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Macquarie Place, Parramatta

Architectural Design Report, Major Project Application - March 2010

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Mechanical	Lincolne Scott
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Electrical	Joeliane Electrical
Traffic	Colston Budd Hunt Kaffes
Access	Morris Goding Accessibility Consultants
BCA	BCA Logic
Fire Services	DA Design
ESD	Advanced Environmental
Security Consulting	Harris Crime Prevention Services
Surveyor	ATS
Geotechnical	Douglas Partners
Acoustics	Van Der Meer Consulting
Wind	Windtech

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1. Statement of Design Intent

i. Introduction

This report has been prepared by Bates Smart and Joshua International Architects on behalf of Crown International Holdings Group.

It forms part of the Environmental Assessment Report prepared in respect of Major Projects Application. It describes the architectural design concept for a mixed-use development located at 45-47 Marsden Street, Parramatta

ii. Proposed Development Summary

Site location - 134-140 Marsden Street, Parramatta

Site area - 4,900sqm

FSR - 8.44:1
(to match approved commercial DA measured under the SREP28 definition for GFA)

FSR equivalent - 8.23:1
(Parramatta City LEP 2007 definition for GFA)

Ground Floor Retail - 1,540sqm

Commercial (Levels 1-3) - 4,122sqm

Total Apartments - 339

Apartment Summary
- 1Bed - 89 (26%)
- 2Bed - 193 (57%)
- 3Bed - 57 (17%)

Basement Carparking (6 levels) - 506 car spaces

2. Site Context
i. Aerial Photograph & Site Location

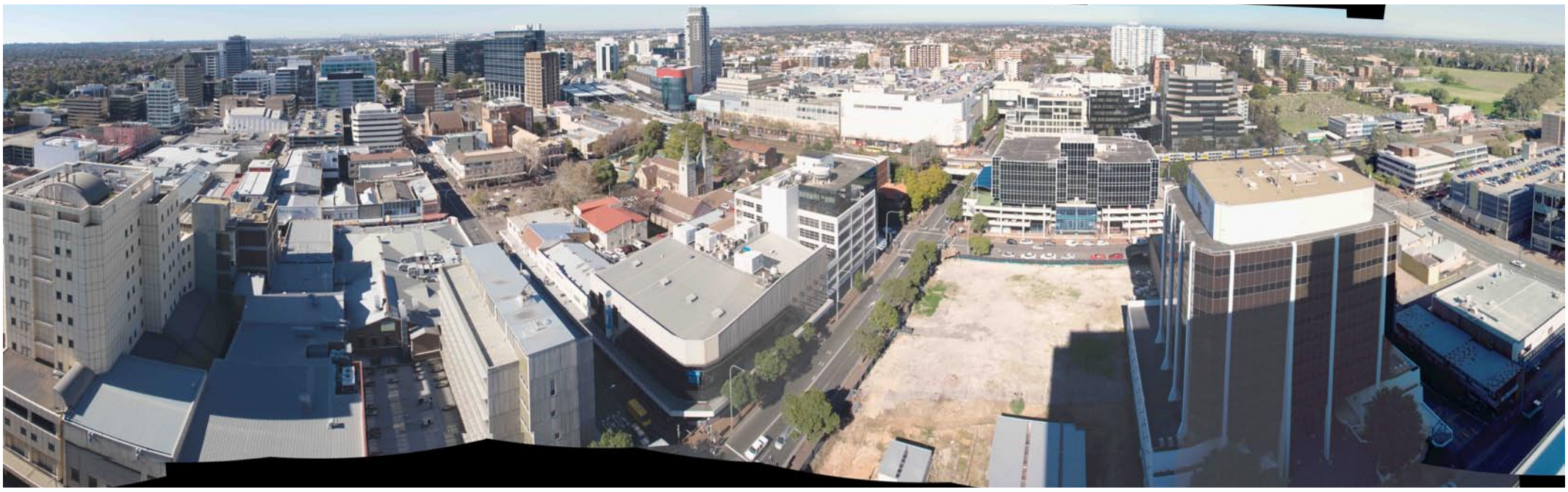
The site is located in the heart of the Parramatta CBD, and to the west of the new Civic Place.

It is bounded by Macquarie St to the north, Marsden St to the east and Hunter St to the south. The Jesse Centre office building is across Macquarie St.

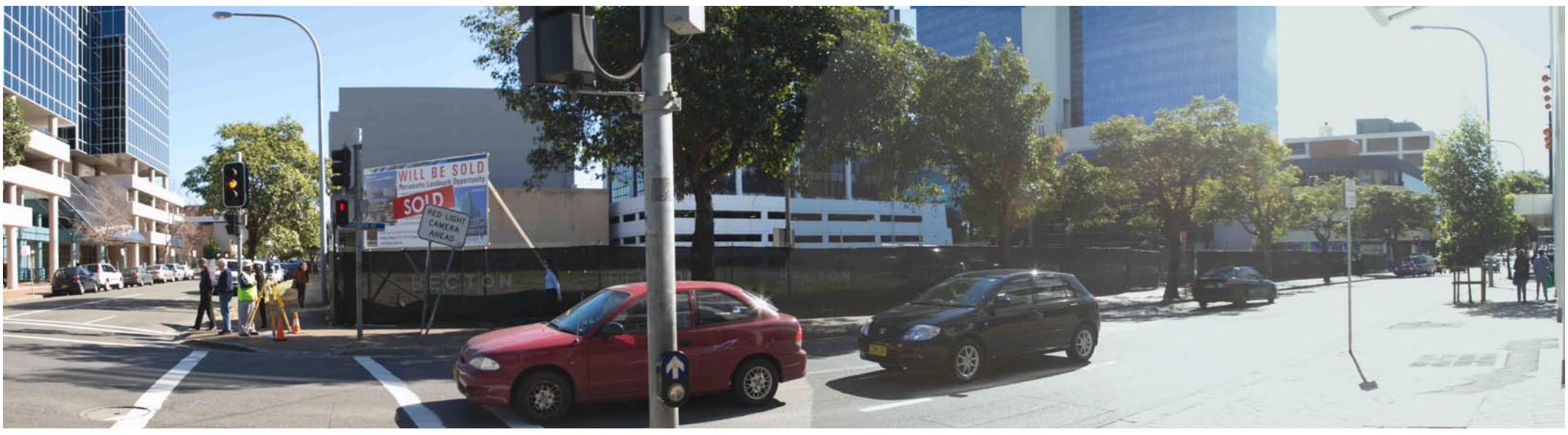
2. Site Context
ii. Site Photographs

The site has been cleared and archaeological investigation undertaken, which is now protected in two industrial sheds.

