

make

B A R

Ridley

ASPECT Studios™

URBIS



essence

**ETHOS
URBAN**

The Sandstone Precinct

S4.55 Design Report

Date
27 September 2018

Revision Number
01

Document Number
SP-RPT-G-0047



The Project Team

Client:
Pontiac Land Group



Design Architect:
Make



Executive Architect:
Ridley



Interior Designer:
Bar Studio



Project Manager:
Essence



Heritage Consultant:
Urbis



Planning Consultant:
Ethos Urban



Early works Contractor:
Built.



Services Engineer:
WGE



Structural Engineer:
TTW



Landscape Architect:
Aspect



Cost Consultant:
Slattery



Fire Engineering:
Core



BCA Consultant:
McKenzie Group



Specialist Lighting:
Point of View



Accessibility Consultant:
MGAC



Design Review Panel

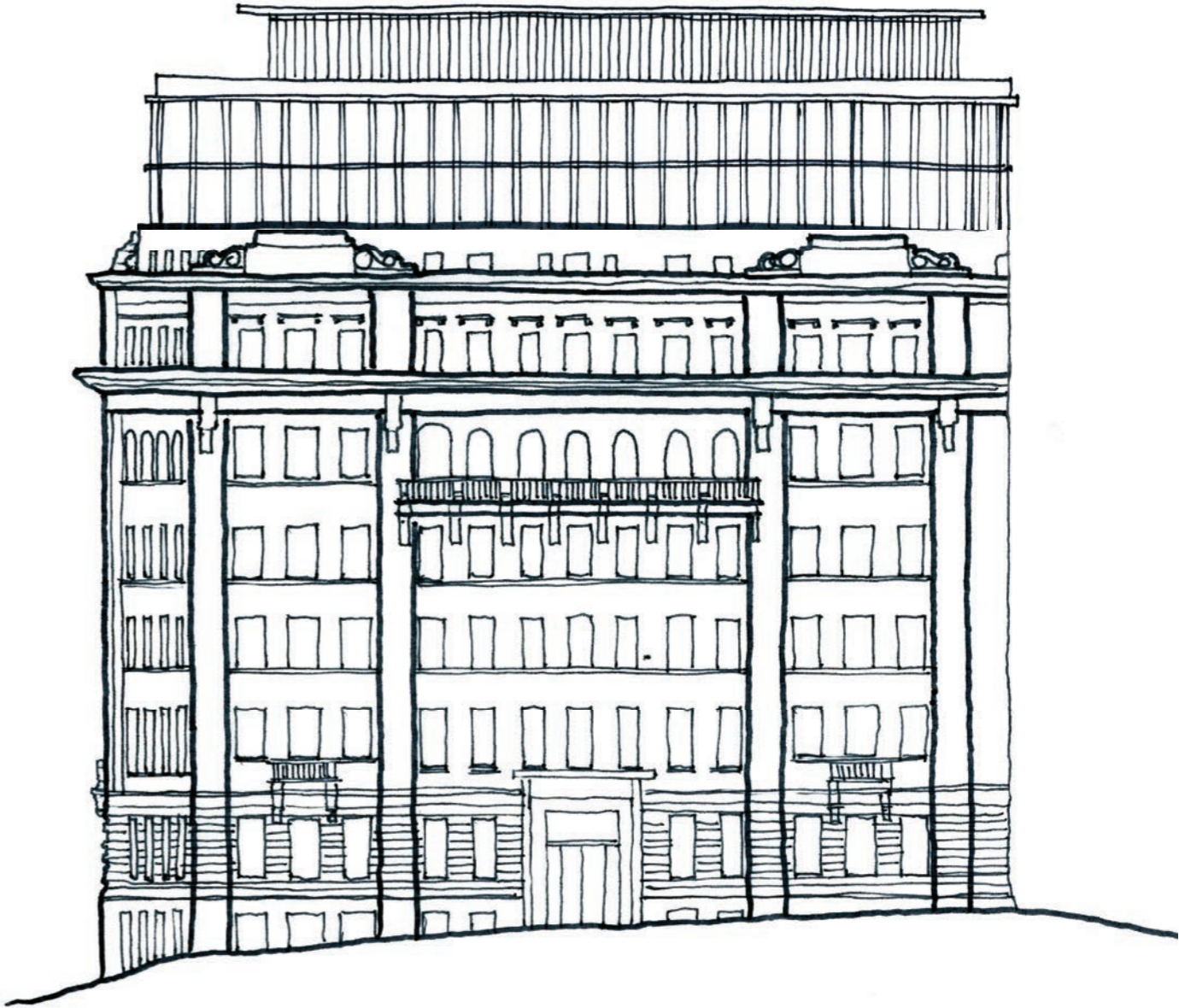
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This design report is to be read in conjunction with the submitted S4.55 drawings. The report illustrates the enhanced environmental performance of the revised facade design. Updated illustrative views have been included to compare the development at three key planning views.

