

Indicative views of the massing model



Indicative view of new facilities located between the existing ET Stand and Southern Stand



Indicative view of stadium entry

Part 3 : The key ADG & SEPP65 Design Principles

Key Design Concepts

The following section illustrates how the proposed modification to the approved concept plan complies with the key ADG & SEPP 65 design principles. The report shows how the residential buildings have been designed to maximise amenity for residents, in the context of a mixed use development.

Design Quality Principle¹

Context and neighbourhood character

Good design responds and contributes to its context. Context is the key natural and built features on 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.

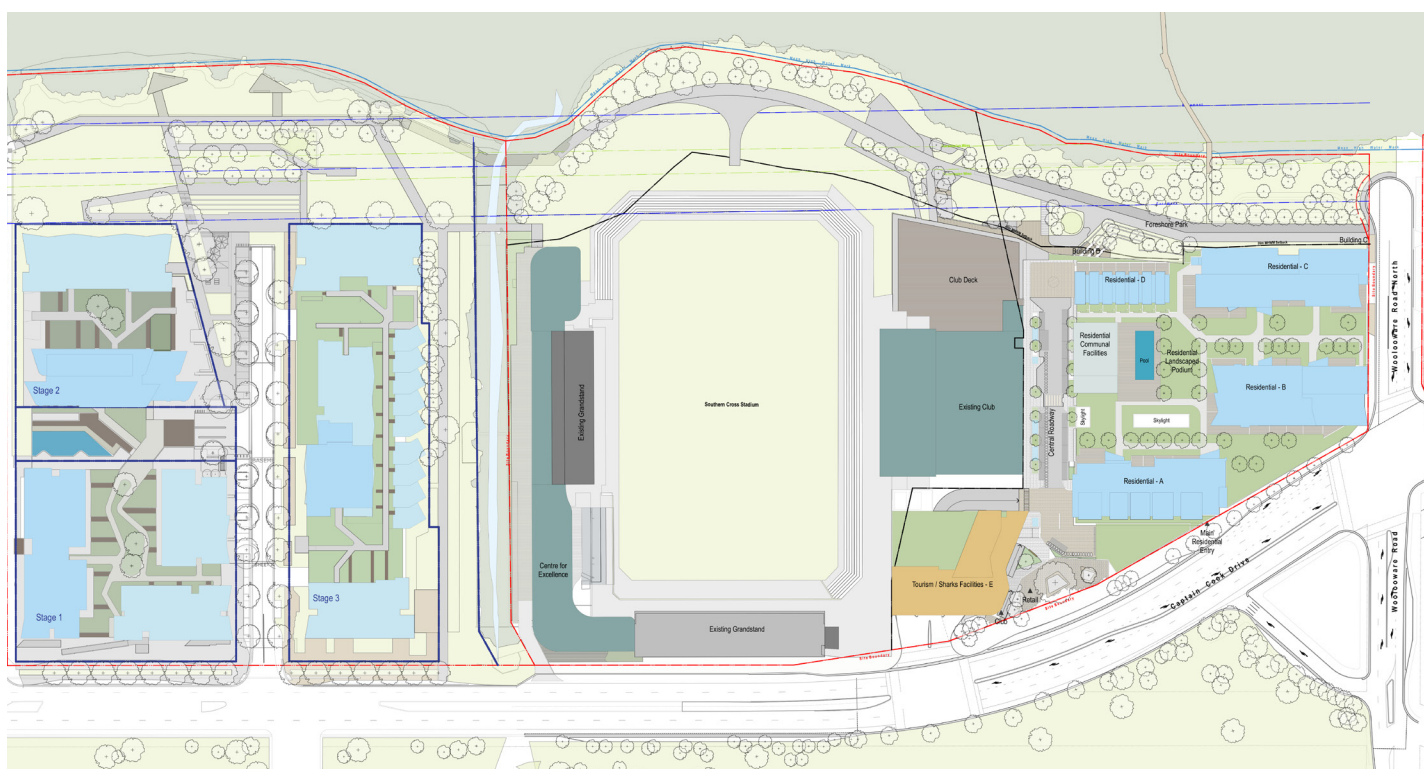
Proposal

The proposed Bay Central mixed use development is part of the approved Concept Plan for the Woollooware Bay Town Centre redevelopment. This modification to the approved concept plan covers the new retail centre, tourism accommodation, and Cronulla Sharks Club upgrade, new residential buildings overhead, and civic and public domain improvements.

The mixed use Bay Central precinct of the master plan is east of the Sharks Stadium. The site is bounded by Captain Cook Drive to the south, Southern Cross Stadium to the west, Woollooware Bay foreshore to the north and Woollooware Road North to the east.

Other than the existing Southern Cross Stadium and Sharks Leagues Club building and associated surface car-parks to the east, the immediate context is characterised by verdant open space. To the north there are mangroves fringing the open expanse of Woollooware Bay, while across Captain Cook Drive to the south is Captain Cook Oval, the Woollooware Golf Course and the extensive grounds of Woollooware High School.

This site is flat in topography and low in elevation (RL2-2.5M). Its previous use as a waste tip precludes excavation. Due to the flat local topography excellent views will be enjoyed even from the lower levels of the buildings



Site Location

Design Quality Principle 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.

Proposal

The bulk and height of the proposed buildings in the Bay Central precinct are in keeping with the already approved Concept Plan envelopes within residential stages 1 to 3 to the west of the Southern Cross Stadium.

This framework of building heights across the site has in turn informed the building design. At street level the consistent edge condition provides multiple building entry points and identifiable commercial/community facilities.

Above street level, the separation of buildings creates multiple legible forms appropriate to the scale of the site and adjoining context.