The site is surrounded by mid-rise (8-12 storey) commercial office buildings, with the high-rise Jesse Centre to the north.



View south-east across proposed site



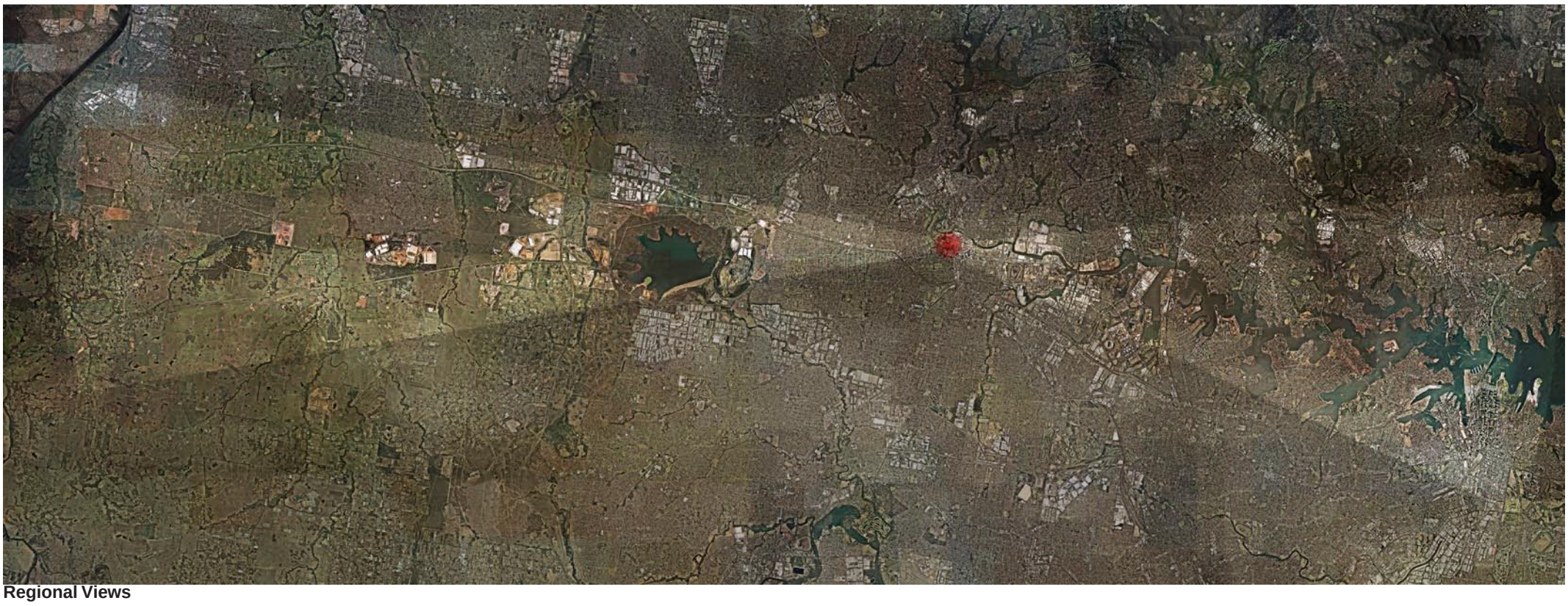
View from the corner of Marsden and Hunter streets

View from Macquarie street

2. Site Context
iii. Views

The site has good regional views of the Sydney CBD and Sydney Harbour to the east and the Blue Mountains to the west.

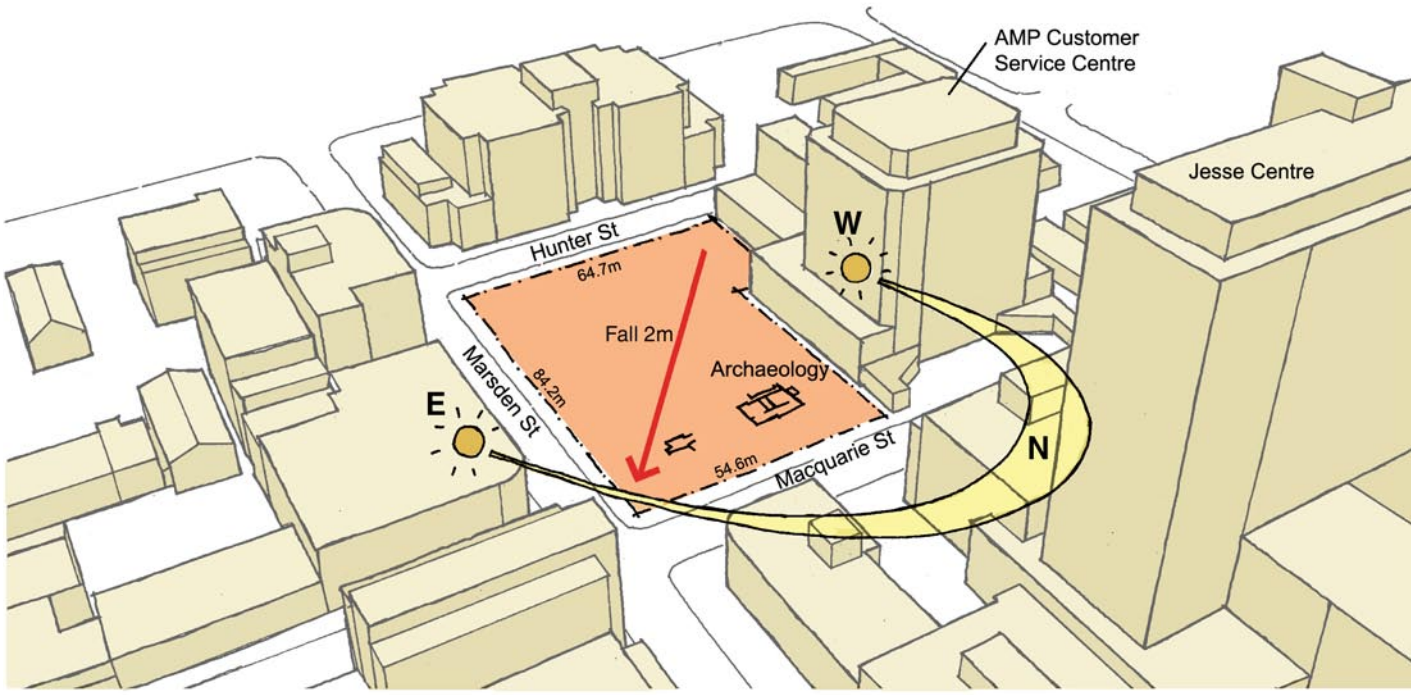
Local views are of Parramatta Parklands to the north and west, and the Parramatta River to the north and east.



