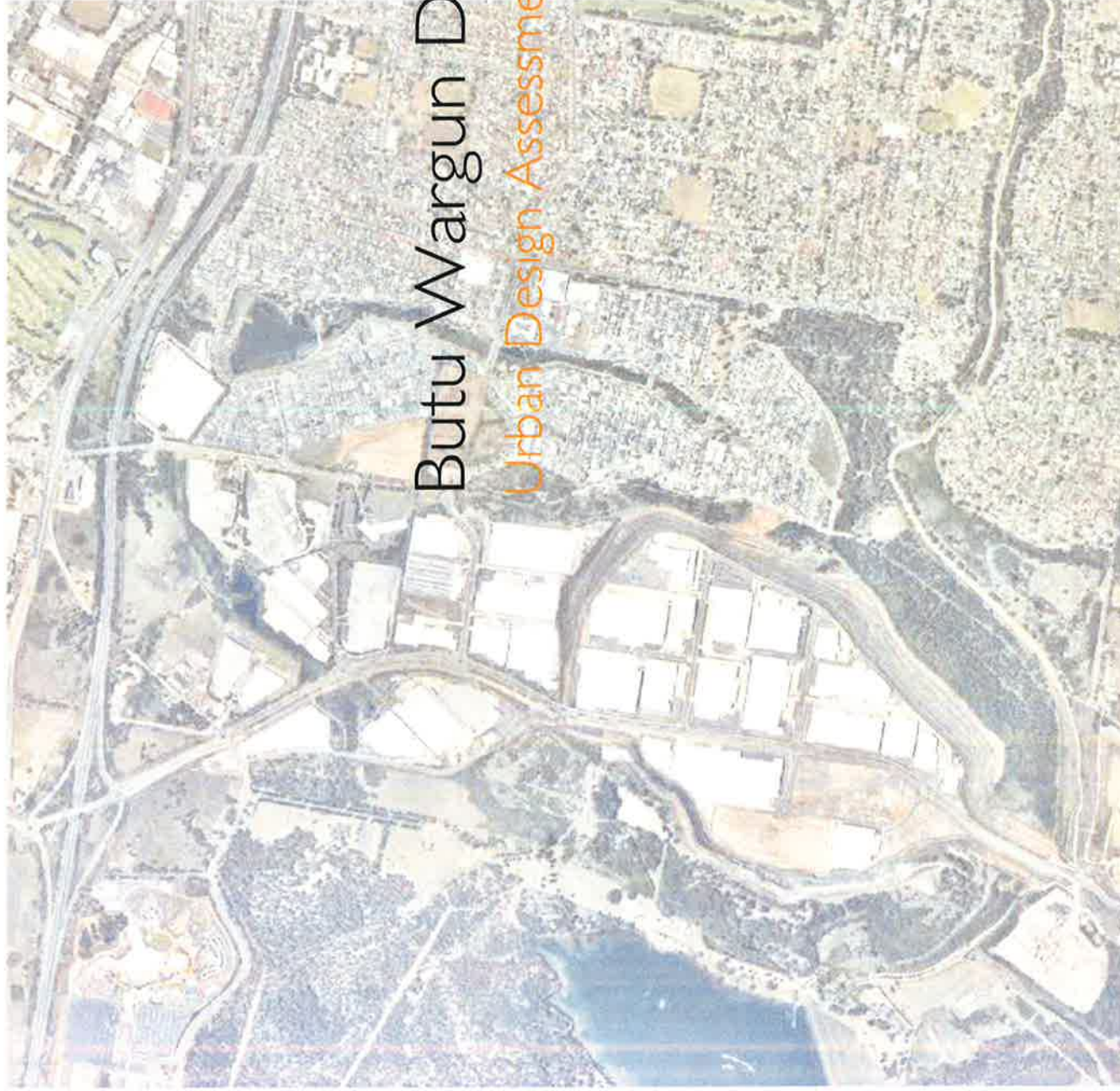




Butu Wargun Drive, Pemulwuy

Urban Design Assessment

20th APRIL 2018

Prepared by:

ae design partnership
architecture urban design planning

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AE DESIGN PARTNERSHIP

ABN 85 162 968 103

Nominated Architect

Director

N R Dickson # 7061

3/780 Darling Street

Rozelle Sydney NSW 2050

Australia

t +61 2 9818 5898

m +61 419 245 956

mail@aedesignstudio.com.au

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Contents

1.0 Introduction	5
1.1 Objectives	5
2.0 Strategic Context	6
2.1 Revised Draft Central City District Plan (GSC 2017)	6
2.2 Holroyd Local Environmental Plan (HLEP) 2013	7
2.3 Holroyd Development Control Plan (HDCP) 2013	8
3.0 Local Context	9
3.1 Topography & Heritage	9
3.2 Land Use	10
4.0 The Proposal	11
5.0 Assessment	12
5.1 Visual Analysis	12
5.2 Desired Future Character	17
5.3 Apartment Design Guide (DoPE 2015)	18
6.0 Conclusion	23

