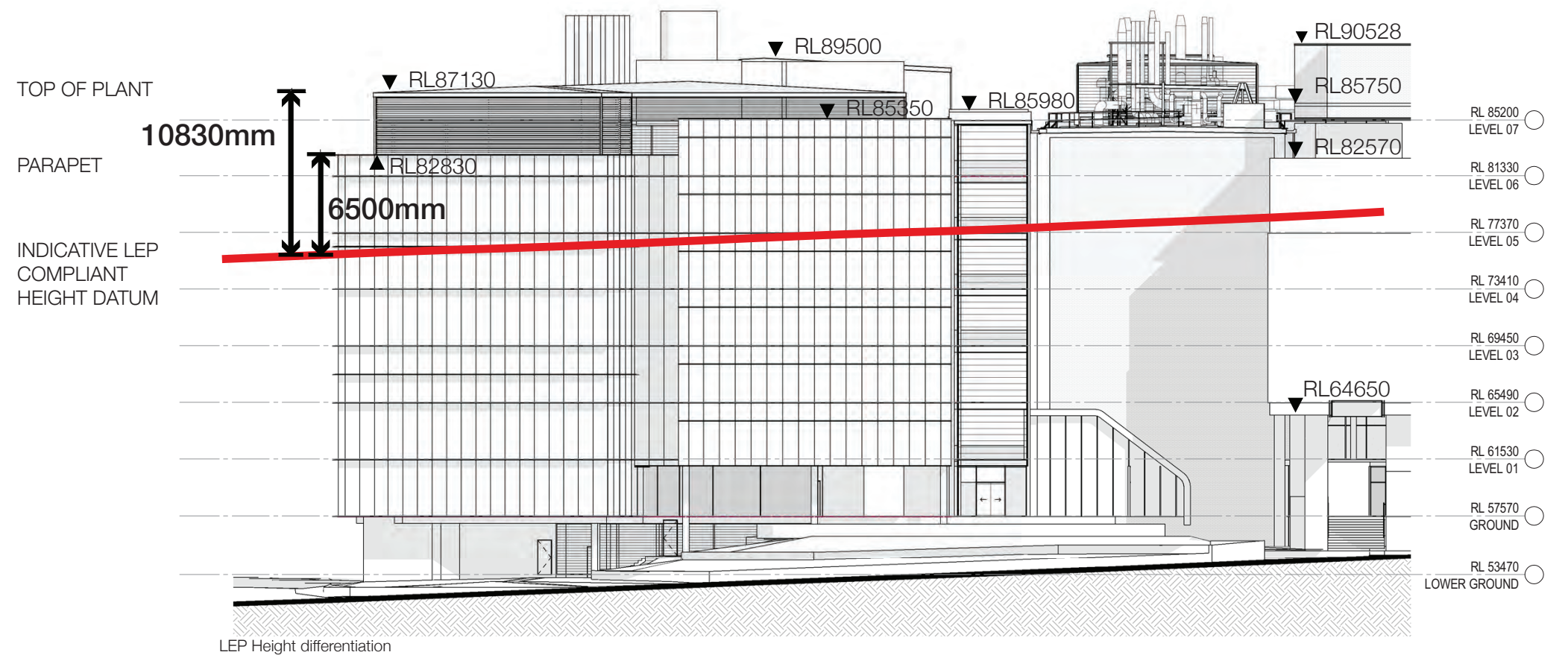
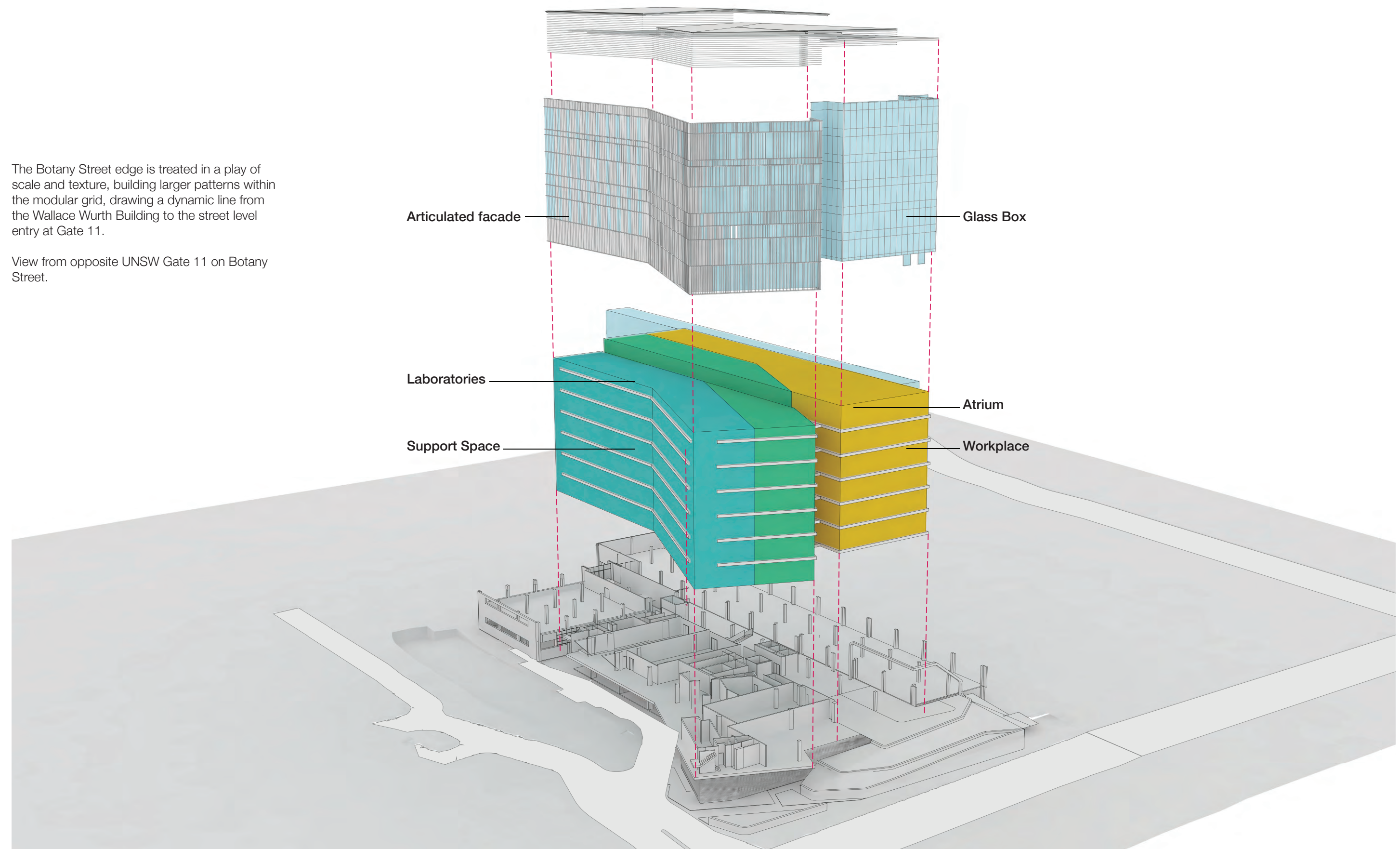




The Botany Street edge is treated in a play of scale and texture, building larger patterns within the modular grid, drawing a dynamic line from the Wallace Wurth Building to the street level entry at Gate 11.

View from opposite UNSW Gate 11 on Botany Street.



Exploded axonometric showing massing strategy

A streetscape perspective indicates the mass of the proposed building compared to the Wallace Wurth Building.

The reveal back to the ground level student spaces draws an expression of the campus onto the edge of the precinct.

The returning angle of the south edge leads the streetscape into the junction with Gate 11 and the continuation of the University Mall.

By having two different eastern facade types, the apparent massing of the building is reduced, also enhancing the “step down” of mass to the south. Mechanical services at the top of the building have been configured as such to minimise visual impact from the street.