Regional Views

Local Views

3. Site & Urban Design Analysis



i. Site Analysis

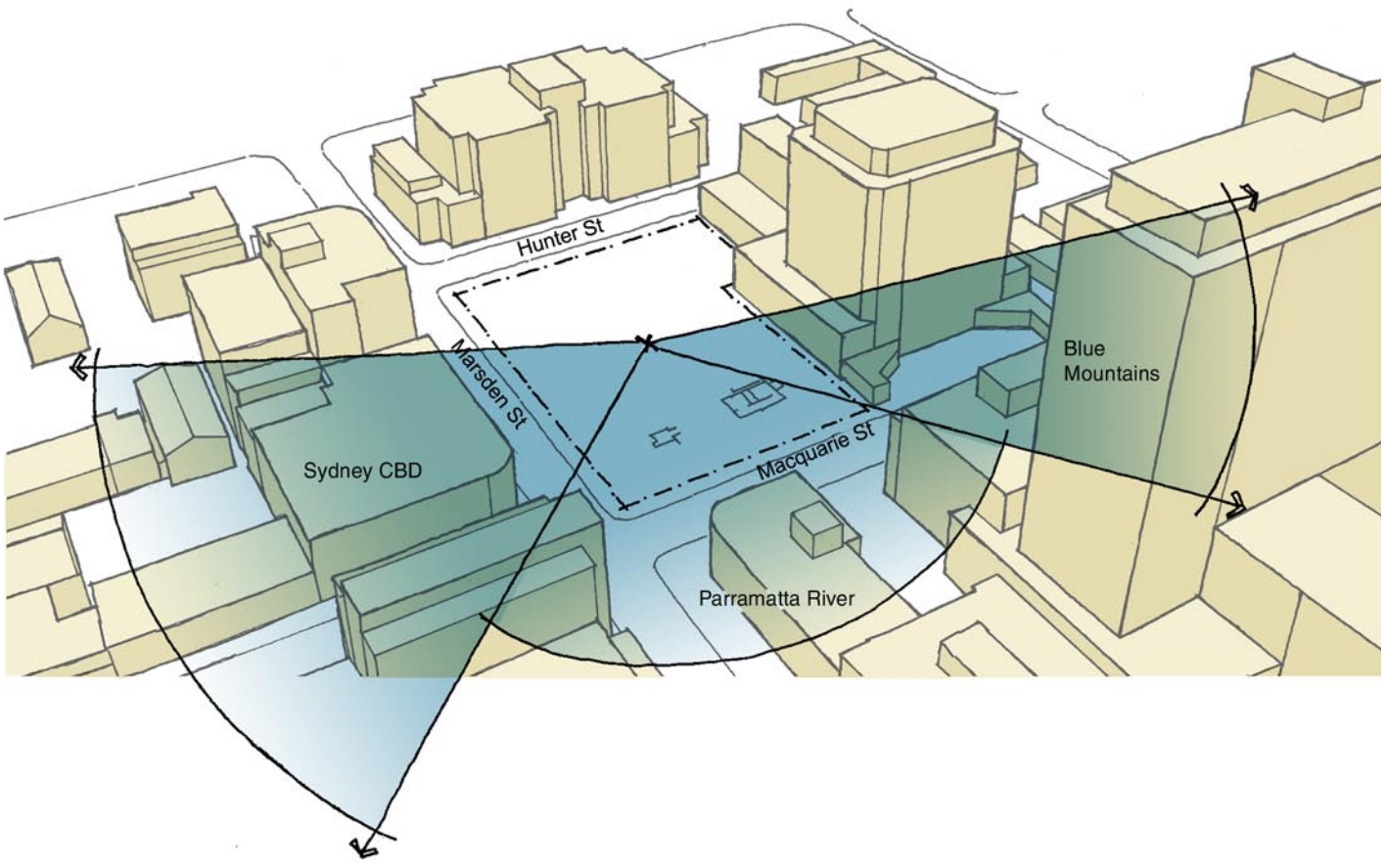
> Site area = 4900sqm

> Street frontages;
- 54.6m to Macquarie St
- 84.2m to Marsden St
- 64.7m to Hunter St

> The site falls approx. 2m from Hunter Street to Macquarie St.

> Archaeology
- Remains of 1840's house and 'convict hut'
- Cellar of the Wheatsheaf Hotel (1801 - 1808)

> Good solar exposure to the north and east.

