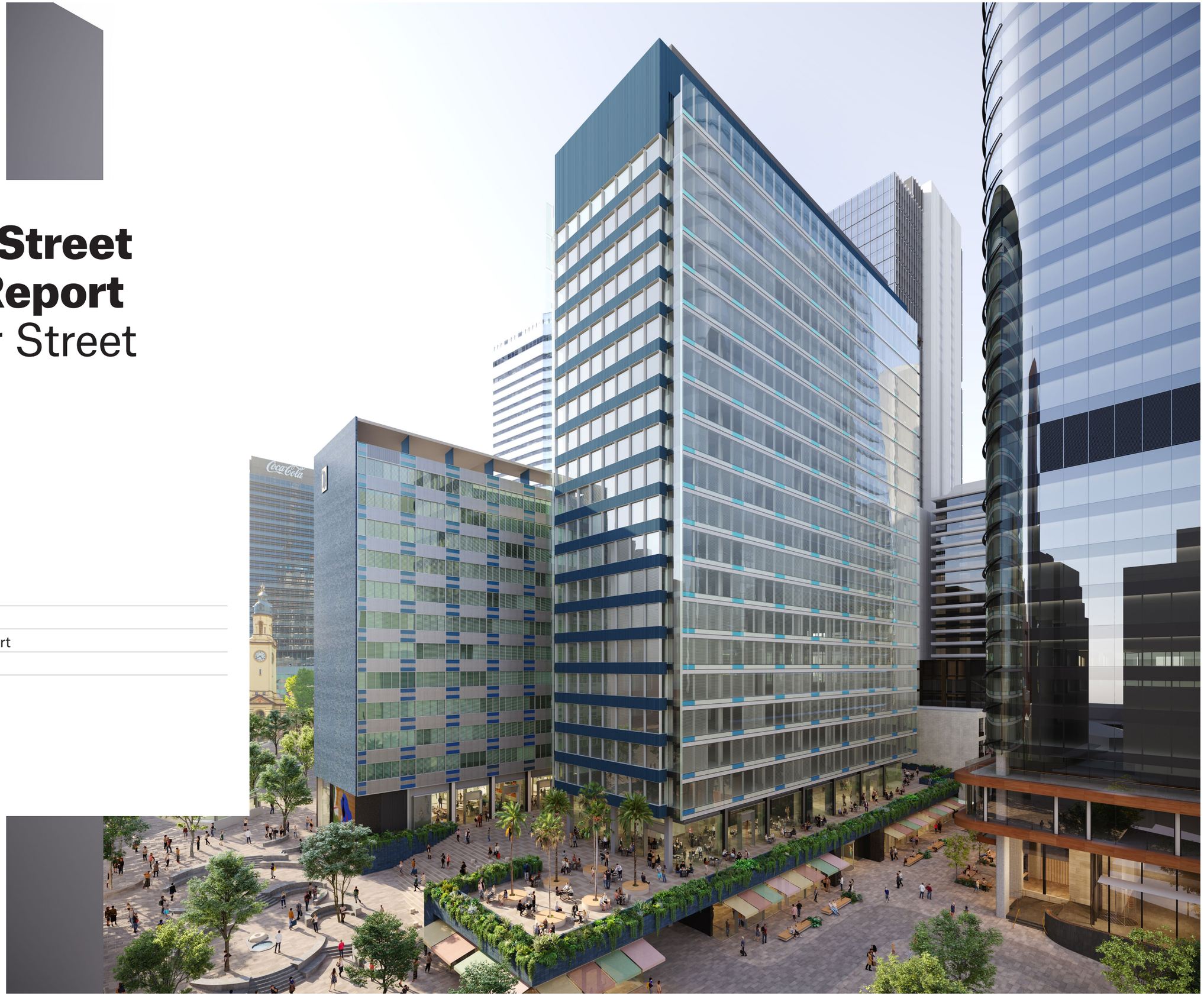
Denison Street Façade Report
105 Miller Street



Investa

Denison Street Façade Report

November 2025

BATESSMART™

Acknowledgement of Country

We acknowledge the Gadi People of the Eora Nation, the Traditional Custodians of Country where our Sydney studio stands. We pay our respects to their Elders past and present.

Understanding 1950's Modernism

The Promise of Modernity

We began by immersing ourselves in the period of 1950's modernism. This was a period of high optimism following the end of WWII; but also a period of scarcity with lack of materials. The population of Australia and the world was undergoing a rapid expansion with the Post WWII baby boom. Companies were restructuring from traditional management to a corporate military like structure.

The 'high priests' of 20th century modernism, including Oscar Neimeyer, Mies van der Rohe, Le Corbusier and Brazilian landscape architect Roberto Burle Marx, reputations were established prior to the war and were in their late career.

New talents were also emerging, including Charles and Ray Eames in the USA. In Australia Sir Osborne McCutcheon had established himself as a leading architect prior to the war, and following a period in the Army Corps had rebuilt Bates Smart and McCutcheon as a blend of military efficiency and corporate America based on integrated architecture and engineering firms such as Skidmore Owings and Merril.

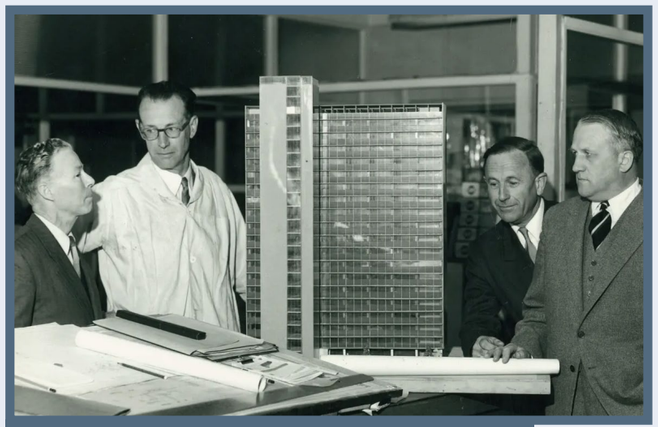
The outcome of this mix of population growth, restructuring, late modernity, and material scarcity was a period of high design and experimentation as new corporate building types were developed. While most were smaller scale skyscrapers, MLC Headquarters in North Sydney was a groundscraper, distinguishing itself from typical development at the time.

Oscar Niemeyer, Metropolitan Cathedral, Brasilia

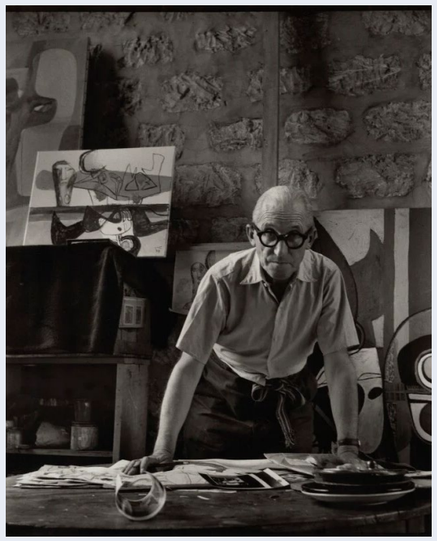
Ludwig Mies van der Rohe and Philip Cortelyou Johnson, Smithsonian Institution

Charles & Ray Eames

Roberto Burle Marx



Architect Sir Osborn McCutcheon, second from right, with a model of ICI House



Le Corbusier, National Portrait Gallery, London

Forefront of Material Engineering

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"The clearest expression of the striving for light-weight mass-production and prefabrication can be seen in the top to bottom uniformity of the curtain walls, which consist of glass and aluminium components arranged in a rectangular geometric pattern repeating over all the facades."