List of Figures

Figure 1: Central River City Regional Plan (GSC 2018, p. 19) with Pemulwuy Residential Precinct superimposed (orange with black edge)	6	Figure 13: Photomontage of proposed development, as seen from Murrong Reserve Location 1 (3D Architectural Imaging 2018)	15
Figure 2: Land use zoning (Holroyd LEP 2013, Blacktown LEP 2015, Fairfield LEP 2013, SEPP (Western Sydney Parklands) 2009, SEPP (Western Sydney Employment Area) 2009, SEPP (State Significant Precincts) 2005	7	Figure 14: Photomontage of proposed development, as seen from Murrong Reserve Location 2 (3D Architectural Imaging 2018)	16
Figure 3: Pemulwuy Residential Release Area sub-precincts (HDCP 2013, Fig. 1 & 2, p. 626)	8	Figure 15: Photomontage of proposed development, as seen from Murrong Reserve Location 3 (3D Architectural Imaging 2018)	16
Figure 4: Topography & heritage (Holroyd LEP 2013, Blacktown LEP 2015, Fairfield LEP 2013, SEPP (Western Sydney Parklands) 2009, SEPP (Western Sydney Employment Area) 2009, SEPP (State Significant Precincts) 2005	9	Figure 16: 3D Height plane diagram (architex 2018, Dwg No. DA31)	17
Figure 5: Activities and built form	10		
Figure 6: 3D Aerial view of site (Architex 2018, Dwg No. 42)	11		
Figure 7: Vantage points from which Prospect Hill Study Area is Visible (CM+ 2005, Fig. 6.2, p. 205)	12		
Figure 8: Photomontage of proposed development, as seen from Location 0 (3D Architectural Imaging 2018)	13		
Figure 9: Photomontage of proposed development, as seen from Location 1 (3D Architectural Imaging 2018)	13		
Figure 10: Photomontage of proposed development, as seen from Location 2 (3D Architectural Imaging 2018)	14		
Figure 11: Photomontage of proposed development, as seen from Location 4 (3D Architectural Imaging 2018)	14		
Figure 12: Photomontage of proposed development, as			

1.0 Introduction

This Urban Design Assessment has been prepared by ae design partnership to assist the Sydney West Central Planning Panel in its assessment of DA 2016/381 (Panel Reference No. 2016SYW249 DA) seeking the development of Lots 12 and 13 in DP 1162280 in Butu Wargun Drive, Pemulwuy in the Cumberland LGA.

As part of this assessment, we have reviewed and generally support:

- Architectural Plans and SEPP 65 Design Statement prepared by Architex;
- Landscape Plans prepared by Taylor Brammer Landscape Architects;
- Statement of Heritage Impact prepared by NBRSA Architecture; and
- Statement of Environmental Effects prepared by Think Planners, including:
 - Variation to maximum permissible height under Clause 4.6 included in Appendix 1; and
 - Assessment against Design Criteria and Guidance of the Apartment Design Guide.

1.1 Objectives

The Objectives of this Urban Design Report are to:

1. Conduct analysis and identify opportunities in Strategic and Local Context to establish Desired Future Character for the subject site.
2. Assess the proposed development against the Desired Future Character, as established through Strategic and Local Context analysis.
3. Based on assessment of the proposed development against the Desired Future Character, recommend decision to the Planning Panel with respect to urban design matters.

2.0 Strategic Context

2.1 Revised Draft Central City District Plan (GSC 2017)

Under the Greater Sydney Commission's Revised Draft Central City District Plan, the Pemulwuy Residential Precinct (HDCP 2013; see Section 2.3 of this report) is located within the Central City District or "Central River City" which is to "capitalise on its location close to the geographic centre of Greater Sydney. Unprecedented public and private investment is contributing to new transport and other infrastructure leading to a major transformation of the Central River City" (p. 10).