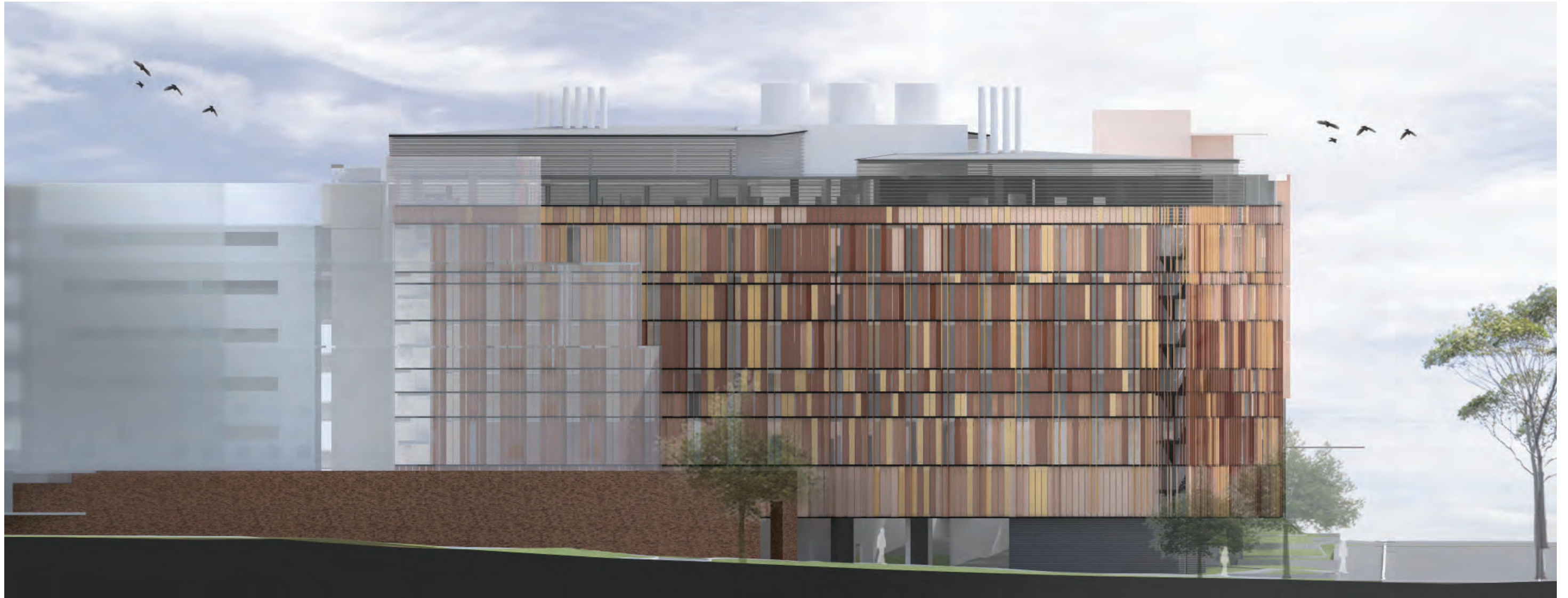


Rendered View Illustrating Facade Strategy

The Botany Street true elevation view demonstrates the consistency of the street wall achieved by matching the massing of Wallace Wurth Building at the north, stepping down to the south, and the relative build-up of mass in the background at the Gate 11 entry.



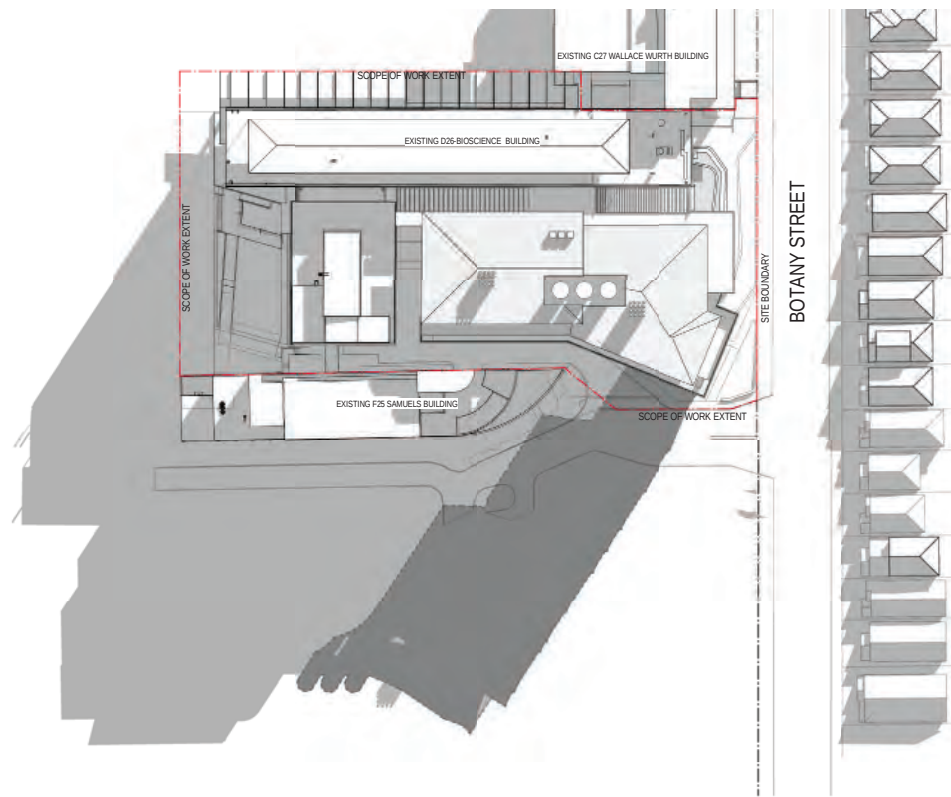
Rendered View Illustrating Facade Strategy



Rendered View Illustrating Facade Strategy (southern elevation)

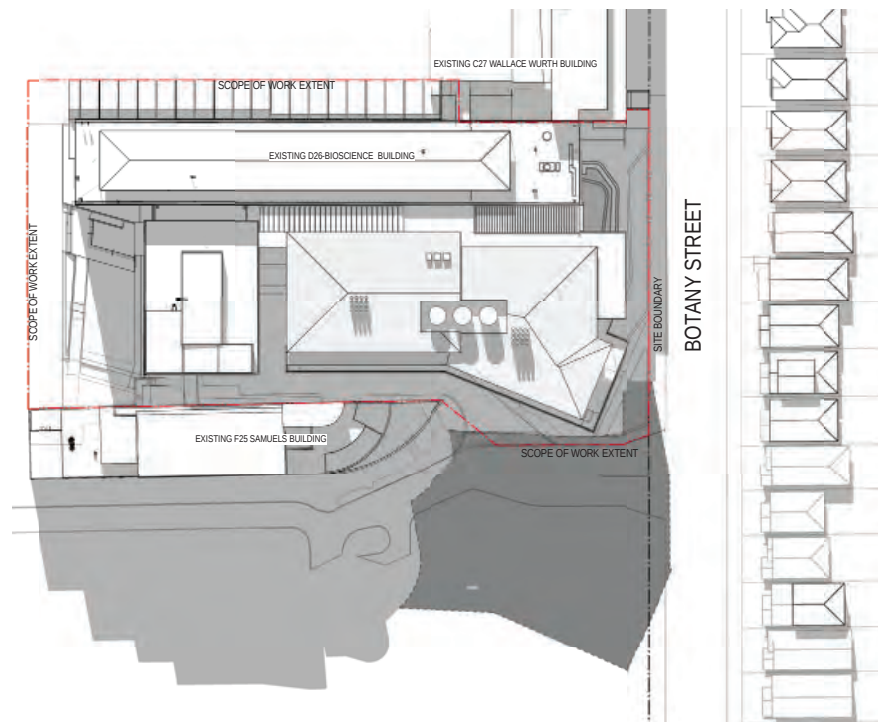
Design Statement: Overshadowing

Consideration of the surrounding amenity is informed the massing strategy, with an emphasis on balancing mass and height to reduce the impact of overshadowing of the proposed building to be less than a building of the same area within the compliant LEP heights.



