overshadowing. The following list are the properties impacted by the proposed building shadows grouped in blocks (refer to notes):

- Block 1 - 4 Properties (Residential)
- Block 2 - 5 Properties (Residential)
- Block 3 - 6 Properties (Residential)
- Block 4 - 15 Properties (Residential)
- Block 5 - 13 Properties (Residential)
- Block 6 - 4 Properties (Residential)
- Block 7 - 4 Properties (Residential)
- Block 8 - 5 Properties (Residential and Commercial)
- Block 9 - 2 Properties (Residential and Commercial)

As part of the shadow impact assessment, each residential 'block' includes a hourly summary of solar access per each individual property.

Notes:

* The blocks include properties with different uses. Residential properties have been highlighted with a continuous line, while other uses are outlined by a dashed line.

**This is an indicative analysis only. Further investigation regarding solar impact estimates are subject to detailed site survey.

Legend (Roads)

- | | |
|--------------------|----------------------|
| 01. Woodville Road | 05. Bennalong Street |
| 02. Wallace Lane | 06. Boomerang Street |
| 03. Blane Street | 07. Railway Parade |
| 04. Union Street | |



10.29

Site Wide Shadow Analysis

Winter Solstice

Block 1

4 Properties (Residential)**

This street block includes 4 residential properties with entries facing East and South.

Observations:

- 1. Property located at north-eastern corner and adjacent to the train line is affected by the LEP for approximately one hour.
- 2. Same occurs for the other 3 properties, which are affected by the 30% building uplift shadows for approximately one hour.
- 3. From 10 am onwards, the proposal does not cast more shadows over.

Notes:

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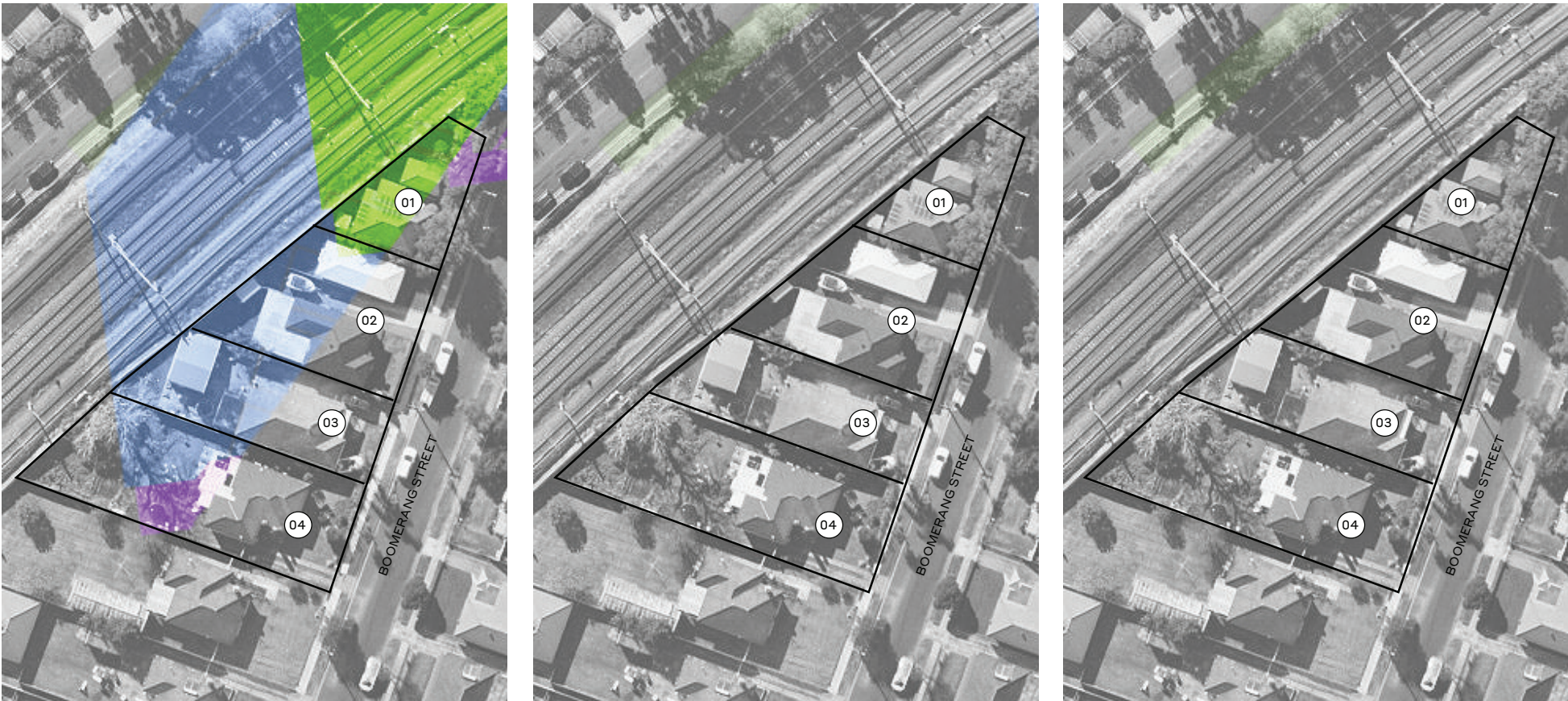
Legend

Max LEP Building Shadows

30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

Surrounding Context Shadows



9AM

10AM

11AM

SOLAR ACCESS ANALYSIS BLOCK 1									
		9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	ACHEIVES MINIMUM 2 HRS
01	02 BOOMERANG STREET	N	Y	Y	Y	Y	Y	Y	YES
02	04 BOOMERANG STREET	Y	Y	Y	Y	Y	Y	Y	YES
03	06 BOOMERANG STREET	N	Y	Y	Y	Y	Y	Y	YES
04	08 BOOMERANG STREET	Y	Y	Y	Y	Y	Y	Y	YES



10.29

Site Wide Shadow Analysis

Winter Solstice

Block 2

5 Properties (Residential)**

This street block includes 5 residential properties with entries facing West, North and East.

Observations:

1. Between 10 am - 11am, 2 properties are affected at each hour.
2. From 12 pm onwards, the proposal does not cast more shadows over.

Notes:

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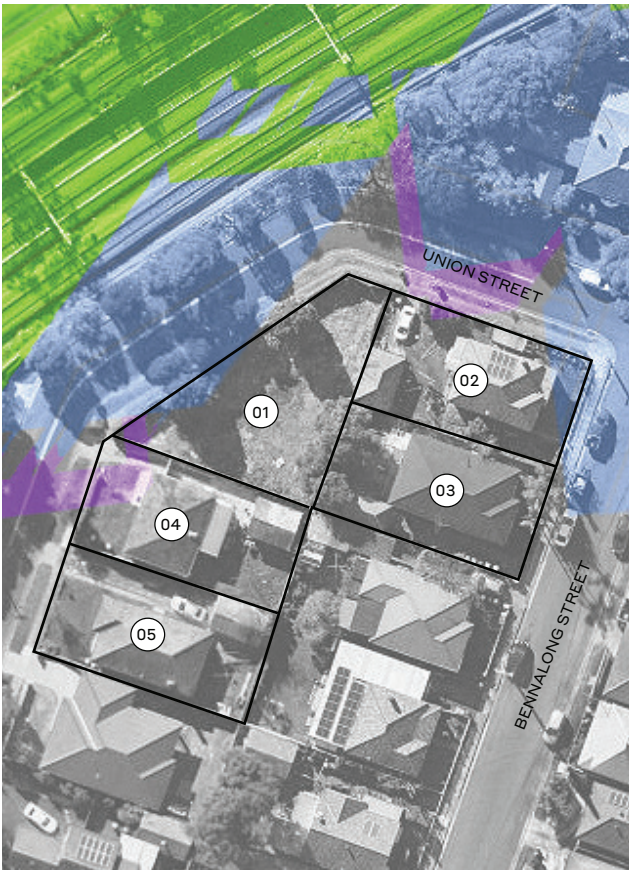
Legend

Max LEP Building Shadows

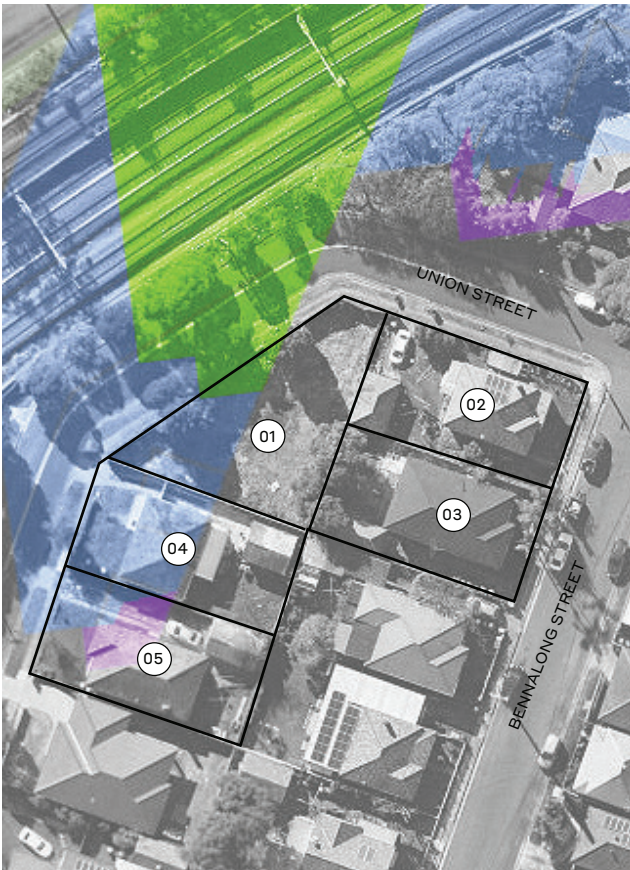
30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

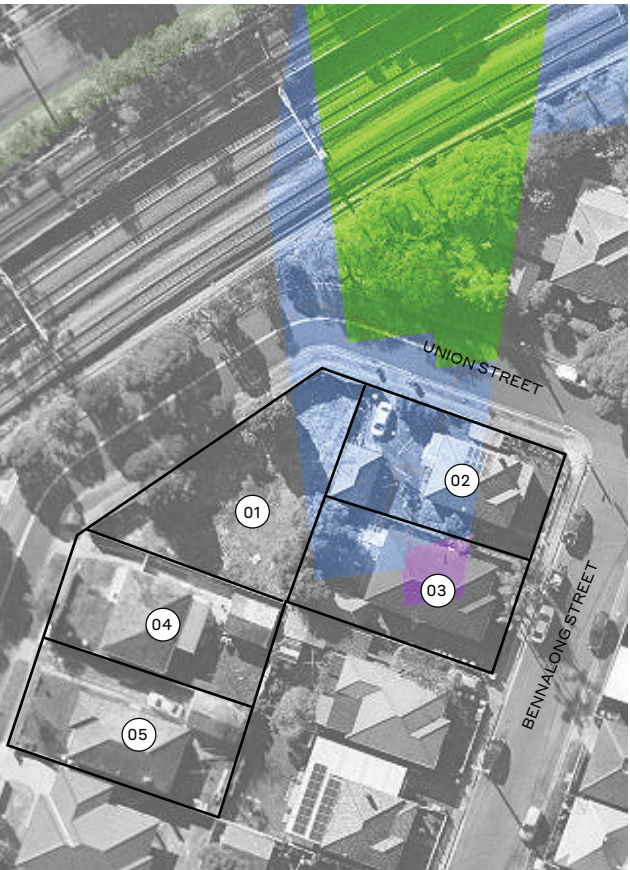
Surrounding Context Shadows



9AM



10AM



11AM

SOLAR ACCESS ANALYSIS BLOCK 2									
		9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	ACHEIVES MINIMUM 2 HRS
01	24 UNION STREET	Y	Y	Y	Y	Y	Y	Y	YES
02	02 BENNALONG STREET	Y	Y	N	Y	Y	Y	Y	YES
03	2/4 BENNALONG STREET	Y	Y	N	Y	Y	Y	Y	YES
04	01 BOOMERANG STREET	Y	N	Y	Y	Y	Y	Y	YES
05	03 BOOMERANG STREET	Y	N	Y	Y	Y	Y	Y	YES



10.29

Site Wide Shadow Analysis

Winter Solstice

Block 3

6 Properties (Residential)**

This street block includes 6 residential properties with entries facing North.

Notes:

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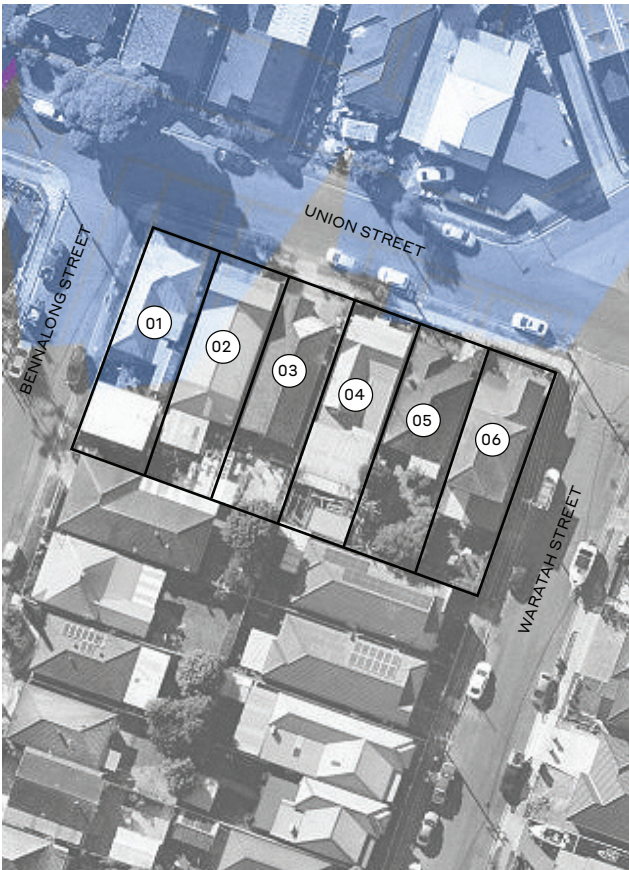
Legend

Max LEP Building Shadows

30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

Surrounding Context Shadows



9AM



10AM



11AM

SOLAR ACCESS ANALYSIS BLOCK 3								
	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	ACHEIVES MINIMUM 2 HRS
01 22 UNION STREET	N	Y	Y	N	Y	Y	Y	YES
02 20 UNION STREET	N	Y	Y	Y	Y	Y	Y	YES
03 18 UNION STREET	Y	Y	Y	Y	Y	Y	Y	YES
04 16 UNION STREET	Y	Y	Y	Y	Y	Y	Y	YES
05 14 UNION STREET	Y	Y	Y	Y	Y	Y	Y	YES
06 12 UNION STREET	Y	Y	Y	Y	Y	Y	Y	YES



10.29

Site Wide Shadow Analysis
Winter Solstice

- Legend
- Max LEP Building Shadows
 - 30% Uplift Building Shadows
 - Roof Feature Shadows (Above Height Plane)
 - Surrounding Context Shadows



12PM



1PM



2PM



3PM



10.29 Site Wide Shadow Analysis

Winter Solstice

Block 4

15 Properties (Residential)**

This street block includes 15 residential properties with entries facing North, East and South.

Notes:

**This is an indicative area analysis only. Further investigation regarding solar impact estimates are subject to detailed site survey.

Legend

Max LEP Building Shadows

30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

Surrounding Context Shadows



2PM



3PM

SOLAR ACCESS ANALYSIS BLOCK 4								
	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	ACHEIVES MINIMUM 2 HRS
01 14 WALLACE ST	Y	Y	Y	Y	Y	N	Y	YES
02 12 WALLACE ST	Y	Y	Y	Y	Y	N	N	YES
03 10 WALLACE ST	Y	Y	Y	Y	Y	Y	N	YES
04 08 WALLACE ST	Y	Y	Y	Y	Y	Y	N	YES
05 06 WALLACE ST	Y	Y	Y	Y	Y	Y	N	YES
06 04 WALLACE ST	Y	Y	Y	Y	Y	Y	N	YES
07 5 UNION STREET	Y	Y	Y	Y	Y	Y	N	YES
08 3 UNION STREET	Y	Y	Y	Y	Y	Y	N	YES
09 1 UNION STREET	Y	Y	Y	Y	Y	Y	N	YES
10 1B UNION STREET	Y	Y	Y	Y	Y	Y	N	YES
11 14 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	Y	YES
12 16 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	Y	YES
13 18 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	Y	YES
14 20 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	Y	YES
15 22 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	N	YES



10.29 Site Wide Shadow Analysis

Winter Solstice

Block 5

13 Properties (Residential)**

This street block includes 13 residential properties with entries facing mainly South.

Observations:

- 1. Along the north western edge the residential block present an ancillary street called Union Street sitting adjacent the train line.
- 2. From 9am all properties are the most affected by building shadows for a period of one hour.

Notes:

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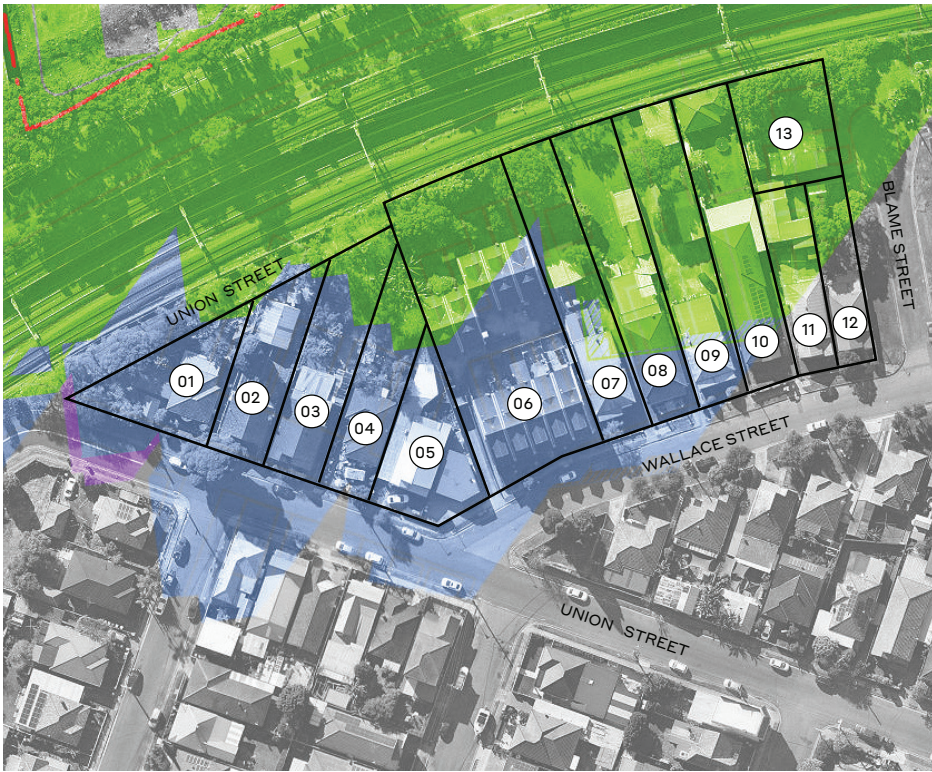
Legend

Max LEP Building Shadows

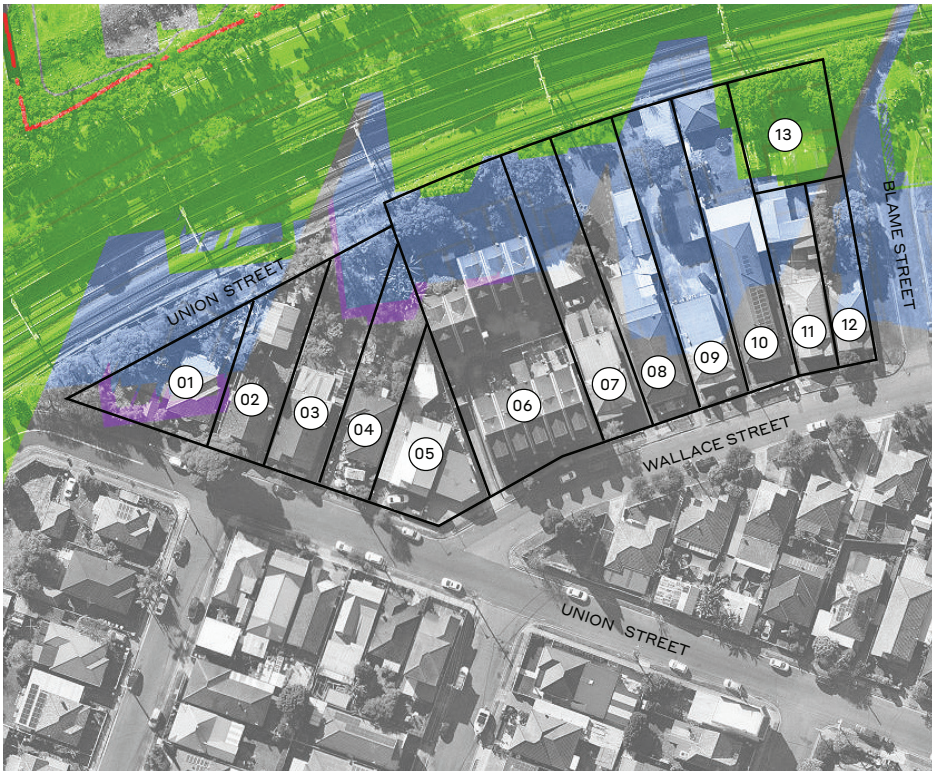
30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

