



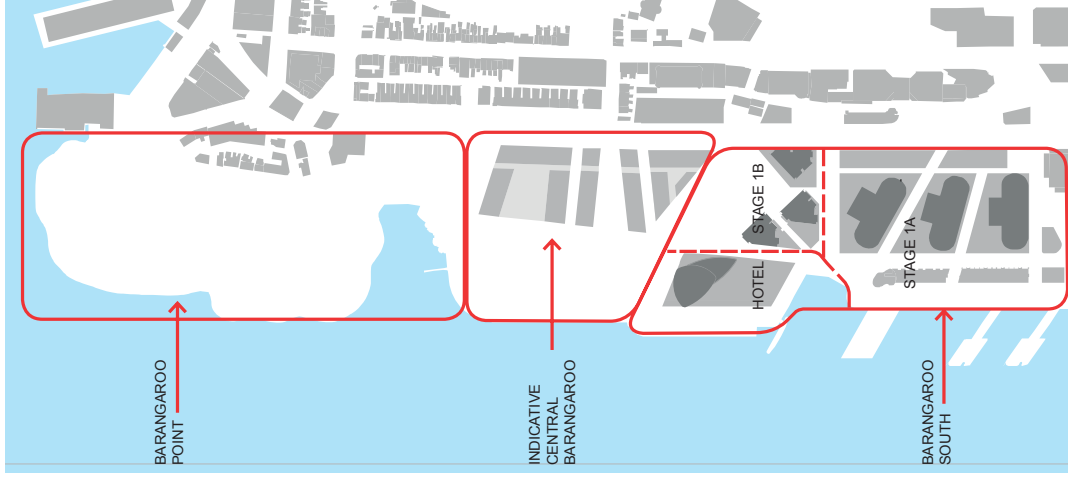
Barangaroo Point



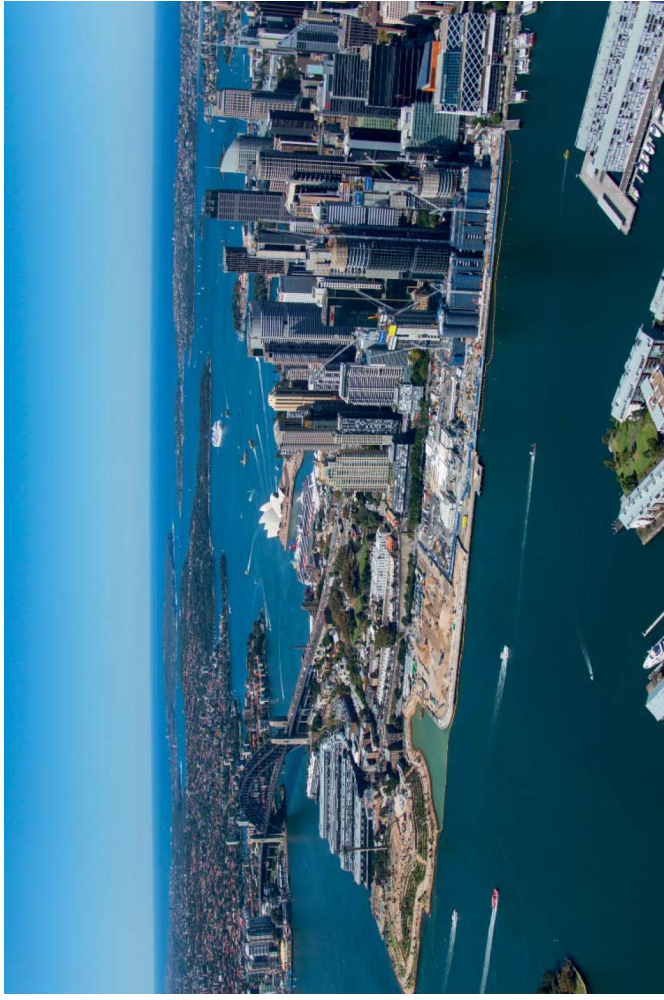
Central Barangaroo



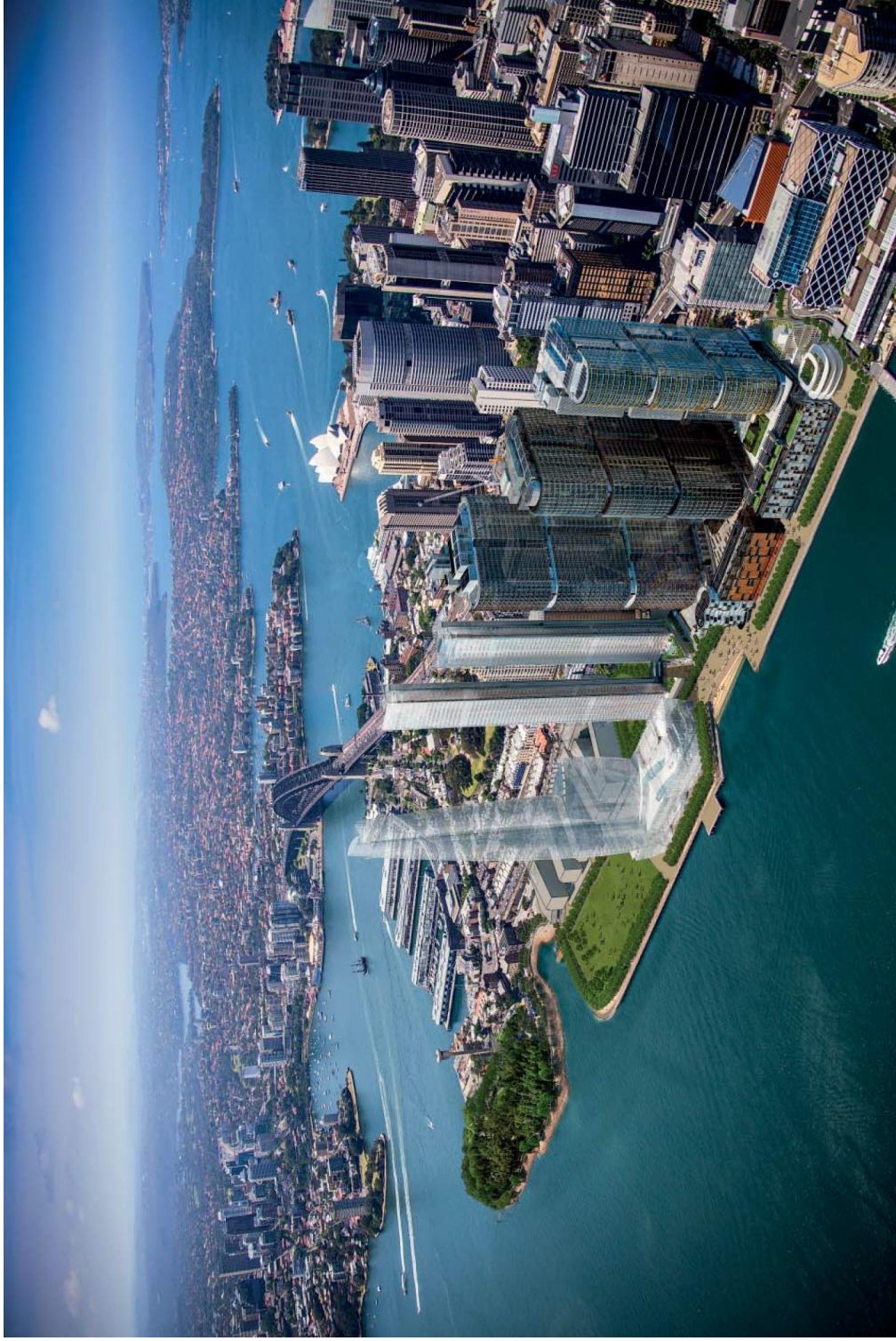
Barangaroo South



Key Development Sites



Barangaroo Under Construction March 2015



Building Placement & Interconnection with the CBD

The formation of Hickson Park to the north of the residential towers creates a green connection between the Harbour and Hickson Road. This feature draws the urban centre of Sydney towards the water's edge by creating a vital link in a series of connected public spaces leading from the city to the harbour through the parklands.

The towers occupy the southern boundaries of the site to integrate the development with the adjacent commercial buildings and to limit overshadowing of the future Hickson Park. The tower heights are articulated in a manner which creates a formal composition that visually integrates the residential development with the Crown Hotel tower to the north-east and the three commercial towers to the south. The placement of the smallest tower upon Hickson Road preserves the scale of this important street and limits overshadowing of public spaces along its length.

