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ARCHITECTURE

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2 & 4 Drovers Way

&

9a Gladstone Parade

Lindfield

Preliminary Design Report

1 INTRODUCTION

This report has been prepared in support of a proposed development application at 2 & 4 Drovers Way and 9a Gladstone Parade, Lindfield. The proposed development proposes an 8 and 9-storey residential development, designed to comply with controls set under the new NSW State Government Transport Orientated Development (TOD) scheme. The development will provide for 119 apartments, providing a balanced mix of apartment types. The close vicinity of the site to major transport hubs (Lindfield heavy rail station and Pacific Highway) in addition to local schools and parks will provide residents with ease of access to public transport and local amenities.

Figure 1: 3D Isometric View

2 SITE CONTEXT

2.1.1 Local Context

The site is located in Lindfield and lies approximately 100m to the west of the Pacific Highway, a major road which runs through a majority of the north-west of the north shore of Sydney. Approximately 400m to the north-east lies Lindfield Train Station, which has been selected as one of 31 local precincts that was included as per the State Governments Transport Orientated Development (TOD) scheme. The site is also within 400m of the Lindfield Town Centre.

Additionally, the site is approximately 150m to the north of Lindfield Public School, and Edenborough Oval and Primula oval lie 600m to the south-west and 1km to the north-west respectively.

Figure 2: Local Context Map and Proximity to Station

2.1.2 Immediate Context and Neighbourhood Character

The site is a pan-handle site with two street frontages, with access to Drovers Way along its north-eastern boundary and Gladstone Parade at the south-eastern end. The existing site consists of an amalgamation of three individual lots, comprising 2 & 4 Drovers Way and 9a Gladstone Parade. 2 Drovers Way and 9A Gladstone Parade both have an existing single storey brick residence, while 4 Drovers Way has an existing 2 storey brick and weatherboard residence.

Directly adjacent to the south-east of the site at 5-7 Gladstone Parade, lies a 6-storey apartment building which is encompassed by the site's panhandle and the corner of Drovers Way and Gladstone Parade. To the north at 6-8 Drovers Way, lies another 6-storey apartment building and further north, adjacent to the northern corner of the site at 10 Drovers Way lies another two multi-storey 6 storey apartment buildings. Another multi-storey townhouse building at 18 Beaconsfield Road and the former 9B Gladstone Parade, directly adjacent to the south-western boundary of the site, is also nearing completion in addition to a multi-storey development to the south-west of the pan-handle at 11-17 Gladstone Parade.

Figure 3: Immediate Context Map and Surrounding Buildings

2.1.3 Riparian Zoned Lands

The site has a biodiversity and a category 3 riparian zone running through the northern side of the site as shown in the biodiversity and riparian zone mapping from Kur-in-gai council which can be seen *Figures 4* and *5*.

Figure 4: Riparian Zone Map

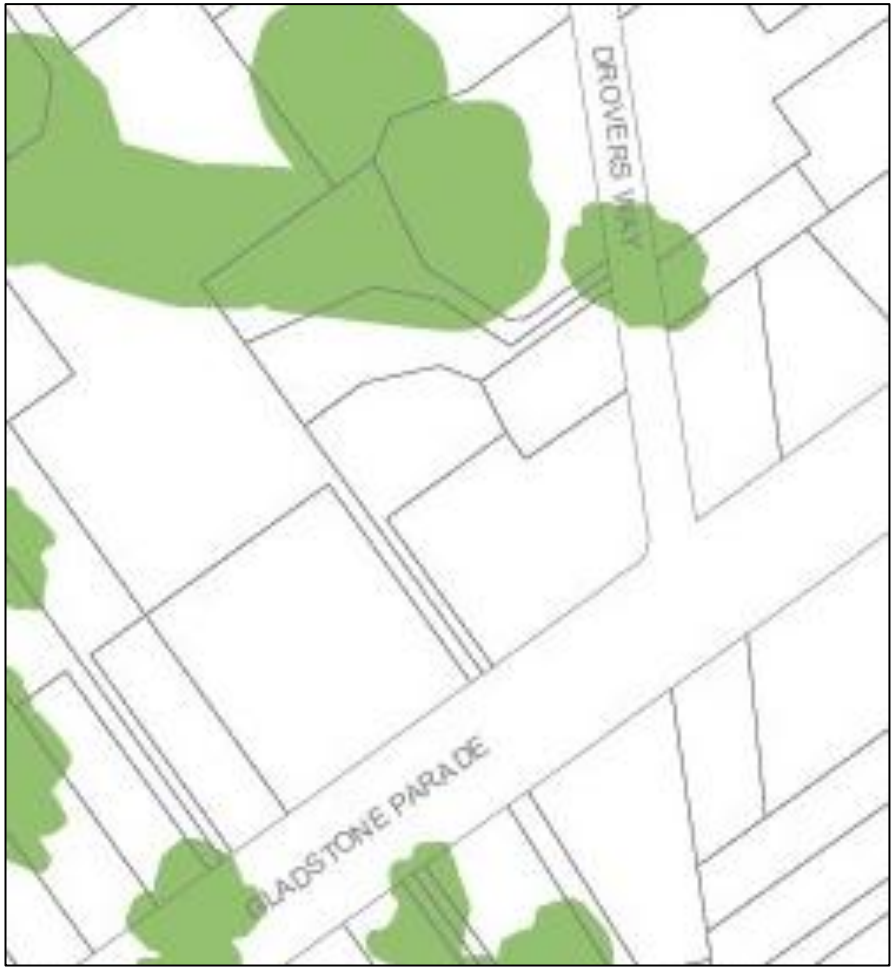


Figure 5: Biodiversity Map

Specifically, the riparian zone currently runs primarily through 4 Drovers Way, including the area of the site where the existing two-storey building is located as highlighted in the hydraulic site drawing seen below in *Figure 6*.