The southern residential buildings A, B & E step along the facade of Captain Cook Drive. Buildings A & B dress the edge of the car park to the south. Their height varies between 7, 11, 14 and 15 storeys to give a varied skyline and animated grouping of buildings. Lower buildings address the eastern facade on Captain Cook Drive, while building E is 10 storeys high and anchors the South West corner of the development.

Building B is located in the middle of the precinct, removed from adjacent streets.

The northern Buildings C & D are located to the northern edge of the podium. They are orientated towards Woollooware Bay and separated from the mangrove riparian zone with generous parkland. The Building C tower anchors the north east corner of the site and dresses the northern elevation of the car park. Building D consists of a terrace of three storey dual aspect units which overlook both the extensive Level 7 podium and the waterfront.

The residential buildings are isolated from the existing Leagues Club building by a new public street running north south through the middle of the site at Level 03. This street is intended as a meaningful civic space with a generous width. The footprint of the existing club building remains the same as the approved concept plan and subsequent DA.

The buildings will be highly articulated with variances in material and form, providing a playful grouping of buildings.



View from Captain Cook Drive of the retail forecourt within the proposed new precinct

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Built Form

The design for the modifications to the Bay Central precinct has evolved to provide a cluster of animated building forms. Each of the buildings has an individual identity within the streetscape.

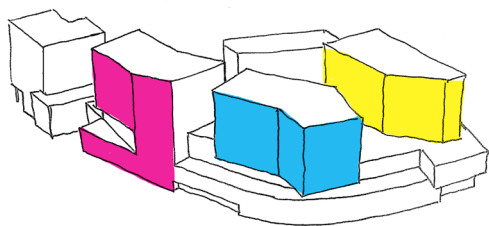
Buildings A & B step along the Captain Cook Drive elevation, reinforcing the alignment of the primary street frontage. The residential buildings frames the south side of the level 7 podium courtyard.

Building C anchors the north east corner of the site and maximises the direct waterfront views. The northern façade responds playfully to the Woollooware Bay waterfront.

The residential buildings are further articulated by clustering the apartments around multiple cores, shortened corridors and providing large recesses in the facades. This creates a finer grain of building articulation.

The building form has been articulated so that the residential buildings are not dominated by the retail / parking podium.

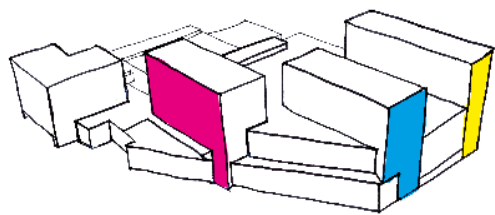
The tourism accommodation anchors the south west corner of the site, and act as a gateway to the Level 03 Green Street. It will have clear views over the stadium on game day and to the golf club to the south. The curved facade is deliberately in contrast to the adjoining Buildings A & B, adding to the variety of building forms along Captain Cook Drive.



Evolving Building Massing

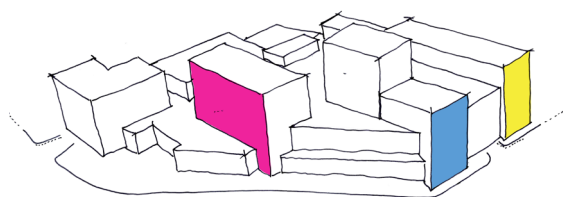
January 2015

The original January 2015 proposal consisted of 3 residential buildings. Buildings A & B were both 12 storeys and Building C was 14 storeys. Buildings A & B twisted to align with the diagonal street edge along Captain Cook Drive, and Building C was aligned with the northern waterfront elevation of the Bay Central retail scheme below.



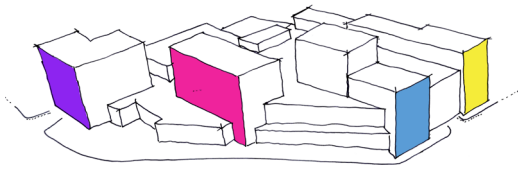
June 2016

The evolving building massing June 2016 was required for compliance with the then recently introduced ADG. This proposal consisted of 4 residential buildings. Buildings A, B & C were all 14 storeys (RL 52,000) same as the approved residential towers in Stages 1 - 3 at Woollooware Bay. Building D consisted of 2 storey terrace units on the northern edge of the Level 07 podium. Buildings A & B were reconfigured to provide a greater step in the facade to Captain Cook Drive which gave a more slender building form when approaching from the east of the site. This also removed the continuous wall of buildings along the southern elevation.



September 2016

The evolving building massing September 2016 consists of 4 residential buildings. The buildings heights have been reduced further around the perimeter of the site, particularly along Woollooware Bay Road North and the Foreshore Parkland waterfront. Building A is 14 storeys and addresses the retail entry forecourt on Captain Cook Drive. This building is the key marker for the retail entry. Building B steps from 10 / 11 storeys at the eastern perimeter, to 16 storeys at the centre of the precinct. Building C is 10 / 11 storeys along the northern perimeter of the site. Building D consists of a terrace of 3 storey units on the large level 07 podium, and designed as family homes with generous private gardens. This massing improves solar access to the communal open spaces within the precinct. The varied building heights provides an animated skyline and removes the flat top appearance of the previous proposals.



Evolving Building Massing

Current proposal June 2017

The proposed indicative building massing July 2017 consists of 4 residential buildings and 1 mixed use building.

Buildings A and D heights have been maintained around the perimeter of the site, along Captain Cook Drive and the Foreshore Parkland waterfront. Building A is 14 storeys and addresses the retail entry forecourt on Captain Cook Drive. This building is also the key marker for the main residential entry.

Building B height has been reduced by 1 storey to 15 to line through with adjacent residential stages 1-3 Building B steps from 10 / 11 storeys at the eastern perimeter, to the revised 15 storeys at the centre of the precinct.