2.3 Site Context

The One Sydney Harbour site lies on the western side of Hickson Road, in the northern part of the Barangaroo South precinct. The complex is made of three towers named R4A, R4B and R5, located within the site boundary.

The site layout of the Concept Plan Mod 8 masterplan allows for the grouping of the residential building form towards the south and the creation of a park to the north of Barangaroo South that links the Public Domain associated with Barangaroo Point to Hickson Road and the CBD beyond, the Rocks and Darling Harbour.

The vertical towers of the Concept Plan use podiums that extend to the street to define the public domain. All three towers and podiums fit within the Barangaroo South Building Envelope Plan.

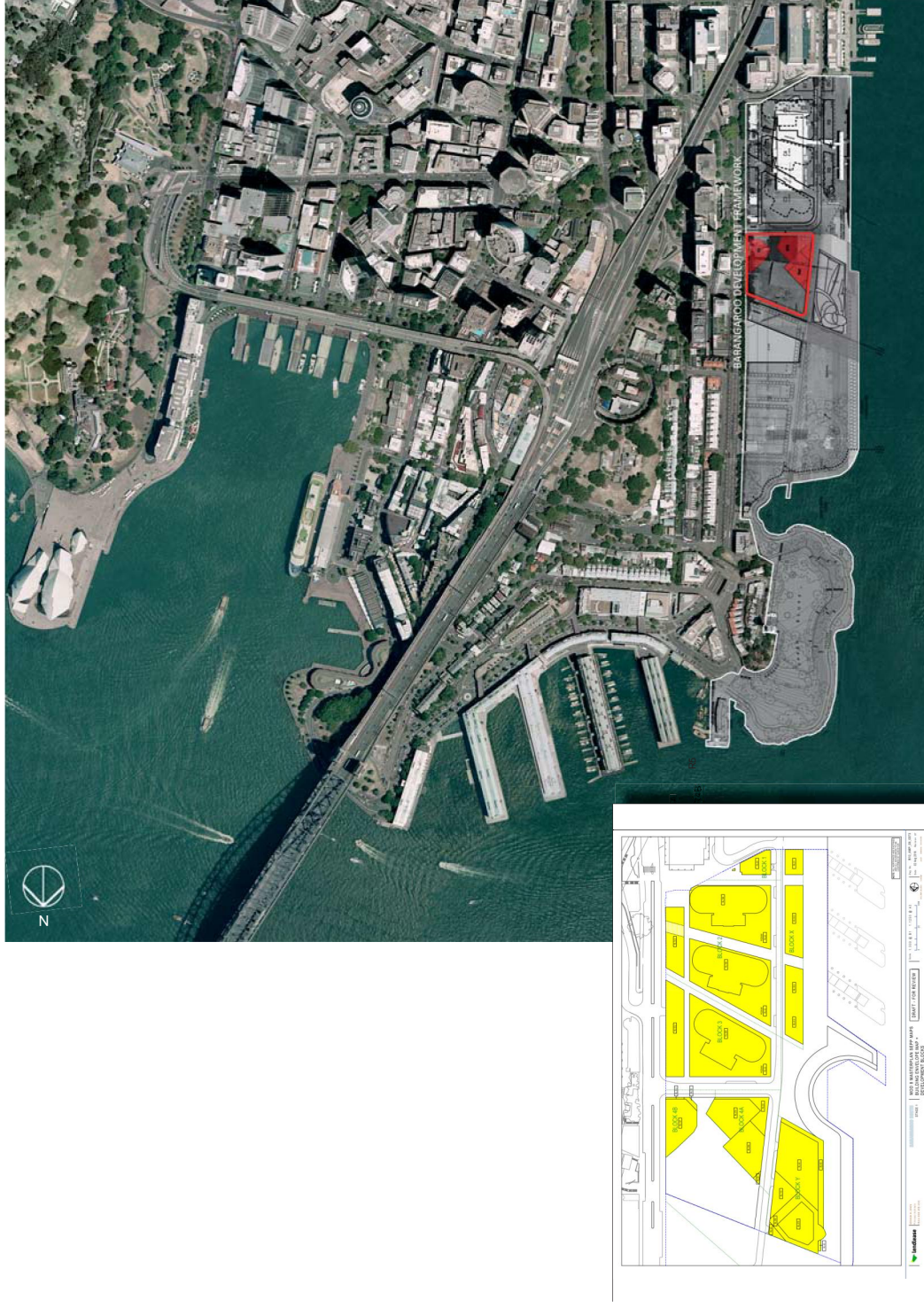
The site is located on the northern side of Watermans Quay and bounded on the north by Hickson Park that separates it from Central Barangaroo.