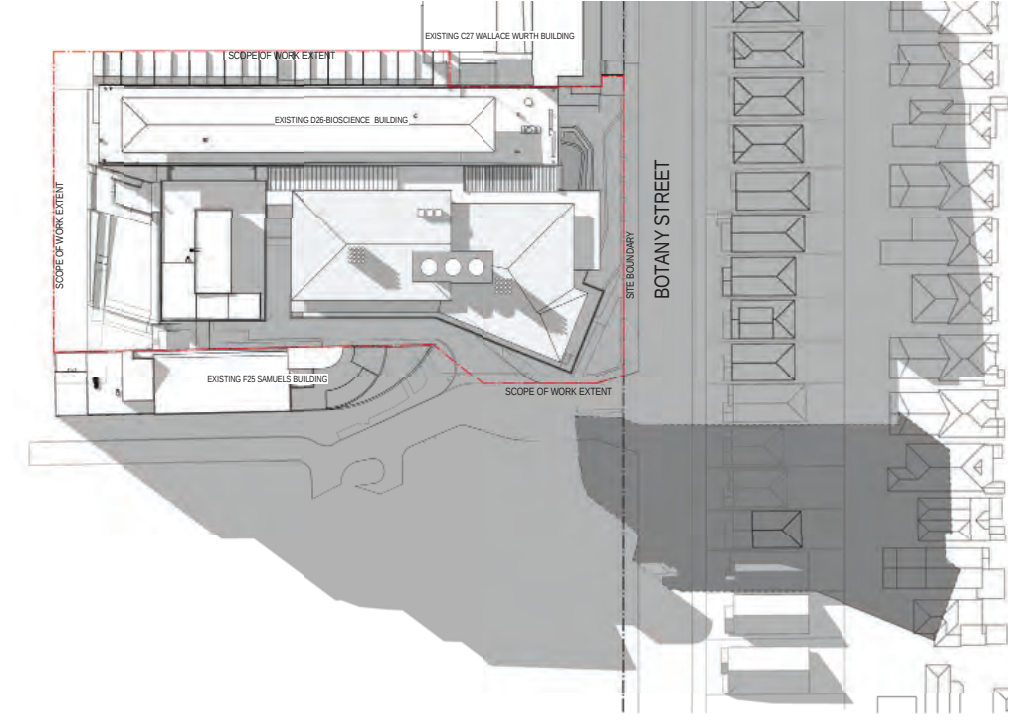
June 21st, 9am

The additional overshadowing of the proposed scheme (brown colour) does not extend as far south as the LEP compliant massings, and do not overshadow as much of the Gate 11 landscape.



June 21st, 12pm

The extent of shadow cast by the proposed scheme and LEP compliant massings are roughly comparable.



June 21st, 3pm

By 3pm, an LEP compliant building mass extends a shadow longer than the proposed building. The shadow edge is cast by the height of the building west of the 30m setback height control line.

This mass also casts a longer southern shadow, impacting on additional yards when compared to the proposed mass.



Design Statement: Building organisation

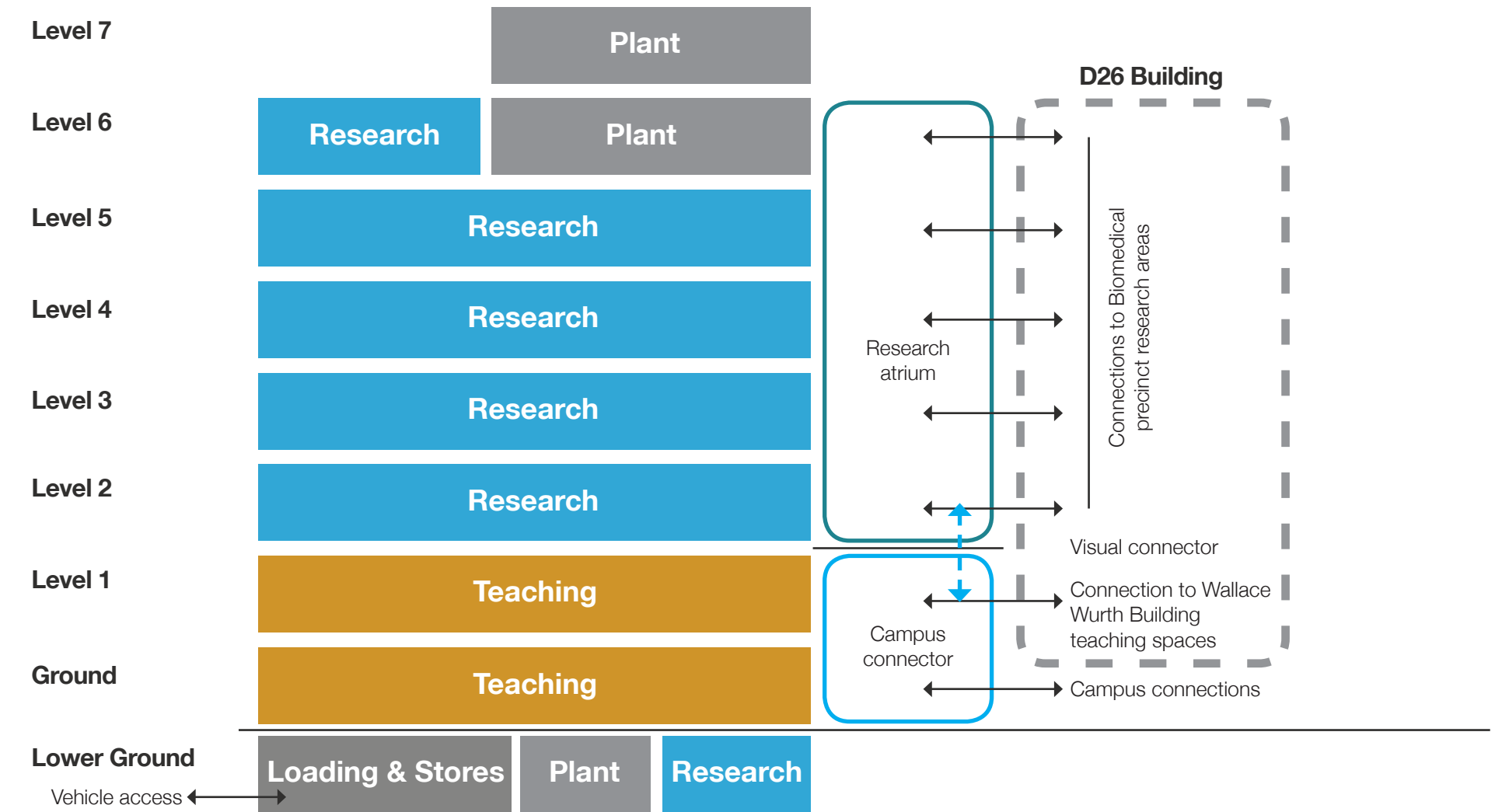
The new building is designed as a strata, continuing the uses established in Wallace Wurth Building, with Ground and level 1 dedicated to teaching and student spaces, with the upper levels as research floors.

This separation allows the security and servicing strategies already established in the precinct to be continued, improving the ability to move freely through the precinct within each strata.

The two vertical zones are linked to the existing buildings through voids. On the ground floor collecting all the student spaces is the 'Campus Connector', while the upper levels join onto the 'Research Atrium'.

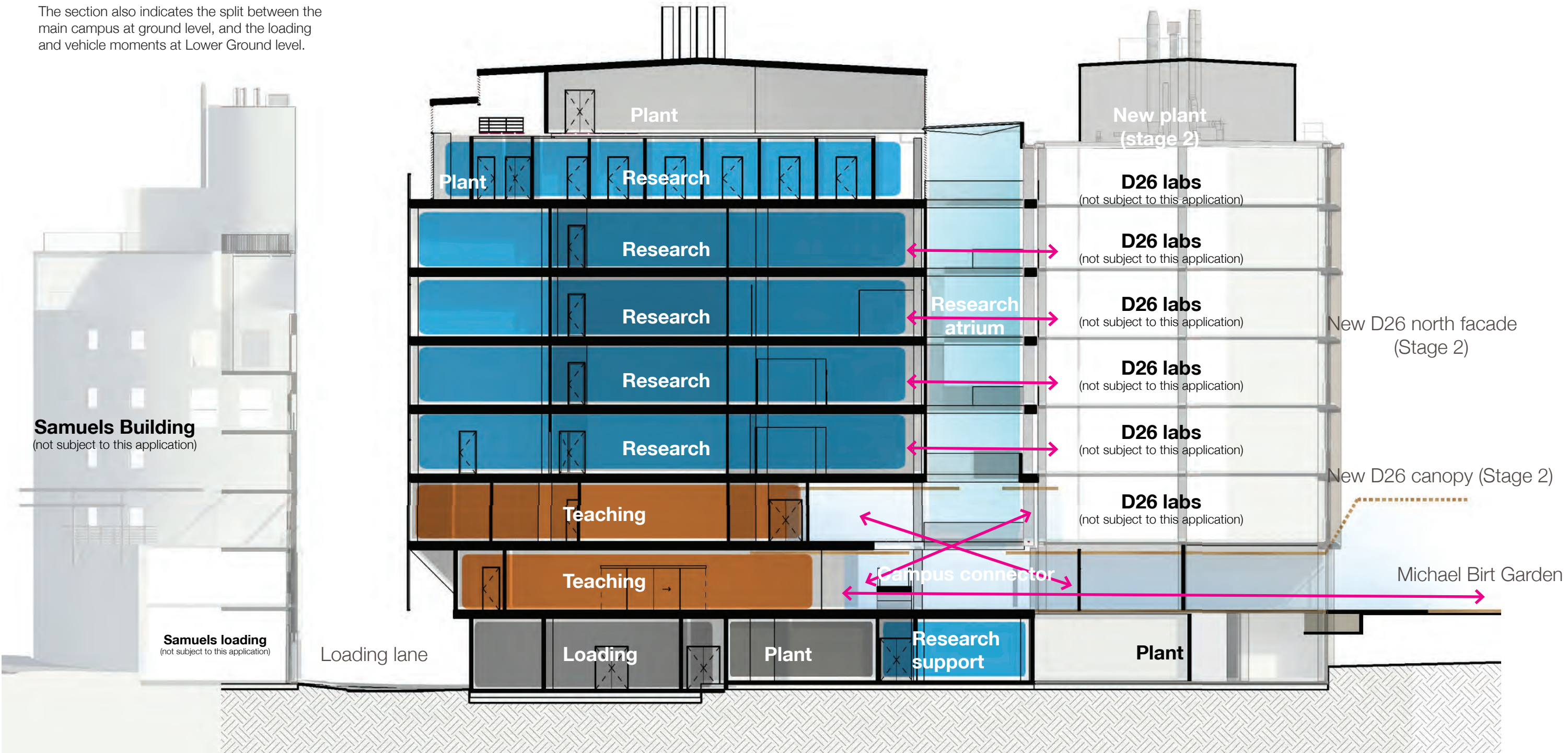
The two voids are joined by a visual connection, but treated separately to provide two distinct environments tailored to their particular uses. Previous experience has shown that spaces dominated by adjacent research tend to be quieter and are difficult to activate to the levels that a student realm requires. While on the other hand, research space is interrupted by the noise of student atriums, and control of security and laboratory environments is complicated.