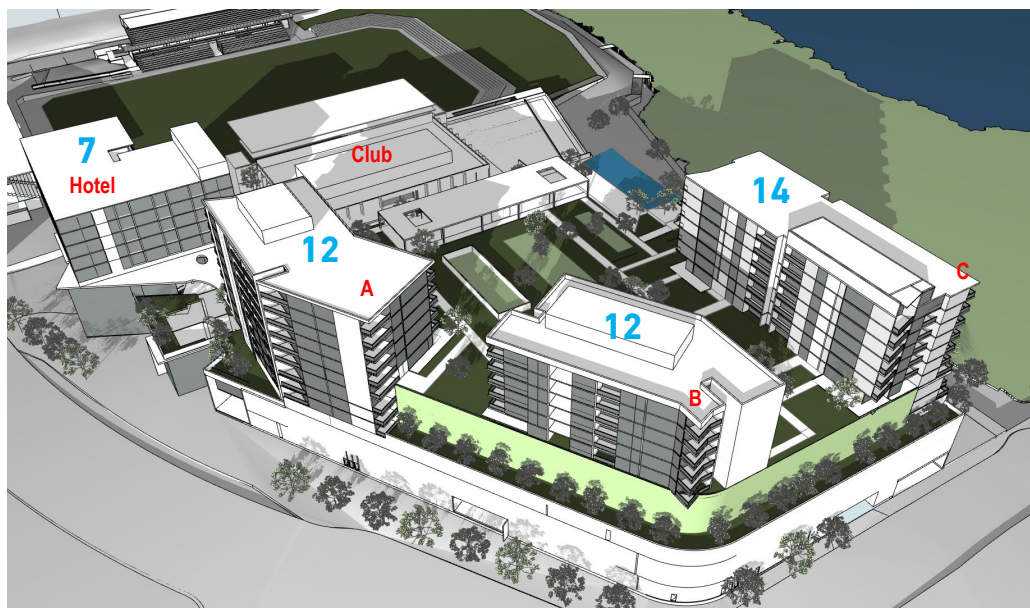
The amended Building C steps from 10 storeys along the northern foreshore to 12 storeys along the north eastern corner of Woollooware Bay Road North.

Building D consists of a terrace of 3 storey units on the large level 07 podium and has been designed as family homes with generous private gardens. This massing improves solar access to the communal open spaces within the precinct.

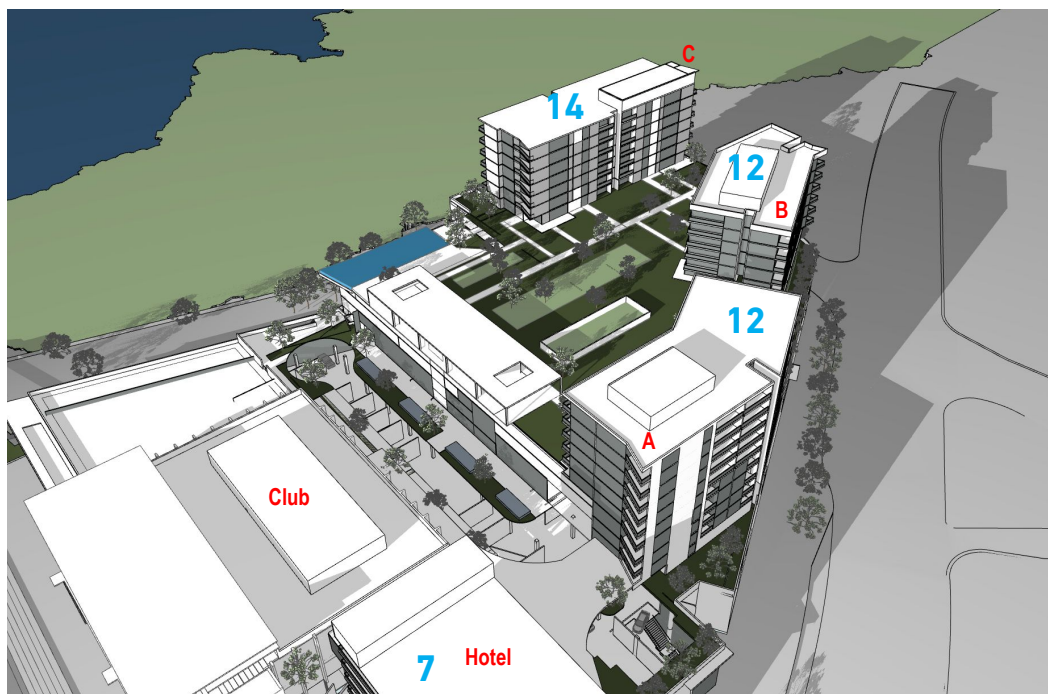
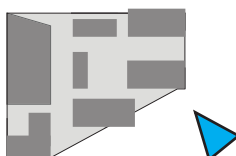
Building E is 10 storeys and marks the South Western edge to the development which addresses Captain Cook Drive. It is separated from the other buildings by the Level 03 roadway and wraps 2 storeys of parking, 3 levels of tourism accommodation and 2 levels of residential accommodation into a singular fluid form.

The varied building heights provide an animated skyline.

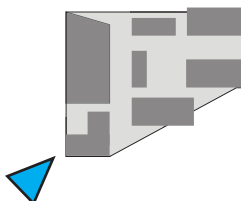
INITIAL S75W BUILDING MASSING JANUARY 2015 - CREATING AN ANIMATED CLUSTER OF BUILDINGS



South East aerial view



South West aerial view

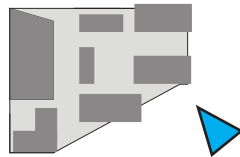


Views of initial massing model for the January 2016 S75w proposal.

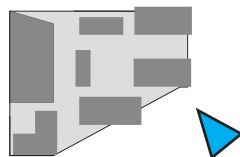
EVOLVING S75W BUILDING MASSING JUNE 2016 - BUILDING HEIGHTS SAME AS APPROVED TOWERS IN STAGES 1 - 3.



