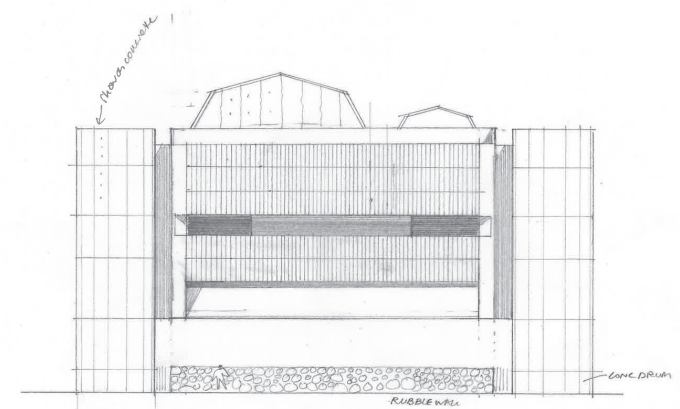


DRAFT

**HG** HAMILTON  
GALLERY



## NHG New Hamilton Gallery

Concept Design Report

Public Display 3 June - 20 June 2025

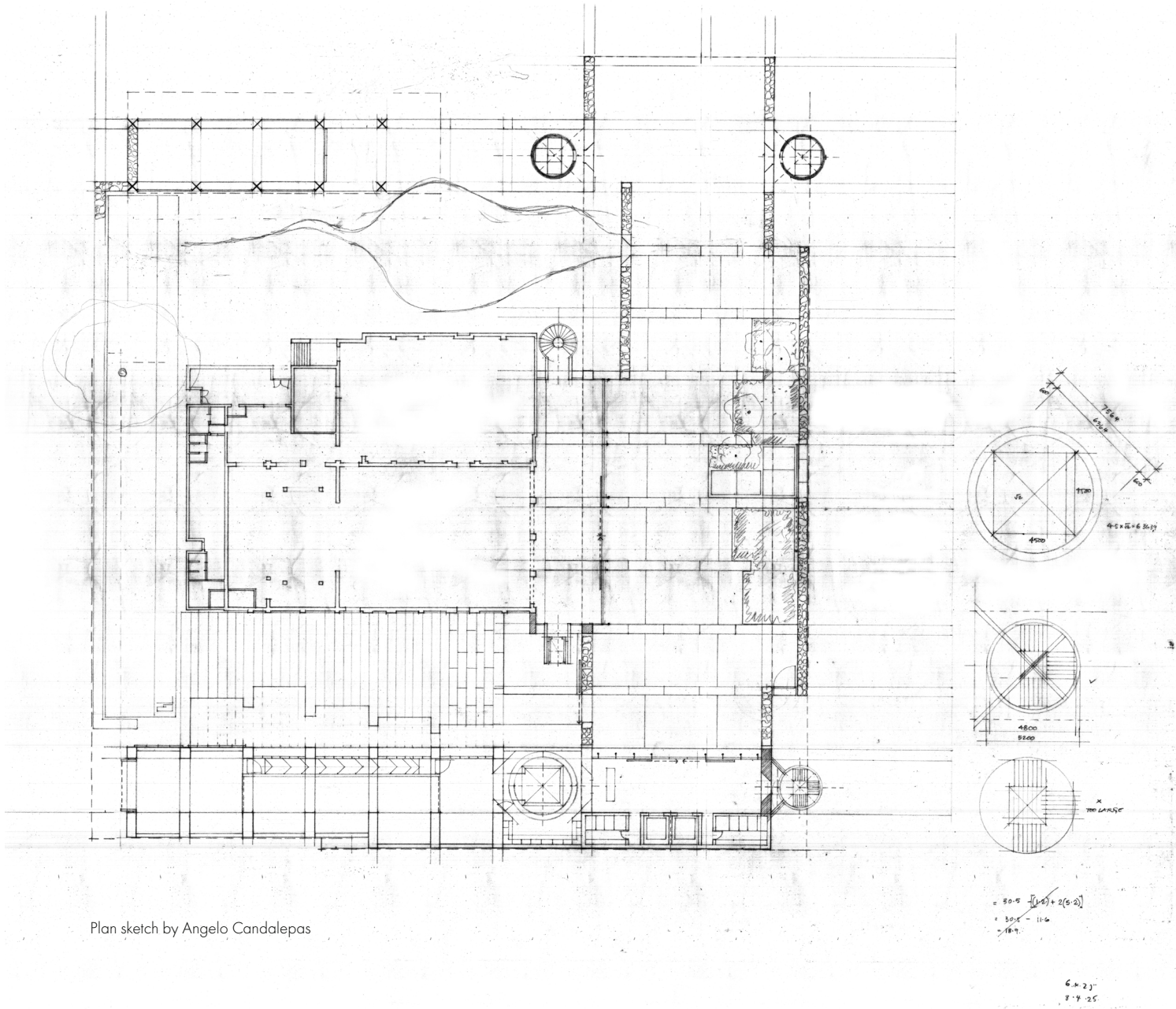
Angelo Candalepas and Associates

# Acknowledgement of Country

The work shown in the following document is situated on the traditional lands of the Gunditjmara, Tjap Wurrung, Jardwadjali and Buandig people. The offices of Candalepas Associates sit on Gadigal and Wurundjeri Country. We acknowledge the care taken by the traditional custodians of this land over thousands of years. We pay our respect to their Elders and honour their profound understanding of the environment.

We are committed to building a future that acknowledges and respects the deep connection between people, culture, and place. Let us learn from the traditional custodians, ensuring that our designs contribute to the ongoing guardianship of the environment and foster a sense of connection to Country.

May our efforts here today, and in all our projects, value the rich heritage of this land and contribute to an inclusive and sustainable future for all.



Plan sketch by Angelo Candalepas



Project Design Team:

Client  
Southern Grampians Shire Council

Architect  
Candalepas Associates

BCA Consultant  
Du Chateau Chun

Structure, Sustainability and Building Services Engineers  
ARUP

Geotechnical Engineers  
FSG Geotechnics + Foundations

Environmental  
BlueSphere Environmental

Cost Planning  
Prowse Quantity Surveyors

Quantity Surveyor  
Beveridge Williams

03.06.2025  
© Angelo Candalepas & Associates Pty Ltd

Contents

Acknowledgement of Country	02
<b>1. Introduction</b>	04
1.1 Introduction from SGSC Mayor Cr Dennis Heslin	05
1.2 Feedback & Questions	05
1.3 Recent Timeline Overview	05
1.4 Costing	05
1.5 Principles	06
1.6 Co-Design	06
1.7 Plates	07
<b>2. The Site</b>	
2.1 Context	12
2.2 The Project Site	13
2.3 Extant Buildings	14
2.4 A Gallery for the Region	15
2.5 The Current Building	16
<b>3. The Process</b>	
3.1 Co-Design Process, Learnings & Outcomes	17
<b>4. The Proposal</b>	18
4.1 Architectural Design Principles	
4.1.i. Landscape is the Theme	19
4.1.ii. Consider a New Heart	20
4.1.iii. Gallery Precedent Comparisons - Proportional Studies	21
4.1.iv. Flexibility is Key - Always show the Collection	22
4.1.v. Gallery Functionality	23
4.2 Architectural Drawings	25
4.3 Functional Summary	32
4.4 Technical Summary	33
4.5 Materials & Finishes	34
4.6 Sustainability	36
4.7 Structure	37
4.8 Building Engineering	38

# 1.0 Introduction

## Ode to Graeme Gunn

Sometimes one arrives to a project and wonders why certain decisions have been made. The location of a site, for instance, might be perplexing as the concept of creating a new place in the middle of a township with aspirations which have an international reach and which would enjoy world standards.

‘Emerging From Darkness’ in late 2023 and early 2024 was an exhibition I visited which ignited my interest in Hamilton. I was moved by the quality of the work and how wonderful it was to see it in the light of rural Victoria. It reminded me of a concept which I hold as true in my life; that brilliance and ‘the best the world has to offer’ can be found in the most surprising places. It reminded me that ‘reputation’, ‘legacy’ and ‘the arts’ are eternally intertwined; the needs of the human spirit for something that describes perfection are inalienably linked. Art describes that perfect condition of humanity for which we are all likely to be upon this earth either to experience it or to create it. It is a condition which is both personal and societal and it is something which must be shared amongst us.

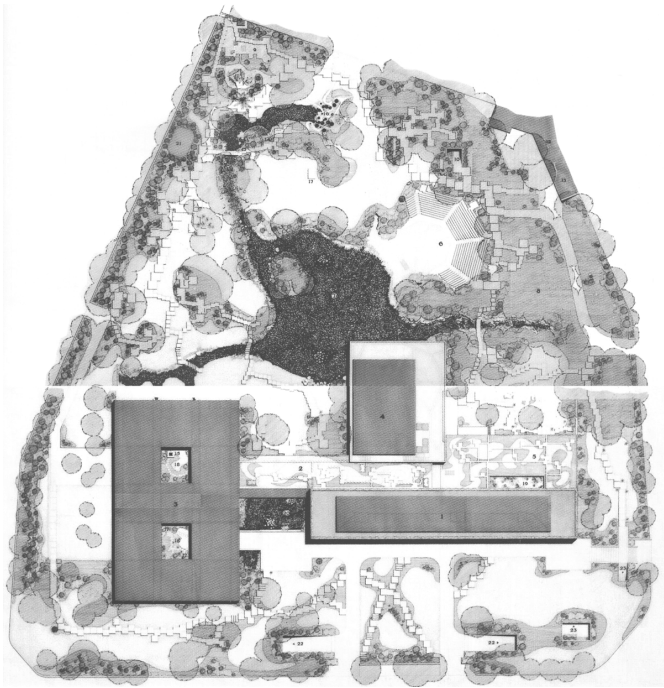
Graeme Gunn lobbied for the siting of the gallery to be in the centre of the City of Hamilton and at first, I had imagined that this was not as good as an idea to create a beautiful gallery beside the lake (which was an option that was considered prior to my entry on the scene). I can admit now that the concept of bringing something of the landscape into the town has been the theme of our efforts in the enclosed and I imagine that this place we are offering as a solution to the dreams of Hamilton might have more to do with the landscape than I had imagined at first. In my search for precedents, the remarkable Calouste Gulbenkian Museum in Lisbon emerged. I traveled to see it there and found that the sentiment about art is universal; particularly where we seek something about capturing the particularities of light in a given place.