Loading and stores is a busy and vital part of every research institution. To separate the main campus activity from heavy vehicle movements, these two programmes are separated vertically, allowing safety and security to be maintained.



Diagrammatic section of the new building, indicating the two main interconnecting voids and their relationship to the rest of the programme.

The section also indicates the split between the main campus at ground level, and the loading and vehicle moments at Lower Ground level.



Section Drawing illustrating building organisation and connections

A high performance envelope is vital to an energy efficient and well performing laboratory internal environment. These performance requirements need to be melded in a system with the ability to orchestrate the facade to build an identity for the precinct and manipulate scale in response to contextual drivers.

The most effective facade system to create an air-tight and thermally secure facade is a modular curtain wall. The curtain wall system provides the tolerances and precision of prefabrication, and allows simple site installation, minimising dirty and noisy site works and impact to surrounding public areas.

However, one potential downside of a standard curtain wall system is uniformity. With the range of interfaces and different contexts, this project needs a responsive envelope that adapts to the unique challenges each orientation brings.

Identity of the Biological Sciences building

The facade of the Biological Sciences building responds to the activities of the inside as well as the theme of those activities. There are 3 parts to the building and three distinct parts to the facade.

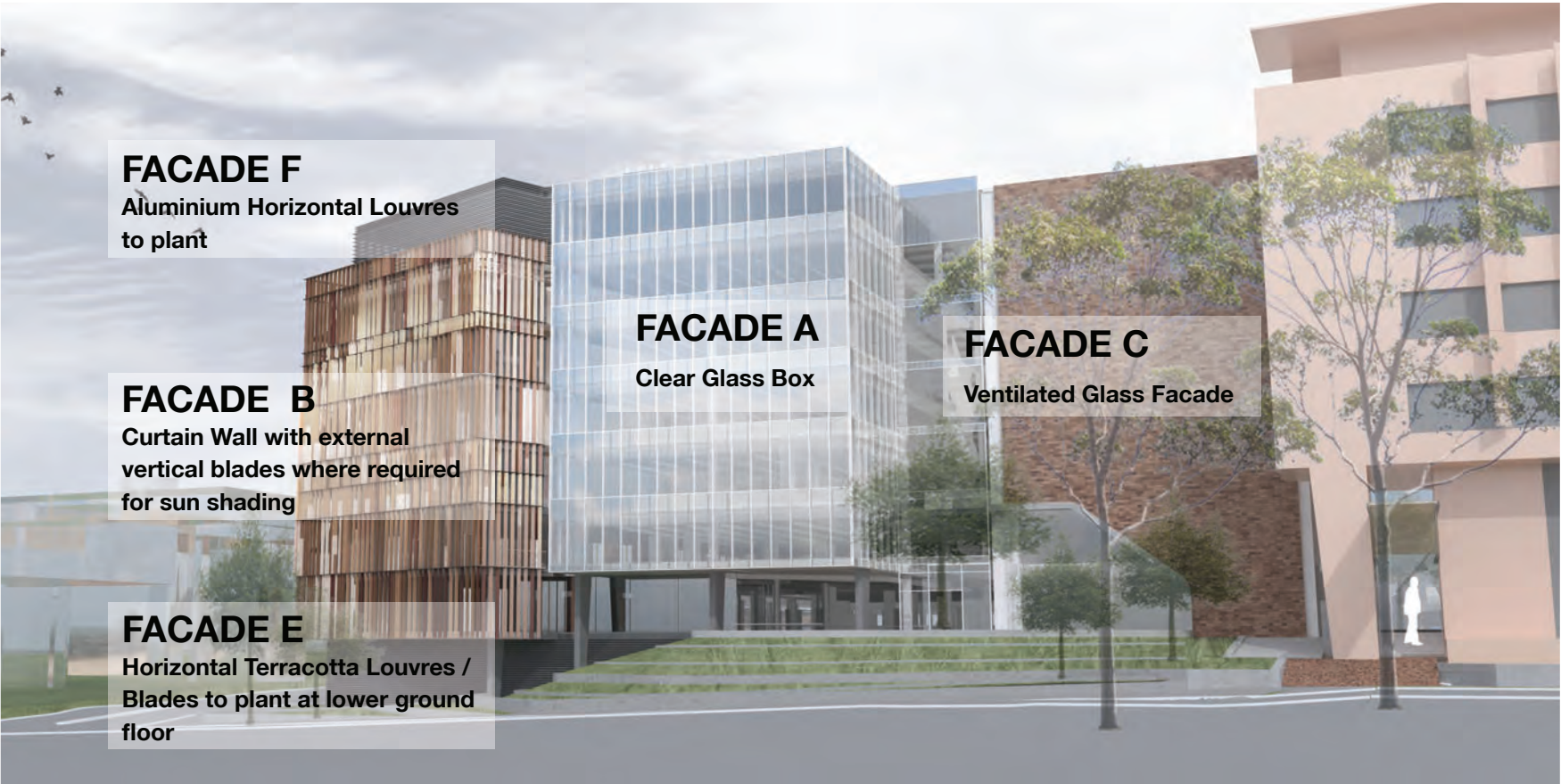
The laboratory 'box' is mostly solid in its facade skin and represents a protective layer such as a rock or an animal skin (Facade B). The themes here relating to the course work and research inside. The colour of these also relates to the colours in the Australian landscape and therefore also in the 'camouflage' skin of an animal.

The workplace 'box' doesn't require light sensitive spaces, and therefore is open with maximum clear glass panels. The write up space is not only maximising views out of the box but also maximising views and connectivity into the 'box' from Botany street (Facade A) .

The third element is a combining 'glue' or infill element which is a 'breathable' louvred facade. This is the facade between the new building and the stage 2 refurbished building D26 (Facade C).

The other facades (Facades E & F) are more recessive facades covering the plant and lower ground floor. These facades are different to help break down the scale of the elevation to Botany Street.