To the south it is defined by Watermans Quay (formally Globe Street) which is the main vehicular route through the Barangaroo South development. These roads also provide pedestrian routes connecting the development back to the Sydney CBD.

The three residential buildings sit atop a four level common basement containing car parking, storage, and services/infrastructure.

RPBW have developed a proposal that reiterates and strengthens the design objectives of the Mod 8 Concept Plan produced by Rogers, Stirk, Harbour + Partners.

All three buildings comply with the performance criteria outlined in the Built Form Principles and Urban Design Controls.



One Sydney Harbour Development (Stage 1B) Set in Barangaroo Aerial View Highlighted in Red

Mod 8 Masterplan Development Blocks



Hickson Road Aerial



Hickson Road Elevation



Hickson Road Plan

NOTE: Barangaroo Central is Indicative

The architectural language of the western fringe of the CBD is from a myriad of periods, ranging from heritage sandstone and brick buildings through to tall concrete frame and glass curtain wall structures running along Hickson Road and Kent Street. The scale of the buildings varies from low rise 2 storey buildings to larger 20 storey commercial offices.



Cockatoo Island



Blue Mountains' Three Sisters



Sydney Harbour Bridge



Sydney Opera House

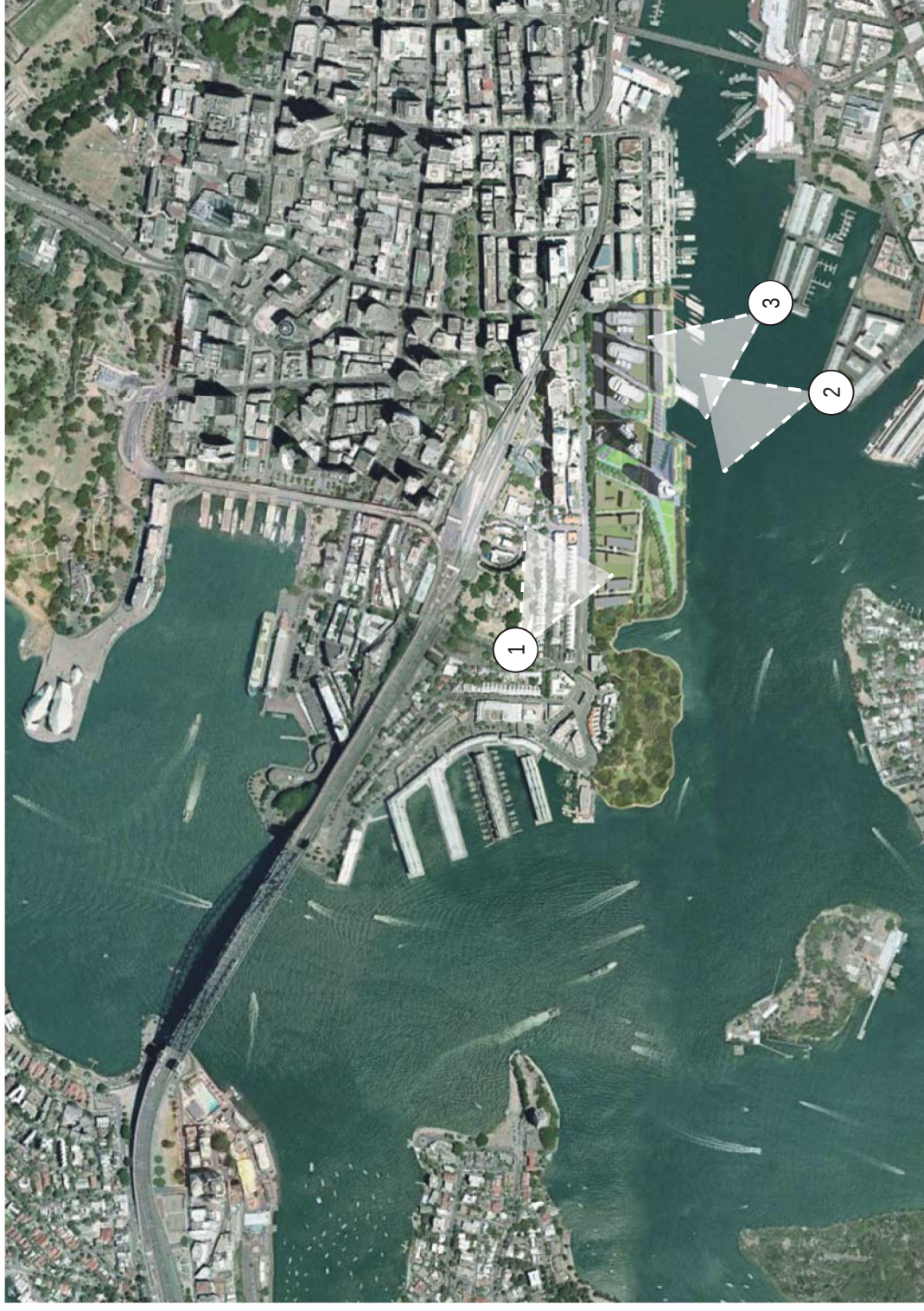


One Sydney Harbour Plan with Key View Orientation

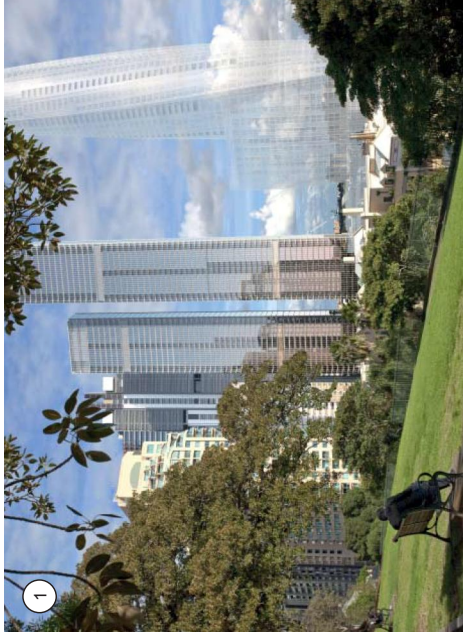
NOTE: Barangaroo Central is Indicative

This series of views towards Barangaroo from key vantage points indicates both the location and urban context into which the residential towers are planned.

The extraordinary position of One Sydney Harbour will create a front row view of the natural setting of the Sydney Harbour Basin as well as becoming a new part of the city's CBD. It will contribute to the future image and character of Sydney.