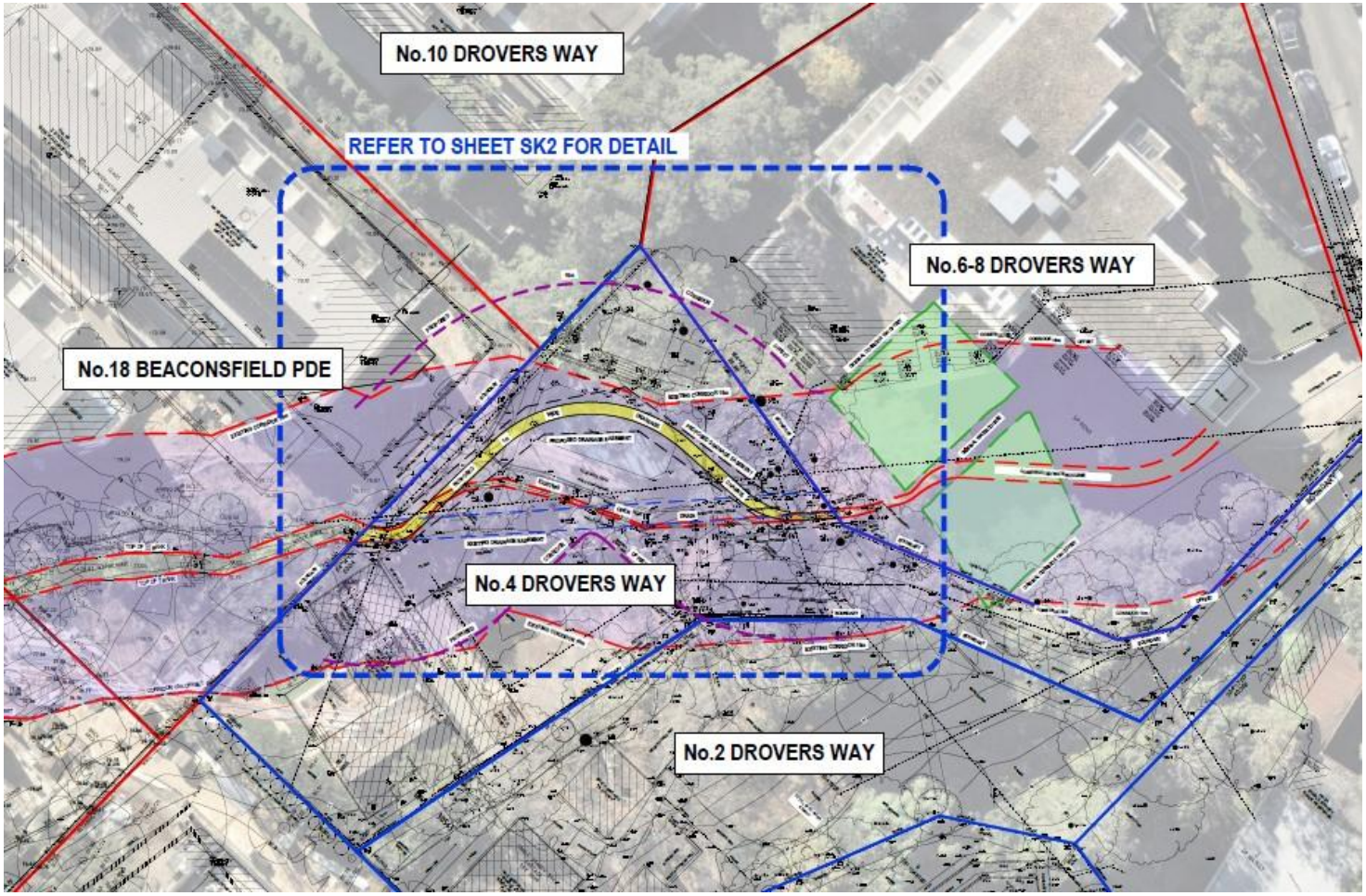


Figure 6: Riparian Zone Survey

3 LEP CONTROLS

3.1 ZONING

The Kur-ring-gai Council Local Environment Plan 2015 (KLEP 2015) zones the site under R4 - High Density Residential as seen in *Figure 7*. The site shares a common boundary with R3 – Medium Density Residential zoned land to its south-west. The majority of the land to the west is subject to TOD development controls – refer to the TOD map in *Figure 10*. The site does not directly share a boundary with any residential land zoned under R2 – Low Density Residential.

3.2 HEIGHT LIMIT

The current KLEP 2015 controls for the site specify a maximum height limit of 17.5m, with adjacent sites to the north-west, north-east and south-west having height limits of 11.5m (11-17 Gladstone Parade). However, these height limits are all now 22m pursuant to both the TOD SEPP (2/4 Drovers) and low and mid-rise controls (9A Gladstone). The project is also eligible for a 30% bonus to the maximum height of building afforded through the Housing SEPP due to its affordable housing provision of 15%, meaning the new maximum permitted building height is 28.6m.

3.3 FSR

The current KLEP 2015 FSR controls specify a maximum floor space ratio of 1.3:1 on the site. The TOD SEPP specifies a maximum FSR of 2.5:1 for the two lots (2/4 Drovers) located within a TOD precinct. The remaining lot (9A) is located in a low and mid-rise housing area affording it an FSR of 2.2:1. The project is eligible for a 30% bonus to the FSR afforded through the Housing SEPP due to its affordable housing provision of 15%, meaning the new permitted FSR is part 3.25:1 and part 2.86:1.

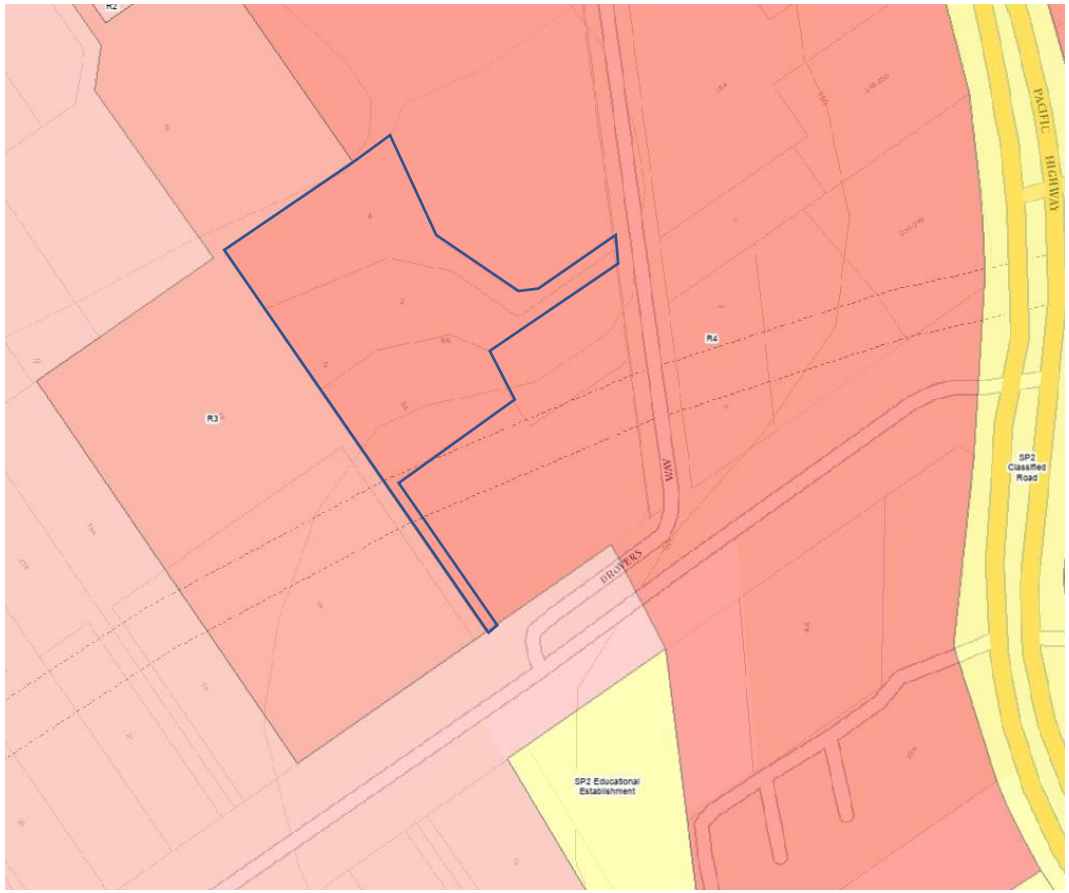


Figure 7: KLEP 2015 Zoning Map

4 TRANSPORT ORIENTATED DEVELOPMENT (TOD)

4.1 OBJECTIVES

As per the NSW Government's Transport Orientated Development (TOD) scheme, TOD will aim to "*deliver much needed housing around 39 transport hubs. Housing at these locations will benefit from an assessment pathway to create faster approvals. The program will deliver state-led rezonings within 1,200 metres of 8 priority transport hubs and we are also introducing a new SEPP to increase the capacity for more mid-rise housing and mixed-use development within 400 metres of 31 other well-located transport hubs and town centres.*"

The TOD planning controls are as follows:

- Maximum building height 22m (approx. 6 storeys)
- Floor space ratio 2.5:1
- No minimum lot size
- 21m minimum lot width
- Minimum active street frontage controls in E1 or E2 zones
- Parking rates equal or lower than those currently proposed by the Housing SEPP.