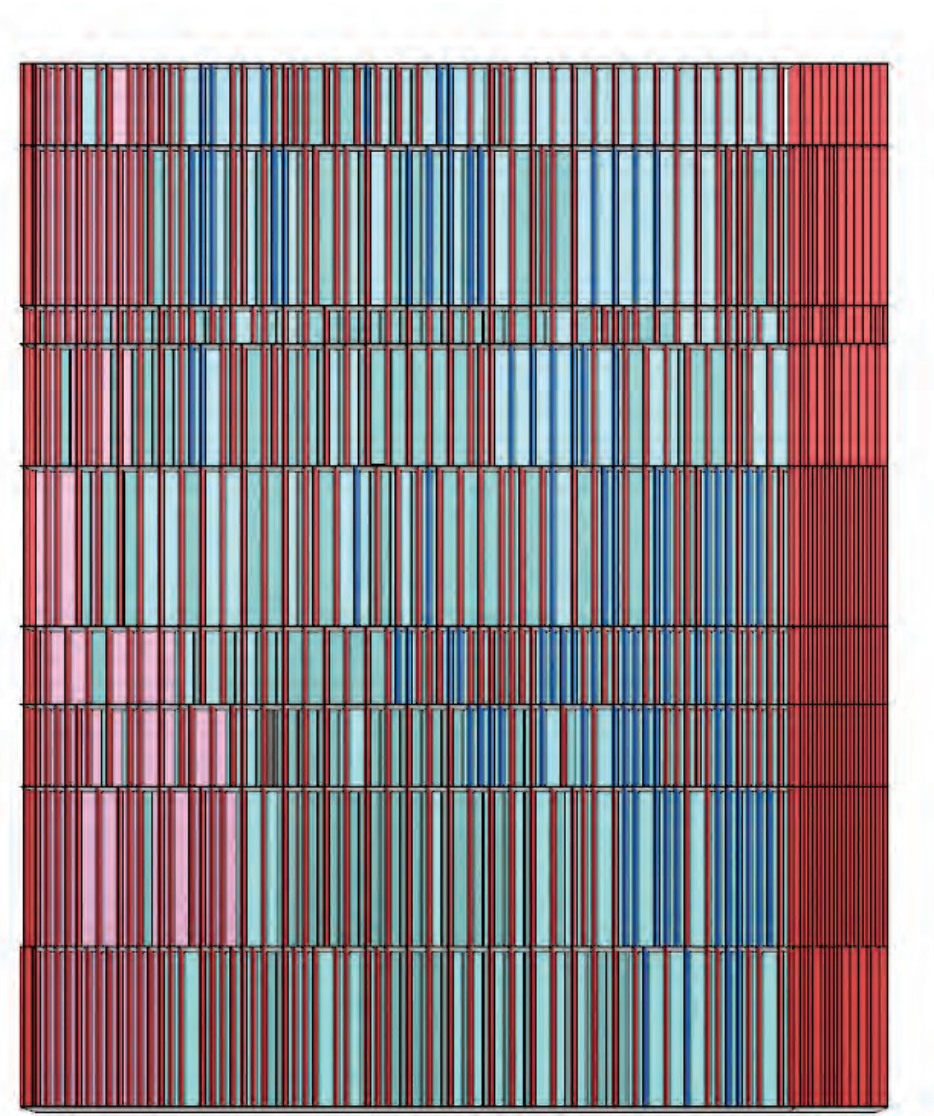
On the follwing pages concepts for Facade B are illustrated, showing the balance between glazing, solid panel and terracotta blades.



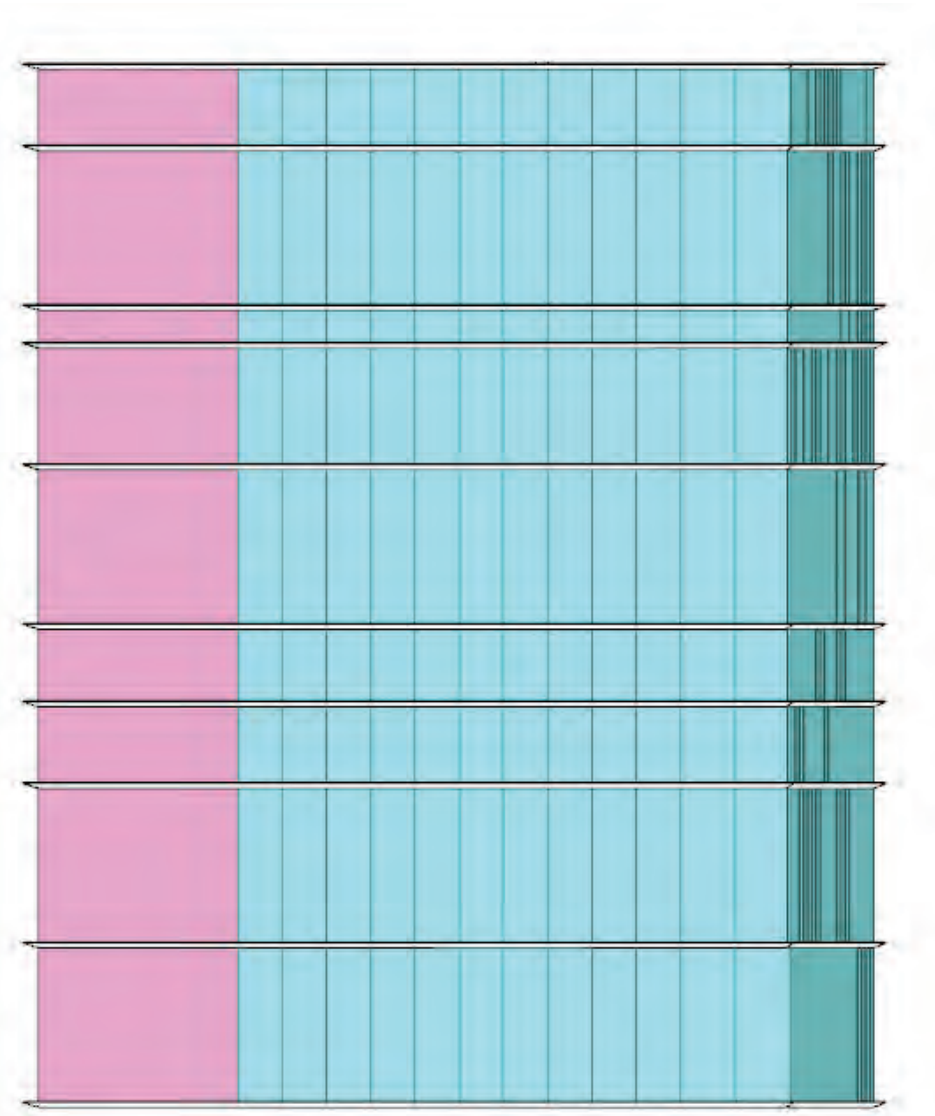
FACADE B

- > Vertical terracotta blades (colour variation)
- > Glazed curtain wall behind at 1100mm - vertical modules

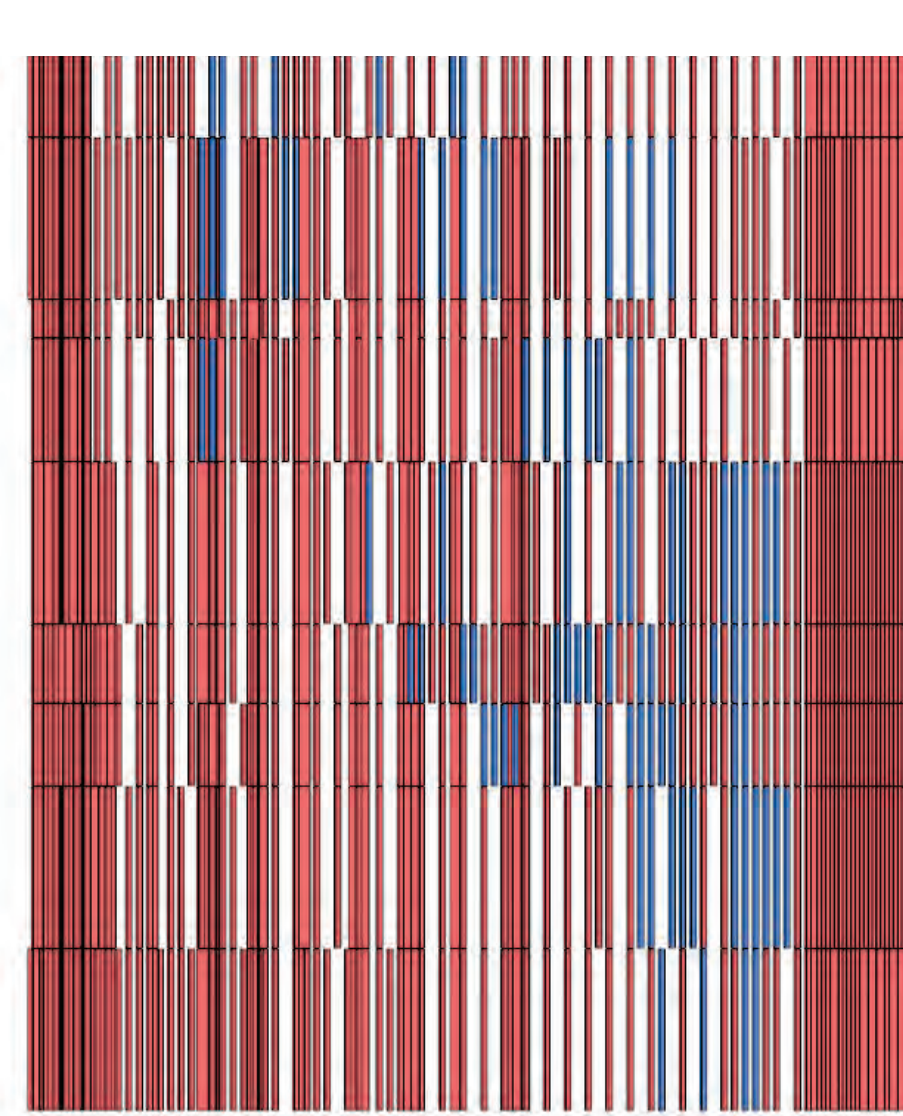
- External Blade 01 Solid
- External Blade 02 Solid
- Solid Panel
- Solid Panel
- Glazed Curtain Wall
- Curtain Wall to fire stair