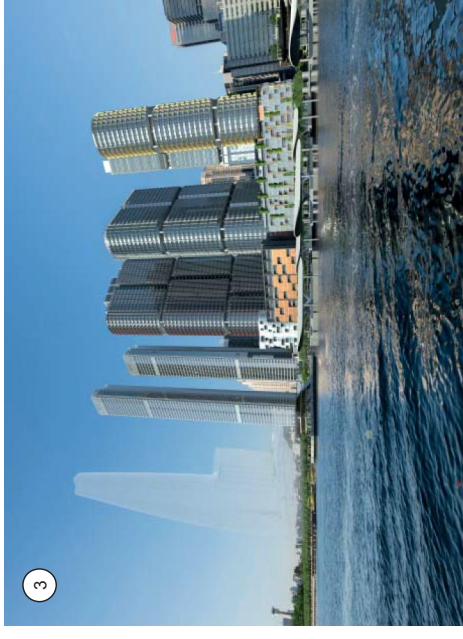
Aerial View Showing Captured View Locations



Observatory Hill



Ballarat Park

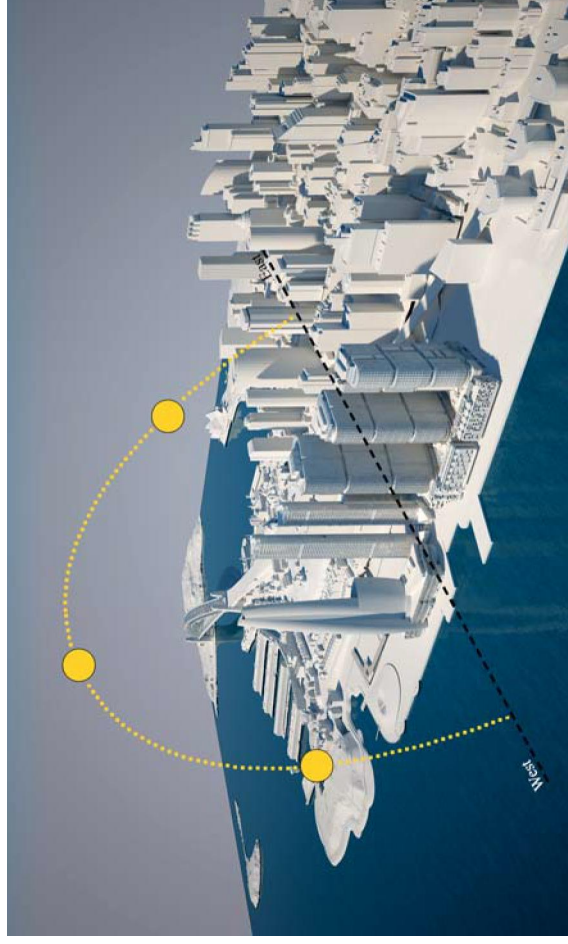
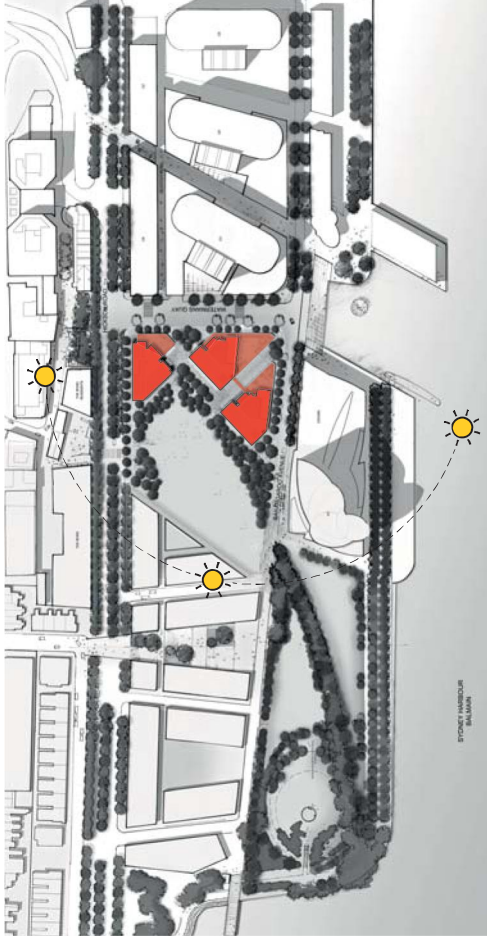


Sydney Wharf

2.5 Solar Access

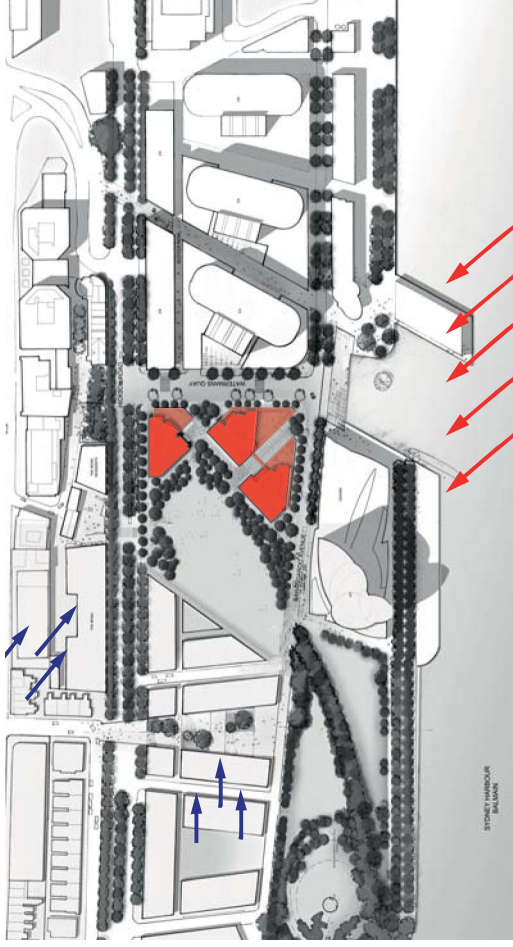
Being situated towards the northern end of Barangaroo South, and Sydney's CBD, the One Sydney Harbour buildings have excellent access to sunlight throughout the year. The existing buildings along Kent Street to the east of Barangaroo create a small amount of early morning overshadowing, however the predominant northerly and westerly aspects provide good access to sunlight for the majority of the day. The staggered east-west arrangement of the residential towers and their internal layout optimises solar exposure, while preventing adverse solar impact to the future northern park.

One Sydney Harbour does not propose south facing apartments, maximising solar access and amenity to all apartments.