In addition the changes to the internal planning have been highlighted on a floor by floor basis.



Approved Stage 1 DA



Approved Stage 2 DA





Education Building

Overview

- Luxury hotel incorporating function rooms, gym, spa and leisure facilities
- Number of keys has increased from 192 to 229

Key

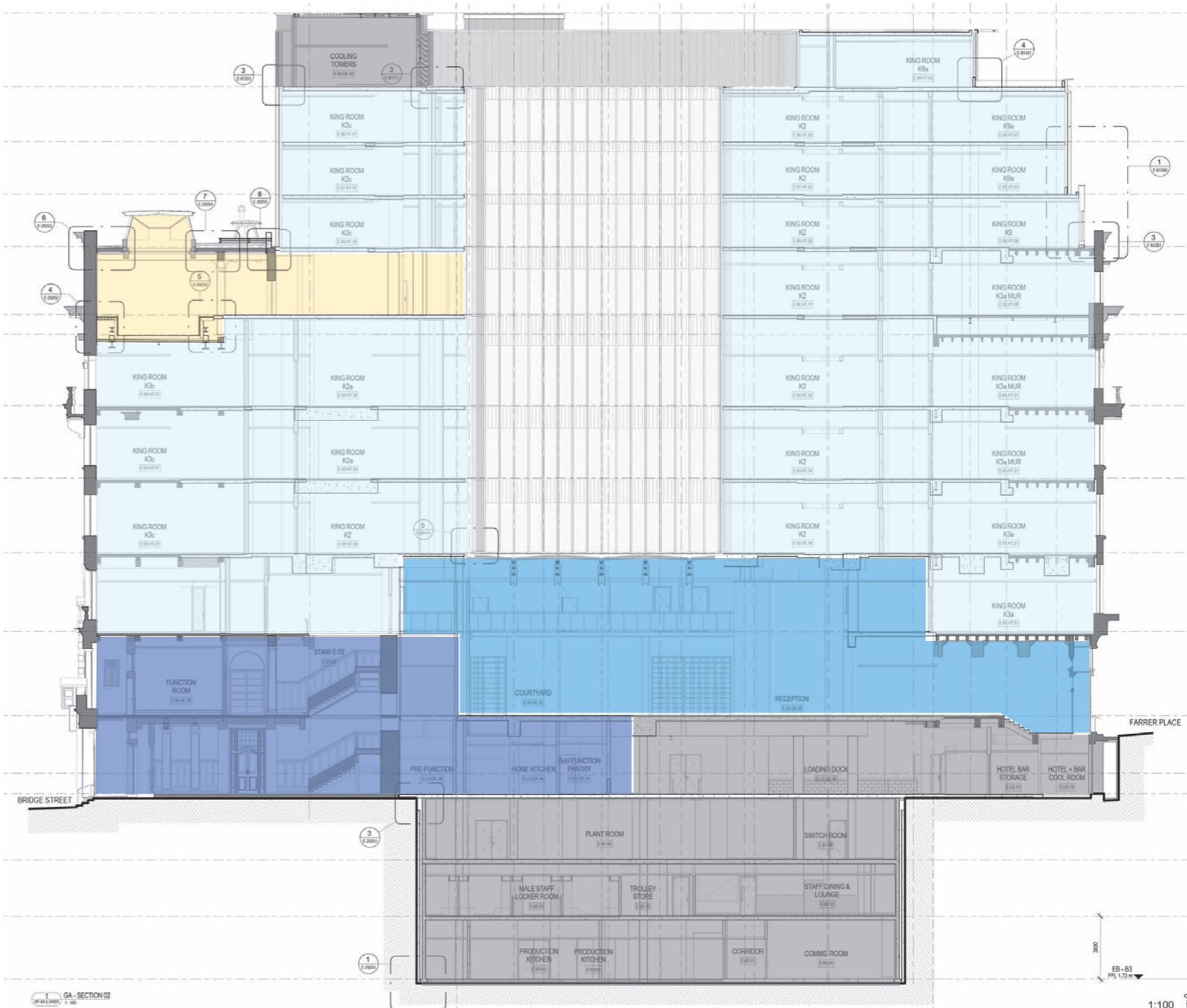
Guestrooms

Arrival space

Function rooms

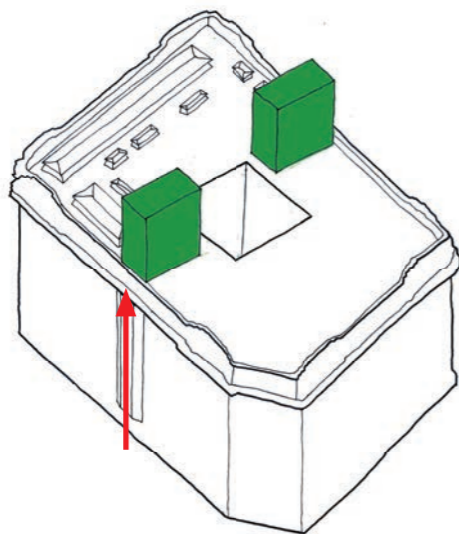
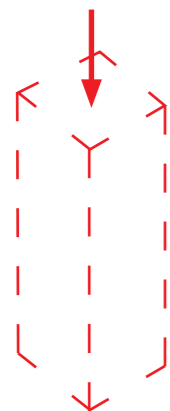
Pool, spa and gym