Our efforts were transformed from considering a gallery alone to ones which delivered a concept of engagement with the township and the landscape. In speaking to the stakeholder groups in the Co-Design Sessions, we felt our standards rise in the context not of producing something ‘iconic’ as an object but rather considering the town as the icon itself. For it is the town that will develop a consciousness around art and from this point of reference, the world might be best able to contextualise the values of this place. Our considerations therefore commence with the landscape as the primary source of lift and then art and this is reflected in these plans.

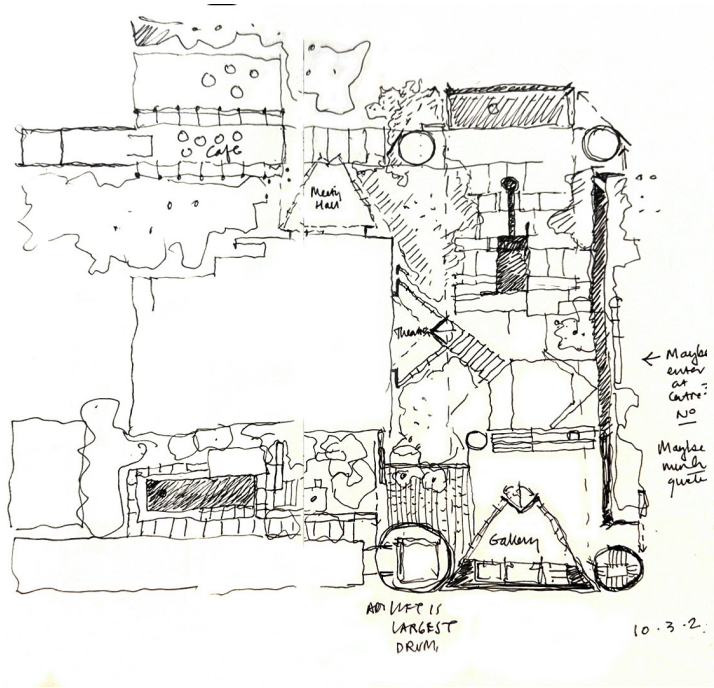
There is always, observable for those who wish to see, the deeper concept of humility in any great artwork; this is both in the efforts of the artist (who should always sit in observation of what unconsciously has evolved from their canvas) to the observer (who might seek to understand the real virtue of the object affecting their gaze and their awareness about life).

It is our aim to honor the town first and the art to follow closely. This is the order of all civilization and in so being, we have found that our efforts are seeking a certain ideal which we would like to develop in our own consciousness; offering the following pages as indication of the potential for a remarkable place; or at least, being remarkable in our sense of seeking an order of thinking worthy of Graeme Gunn, the township, the art to be shown here and the aspirations and consciousness of an entire people, in Hamilton, then Victoria, then Australia as a collective.

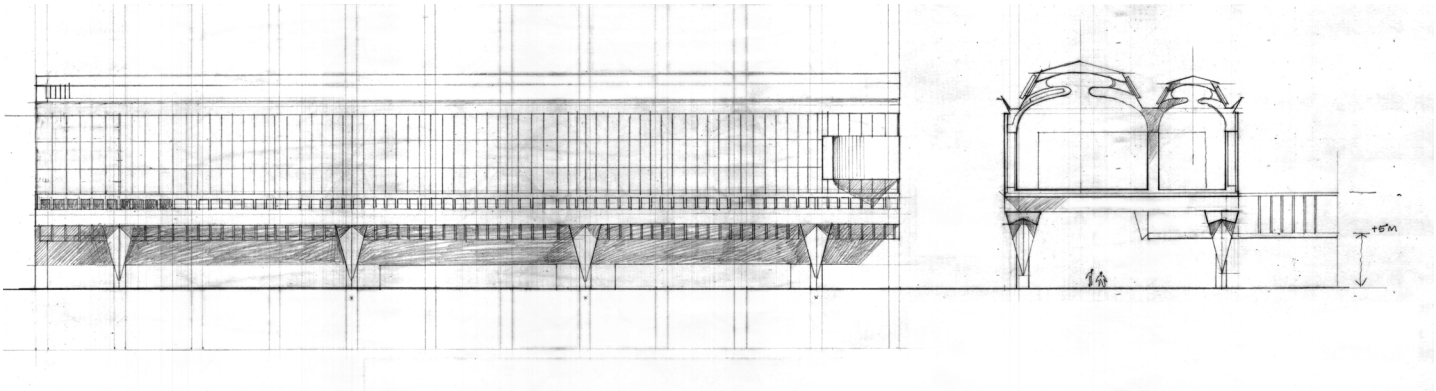
Angelo Candalepas, 12.05.2025



The Calouste Gulbenkian Museum – Original Architectural Plan



Sketch Plan by Angelo Candalepas



Sketch elevation and section by Angelo Candalepas

# 1.1 Introduction from SGSC Mayor Cr Dennis Heslin



## HAMILTON GALLERY CONCEPT DESIGNS AN INVESTMENT IN THE FUTURE

*“The New Hamilton Gallery reflects the aspirations of our community – it’s a space shaped by the public voice and developed in collaboration with Australia’s best architects.”*

It is with great pleasure that I present the concept designs for the new Hamilton Gallery. This project has had a long journey with many contributing and working tirelessly and now, we are on the precipice of this transformative building becoming realised.

Firstly, I would like to thank the community, as hundreds of people participated in the co-design sessions from children to seniors. Thank you for expressing your excitement and sharing your ideas and I want to reiterate; you spoke, we listened, and you have truly made an impact on the designs.

I want to congratulate my fellow Councillors who have been completely supportive of the process, design and project. The staff who have worked on this project, thank you for your ongoing efforts. Lastly, I must applaud the architects, Angelo Candalepas and Associates (ACA) as we set an ambitious challenge, I believe the saying is I want my cake and eat it too, and you delivered beyond our expectations.

This new building is extremely impressive. It will transform the region and be of benefit for future generations. It enhances the audience experience, lowers operational costs and maintenance and will increase economic benefit to the Gallery and region.

The current building is at its end of life, the architects undertook a significant analysis of the site and building, which can be found in the detailed concept design report. It is nowhere near adequate or fit for purpose.

Hamilton Gallery has an internationally significant collection and recently loaned artworks to Mona, the National Gallery of Australia and Art Gallery of South Australia. These designs leverage this astounding cultural asset for the benefit of the community.

The community deserves a new gallery, it was the driving force behind the original gallery’s creation and has continually supported the growth of the collection. These designs are a fitting tribute to such a dedicated community. We also know that following the Emerging From Darkness exhibition, which drew crowds from across the country and led to a record increase in tourism, boosting visitor spending by over \$1 million per month, this new gallery has the potential to sustain that level of success.

While we acknowledge that the preliminary cost plan is slightly above \$40m, the councils contribution will remain capped at \$10m. Furthermore, the architects have put forward several ways to manage the budget, such as staging the project, modifying aspects of the design, utilising more cost-effective materials, or increasing private funding. It is also important to note that this project has always relied on external funding. Therefore, any costs exceeding the \$40m allocation will not affect the council’s \$10m contribution.

I invite the entire community to review and comment on these designs as this is an important stage in shaping the outcome of this ambitious and intergenerational project.

# 1.2 Feedback & Questions

The community has created these designs in collaboration with the architects and now we want to know what you think.

Please click the link below to give your feedback:  
<https://www.cognitoforms.com/SouthernGrampiansShireCouncil/NewHamiltonGalleryConceptDesignFeedback>

# 1.3 Recent Timeline Overview

- May 2023 - Community consultation was undertaken in collaboration with the University of Melbourne Design School to develop the Architectural Tender pack.
- July 2024 - Council endorsed the the budget which includes design costs (Council later successful in obtaining Federal Government Grant to fund design)
- July 2024 - Design Tender is endorsed by Council
- July 2024 - Tender is released
- August 2024 - Tender Closes
- September 2024 - Angelo Candalepas and Associates are endorsed and awarded the architectural contract
- December 2024 - Co-design Commences
- March 2025 - Co-design finalised
- June 2025 - Public Display and Comment of Concept Plans

# 1.4 Costing

Although the preliminary cost plan is slightly above \$40m, the councils contribution is capped at \$10m. Furthermore, the architects have put forward several ways to manage the budget, such as staging the project, modifying aspects of the design, utilising more cost-effective materials, or increasing private funding. It is also important to note that this project has always relied on external funding. Therefore, any costs exceeding the \$40m allocation will not affect the council’s \$10m contribution.



1.5 Principles

Through community engagement and in collaboration with the University of Melbourne in May 2023 the following seven principles were developed and served as the core vision for the tender:



**1. Importances of local identity**  
Understand and articulating key aspects of Hamilton's story and its evolving identity.

**2. Importance of civic life**  
Creating a place for the people of Hamilton, inclusive of all backgrounds. A creative space celebrating innovation in all its forms and plays an active role in contemporary debates.



**3. Strengthening creative pathways**  
Opportunities for creatives to see themselves as part of the gallery. Supporting the development of creative youths, emerging artists, and established professionals. Nurturing creative interests and providing educational and career pathways.



**4. Displaying the collection**  
The gallery explores possibilities for an experience of the whole collection that is open to everyone, encouraging engagement from visiting scholars and celebrating its public status.



**5. Referencing the natural environment**  
The gallery recognises the wider landscape context and is a place to make sense of multiple narratives about ecosystem, culture and history.