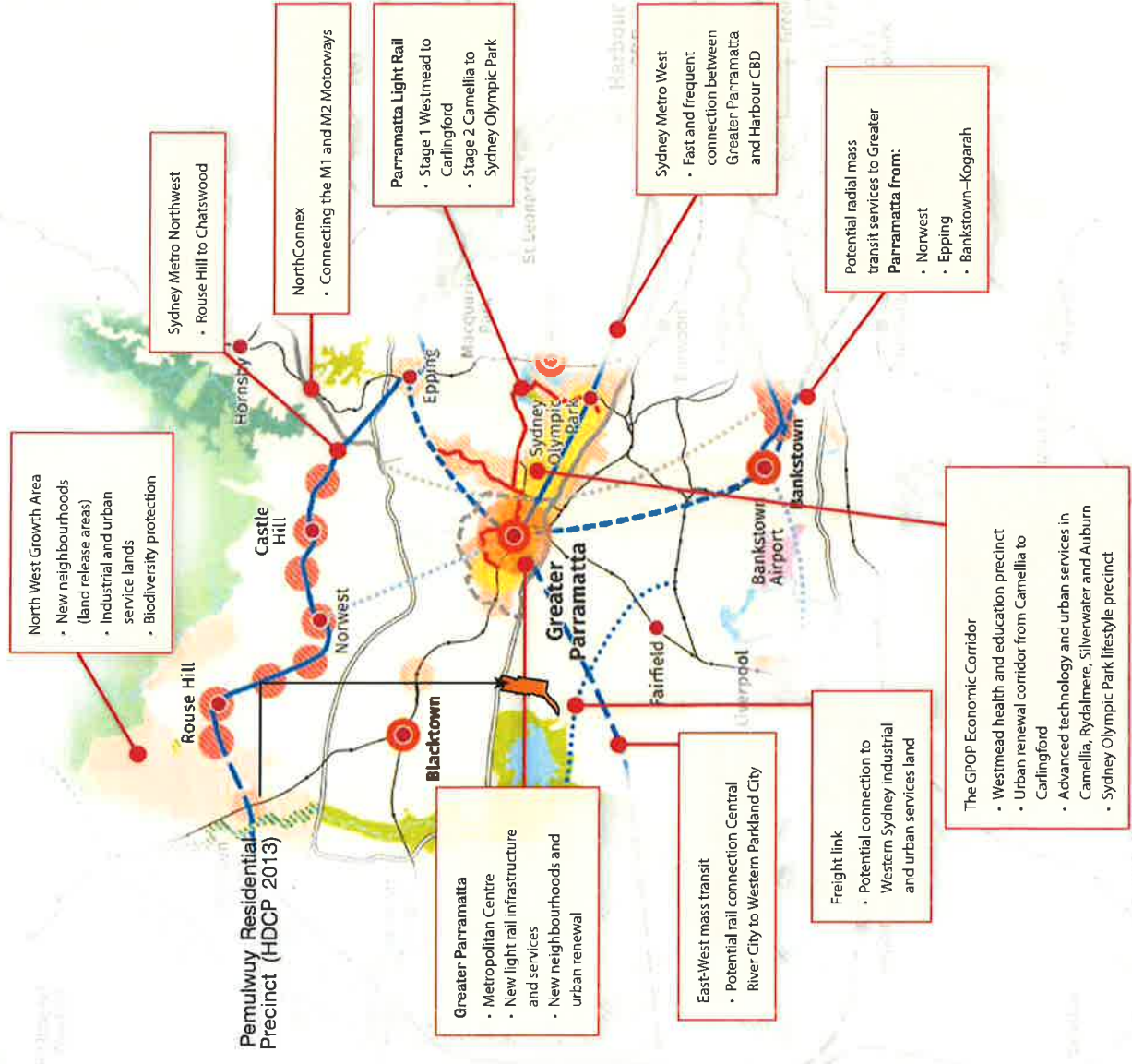


Figure 1: Central River City Regional Plan (GSC 2018, p. 19) with Pemulwuy Residential Precinct superimposed (orange with black edge)

2.2 Holroyd Local Environmental Plan (HLEP) 2013

As shown in Figure 2, the subject site is located within a predominantly residential precinct within a network of contiguous public open space and conservation areas between existing low density residential to the east and employment/parklands to the west.

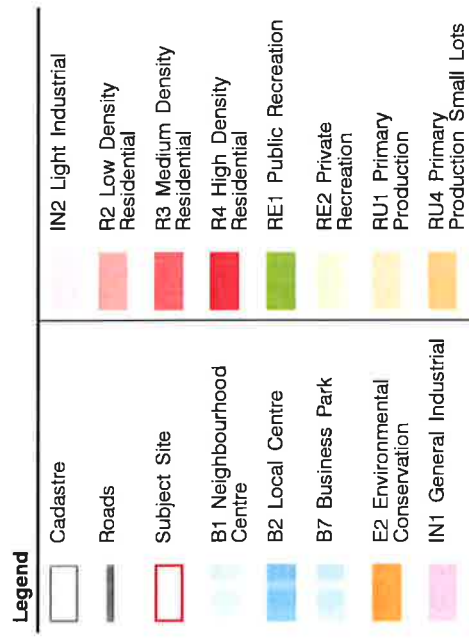


Figure 2: Land use zoning (Holroyd LEP 2013, Blacktown LEP 2015, Fairfield LEP 2013, SEPP (Western Sydney Parklands) 2009, SEPP (Western Sydney Employment Area) 2009, SEPP (State Significant Precincts) 2005)



2.3 Holroyd Development Control Plan (HDCP) 2013

In summary, the following is desired within the subject site under HDCP 2013:

1. Residential uses (multi-dwelling housing/apartment typology) with height not exceeding the specified RLs (as derived from Prospect Hill Conservation Management Plan prepared by CM+ 2005) to protect views to the Prospect Hill Ridgeline:
 - A. RL 100 at the western portion of the site;
 - B. RL 94 within the central portion of the site; and
 - C. RL 84 at the eastern portion of the site.
2. Incorporating east-west "park street" and north-south "residential street" with nil access from Butu Wargun Drive; and
3. Public domain incorporating street tree planting along existing and future roads with all new open spaces being consistent with the Objectives for the Prospect Hill State Heritage Registered Area, as given by 2.3(b) of the DCP (p. 637).

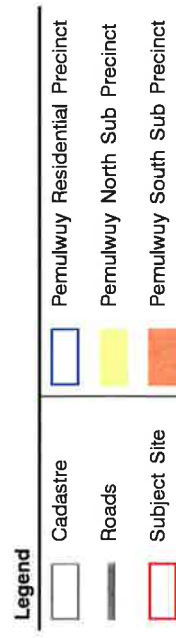


Figure 3: Pemulwuy Residential Release Area sub-precincts (HDCP 2013, Fig. 1 & 2, p. 626)



3.0 Local Context

3.1 Topography & Heritage

As shown in Figure 4, the subject site is located on the eastern slope of a north-south ridgeline which, together with the north-south ridgeline on the western side of Prospect Highway, once formed Prospect Hill. Quarrying activities have resulted in the depression between the ridgelines, now occupied by employment lands (see overleaf).

According to the Conservation Management Plan prepared by CM+ (2005, p. i), the state heritage listed remaining eastern slope has "national historical significance" (CM+ 2005, p. i):

- "for its association with some of the earliest European land exploration on the east coast of Australia from April 1788" and "Aboriginal frontier warfare due to European incursion and as the site of one of the first Aboriginal/European reconciliation meetings"; and
- due to quarrying activities which have supplied "necessary materials for major construction and road building projects in Sydney including Woronara Dam, ... Sydney Opera House, the Circular Quay Overseas Terminal and the Cahill Expressway".

West of Prospect Hill's remaining western slope is the State Heritage listed Prospect Dam.

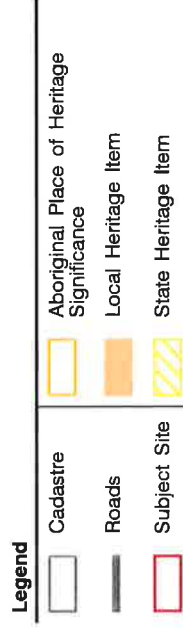


Figure 4: Topography & heritage (Holroyd LEP 2013, Blacktown LEP 2015, Fairfield LEP 2013, SEPP (Western Sydney Parklands) 2009, SEPP (Western Sydney Employment Area) 2009, SEPP (State Significant Precincts) 2005)



3.2 Land Use

As shown in Figure 5, Pemulwuy's transition to a medium-high density residential area within a landscaped setting is largely complete generally in accordance with the Holroyd LEP and DCP. There is an opportunity to develop undeveloped/underutilised land within the subject site and at the locality's southern tip as desired under the LEP and DCP.