Back of house and plant

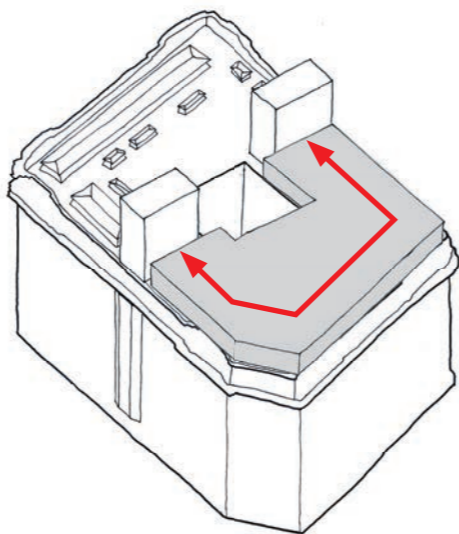


Education Building

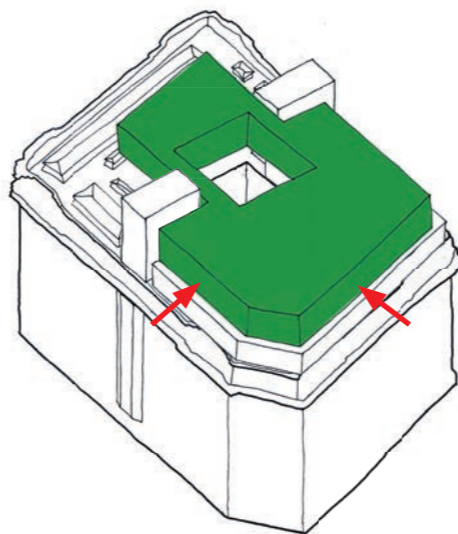
Massing



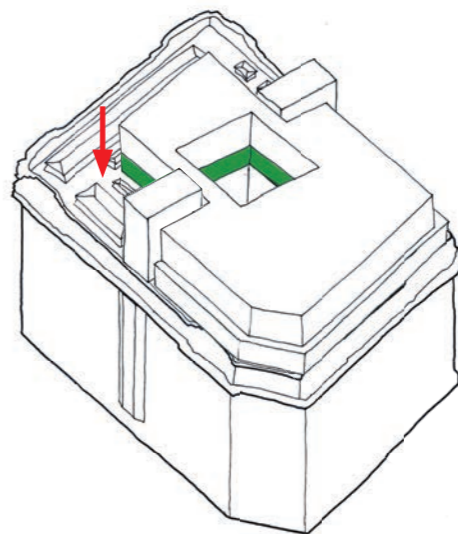
1. Reinstating the courtyard



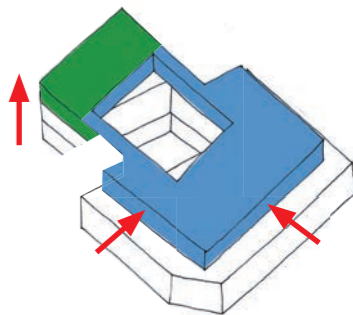
2. Extending the sandstone bays



3. Rebuilding level 6



4. Setting back levels 7 & 8



5. Extending the North