It also proposes to introduce new design criteria for mid-rise residential apartment buildings:

- Building separations
- Setbacks
- Vehicle access
- Visual privacy
- Communal open space

Feature	Zones to which changes apply	Residential flat buildings	Shop-top housing
Building height		22 m	24 m
Lot size		No minimum lot sizes	No minimum lot sizes
Lot width		21 m	21 m
Active street frontages	E1 (B2)	✓ Yes	✓ Yes

*Relevant zones are defined in Section 151 of the Housing SEPP.

Figure 8: TOD Planning Controls

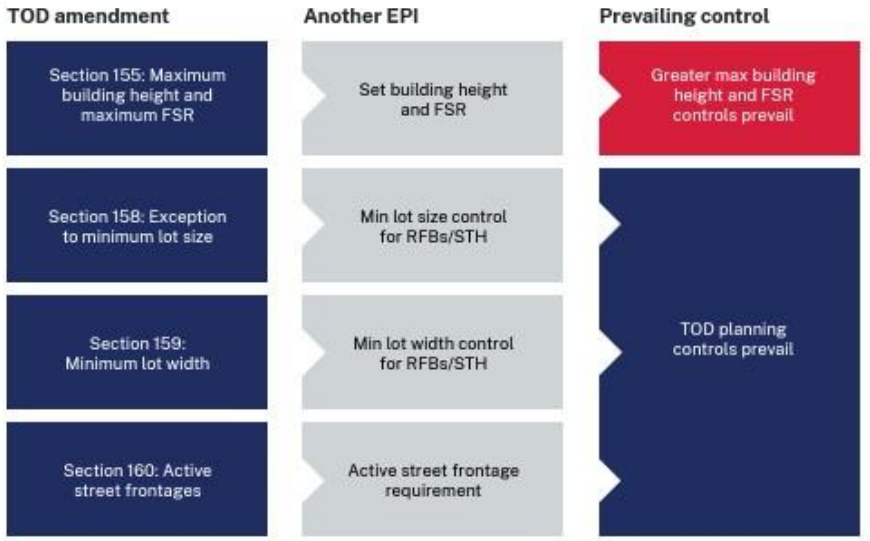


Figure 2. Schematic showing which TOD planning controls prevail over other EPI's

Key: EPI = environmental planning instrument | FSR = floor space ratio | RFB = residential flat building | STH = shop-top housing

Figure 9: TOD Prevailing Planning Controls Diagram

4.2 SITE TOD APPLICABILITY

The part of the TOD program which is specifically relevant to the subject site is part 2. Part 2 involves creating a new State Environmental Planning Policy (SEPP) for sites within close proximity to 31 major town centres and stations. The criteria for a site to be included under TOD are listed below as of April 2024.

- *Residential apartment buildings in all residential zones (R1, R2, R3, and R4) within 400m of identified stations*
- *Residential apartment buildings and shop-top housing in local and commercial centres (E1 and E2) within 400m of identified stations*

As per Kur-ring-gai council, *properties currently exempt from the TOD planning controls are heritage items, schools or other public areas such as tennis courts and bowling clubs.*

As per the TOD zoning map seen in *Figure 10*, 2 and 4 Drovers Way all fall within 400m of Lindfield station, one of the 31 precincts chosen as part of the TOD scheme. While 9a Gladstone Parade as an individual lot does not fall within the TOD mapping but is separately subject to low and mid-rise housing controls that override LEP provisions.

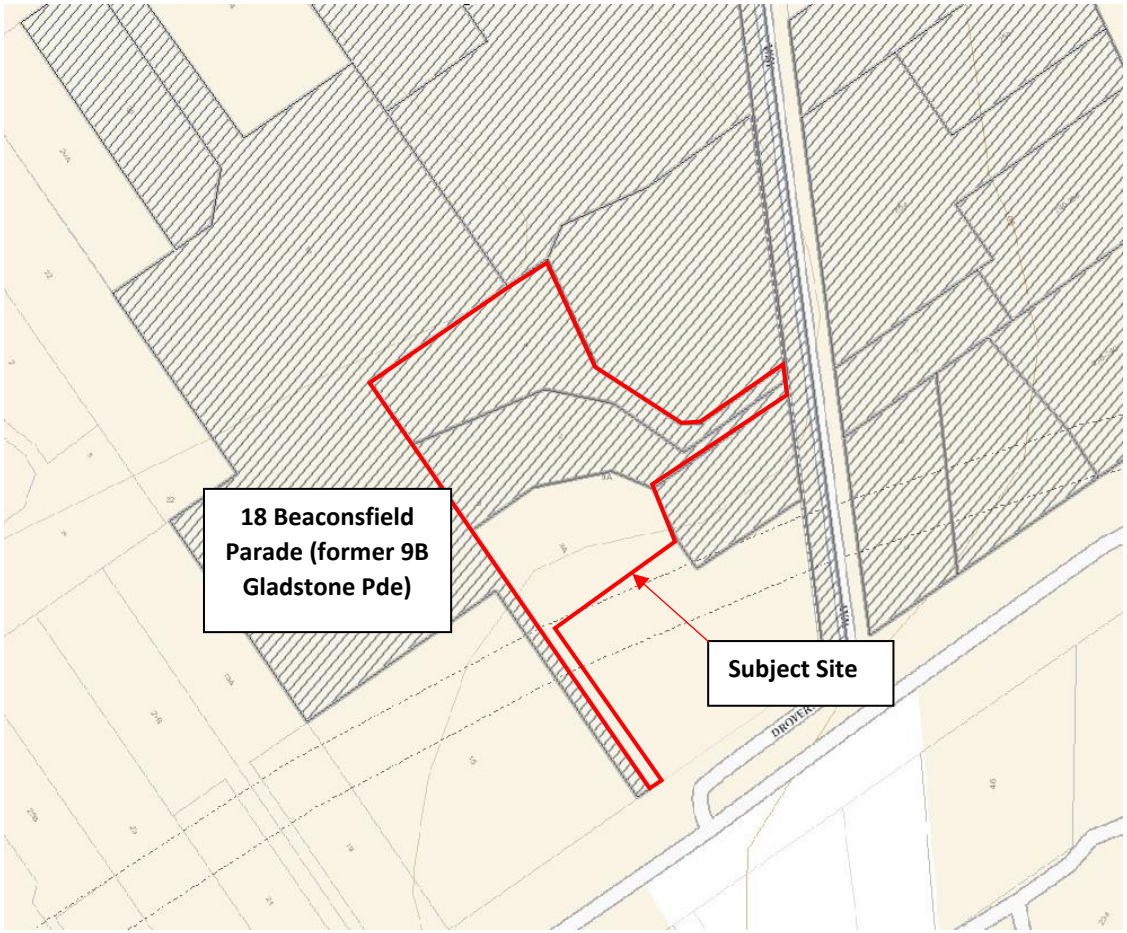


Figure 10: TOD Site Applicability Map

4.3 FSR COMPLIANCE

As per the KLEP 2015, the allowable floor space ratio (FSR) on the site is 1.3:1. This control does not however reference the amended controls under the Transport Oriented Development (TOD SEPP) scheme and low and mid-rise housing policy. As per the TOD SEPP controls, the revised allowable FSR on part of the site is 2.5:1. As per the low and mid-rise housing policy controls, the revised allowed FSR on part of the site (9A Gladstone) is 2.2:1.

Additionally, the proposed development provides 15% affordable housing mix meeting the requirements for the affordable housing bonus of 30%. As seen in the compliance table in *Figure 11*, the combined FSR across the site is 2.79:1 which falls within the bonus FSR provided through the affordable housing bonus equivalent to 3.25:1 and 2.86:1 on each part of the site.