-

J.M.Freeland. Architecture in Australia, 1968, p299

Forefront of Material Engineering

The Post WWII high-rise is associated with the invention of the glazed curtain wall and mechanical air conditioning.

These sealed glazed facades 'wrapped' buildings in a seemingly light-weight 'curtain' of glass; with a repetitious, modular design devoid of depth or decoration. Elegance was created through obsessive detailing and focus on a single repeated element. For instance Mies van der Rohes Chicago Federal Centre with its expressed steel 'I' beam mullions, or SOM's Lever House with its 'squeaky-clean' glazing and repeated glass spandrels.

At MLC Headquarters the design team broke up a horizontal spandrel of ribbed aluminium panels the newly available material of colour-backed glass that identifies the building's structural rhythm.

Ludwig Mies van der Rohe, Chicago Federal Center, Chicago, 1974

Gordon Bunshaft, Manufacturers Trust Company Building, New York, 1954

Oscar Niemeyer, Altonaer Straße 4–14, Berlin, 1957

Skidmore, Owings & Merrill, Lever House, New York, 1952

Bates Smart & McCutcheon, ICI House Melbourne, 1958

Clarity & Rigour of Design

-

“The whole building is planned around a module. Every floor is drawn up on a module grid, and offices can be varied in size by simply moving the easily detachable partitioning, A tenant would have so many modules. We give him a grid drawing of his space and he tells us how to divide it up for him and we put the partitions into place.”

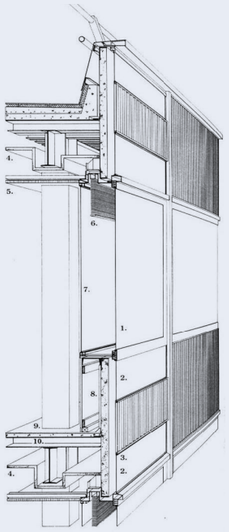
-

Project Architect, Mr A. B. McCallum' - January 1957

Clarity & Rigour of Design

The 1950's Post WWII high-rise was characterised by absolute clarity and rigour of design.

The most obvious expression of which was the modular planning, from façade to ceiling to structure and interior. This led to an elegance and simplicity of expression.

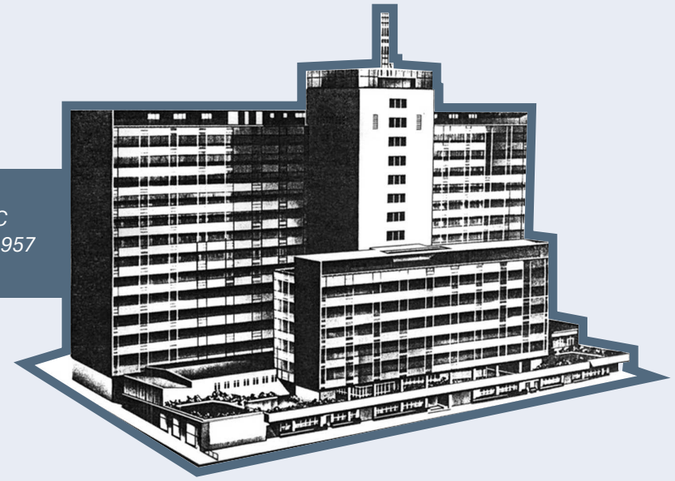


Bates Smart & McCutcheon, MLC
Building Facade Detail, 1957

Bates Smart & McCutcheon, MLC
Building Construction Progress

Bates Smart & McCutcheon, MLC
Building Construction Progress

Bates Smart & McCutcheon, MLC
Building Facade Composition



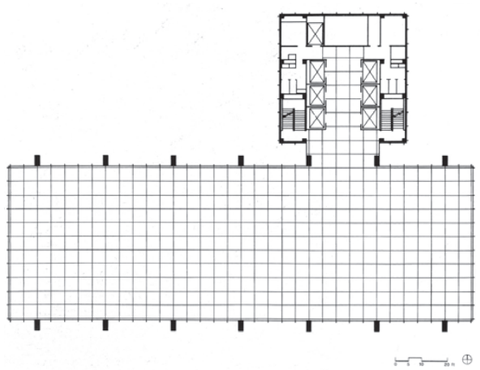
Bates Smart &
McCutcheon, MLC
Building Sketch, 1957

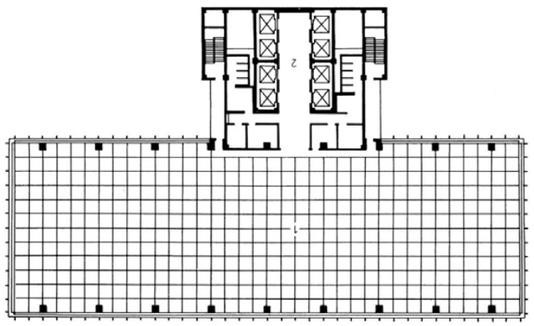
The Post WWII High-Rise

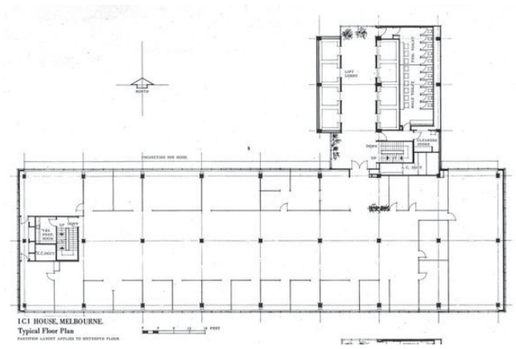
The Post WWII corporate skyscraper was a new typology in what was emerging as the Central Business District (CBD) of most cities.

These buildings were modest in scale both in plan and height to todays buildings. They shared an absolute clarity of design intent guided by the modernist principles of form-follows-function. Cores were often expressed, structure was regular, repetitious, and sometimes expressed.

Buildings were stripped to their essentials guided by direct functional requirements - nothing was superfluous, aesthetic or added.







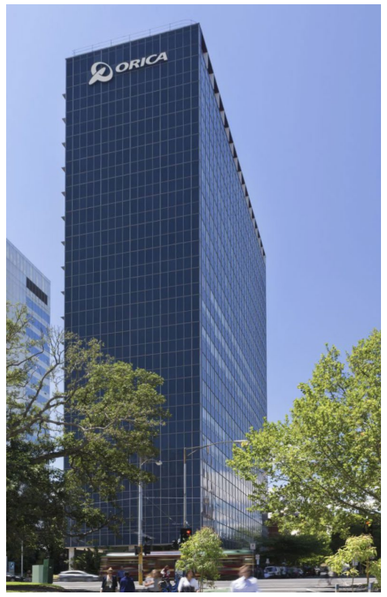
INLAND STEEL, CHICAGO, 1957 - SOM (Bruce Graham & Walter Netcsch)