**6. Respecting and acknowledging First Nation cultures**  
Through Indigenous-led representation, Hamilton Gallery determines the most appropriate way to acknowledge this history, and to celebrate the continuous cultures of First Peoples in the area.

**7. Establishing and developing connections**  
By collaborating with surrounding institutions such as the Performing Arts Centre and the cinema, Hamilton Gallery contributes to a vibrant public realm. Multi-programmatic cultural experiences expand its audience.

1.6 Co-Design (December 2024 - March 2025)

The co-design phase which took place between December 2024 and March 2025 is a collaborative design approach. The architects engaged directly with the community to capture the views and ideas of multiple stakeholders: from gallery staff to community groups, artists to school children.

Number of Sessions that Ran

Demographic	Number
SGSC: Staff, Councillors	7
Creatives	1
General public	4
First Nations	2
Students, Kids and Families	3
Businesses	2
Foundation	2
Total:	21

Co-Design Attendees

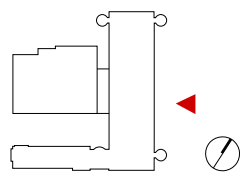
SGSC: Staff, Councillors	58
Creatives	16
General public	122
First Nations	7
Students, Kids and Families	50
Businesses	5
Foundation	3
Total:	261

Key Themes - Co-Design

Garden	Café	Collection and Exhibition Space	Connecting Culture	Design
Wants native planting	Location	Significant increase of collection storage	Connection between visual and performing arts	Need to use local materials
Creating accessible spaces for kids and families	Model – leasing	Ease of install / deinstall	Create a precinct for the arts	Accessible entry to gallery
Undercover space to bring kids in winter		Ability to display a variety of artworks	Blending nature, arts and building	A space that is multipurpose for programs, meeting spaces, exhibitions, safe spaces



View from Brown Street.



DRAFT

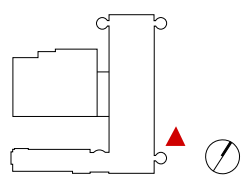
Candalepas Associates







View looking north along Brown Street.



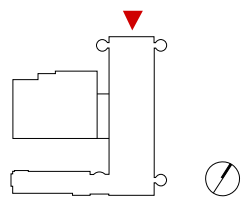
DRAFT

Candalepas Associates





View looking south.



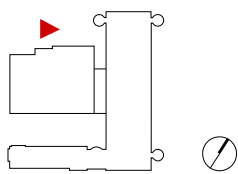
DRAFT

Candalepas Associates





View looking east.

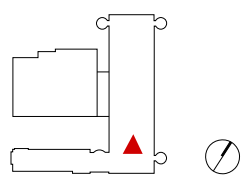


DRAFT

Candalepas Associates



Gallery interior view



DRAFT

Candalepas Associates



## 2.1 Context

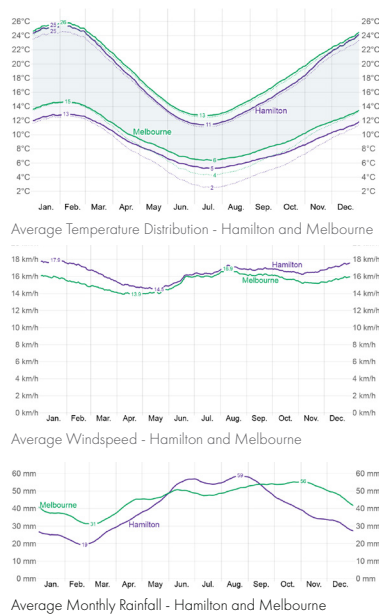
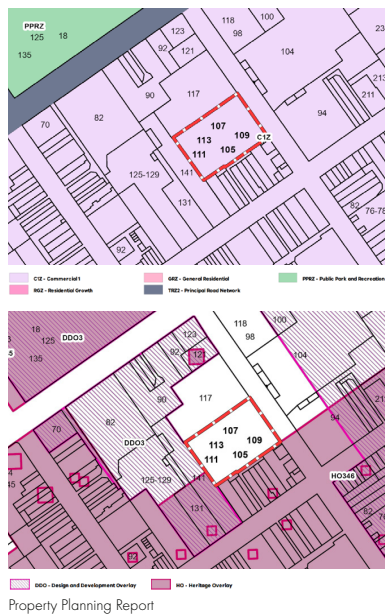
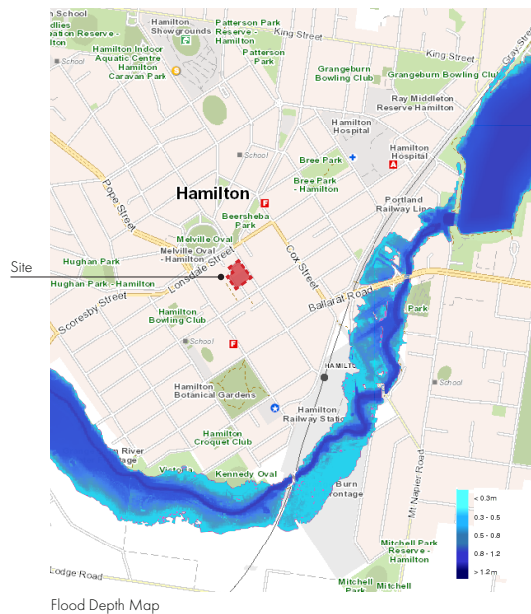
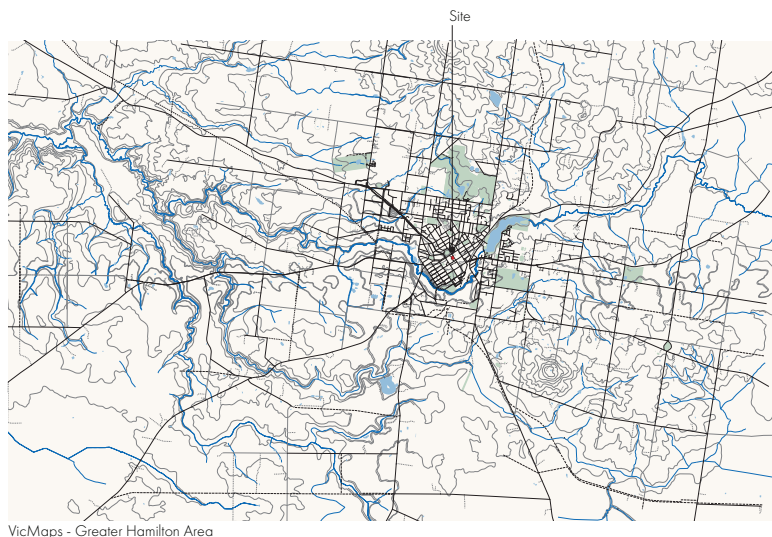
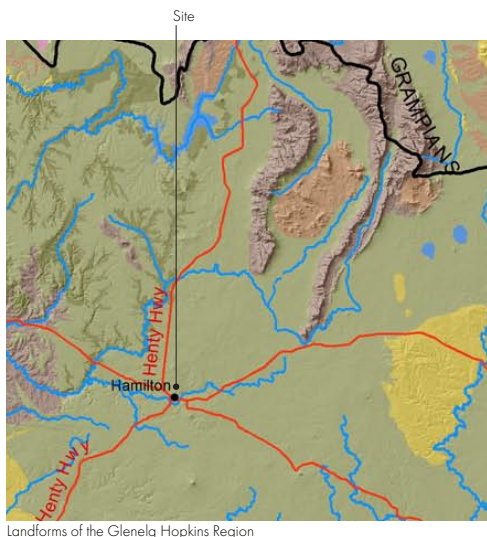
Hamilton is located near the junction of three Indigenous territories - the Gunditjmara land, stretching south to the coast; the Tjapwurong land, to the north east; and the Bunganditj territory, to the west. Hamilton's birth as a settlement can be traced to around the 1840's, due in part to its proximity to important routes between Portland and New South Wales as well as the requirement to establish an increased police presence in the area. The original village grew around an inn on the north bank of the Grange Burn River and was called The Grange (later giving its name to the river). Renamed Hamilton, it became a municipality in 1859, a town in 1928, and a city in 1949.

Historically the Hamilton area has had a strong connection with agriculture, primarily wool but also beef and dairy cattle. Today these activities are still important in addition to a variety of crops, including canola, wheat and barley and timber. The city of Hamilton today employment areas include retail (about 20%), Health and Community Services sector (14.5%) and other allied rural activities such as engineering and saw milling. Hamilton is situated in the Southern Grampians Shire with an area of 6,654sqkm and a population of about 16,000 people.

The Geological Survey of Victoria at 1:250 000 scale 'Hamilton' mapsheet indicates the site is underlain by Quaternary (Pliocene) age Newer Volcanics. The Newer Volcanics typically comprise a layer of residual basaltic clay overlying variably weathered basalt rock including minor deposits of scoria and ash. The greater area is characterised by numerous volcanic cones usually from either scoria or basalt.

Hamilton is located on a plain in a valley formed by the Grange Burn River, a tributary of the Wannon River which winds through the city to Lake Hamilton (known as the Victoria Volcanic Plain). The Grampian mountains (a sandstone range connected to the larger Great Dividing Range) to the north form a strong physical and cultural reference point for the area. Hamilton is situated in the Glenelg Hopkins region of western Victoria with vegetation ranging from grasslands to woodlands and forests. The Southern Grampians holds significant environmental and landscape assets, that are important for their ecosystem values, as well as being an important component of the Shire's tourism industry and its liveability.

Hamilton has a temperate Mediterranean climate. Cold fronts regularly sweep in from the Southern Ocean with daytime temperatures occasionally reaching into the 30s or even 40s during the summer months. On average Hamilton has 105 days per year with more than 1 mm of rain with a marked minimum during summer. The town has 56.3 clear days annually. Hamilton is cloudier than Melbourne due in part to its elevation and topography.