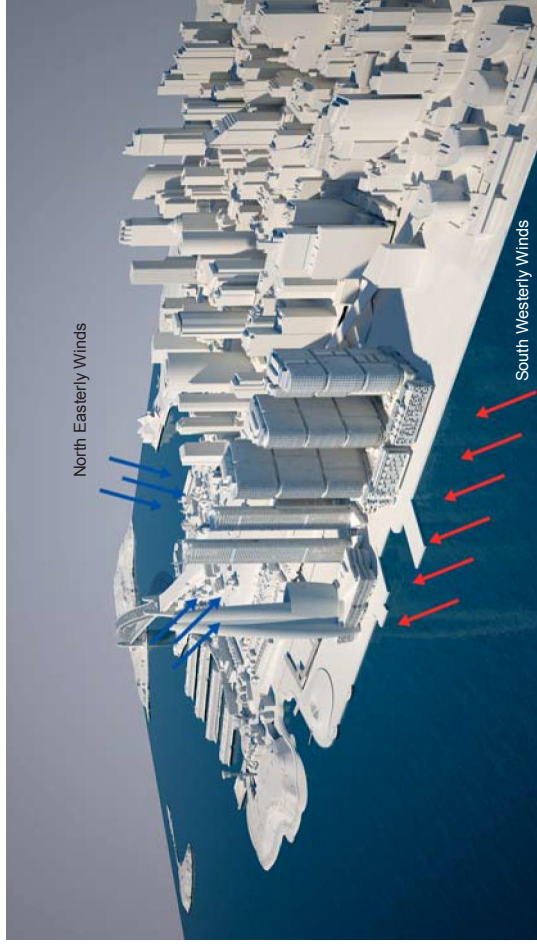
One Sydney Harbour Sun Path Diagram

2.6 Wind Analysis



One Sydney Harbour is relatively exposed to the north-eastern and south western prevailing winds. In response, the proposed three towers will be slender and triangular in plan. The introduction of canopies at the base of the tower will mitigate "down wash" and provide greater comfort to pedestrians circulating around the buildings. In developing the design of each building, particular consideration has been given to the wind environment across the ground plane and podiums, focusing on lobbies, rooftops and the retail zones that connect directly into open space.

The project has been modelled and tested with a wind tunnel to ascertain the wind conditions and identify the methods that will ensure both residential amenity and pedestrian spaces remain comfortable and safe within the precinct.



One Sydney Harbour Prevailing Wind Diagram

2.7 Shadow Analysis

The siting of the towers on the southern portion of the Stage 1B site significantly optimises solar access to the northern park. The narrow triangular form of the towers minimises the impact of their shadows across the precinct.

Summer Solstice

The sun in Sydney is high during the summer months creating short shadows from the development. The parkland in front of the residential towers will be free from shadow for the majority of the day. The towers will be sited to have minimal impact on the access to light in surrounding buildings and shadow impact on public space south of the development are low.



December 21st, 10:00



December 21st, 12:00



December 21st, 15:00



Residential Towers
Building Shadows

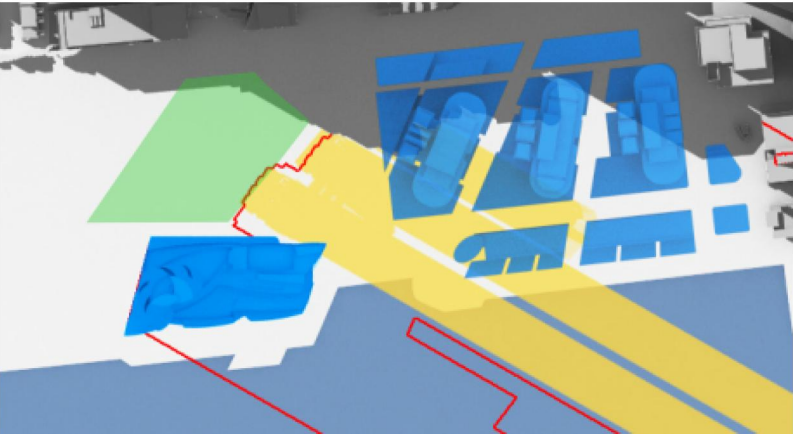


Approved Concept Plan (Mod 8)
Building Envelope Shadows



Hickson Park Extent as per approved
Concept Plan Mod 8

Note: Barangaroo Central Built Form not shown. Shadow Restricted under Concept Plan (Mod 8) Condition B3



June 21st, 10:00



June 21st, 12:00



June 21st, 15:00



Residential Towers
Building Shadows



Approved Concept Plan (Mod 8)
Building Envelope Shadows



Hickson Park Extent as per approved
Concept Plan Mod 8

Winter Solstice

The sun in Sydney is moderately low during the winter months creating longer shadows from the development. The narrow triangular plan of the towers combined with their orientation will have a low impact of shadows on the surrounding buildings and public spaces to the south of the development. Hickson Park maintains solar access even through winter solstice, due to its orientation to the north of high rise buildings.

Condition B3 of Concept Plan (Mod 8) protects solar access to Hickson Park through the following requirements:

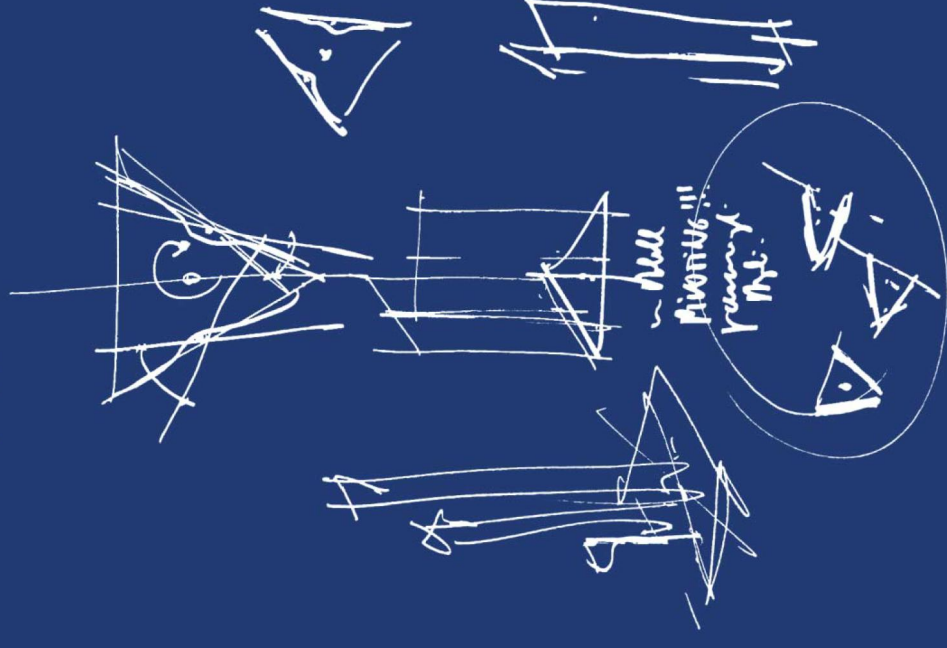
"Hickson Park is... not to be overshadowed by built form over more than an average area of 2,500 square metres between the hours of 12:00 and 14:00 on the 21 June each year..."