INLAND STEEL / UPGRADE - SOM, 2018

CROWN ZELLERBACH, SAN FRANCISCO, 1959 - SOM

CROWN ZELLERBACH / RETROFIT UPGRADE - SOM, 1990

ICI HOUSE, MELBOURNE, 1958 - Bates Smart & McCutcheon



ICI HOUSE - Bates Smart

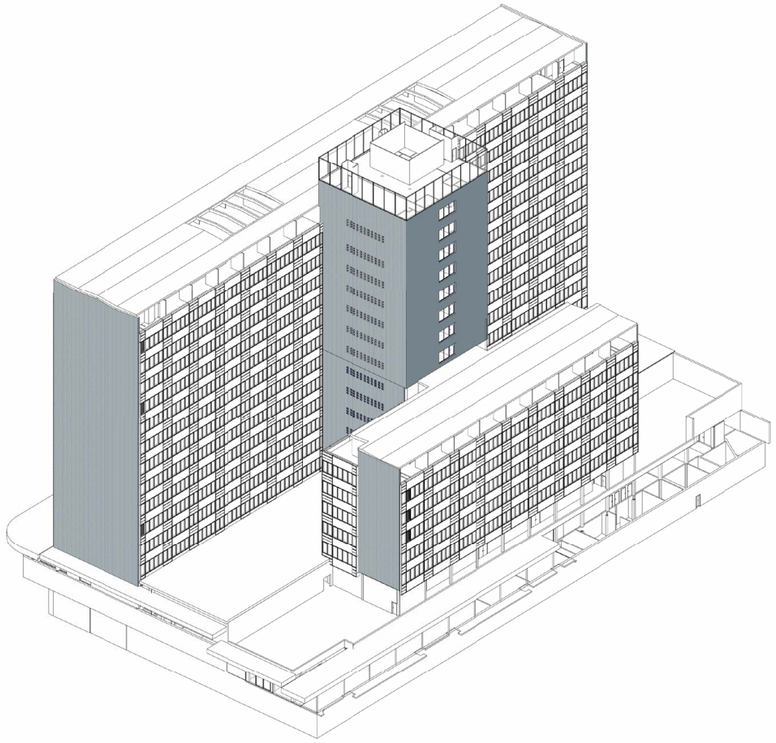
Understanding the Original Denison St Wing

Denison St Wing

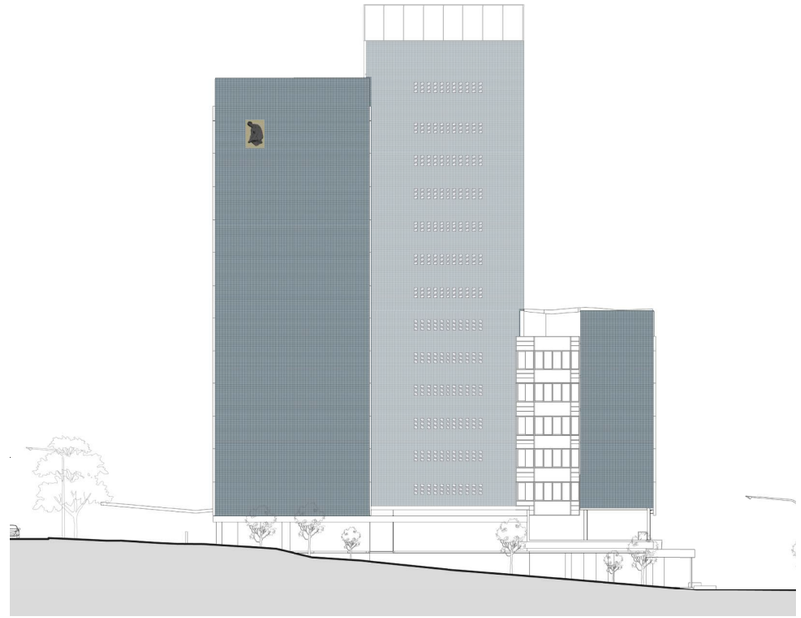
It's important that prior to proposing how to add a new Denison Street wing we need to understand the original Denison Street wing.

The original Denison St wing, located on the rear service laneway, was both half the length and half the height of the Miller St wing. It was thus subservient in every way. In fact it is not uncommon for the public to only associate the Miler St wing as the MLC Building and not be aware of the smaller rear wing.

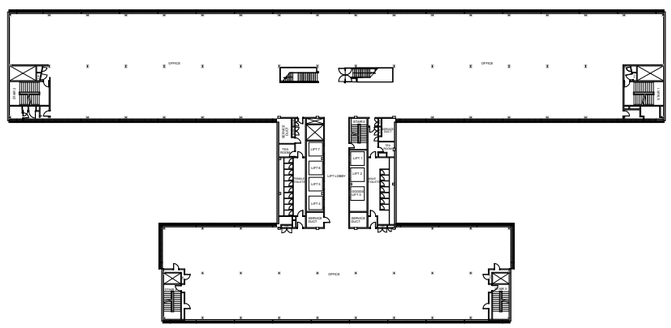
Secondly, while its east/west facades match the Miller St wing, its north/south facades differ. At a simplistic aesthetic level the Denison St wings solid facades are half the width of the building, compared to the Miller St wings full width solid façade; but beneath this expression is a clear functional rationale. The ends of the Miller St wing incorporate cross bracing for lateral stability; which the Denison St wing does not. Thus each wings façade is a direct expression of its function; which is true to its modernist design philosophy.



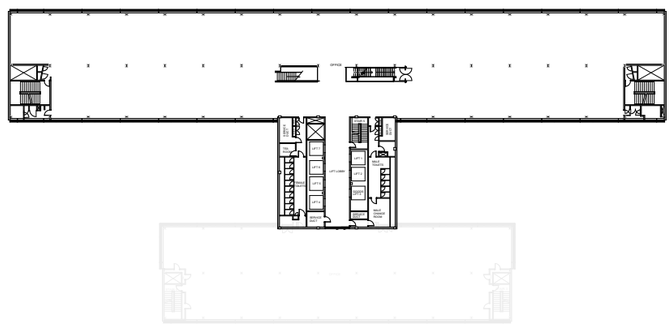
DENISON WING ST AXONOMETRIC



DENISON WING SOUTH ELEVATION



TYPICAL LOWER PLAN



TYPICAL UPPER PLAN

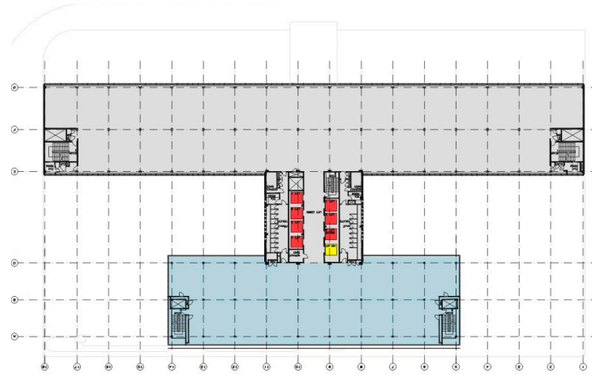
Development Application 2002-04

In 2002 a DA was lodged to add six storeys to the Denison St wing.

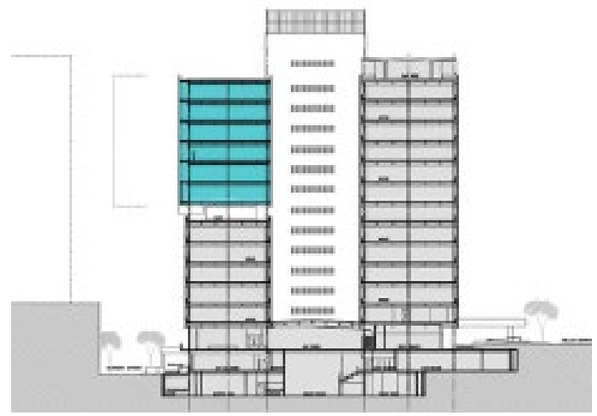
The design response was to creatively interpret the original; thus, the escape stairs and services were flipped to signal the new addition, and the materiality changed from terracotta to ribbed aluminium, expressing the lightweight addition.