South East street level view

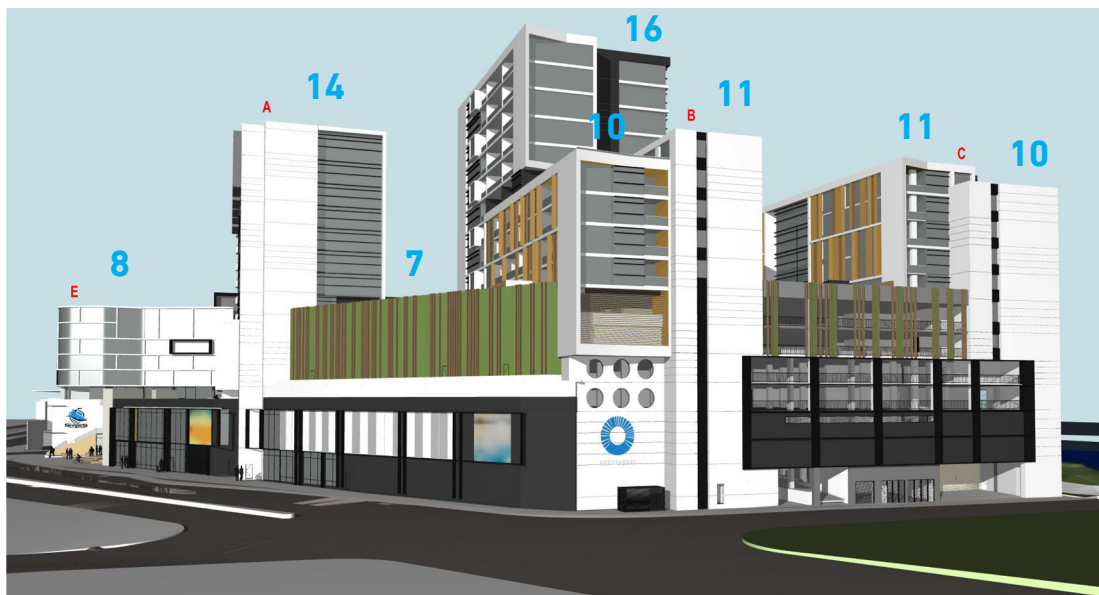


South East aerial view

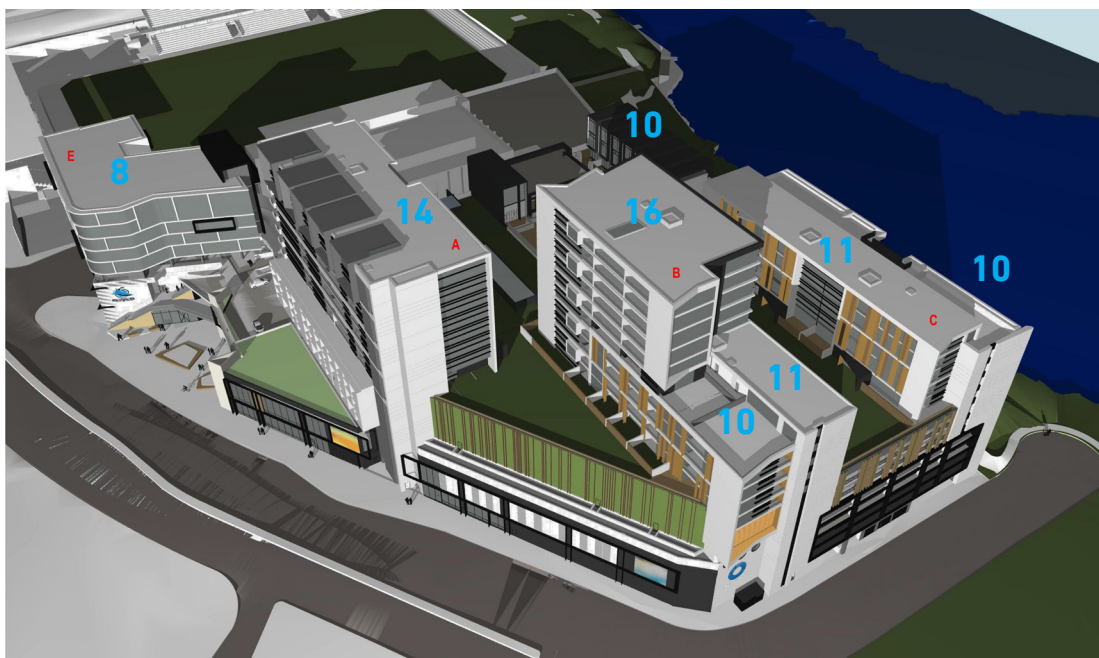
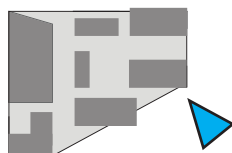


Views of the evolving massing model June 2016 with Buildings A, B & C all at 14 storeys (RL52.000) same as the towers in Stages 1 to 3

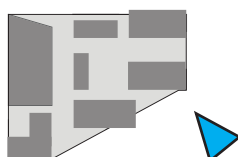
INDICATIVE MASSING MODEL SEPTEMBER 2016 - REDUCED BUILDING HEIGHTS TO BUILDINGS B & C AROUND SITE PERIMETRE



