



durbach
block
jaggers

R7 Barangaroo South
Design Report

02/09/2014



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1.0 Introduction

This report supports a State Significant Development Application submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The application seeks approval for construction of a stand alone building known as Building R7, along with associated works at Barangaroo South, as described in this report.

The R7 SSDA seeks approval for the construction and use of a building containing 1927sqm of gross floor area, for retail use, together with external terraces, stair and courtyards, and associated public domain and landscaping.

Barangaroo is located on the north western edge of the Sydney Central Business District, bounded by Sydney Harbour to the west and north, the historic precinct of Millers Point (for the Northern half) the Rocks and the Sydney Harbour Bridge approach to the east, and bounded to the south by a range of new development dominated by large CBD commercial tenants.

The Barangaroo Site has been divided into three distinct redevelopment areas (from North to South) the Headland park, Barangaroo Central and Barangaroo South.

The R7 Project Application site area is located within Barangaroo South as shown in the Location Plan.

2.0 Design Excellence



Durbach Block Jagers were selected as architects following a design excellence competition organised by Lend Lease. Competing architects were DRAW, Chenchow Little, Tzannes Associates, Scale Architecture, Lacoste Stevenson, Collins and Turner and CHROFI.

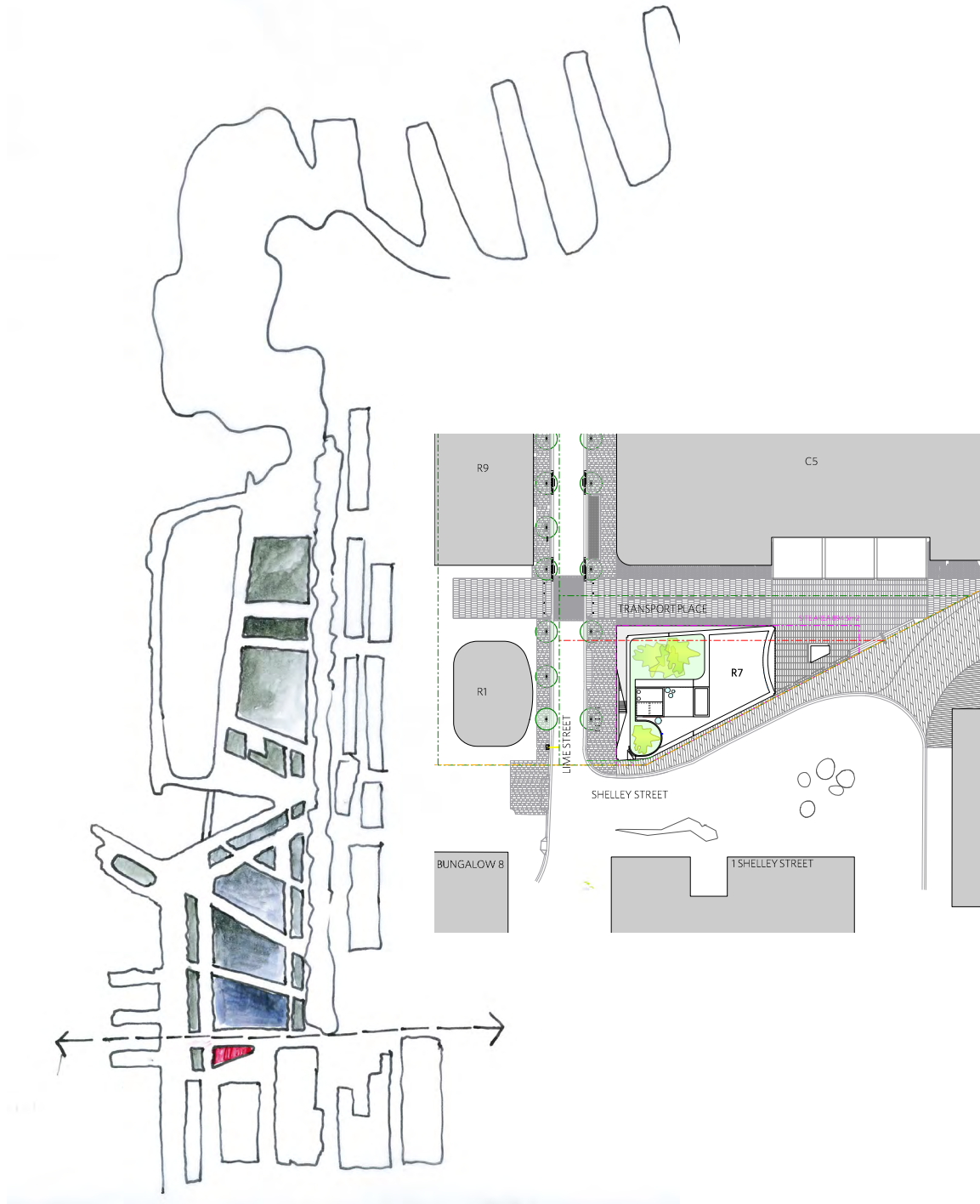
DBJ are a permanent team of ten who have worked together for over twenty years. DBJ are committed to search for the possibilities of architecture itself - its power and poetry; its pleasure and necessity.

The team is involved in every aspect of every project from inception to completion. The team recognise and respect each others' talents and abilities. Our team works seamlessly across design, from conceptual framing to the forging of meaning, form and materiality.

We are inspired by collaborating with others, working within a larger team to find creative solutions to complex problems.

DBJ's work is recognised as both iconic and innovative through international publications and awards for commercial, public, residential and urban design.

In 2010, Roslyn Street was awarded AIA National Harry Seidler Award for Commercial Architecture and AIA NSW Chapter Sir Arthur G Stephenson Award for Commercial Architecture. In 2009 Sussann Sportsgirl was awarded AIA National Award for Commercial Architecture and AIA VIC Sir Osborn McCutcheon Award for Commercial Architecture.



3.0 Site Analysis

R7 Site is positioned on the southern boundary of the site. The building is a highly visible part of the pedestrian entry sequence from Wynyard Walk.

Its northern edge forms part of Transport Place, a major pedestrian thoroughfare through the site. A high rise office tower on a three storey commercial podium sits directly opposite the building to the North.

To the west, the site is bounded by Lime Street, which is the main vehicular route through the Barangaroo South development. R1, a free standing commercial building designed by Collins and Turner, is proposed for the site opposite. Water front glimpses to the west are available either side of R1, and from Level 4.

The site is bounded by Shelley Street to the south, a major vehicle entry to the site. Existing 4-12 storey commercial buildings and associated entries form the King Street wharf area.

Parking and services are provided for R7 in the common basement to Barangaroo. The basement and topping slab are under construction. There are fixed constraints within the R7 Site, such as the location of the lift core, fire stair, Diesel Flue, car park entry ramp, HV Flue, Diaphragm wall and capping slab.

R7 is designed to accommodate these constraints.

3.1 R7 Masterplan

This site is an important bridge between new and existing. It is central to the pedestrian and vehicular movement across and into the site. A true 'junction' both horizontally and vertically for people, cars, building scale and cross views.