Surrounding Context Shadows



9AM



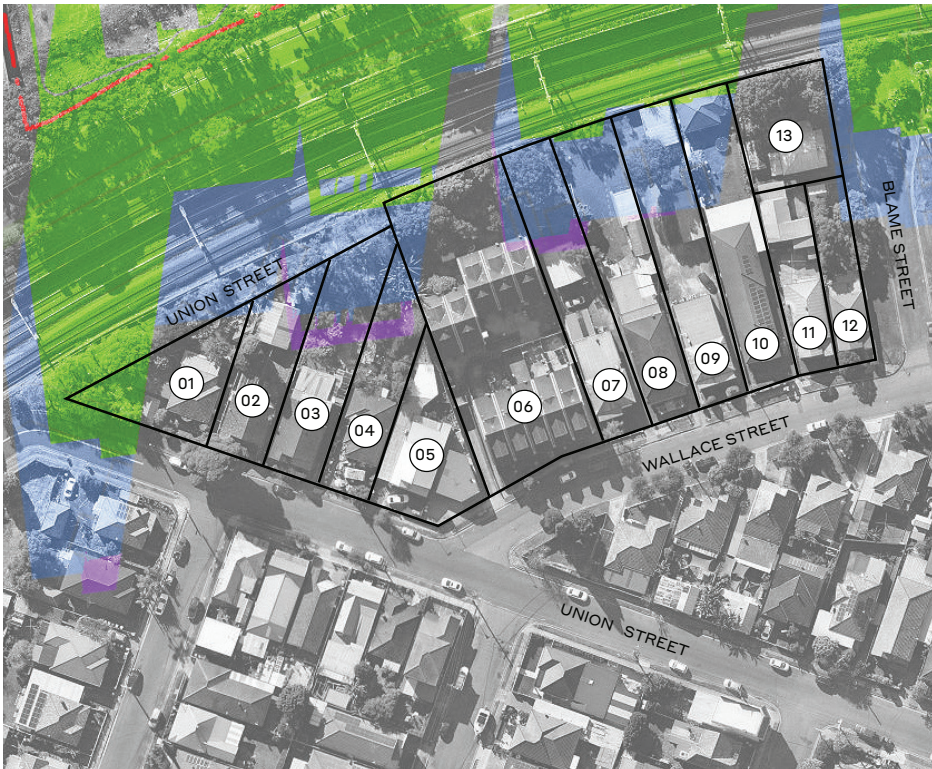
10AM

SOLAR ACCESS ANALYSIS BLOCK 5								
	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	ACHEIVES MINIMUM 2 HRS
01 27 UNION STREET	N	N	Y	N	Y	Y	Y	YES
02 25 UNION STREET	N	Y	Y	Y	N	Y	Y	YES
03 23 UNION STREET	N	Y	Y	Y	N	Y	Y	YES
04 21 UNION STREET	N	Y	Y	Y	N	N	Y	YES
05 19 UNION STREET	N	Y	Y	Y	Y	N	Y	YES
06 1/17-19 WALLACE STREET	N	N	Y	N	N	N	N	NO
07 15 WALLACE STREET	N	Y	Y	Y	Y	Y	N	YES
08 13 WALLACE STREET	N	Y	Y	Y	N	N	N	YES
09 11 WALLACE STREET	N	N	Y	Y	N	N	N	YES
10 09 WALLACE STREET	N	N	Y	Y	Y	N	N	YES
11 07 WALLACE STREET	N	Y	Y	Y	Y	N	N	YES
12 05 WALLACE STREET	N	Y	Y	Y	Y	N	N	YES
13 04 BLANE STREET	N	N	Y	N	N	N	N	NO

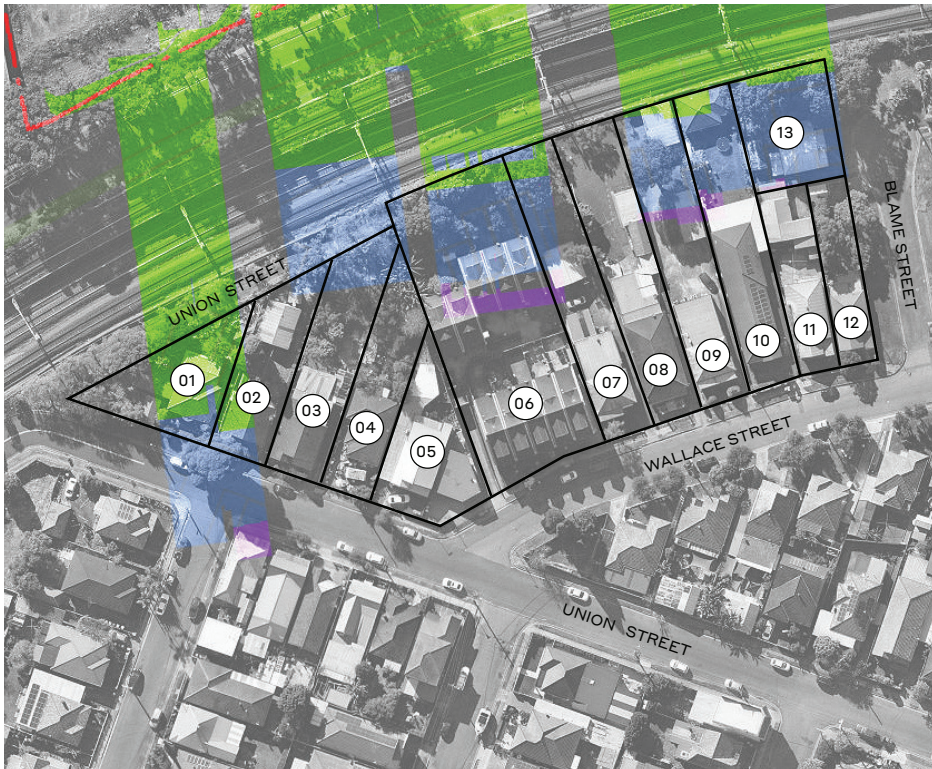


10.29 Site Wide Shadow Analysis Winter Solstice

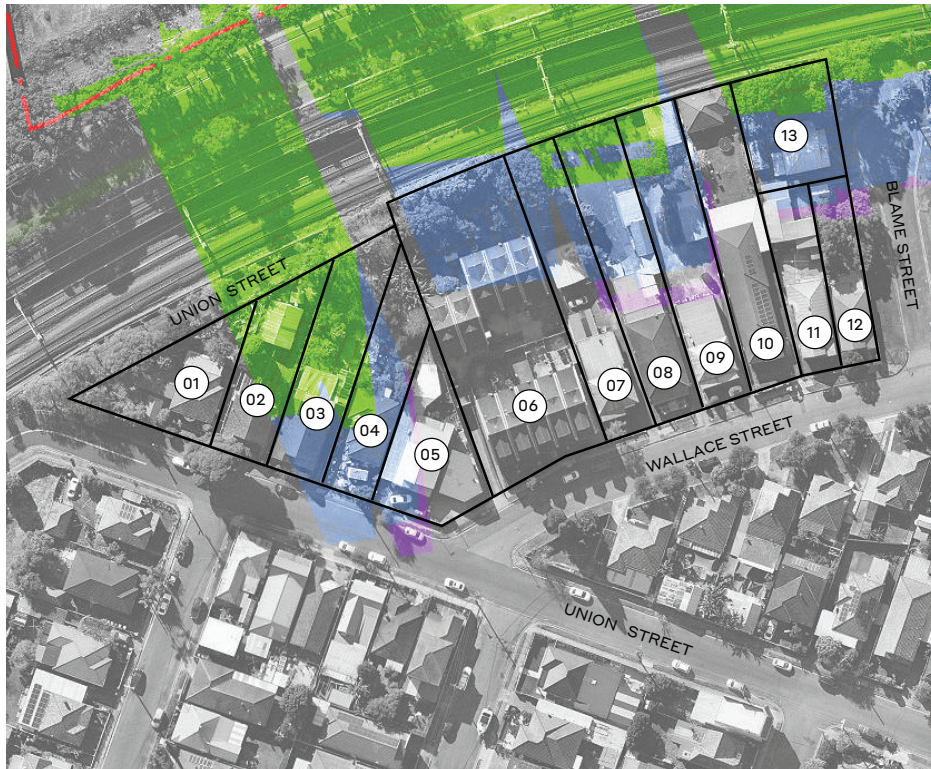
- Legend**
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 - 30% Uplift Building Shadows
 - Roof Feature Shadows (Above Height Plane)
 - Surrounding Context Shadows



11AM



12PM



1PM



10.29

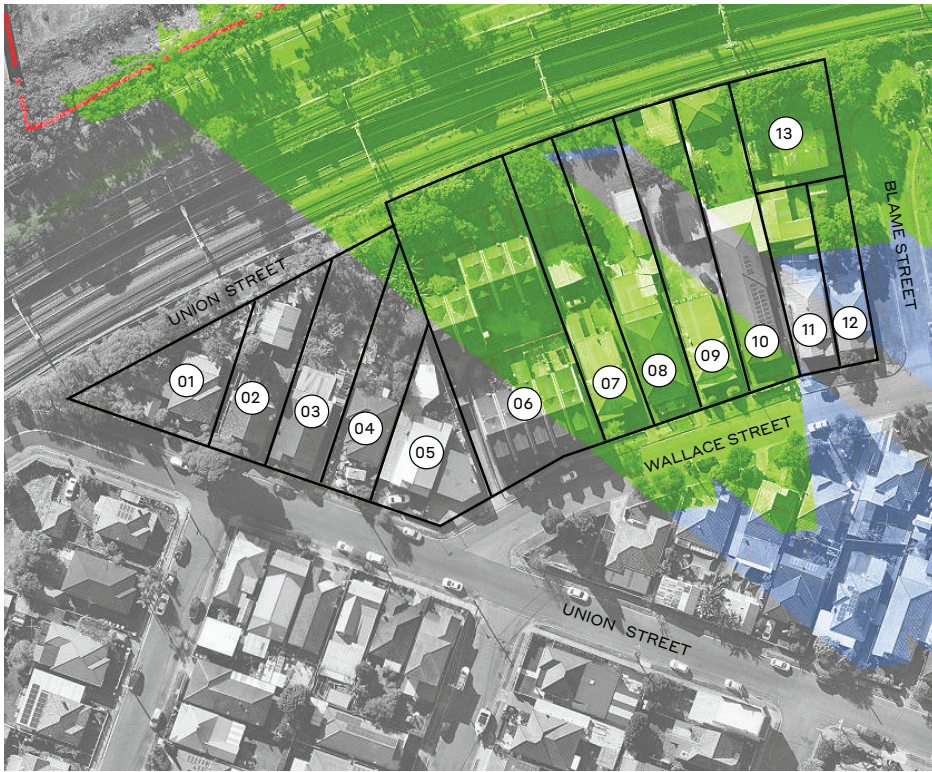
Site Wide Shadow Analysis

Winter Solstice

- Legend
- Max LEP Building Shadows
- 30% Uplift Building Shadows
- Roof Feature Shadows (Above Height Plane)
- Surrounding Context Shadows



2PM



3PM



10.29 Site Wide Shadow Analysis

Winter Solstice



View Locations



01 - Union Street



02 - Wallace Street



03 - Wallace Street



04 - Blame Street

10.29 Site Wide Shadow Analysis

Winter Solstice

Block 6

4 Properties (Residential)**

This street block includes 4 residential properties with entries facing West and South.

Observations:

- 1. Property closest to the train line is affected early morning. Meanwhile the other 3 properties receive one hour of solar access.
- 2. Starting from 10 am to 11 am, three properties are affected by both overshadowing of Max LEP as well as 30% Uplift.
- 3. From approximately 12 pm to 2pm properties with frontages facing Wallace Street receive solar access.

Notes:

**This is an indicative area analysis only. Further investigation regarding solar impact estimates are subject to detailed site survey.

Legend

Max LEP Building Shadows

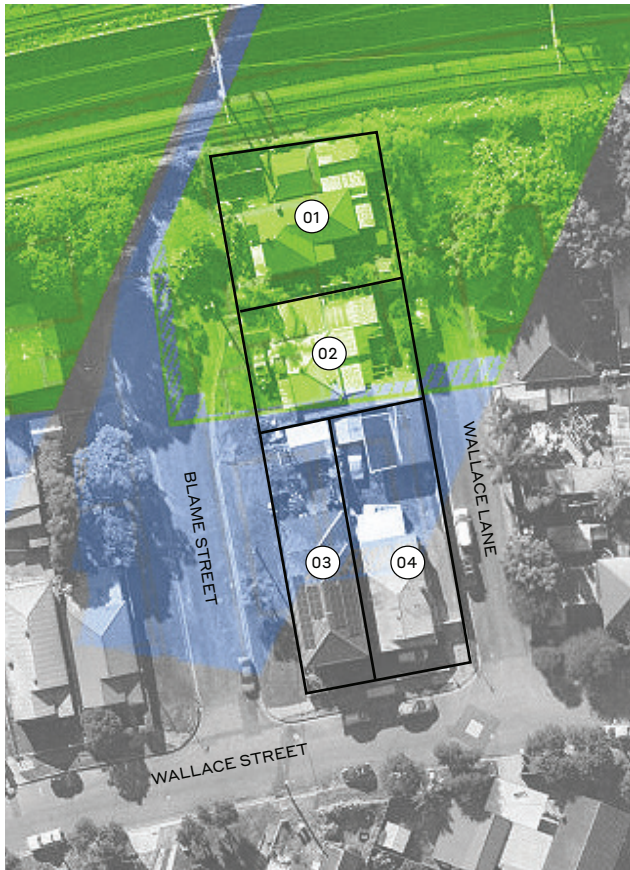
30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

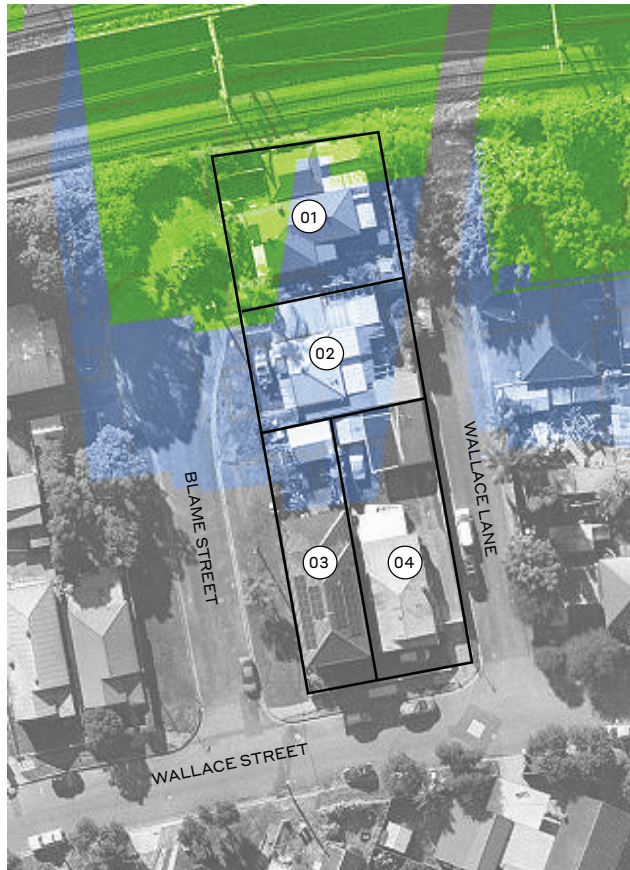
Surrounding Context Shadows



9AM



10AM



11AM

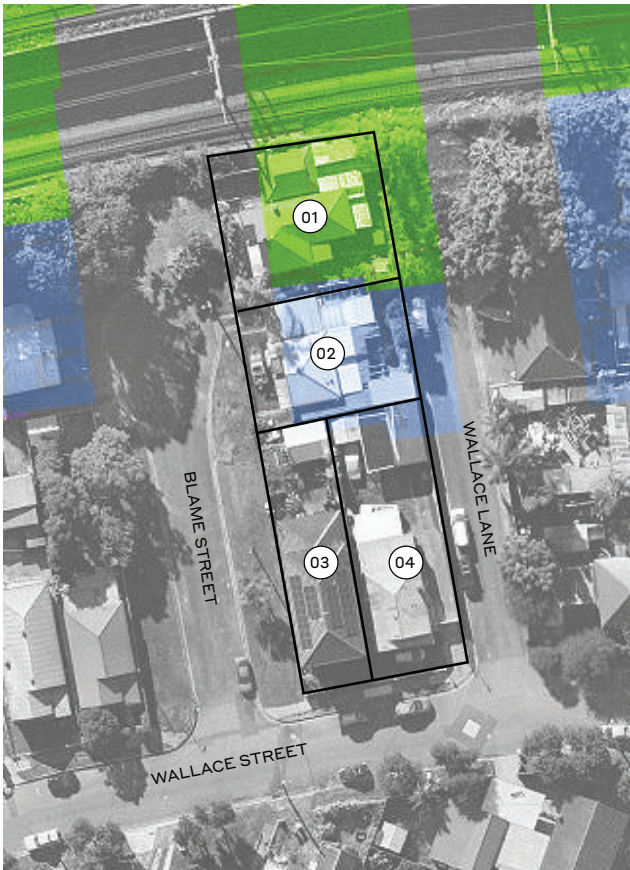
SOLAR ACCESS ANALYSIS BLOCK 6								
	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	ACHEIVES MINIMUM 2 HRS
01 BLANE STREET	Y	N	N	N	Y	N	N	YES
02 03 BLANE STREET	Y	N	N	N	Y	N	N	YES
03 03 WALLACE STREET	Y	N	N	Y	Y	N	N	YES
04 01 WALLACE STREET	Y	N	Y	Y	Y	N	N	YES



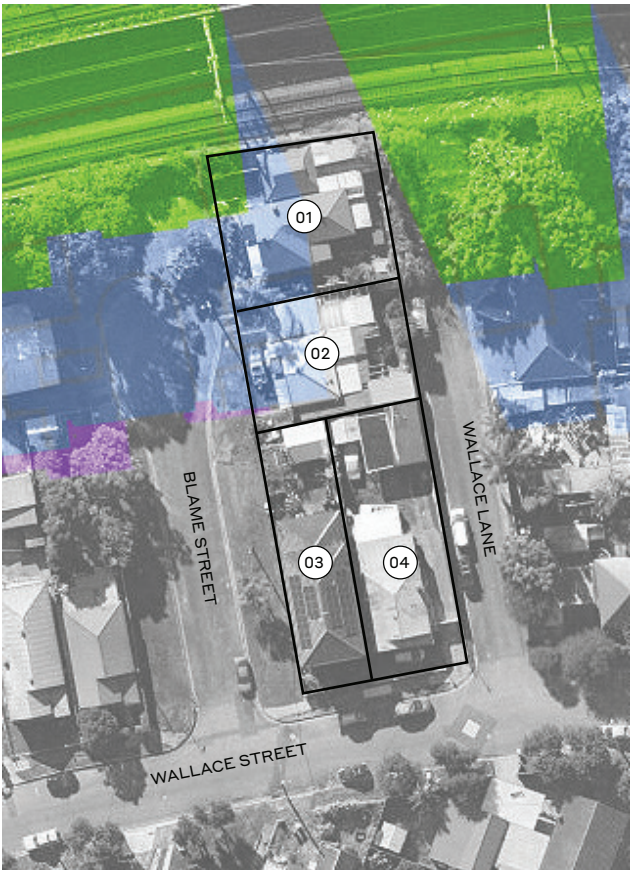
10.29

Site Wide Shadow Analysis
Winter Solstice

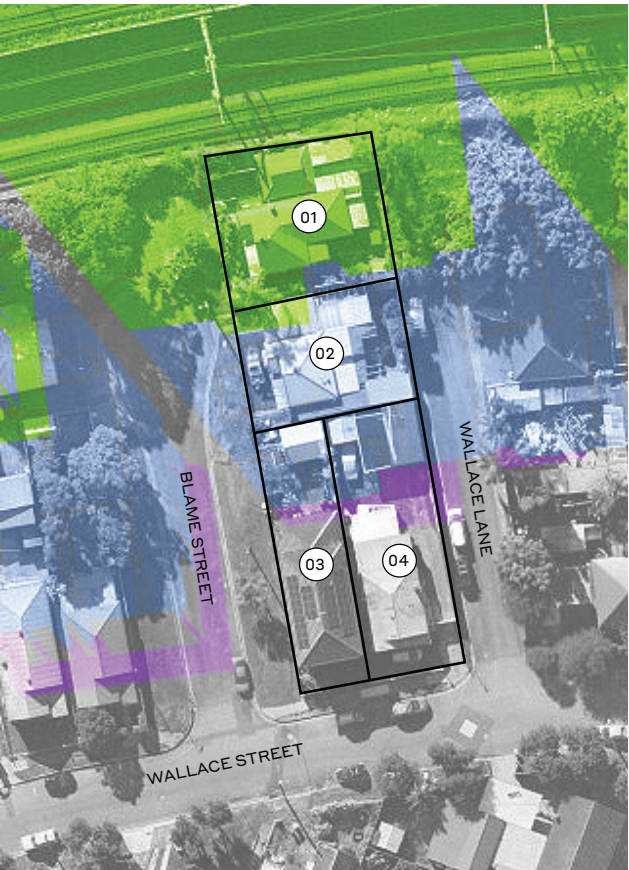
- Legend
- Max LEP Building Shadows
 - 30% Uplift Building Shadows
 - Roof Feature Shadows (Above Height Plane)
 - Surrounding Context Shadows



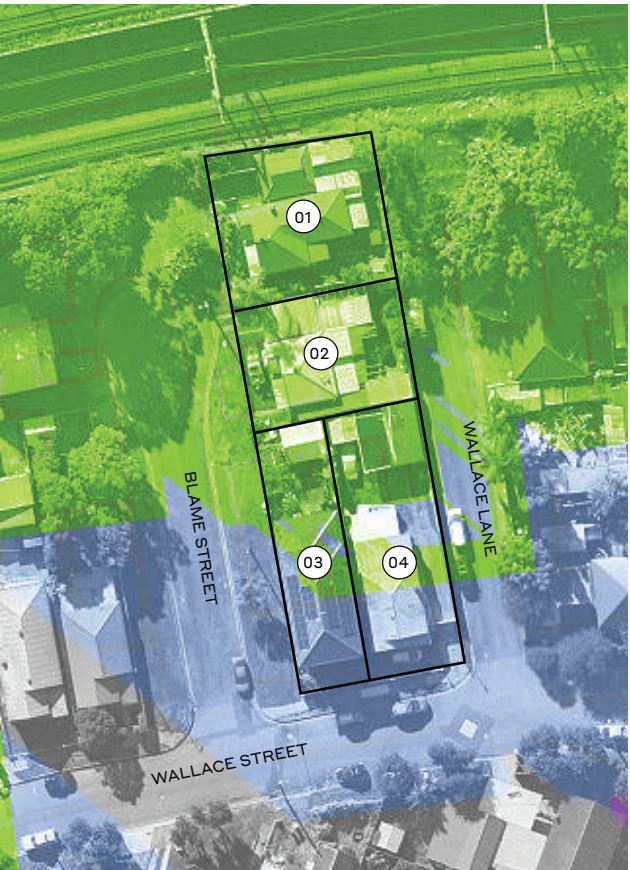
12PM



1PM



2PM



3PM



10.29

Site Wide Shadow Analysis

Winter Solstice

Block 7

4 Properties (Residential)**

This street block includes 4 residential properties with entries facing West.