South East street level view

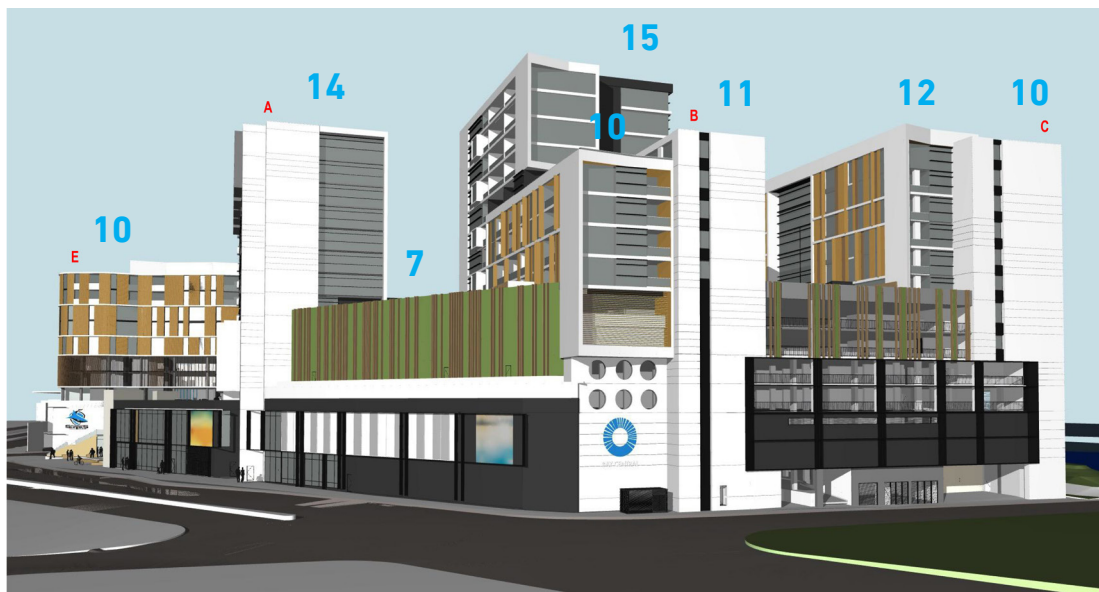


South East aerial view

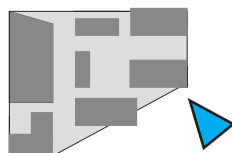


Views of indicative massing model after key stakeholders input - reduced heights from the previous proposed S75w proposals

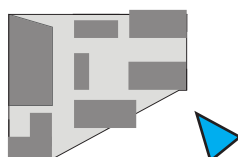
INDICATIVE MASSING MODEL JULY 2017 - REDUCED BUILDING HEIGHTS TO BUILDINGS B & C AROUND SITE PERIMETRE



South East street level view



South East aerial view



Views of indicative massing model after key stakeholders input - reduced heights from the previous proposed S75w proposals

Design Quality Principle 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 density or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

Proposal

The proposed density and uses within the site are appropriate for the large size of the site.

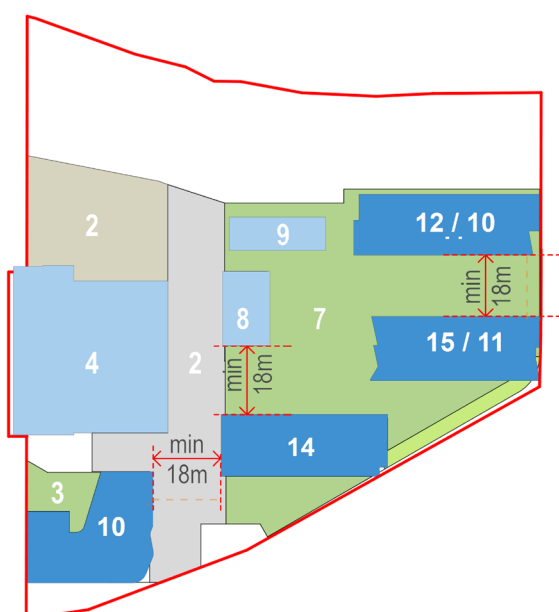
There are approximately 244 units located in the Bay Central Precinct. With a site area of 32529sqm this equates to 68 units per hectare. Stages 1 to 3 contain approximately 640 units in the approved concept plan, with a combined site area of 58420sqm which equates to 110 units per hectare. This illustrates the relative lower density of the proposed modifications to the Bay Central Precinct compared to the approved concept plan for Stages 1 to 3 to the west of the Southern Cross Stadium.

The height of the three residential buildings allow for building separation which is compliant with SEPP 65 requirements. There are generous communal courtyards on the Level 07

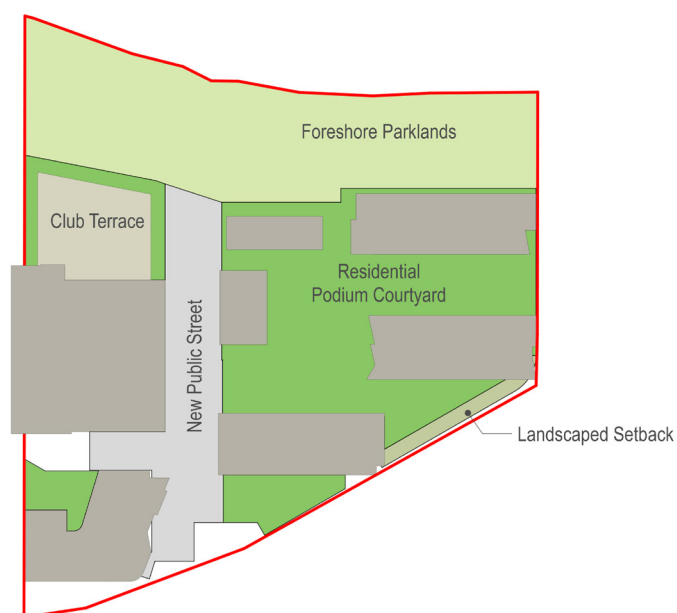
podium, and high levels of amenity for all buildings. The proposed building heights step from lower buildings around the perimeter to taller buildings in the centre of the site. The retail strategy is as per the already approved retail centre, while the refurbishment of the existing club facilities also remains as per the approved scheme. The tourism accommodation facilities are closely linked to the existing Sharkies Leagues Club use.