A tall building for its tiny footprint, the building's unique sense of scale will hold its own in the urban fabric, acting as a marker, signalling its use.

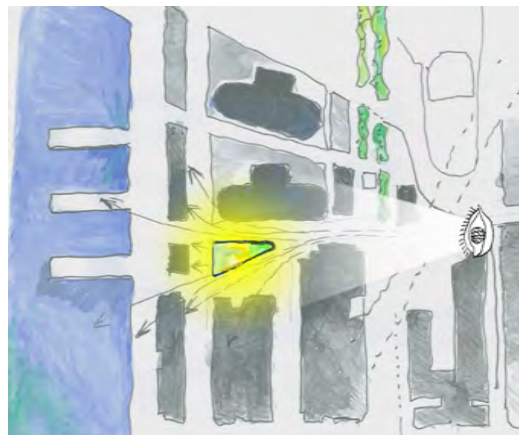
The complex constraints, with uses wrapped around necessary services, requires an innovative design response to form and program.

R7 is designed to link with R1, forming an axis of 'timber cousins'. The building is bold, yet courteous, its use integrally bound with its high visibility and pedestrian and vehicular movement.



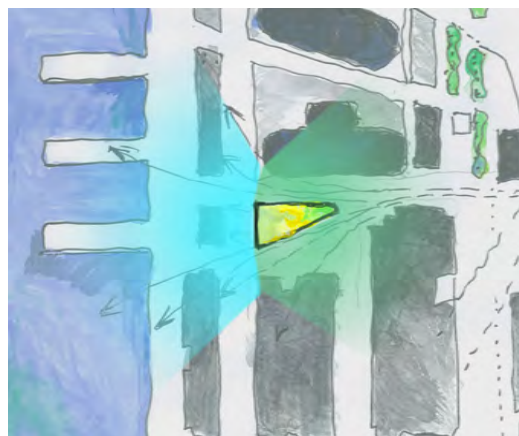
'Junction'

Highly connected ground plane for new and existing building fabric



Unique sense of scale and Peninsular Geometry

Highly visible three cornered site.



Island building

Responsive on all sides for water and urban orientations.

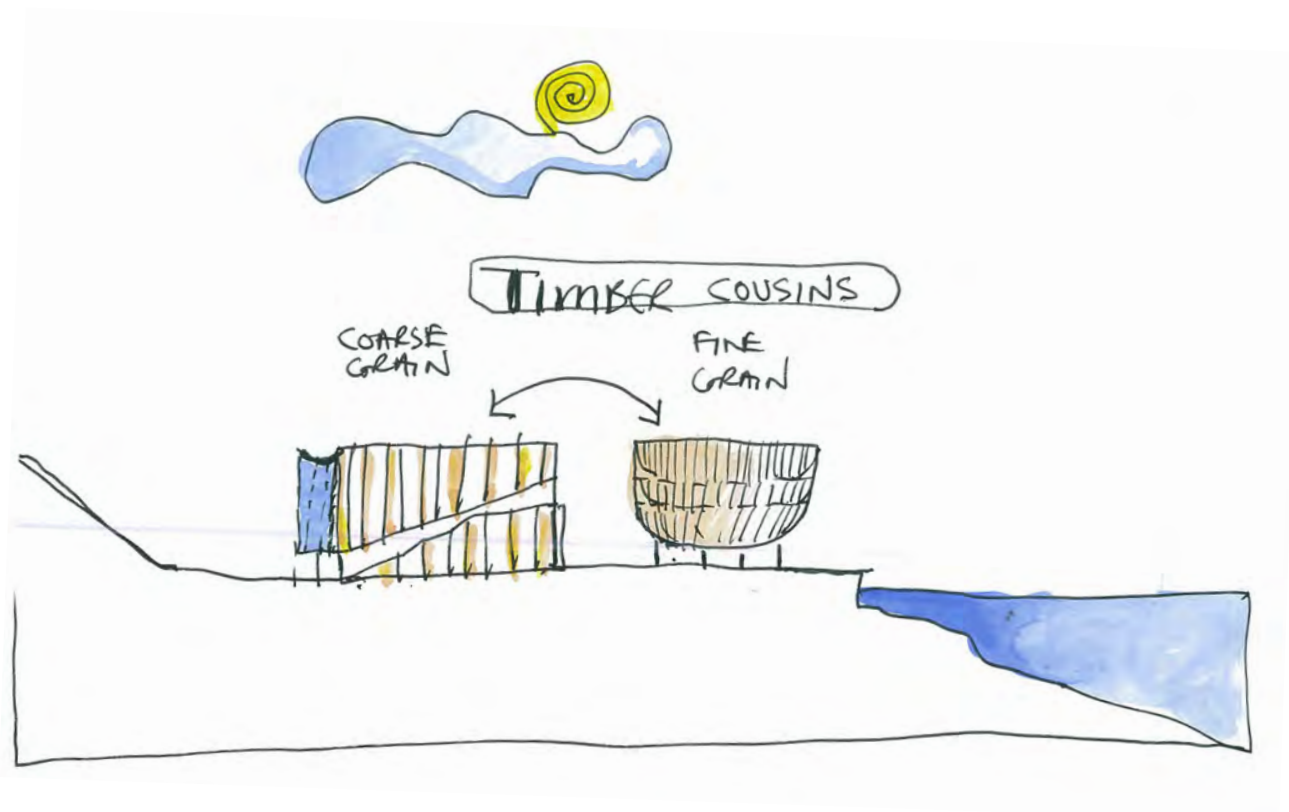
4.0 R7 Concept

R7 forms part of an entry sequence of smaller scale buildings, from Wynyard to the harbour, from Darling Harbour to Barangaroo.

The action of the building is brought to the surface, through the external wrap around stair, linking every floor to the ground plane.

R1 and R7 are linked, sitting in the round between the existing development of King Street Wharf and the higher density of Barangaroo South.

The design of R7 links to R1 in materiality through the use of timber.



4.1 Form and external appearance

Design Principles

The proposed R7 building provides a transition in scale between the towers at Barangaroo South and the existing structures at King Street Wharf.