## 2.2 The Project Site

The New Hamilton Gallery ('NHG') project site is located in the center of the city facing Brown Street. The site includes the municipal complex of buildings forming the Council Offices, Art Gallery, Library, Cinema and Hamilton Performing Arts Centre ('HPAC'). This arrangement of buildings forms an important civic precinct to the local area and region.

The surrounding site includes a variety of activities, largely of a commercial nature. Distinct elements include the supermarket to the east, a finer grain of older adjoint business premises to the south and a number of food and beverage premises to the north.

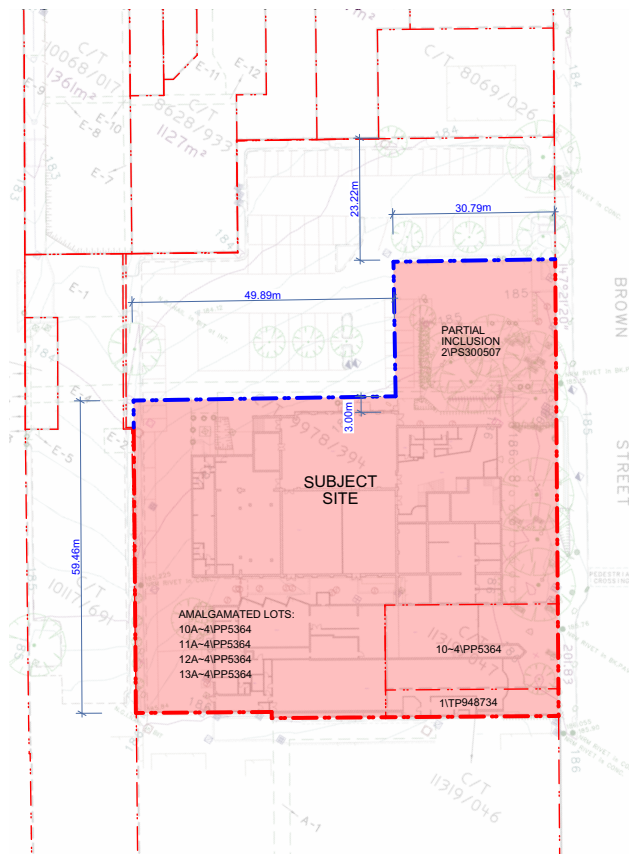
Whilst the project site is not fully described by cadastral boundaries, its west, south and eastern sides are Lot 1 TP948734, Allot. 10 Sec. 4 (10~4\PP5364), Allot. 10A Sec. 4 (10A~4\PP5364), Allot. 11A Sec. 4 (11A~4\PP5364), Allot. 12A Sec. 4 (12A~4\PP5364) and Allot. 13A Sec. 4 (13A~4\PP5364). As shown in Site Boundary diagram herein, the northern portion of the site has been extended to both include the whole of the existing HPAC as well as the northern portion of the new gallery proposal.

As part of Council's CBD Revitalisation work, it is understood that the future desired character of the immediate precinct will change over the next few years. As part of these changes, it is understood that a new town square will be formed to the north of the Project Site along with a centralised government and community building bordering the new town square and extending to Lonsdale Street.

The Lotsearch Report and Aboriginal Cultural Heritage Register and Information System (AHRIS) (<https://achris.vic.gov.au/#/onlinemap>) was consulted to determine whether the Site is within an area of Aboriginal cultural heritage sensitivity. No areas of cultural heritage sensitivity were identified on Site. The closest area of cultural heritage sensitivity is located approximately 64 m to the southwest. Additionally, the Site lies ~481 m southeast of a cultural heritage sensitivity buffer that runs along Grange Burn.

A consideration of the site's geotechnical qualities has been examined in the accompanying report prepared by FSG Geotechnics & Foundations (FSG). Based on the available information (as defined in their report), FSG expects subsurface conditions to comprise a layer of fill (including existing pavement materials) underlain by residual basaltic clay. The residual basaltic clay is expected to be high plastic and highly reactive (can undergo large volume changes with variations in moisture content). The thickness of residual basaltic clay is unknown but based on nearby information could be in the order of up to 10 m to 12 m before weathered basalt is expected to be encountered. Whilst there is limited information regarding the groundwater level in the vicinity of the site, we do not expect this to be a critical design item as no sub-structures are proposed for the development. Nonetheless, we expect the depth of groundwater to be several metres below ground level. Groundwater at the Site is anticipated to flow in a southerly to south easterly direction, toward Grange Burn.

A site contamination Preliminary Site Investigation (PSI) was undertaken for the site by BlueSphere Environmental ('BlueSphere'). Based on the findings of this PSI, BlueSphere considers a potential for both soil and groundwater beneath the Site to be potentially contaminated. However, given BlueSphere's understanding of the proposed development, along with the information sources reviewed, the potential contamination identified is not considered to represent a significant risk to current or future receptors at the Site. For further detail please refer to the attached PSI Report.



The Project Site



Hamilton Gallery - Gallery street entry



Southern Grampians Shire Council Offices street frontage



Present day photographs of Hamilton Gallery



Performing Arts Centre - North west

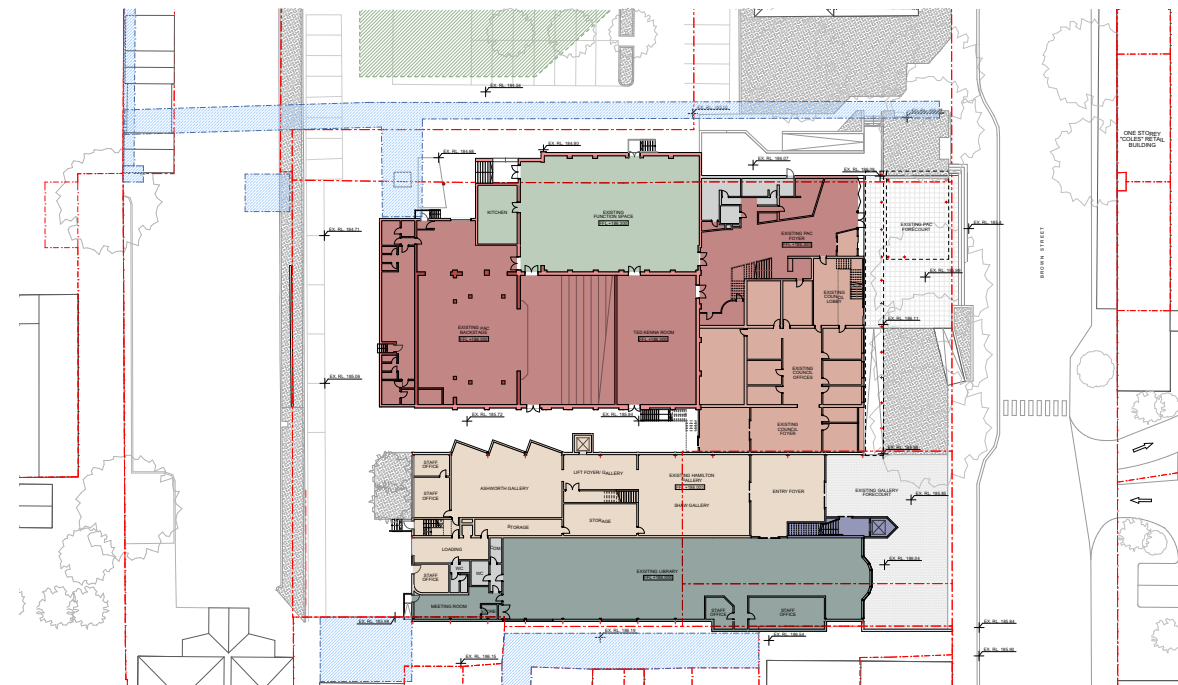


## 2.3 Extant Buildings

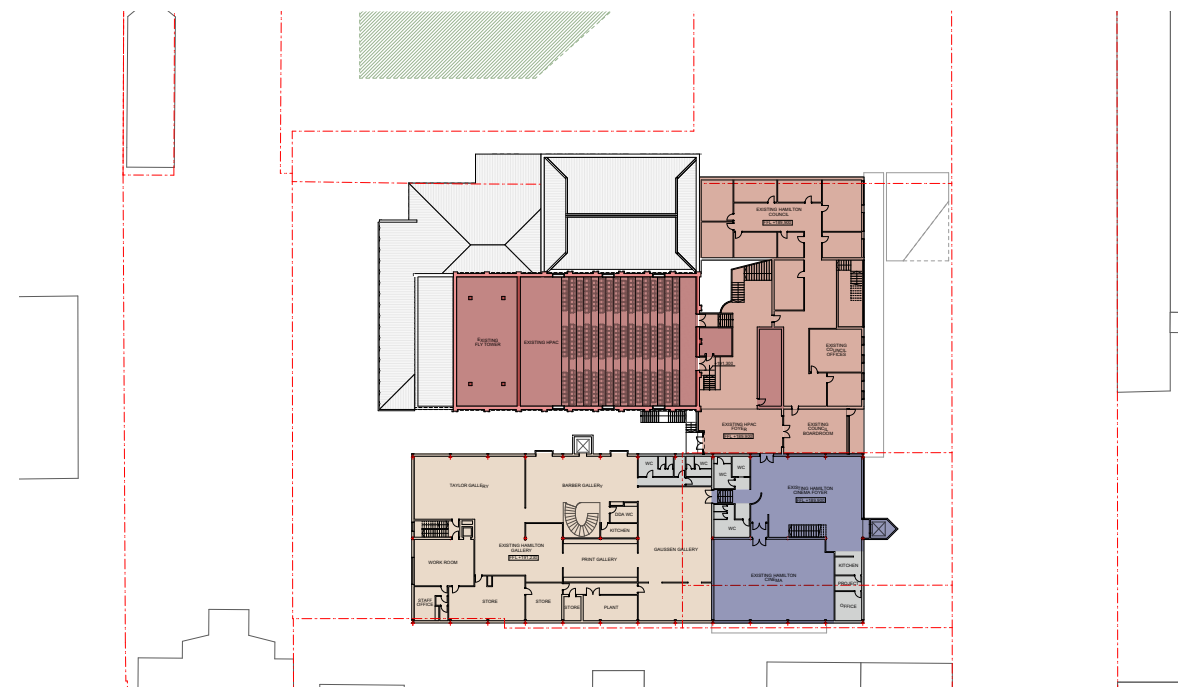
As part of our investigations, we have undertaken analysis of both the greater precinct as well as the immediate site. This includes detail study of the existing Council, Cinema, Library and Gallery building as well as the co-joined Performing Arts Centre (PAC).