SITE AREA **4105 m²**

FSR COMPLIANCE SCHEDULE

ITEM	COUNCIL REQS	PROPOSED	COMPLIES
GFA			
LOWER GROUND		853m²	
GROUND		996m²	
LEVEL 1		1377m²	
LEVEL 2		1394m²	
LEVEL 3		1346m²	
LEVEL 4		1346m²	
LEVEL 5		1247m²	
LEVEL 6		1247m²	
LEVEL 7		1034m²	
LEVEL 8		632m²	
TOTAL	**5337m²**	**11,472m²**	**NO**
FSR REQS (LEP 2015) @ 1.3:1	1.3:1	2.79:1	

2 & 4 DROVERS WAY TRANSPORT ORIENTED DEVELOPMENT (TOD) @ 2.5:1		6,977.5m² x 1.3 AHB = 9,070m²	
9A GLADSTONE PDE LOW AND MID RISE HOUSING (LMRH) @ 2.2:1		2,890.8m² x 1.3 AHB = 3,378m²	
ALLOWABLE FSR INC. AHB 30% @ 3.125:1		12,828m²	**YES**

Figure 11: FSR Compliance Table

4.4 HEIGHT LIMIT COMPLIANCE

As per the KLEP 2015, the maximum allowable height limit is 17.5m. The TOD controls specify a maximum allowable height limit of 22m, which equates to approximately 7 stories on a flat site. When combined with the 30% height uplift afforded to the proposal, a maximum height of 28.6m is allowed. As the site topography slopes downward from the south-east towards the north-west, the building form follows this slope and as such reflects an on average 8-storey building with parts having 9 stories. The project is also eligible for a 30% bonus to the maximum height of building due to its provision of 15% affordable housing. The proposed development has a maximum height of 29.93m (at the perimeter of the proposed building) and as such, pursuant to Clause 4.6 of the KLEP 2015, a request will be made to vary height compliance with this standard.

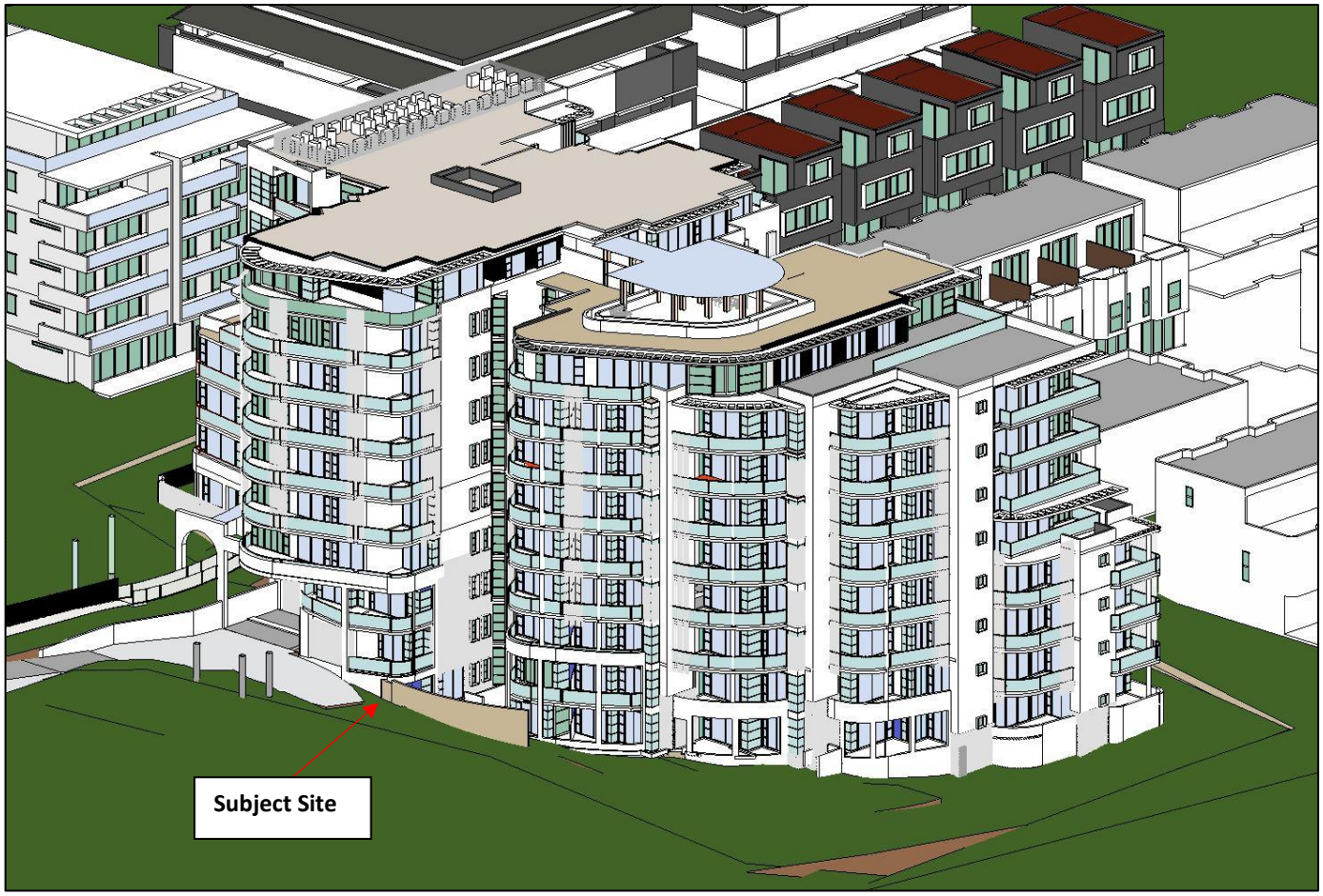


Figure 12: 3D Isometric View

The proposed design follows the sloping topography of the site, with 8-9 stories along its western façade and 8-9 stories along its northern façade as suggested by the applicable height limit. As seen in *Figure 13*, the site does exceed the height limit in some isolated instances in the centre of the site. This is a result of the aggressively sloping site and results in a maximum exceedance of 3.43m (to the top of a pergola located above the common open space). While there are height limit breaches, these are all located in the centre of the building and site and as such will have no additional adverse impacts on

surrounding buildings in regards to solar access loss or loss of privacy. All the breaches in height limit are also on the top floor/roof level which have additional setbacks from the boundary and as such will not generate any additional overbearing bulk and scale and will not have any significant impacts on the streetscape.

Figure 13: 3D Isometric View with Height Plane

5 DCP CONTROLS

5.1 RIPARIAN LANDS

Section 17 of the Kur-in-gai Council DCP (KDCP) governs the controls and constraints applied to developments in and around riparian lands. The riparian zone on the site is a Category 3 Riparian Zone which is defined as follows.

Category 3 Riparian Land includes a 10m setback from the top of each bank which, together with the waterway, forms the CRZ. Refer to Figure 17.4-1 (Figure 14).

The general controls for riparian lands are seen below.

1. *Subdivisions and amalgamations are to provide for a development footprint outside the riparian land.*
2. *Subdivisions (via perimeter roads) are to front onto riparian land.*
3. *The provision of service infrastructure including stormwater and sewerage within the core riparian zone (CRZ) is to be minimised.*
4. *Despite the provisions of 17.2 to 17.5 of this Part, safety fences are permitted within the CRZ. Fences are to be set back an appropriate distance from the top of the bank and be of an open design to minimise barriers to flora, fauna and water.*
5. *Encroachments onto riparian land may be permitted. In determining whether an encroachment is acceptable, the following is to be considered:*
   - *i. the location of existing hardstand structures to be retained within the riparian land;*
   - *ii. the scale of the development;*
   - *iii. the minimisation of any encroachment through the siting and design of the development;*
   - *iv. location above the 1% flood level;*
   - *v. enhancements proposed as part of the development such as offset areas;*
   - *vi. geomorphic and ecological values.*

   Note: Principal private open space should be provided for outside the CR

The general controls specific to a category 3 riparian zone as per section 17.4 are as follows.