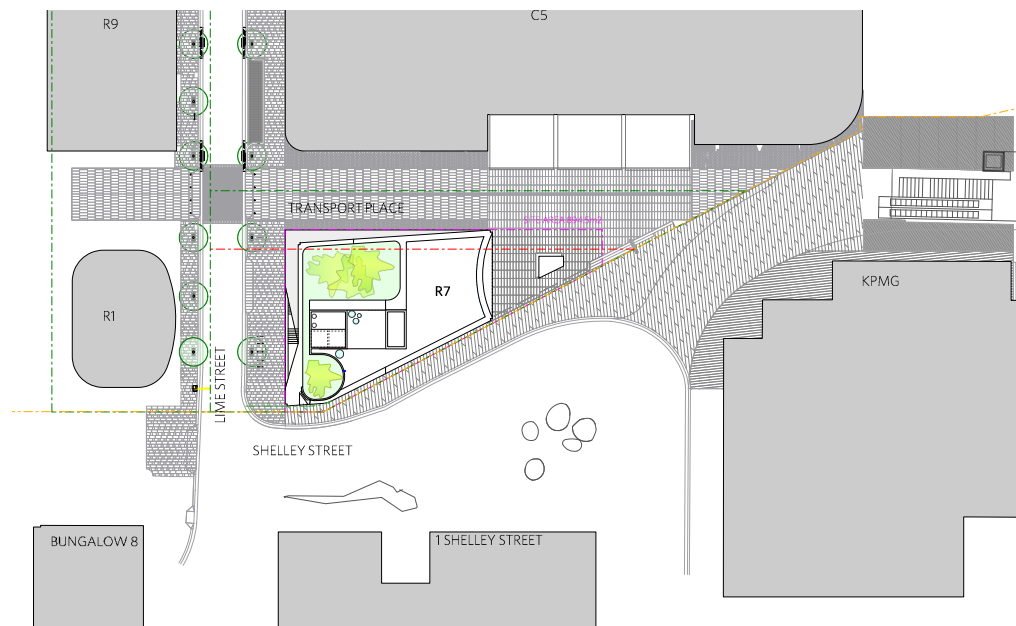
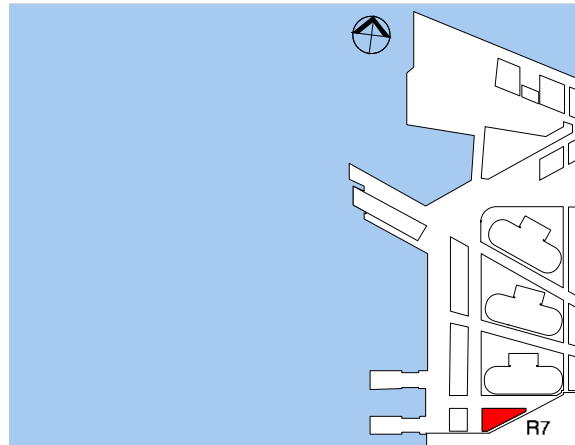
Building Scale and Massing

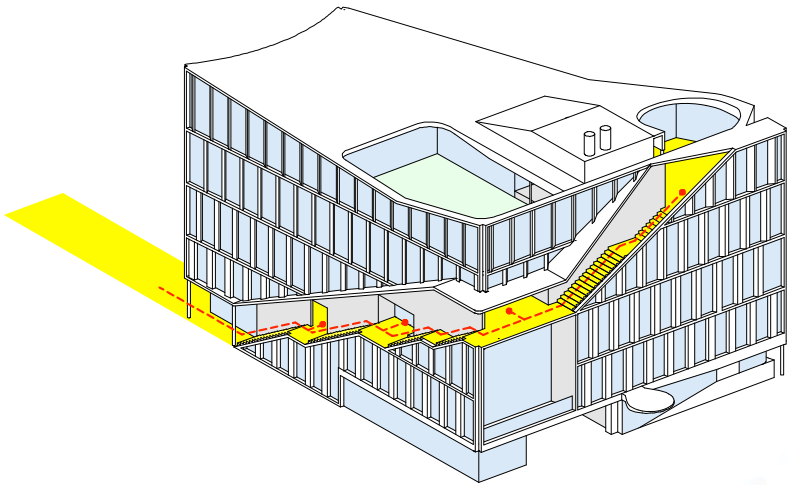
The trapezoidal island site contributes to the dynamism of the R7's three dimensional form.

R7 consists of five levels, including Level 1 which is a mezzanine to the ground floor, above the car park ramp. Level 4 is a partial floor with outdoor courtyards, planting and covered spaces.

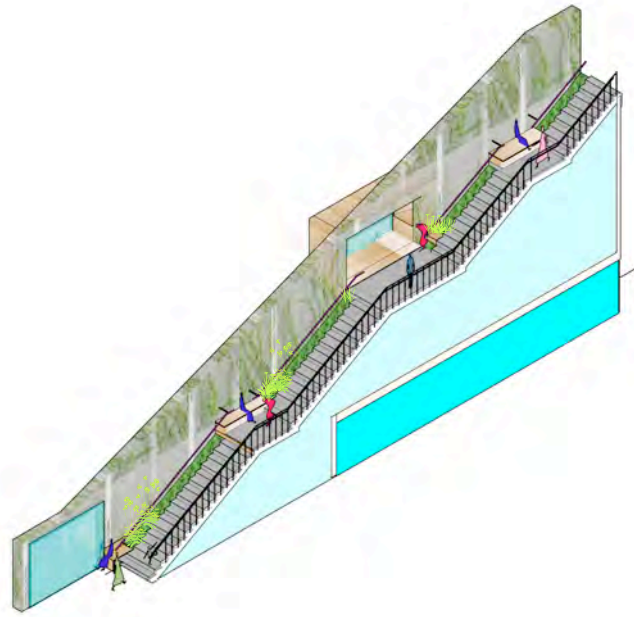
The external stair rises from east to the west on the northern elevation and across the western facade. The stair cuts through the timber facade, animated by planting, seats and entries at different levels.

Pedestrian movement is visible on the outside of the building, bringing action to the building's surface.