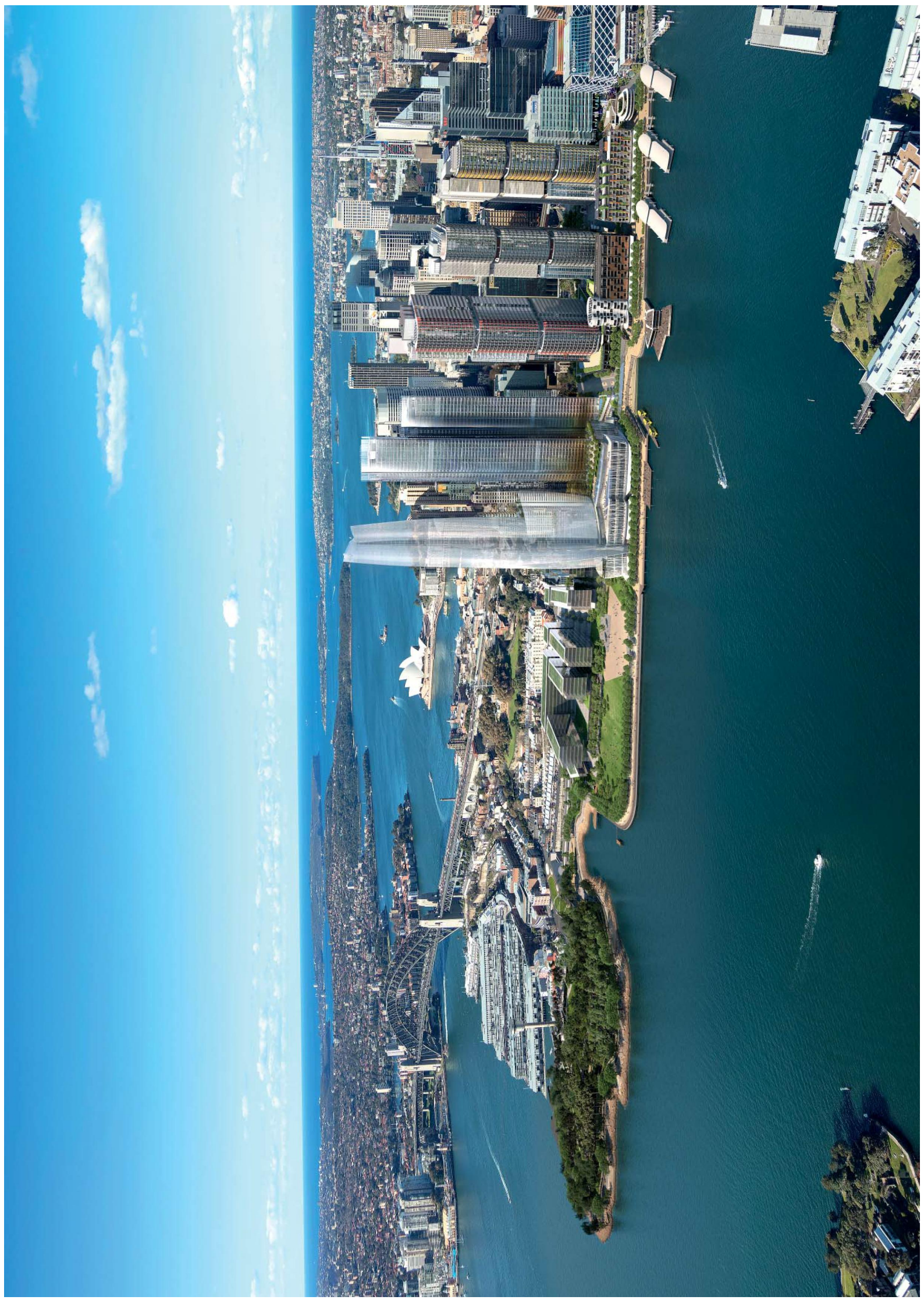
Note: Barangaroo Central Built Form not shown. Shadow Restricted under Concept Plan (Mod 8) Condition B3

3.0

ARCHITECTURAL DESIGN

SYNOPSIS





3.1 Architectural Concept

The aim of One Sydney Harbour architecture is to be timeless. It will contribute to the character of the city and both respect and take full advantage of the site's extraordinary position adjacent to the natural beauty of Sydney Harbour and the juxtaposing built form of the Sydney CBD. The project will express a deep rooted commitment to sustainability throughout.