1. *The general controls and objectives under Part 17.1 General are relevant to this category.*
2. *All parts of the development are to be located outside the core riparian zone (CRZ) of Category 3 Riparian Land being 10m from the top of each bank.*
3. *An Asset Protection Zone (APZ) proposed for bushfire management is permitted within the CRZ, only where no practical alternative exists.*

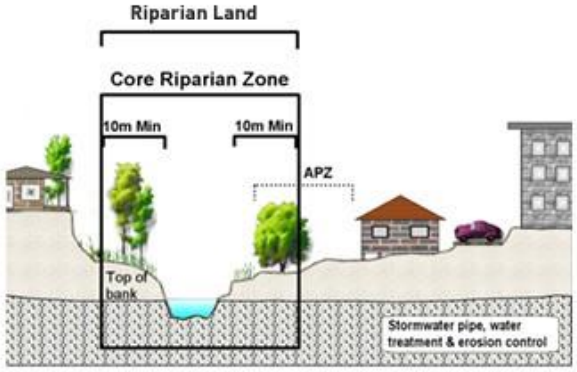


Figure 14: Riparian Zone Setback Diagram

5.2 Riparian Land Compliance

The mapped riparian zone has been ground proofed by expert environmental and hydraulic consultants and with their agreement the alignment of the existing water channel is proposed to be re-aligned to significantly improve the quality of the riparian corridor through the site. The existing two-storey residence on the site exists within the established and defined KLEP 2015 Riparian zone. As such the demolition of this residence and the setback of the proposed building from this zone will already create a significant improvement to the riparian zone in comparison to the existing.

Figure 15 highlights the proposed ground level plan and its relationship to the Riparian zone to the north-west. The Riparian zone itself will have no hard structures within it, a significant improvement on the existing condition. The proposed development will have a small degree of encroachment within the 10m dimension of the relocated stormwater channel, with a maximum encroachment of approximately 2m, however for the majority of the boundary there is little to no encroachment into the 10m setback zone from the top of each bank. A majority of the encroaching sections of the building are also in the form of balconies and this will help to alleviate impacts from the development.

Additionally, the north-western side of the Riparian zone will have a significant setback to adjacent structures, generally in excess of the 10m requirement. As such this will still allow for enhancement of the Riparian zone interface and allow it to improve its ecological value.

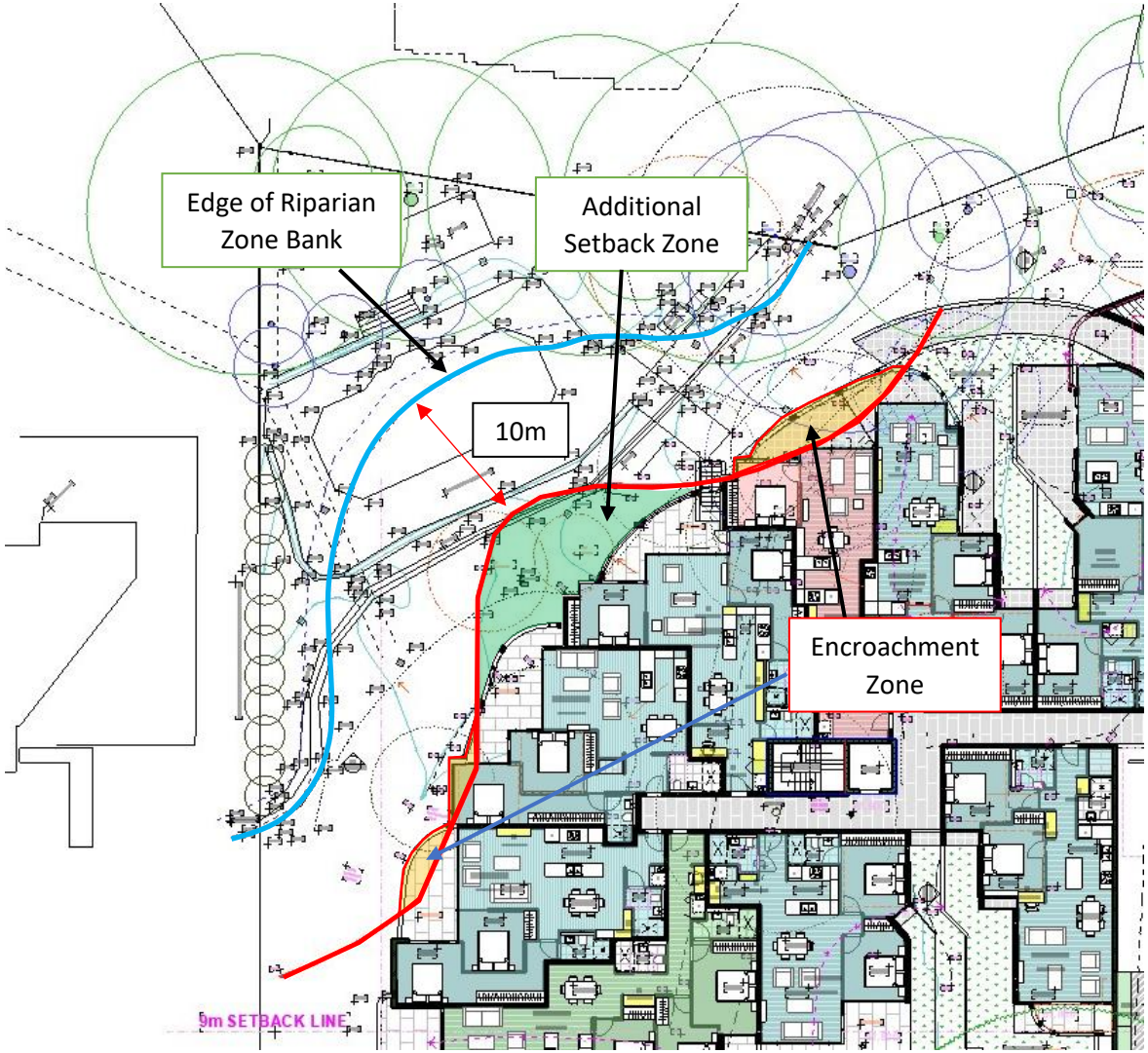


Figure 15: Proposed Riparian Zone Setback

6 BUILT FORM AND SCALE

6.1 SITE ANALYSIS

- The site has a riparian corridor running through the northern portion of the site (at 4 Drovers Way).
- The topography of the site slopes downward from the south-east towards the north-west.
- The site currently consists of 77 trees. Majority of trees are situated on the eastern and western boundaries of the site.