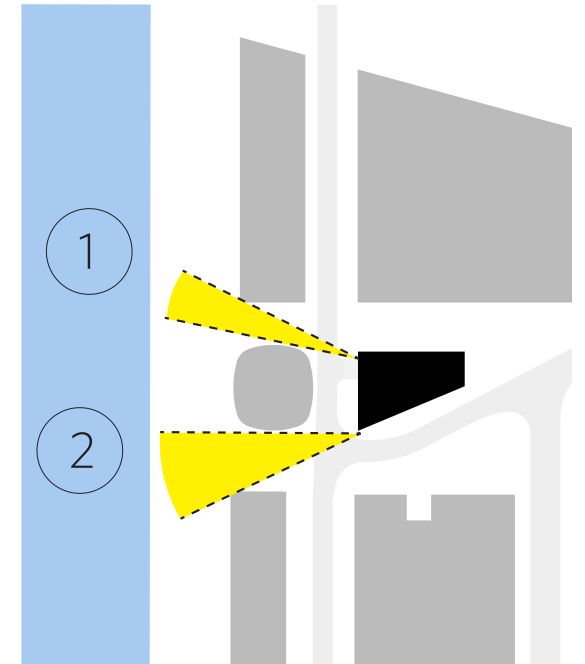




External Stair maximises connection to Ground Plane

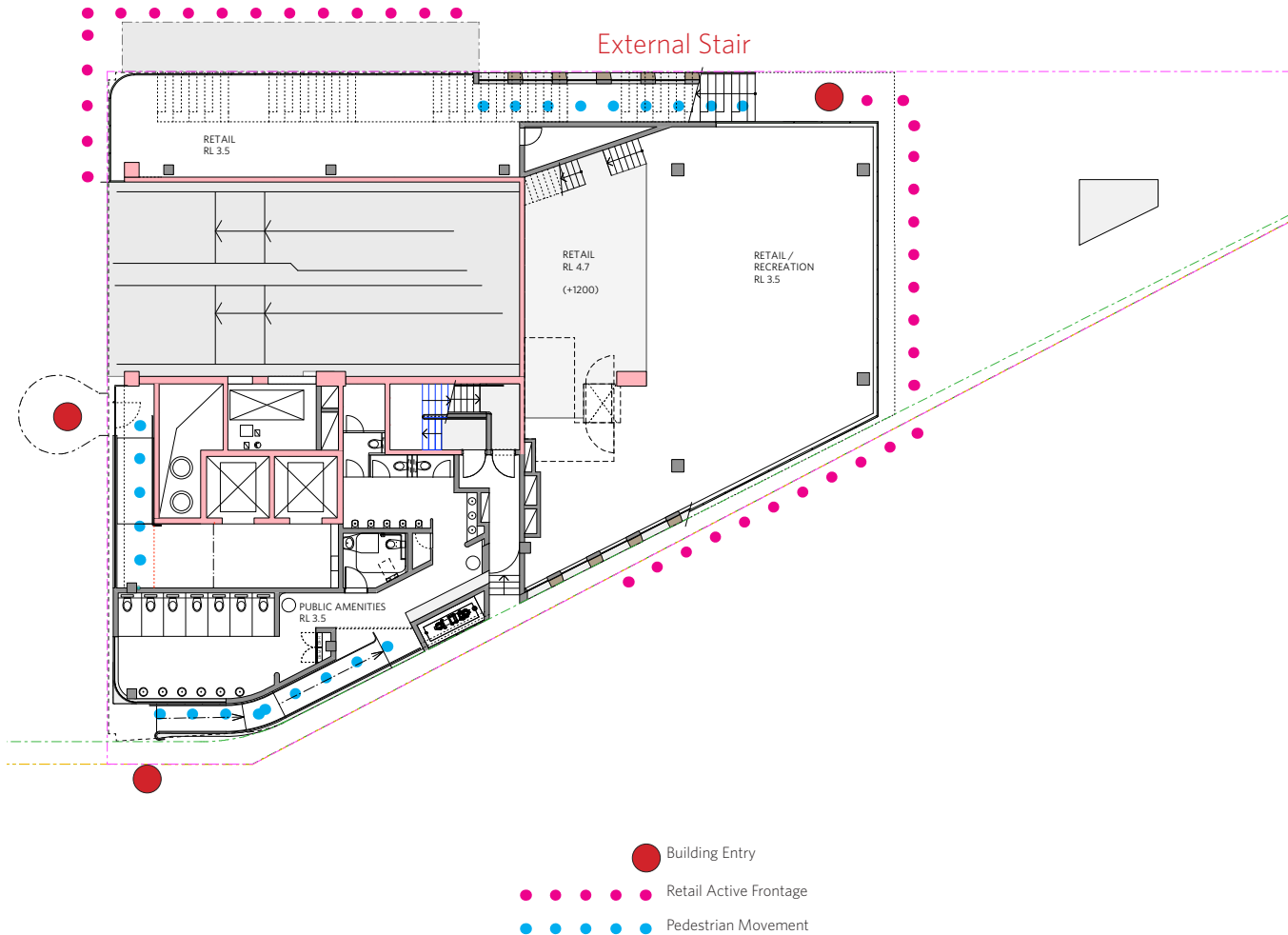


External staircase is animated by seating, planting and entries



Corner water glimpses

4.2 R7: Ground plane and External Stair



This relatively small building inherited a number of site services and provisions. Working with these fixed elements, the design seeks to maximise a vital ground floor space, lining existing routes with active uses.

The floor to floor height of the ground floor is 6.5m, with interim raised levels above the carpark ramp.

An external stair links the ground plane to all of the upper levels and also provides a second egress. This stair is animated by planting, seats and generous entries. It is articulated as a concrete cut through the timber facade, with lined timber entries.

Corner water glimpses are celebrated at many levels, connecting to the harbourfront.

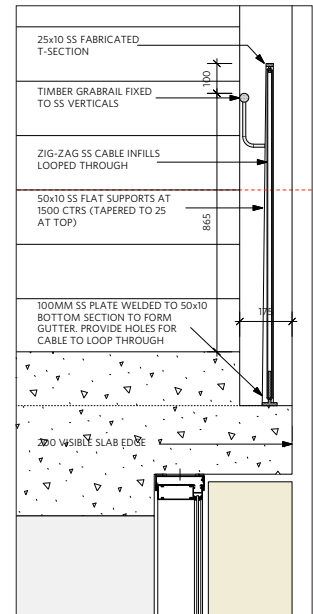
A destination commercial space and courtyard animate the roof level, with planting and panoramic views above R1.

New public amenities are located on the SW corner of the building. These have a dedicated accessible ramp from Shelley Street. Detailed section shows the relationship of the ramp to the existing basement diaphragm wall and capping beam.