Eastern Elevation - Glazing and blades



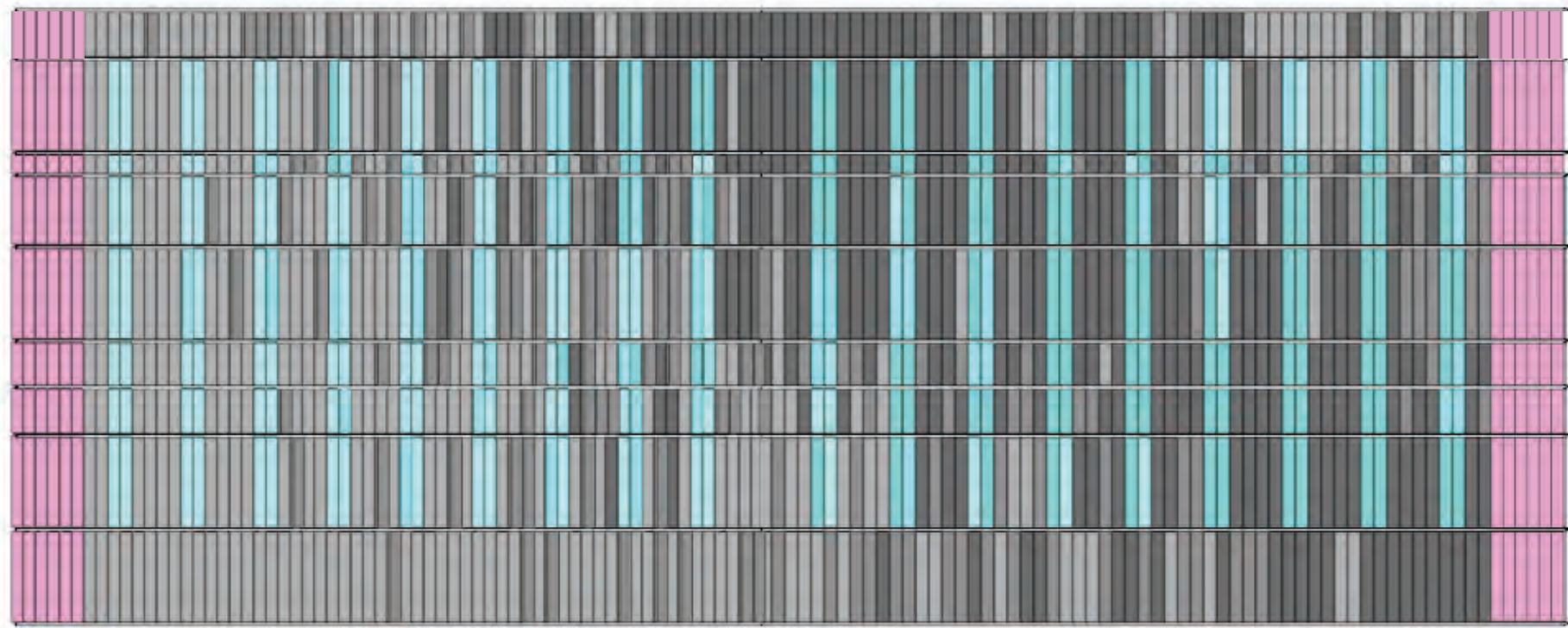
Eastern Elevation - Shown with no external blades