**This is an indicative area analysis only. Further investigation regarding solar impact estimates are subject to detailed site survey.

Legend

Max LEP Building Shadows

30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

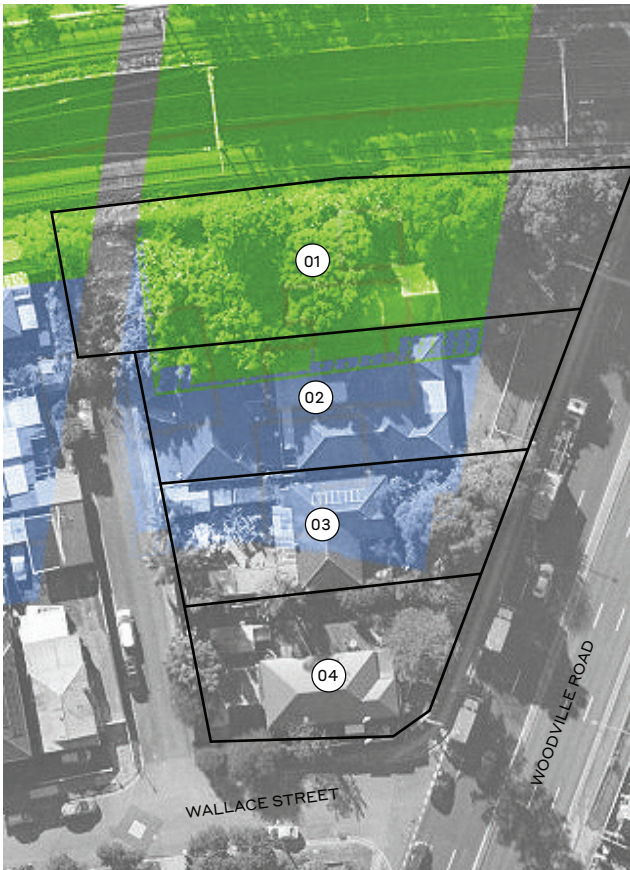
Surrounding Context Shadows



9AM



10AM



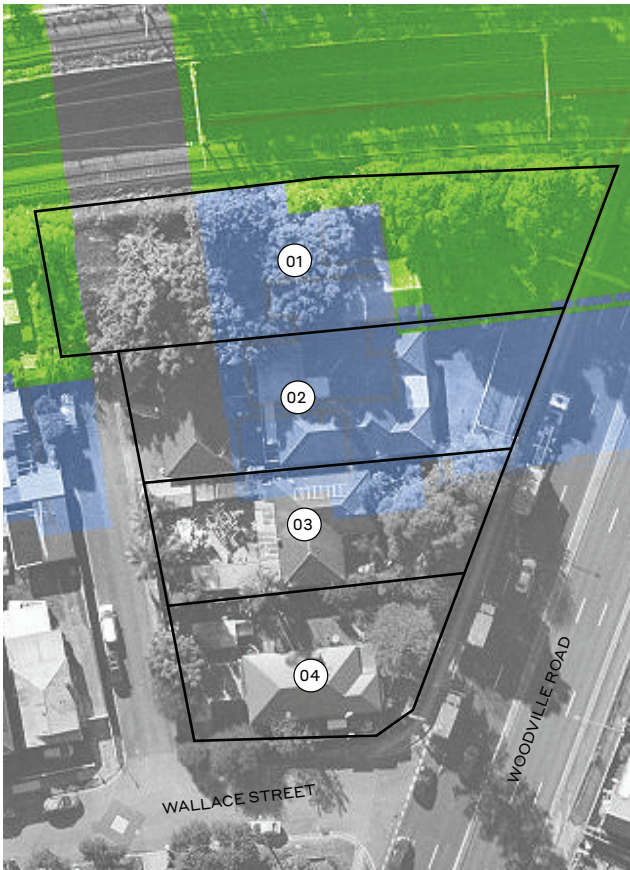
11AM

SOLAR ACCESS ANALYSIS BLOCK 7								
	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	ACHEIVES MINIMUM 2 HRS
01 04 WOODVILLE ROAD	Y	Y	N	N	Y	N	N	YES
02 06 WOODVILLE ROAD	Y	Y	N	N	Y	N	N	YES
03 08 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	N	YES
04 10 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	N	YES

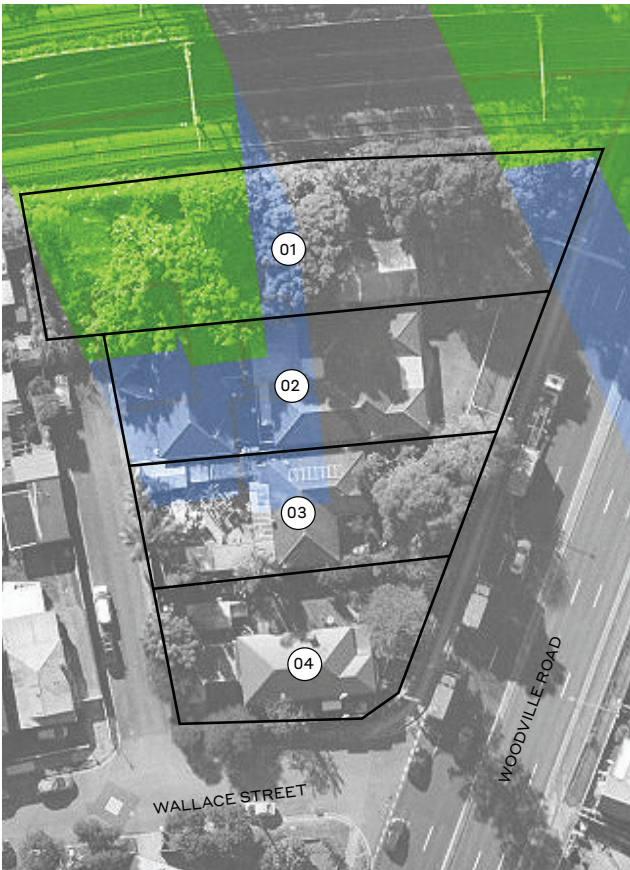
10.29

Site Wide Shadow Analysis
Winter Solstice

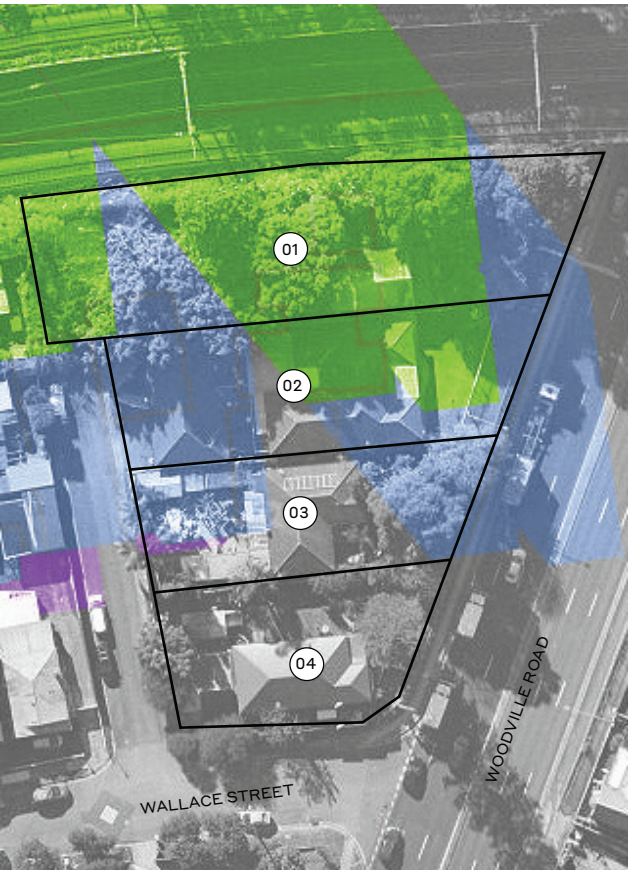
- Legend
- Max LEP Building Shadows
 - 30% Uplift Building Shadows
 - Roof Feature Shadows (Above Height Plane)
 - Surrounding Context Shadows



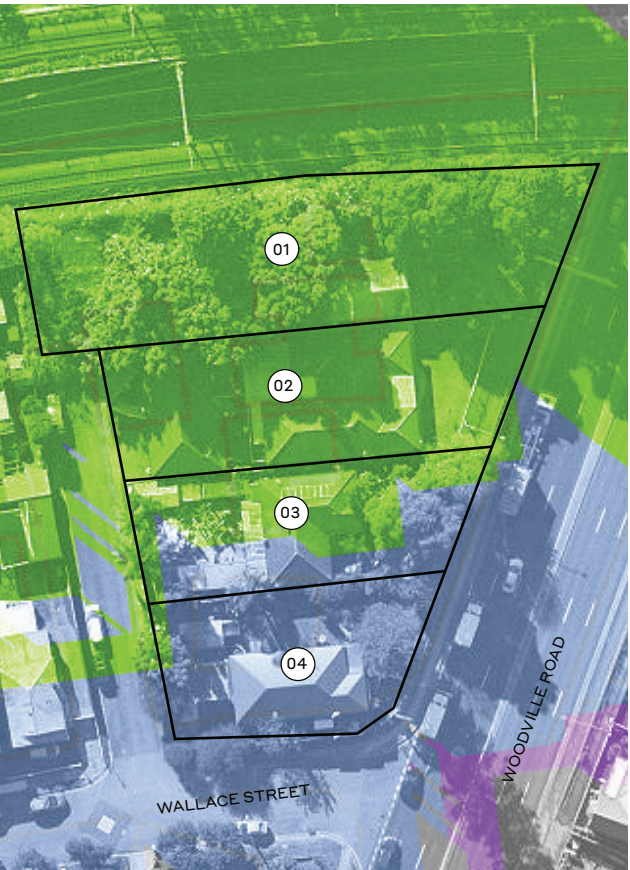
12PM



1PM



2PM



3PM



10.29

Site Wide Shadow Analysis

Winter Solstice

Block 8

5 Properties (Residential)**

This street block includes 5 residential properties with entries facing West.

Notes:

**This is an indicative area analysis only. Further investigation regarding solar impact estimates are subject to detailed site survey.

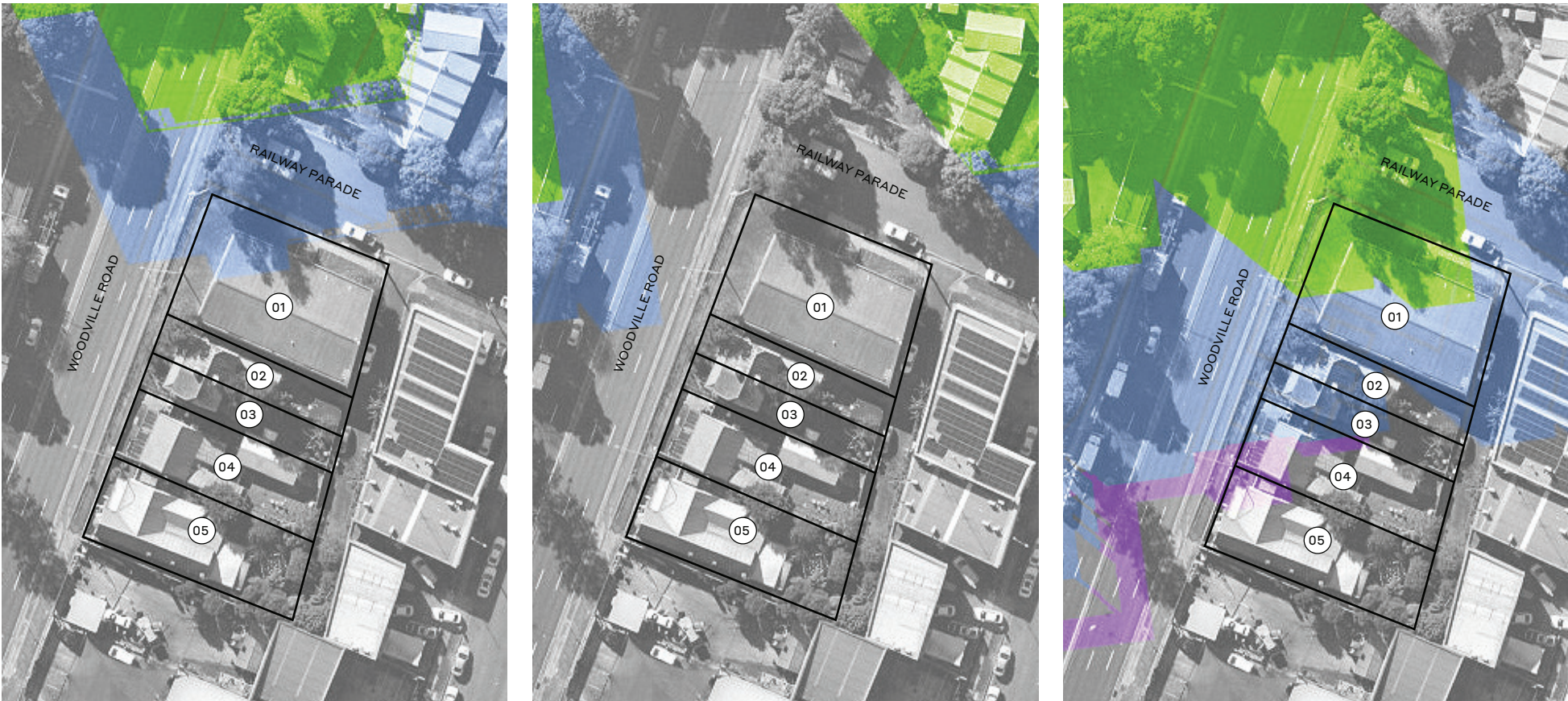
Legend

Max LEP Building Shadows

30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

Surrounding Context Shadows



1PM

2PM

3PM

SOLAR ACCESS ANALYSIS BLOCK 8								
	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	ACHEIVES MINIMUM 2 HRS
01 138 RAILWAY PARADE	Y	Y	Y	Y	Y	Y	N	YES
02 09 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	N	YES
03 11 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	N	YES
04 13 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	N	YES
05 15 WOODVILLE ROAD	Y	Y	Y	Y	Y	Y	Y	YES



10.29

Site Wide Shadow Analysis

Winter Solstice

Block 9

2 Properties (Residential)**

This street block includes 2 residential properties with entries facing South.
Properties are multi residential buildings.

Notes:

**This is an indicative area analysis only. Further investigation regarding solar impact estimates are subject to detailed site survey.

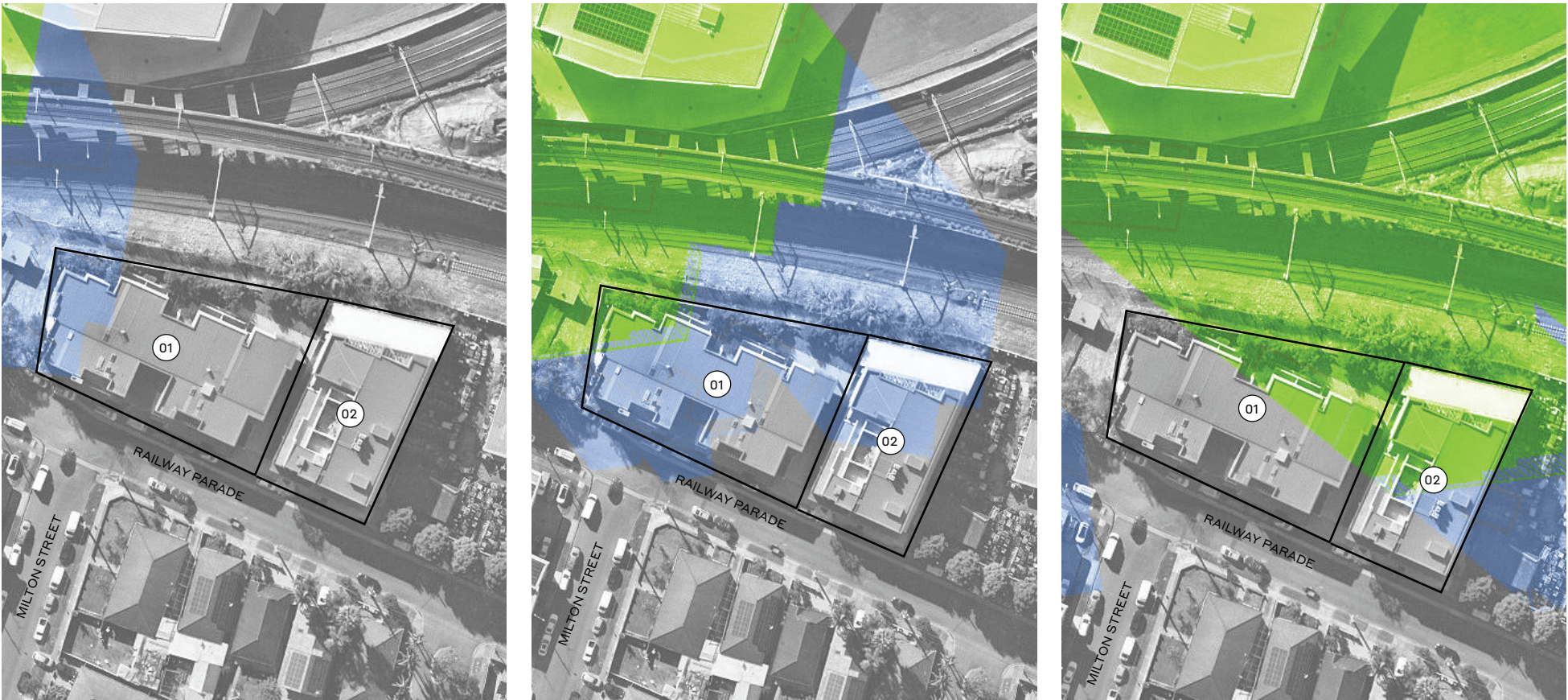
Legend

Max LEP Building Shadows

30% Uplift Building Shadows

Roof Feature Shadows (Above Height Plane)

Surrounding Context Shadows



1PM

2PM

3PM

SOLAR ACCESS ANALYSIS BLOCK 9								
	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	ACHEIVES MINIMUM 2 HRS
01 30/121-127 RAILWAY PARADE	Y	Y	Y	Y	Y	N	N	YES
02 129 RAILWAY PARADE	Y	Y	Y	Y	Y	N	N	YES