The various communal and recreational facilities on the site enhance the liveability of the development, with easy access for residents to the retail, cafe & gym uses at the lower levels, along with the Level 07 podium external swimming pool and residents clubroom.

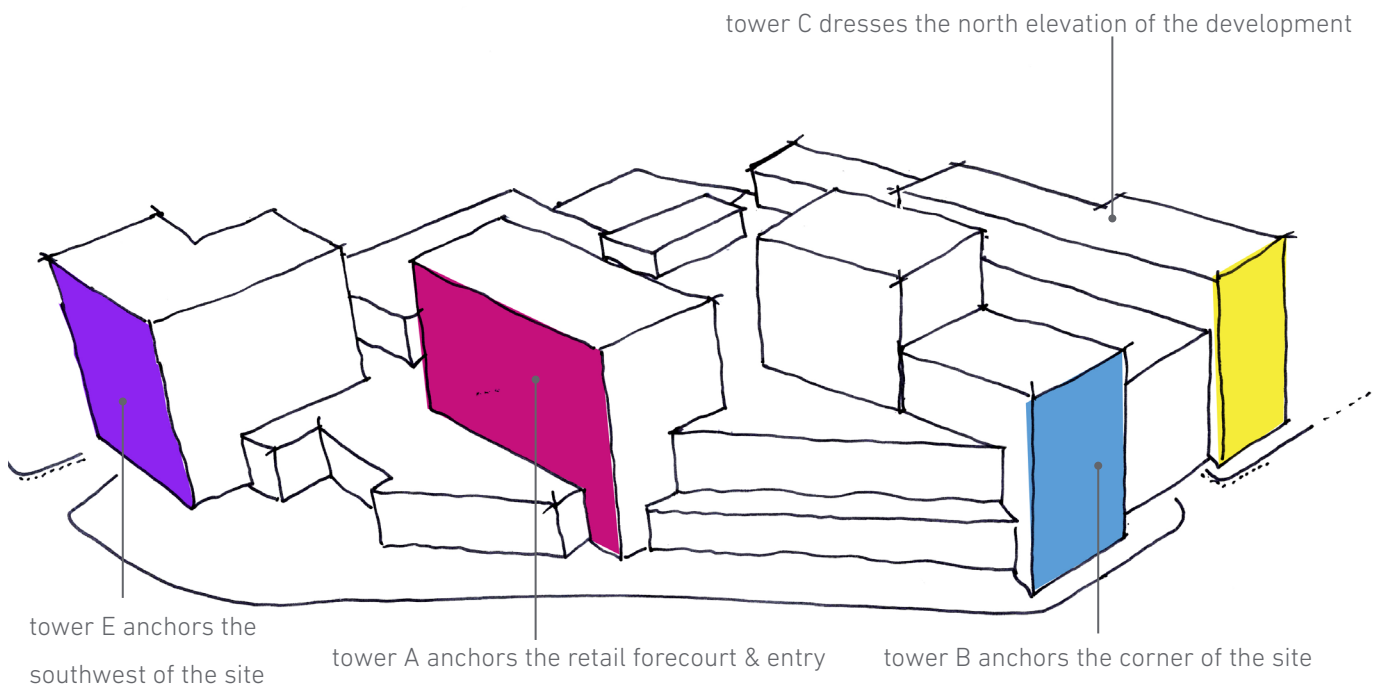
The development includes the significant Foreshore Parklands to the north of the scheme which is an amenity of regional scale