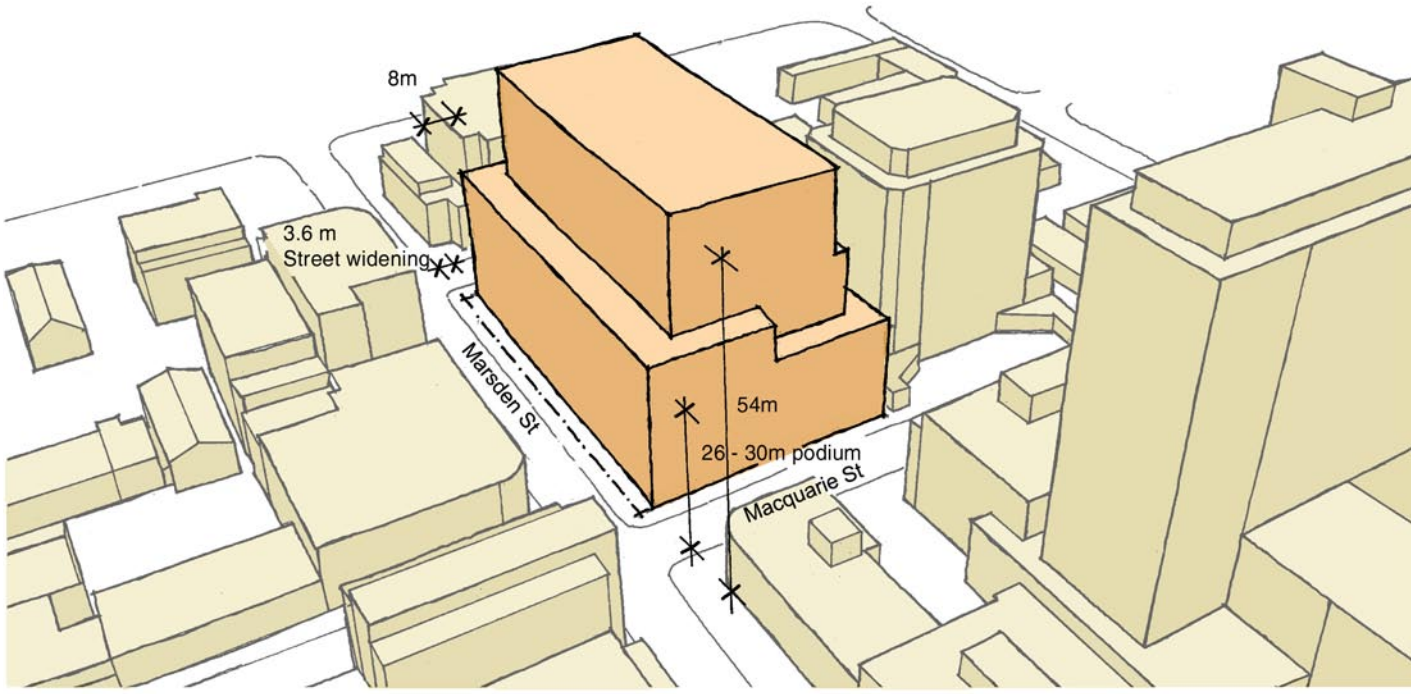


ii. Views

> The predominant views are east towards the CBD and west towards the Blue Mountains

> There are local views north across Parramatta towards Parramatta River

3. Site & Urban Design Analysis

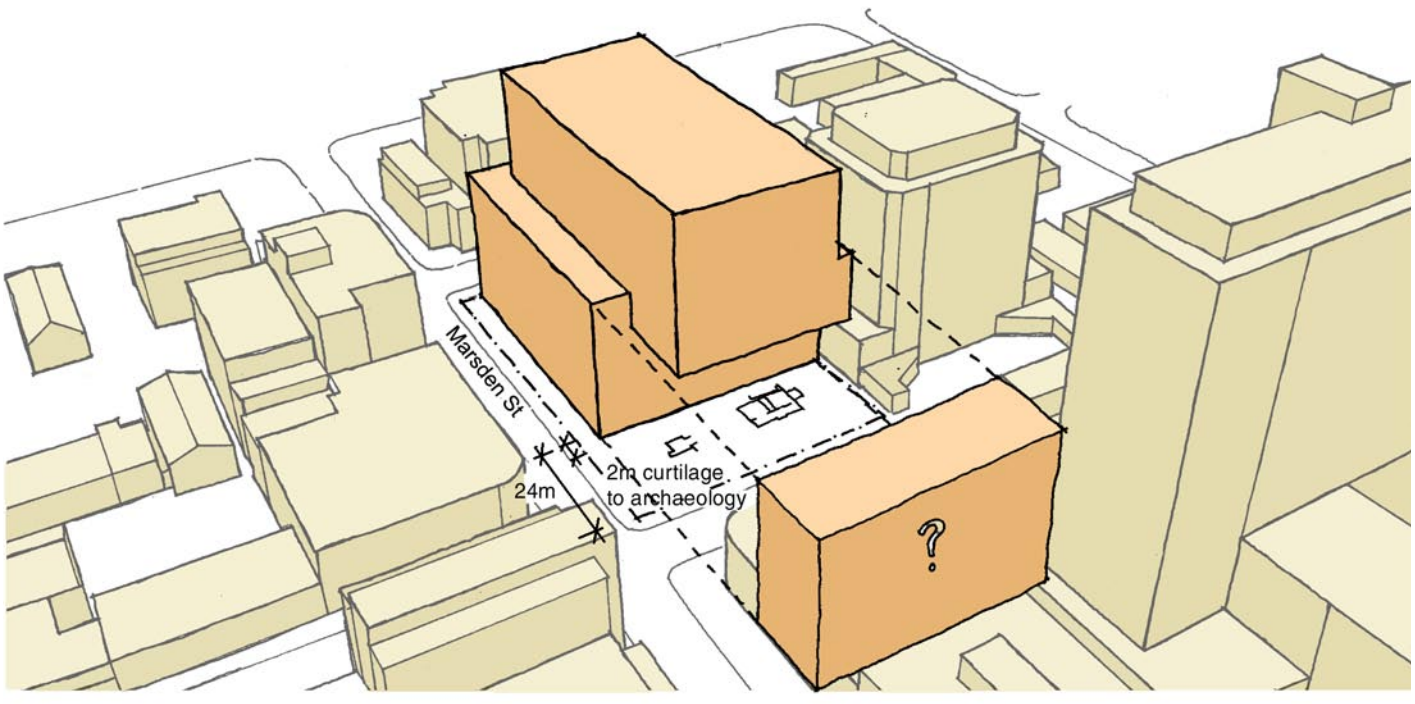


iii. Planning Controls

> The current planning controls create a low dense development envelope potentially suited to commercial, however, it is difficult to accommodate residential amenity.

> LEP Controls;
- Height to 54m (max)
- FSR at 6:1 (max)
- Street widening of 3.66m to Marsden St

>DCP Controls;
- Street frontage (podium) heights of 26-30m to Marsden St and street corners, and 18-22m to Macquarie & Hunter Streets.
- Tower setbacks of 8m (min) to Marsden St and 8m (average) to Macquarie & Hunter Streets.