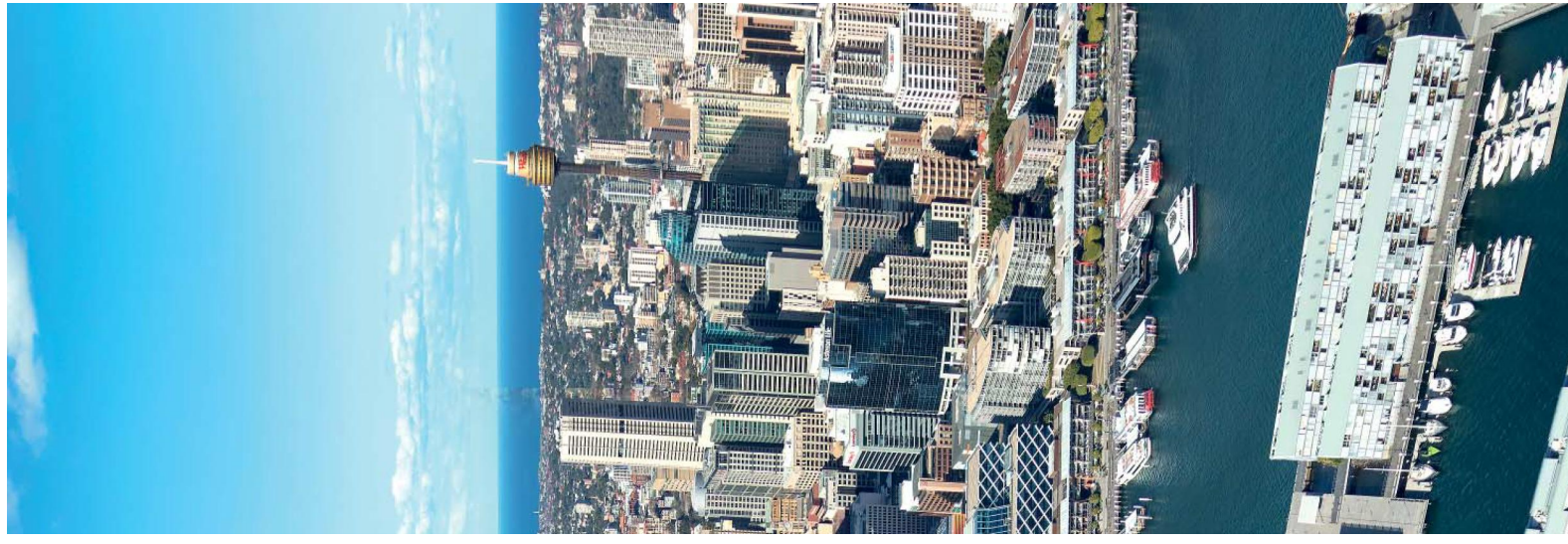
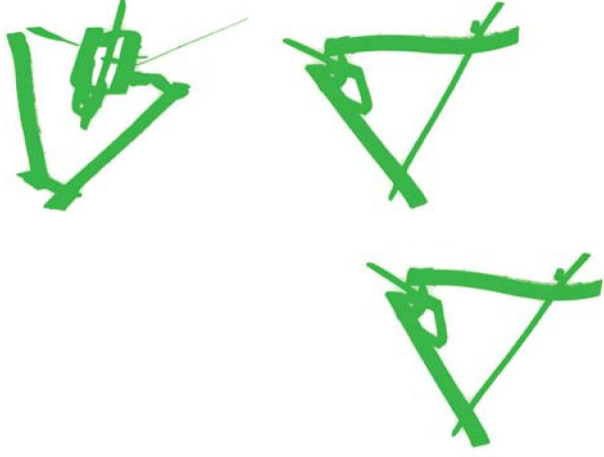
One Sydney Harbour creates an unique opportunity for three residential buildings. Situated in the heart of a vibrant city, this rare waterfront development opportunity is in close proximity to the natural beauty of Sydney Harbour.

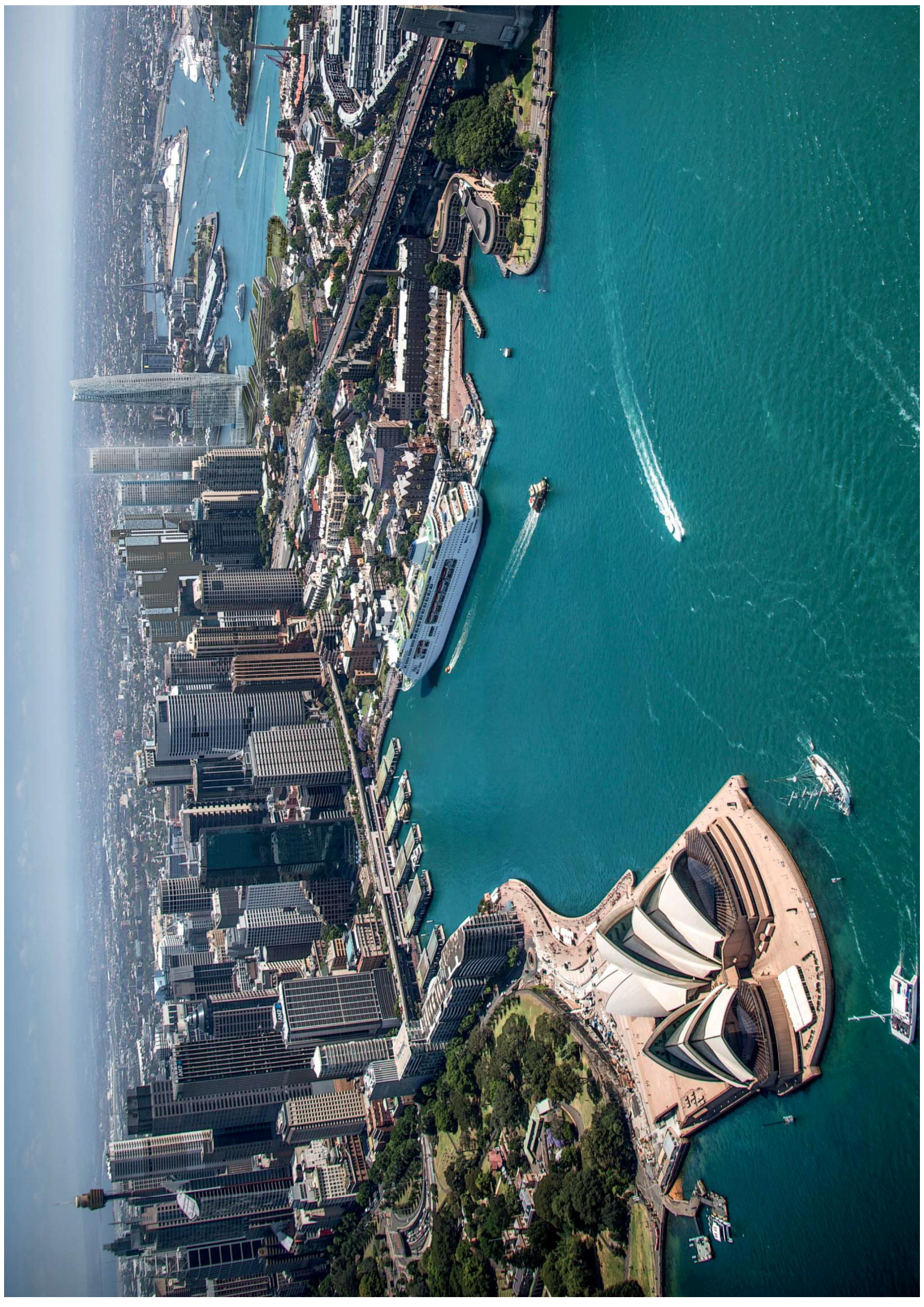
Refined and enduring buildings will offer comfortable, spacious residences that capture the magnificent views of the Harbour Bridge and the Opera House. Three luxury residential high rise towers with an activated retail podium base will exemplify the exciting, cosmopolitan lifestyle of Sydney, one of the world's greatest cities.