Eastern Elevation - Blades only

FACADE B South

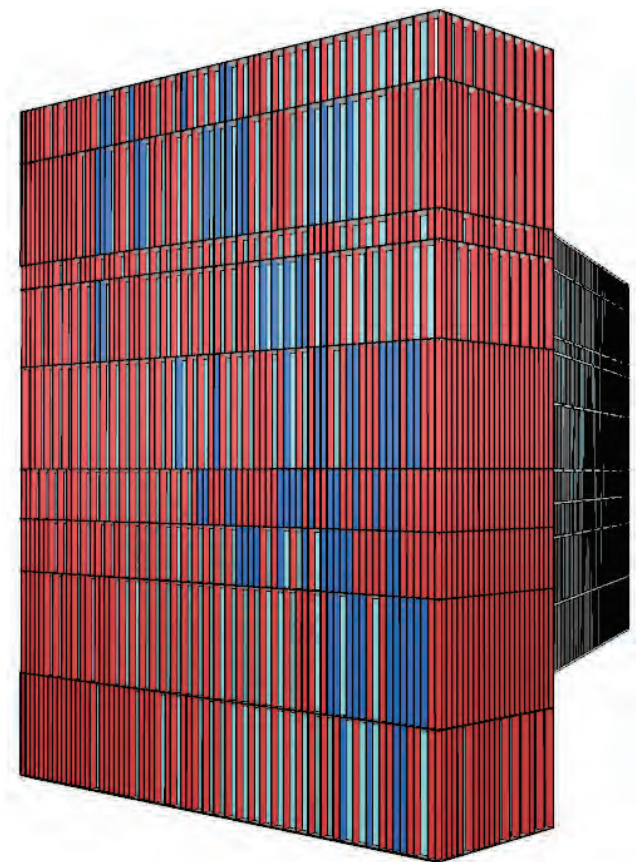
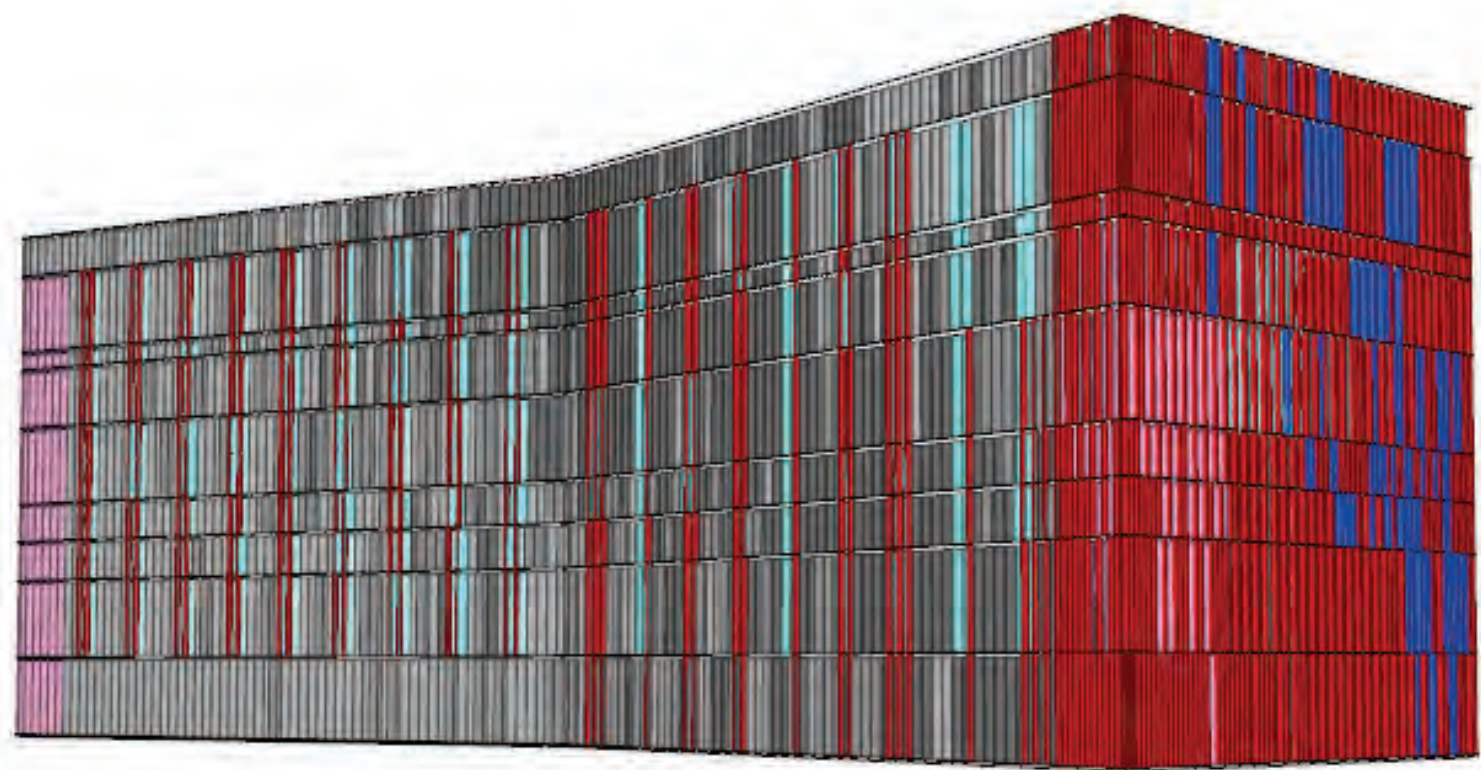
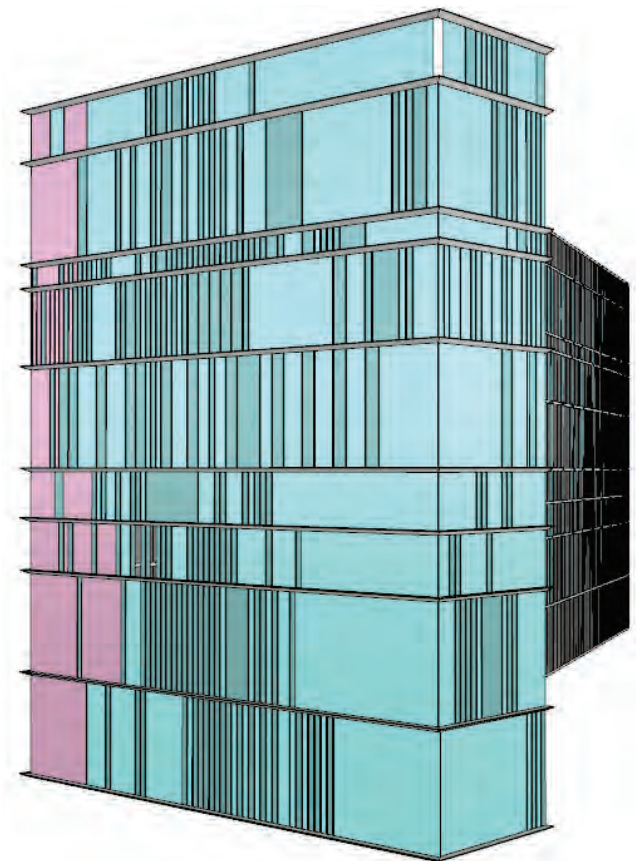
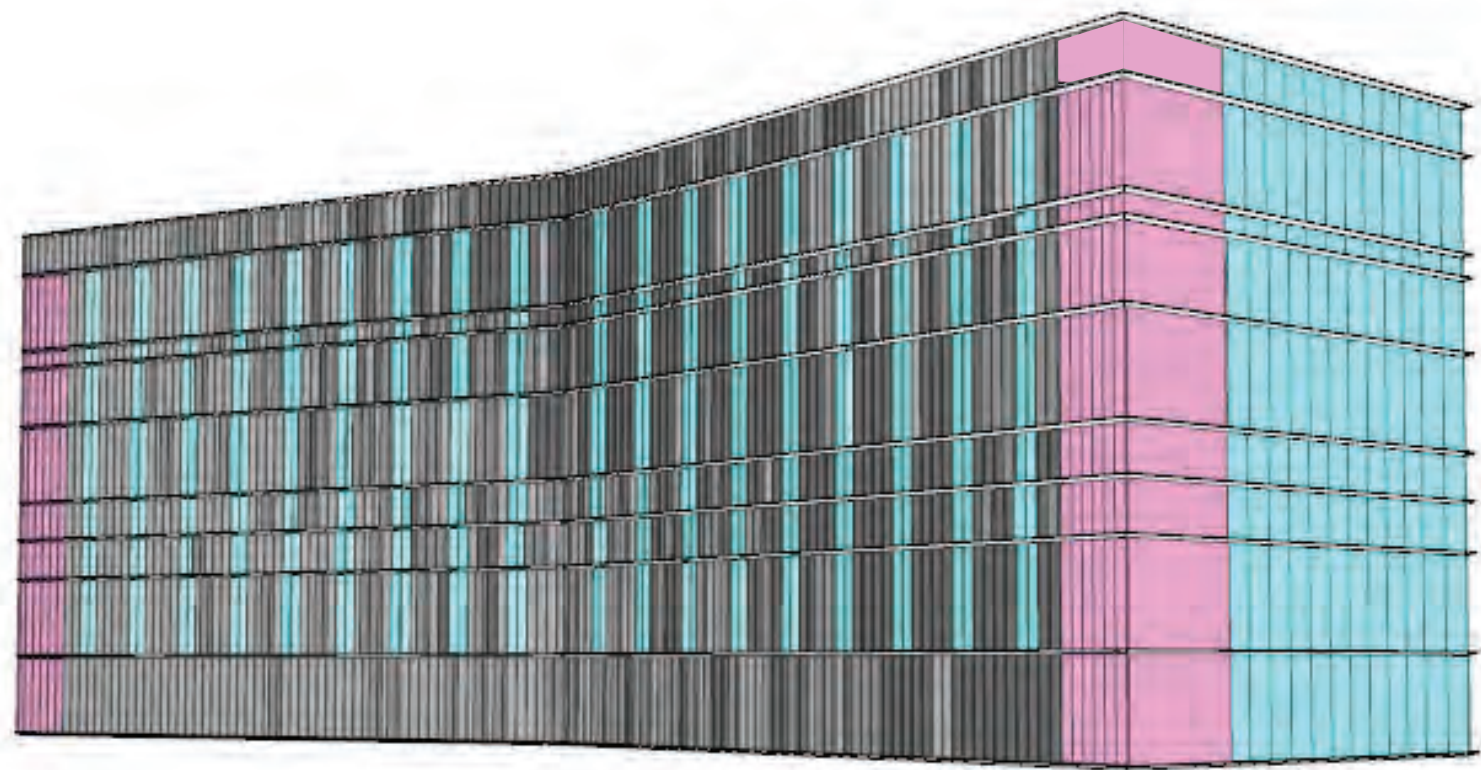
- > Solid Terracotta Flat Panel (colour variation)
550mm modules
- > Glazed elements
550mm - vertical modules
- > Vertical Terracotta sun shading to glazing
where required
50x250mm



Southern Elevation - Glazing and terracotta flat panel

- External Blade 01 Solid
- External Blade 02 Solid
- Solid Panel
- Solid Panel
- Glazed Curtain Wall
- Curtain Wall to stair

FACADE B - 3D Views



- External Blade 01 Solid
- External Blade 02 Solid
- Solid Panel
- Solid Panel
- Glazed Curtain Wall
- Glazed Curtain Wall to fire stair



View from Gate 11

Design Statement: Facade design principles - D26 North

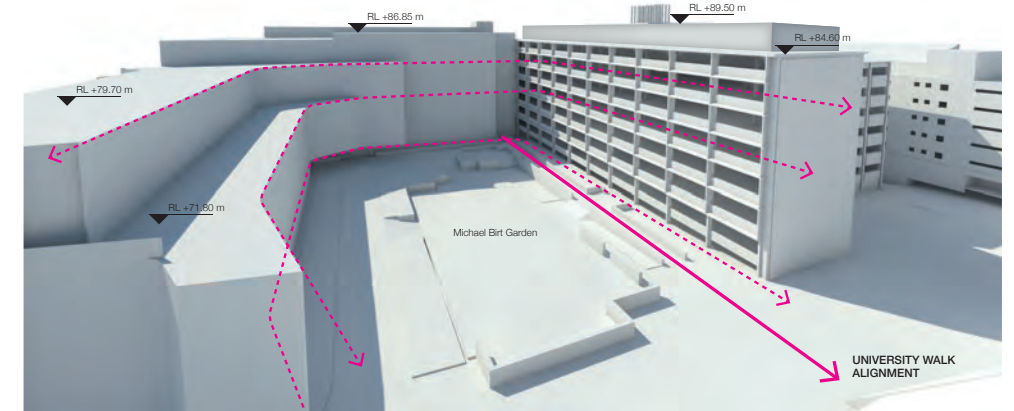
Continuing the Lowy facade system and responding to its datum lines creates a consistency to the perimeter wall of the Michael Birt Garden, and creates an informal analogy of the more traditional campus quadrangle.