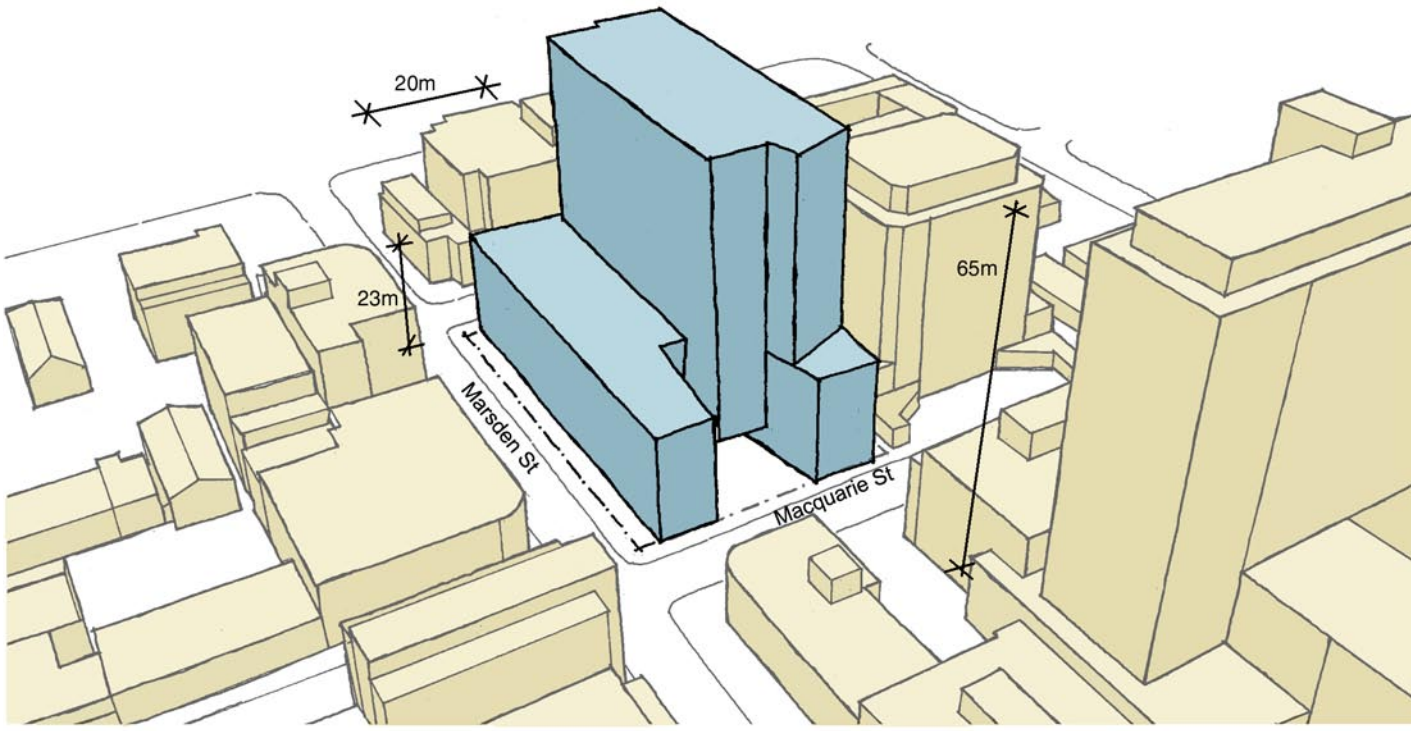
iv. Planning Controls with Archaeology

>To expose and display the archaeology on the site a significant portion of built form would need to be removed from the north along Macquarie St and accommodated elsewhere on the site. This creates the opportunity for a north-facing public space.

> Approx. 2m curtilage to archaeology is

required.

3. Site & Urban Design Analysis



v. Existing Approved DA (Commercial)

> The existing approved DA makes minimal allowance for exposure and display of archaeology

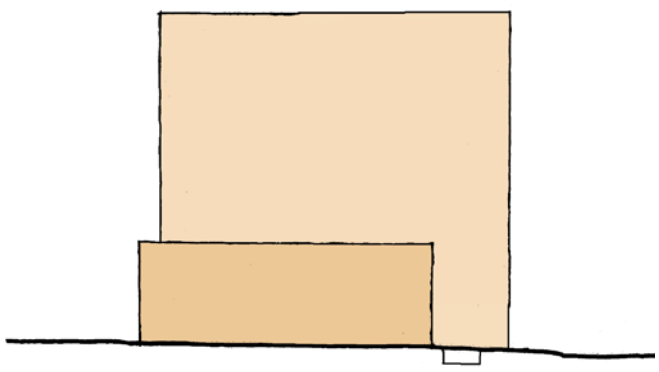
> Max height = 65m (RL 75.30)

> FSR = 8.44:1 (measured under SREP 28 definition for GFA)

> Commercial NLA = 32,650sqm

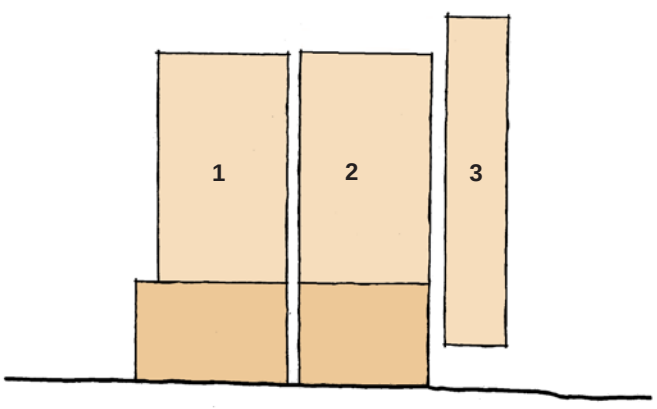
> Retail NLA = 1,150sqm

4. Massing Studies
i. Building Form & Articulation



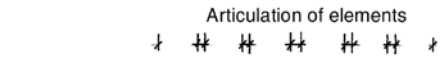
i. Podium and Tower Building Form

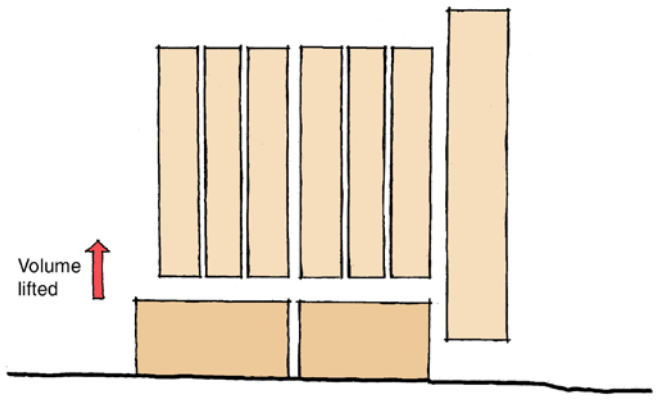
> Unarticulated mass
> Tower element is of a horizontal proportion rather than vertical proportion
> No response to archaeology