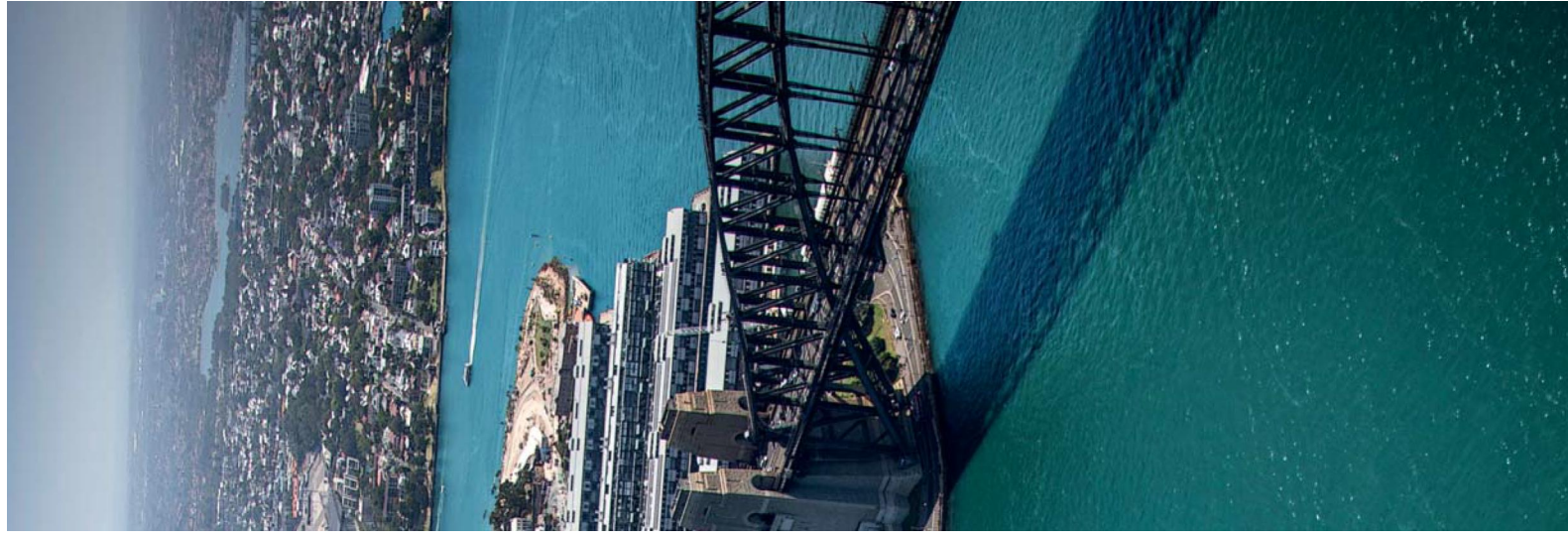
Three independent towers feature crystalline facades reflecting the sparkling harbour waters and becoming one of the most prominent additions to the Sydney skyline. Each tower will glimmer in the brilliant clear Australian sky while offering superior thermal comfort and control for its residents with the use of terraces and wintergardens in the apartments.

To positively impact the built environment for future generations, a number of active and passive sustainable features are integral to the design in order to dramatically decrease energy consumption and improve the quality of life of its occupants and the greater context of the city.

One Sydney Harbour offers a large park at the doorstep of the residential buildings creating an excellent ground floor environment for the residents and an extension of the larger park along the harbour at the bottom of the towers, mitigating the transition between the urban landscape and the public landscape.







One Sydney Harbour Development Indicated in Working RPBW City Model

3.2 Architectural Process

The residential towers have been conceived as 'crystals', elegantly skinned with a highly transparent glass facade. The form and juxtaposition of the associated detailing, will create a unique architecture, reflecting the site's setting between the CBD and the Harbour.

The design process began with an initial analysis, physical models, of a range of built forms to gain an appreciation of how to optimise the quality of the residential accommodation and the public domain.

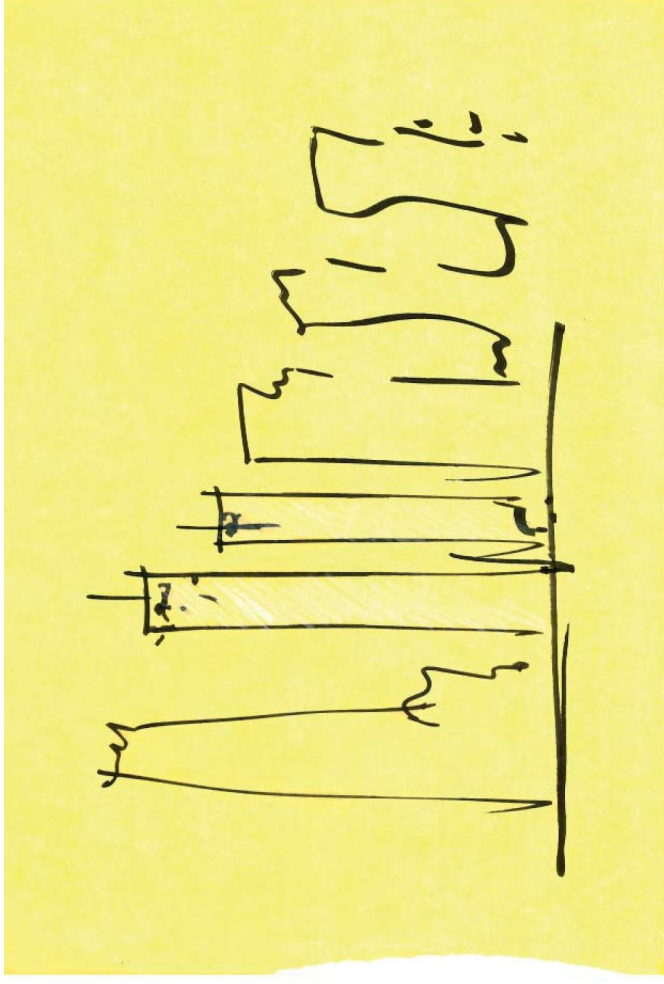
The evaluation of the exposure to the south and the west including the wonderful views toward the city icons and the magnificent Sydney Harbour determined the choice of a triangular shape for the three towers.

The selected triangular form is in not only intended to maximise the view aspect and the orientation to the north-east and west, but this geometry also aims to enhance access to natural light and ventilation.

The remaining southern face of the triangular form is fractured into three pieces that accommodate the service core and the ends of the main apartment wings. These façades are mainly glazed with some opaque portions and thereby provide privacy for the residents and commercial tower occupants.

The façades of each of the three key elevations associated with the triangulated geometry are intended to be consciously expressed, feathering at the edges and delineated with incised rebates at each corner. The design approach is about clarity to the form and surfaces associated with the crystal structures.

The crystal volumes are articulated with a number of different glass facade treatments that form a kinetic skin. The operable wintergardens up high and open balconies on lower levels combine to communicate movement and animation to the tower. The main curtain wall elements of the facade extend the crystal form against the sky and down to the podium.



Conceptual Sketch



Podium Massing Evolution Model