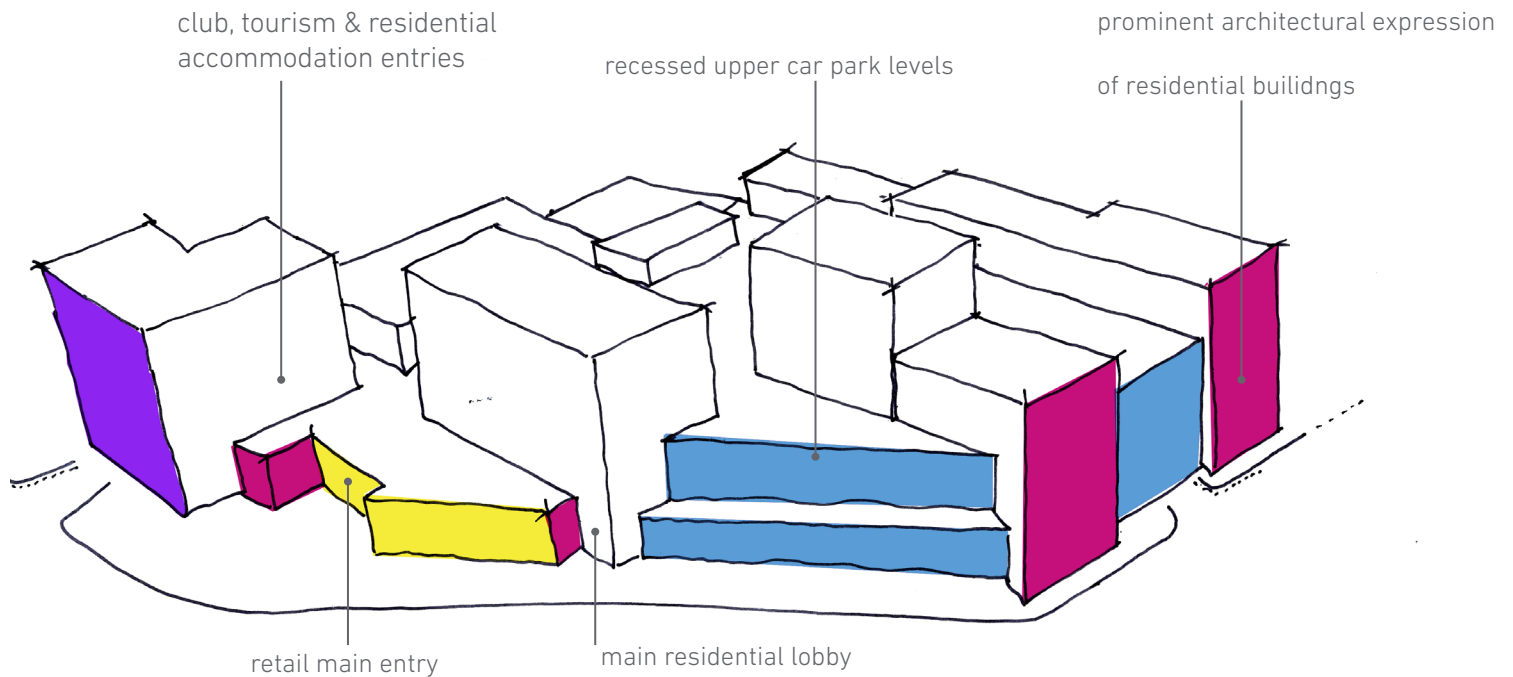
Building Heights



Landscaping/Open areas



Massing Diagram: Residential buildings touch the ground and have a clear identity within the streetscape



Massing Diagram: Animating the retail base.

Design Quality Principle 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 the residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operations costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation.

Proposal

The development has been designed to embrace ESD principles. The orientation of apartments, apartment planning, passive and active building systems have all been incorporated in the planning of the development to minimise energy use, resources and to provide a high level of amenity to residents.

The articulation and distribution of built form together with minimising the depth of buildings has enabled a significant number of corner, dual aspect and north facing apartments. In addition, shading to facades with louvres, deep reveals and where required, performance glazing, further enhance the passive design features of the development.

The proposed landscape treatments and extent of deep soil planting ensures that water use is minimised and the ground water replenished.

The building's energy demand has been significantly reduced by taking the opportunity of the above ground car park structures to introduce natural air make up.

The proposal will be consistent with the ESD commitments & conditions of the original concept approval.



View of the Bay Central precinct looking north from the Junction of Captain Cook Drive and Woollooware Road North

Design Quality Principle 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 establishment and long term management.

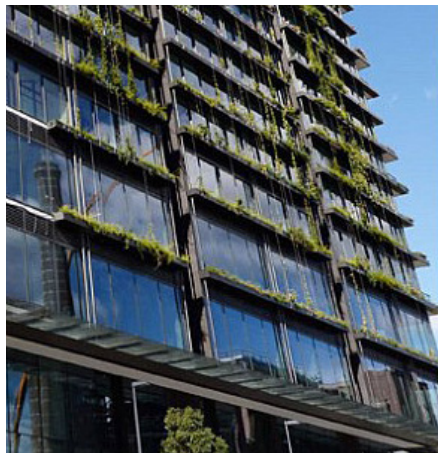
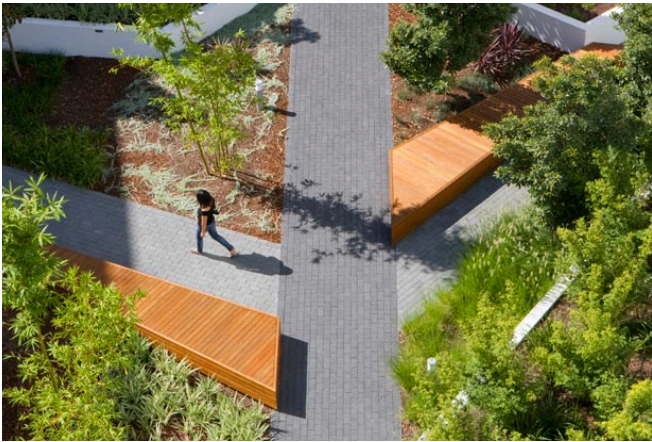
Proposal

The proposal provides a variety of landscaped areas that through the composition of both hardscape and softscape planting provide a hierarchy of communal and private open spaces. These spaces respond to the need for a variety of different uses, both passive and active.

At street level, the generous setback incorporate street trees, planters and hard landscaping.

The communal courtyard at level 07 provides generous planting for outlook, privacy and shade. A residents external pool and deck are located on the north western edge of the Level 07 podium structure. For further information and detail refer to the Landscape Design Report and drawings prepared by Aspect Studios.

The Landscaping plays a fundamental role in the design development of the Bay Central Precinct - refer to the section above which outlines the 'Mangroves' and 'North-South Central Axis' concepts.