We have undertaken a number of studies examining the adaptive reuse of part and or all of these existing buildings on the site. Due to the issues innately associated with a high quality art gallery (i.e. the long-term display and preservation of artwork), the adaptive reuse of the existing buildings as an art gallery is likely to incur significant additional costs when compared to a purpose designed building. It is therefore proposed that the 1960's (and later) buildings surrounding the main theatre space of the Performing Arts Centre ('PAC') are removed.

Given the construction systems used in these buildings (elemental steel with masonry infill) it is proposed that significant portions of these buildings be recycled. Further, it is proposed to retain the older portions of the Performing Arts Centre, giving this older building a greater level of legibility and expression than it is currently afforded. It is understood that this building fabric is the remaining portion of the former Hamilton Town Hall.



Existing civic precinct ground floor (Gallery, Library, Council Offices, PAC)



Existing civic precinct level 1 (Gallery, Library, Council Offices, PAC)

### Legend

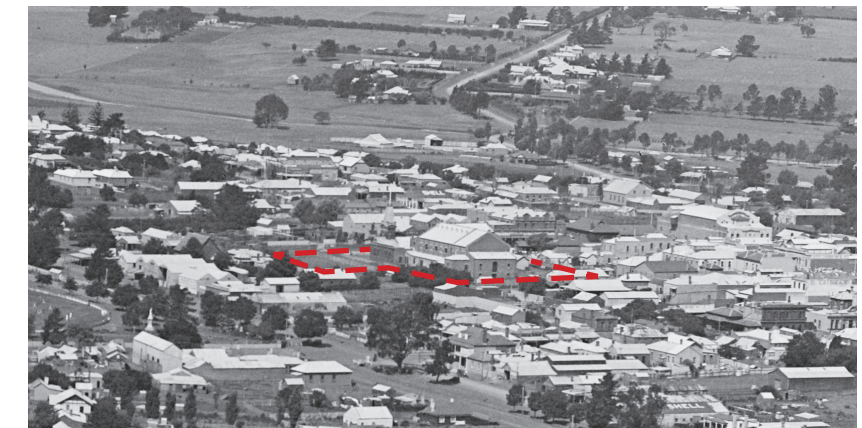
- HPAC
- Council Offices
- Gallery
- Cinema
- Function
- Library
- Services



Photograph of 'New Hamilton Town Hall,' circa 1910



Photograph of Council Offices, circa 1990



Aerial photo of Hamilton, 1927



## 2.4 A Gallery for the Region



Hamilton Gallery, Opening Night



Hermannsburg Watercolour, Albert Namatjira, 1951



Arch at Melasso, Paul Sandby, ca. 1779-80



A Scene in Windsor Forest, Paul Sandby, 1801



Portrait Of Michael Leiris, Francis Bacon, 1976



The First Stage of Cruelty (The Four Stages of Cruelty), William Hogarth, 1751

Hamilton Council's involvement in the Fine Arts began in 1957 when H B Shaw, a Kiama grazier, died and bequeathed his collection of works of art to the Council and 6,000 pounds towards the cost of a building to house it. The Foresters Hall next to the Town Hall was demolished to make way for the new building, which was jointly funded by the Shires of Dundas, Glenelg and Wannon. The gallery won the patronage of the wealthier grazier interests in the Western District and it now boasts an unusually rich collection for a provincial gallery.

The 781 works donated in 1958 remain the foundation of the Herbert & May Shaw collection, one that has seen an abundance of significant donations since that time. Currently Hamilton Gallery's collection includes over 10,000 objects, and has multiple collection focuses. This act of generosity has echoed over sixty years with countless contributions by community members.

The collection's unique strengths are most evident in the Decorative Arts, European, Australian and Asian Art collection areas. The collection includes works by internationally acclaimed artists such as William Hogarth, Paul Sandby, Francis Bacon, and David Hockney. Australian artists include such names as Howard Arkley, Albert Namatjira, Sidney Nolan, Patricia Piccinini, Arthur Streeton, Rupert Bunny, and Euren von Guerard. Notably, the collection includes a rare and extensive selection of 18th C gouache and watercolour Landscapes by Paul Sandby - often referred to as the "Father of English Watercolour".

The collection also includes many notable Australian artists from colonial to contemporary. Developing this collection is a key focus area currently and the Gallery is committed to improving and expanding on this. An area that is underdeveloped and requires significant attention is the collection of art by First Nations people. Nonetheless progress is being made in this area with the assistance of local Elders and members of the wider Indigenous community.

As the collection continues to grow, Hamilton Gallery presents a point of reference for regional galleries across Australia.

### Departmental Breakdown (no. of pieces)

- International (primarily European) art: 4,300
- Asian (primarily Japanese and Chinese) art: 1,200
- Australian art: 1,600 (including 300 Gunditjmara works)
- Bookplates: 1,802
- Glass: 638
- Victorian state craft collection: 110
- Mediterranean and Near Eastern antiquities: 150

### Object Type Breakdown (no. of pieces)

- Furniture: 60
- Painting: 900
- Works on Paper: 350 (of which, 150 framed)
- Photographs: 310 (of which, 150 framed)
- Prints: 1200
- Sculpture: 83
- Decorative arts & Small objects: 3,700
- Textiles: 280
- Antiquities: 150
- Jewellery: 150



## 2.5 The Current Building

As part of our investigations, we have undertaken analysis of both the greater precinct as well as the immediate site. This includes detailed studies of the existing Council, Cinema, Library and Gallery building as well as the co-joined Performing Arts Centre (PAC). We have undertaken a number of studies examining the adaptive reuse of part and or all of these existing buildings on the site. Due to the issues innately associated with a high quality art gallery (i.e. the long-term display and preservation of artwork), the adaptive reuse of the existing buildings as an art gallery is likely to incur significant additional costs when compared to a purposed designed building. It is therefore proposed that the 1960's (and later) buildings surrounding the main theatre space of the Performing Arts Centre ('PAC') are removed. A discussion of some of these issues is noted below.

### Refurbishing /Reusing the existing buildings

There are significant difficulties in refurbishing and adapting a series of 1960-1970's buildings' primary structure due to their limited load capacity and long-term durability issues.

There are difficulties in accessing the existing wall's fabric to add necessary thermal insulation, vapour barriers and waterproofing components etc. There are difficulties in removing and replacing existing secondary steelwork e.g. window and floor lintels.

There are difficulties in accessing and increasing the capacity of the existing footings to allow greater floor loading, additional stories, thermal mass and remove internal columns interrupting a space (i.e. increase perimeter loading etc).

No existing services equipment could be retained or refurbished. There are difficulties accessing services pathways under the existing building.

### Spatial dimensions

The main existing Gallery building's floor to floor heights enshrine a limiting height for the gallery spaces. Typical minimum gallery floor to ceiling heights should be 5m to allow for the display and viewing of varying sized artworks.

Also there is limited space between the existing columns in the typical gallery areas, limiting rooms sizes, artwork size, viewing distances, occupancy rates etc.

### Structural capacity

The main existing building's structure is an elemental steel frame system with masonry (incl. double brick) infill walls. Footing systems appear to be typically concrete pads on clay.

For an additional level (Level 3), the floor construction would need to be lightweight framed (with lightweight cladding) to avoid needing to increase the bearing capacity of the existing columns, footings etc. Further, the capacity of the floor would only be limited to 4.0kPa with a point load of 4.5kN. This would limit the types of artwork able to be exhibited in the gallery not to mention the architectural form having to use lightweight walls, roof etc.

The site has an H2 Site Classification - Highly reactive clay based site with high seasonal movement (up to 75mm). Given the building's shallow footing system, deeper excavations (for a basement, lift and services pits, services trunking, plant rooms etc.) would cause significant impacts on the existing structure and fabric.

### Environmental performance

The building's external fabric has poor thermal performance. The resulting impacts of this include significantly increased operation costs (running HVAC systems to maintain gallery conditions) and significant risks of long-term damage to artworks from temperature and humidity fluctuations.

The building's external fabric has poor condensation control. The existing building has very limited or no vapour barriers in its external walls. Vapour barriers prevent moisture build-up in walls, avoiding mould and ensuring insulation performance.

The building has degraded waterproofing barriers (flashings, DPC, vapour barrier etc.) which pose a significant risk to the water-tightness of the building. Replacement of these would require reconstruction of the external walls, roof etc.

## 3. Structure

ARUP

### 3.1 Site conditions

Ground conditions at the site are described in a desktop study produced by FSG Geotechnics, issued on 9<sup>th</sup> May 2025, which drew upon geotechnical data from nearby sites and limited ground investigation study on the subject site completed by LR Pardo in 2022.

The ground conditions are expected to consist of a layer of fill underlain by residual basaltic clay. The residual basaltic clay is expected to be high plasticity and highly reactive (can undergo large volume changes with variations in moisture content). The thickness of residual basaltic clay is unknown but based on nearby information could be in the order of up to 10 m to 12 m before weathered basalt is expected to be encountered. The level of groundwater is expected to be several meters below ground level.

It should be noted that the predicted ground conditions are preliminary and need to be reviewed following completion of an intrusive investigation. The primary consideration of the proposed intrusive investigation will be to confirm the nature of near-surface subsurface conditions (including soil reactivity), the depth to surface and nature of the weathered rock, and the groundwater levels across the site. Refer to the geotechnical advice note for further information.