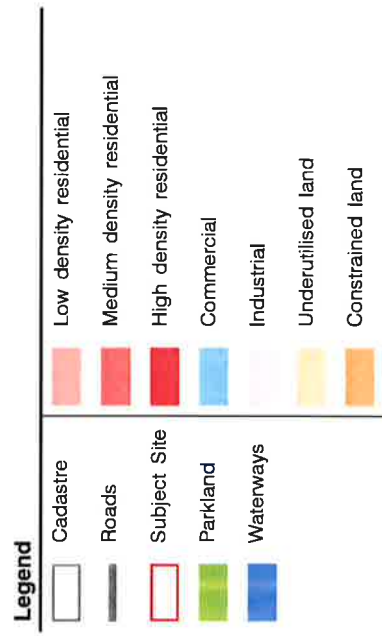
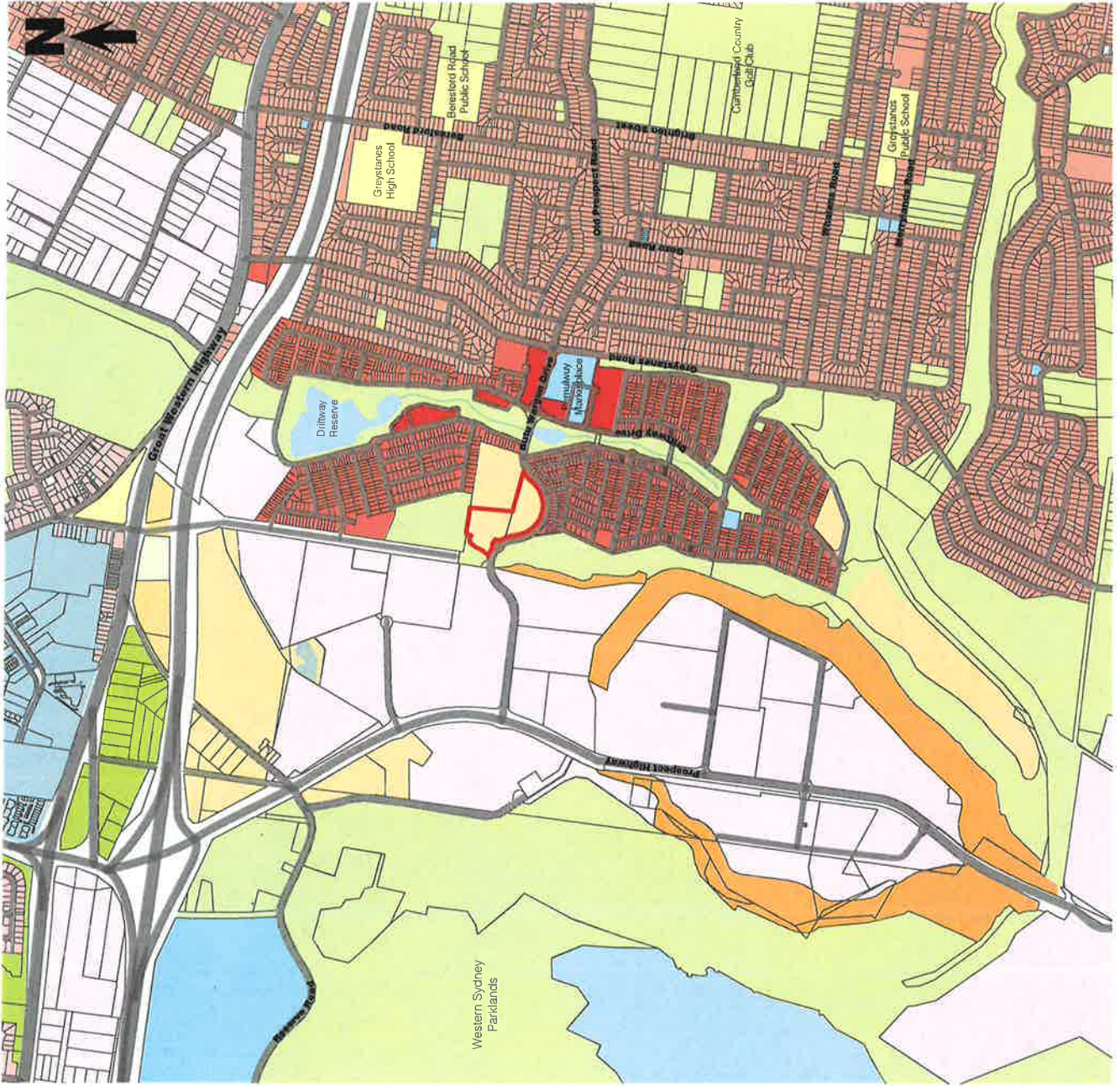


Figure 5: Activities and built form
Butu Wargun Drive, Pemulwuy
Urban Design Assessment



4.0 The Proposal

As shown in amended Architectural Plans prepared by Architex dated 1st February 2018, the proposal seeks the activation of the presently vacant and inaccessible site on the scenic and historic eastern slopes of Prospect Hill to develop 300 high-quality residential apartments across 7 residential flat buildings, each built to a height of 4-5 storeys. The proposal includes abundant communal and public open spaces including parks with native planting and amenities, as well as green roofs over each building. A portion of the communal open space will be publicly accessible, creating recreational opportunities for existing and future residents.