A1

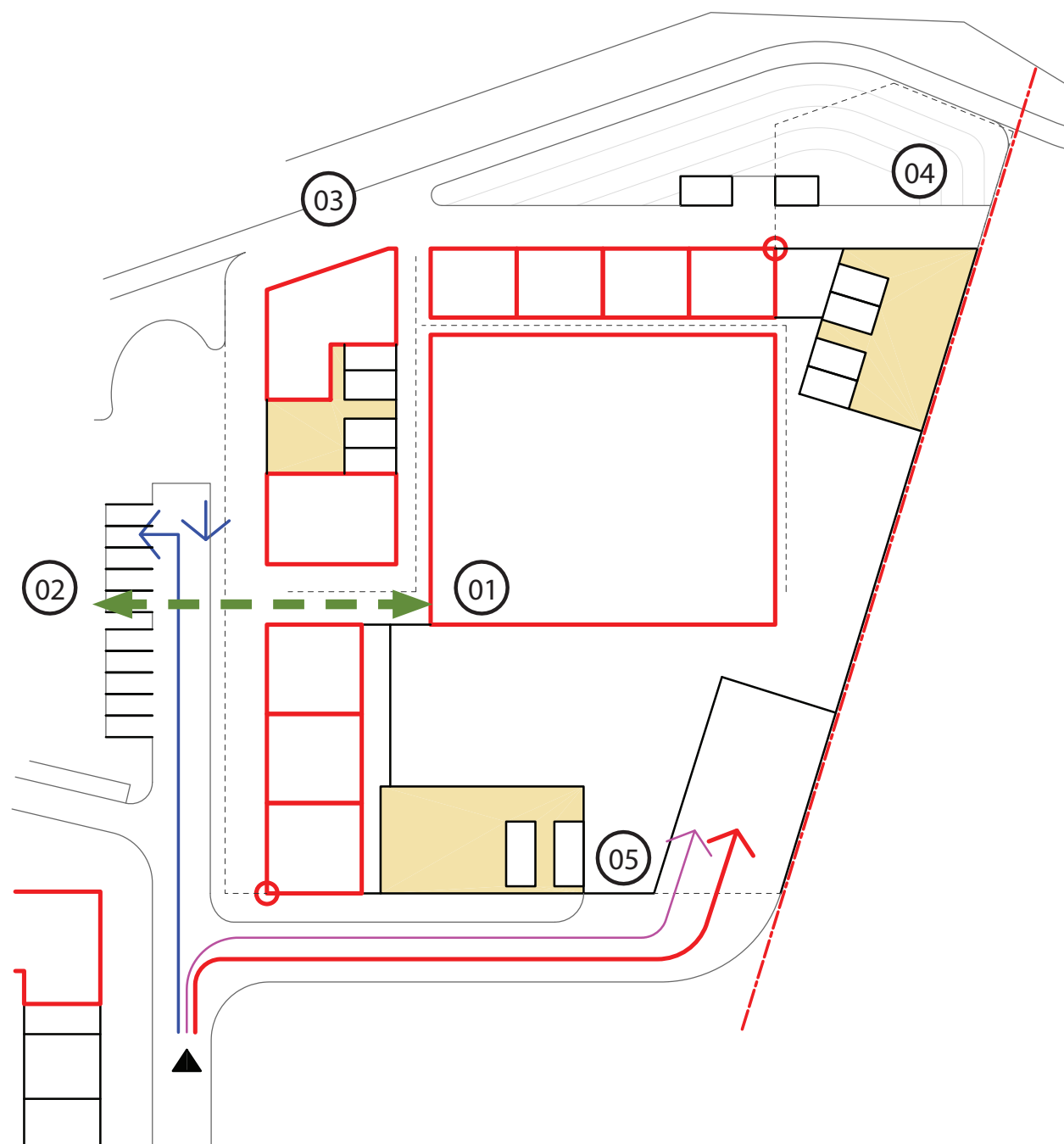
Appendix 1

Phase 1 Public Domain & Retail Consultation

A1.01 Phase 1 Consultation

West Phase - Existing Massing

SDRP 2 Layout - Ground Level



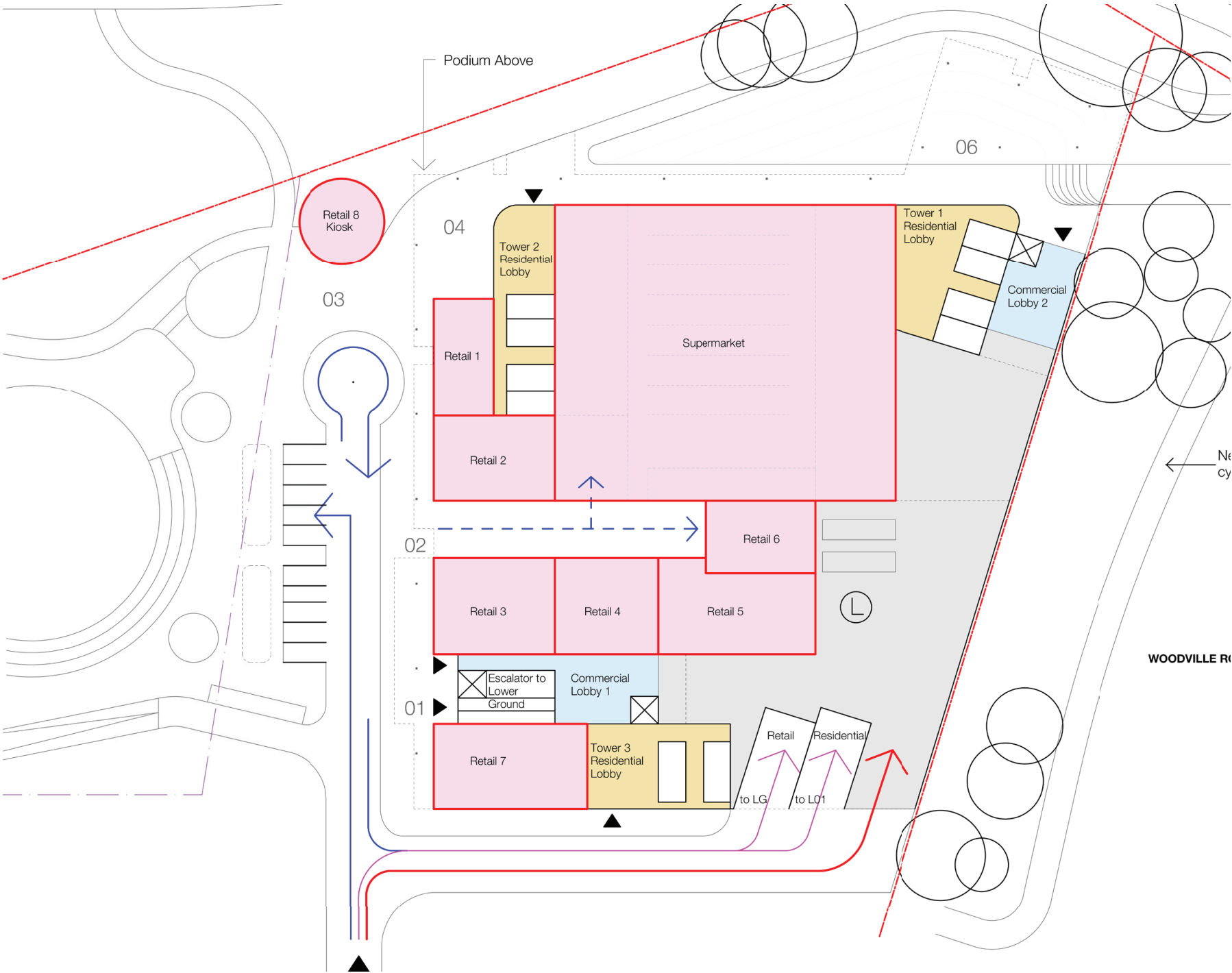
1. Clear retail address to the supermarket. Approx width + 7.0 meters. Laneway connects with an adjacent route towards the urban garden located at northern frontage.
Supermarket and retail tenancies are supported by BOH interface.
2. Clear sight-line connection between park amenity and Retail main entry. 10 Car bays provided for short term parking.
3. Chamfered corner aligned with the northern pedestrian footpath. Emphasize external connection between park and the northern frontage of the site. Opportunity to benefit from northern orientation.
4. Clear residential lobby address along the northern frontage. Inclusion of a green area connected through a colonnade along the facade.
5. Condensed driveway access to avoid mixing pedestrian journeys with BOH.

A1.04 Phase 1 Consultation

Final Developed Option

Main Moves
+ Escalator access to car park moved closer to park
+ ramp access simplified

- Legend:**
- 01 - Arrival (Escalators to LG)
 - 02 - Entry
 - 03 - Meeting Place 1
 - 04 - Meeting Place 2
 - 05 - Commercial Lobby
 - 06 - Meeting Place 3



A2

Appendix 2

Building 5 & 6 Massing Tests

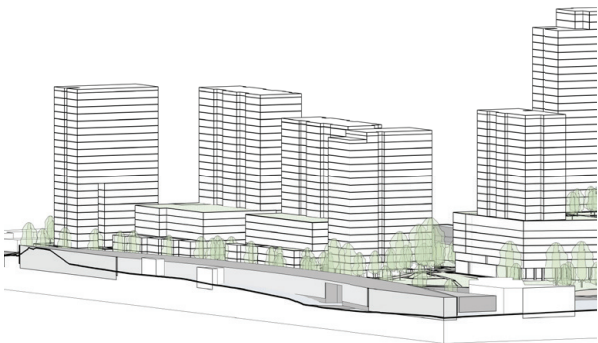
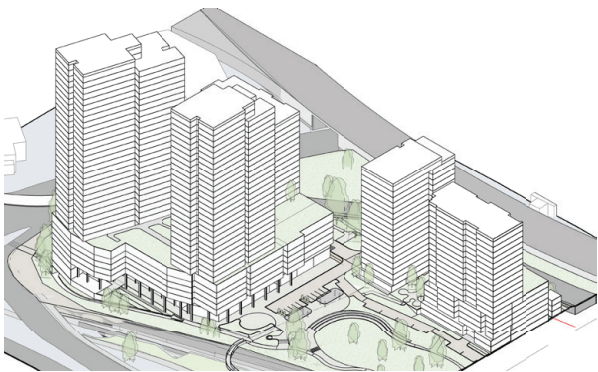
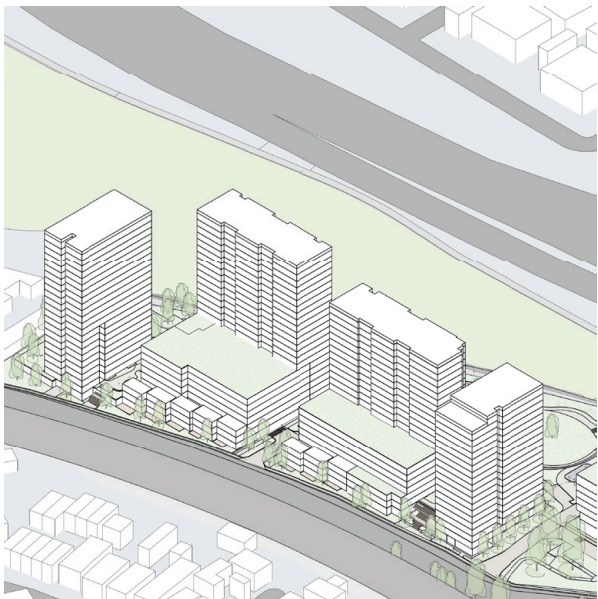
A2.01 Building 5 & 6 - Massing Tests

West Phase - Existing Massing

Design Principles

- 1. Minimise number of south facing apartments.
- 2. Minimise apartments with close proximity to rail line.
- 3. Emphasise views out to the park and parramatta.

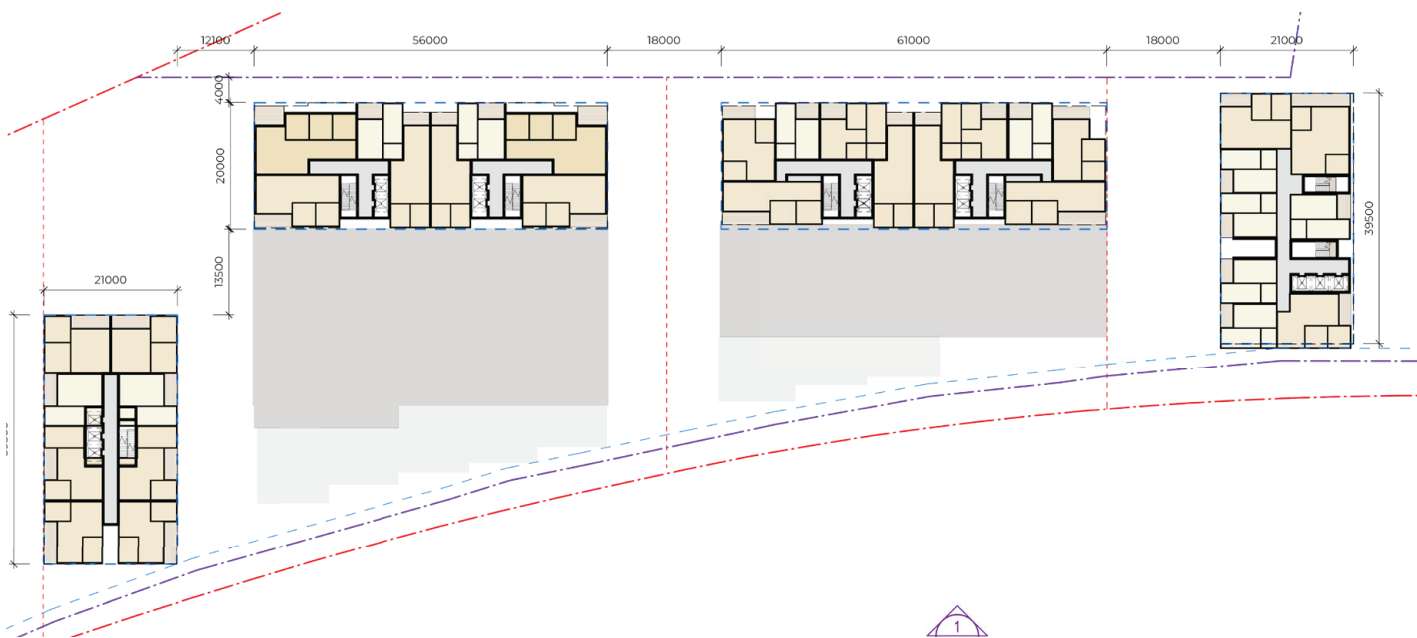
3D Views



Typical Ground Floor



Typical Upper Floor (with Podium Roof)



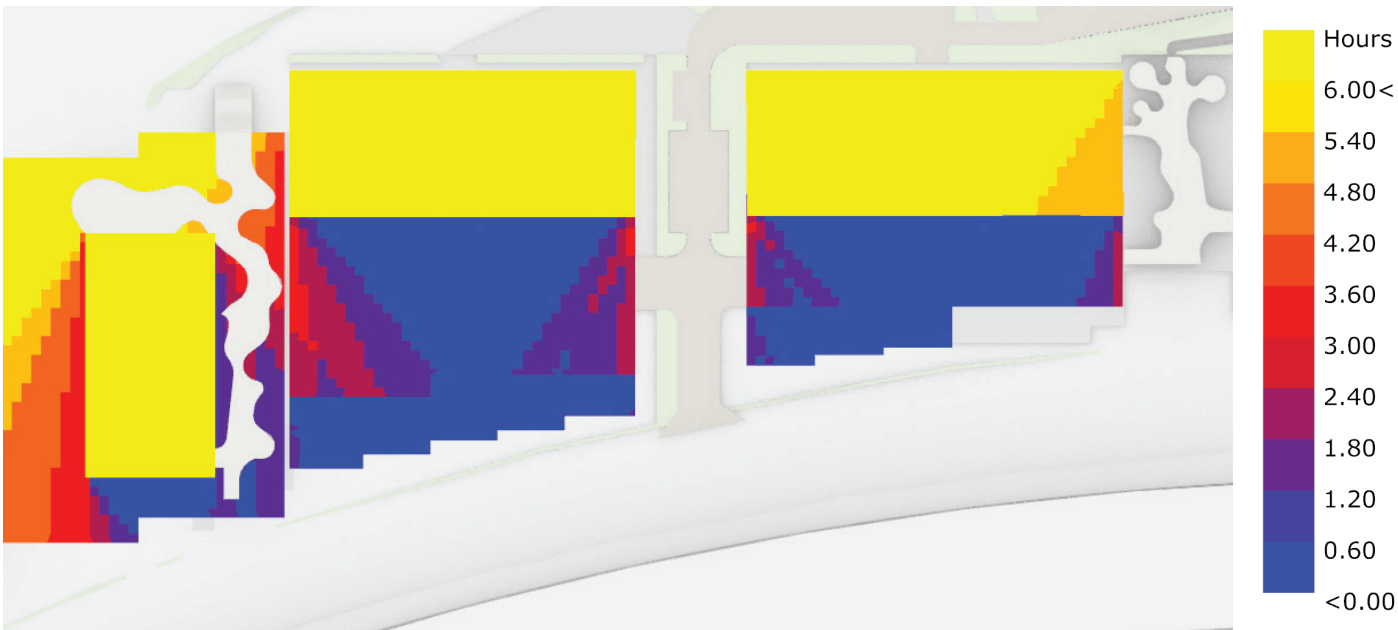
SDRP 2 FEEDBACK		REFER TO
17.0	For Buildings 5 and 6, investigate whether other massing arrangements (e.g., L or U-shaped Buildings), would be a better approach in order to;	See page 08.02 & Appendix A2
17.A	Better sleeve the carparking from Crescent St than the proposed terraces.	See page 08.02, 08.04 & Appendix
17.B	Enable the podium roof to receive solar access and be utilised by residents	See page 05.09, 08.08 & Appendix
17.C	improve the solar access for properties to the south by reducing the height or allowing for greater separation between Building forms.	See page 05.09, 08.02 & Appendix

A2.02 Building 5 & 6 - Massing Tests West Phase - Existing Massing

Impact on Car Park

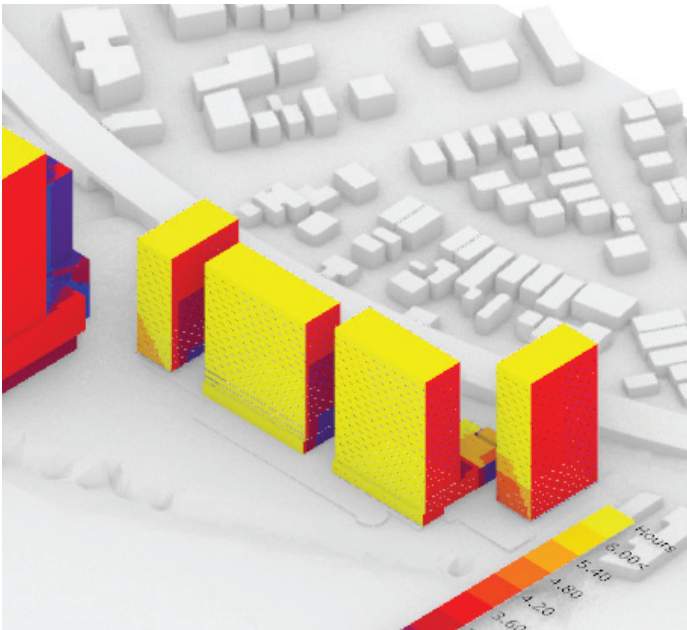


Solar Impact

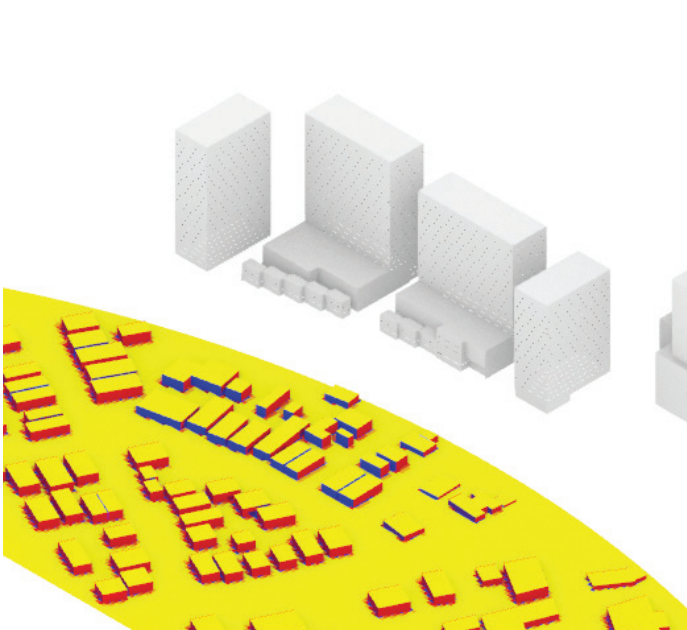


Winter Solstice Sun Access

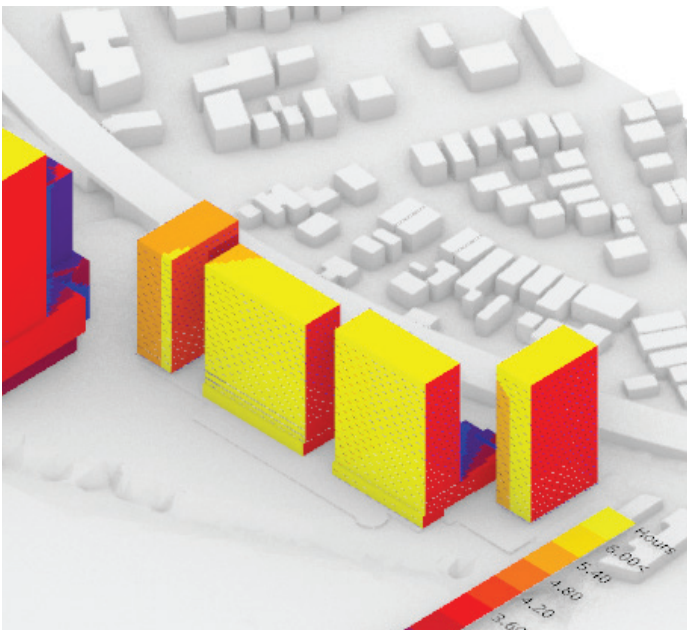
3D Views



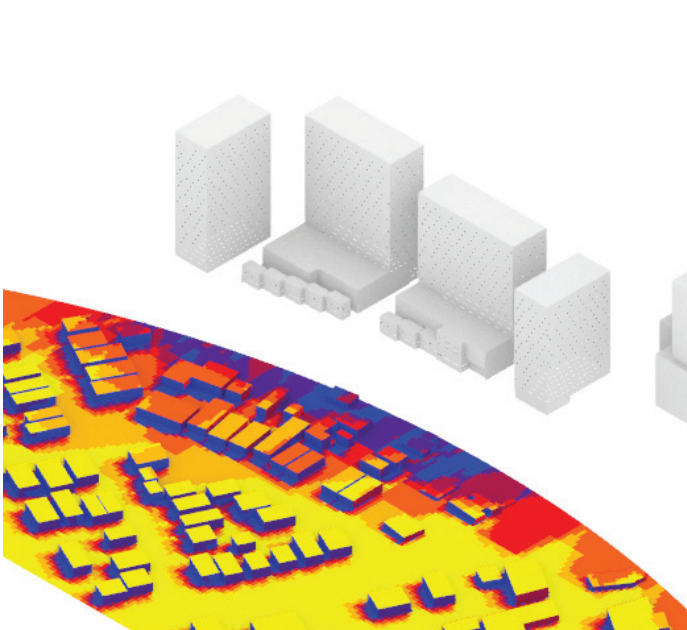
Summer Solstice Sun Access from North-west