The glazed façade was reinterpreted as floor to ceiling glass in a ventilated cavity, utilising the latest technology for glazed facades in 2002 aligned with the original designs innovative use of glazed technology in 1958. It was thus philosophically aligned with the modernist approach of the original; while being aesthetically an interpretation, rather than mimicking the original. The approach was endorsed by Heritage NSW.

2002 DA APPLICATION



2002 DA APPLICATION PROPOSED TYPICAL PLAN (L07-12)



2002 DA APPLICATION PROPOSED CROSS SECTION

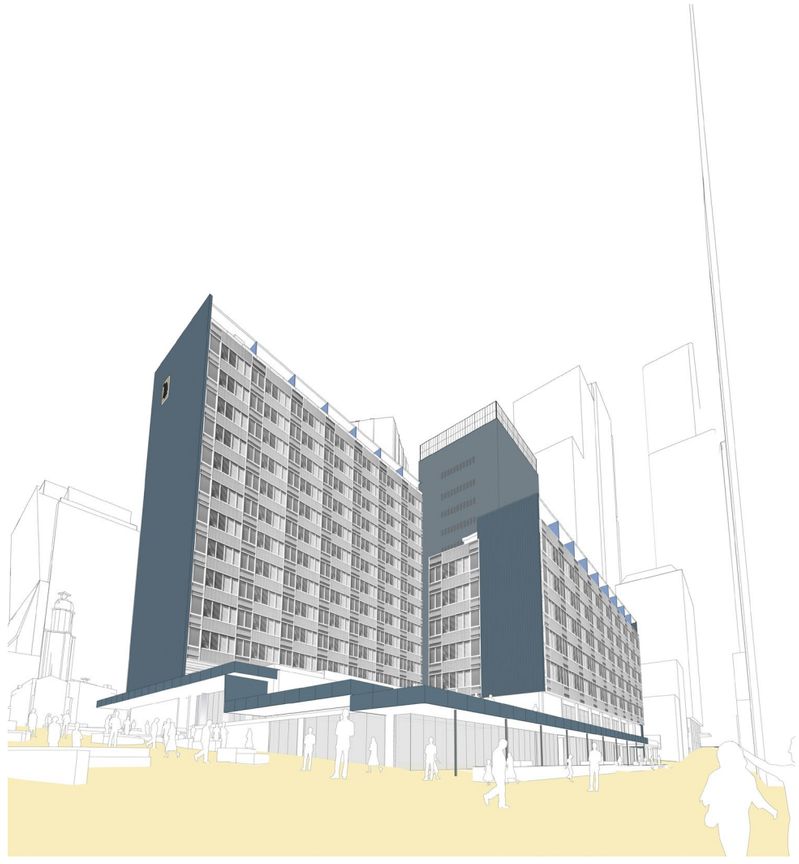
Proposed Approach to an Addition

Conceptual Approach

Many options were explored on how to express an addition to the Denison St wing; and originally they were focussed on maintaining the original wing as in the 2002 DA and adding to it ontop.

However a combination of a new core being required as the new addition exceeded the height of the Miller St wing, and new structure being required meant that the original needed to be demolished, and if expressed would be a facsimile only.

This led to an approach that was endorsed by Heritage NSW of expressing the new wing as an honest addition to the original - an approach that is sympathetic to modernism's functional expression and honesty.



Existing Massing

The existing massing demonstrates the hierarchical relationship between the Miller St Wing as dominant, and the Denison St Wing as secondary. The Conservation Management Plan principle is to maintain this hierarchy.

CMP Extension Massing

The CMP allows for an extension to the Denison St wing, with the dual principles that 1. The floorplate should align with the existing floorplate and 2. that the height should not be visible from Miller St. The resulting massing shows a contemporary extension ontop of the Denison St wing, however the Denison St Wing would necessitate being reconstructed to enable the proposed addition. A further complication is that the floorplate at 733sqm NLA is too small for a contemporary commercial office; particularly when it rises above the Miller St wing and is thus a stand alone floorplate

Conceptual Approach

CMP Extension with Enlarged Floorplate

To address the floorplate area issue an enlarged floorplate is proposed. This floorplate extends approximately 3m (half a structural bay) north and south of the existing Denison St wing, and inwards towards the Miller St Wing. The revised floorplate is commercially viable, and maintains the visual primacy of the Miller St wing, however the relationship with the smaller Denison St wing is highly challenging in terms of architectural composition and relationship to heritage.

Proposed New Vertical Tower

To reconcile the heritage relationship and the required commercial floorplate the larger floorplate is proposed as a new tower on Denison St. The revised proposal shows a new vertically proportioned tower on Denison St contrasting with the horizontal proportions of the Miller St wing. The dominance of the Miller St wing remains and is visually the primary form. The proportions of the new Denison Street wing reflect the proportions of 1950's towers such as ICI House in Melbourne (Bates Smart McCutcheon) or Level House New York (Skidmore Owings and Merrill); thus creating a sympathetic 1950's proportion to the new wing.

Conceptual Approach

A conceptual image was put together to explain the approach in which Bates Smart McCutcheon's ICI House was photo montaged onto the Denison Street wing.

Thus the new was seen as the cross-breeding of MLC's groundscraper and ICI's skyscraper.

Proportions

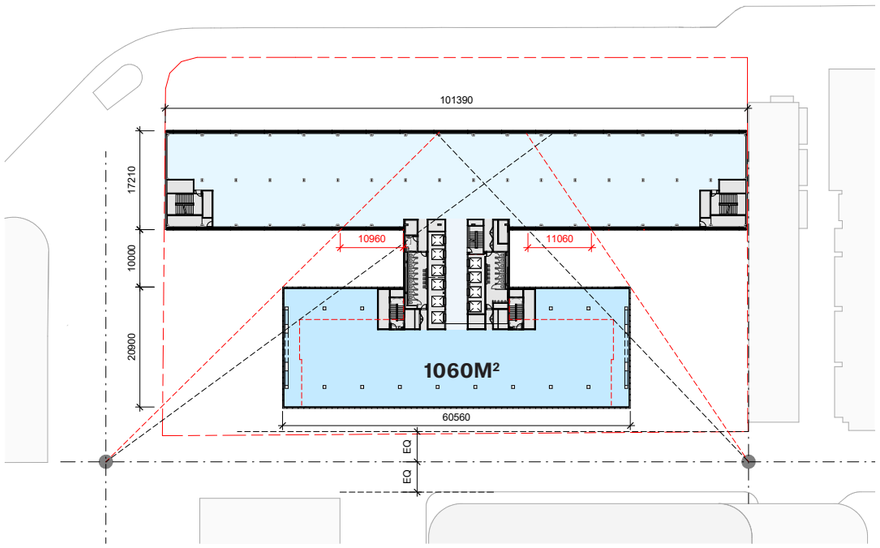
The new wing was significantly larger than the original Denison Street wing to attain the commercial requirements of a 1,000sqm NLA stand-alone floorplate.