### 3.2 Existing Buildings

#### 3.2.1 Available Information

With no existing structural drawings available, our commentary is based on:

- Limited architectural sections prepared by Berg and Alexandra Architects Pty Ltd dated May 1972;
- Information contained within the Redevelopment Option #3 report prepared by Williams Boag Architects and in particular Appendix 18.4 of this report containing a high level structural feasibility assessment by HMC Consulting Engineers. Only cursory inspection and no condition assessment appears to have been undertaken;
- Miscellaneous documentation; &
- Site photos and observations.

We understand that the existing buildings appear to have performed reasonably over their life in consideration of their historical loading regimes and structural performance.

#### 3.2.2 Gallery, Library, and Council Offices

##### 3.2.2.1 Existing Construction

We understand that the existing building was constructed originally in 1962 as a single storey building, with an additional level added in 1974. The building appears to be comprised of:

- Pad foundations founded within the reactive clay soils at a depth of approximately 1500mm;
- Steel framing for the suspended floor and roof levels:
- The floor consists of a thin concrete slab poured on corrugated "iron" permanent formwork supported by bar joist trusses at 2' (foot) centres supported by primary steel beams;
- Roof framing consists of steel beams and cold formed purlins supporting insulation, ceiling, and roof sheeting.
- The drawings show some of the elements concrete encased near the stairs. Aside from this, there appears to be no fire protection to structural elements.

It is unclear at this time whether stability is provided by infill brickwork (unreinforced), bracing, moment frame behaviour or a combination of these systems.

There is no available information regarding the existing imposed (gravity) load capacity of the existing floors (both ground and suspended first floor), nor the lateral capacity of the structure – wind, seismic, or notional.

Preliminary reverse engineering by HMC indicated the introduction of existing columns and framing to supplement existing footings should additional levels or loading increase be proposed.

##### 3.2.2.2 Commentary on Re-use

Without existing structural drawings being located, significant and intrusive investigation, testing, and survey of the existing structure combined with structural assessment (calculations) will be required to ascertain its suitability for any significant re-use scenario – particularly involving expansion and change of use.

Based on the above information, it is our current view that regardless of the outcome of any structural investigation, significant work is highly likely to be required to the existing structure for it to be suitable for the proposed uses as described to Arup and be upgraded for compliance with the NCC and associated current Australian Standards. This work will be holistic and unlikely to be limited to localised areas as the existing structure is likely to be deficient in its current condition in comparison with the current NCC under gravity load capacity (strength and serviceability), lateral load capacity, foundation performance, fire rating, dynamic/floor vibration performance, and acoustic performance.

#### 3.2.3 Performing Arts Centre (PAC)

We understand the PAC building to be of significant heritage value and part of the original Town Hall. It is traditional construction of its time (circa. 1910 completion) of load bearing masonry wall construction with timber upper floor and roof framing. We are not aware of any existing drawings nor structural surveys being undertaken. Site photographs available indicate the existing masonry walls to be in sound condition with minimal evidence of significant ground movement, therefore the foundation and wall structure was performed adequately over time.

Like many heritage buildings, the structure will not be compliant with current codes and standards. Typically, unless measurable changes are being made to the building that varies its structural mass, arrangement, stability system, or attachment to an adjacent structure; there is no obligation to upgrade the structure. This will need conformation form the certifying authority (council or PCA). That said, it is not unusual for clients to assess these assets including their desired future life and function and consider some upgrades, and for a building such as the PAC this would generally be a seismic retrofit to improve its expected performance under an earthquake. We recommend that for a building of this importance to the community that a structural assessment is undertaken to understand the likely seismic resilience of the building for discussion with the client.

For the purposes of the concept design and with reference to the following sections, we have assumed that the existing PAC will be structurally separated from the new works, and remain a standalone structure in or as close to its original configuration. Wherever possible, existing doors and openings should be re-used in the proposed function configuration to avoid any demolition to original fabric that would alter its existing structural behaviour.

### 3.3 Gallery Building

The main gallery building is a long span structure, creating a substantial and flexible column free space for the entry garden and plaza at ground level. A composite structural steel and concrete structure is proposed comprising:

- Piled foundations to the underlying basalt bedrock
- Steel primary trusses integrated in the gallery façades spanning between pairs of concrete cores at either end of the building, utilising an efficient 8m depth and placed within the service zones on either side of the gallery.

Pages from Arup's Concept Engineering Report, outlining the structural inadequacies of the current building.



### 3.1 Co-Design Process, Learnings & Outcomes for Design



Co-Design Workshop - Public, businesses and community leaders session



Co-Design Workshop - Gallery stakeholders



Co-Design Workshop - Youth session



Co-Design Workshop - Artist and makers creative mixer



Co-Design Workshop - *Chromatica* exhibition opening



Co-Design Workshop - All Audiences

The Co-Design process has been formulated to allow for a wide range of stakeholders and the broader community to participate in the design of the New Hamilton Gallery project.

As part of the Co-Design process, design propositions have been formulated, tested, reformulated and refined in order to arrive at a design solution that includes the aspirations and ideas of the entire community. This process can be broadly seen in two phases - the initial or preliminary phase and the later more detailed phase.

During the initial Co-Design workshops, a number of key community desires for the new building were understood to be:

- The openness and inclusiveness of the new building,
- A family and child-friendly space,
- A space for both locals and tourists, showcasing 'blockbuster' and local work,
- A connection to the landscape,
- The integration of the NGH with future Hamilton development (in particular the street scape revitalisation and the Gov Hub)

During the more detailed Co-Design workshops, key positive themes were:

- The elevated building, and the openness of the ground plane,
- The primacy given to the garden,
- The response to existing heritage (PAC building),
- The interactions of gallery and PAC functions.

Key concerns raised by the of the community in the more detailed workshop phase regarding the project included:

- The size and height of the new building,
- The amount of wall space to display work (currently only 2% of the collection is displayed),
- Budget and funding,
- Issues of the existing building (the lack of transparency between street and Gallery, the quality of the building fabric).

These desires and concerns were taken on board by ACA and were used to further refine the proposal from here. ACA has used this information to prepare a Concept Design scheme, incorporating the learnings from the Co-Design sessions, and synthesising them into a proposal that aims to address the wants and needs of the community. For a more detailed consideration of these matters, please refer to architectural Co-Design summary reports for each phase.