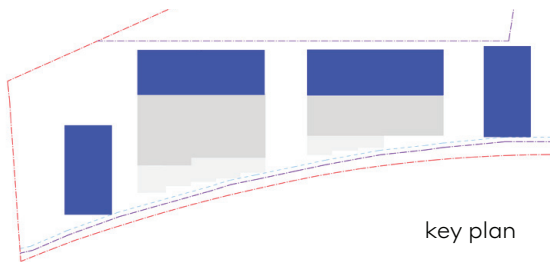
Summer Solstice Sun Access from South East



Winter Solstice Sun Access from North-west



Winter Solstice Sun Access from South East



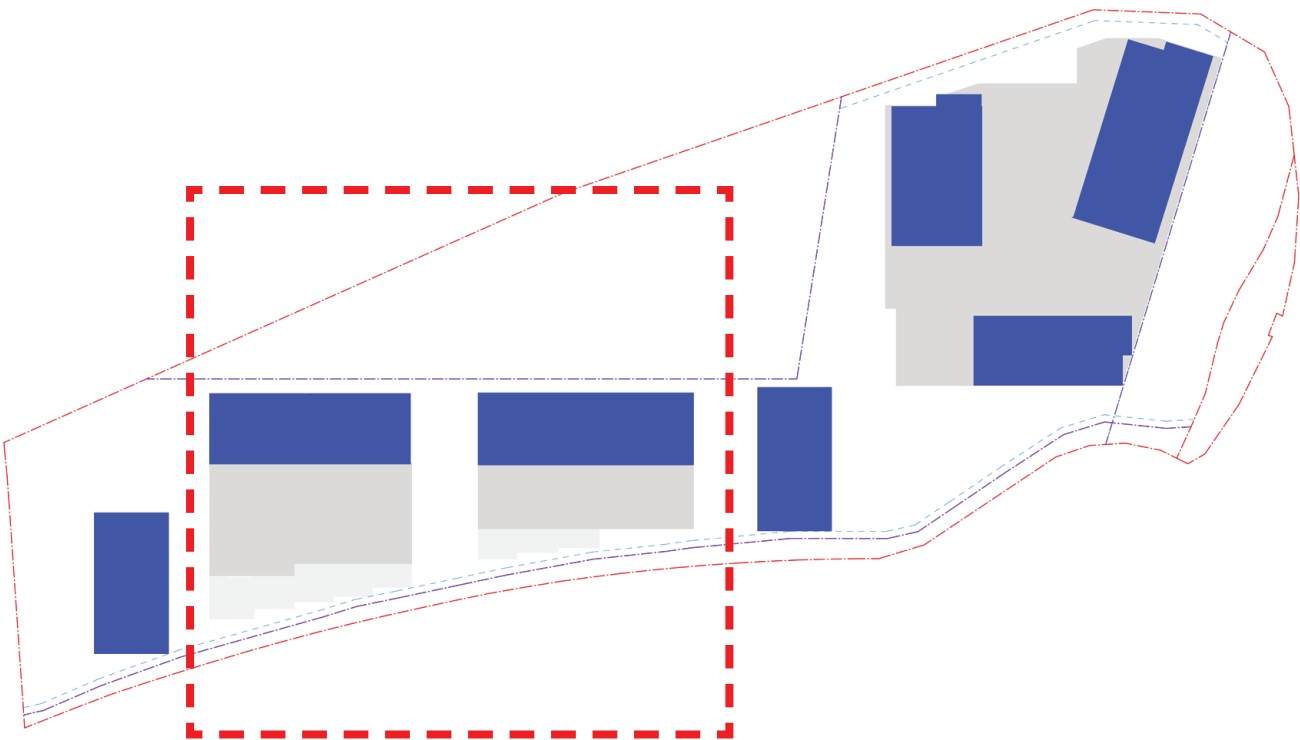
key plan

A2.03 Building 5 & 6 - Massing Tests

SDRP2 Design Considerations Raised

Suggested Actions

- 1. Minimise visual impact of massing seen from outside the development.
- 2. Consider massing integration with surrounding forms.
- 3. Showcase a cohesive architectural response.
- 4. Investigate different building heights, locations, orientations, forms and podium approaches. (e.g., L or U-shaped Buildings),
- 5. Better sleeve the carparking as seen from Crescent St than the proposed terraces.
- 6. Justify the solar exposure on the podium roof.
- 7. Improve the solar access for properties to the south of the site.
- 8. Consider height and separation distances between Building forms.



Simplified SDRP 2 Site Massing
Diagram highlighting Building 5 and 6 for this massing analysis

SDRP 2 FEEDBACK		REFER TO
17.0	For Buildings 5 and 6, investigate whether other massing arrangements (e.g., L or U-shaped Buildings), would be a better approach in order to;	See page 08.02 & Appendix A2
17.A	Better sleeve the carparking from Crescent St than the proposed terraces.	See page 08.02, 08.04 & Appendix
17.B	Enable the podium roof to receive solar access and be utilised by residents	See page 05.09, 08.08 & Appendix
17.C	improve the solar access for properties to the south by reducing the height or allowing for greater separation between Building forms.	See page 05.09, 08.02 & Appendix

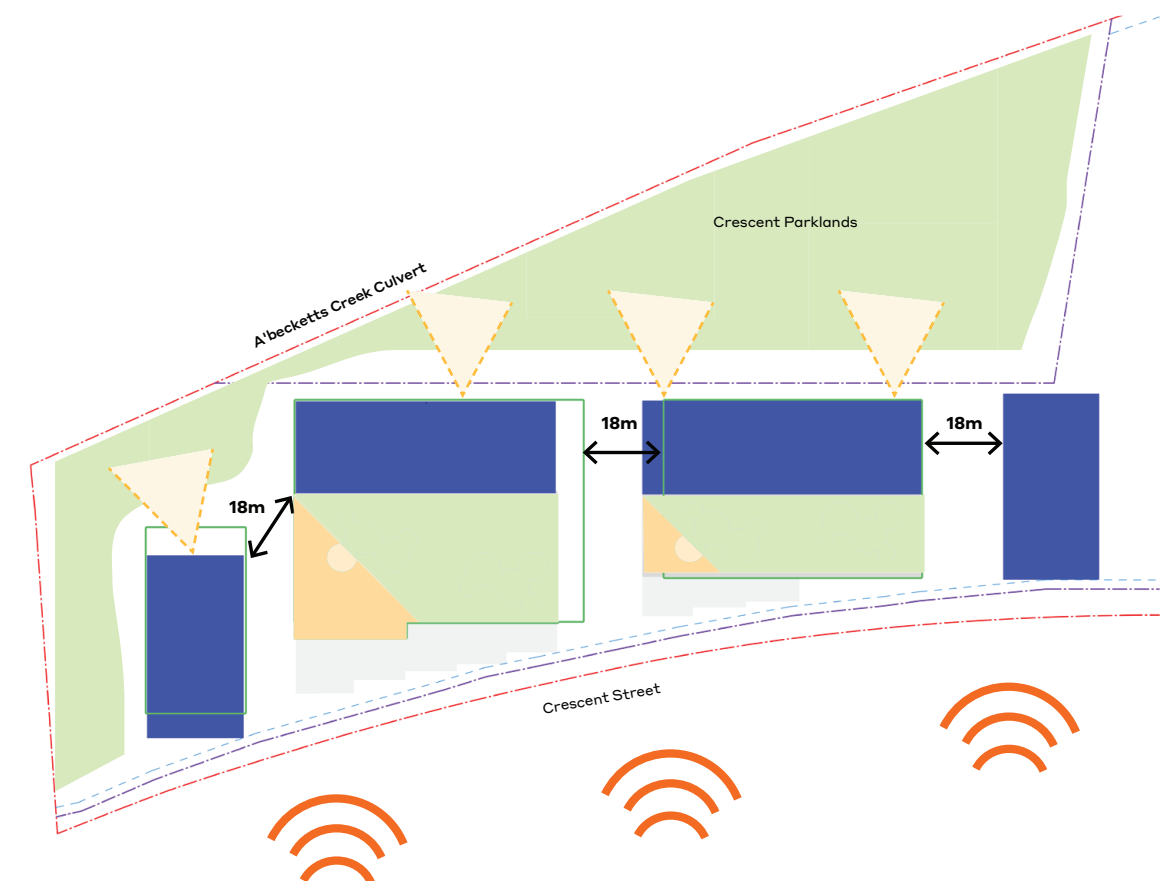
A2.04 Building 5 & 6 - Massing Tests Moves to Consider

Design Actions

1. Increase in separation distances between buildings, ranging from 18m - 24m.
2. Preliminary articulation of the overall building masses.
3. Residential amenity improvement by allowing solar access and strategic connections between them.

Design Principles to Uphold

1. Minimise South Facing Units.
2. Maximise views to the park.
3. Maximise views to Parramatta Square.



Simplified SDRP 2 Site Massing

Diagram highlighting Building 5 and 6 for this massing analysis

A2.05 Building 5 & 6 - Massing Tests

Option 1 - Massing Articulated

Summary

Previously proposed mass with increased articulation of setbacks and balconies to break up the form.

Merits

- 1. Same GFA achievable.
- 2. Further developed massing articulation as per SDRP 2 proposal.

Downsides

- 1. No perceived improvement to solar access to podium roofscape.
- 2. No perceived improvement of Building massing facing the park.
- 3. No improvement of building separation distances or surveillance over connection routes.

3D Views



Aerial View

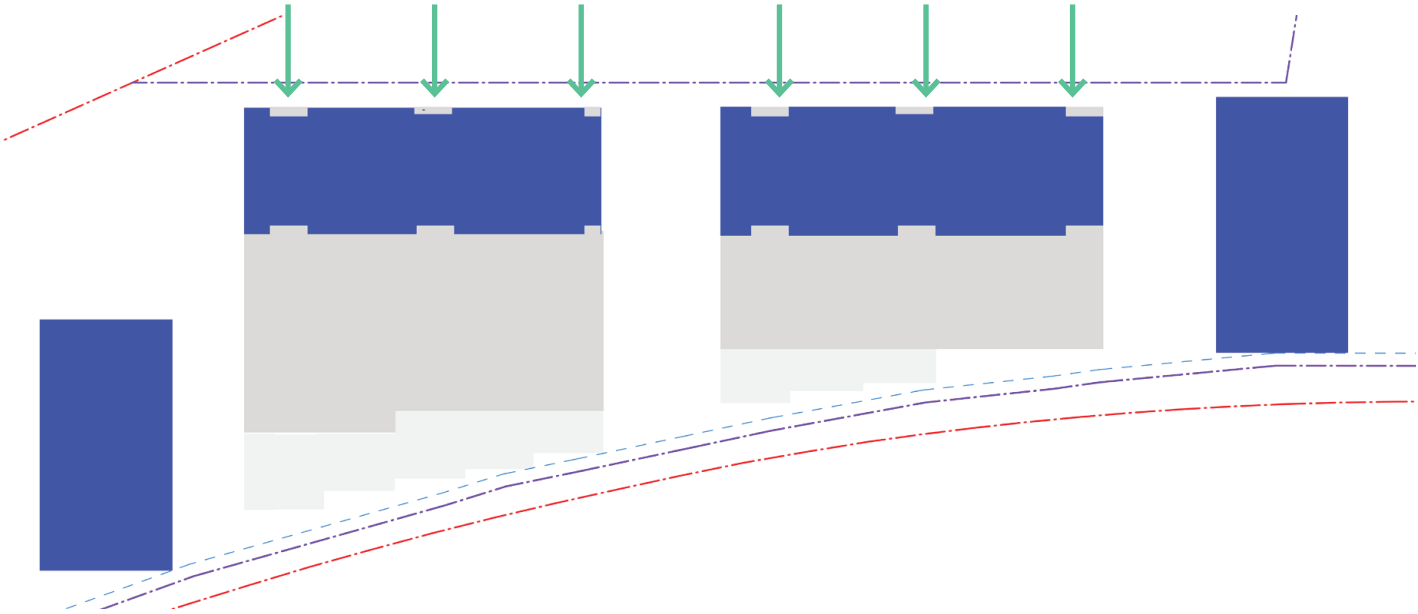


View from Retail interface (East)

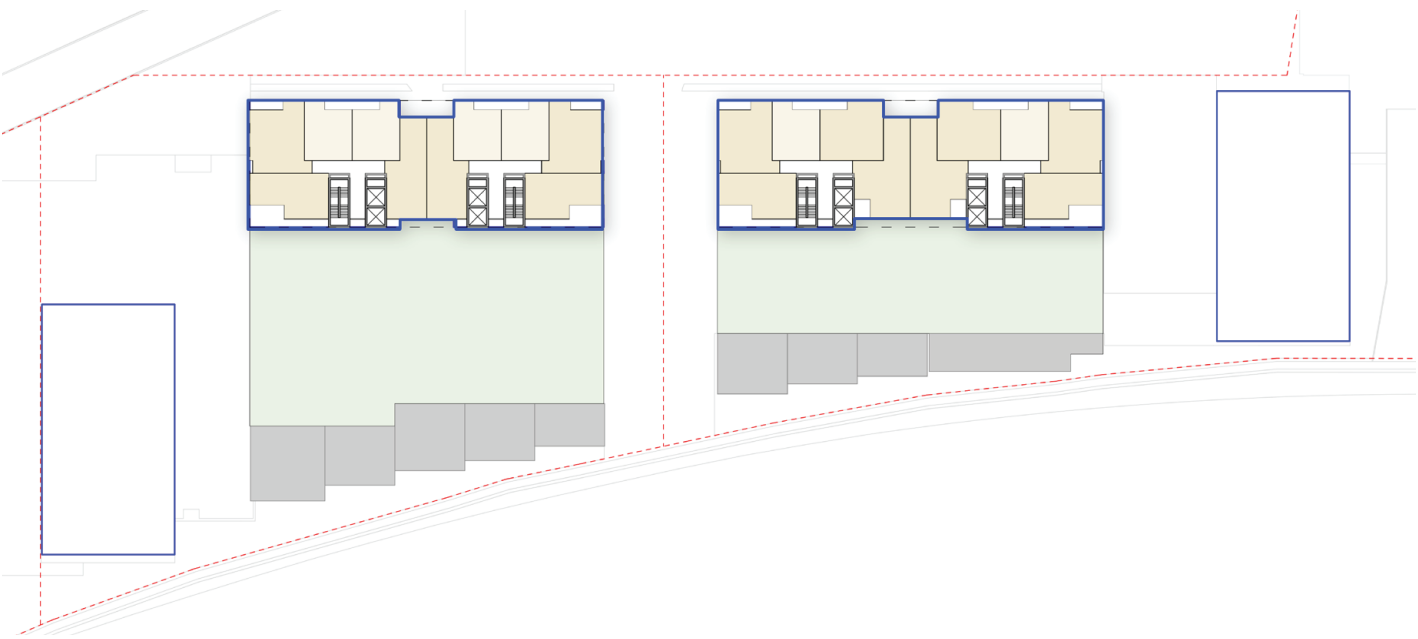


View from western side of the park (West)

Diagram Plan - Massing Strategy

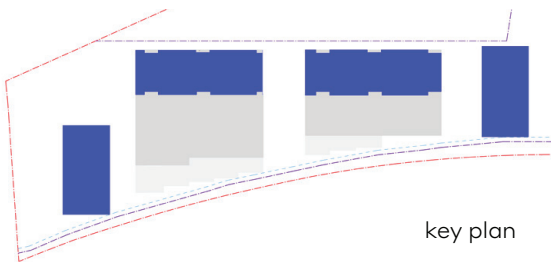
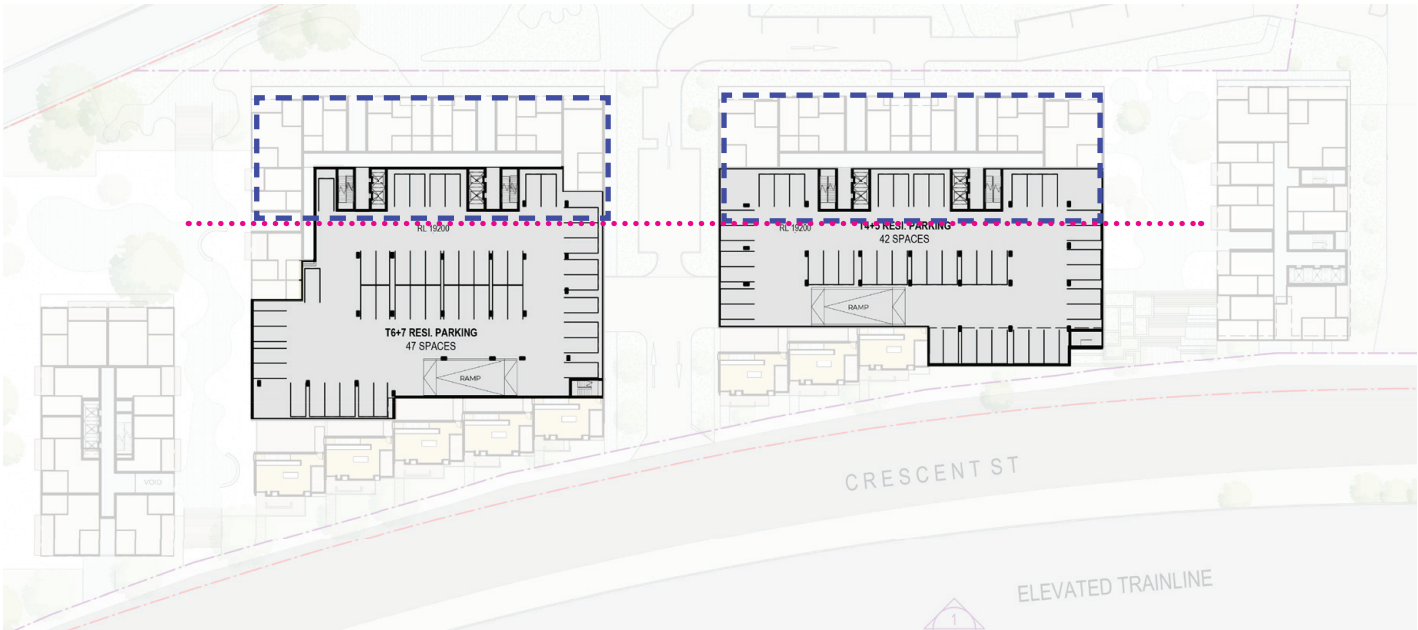


Typical Upper Floor (with Podium Roof)