This led to significant concern that the proportions of the new addition could overwhelm the Miller St wing, which had always been dominant. Many floorplate and view studies were conducted to achieve the right balance between the two wings

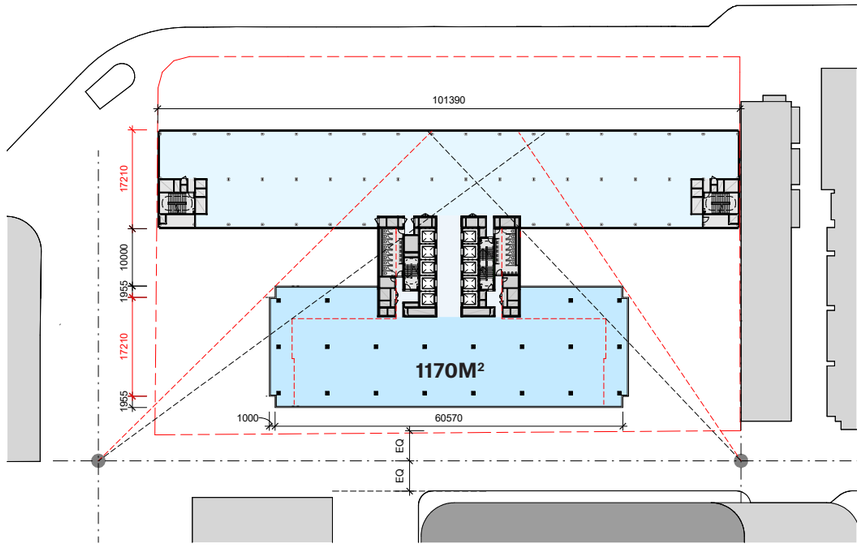
Using significant view points such as centre points of street intersections the new proportions were massaged to maintain dominant views to the Miller Street wing.

This however led to a wider and longer building than the original. This became particularly concerning having a new taller and wider building wing trying to be subservient. The decision was made to maintain the width of the Miller St wing on the new addition, which of course references the width of the original Denison St wing.

This refinement not only bought the two volumes into a conversation but also created the proportions of a 1950's skyscraper.



PREVIOUS DESIGN



CURRENT DESIGN

Proportions
Denison St Wing Width

WITHOUT BIRDSMOUTH

PROPOSED WITH BIRDSMOUTH

Precedents

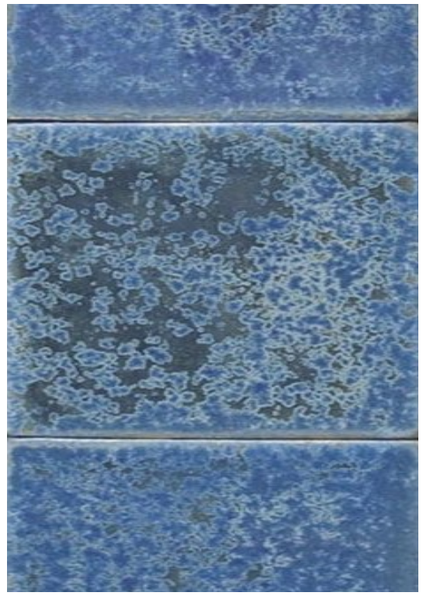
Rather than mimic the 1950's details we are creating a contemporary interpretation that is aligned with a modernist philosophy of honesty and functional expression.

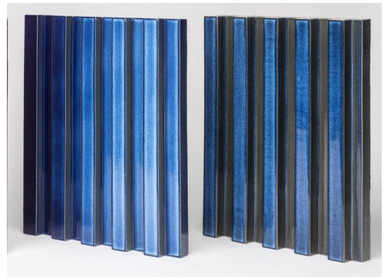
Materials

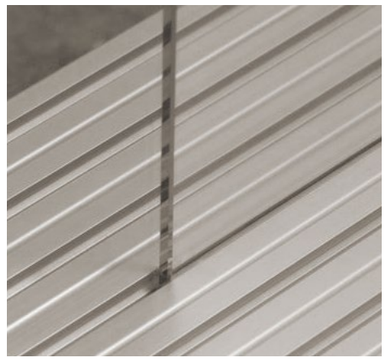
The materials proposed are a contemporary interpretation of the original building materials, not a replication of the original.

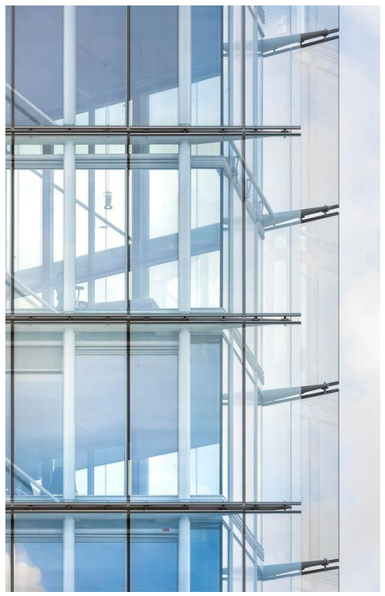
Glazed terracotta is proposed, matching the original in colour. However, whereas the original was expressed as modular ‘tiles’ with horizontal proportions, the new terracotta is vertically ‘ribbed’ which subtly references the vertical ribbing of the original aluminium façade; while also concealing all joints and thus creating a monolithic appearance. The effect is of a clearly new interpretation of the original.

The glazing is proposed to be a Low Iron glass with a Low E coating, giving it a crystalline appearance that is devoid of colouration. The transparency is to replicate the original buildings outer glass which was a transparent single glazing and provided a radical transparency. The glass ‘floats’ free at the edges expressing its materiality and lightness in a detail that is only possible with todays technology. This is a contemporary interpretation of the originals light-weight taut glass façade, that was the cutting edge of material technology in the 1950’s.