ii. Primary Articulation of Volumes

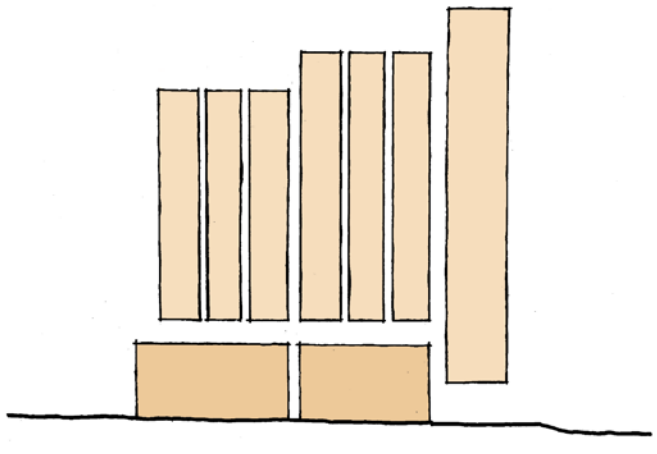
> Tower articulated as 3 volumes
> Creates a vertical proportion to the tower elements
> Tower elements 1 and 2 address Marsden St
> Tower element 3 addresses Macquarie St and takes advantage of northerly aspect
> Tower element 3 is lifted up to create a north-facing public space around the archaeology





iii. Secondary Articulation of Volumes

> The three primary volumes have a finer articulation to the scale of apartment widths
> Tower volumes are visually separated from the podium



iv. Stepped roof plane

> The primary tower volumes step up towards Macquarie Street
> Creates a series of landscaped roof terraces and penthouse gardens
> Taller element at Macquarie St is a response and gesture towards the archaeology plaza
> Overshadowing to surrounding streets is minimised by having the lower volumes to the south

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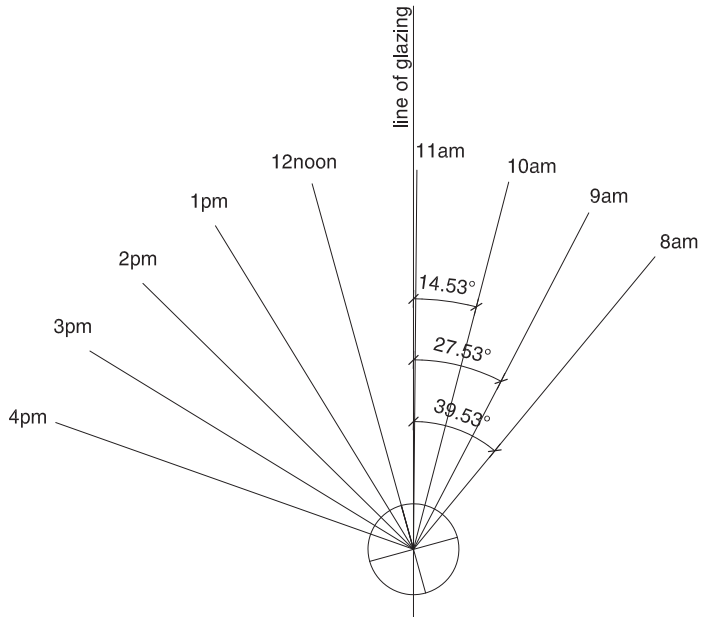
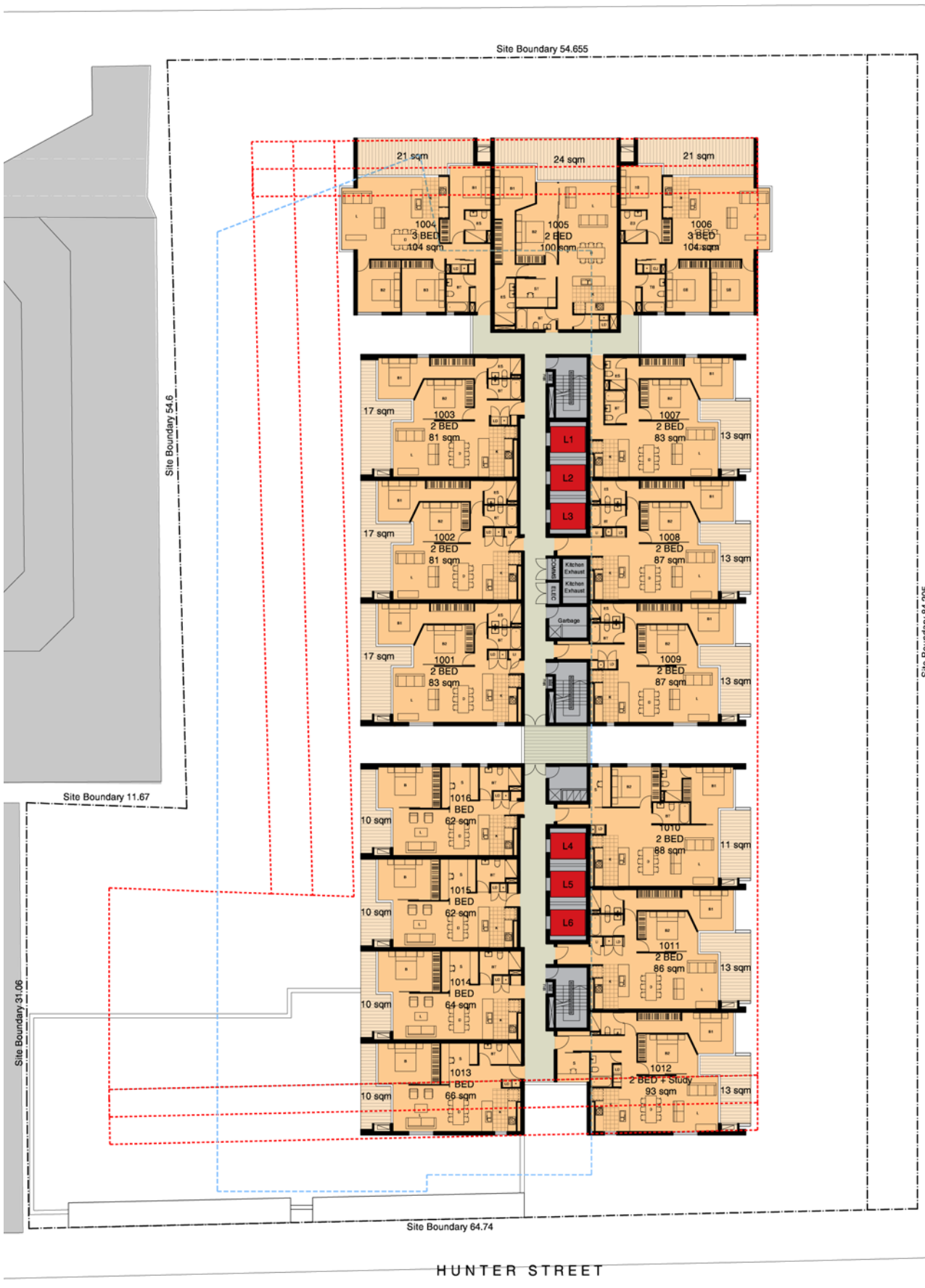
5. Residential Amenity
i. Solar & Daylight Analysis
Scale 1:400