East Elevation

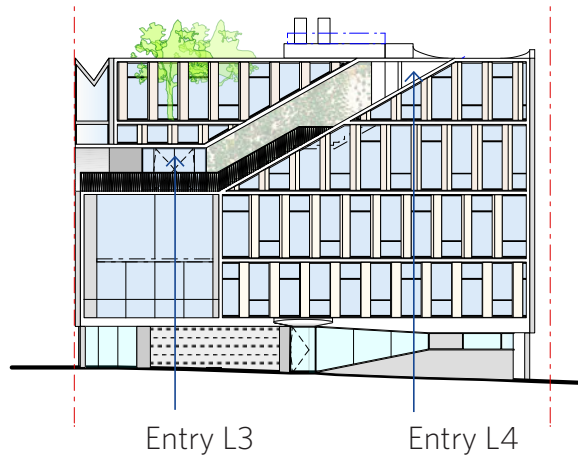


North Elevation

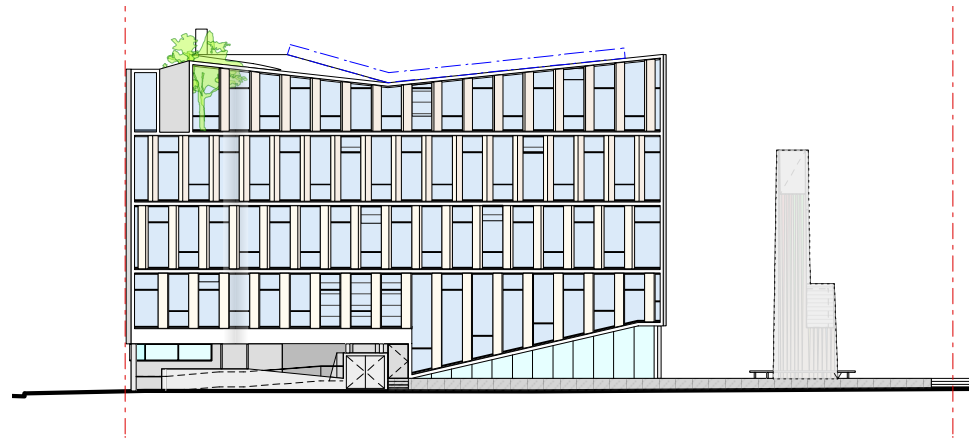


Detailed section of external stair handrail

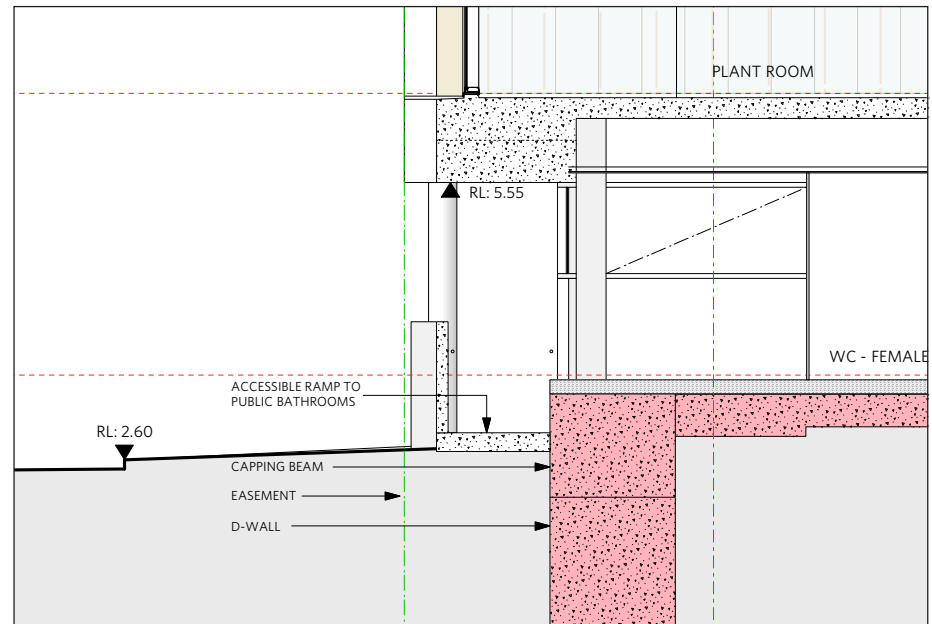
West Elevation

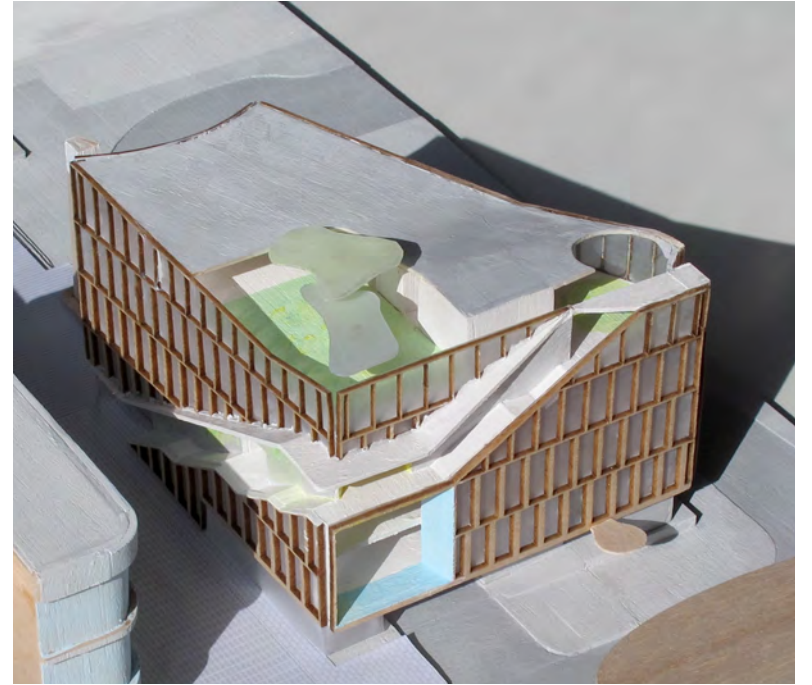


South Elevation

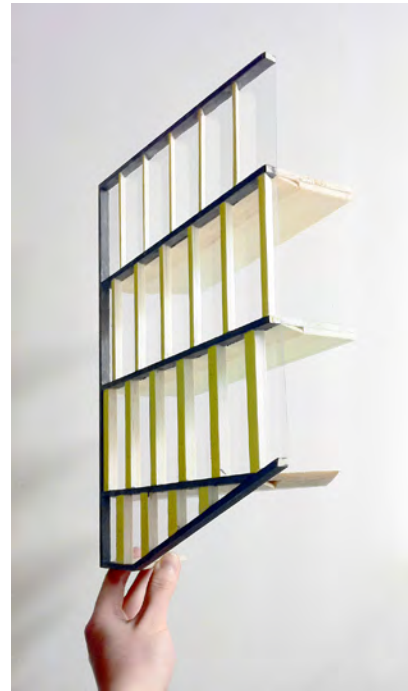
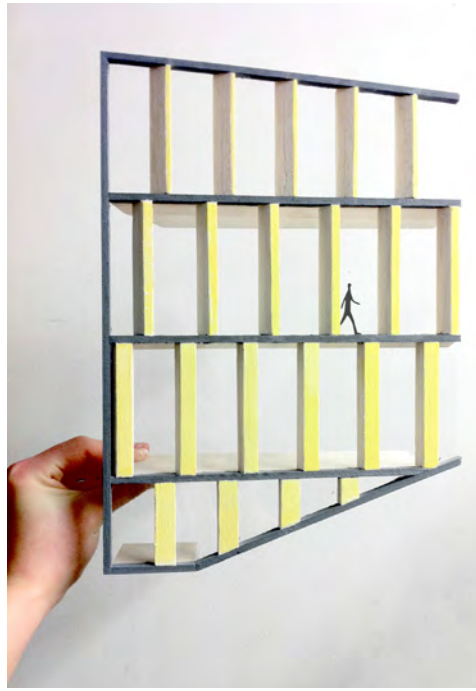


Detailed section of ramp
 Diaphragm wall and capping beam
 (shown red)
 Capping extension piece is a
 suspended element formed
 above existing ground levels