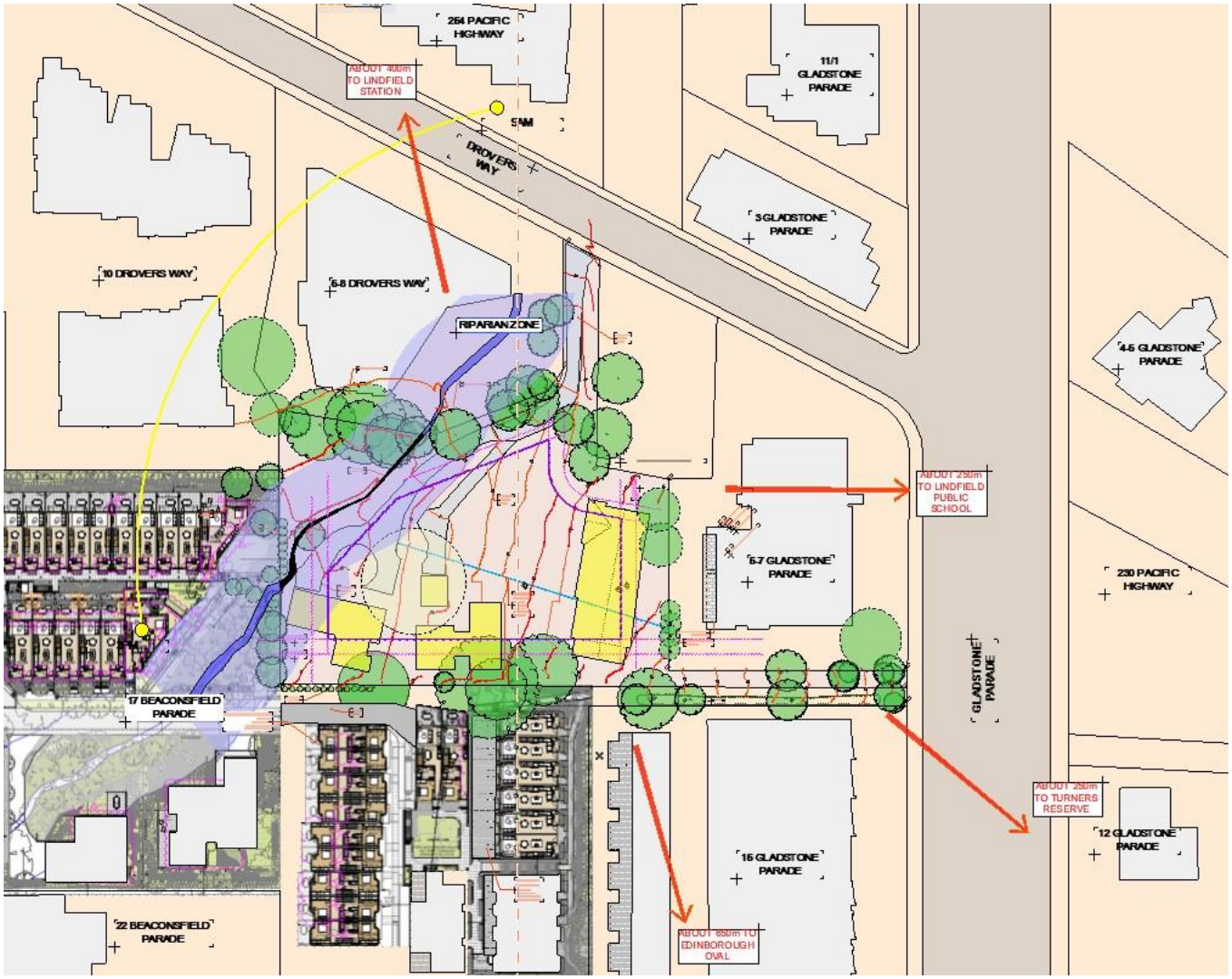


Figure 16: Site Analysis

7 SUSTAINABILITY

7.1 SOLAR ACCESS

7.1.1 Views from the Sun 9-11 am

The proposed development achieves the following solar to habitable rooms.

- 69% of apartments achieve minimum 2hrs of direct solar access to living on the 21st of June
    - *"Solar access" being defined as the floor of the living space of the apartment receiving minimum 1 m^2 of solar*
- 16% of apartments do not receive any solar access between 9am and 3pm mid-winter
- Of the apartments which do not receive solar access between 9am and 3pm, most receive solar access after 3pm

Figure 17: Views from the Sun 9am

Figure 18: Views from the Sun 10am

Figure 19: Views from the Sun 11am

7.1.2 Views from the Sun 12-3 pm

Figure 20: Views from the Sun 12pm

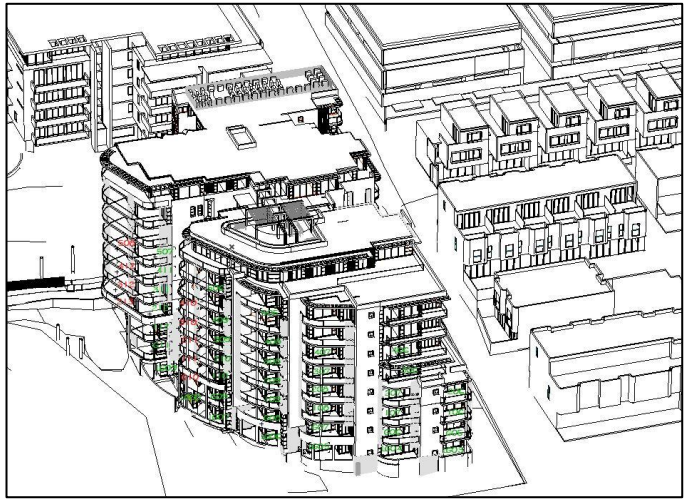


Figure 21: Views from the Sun 1pm

Figure 22: Views from the Sun 2pm

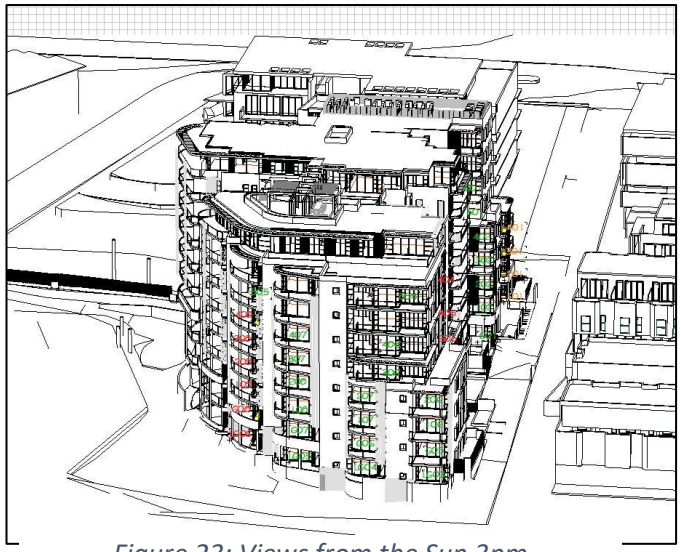


Figure 23: Views from the Sun 3pm

7.2 CROSS VENTILATION

Within the design, approximately 71% overall which is well in excess of the 60% Apartment Design Guide requirements.

The cross ventilation to each apartment is summarised in *Table 1*.