6. Setting back level 9

The Sandstone Precinct

Dept. of Education
Facades

Site Location
—
CBD cluster



Future Sydney
CBD cluster

Circular Quay Tower
54 Storeys- 263m
Office

1 Alfred Street
55 Storeys- 200m
Residential

One Circular Quay
28 Storeys- 112m
Hotel

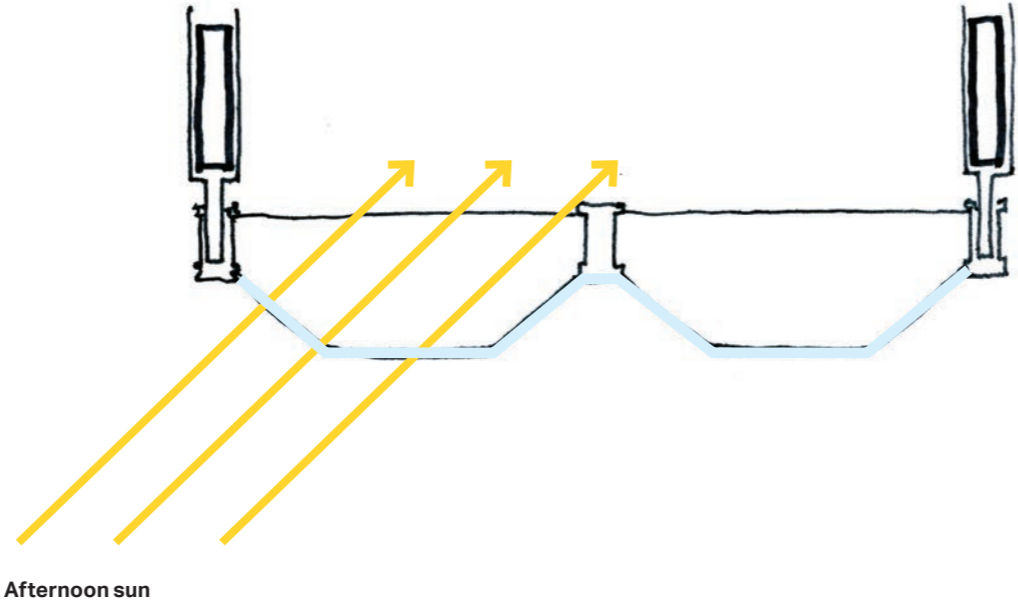
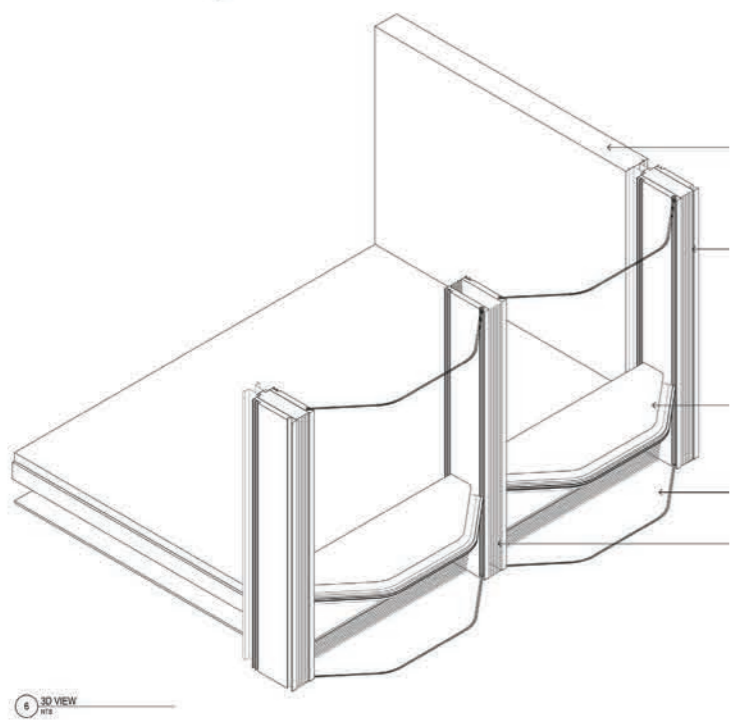
55 Pitt Street
35 Storeys-
152m
Office