Parking is provided predominantly across a number of basement levels, with a minor portion provided at-grade.

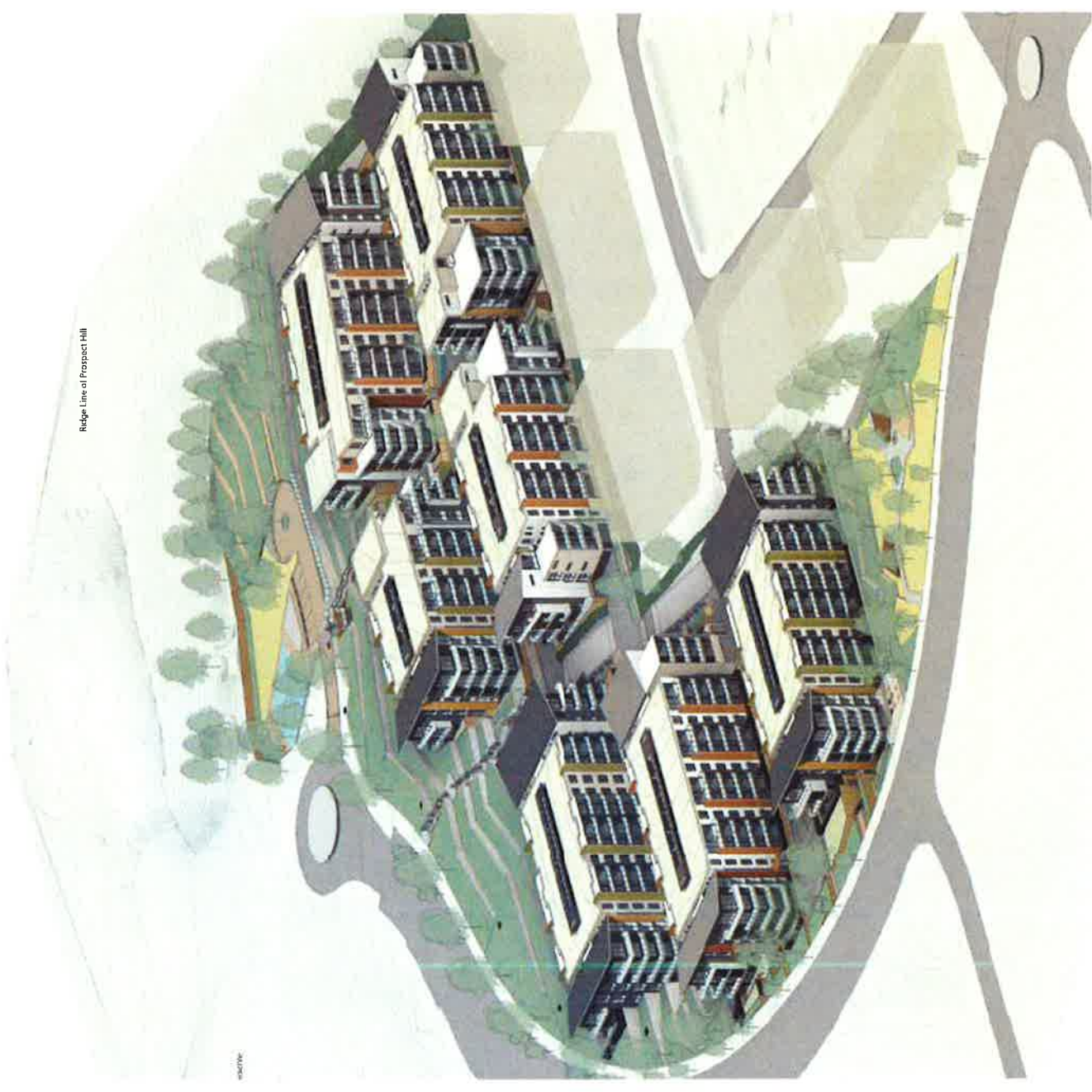


Figure 6: 3D Aerial view of site (Architex 2018, Dwg No. 42)

5.0 Assessment

5.1 Visual Analysis

The following section provides urban design analysis of the visual impacts of the proposed development, as perceived from 4 of the 20 vantage points identified in the Prospect Hill Conversation Management Plan (CM+ 2005, Fig. 6.2, p. 205), as well as 4 additional locations requested by Council.



Figure 7: Vantage points from which Prospect Hill Study Area is Visible (CM+ 2005, Fig. 6.2, p. 205)

5.1.1 Location 0 - Prospect Hill

As shown in Figure 8, only the upper 2-3 storeys of rearmost buildings will be visible from Prospect Hill, located to the west of the subject site and higher up the slope. This is an acceptable outcome on the following grounds:

1. Ensures valuable regional views to the east are retained; and
2. Impact on views softened through green roof (no plant or services located on roofs).



Figure 8: Photomontage of proposed development, as seen from Location 0 (3D Architectural Imaging 2018)