Table 1: Cross Ventilation Table

CROSS VENTILATION TABLE															
Lower Ground	LG01	LG02	LG03	LG04	LG05	LG06	LG07	LG08	LG09						
	YES	YES	YES	NO	NO	NO	NO	YES	YES						
Ground	G01	G02	G03	G04	G05	G06	G07	G08	G09	G10	G11				
	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	YES				
Level 1	101	102	103	104	105	106	107	108	109	110	111	112	113	114	
	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	YES	YES	YES	
Level 2	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215
	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	YES	NO	YES	YES
Level 3	301	302	303	304	305	306	307	308	309	310	311	312	313	314	
	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES	NO	YES	YES	
Level 4	401	402	403	404	405	406	407	408	409	410	411	412	413	414	
	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES	NO	YES	YES	
Level 5	501	502	503	504	505	506	507	508	509	510	511	512	513		
	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES	NO	YES	YES		
Level 6	601	602	603	604	605	606	607	608	609	610	611	612	613		
	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES	NO	YES	YES		
Level 7	701	702	703	704	705	706	707	708	709	710					
	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES					
Level 8	801	802	803	804	805	806									
	YES	YES	YES	YES	YES	YES									

7.3 VISUAL PRIVACY

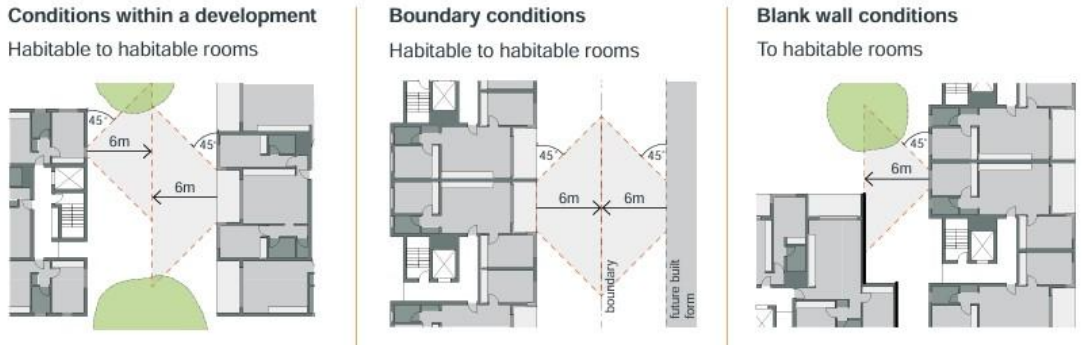
7.3.1 Apartment Design Guide (ADG) Controls

Section 3F Visual Privacy of the Australian Design Guide sets out the design criteria and objectives to ensure visual privacy is maintained to existing residences and apartments within a proposed development.

Specifically, Objective 3F-1 states that *Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.*

As seen in *Figure 24,* the design criteria specify minimum separation between both habitable rooms and balconies and non-habitable rooms and are as follows:

- Habitable to habitable room within development – 12m separation
- Habitable to habitable rooms on boundary – 12m separation
- Habitable to blank walls within development – 6m
- Habitable rooms and balconies to boundary up to 4th storey – 6m
- Habitable rooms and balconies to boundary between 5th-8th storey - 9m
- Habitable rooms and balconies to boundary above 9th storey – 12m



Design criteria

1. Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:

Building height	Habitable rooms and balconies	Non-habitable rooms
up to 12m (4 storeys)	6m	3m
up to 25m (5-8 storeys)	9m	4.5m
over 25m (9+ storeys)	12m	6m

Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2)

Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties

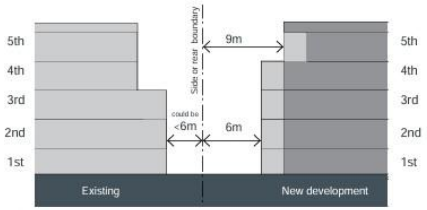


Figure 3F.3 New development adjacent to existing buildings should provide adequate separation distances to the boundary in accordance with the design criteria

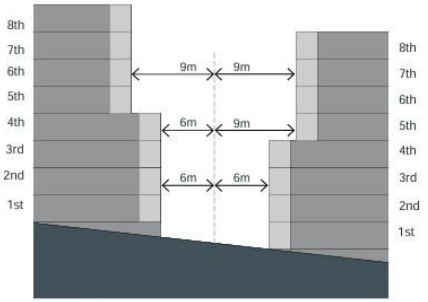


Figure 3F.4 Within the same site, minimum separation should be shared equitably between buildings. On sloping sites, appropriate separation distances ensure visual privacy for apartments on different levels

Figure 24: ADG Privacy Controls

7.3.2 Privacy – Within Development

The design prioritises balcony and living room window locations such that overlooking to adjacent apartment habitable rooms and balconies is minimised. Where this is not achievable, fixed privacy screening is utilised to minimise overlooking and ensure that the adjacent residents' amenity and privacy is maintained.

As seen in *Figure 25*, for areas within the development where the 12m habitable room/balcony to habitable room/balcony setback is not achievable, fixed privacy screening is instead utilised on both sides to ensure visual privacy to both apartments is maintained.

Additionally, the design has incorporated angled windows as seen in *Figures 26* and *27*. These windows allow for natural light and ventilation however will inhibit any views to neighbouring properties.

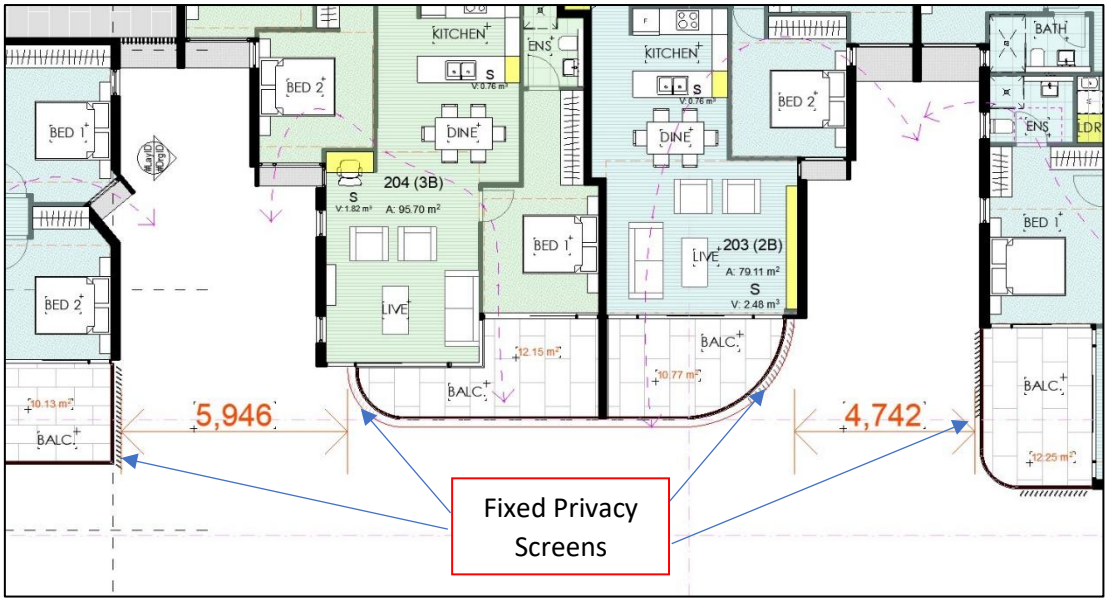


Figure 25: Level 2 South-Western Façade Privacy Considerations

Figures 26 & 27: Angled Windows on Lower Ground Levels

8 NEIGHBOURING AMENITY

8.1.1 Visual Privacy – To Neighbouring 18 Beaconsfield Road and (former) 9B Gladstone Parade

The site in closest proximity to the proposed development is directly to the south-west at 18 Beaconsfield Road and (former) 9B Gladstone Parade. This is a predominantly 3-storey development which consists of 23 townhouses (on the former 9B Gladstone Parade). The majority of the townhouses within this development have their private open spaces and habitable rooms facing west, with solid walls with only small windows facing the north-eastern shared boundary. The only two townhouses which have notable potential privacy concerns are townhouses TH13 and TH14 which are located in the centre of the shared boundary and have both their private open spaces and habitable rooms facing the north-east.

The habitable rooms of TH13 and TH14 are set back approximately 8m from the boundary while the closest proximity of their private open space to the boundary is 4m. In order to ensure that reasonable privacy is maintained, the south-western façade of the proposed development is set back 6m from this common boundary on levels LG, G, 1 and 2 and then is set back a minimum 9m on all levels above this as per the ADG design criteria.

As the minimum setback requirements are met, this ensures that the adjacent residents are able to maintain their privacy as per the ADG requirements.