4.3 Facade

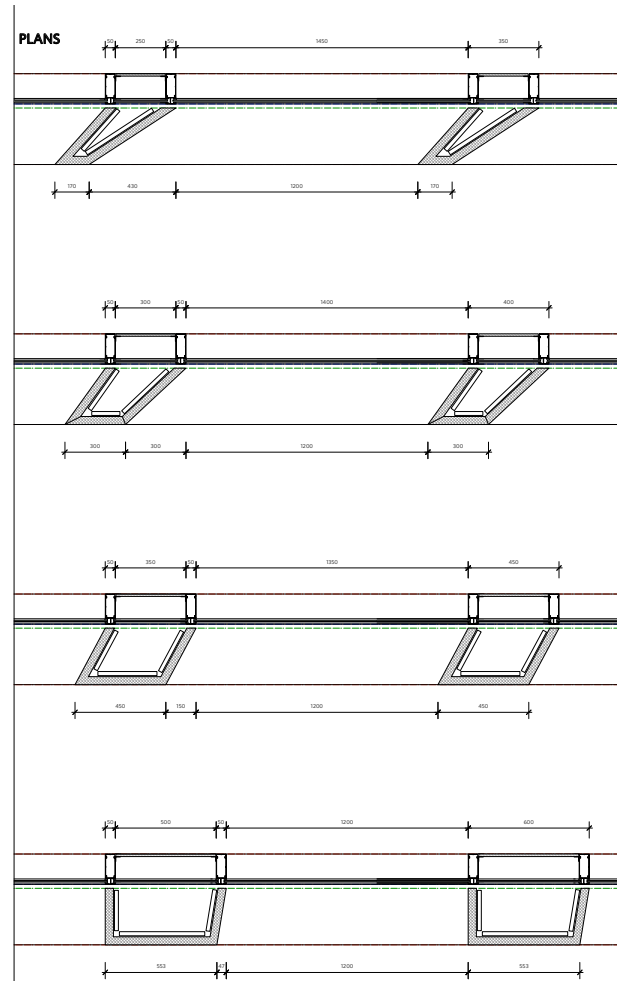
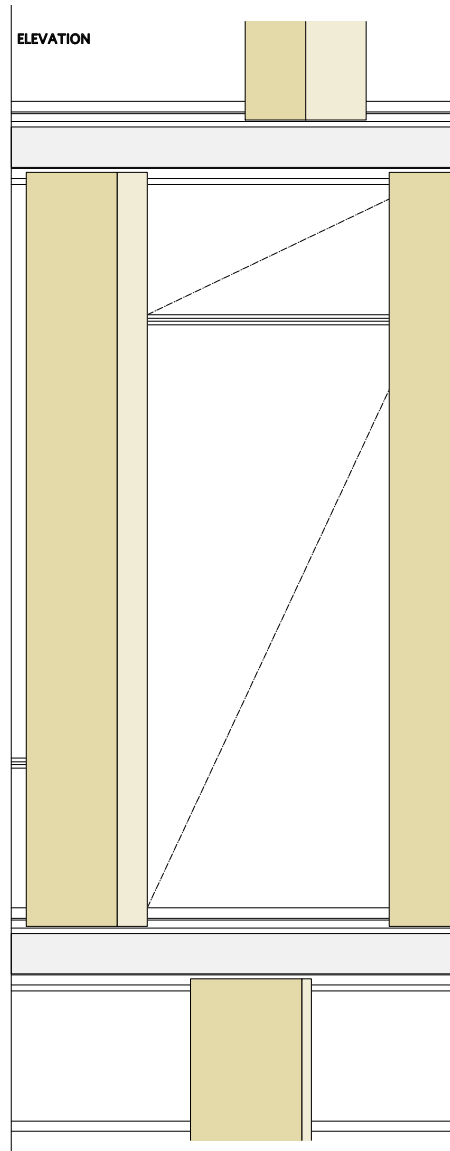
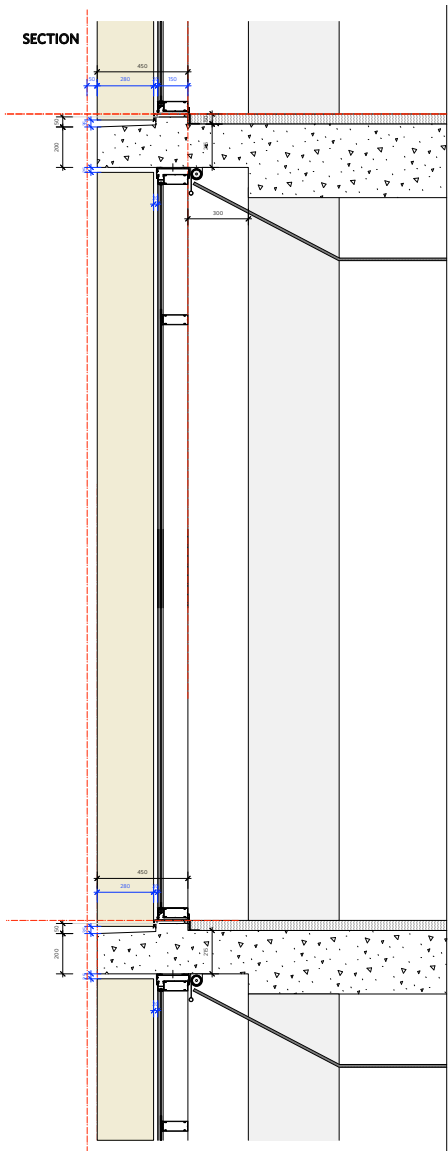


The facade is conceived as stacked and offset timber columns, grading from more dense at the base to lighter at the top. This will be achieved by both the spacing and shaping of the timber members.

At the upper levels the columns are finer for greater transparency.

In pure elevation the facade appears open, in obtuse views, the timber appears more solid and dominant.

To the East the facade cant back, creating a curving gateway.