Quay Quarter Tower
50 Storeys- 200m
Office

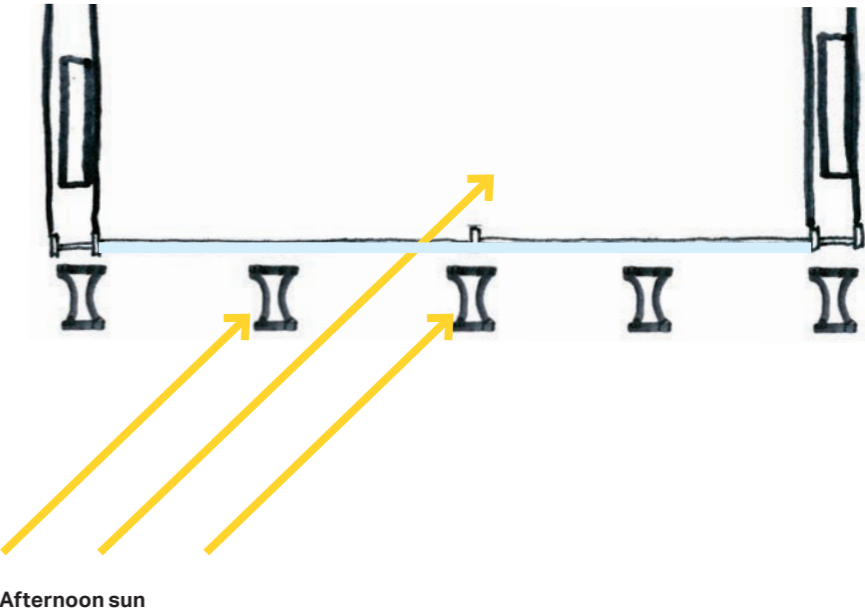
Note: The new developments in this document are illustrative and subject to final approvals - building mass shown for illustrative purposes only

Environmental control

Stage 2 DA



Proposed



At the request of the Design Review Panel further environmental analysis was performed in conjunction with Wood and Grieve Engineers. Although the building benefits from a high amount of shading due to the neighbouring CBD tower cluster there are limited times of the day where the facades receive direct solar gain. This is typically during the afternoon hours when the sun is low.

The revised design sets the glass line back into the building and introduces a series of vertical fluted fins to limit direct solar gains. The spacing of the fins has been optimised to balance the requirement for views out whilst controlling the solar gains. The east and west fins are of a tighter spacing than those in the south.

Environmental control

Glazing specification

In addition to the changes to the facade the glass specification has been enhanced from single glazing to a high performance double glazed unit. The glazing reduces the amount of solar heat gain during summer whilst providing a higher level of thermal insulation (U-value) in the winter.

Facade Component	Overall U-value (including framing) (Max)	Overall SHGC (including framing) (Max)
Education Building		
Perimeter Building Envelope (below level 6)	4.5 W/m²K	<0.7
Perimeter Building Envelope (level 6 and above)	3.1 W/m²K	0.33
Courtyard Glazing (level 2 to roof)	3.1 W/m²K	0.55

TTW Facade Specification

	Low Level (lower ground – level 5)	High Level (level 6 – level 9)
Scenario 1: Minimum Code Compliance	U = 7.0, SHGC = 0.80 (Existing Glazing)	U = 4.3, SHGC = 0.70 (Single glazed clear)
Scenario 2: Previous Issue Glazing	U = 6.5, SHGC = 0.75 (Minimum code compliance)	U = 3.7, SHGC = 0.65 (Double glazed super clear)
Scenario 3: Current Proposed Glazing	U = 5.6, SHGC = 0.72 (Single glazed clear behind existing heritage)	U = 3.1, SHGC = 0.33 (Double glazed low-E)

WGE Section J Report (GMP Issue)

Indicative glazing product
ASG Visulaite 78 Clear Glazing

Colour:	Neutral
VLT:	68%
Reflective EXT:	11
Reflective INT:	12
Shading coefficient:	0.44