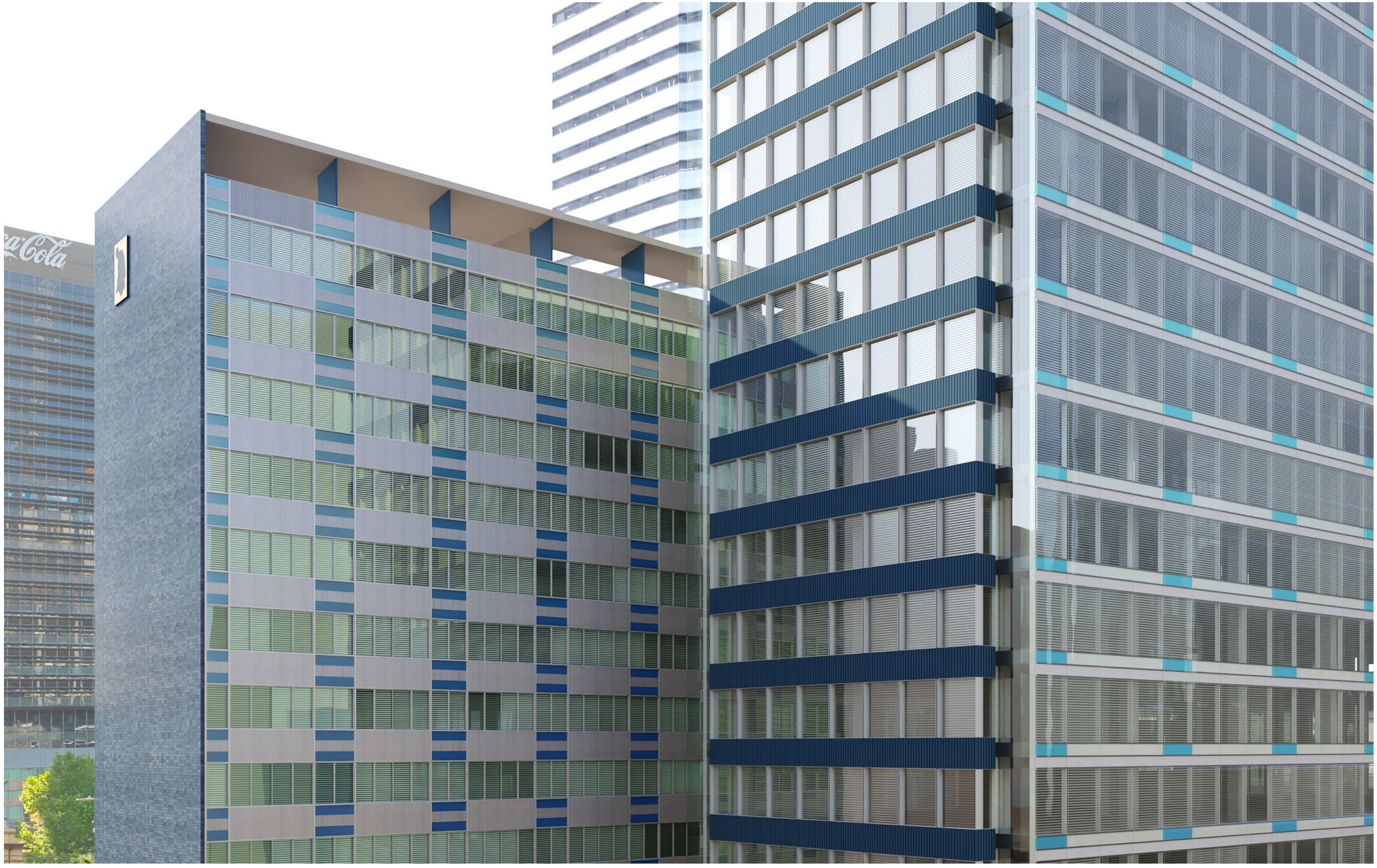








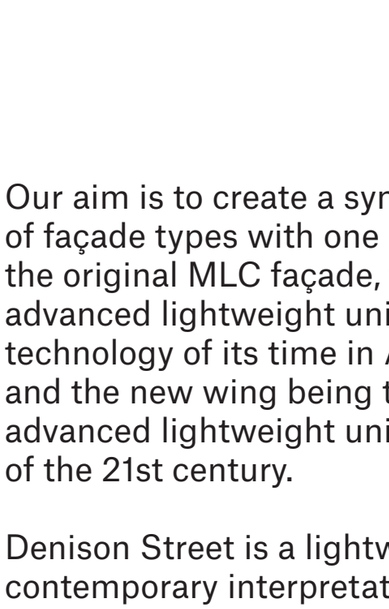
PROPOSED APPROACH TO AN ADDITION

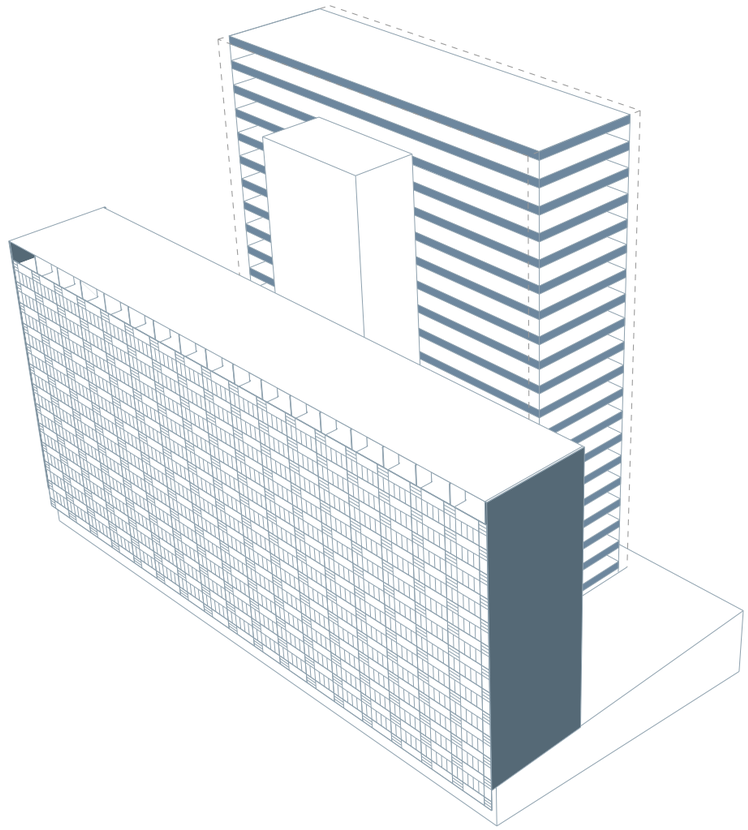


Façade Approach

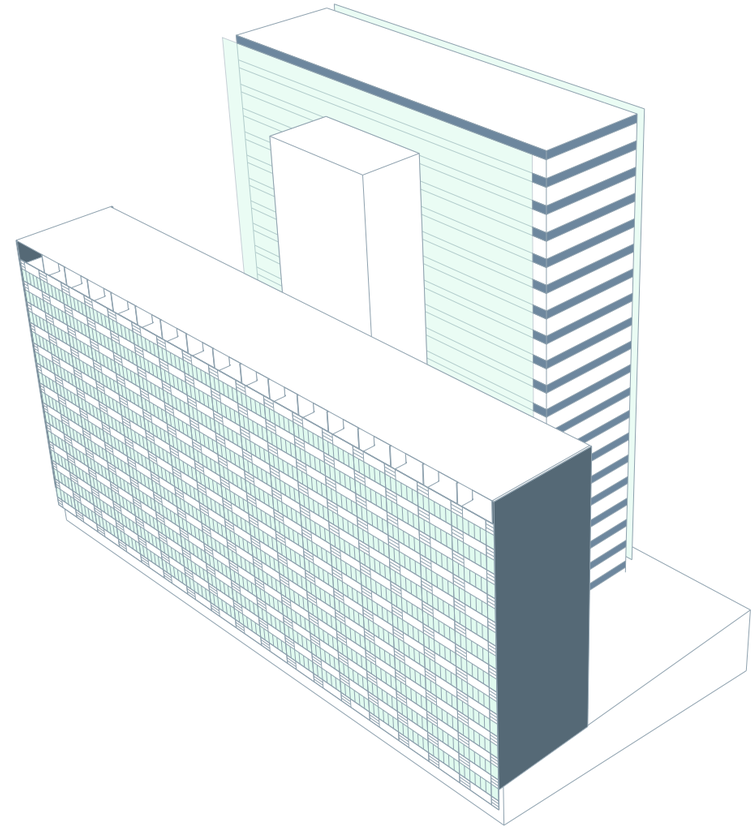
Our aim is to create a synthesis of façade types with one being the original MLC façade, the most advanced lightweight unitised façade technology of its time in Australia, and the new wing being the most advanced lightweight unitised façade of the 21st century.

Denison Street is a lightweight contemporary interpretation of the original design with 21st century materials; creating a sympathetic and respectful new addition.