Facade Concept Sketch



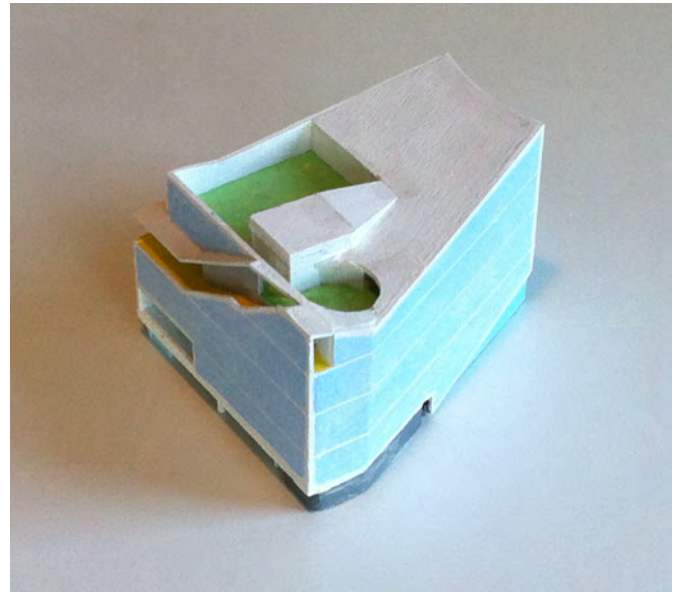
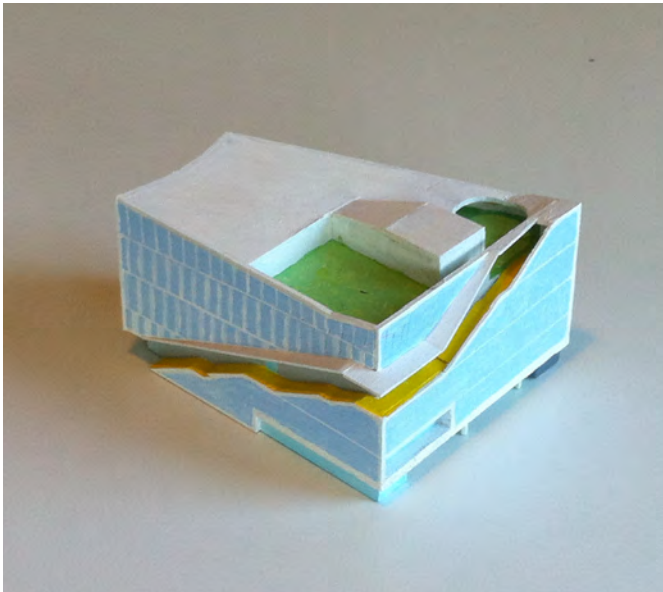
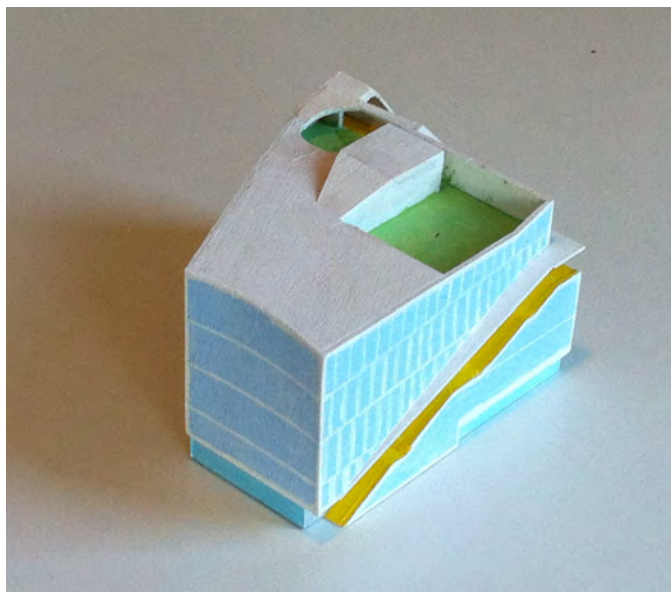
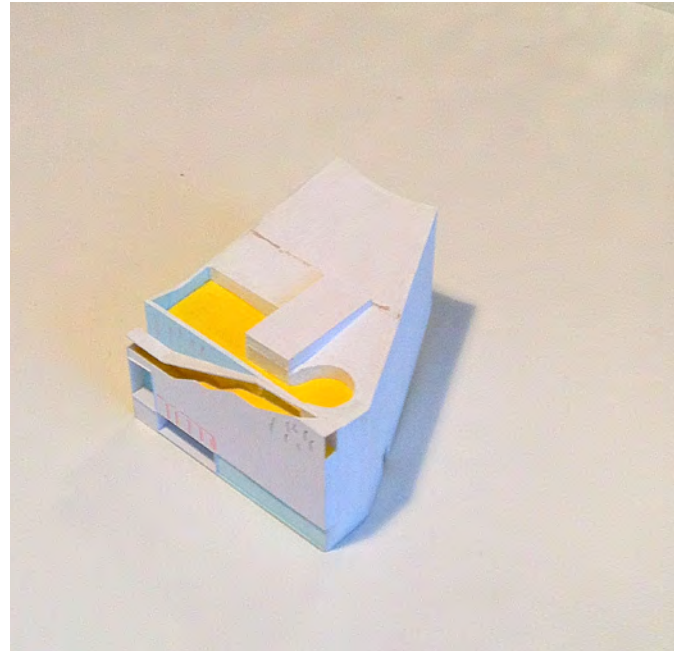
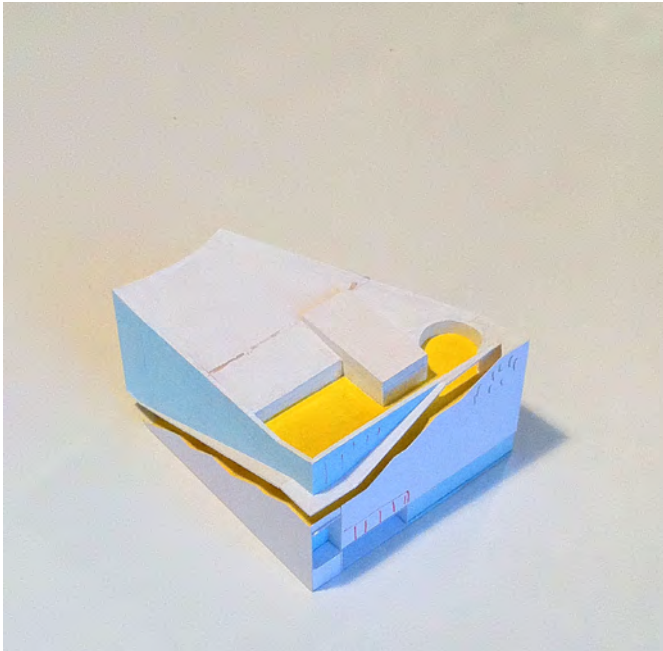
The timber columns will be constructed as boxes out of 40mm recycled hardwood planks. The preference is to use Turpentine found on the site, subject to further performance testing or ironbark.

Prototypes of the columns are currently being made to test jointing, material and fixings.

The finish being explored is a Japanese technique called 'Shou Sugi Ban'. This involves charring the timber and then sanding back to achieve 60-70% blackness. The charring acts as a protective layer with no follow up coating or maintenance. This will help to age the timber to a variegated finish rather than uniform grey.