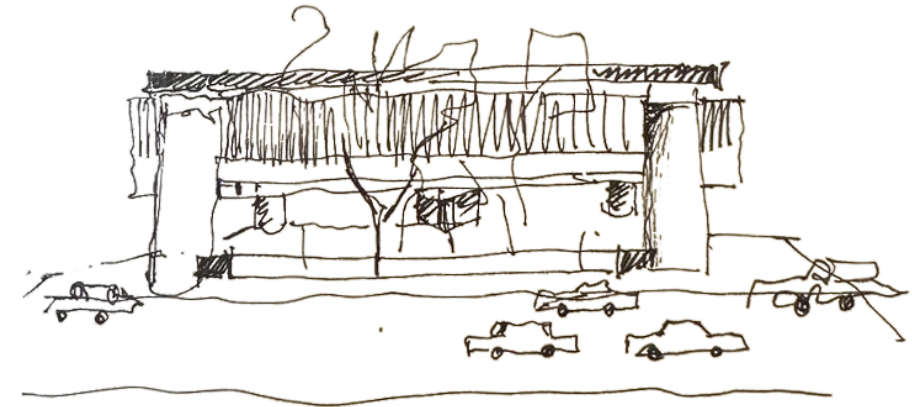


Angelo Candalepas speaks at the opening of *Chromatica* at the Hamilton Gallery



Angelo Candalepas and Hamilton Gallery Director Joshua White

## 4. The Proposal

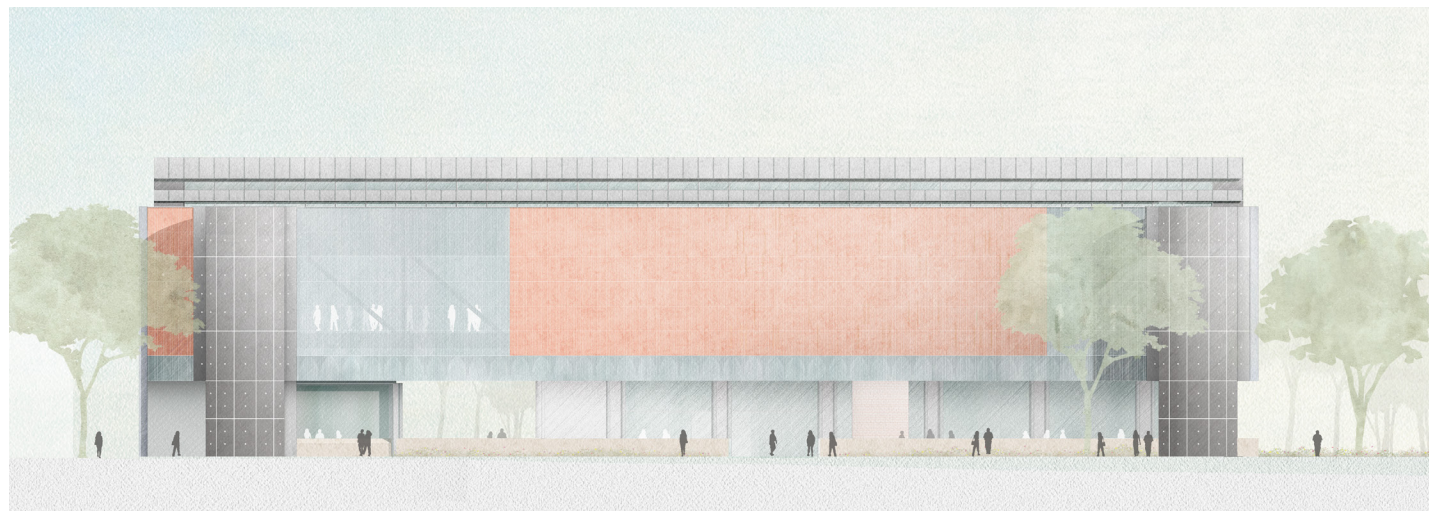


Elevation sketch by Angelo Candalepas





View from Brown Street



East Elevation

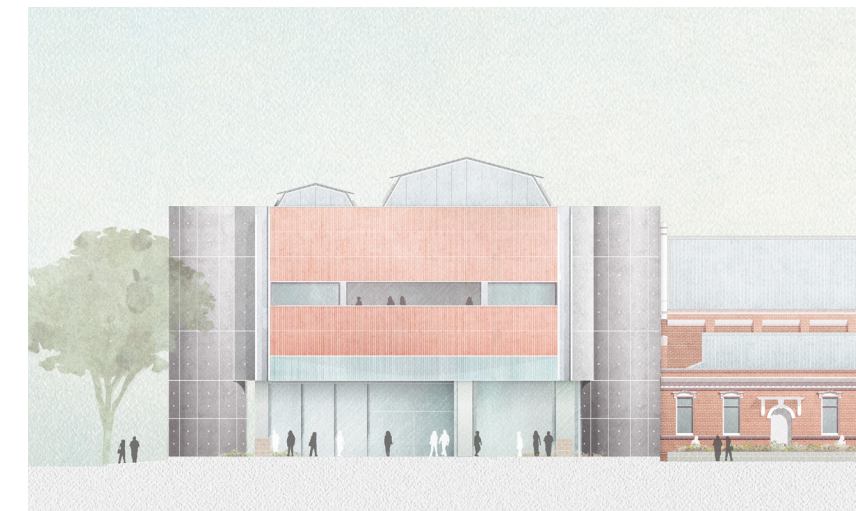
## 4.1 Design Principles

### 4.1.i. Landscape is the Theme

Initially through the Brief and also emerging through the Co-Design process, is the concept of the New Hamilton Gallery as a landmark. A landmark is understood broadly as an object or feature of a place that is easily seen and recognised from a distance, especially one that enables someone to establish their location. From this definition we can understand that there is a desire for the new gallery to provide a clear and legible point of reference in the landscape for art and culture. The design proposition described herein seeks to both provide a singularity or clearly legible form whilst also being something that shapes, connects and responds to the spaces and people around it. These ideas can sometime be at odds with good level of connectiveness giving rise often to a merging and loss of definition for the building. The raising of the main gallery form, hovering above the landscape as well as a careful arrangement of ground level activities, gives the project a strong street identity and singularity.

This desire for a building to be a landmark or a highly legible point of reference perhaps steams both for the community's desire to reflect and crystalise their ambitions as well as serving as a beacon for others from a broader place. Providing a solid and distinct structure for an activity not only sends a clear message of the legitimacy of this endeavour in the community, it also can awaken and draw out ideas which otherwise would be lost. The facilitation of arts and culture in a community is key to its growth and vitality.

This idea of a landmark or legible point of reference will operate for the community and the wider public. This can be an important element in the community's representation of itself to a broad region and serve to attract people curious to learn and understand. The making solid of art and culture enables others to participate and understand new things, appealing to a deep seated human instinct to learn and enjoy. A singularity in a cultural building enables quick apprehension of a place, crucial in any endeavour to attract and draw people in.



North Elevation



## 4.1 Design Principles

### 4.1.ii. Consider a New Heart

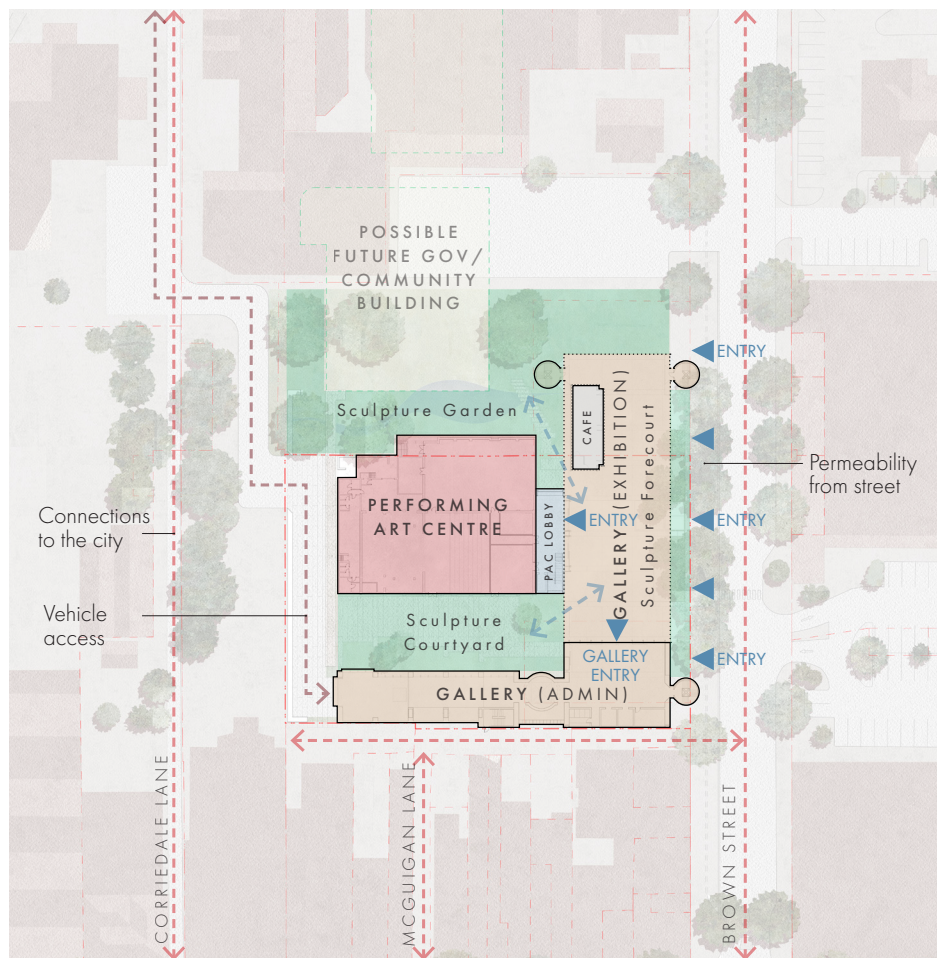
The formulation of the New Hamilton Gallery has been one where the design of the gallery both is providing of a high-quality art centre as well as integrating into a wider urban area being a key element in a wider civic precinct.

The northern and eastern external areas include a high degree of openness and connection to the Hamilton Civic precinct. These are active spaces (e.g. Café, PAC Foyer, Gallery Entry) that also facilitate a variety of art and cultural events to unfold. These spaces are connected to adjacent areas (such as the inner southern sculpture courtyard) to facilitate more controlled public facing activities such as outdoor music, cinema and theatre. The landscape design for the area to the north has been kept such that it can easily interface with the future Government and Community building as well as the new Town Square. Whilst not yet designed, it is understood that this area will be developed in the near future to include activities such as the Library, Council offices and other government agencies. The new gallery design includes a strong sense of openness and flexibility for a variety of configurations of these new facilities.

Key to any cultural precinct's success is its clear articulation of distinctness and boundary. The Gallery precinct is well defined or framed by the architectural strength of the gallery's new exhibition wing. This form provides clear orientation and definition to the activities around it, operating something like a theatre's proscenium arch, that is, creating a window for the performance.

The new Gallery design has sought to make clear the remaining portions of the historic Town Hall building, celebrating its architectural merit by removing various unsympathetic additions. This has allowed the PAC to be a more legible and distinct element in the precinct whilst still being understood as part of this cultural zone. The colocating of complementary uses such as the café, sculpture forecourt and gallery entry will greatly increase the attractiveness of this area, with the external areas easily accommodating a variety of events such as pre- and post-theatre functions, combined gallery and theatre events as well as distinct gallery activities.

The precinct and gallery's design is such that it can allow for both temporary events as well as a possible long-term expansion. Its location within the town centre, adjacent to a number of open areas, allows for the expansion of the precinct and gallery to be easily accommodated. Whilst primarily the Gallery (and PAC) is a cultural hub, the bringing together of people and the sharing of an experience sees the area highly compatible with other activities such as restaurants, bars, cafes and general retail.

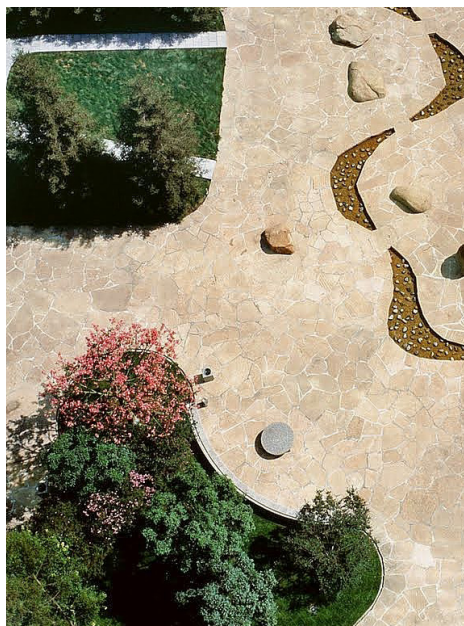


New Hamilton Gallery

1:1500



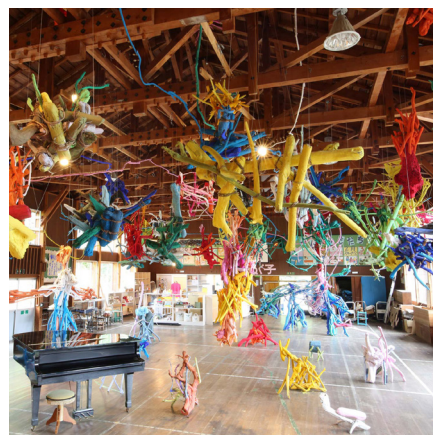
Gulbenkian Gallery, Lisbon



Noguchi Museum, California



Virginia, Clement Meadmore, National Art Gallery Canberra



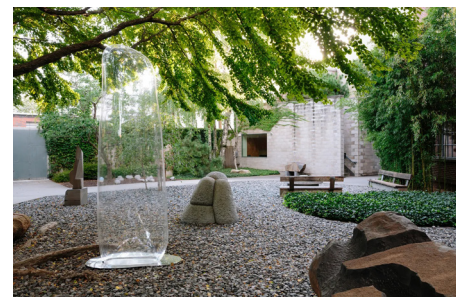
Echigo Triennale, Regional Arts Festival, Japan