A2.06 Building 5 & 6 - Massing Tests Option 1 - Massing Articulated

Impact on Car Park - Similar to previous mass

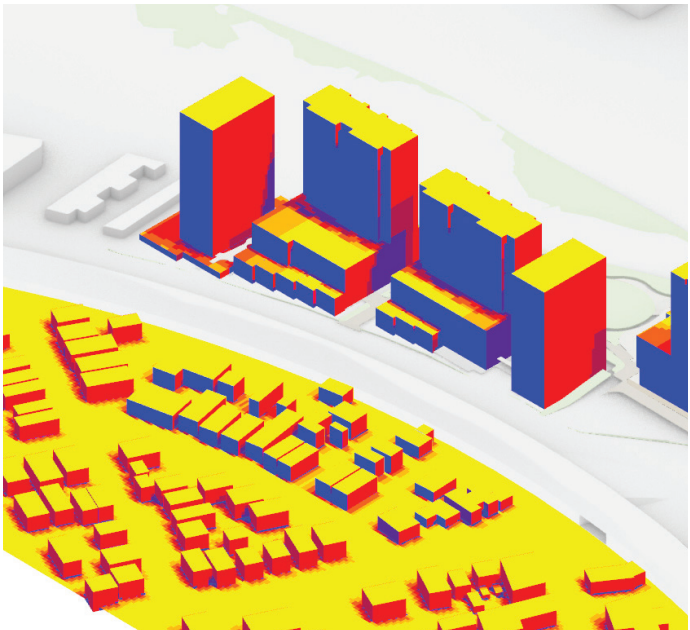


key plan

3D Views

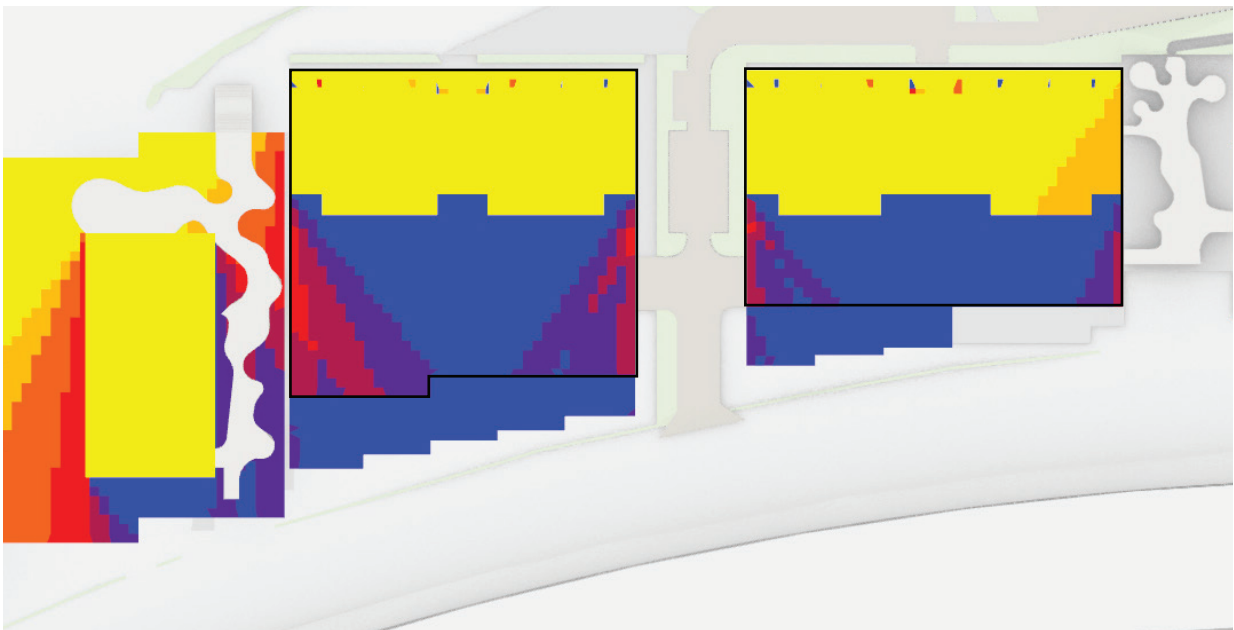


Summer Solstice Sun Access from North-west



Summer Solstice Sun Access from South East

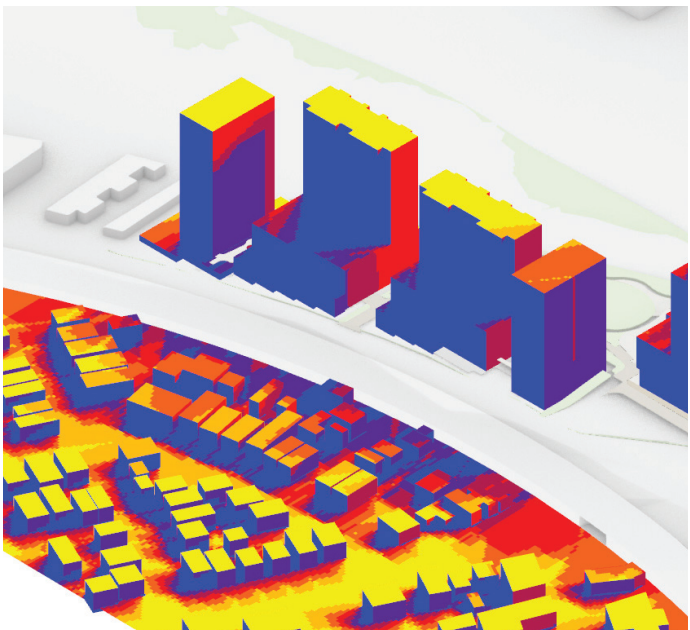
Solar Impact



Winter Solstice Sun Access



Winter Solstice Sun Access from North-west



Winter Solstice Sun Access from South East

A2.07 Building 5 & 6 - Massing Tests

Option 2 - 2 Slotted Massing

Summary

Block form broken and given 6m break.

Merits

1. Same GFA achievable.
2. Massing divided and visibly less monolithic.
3. Wider distances between habitable apartments.

Downsides

1. Minimal improvement in regards to solar access to the podium roofscape.
2. Difference in massing could be perceived as a minimal change.

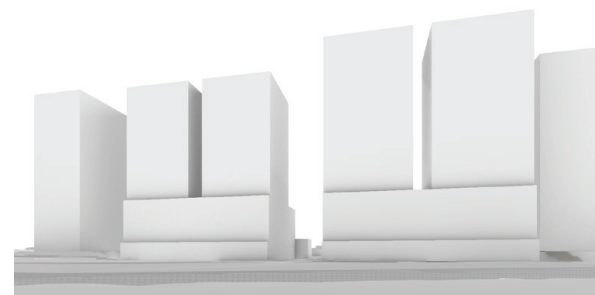
3D Views



Aerial View

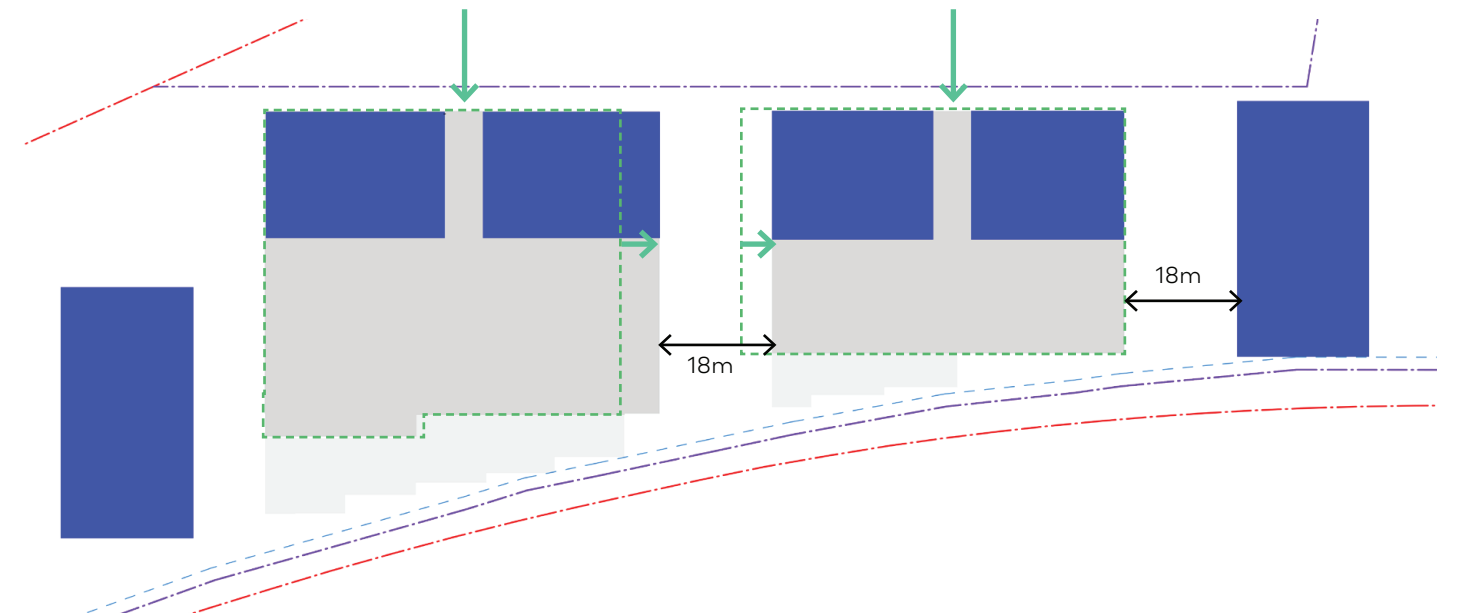


View from Retail interface (East)



View from western side of the park (West)

Diagram Plan - Massing Strategy

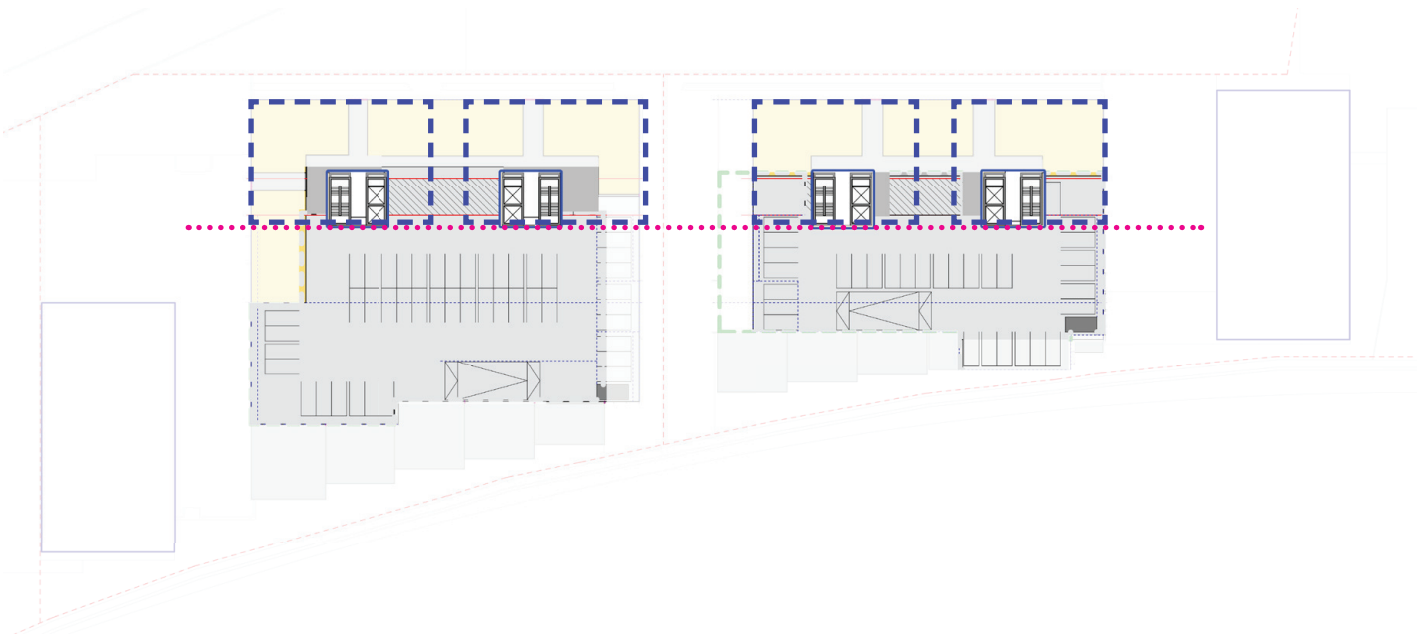


Typical Upper Floor (with Podium Roof)

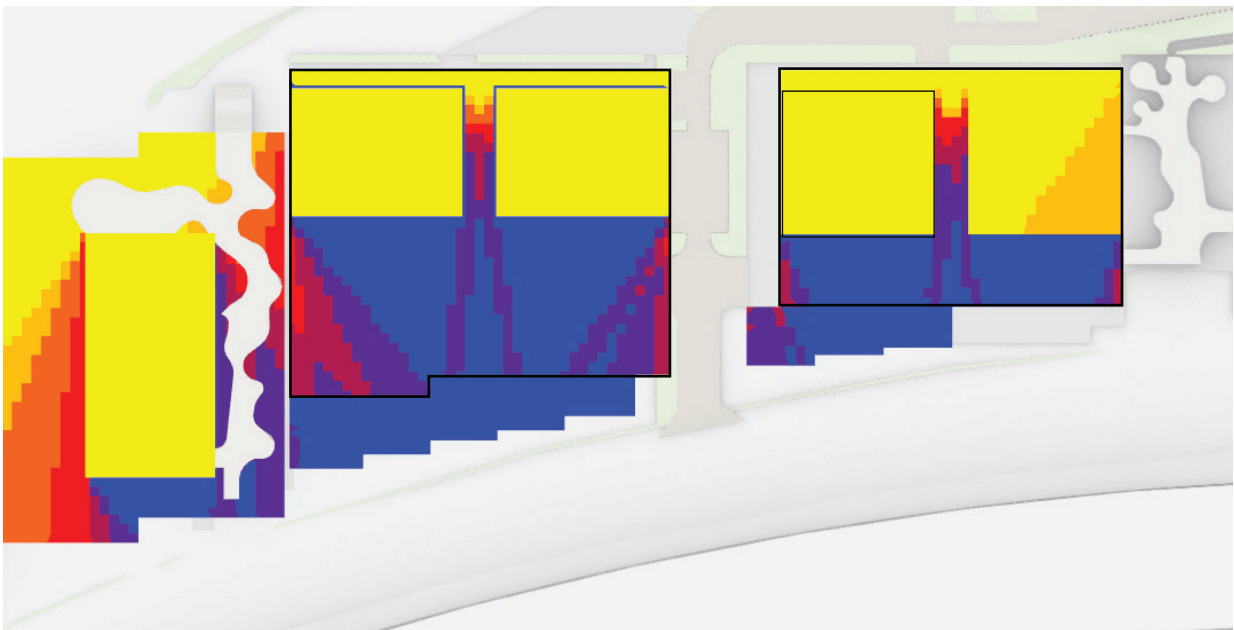


A2.08 Building 5 & 6 - Massing Tests Option 2 - 2 Slotted Massing

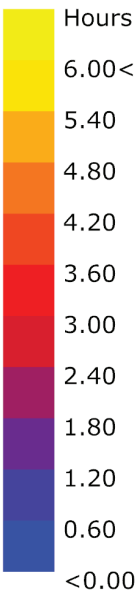
Impact on Car Park



Solar Impact



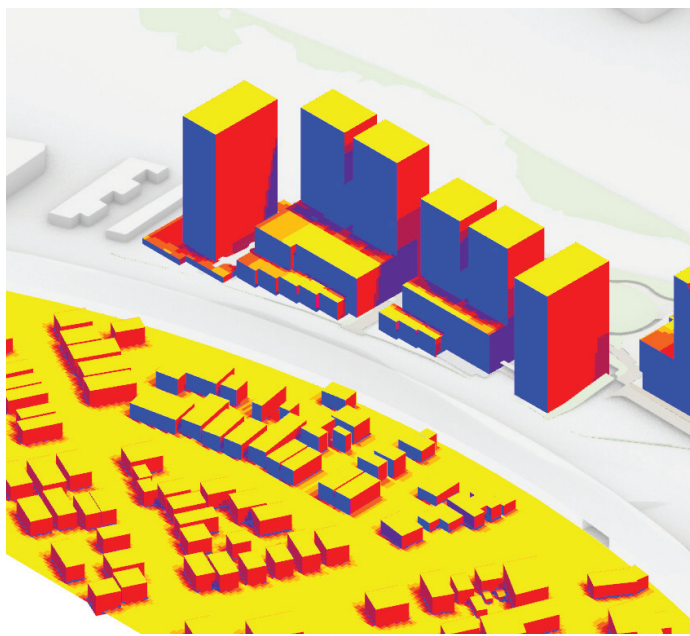
Winter Solstice Sun Access



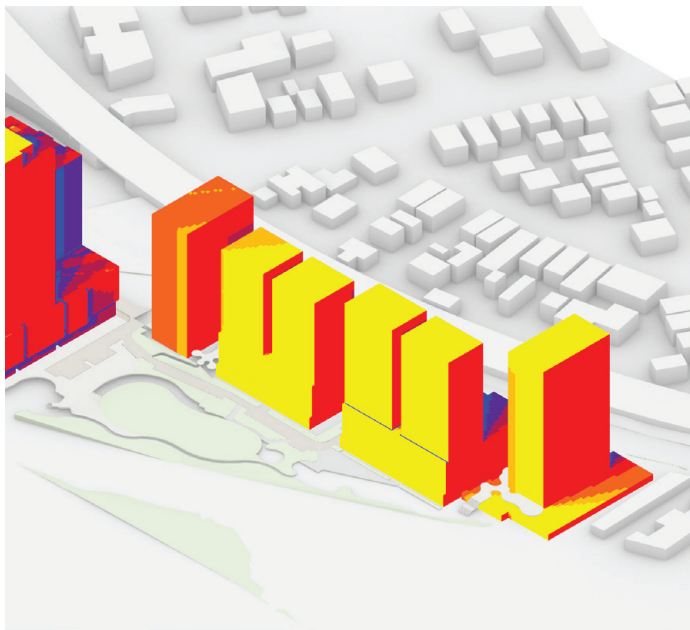
3D Views



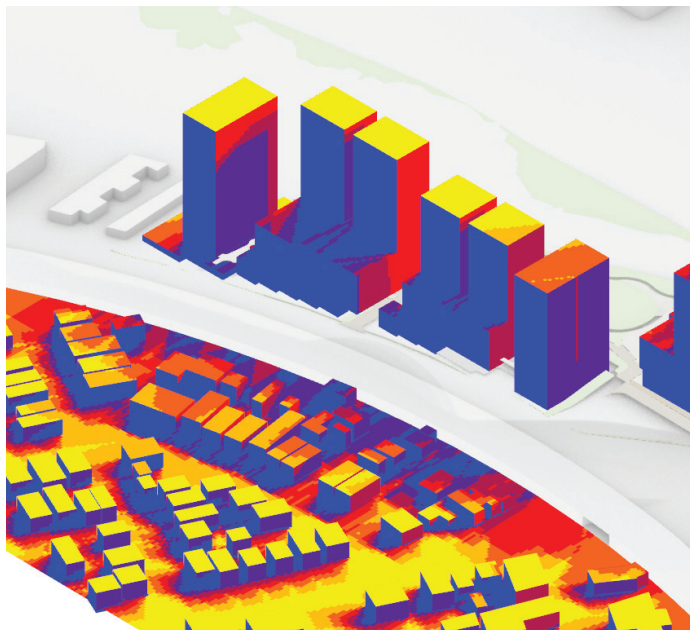
Summer Solstice Sun Access from North-west



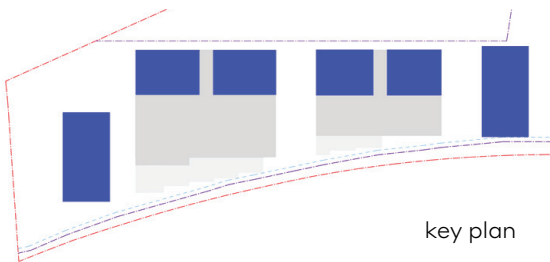
Summer Solstice Sun Access from South East



Winter Solstice Sun Access from North-west



Winter Solstice Sun Access from South East



key plan

A2.09 Building 5 & 6 - Massing Tests

Option 3 - L Shaped Massing

Summary

Massing form elongated into L shape, rotated and given additional separation distances to neighbouring buildings.

Merits

- 1. Same GFA achievable.
- 2. Increased direct solar exposure to top of podium enabling enhanced activation.
- 3. Wider distances between habitable apartments.
- 4. Reduction of number of lifts cores.

Downsides

- 1. Decrease in primarily North facing apartments, more angled to the East and West
- 2. Second fire stair will required to progressively move south through a transfer level.
- 3. L shaped building reduces efficiency around the inner corner and adjacent apartments.
- 4. Exposed corridor length on south facade will need acoustic treatment.
- 5. Apartments closer to the rail line will require an acoustic treatment along the facade.
- 6. Buildings closer to the south facade will affect the human scale along Crescent Street.