Facade Concept Materials



4.5 Concept: Design Process

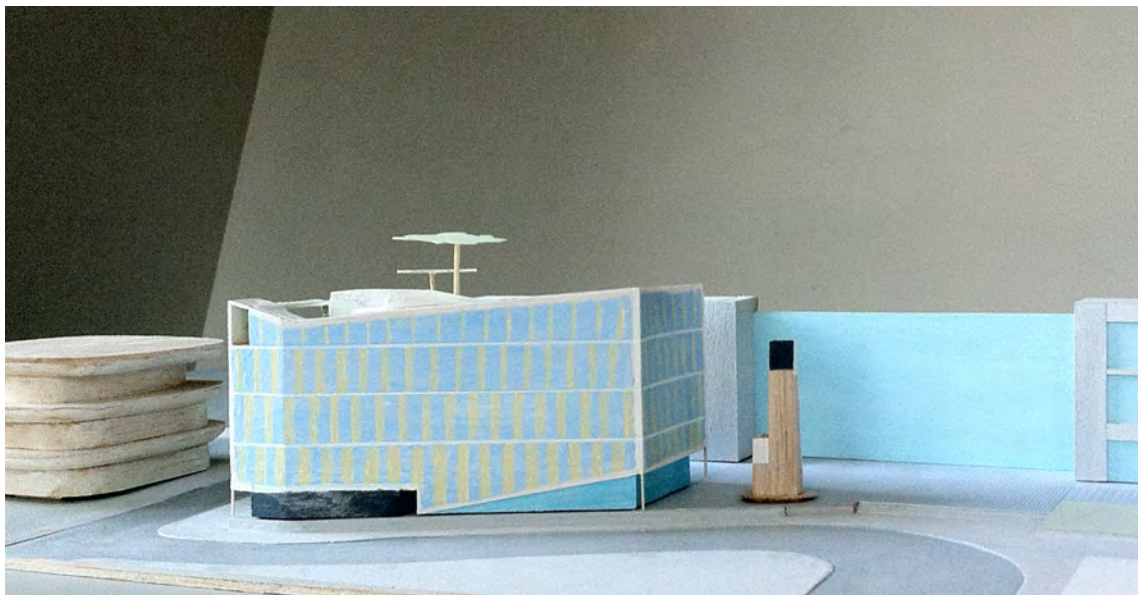
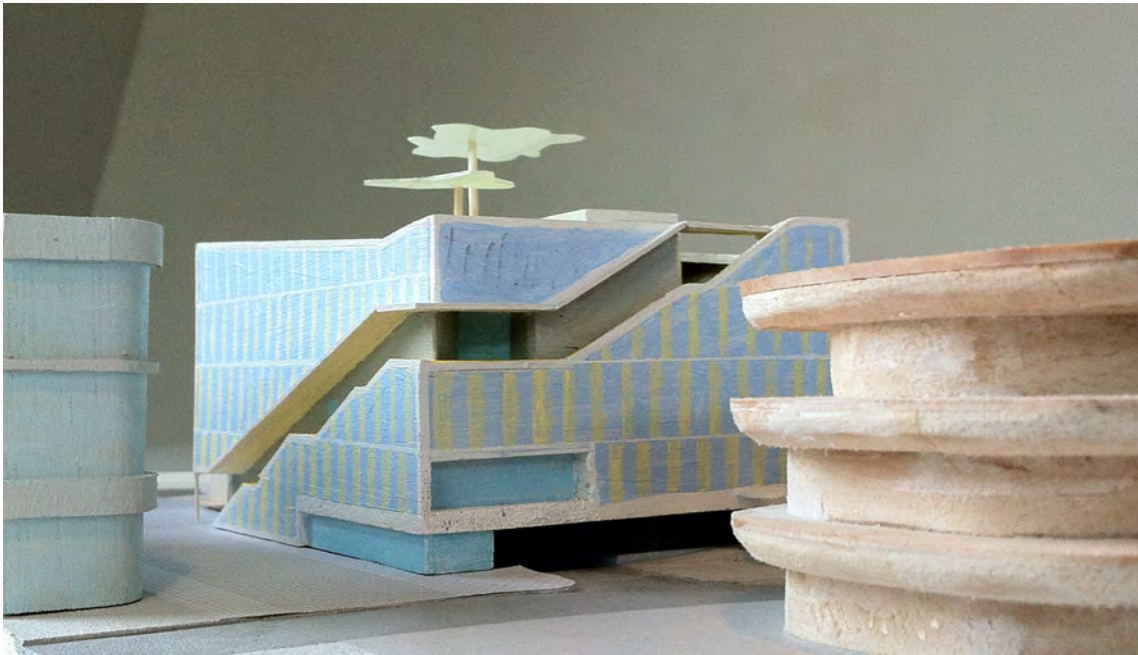
Since DBJ's appointment, R7 has been the subject of an intensive design process.

The design has been reviewed and its development contributed to by Lend Lease Development, Design and Building at multiple stages.

Collins and Turner have been consulted and have indicated their support the alignment between the buildings through their finish.

Specialist consultants for services, structure, facades and ESD have been involved in the design and have contributed their expertise.

The Barangaroo Development Authority have been involved in the design since its selection at competition stage and have reviewed its development at 50% and 90% Concept design stages. Their advice, support and overview have been invaluable to the project's progress.





View from South East

Indicative design only. Flue subject to approval under separate planning application

5.0 Environment

The R7 building is designed to make a contribution to the project ESD targets for the Barangaroo South Development.

1. Rainwater captured on the roof
2. Connection to centralised rainwater and grey water systems and site wide blackwater for toilet flushing.
3. Grey water is used for irrigation of building integrated planters
4. Recycled timber cladding forms the facade
5. Roof mounted photovoltaics contribute to project wide renewable energy targets
6. Building connected to site wide chilled water for air conditioning
7. Planting is integral to the design of the external stair and to the Level 4 Courtyard.

6.0 Building Signage



The following is an indicative list of signage proposed for R7. These elements and their locations are indicated on the PA drawing set.

1. Facade

Vertical glazed panel between the timber façade cladding.

To be illuminated or non illuminated

Sculptural, hanging signage, posters in signage zone are located 250mm behind glazing.

Some vinyl decals to internal façade not to be completely solid maximum 20% glazing coverage

2. Ground Floor

Illuminated blade signs to be incorporated into shopfront glazing.

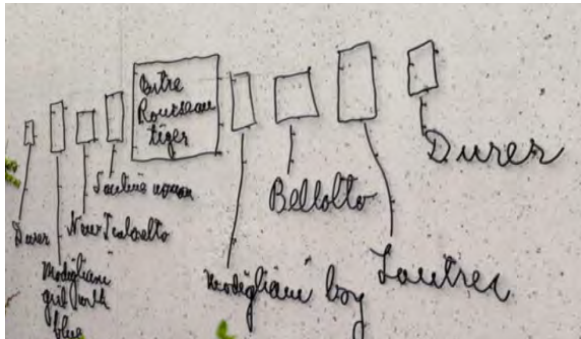
Size to be reviewed with architects.



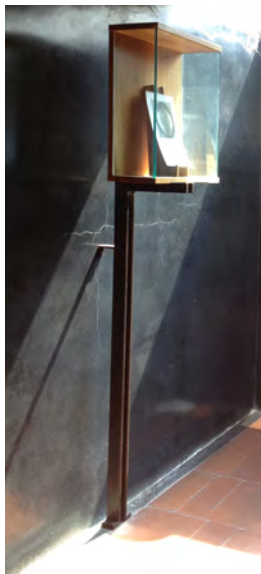
3. Awning

Trim of awning to have 150mm text in contrast colour to awning colouring with Retailer's name





4. External Stair- Awning
 Innovative signage opportunity for the retailers on the return soffit of stairs. To be aligned with skylights through awning. Need to incorporate architectural or graphic cues to guide customers up stairs.



5. External Stair- Entry landings
 Colour, finish and lighting used to denote entry and pick up sight lines from the street. To be reviewed with architect.

6. External Stair- Start
 Pylon or signage at entry to stairs with list of tenancies.



7. Illuminated blade signs.
 Zone with option of either landscape or portrait position. Size to be reviewed with architects. One to face west and one to face north.



View from South West



Indicative design only. Flue
subject to approval under
separate planning application

View from North East