MACQUARIE STREET



MARSDEN STREET

HUNTER STREET

> Living rooms and balconies are located to maximise mid-winter solar access

> Balconies and frames are treated differently for the various orientations;

- balconies to east-facing apartments extend beyond the frame to allow for solar access mid-winter

- balconies to west-facing apartments are pulled back within the frame to provide afternoon shading

- balconies to north-facing apartments extend for the full-width of apartments to provide horizontal midday sunshading

> All kitchens and bathrooms in slots have windows to provide additional daylight

> Windows in slots are not directly opposite each other to avoid issues of privacy

> Windows at ends of slots provide daylight to the central corridor significantly reducing the requirement for artificial lighting

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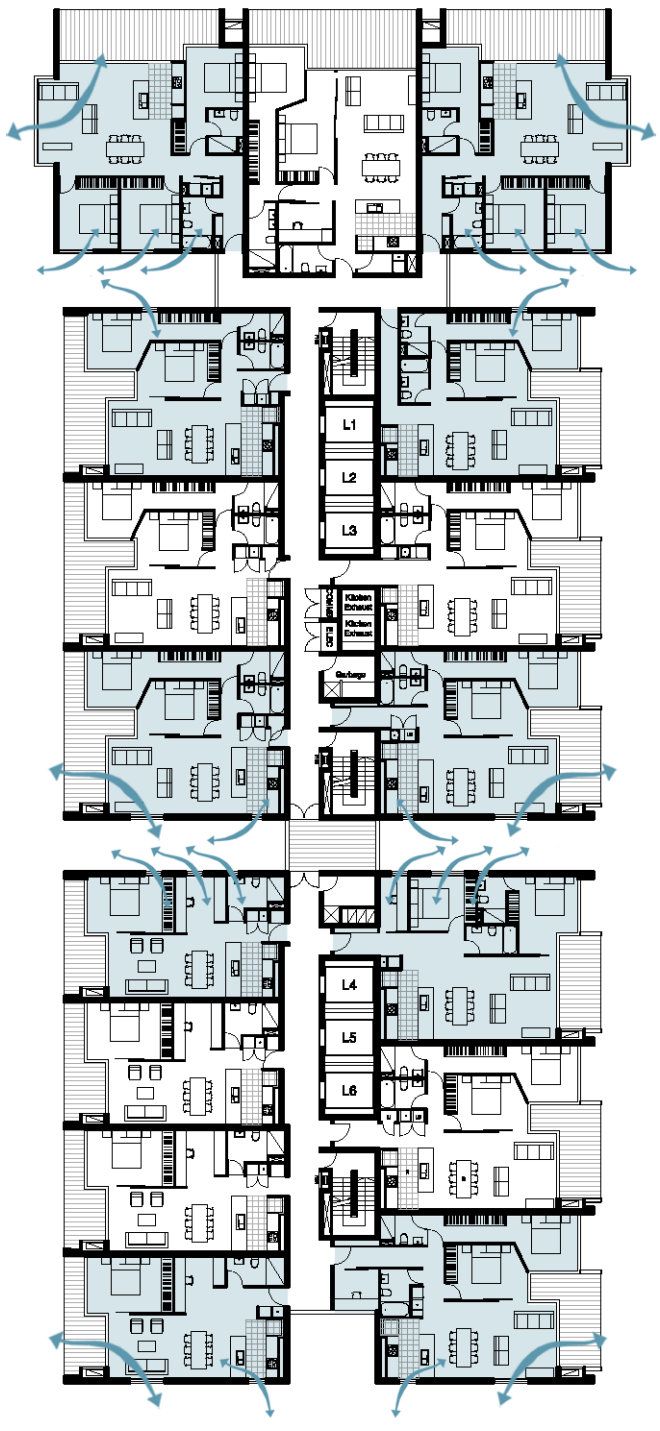
5. Residential Amenity
ii. Cross-Ventilation
Scale 1:400



> Slots provide cross-ventilation to 63% of apartments on a typical floor.

> Across the whole development (339 apts), 64% of apartments (218 apts) are cross-ventilated, complying with the SEPP65 minimum of cross-ventilation to 60% of apartments.

> Windows are located to the rear of the slots where possible to maximise air movement through the apartments.

> All bathrooms and kitchens adjacent to slots have windows provided.

> Windows to adjacent apartments are not located directly opposite each other to reduce the potential of air moving from one apartment to another.

> Slots allow the central corridor to be naturally ventilated, reducing the reliance on mechanical systems.

5. Residential Amenity
iii. SEPP 65 Compliance Schedule

SEPP65 Residential Flat Design Code - Compliance Schedule				
Solar Access - *70% (minimum)*	**3 hours sun**	**2 hours sun**	**< 2hrs sun**	**Total no. Apts**
East Elevation	0	111	0	111
North Elevation	79	3	5	87
West Elevation	91	11	18	120
South Elevation	0	0	21	21
Total	**170**	**125**	**44**	**339**
%age of total	**50%**	**37%**	**13%**	
Total no. of SEPP65 complying apts (2hrs minimum solar access)	170	125		295
%age of total				**87%**
South-Facing Apartments - *10% (maximum)*				21
%age of total				**6%**
Cross-Ventilation - *60% (minimum)*				218
%age of total				**64%**

5. Residential Amenity
iv. SEPP 65 Design Statement

This Design Statement has been prepared to demonstrate that the proposed mixed use development (which includes a large residential flat building component) has been designed to be consistent with the ten design principles in SEPP 65.