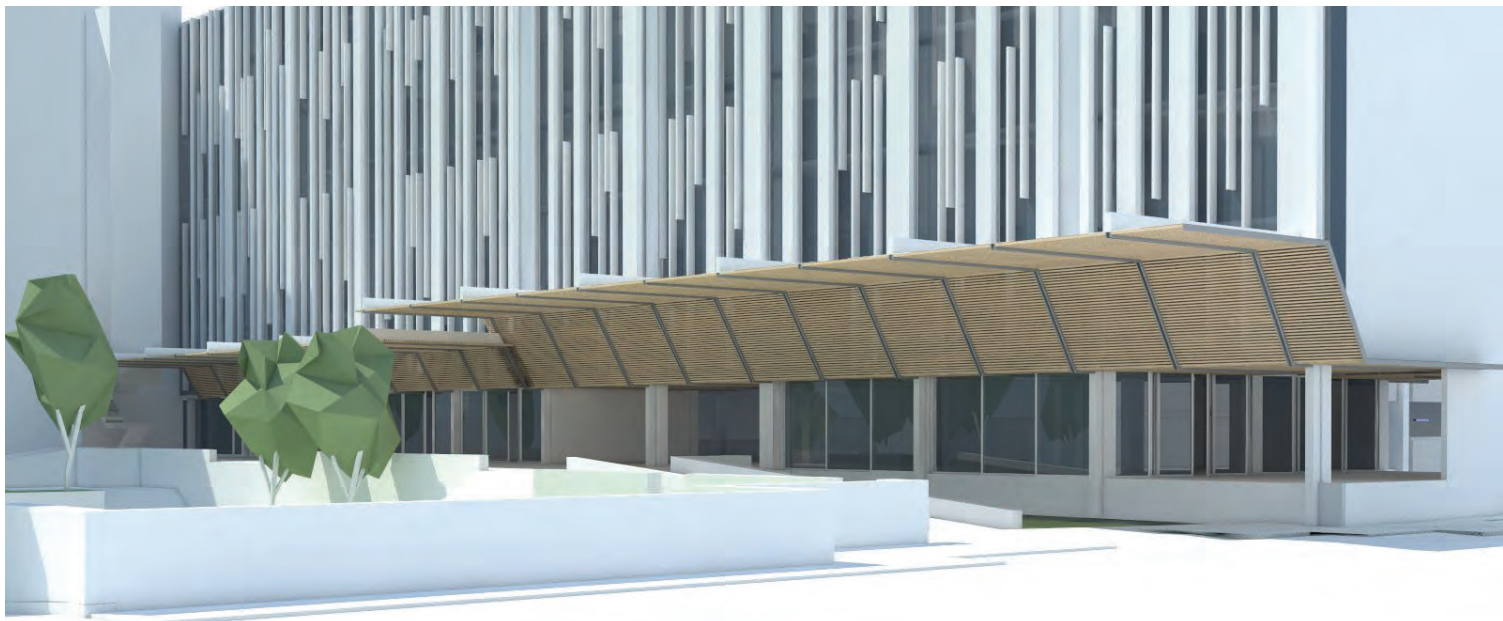
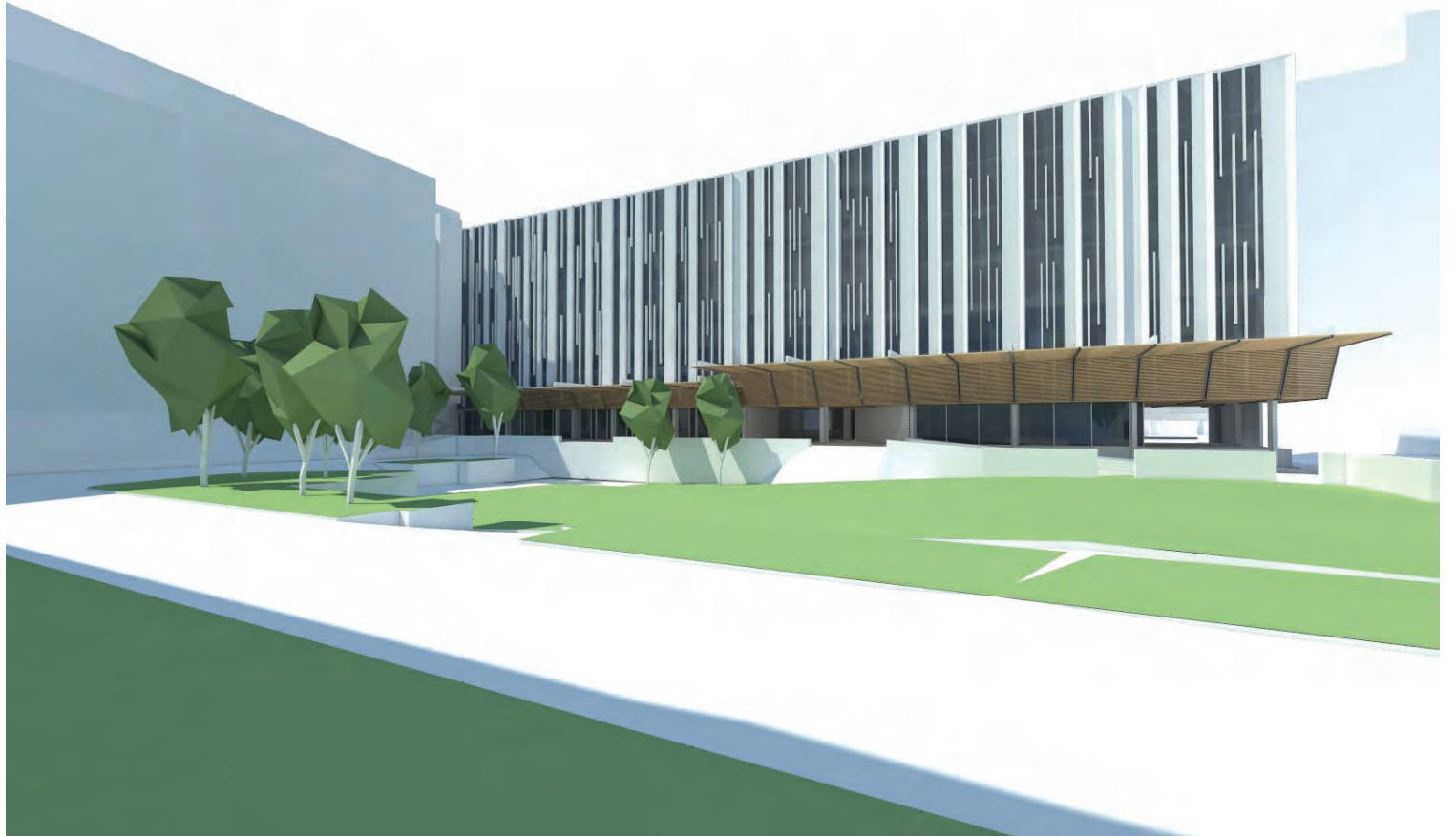
The re-cladding of this facade requires a lightweight system to minimise impact on the existing structure. Over-cladding similar to the Wallace Wurth building is proposed.

Although large articulations (similar to Lowy Cancer Research) cannot be achieved in the existing fabric of D26, the patterning of the facade can respond to the massing established by the Lowy Cancer Research Centre to the north.

A generous verandah space is created along the north edge to support the addition of retail programme and access to the precinct. The veranda roof is created by peeling up the facade panel pattern structure, and layering it with an extension of the treatment to the Campus Connector soffit to create a layered shading.

The verandah is a double height space, marking the teaching level and research separation vertically in the new building. The roof is split in its length to help emphasize the main route through the Campus Connector from the north.





Views of the D26 north facade and verandah space across Michael Birt Garden.