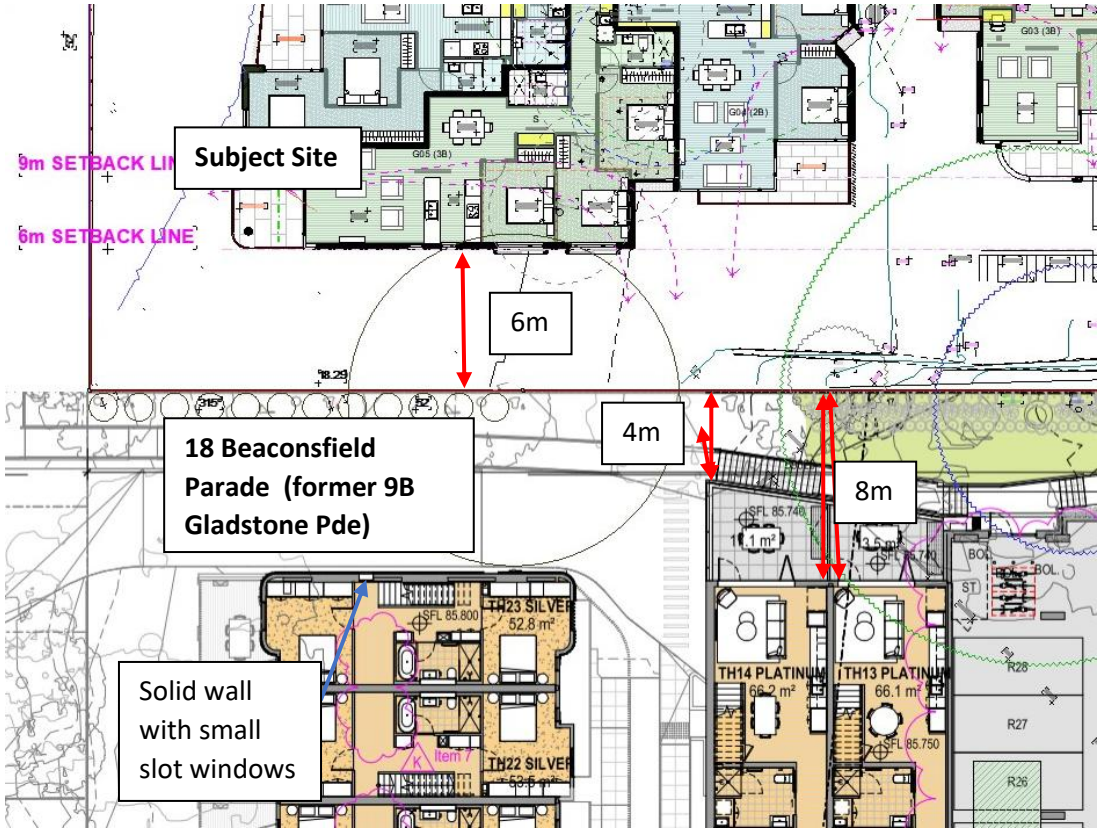


Figure 28: Setbacks along South-Western Boundary to Adjacent Building and Habitable Rooms at 18 Beaconsfield Road

8.1.2 Visual Privacy – Neighbouring Buildings – 5-7 Gladstone Parade

The relationship to neighbouring building to the south-east at 5-7 Gladstone Parade is similarly compliant with the ADG requirements. From the ground level to the fourth storey, both buildings are setback the minimum required 6m from the shared boundary as required by the ADG. Stories 5 and above are set back to 9m and as such these setbacks fulfil the separation requirements laid out in the ADG. It should be noted that the balconies of 5-7 Gladstone Parade are set back more than 6m from the boundary with the subject site, which results in an improved privacy outcome.

Furthermore, the new windows on the south-eastern façade of the proposed development will all incorporate adjustable, sliding horizontal privacy screens to further inhibit overlooking onto the adjacent balconies and living spaces of 5-7 Gladstone Parade.

Figure 29: South-Eastern Façade with Privacy Screening and Louvres

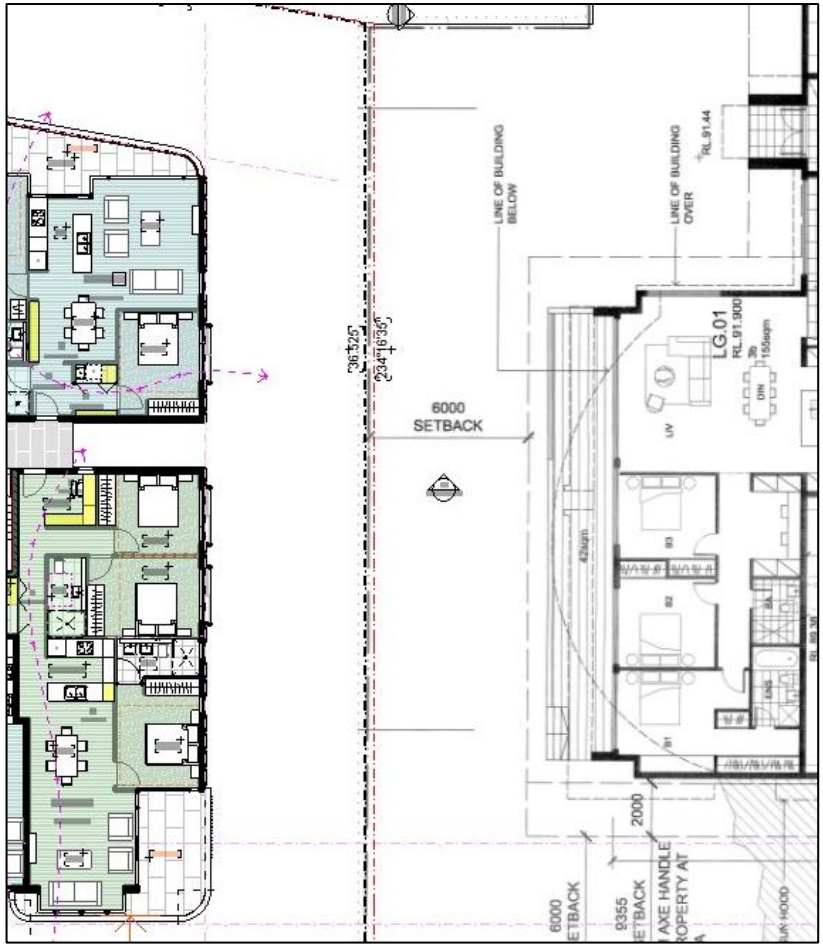


Figure 30: Setback to Adjacent Building at 5-7 Gladstone Parade

8.1.3 Overshadowing Considerations

The subject site is located within a developing high-density urban area and in an area of steep terrain, where increased building heights and shadowing effects are an inherent aspect of the evolving urban form. Given the site's topographical characteristics and the scale of the proposed development, overshadowing of neighbouring buildings and the public domain will be a key consideration in the full assessment undertaken for the SSDA lodgement.

The assessment will consider the extent and duration of overshadowing, with particular focus on potential impacts to adjoining residential properties in accordance with the ADG. Preliminary shadow diagrams have been prepared and are shown in *Figure 31* below. The overshadowing effects of the proposal are anticipated to be consistent with the expectations for high-density urban environments and commensurate with the scale of development proposed.

Where unreasonable impacts are identified, appropriate mitigation measures will be considered, ensuring that overshadowing remains within acceptable planning thresholds. The EIS will demonstrate that the proposal achieves a balanced outcome, supporting urban consolidation and the provision of affordable housing while maintaining reasonable solar access for surrounding properties and the public domain.

Figure 31: June Shadow Diagrams (9am, 12pm, 3pm)