Principle 1: Context
Good design responds and contributes to its context. Context can be defined as the key natural and built features of an area. Responding to context involves identifying the desirable elements of a location's current character or, in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies. New buildings will thereby contribute to the quality and identity of the area.

The Parramatta City centre is currently undergoing a transformation which is being lead by the recently-introduced development controls in the City Centre LEP and DCP. A detailed Future Context Analysis (see Architectural Design Statement at Appendix H) has been undertaken to inform the design of the proposed mixed use development and to ensure that the proposed development will be consistent with the existing and future context of the surrounding locality.

Principle 2: Scale
Good design provides an appropriate scale in terms of the bulk and height that suits the scale of the street and the surrounding buildings.
Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing a transition, proposed bulk and height needs to achieve the scale identified for the desired future character of the area.

The development site is one of the first to be developed in accordance with the new development controls in the City Centre LEP and DCP and will achieve a scale consistent with the desired future character for the area. The Future Context Analysis locates the proposed development within the context of the future scale of surrounding buildings and demonstrates that the proposed development will be consistent with the expected scale of development. Street Context Elevations (refer to 7(i). pg29) shows the proposed development within the existing streetscape and future LEP height envelopes. The proposed development concentrates the bulk of the building height in the northern section of the site where it will mirror the existing scale of the Jesse Centre on the northern side of Macquarie Street. The proposed height is also consistent with the proposed LEP height (80m) to the south across Hunter Street. The proposed podium height is consistent with existing and future streetwall heights along Marsden Street.

Principle 3: Built form
Good design achieves an appropriate built form for a site and the building's purpose, in terms of building alignments, proportions, building type 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 design for the development has undergone an intensive design review process which has resulted in a number of refinements to the proposed building to ensure that it contributes to the character of the surrounding area. As far as possible, the proposed development will be consistent with the City Centre DCP controls with minor amendments to respond to the unique nature of the site. The building has been orientated to take advantage of views and solar access. The tower massing has been articulated as three volumes to reduce the visual bulk and create a more vertical tower proportion as well as providing amenity to apartments with the use of the slots. The northern volume has been lifted up to create a north-facing public space around the archaeology.

Principle 4: Density
Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents).
Appropriate densities are sustainable and consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density.
Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities and environmental quality.

A detailed analysis of the density proposed on the development site is provided in Section 6.3 of the Environmental Assessment Report. The proposed density is considered suitable given the site's location in proximity to public transport facilities, existing services and the desired future character for the area.

Principle 5: Resource, energy and water efficiency
Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction.
Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water.

Passive ESD principles were incorporated into the building design at an early stage. The building has been orientated to take advantage of solar access to living spaces in winter, and sun shading devices have been designed specifically for each orientation for optimum shading in summer. Slots in the building form allow for dalylight access to the central corridor reducing the amount of artificial lighting required. The slots also provide natural ventilation to both the central corridor and apartments reducing the demand for mechanical cooling.
A number of ESD mechanisms have been incorporated into the proposed design to ensure that the proposed development achieves a high level of resource, energy and water efficiency. Further detail is provided in the Sustainable Strategy prepared by Advanced Environmental and attached at Appendix N.

Principle 6: Landscape
Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain.
Landscape design builds on the existing site's natural and cultural features in responsible and creative ways. It enhances the development's natural environmental performance by co-ordinating water and soil management, solar access, micro-climate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for streetscape and neighbourhood character, or desired future character.
Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long term management.

A landscape concept design has been prepared by Taylor Brammer (See Landscape Plans at Appendix I for further details) The landscape design for the streetscape responds to Parramatta Council's requirements as well as integrating into the public plaza design and surrounding area. A private landscaped podium acts as a green sanctuary for the residents and has been designed with provision of deep soil to accommodate significant planting.

Principle 7: Amenity
Good design provides amenity through the physical, spatial and environmental quality of a development.
Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook and ease of access for all age groups and degrees of mobility.

The provision of appropriate internal amenity to future residents of the development has been a primary objective in the design development and was a significant concern raised by the Design Review Panel. Extensive technical studies and adjustments to the design have been made to ensure that the proposal complies with the RFDC Rules-of-Thumb in relation to solar access and natural ventilation. Further detail is provided in Section 6.10 of JBA's Environmental Assessment Report and supporting technical reports.

Principle 8: Safety and security
Good design optimises safety and security, both internal to the development and for the public domain.
This is achieved by maximising overlooking of public and communal spaces while maintaining internal privacy, avoiding dark and non-visible areas, maximising activity on streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and clear definition between public and private spaces.

The development has been designed to maximise internal and external security. (Further detail is provided in the Security Design Report at Appendix X)
The security to the public plaza has been designed at the perimeter of the plaza with the security gates designed as archeaological interpretive display panels. The gates are intended to be closed and secure after retail trading hours but visibility maintained through the gates into the plaza for passive surveillance. Active uses (cafe/retail spaces) have been proposed around the public plaza and along Marsden and Hunter Street frontages also acting as passive surveillance.

Principle 9: Social dimensions and housing affordability
Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities.
New developments should optimise the provision of housing to suit the social mix and needs in the neighbourhood or, in the case of precincts undergoing transition, provide for the desired future community.
New developments should address housing affordability by optimising the provision of economic housing choices and providing a mix of housing types to cater for different budgets and housing needs.

The apartment sizes and mix will ensure that an appropriate level of housing affordability is provided by the residential development on the site which will meet the needs of the Parramatta community.

Principle 10: Aesthetics
Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development. Aesthetics should respond to the environment and context, particularly to desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area.

The tower has been articulated into three volumes which are visually separated from the podium as an expressed base which relates to the scale of the streetscape. The tower has a secondary finer articulation at the scale of apartment widths. Each facade is expressed differently to respond to the orientation while maintaining an integrated overall aesthetic. The podium is clad in sandstone to provide a high quality material to the public plaza and streetscape. The tower has an applied finish and the proposed colours respond to the surrounding context.