REDISTRIBUTION OF SOLID FACADE

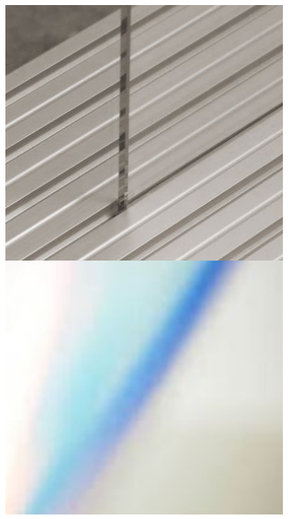


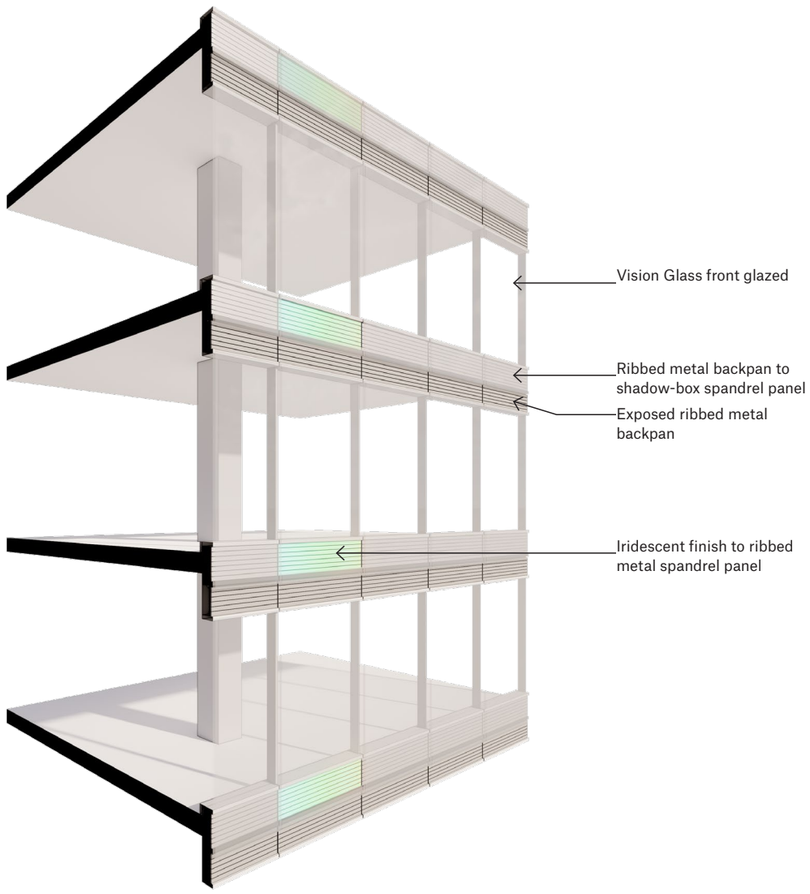
APPLICATION OF LIGHTWEIGHT FACADE TO EAST AND WEST

East/West Façades

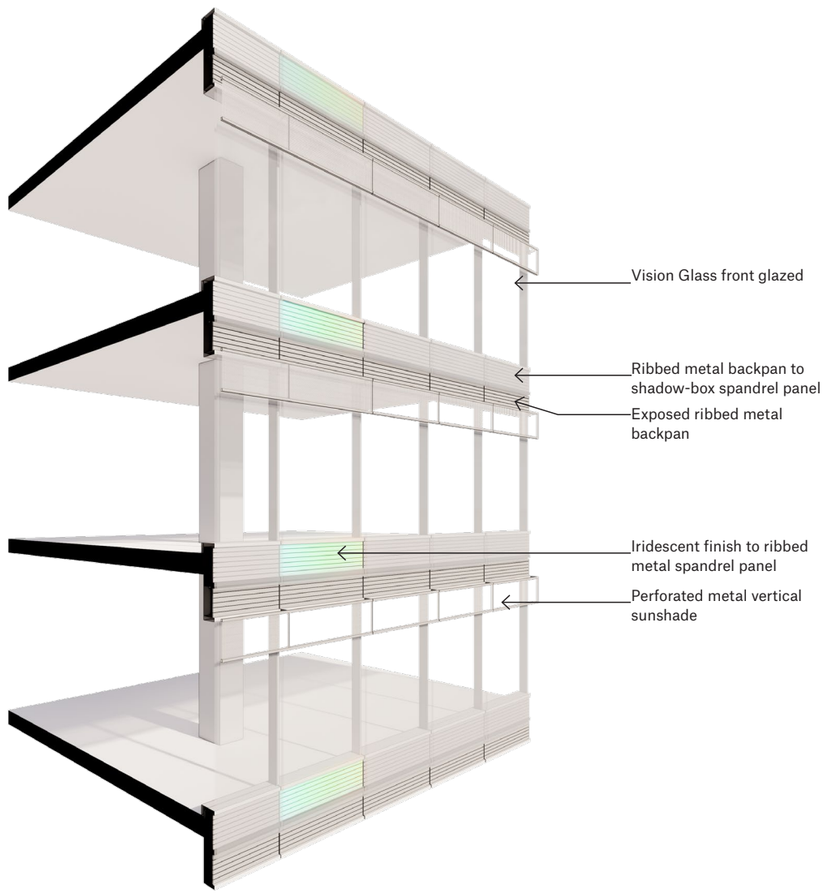
The east and west facades maintain the horizontal spandrel design of the original with ribbed aluminium; however in this case the ribs are horizontal, and the glazing subtly overlays the spandrel to reduce its dominance.

Aligned with the structural rhythm of the building a panel of iridescent chromatic metal that interprets the original colour back glass pattern and rhythm in a contemporary material.