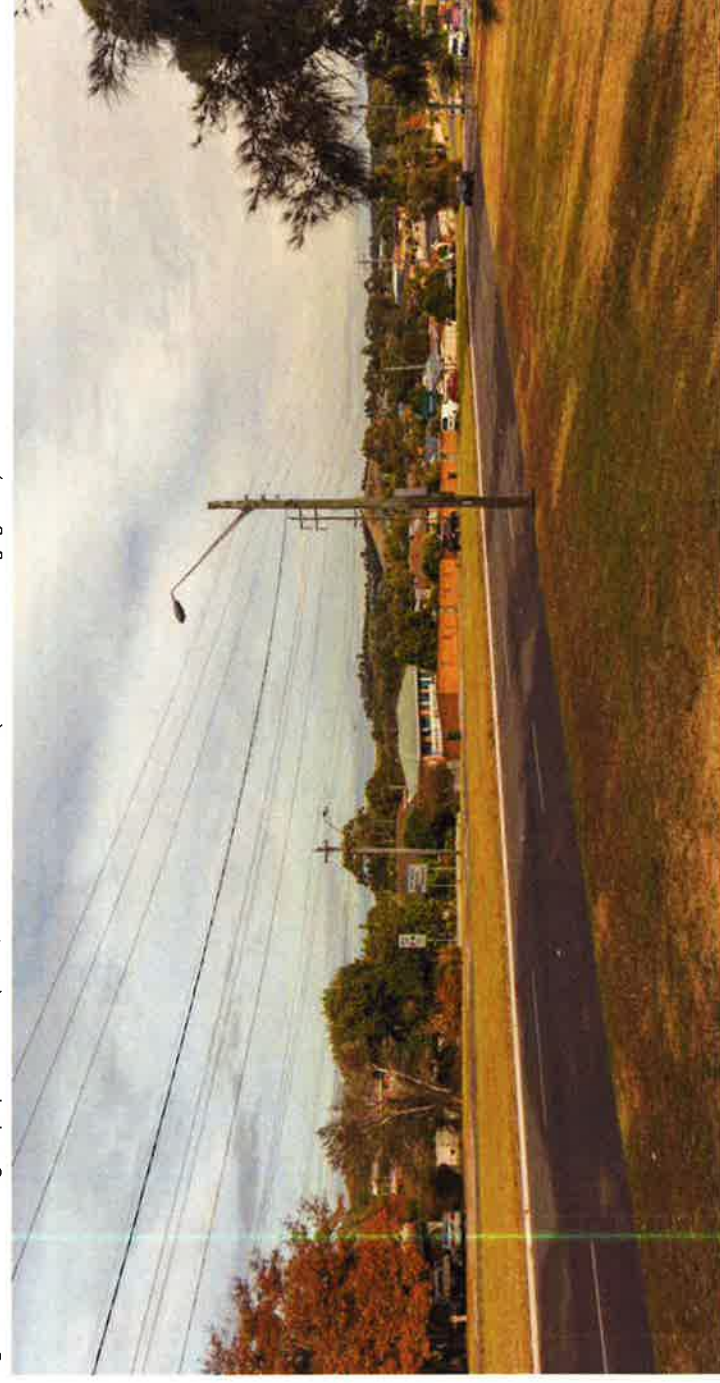


Figure 9: Photomontage of proposed development, as seen from Location 1 (3D Architectural Imaging 2018)

5.1.2 Location 1 - Caltex Station in Great Western Highway

As shown in Figure 9, only the upper 1-3 storeys of the proposed development are visible above the treetops from the Caltex service station on the Great Western Highway, approximately 1.5 kilometres to the north-east of the subject site. This is an acceptable outcome on the following grounds:

1. Retains views to the upper slopes of Prospect Hill, as well as the ridgeline; and
2. Green roof over proposed development softens transition from built form to natural setting of upper slope and ridgeline of Prospect Hill.

5.1.3 Location 2 - Bathurst Street Park

As shown in Figure 10, only the upper 1-2 storeys of the rearmost buildings will be visible from the Bathurst Street Park, approximately 850 metres to the east of the subject site. This is an acceptable outcome on the same grounds outlined in Location 1.



Figure 10: Photomontage of proposed development, as seen from Location 2 (3D Architectural Imaging 2018)

5.1.4 Location 4 - Cnr Old Prospect Road and Graham Street

As shown in Figure 11, only the upper storey of the rearmost buildings will be visible from the corner of Old Prospect Road and Graham Street, approximately 2 kilometres of the of the subject site. The minor portion of the development visible above the treetops, as well as the significant distance from the subject site, results in negligible impact on views to Prospect Hill from this location.



Figure 11: Photomontage of proposed development, as seen from Location 4 (3D Architectural Imaging 2018)

5.1.5 Location 8 - Car Butu Wargun Drive & Driftway Drive

Figure 12 depicts the most direct view to the proposed development, approximately 200 metres to the east at the roundabout intersection of Butu Wargun and Driftway Drives. At this location, impact on views to the Prospect Hill ridge line and upper slopes are mitigated through:

1. Planting screening the proposed development;
2. Modulation of roof elements to emulate the ridge line; and
3. Green roof over proposed development to soften the transition from built form to Prospect Hill above.

5.1.6 Murrong Reserve 1

As shown in Figure 13, the upper 1-2 storeys of the rearmost buildings will be visible from Murrong Reserve Location 1, located to the west of the subject site and higher up the slope. This is an acceptable outcome on the following grounds:

1. Ensures valuable regional views to the east are retained; and
2. Impact on views softened through green roof (no plant or services located on roofs).



Figure 12: Photomontage of proposed development, as seen from Location 8 (3D Architectural Imaging 2018)



Figure 13: Photomontage of proposed development, as seen from Murrong Reserve Location 1 (3D Architectural Imaging 2018)

5.1.7 Murrong Reserve 2

As shown in Figure 14, the upper 1-2 storeys of the rear-most buildings will be visible from Murrong Reserve Location 2, located to the west of the subject site and higher up the slope. This is an acceptable outcome on the following grounds:

1. Ensures valuable regional views to the east are retained; and
2. Impact on views softened through green roof (no plant or services located on roofs).

5.1.8 Murrong Reserve 3

As shown in Figure 15, only a minor portion of the upper level of the rear-most buildings is visible from Murrong Reserve Location 3, having negligible impact on regional views to the east.