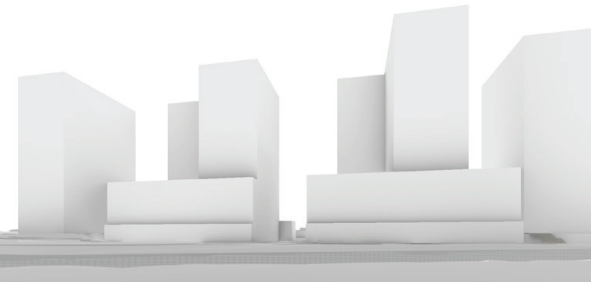
3D Views



Aerial View

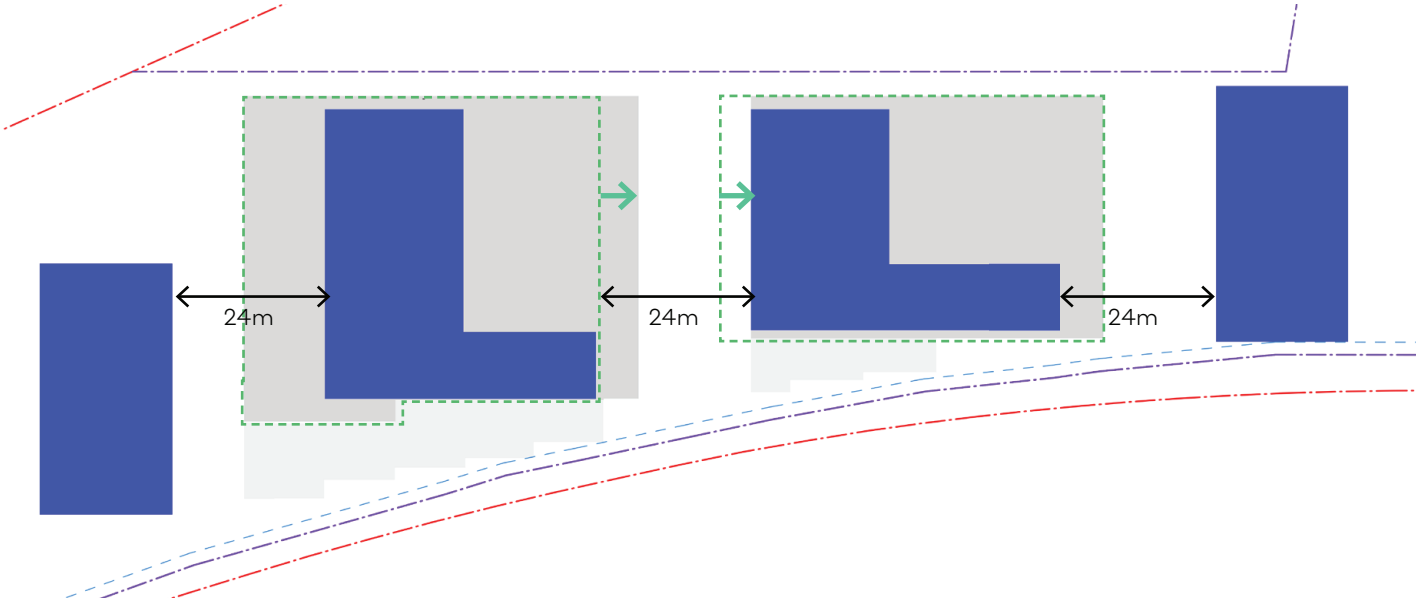


View from Retail interface (East)

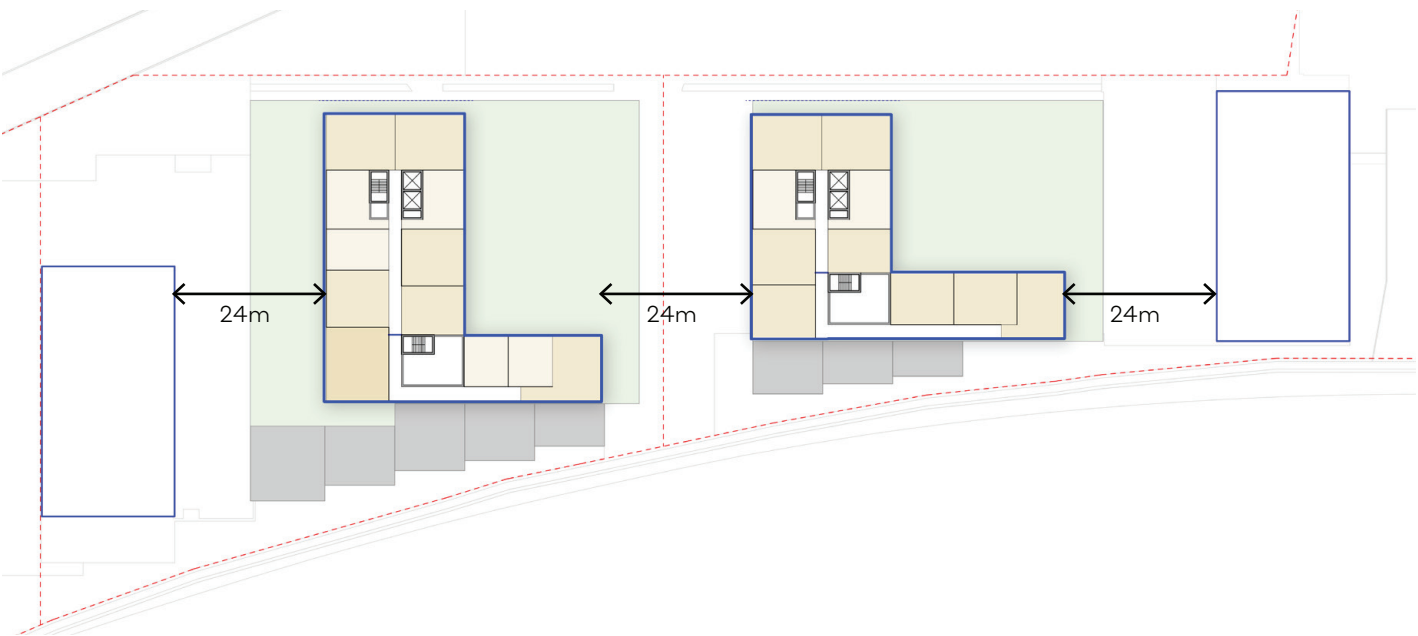


View from western side of the park (West)

Diagram Plan - Massing Strategy



Typical Upper Floor (with Podium Roof)

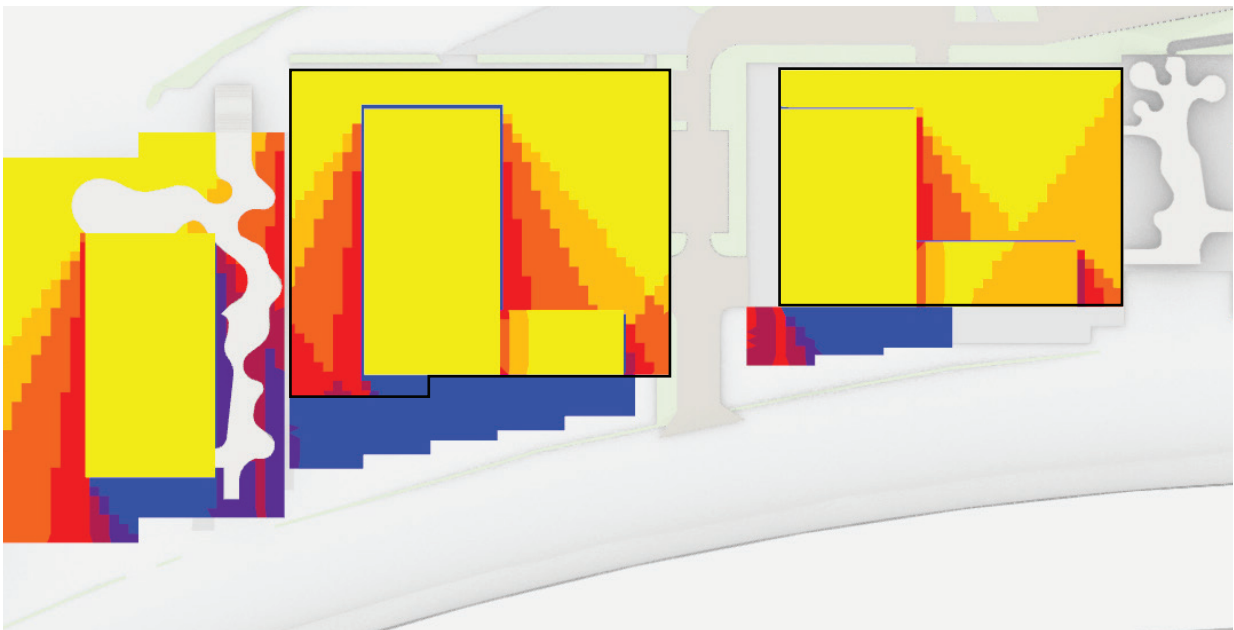


A2.10 Building 5 & 6 - Massing Tests Option 3 - L Shaped Massing

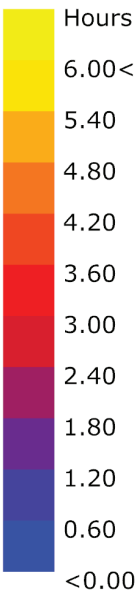
Impact on Car Park



Solar Impact



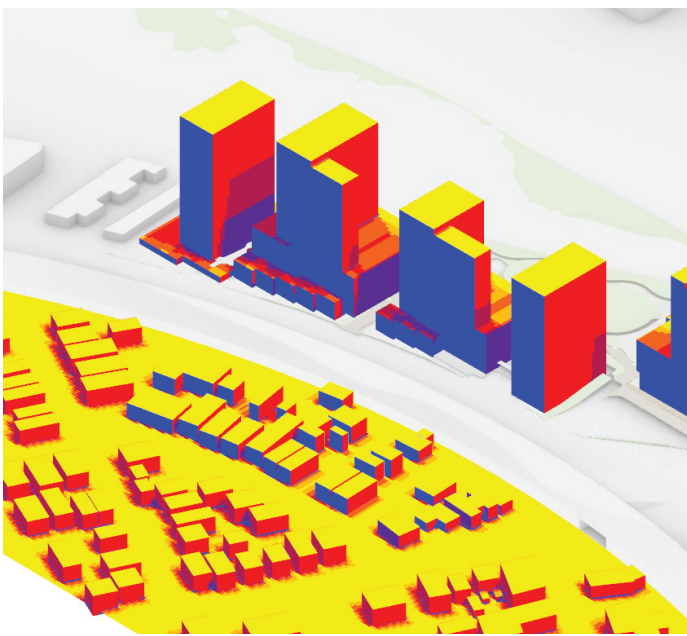
Winter Solstice Sun Access



3D Views



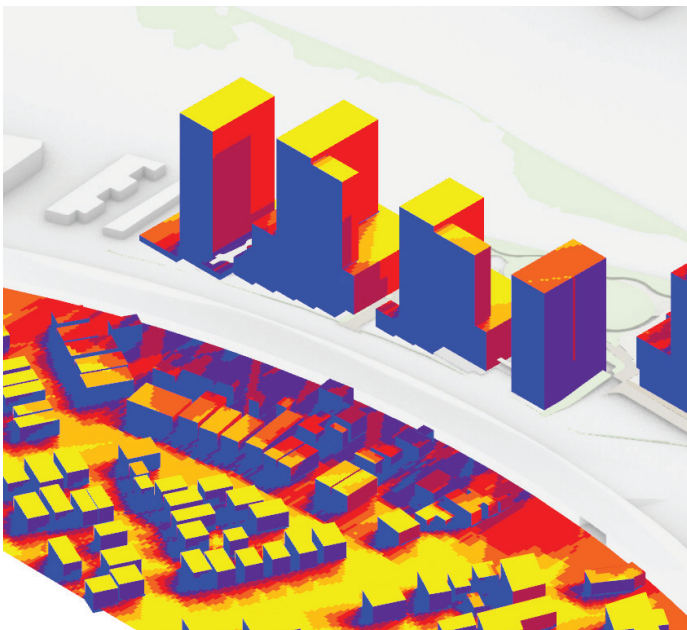
Summer Solstice Sun Access from North-west



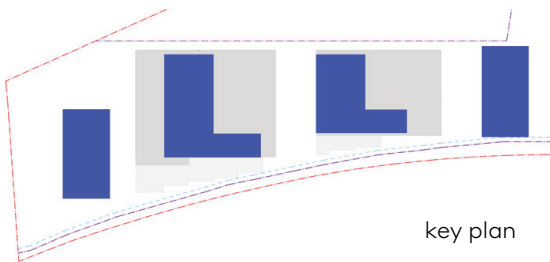
Summer Solstice Sun Access from South East



Winter Solstice Sun Access from North-west



Winter Solstice Sun Access from South East



key plan

A2.11 Building 5 & 6 - Massing Tests

Option 4 - Split Massing

Summary

Articulation of broken form staggered and rotated to further maximise separation distances.

Merits

1. Same GFA achievable.
2. Increased direct solar exposure to podium roof enabling enhanced activation. However, it is slightly less effective when compared to Option 3.
3. Wider distances between habitable apartments.

Downsides

1. Increase in South facing apartments.
2. Apartments along the 6m Building gap will require angled windows to improve privacy.
3. Space division at top of podium on Building 5 and 6 represents a unconnected amenity level.
4. Apartments closer to the rail line will require an acoustic treatment along the facade.
5. Buildings closer to the south facade will affect the human scale along Crescent Street.

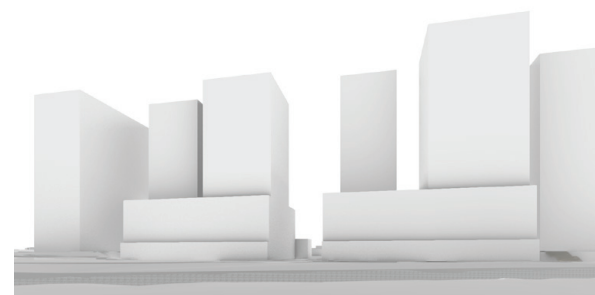
3D Views



Aerial View

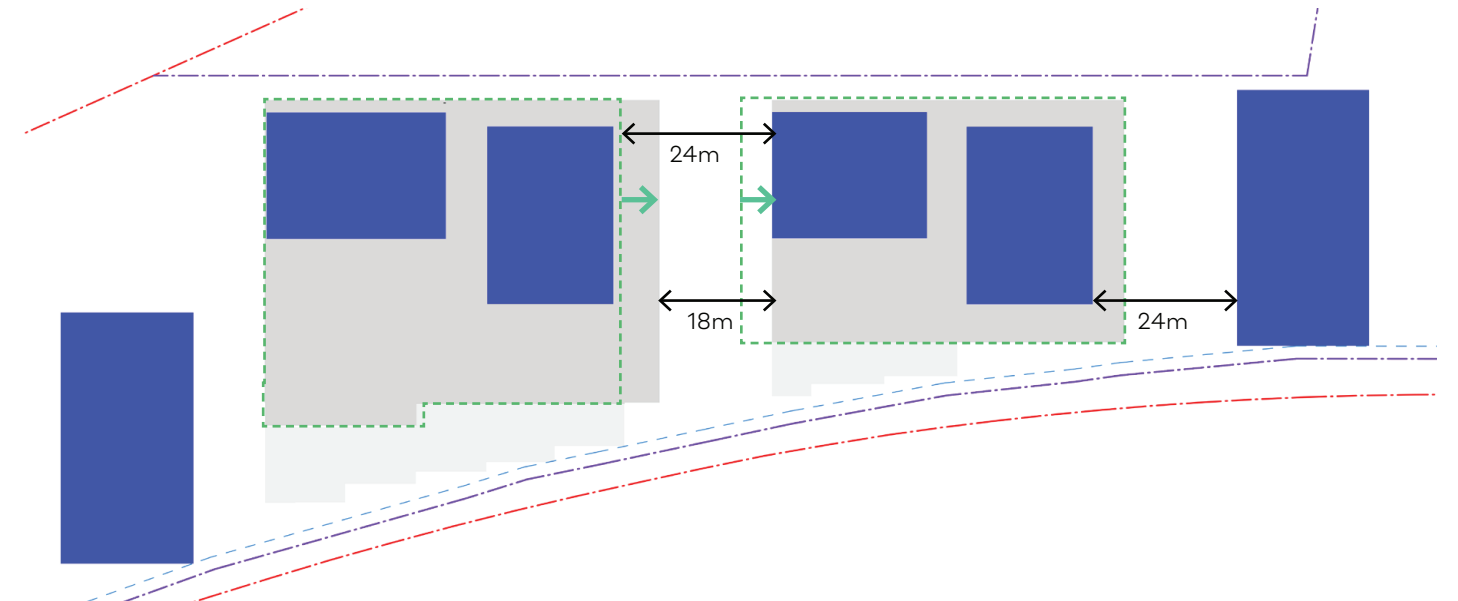


View from Retail interface (East)



View from western side of the park (West)

Diagram Plan - Massing Strategy

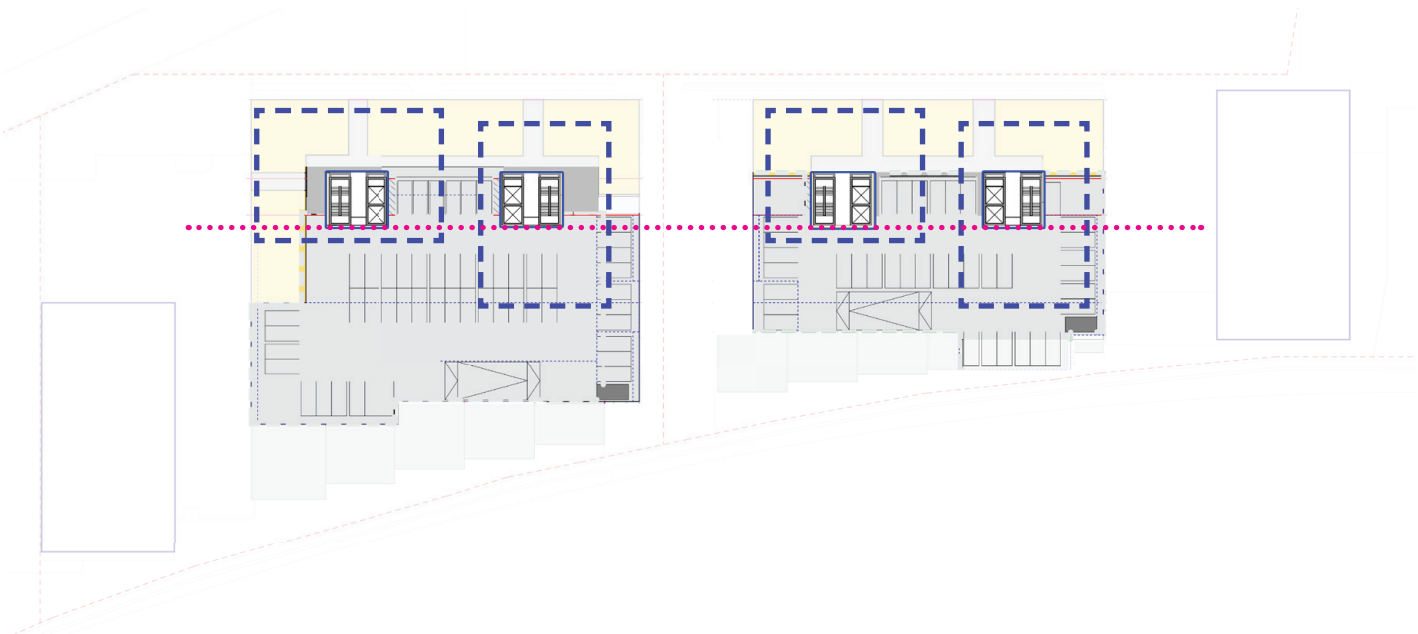


Typical Upper Floor (with Podium Roof)