EAST FACADE

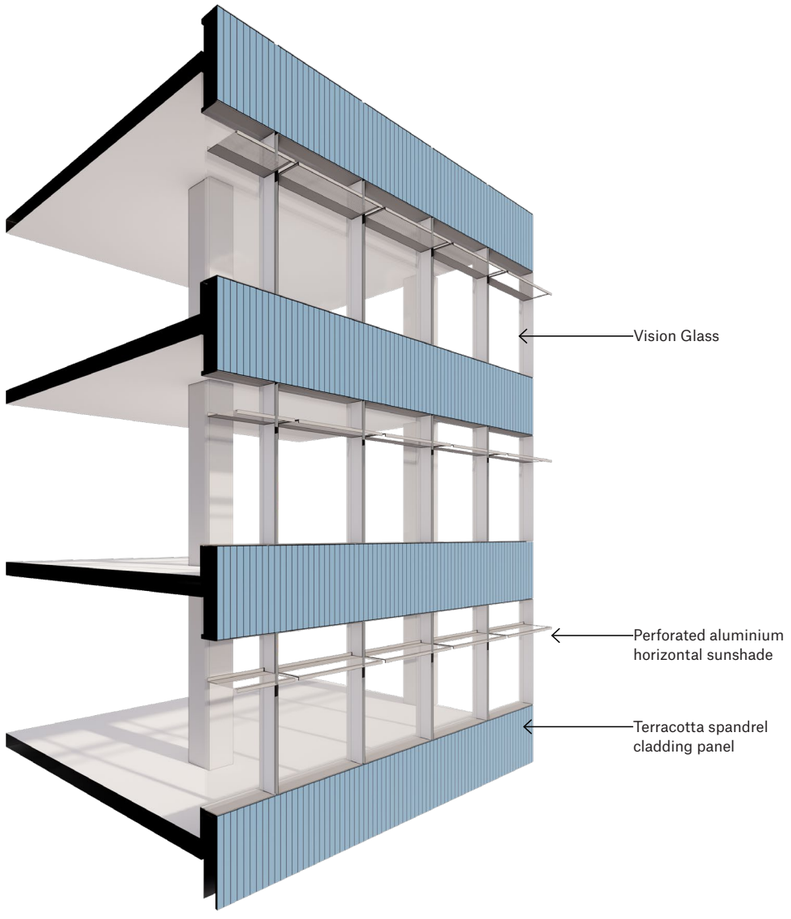


WEST FACADE

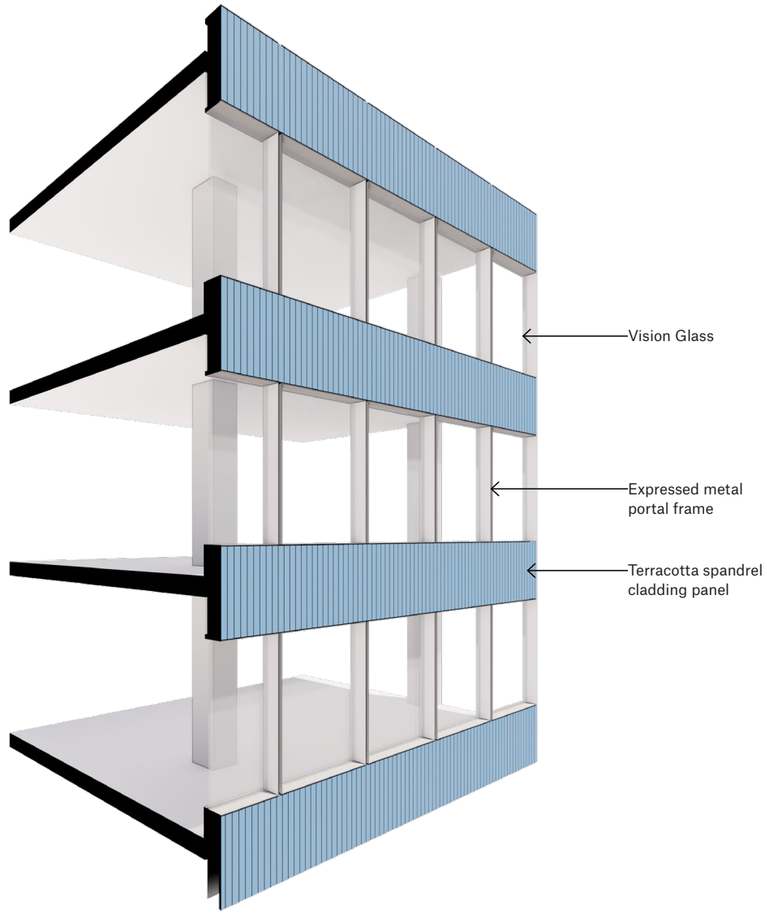
North/South Façades

The north and south facades are characterised by strong horizontal spandrels of terracotta, with recessed glazing creating both passive solar shading and giving the terracotta spandrels depth and mass, expressing their materiality.

The mullions provide further texture to the facades in complete contrast to the sheer expression of the glazed east and west facades. On the north a horizontal sunshade provides additional solar shading.



NORTH FACADE



SOUTH FACADE

GANSW Studies

GANSW Studies

At the request of the Government Architect NSW a series of studies have been undertaken. The expressed aim is to increase the solidity of the north/south facades and to remove the ‘birds-mouth’ detail and provide an edge detail of glazing to terracotta that mimics the original aesthetic.

We acknowledge there are of course different approaches to adding to heritage buildings that can differ from aesthetic mimicry to philosophical interpretation, with many successful examples of each. For instance, one can compare two buildings built over Roman ruins.

Raphael Moneo’s Museum of Roman Art in Merida uses Roman bricks and arched forms aesthetically consistent with Roman viaducts in materiality and form. In contrast Peter Zumthor’s Kolumba Museum in Cologne builds over Roman ruins and a Gothic cathedral using contemporary perforated brick with modern forms without any aesthetic reference to the original building. Both are successful.

In this case our studies of a broader Denison St wing with terracotta baguettes revealed a heavier and more dominant addition to Denison St that we believe is not sympathetic to the fine proportions of the original building nor the vertically proportioned 1950’s skyscrapers.

While baguettes were fulfilling an aesthetic purpose only, with no shading required on the south elevation; while blocking views to the harbour. This appeared the antithesis of a modernist approach on functional expression.

750mm Upstand

750mm Upstand - Solid Returns

900mm Upstand

900mm Upstand - ‘Slot Windows’

Baguette Screen

Baguette Screen Full Width

GANSW Studies

450MM UPSTAND - CURRENT PROPOSAL

BAGUETTE SCREEN FULL WIDTH - REQUESTED

Summary

This report outlines the thinking, process & options that were studied to arrive at the overall conceptual approach, and ultimately the Denison Street façade.

The following summarises the reasons the façade approach was chosen:

- The original building was part of a period of heroic modernism, renowned for a direct and uncomplicated functional approach; not an aesthetic approach to architecture.
- The original building was at the forefront of material engineering for its time; and this approach should be continued in a contemporary, yet sympathetic approach.
- The original building is part of a suite of Post WWII high-rise building that were all about direct functional expression; and had narrow slender proportions.
- The original Denison Street wing south façade is not full width terracotta, it was half width based on direct expression of the stair core behind.
- The original Miller Street wing south façade was full width expressing the shear wall bracing on these elevations.
- The 2002 Development Application approved by Heritage NSW contemplated a light-weight addition (no terracotta) that was a modern interpretation of the original, not a copy.
- The option studies for a new addition concluded that a contemporary addition without replicating the original building was the best approach. This approach was agreed by Heritage NSW.
- The conceptual approach of adding a Post WWII high-rise proportioned building (ie a skyscraper to a ground scraper) was agreed by Heritage NSW.
- The proportion studies showed that a building on Denison St that is both taller and wider than the Miller St wing dominated the Miller St wing, which was always the dominant wing; and the CMP requires the Miller Street wing to remain dominant.
- Creating narrower proportions for the addition such that the Denison Street wing was the same width as the Miller St wing bought the two masses into dialog with each other.
- Using the latest technology in light weight facades is sympathetic to the original design and interprets rather than copies the original façade.
- The design approach interprets rather than copies the original. Terracotta is used in vertical proportions, referencing the vertical proportions of the aluminium spandrels. Glass is expressed as a thin ‘sheet’, exposing its edges on each floor level and the ends to express lightness aligned with the original façade approach. Colourback glass is reinterpreted as an iridescent panel that reinterprets the structural rhythm of the original.
- The new wing is intended to be expressed as a sympathetic yet clearly new piece of architecture, and not a copy of materials or form.
- The use of terracotta baguettes as a screen when a screen is not required for any function is not sympathetic to the original modernist approach. The terracotta baguettes serve no functional role and screen the buildings prime harbour views.
- The full width terracotta screen creates a wide proportion that does not relate the Post WWII high-rises, or the original MLC Building. The wider proportions dominate the now visually finer Miller Street wing in contradiction to the CMP.

Thank you.

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