Figure 14: Photomontage of proposed development, as seen from Murrong Reserve Location 2 (3D Architectural Imaging 2018)



Figure 15: Photomontage of proposed development, as seen from Murrong Reserve Location 3 (3D Architectural Imaging 2018)

5.2 Desired Future Character

As shown in Local Context Analysis, the Pemulwuy Residential Precinct's transition is largely complete and generally in accordance with HLEP and HDCP 2013. As such, the Desired Future Character for the subject site is for development consistent with HLEP and HDCP 2013, ensuring cohesiveness with the broader Pemulwuy Residential Precinct.

The proposed development is consistent with the Desired Future Character, being compliant with the Holroyd Local Environmental Plan 2013, with the exception of minor non-compliances with maximum permissible height (see Figure 16), considered acceptable on the grounds that:

1. Compliant with the Holroyd Development Control Plan, including RLs specified to protect the ridge line;
2. Retains views to and from Prospect Hill from vantage points identified in the Prospect Hill Conversation Management Plan (CM+ 2005, Fig. 6.2, p. 205), as well as 4 additional locations requested by Council;
3. They have negligible increase in overshadowing impacts with longest shadows falling in the carriageway of New Road No. 4 and not impacting future dwellings to the east; and
4. Building elements protruding through the height plane are generally restricted to skillion roofs incorporated to modulate the roof form in response to the State heritage listed Prospect Hill.

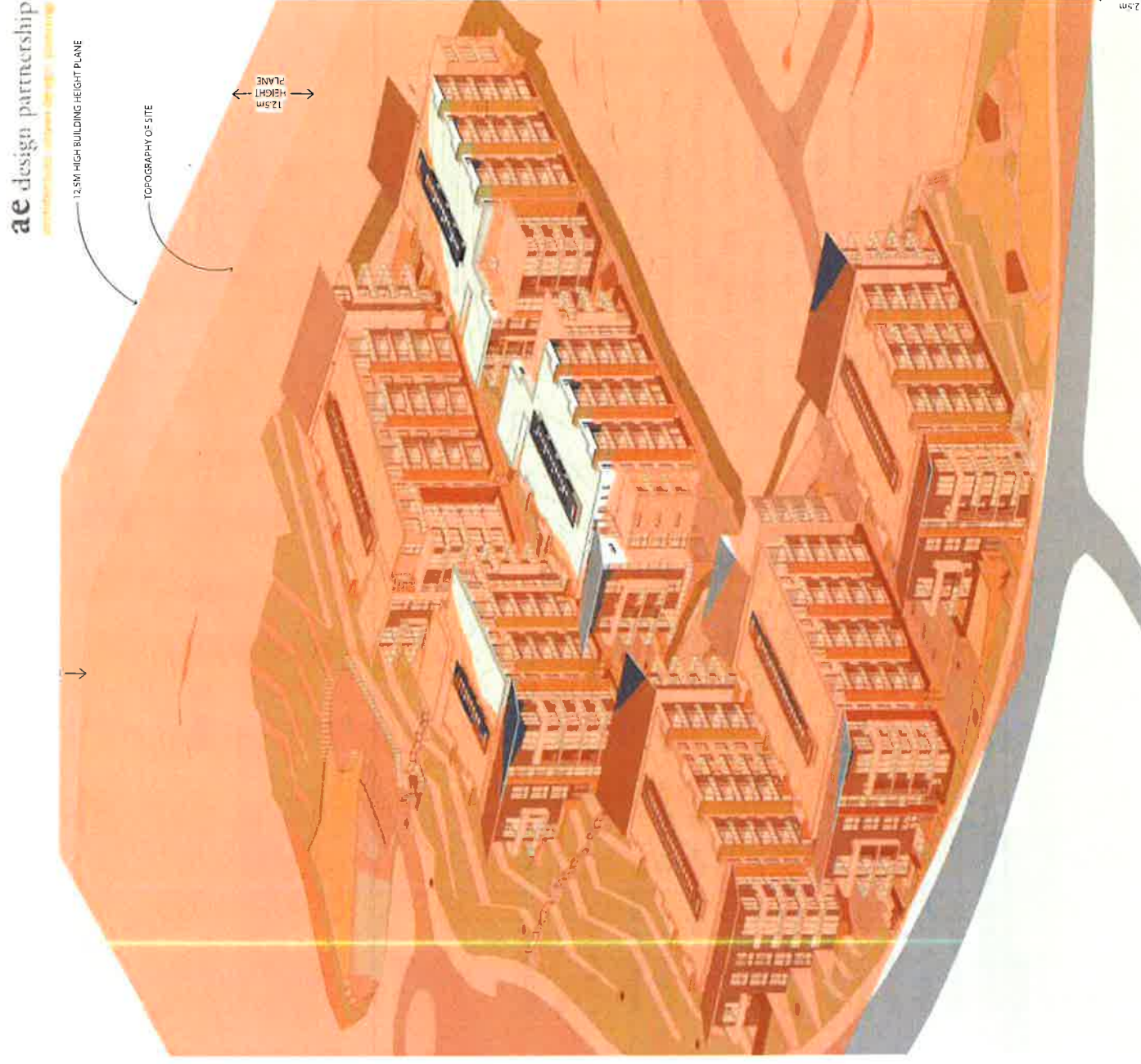


Figure 16: 3D Height plane diagram (architex 2018, Dwg No. DA31)

5.3 Apartment Design Guide (DoPE 2015)

As part of its urban design assessment of the proposed development, ae design partnership has reviewed and generally agrees with the assessment against the Design Criteria and Guidance of the Apartment Design Guide, as conducted within the Statement of Environmental Effects prepared by Think Planners. Nevertheless, the proposed development is assessed against the 9 Design Quality Principles of the Apartment Design Guide (p. 12) in this section.

Principles:

1. Context and neighbourhood character

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.

Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.

Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

Consistency of Proposal:

The proposed development responds to:

- Existing context:
 - Retains views to and from Prospect Hill from vantage points identified in the Prospect Hill Conversation Management Plan (CM+ 2005, Fig. 6.2, p. 205), as well as 4 additional locations requested by Council;
 - Provides additional glimpses of Prospect Hill through view corridors along watermain easement and between Blocks A/B and C/D; and
 - Modulates roof form in response to the slope of Prospect Hill.
- Desired Future Character: through development in accordance with HLEP and HDGP 2013 (see Section 5.2), consistent with built form transition in the broader Pemulwuy Residential Release Area which is largely complete.

Principles:	Consistency of Proposal:
2. Built form and scale Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.	The proposed development has acceptable built form and scale. Minor height non-compliances are acceptable on the grounds that: 1. Compliant with the Holroyd Development Control Plan, including RLs specified to protect the ridge line; 2. Retains views to and from Prospect Hill from vantage points identified in the Prospect Hill Conversation Management Plan (CM+ 2005, Fig. 6.2, p. 205), as well as 4 additional locations requested by Council; 3. They have negligible increase in overshadowing impacts with longest shadows falling in the carriageway of New Road No. 4 and not impacting future dwellings to the east; and 4. Building elements protruding through the height plane are generally restricted to skillion roofs incorporated to modulate the roof form in response to the State heritage listed Prospect Hill.
3. Density Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.	Minor height non-compliances discussed in response to Principle 2 do not result in development inconsistent with desired future densities, as proven by compliance with the RLs specified in HDCP 2013.

Principles:

4. Sustainability

Good design combines positive environmental, social and economic outcomes.

Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation.

5. Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks.

Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity and provides for practical and long term management.

Consistency of Proposal:

The proposed development achieves sustainability requirements through:

- Provision of communal open space and deep soil zones at or greater than the minimum rate required by the Apartment Design Guide, mitigating the urban heat island effect;
- 74% of apartments achieving 2 hours of direct solar access to living rooms and private open spaces in mid-winter, exceeding the 70% minimum requirement; and
- 73.7% of apartments being adequately cross-ventilated, exceeding the 60% minimum requirement.

The proposed development provides communal open space and deep soil zones at or great than the minimum rate required by the Apartment Design Guide. The communal open space and deep soil zones are subject to high quality landscape treatment, as shown in Landscape Plan prepared by Taylor Brammer Landscape Architects.

Principles:	Consistency of Proposal:
6. Amenity Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being. Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas and ease of access for all age groups and degrees of mobility.	The proposed development achieves a high level of amenity through: • Provision of communal open space and deep soil zones at or greater than the minimum rate required by the Apartment Design Guide; • 74% of apartments achieving 2 hours of direct solar access to living rooms and private open spaces in mid-winter, exceeding the 70% minimum requirement; and • 73.7% of apartments being adequately cross-ventilated, exceeding the 60% minimum requirement.
7. Safety Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.	The proposed development optimises safety and security through: • Built form address of communal and public open spaces; • Separate and secure vehicular and pedestrian entries; and • Well lit pedestrian entries, visible from the public domain.

Principles:	Consistency of Proposal:
8. <i>Housing diversity and social interaction</i> Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets. Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.	 Notwithstanding the proposed development providing 2-bedroom apartments at a higher rate than 1 and 3-bedroom apartments, 20.7% of apartments are adaptable. Opportunities for social interaction are provided through the provision of a variety of indoor and outdoor communal open spaces, as well as public open space, each incorporating amenities as shown in the Landscape Plan prepared by Taylor Brammer Landscape Architects.
9. <i>Aesthetics</i> Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures. The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.	 The proposed development optimises aesthetics through: • Selection of materials and finishes: • To give individual character to each building; and • Emphasise vertical and horizontal elements in each facades. • Modulation and articulation of facades; • Modulation of roof features to respond to the State heritage listed Prospect Hill; • Minimal blank surfaces; and • High quality landscape setting, as shown in the Landscape Plan prepared by Taylor Brammer Landscape Architects.

6.0 Conclusion

This Urban Design Assessment, prepared by ae design partnership to assist the Sydney West Central Planning Panel in its assessment of urban design matters pertaining to DA 2016/381 (Panel Reference No. 2016SYW249 DA) seeking the development of Lots 12 and 13 in DP 1162280 in Butu Wargun Drive, Pemulwuy in the Cumberland LGA, has sought to:

1. Conduct analysis and identify opportunities in Strategic and Local Context to establish Desired Future Character for the subject site.
2. Assess the proposed development against the Desired Future Character, as established through Strategic and Local Context analysis.
3. Based on assessment of the proposed development against the Desired Future Character and recommend decision to the Planning Panel with respect to urban design matters.

Strategic and Local Context analysis conducted in accordance with Objectives 1 and 2 on left finds that Desired Future Character for the subject site is primarily derived from HDCP 2013 with:

- Development in accordance with the Desired Future Character being enabled by the land use zoning and built form controls set out in HLEP 2013; and
- Local Context analysis finding that built form transition within the locality is largely complete and generally in accordance with the described Desired Future Character.

Assessment of the proposed development against the Desired Future Character in accordance with Objective 3 on left finds that the proposed development is consistent with the Desired Future Character, ensuring cohesiveness with the broader Pemulwuy Residential Precinct. Additionally:

- The proposed development is consistent with the 9 Principles of the Apartment Design Guide, as well as the Design Criteria and Guidance (see Statement of Environmental Effects prepared by Think Planners); and
- The proposed development has acceptable impacts on the heritage listed Prospect Hill, as perceived from 4 of the 20 vantage points identified in the Prospect Hill Conversation Management Plan (CM+ 2005, Fig. 6.2, p. 205), as well as 4 additional locations requested by Council.

As such, the Sydney West Central Planning Panel should have no hesitation, from an urban design perspective, in approving the proposed development.