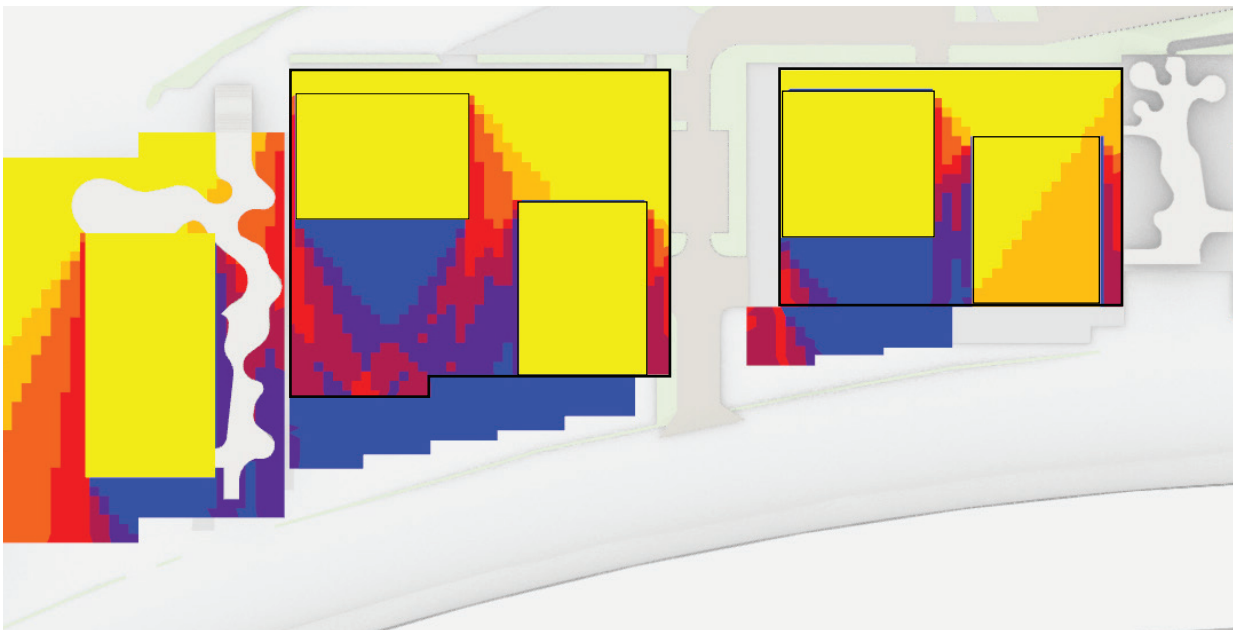


A2.12 Building 5 & 6 - Massing Tests Option 4 - Split Massing

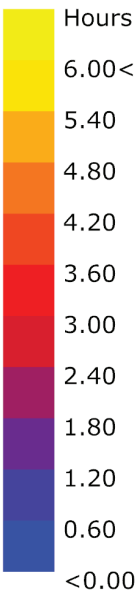
Impact on Car Park



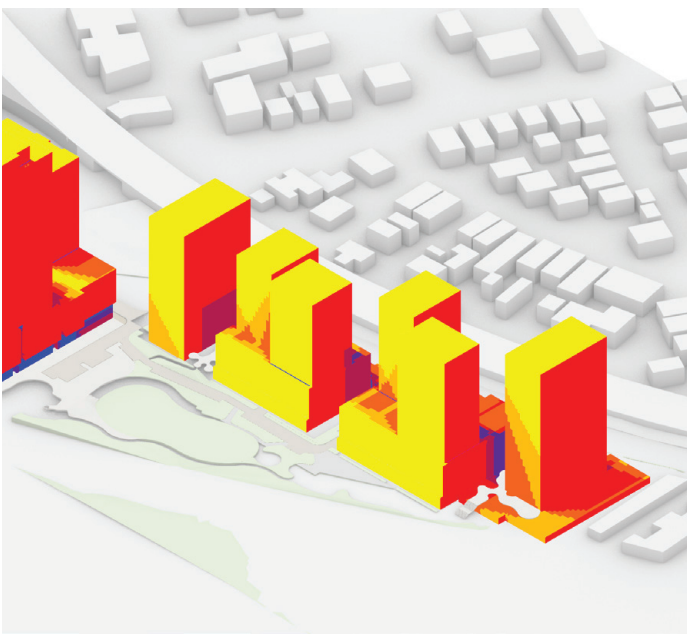
Solar Impact



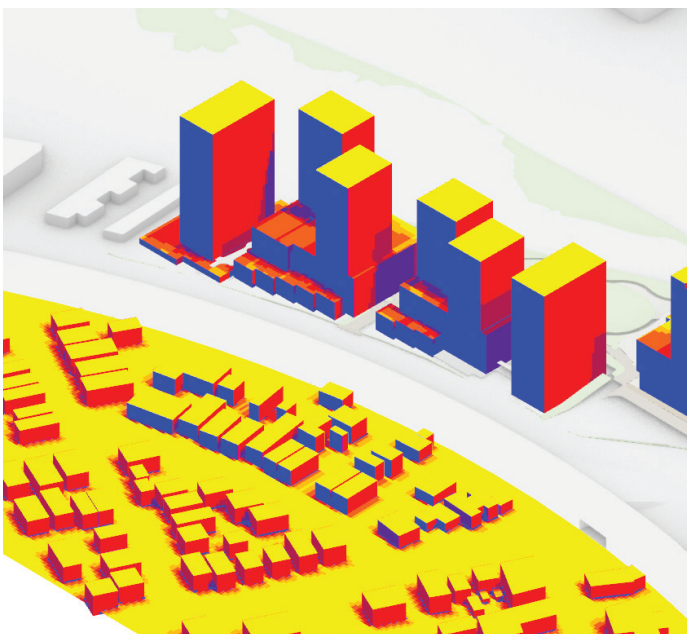
Winter Solstice Sun Access



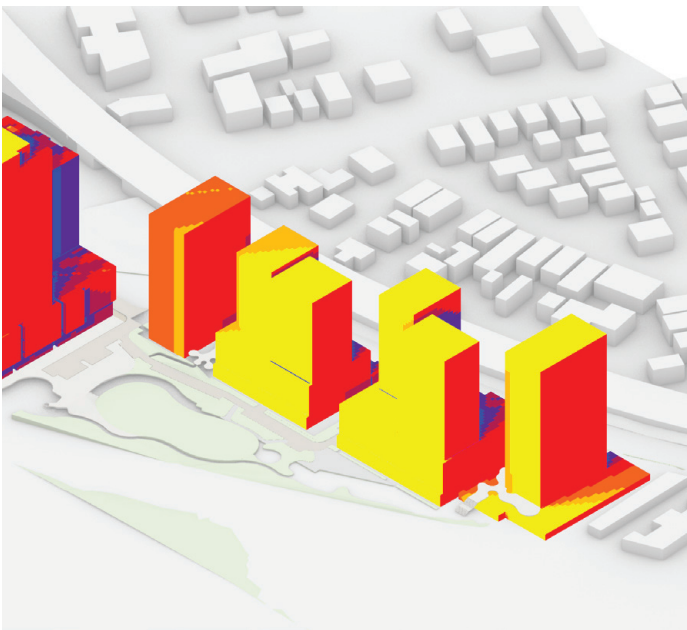
3D Views



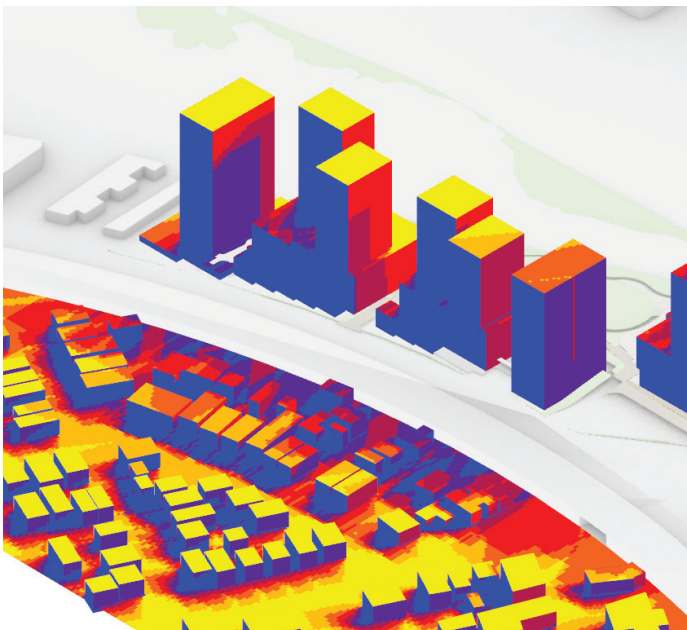
Summer Solstice Sun Access from North-west



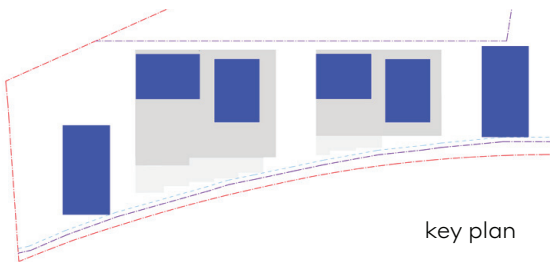
Summer Solstice Sun Access from South East



Winter Solstice Sun Access from North-west



Winter Solstice Sun Access from South East



key plan

A3

Appendix 3

SDRP2 Responses

A3.01 Phase 1

Public Domain - Landscape - Street Activation

Summary

One of the most important corners of the site, which faces Parramatta, Woodville and the Motorway.

Merits

1. Improved access interface along the North East corner of the site.
2. Surveillance from residential, commercial lobby and retail tenancy towards the landscape and colonnade.
3. Wider spatial opportunities for residential outdoor amenity.
4. Designing with Country strategies implemented throughout the landscape.
5. Ventilation.
6. Consistent colonnade height datum.
7. Facade articulation both in residential and carpark levels.
8. Extension of the street address and activation.

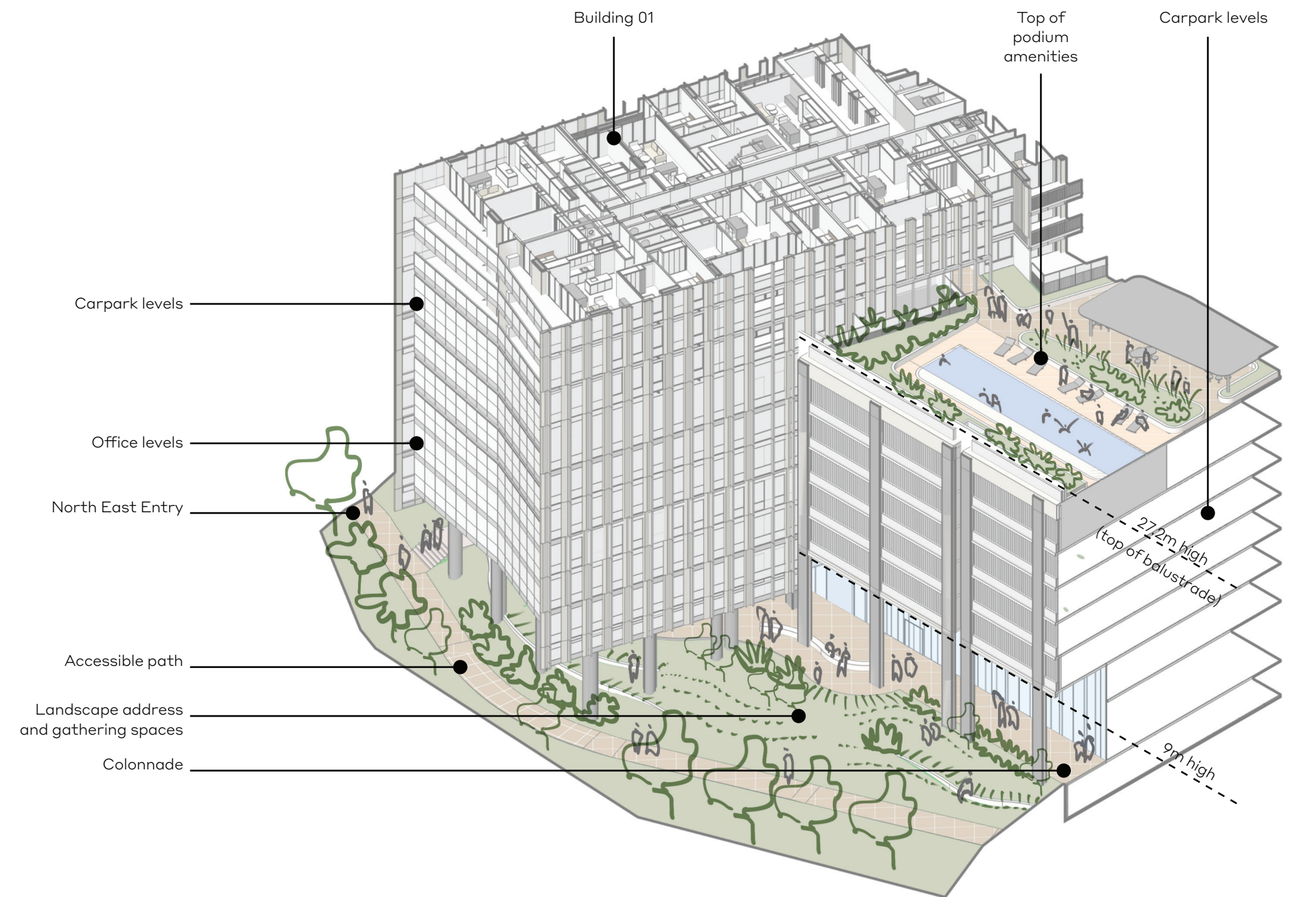


Diagram: Axonometry view of Phase 1 public domain interface showing the ground level activation and its relationship with the top of podium. Approx. Dimensions annotated.

A3.02

Phase 1

Public Domain - Landscape - Street Activation - Retail Interface - Park Connection

Summary

Phase 1 ground activation and its connection to the park is emphasized through catered sight-lines, materiality and landscape. Street interface was a considered item during the retail consultation process.

Merits

1. 10 car stops for a drop-off zone, which it will serve both residents and retail.
2. Colonnade supports and protects the activation of the retail tenancies along the western and northern edge of Ground Level.
3. Consistent colonnade height datum.
4. Legible access to residential lobbies as well as commercial and retail entries.
5. Retail kiosk located on the north side of drop off parking to serve as an anchor for the activation of both the west and north edge of podium.
6. Residential facade design intent is consistent throughout all faces of podium. Refer to elevations for carparking levels.
7. Top of podium amenities add great value both the residents and the overall experience / connection towards the park.

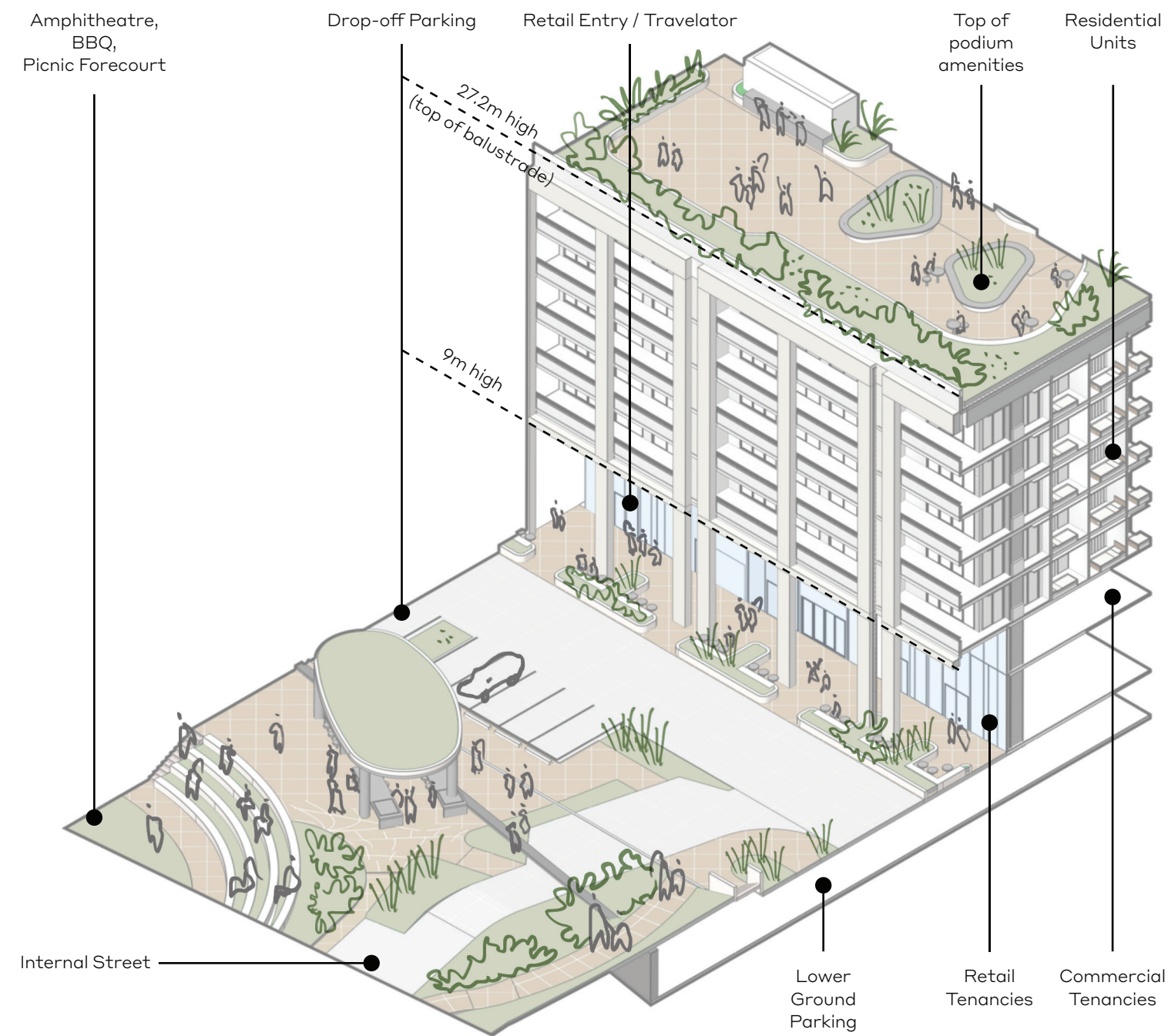


Diagram: Axonometry view of Phase 1 public domain interface with the park (RE1 Zone) and its relationship with the top of podium.

A3.03

Phase 2

Public Domain - Landscape - Street Activation - Amenity

Summary

Phase 2 and 3 include site through links.

Within these elevated garden, there are located amenities such as outdoor spaces for gathering, activities and are the clearest example of 'living IN the park'.

Building 04 includes two commercial frontages. One facing the park has access from two footpaths coming from the driveway and the park.

The second commercial address is located at Crescent Street and acting as a street activation anchor.

Merits

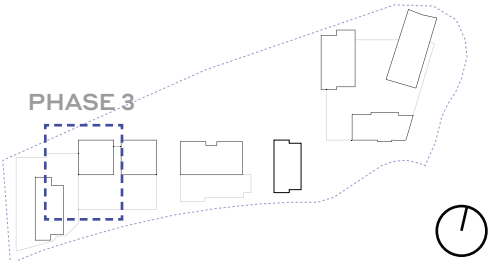
- 1. Improved site through access.
- 2. Diverse amenities adjacent to internal amenity space at Ground Level.
- 3. Graded footpaths for access.
- 4. Clear sight lines from lobbies towards the park.
- 5. Widened amenity site through link for improved sunlight access.



Diagram: Axonometry view of Phase 2 Building 04 connection between Crescent Street, private amenity and the park. The site through link is filled with the landscape planting.

A3.04 Phase 3

Public Domain - Landscape - Park - Amenity



Summary

Similar to Phase 2, the Ground level of Phase 3 includes a site through link connecting Crescent Street with the park. At this level, a range of amenities including outdoor spaces for gathering, activities which add up to the concept of 'living IN the park'. Building 06 and 05 include a level of outdoor amenities at the top of the podiums.

Merits

1. Improved site through access.
2. Diverse amenities adjacent to internal amenity space at Ground Level.
3. Clear sight lines from lobbies towards the park.
4. Building separation widened for improved sunlight access to both Ground level and top of podiums.
5. Podiums are recessed back from Crescent Street and are presented with a facade articulation similar to the tower frontages facing the park.

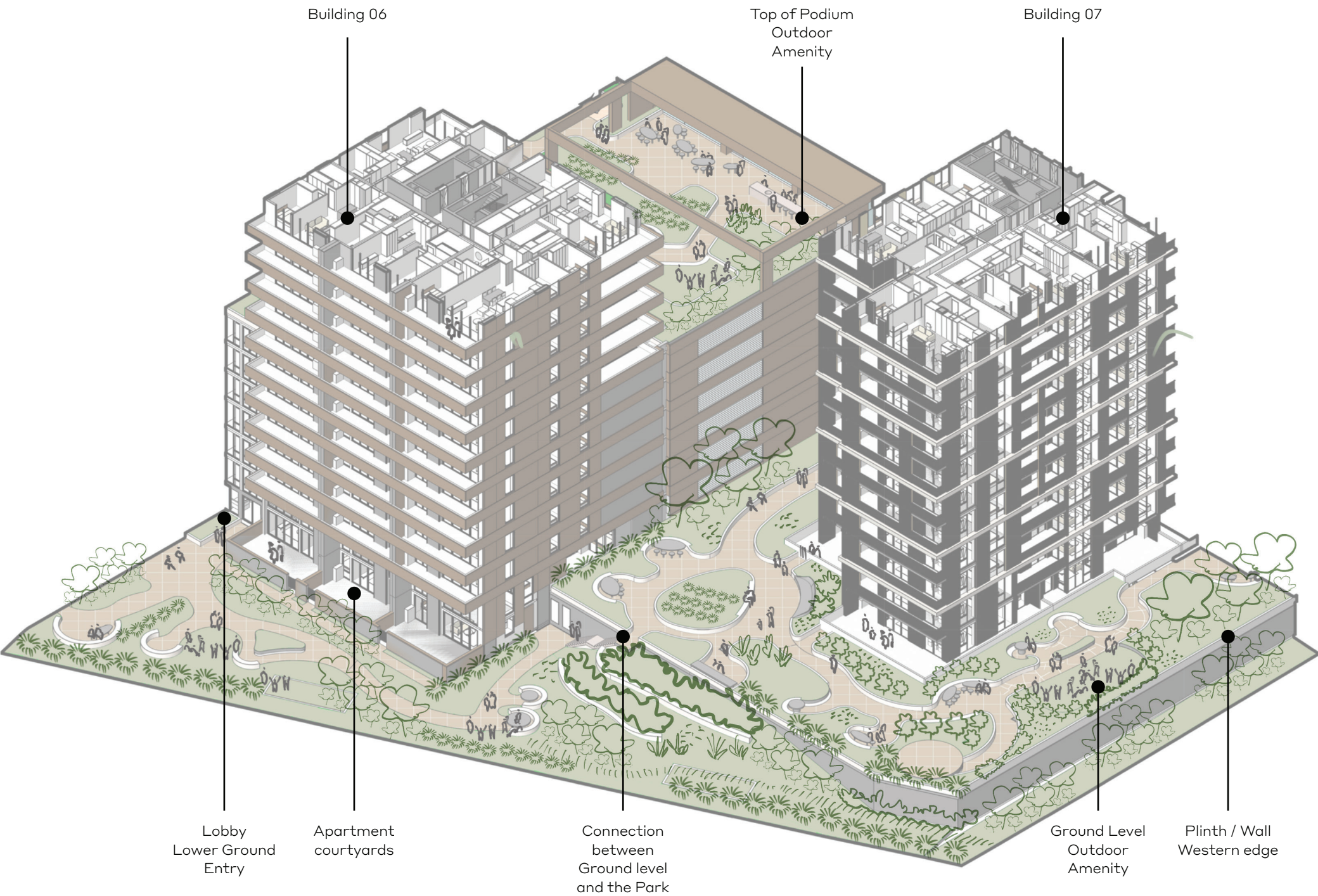


Diagram: Axonometry view of Phase 3 Building 06 and 07 showing private amenity at Ground Level and top of podium. The site through link is filled with the landscape planting.

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