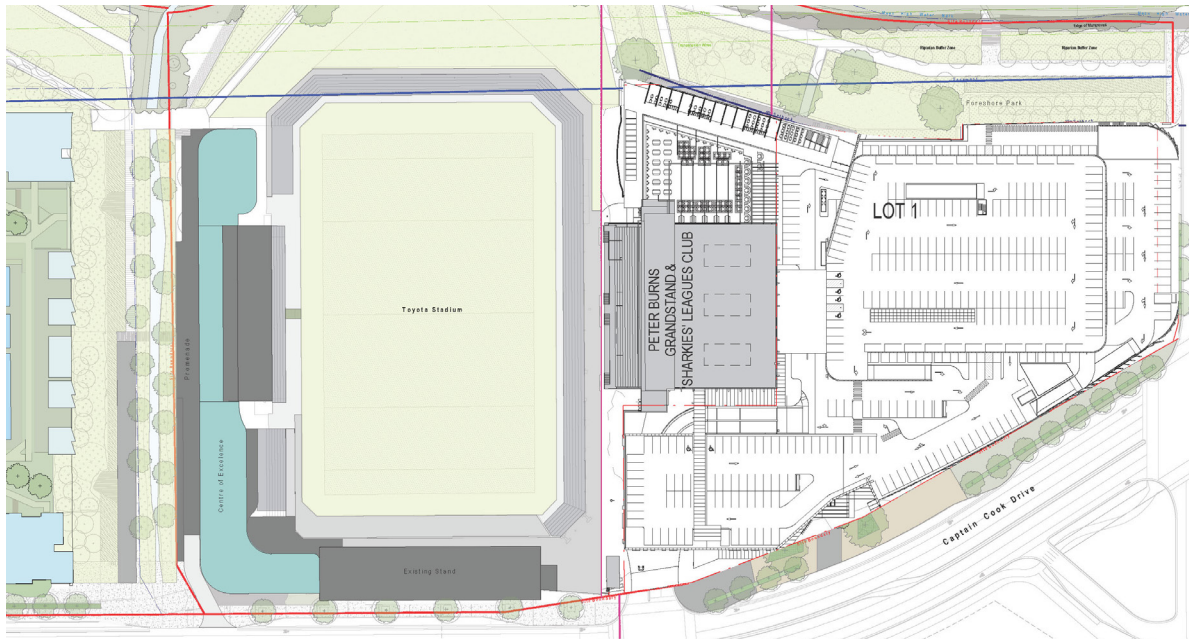


Proposed landscape elements

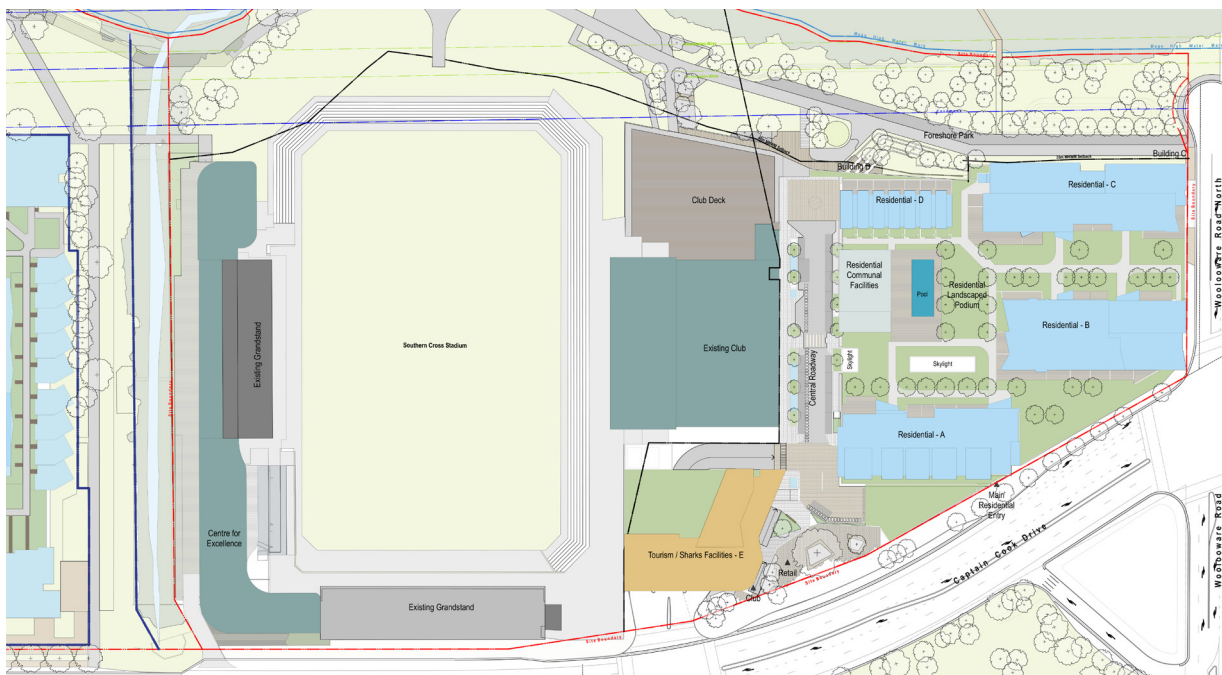
Design Quality Principle 5

Landscape

The proposed modifications will provide a significantly increased area of soft landscaping. The previously approved open car parks of the retail centre will be replaced with a soft landscaped residential podium courtyard at Level 07. Significant additional planting is also provided in the Level 03 roadway and in the Level 04 planted set back/ledge along the southern perimeter of the car park.



Plan Diagram illustrating the large car park areas of the original Scot Carver approved scheme



Plan Diagram illustrating the increased soft landscaping of the proposed modification

Design Quality Principle 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.

Proposal

The evolution of the design for the Bay Central precinct has aimed to provide a mixed use vibrant town centre. The holistic approach to the planned uses allows for significant amenities and facilities for residents within the site.

The organisation of the built forms and open space has been designed to maximise the amenity of apartments within the development.

The built form results in apartments with generally wide frontages and balconies that are inherently private and are not overlooked by adjacent apartments. The large podium at Level 07 allows for generous building separation. A clearly defined separation between commercial/club and residential uses further reinforce privacy to and from apartments.

The residential buildings have been designed with multiple lift cores which allows for a small number of units on each corridor. All corridors and lift

lobbies have natural light via external glazing. The multiple cores, façade articulation ensure a minimum of 70% apartments receive 2 hours winter solar access and a minimum of 60% natural cross ventilation. There are 15% south facing units.

The large portion of apartments gain bay views to the north, whilst the others gain district views across the golf course, Captain Cook Oval or to Cronulla.

The design of the landscaping between the street and building edges, foreshore parklands and the main communal courtyard create a variety of active and passive external spaces for all apartments.

30% of apartments (73 no.) in the Bay Central Precinct will be adaptable for accessible retro fitting. This is higher than the 20% agreed as part of the concept plan for Stages 1-3.



Holistic planning approach to the proposed town centre modifications