Echigo Triennale, Regional Arts Festival, Japan



Gulbenkian Gallery, Lisbon

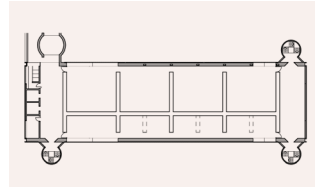


Noguchi Museum, New York

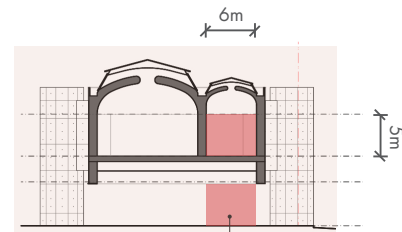


## 4.1 Design Principles

### 4.1.iii. Gallery Precedent Comparisons - Proportional Studies

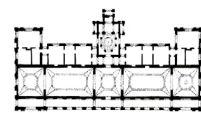


New Hamilton Gallery | Level 1 Plan



New Hamilton Gallery | Section

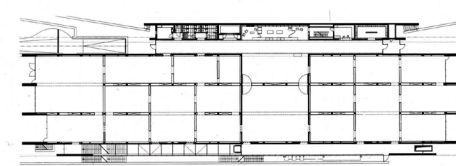
Red square denotes comparative gallery volume across different international examples



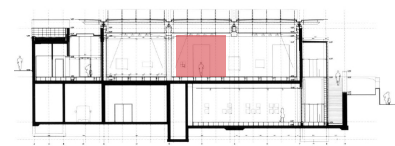
Dulwich Picture Gallery | Ground Floor Plan



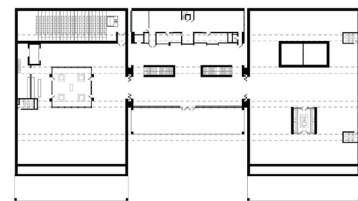
Dulwich Picture Gallery | Section



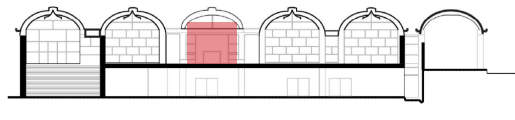
Foundation Beyeler | Ground Floor Plan



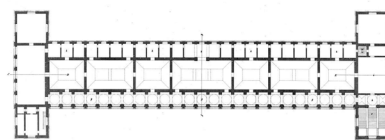
Foundation Beyeler | Section



Kimbell Art Museum | Level 1 Plan



Kimbell Art Museum | Section



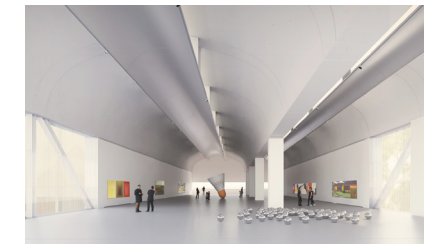
Munich Pinakothek | Ground Floor Plan



Munich Pinakothek | Section

1:2000 0 10 20 40m

1:1000 0 5 10 20 40m



New Hamilton Gallery | Interior



New Hamilton Gallery | Exterior



Dulwich Picture Gallery | Interior



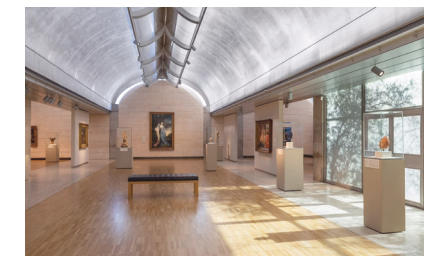
Dulwich Picture Gallery | Exterior



Foundation Beyeler | Interior



Foundation Beyeler | Exterior



Kimbell Art Museum | Interior



Kimbell Art Museum | Exterior



Munich Pinakothek | Interior



Munich Pinakothek | Exterior



## 4.1 Design Principles

### 4.1.iv. Flexibility is Key - Always show the Collection

Key to any gallery's ability to remain relevant into the future is its adaptability and flexibility. The structural systems included in the gallery see a very open internal floor plate with limited internal columns (on the exhibition level) and a completely column free lower forecourt level. Further, the gallery's structural systems have a clear 'baked-in' structural grid or logic such that these structural elements remain obvious and clear into the future. Further, these more fixed structural elements are based around defining spatial areas with time-tested proportions for the contemplation of art. The New Hamilton Gallery has been designed such that its main exhibition area can be configured such that a portion of the gallery floor can remain reserved and open for the permanent collection whilst other areas are reconfigured for temporary exhibitions.

Given the changing nature of art practice both today and into the future, the Gallery includes a number of key elements to allow ongoing adaptability. These include the controlling of light and thermal systems to create a variety of experiences be they near total darkness or strict environmental controls for sensitive objects. The walls and floor include significant void areas which can allow the installation of a number of ICT systems as well as being adaptable into the future for new technologies.

A careful consideration of the visitor experience has been included in this gallery design. Examples of this include the flexibility to accommodate new media, clear and defined areas of experience colocated to mutual benefit (e.g. café near the PAC entry, Gallery entry near the gift shop, art workshops opposite the sculpture garden and visible from the entry). Other aspects of the consideration of the visitor experience include a highly accessible entry to both the PAC and Gallery, the separation of more 'back of house' private functions to areas away from the public frontages, a clear, well-lit and attractive entry to both the Gallery, PAC and the precinct as a whole as well as an understanding of how to build a sense of anticipation, distinctness and an overall pleasurable cultural experience.

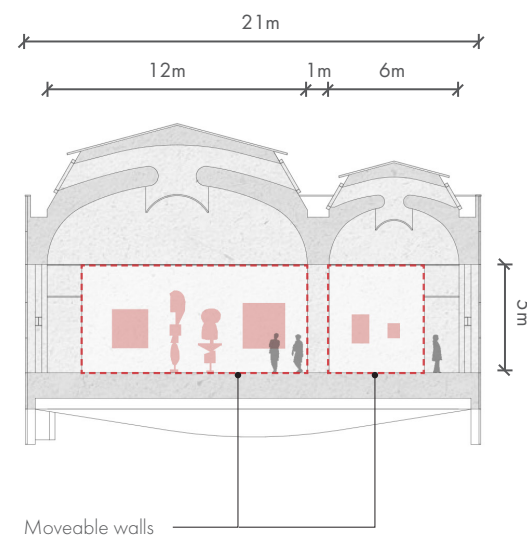
The project has begun the journey of involving First Nations peoples in the design of the Gallery as well as seeking for a Gallery with a strong connection to Country. Whilst commenced, this journey of collaboration with the Indigenous community has some way to go to ensure this important connection to place. The acknowledgment of First Nations peoples, their deep connection to place and ability to add significant richness and meaning to a building is an unwavering design principle of our approach.

The Gallery has been designed to be a welcoming and inclusive space for all. Aspects of this design include the step free access, clear well surveyed ground plane areas, open, active and flexible ground floor accommodation, and attractive, well illuminated public areas and the inclusion of systems to allow the experience of art for all people regardless of their requirements.

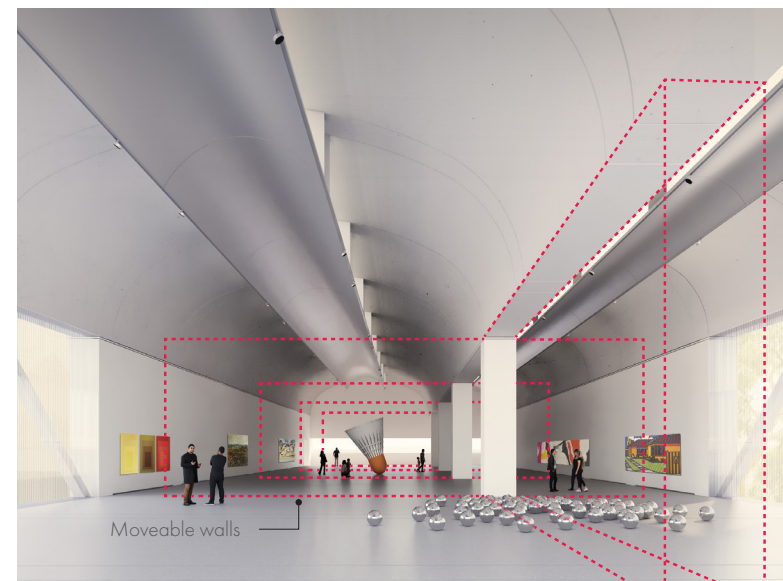
The Gallery design has been carefully considered with respect to its sustainability. Working with our design consultants ARUP, the project includes many 'baked-in' sustainability principles in its design. Detailed later in this report is a discussion of some of these principles which include, flexible 'loose fit', adaptable design (able to cater to future art practice), clear and large span structural system, passive solar systems (sun shading, solar orientation etc), the use natural daylighting, a distinct highly controllable exhibition level with the minimisation of unwanted external thermal gain/loss, careful consideration of future desired character of the precinct, and active energy systems such as roof-top solar.



New Hamilton Gallery – a variety of exhibition configurations



New Hamilton Gallery – flexibility of exhibition space



New Hamilton Gallery – internal perspective of exhibition space

## 4.1 Design Principles

### 4.1.v. Gallery Functionality

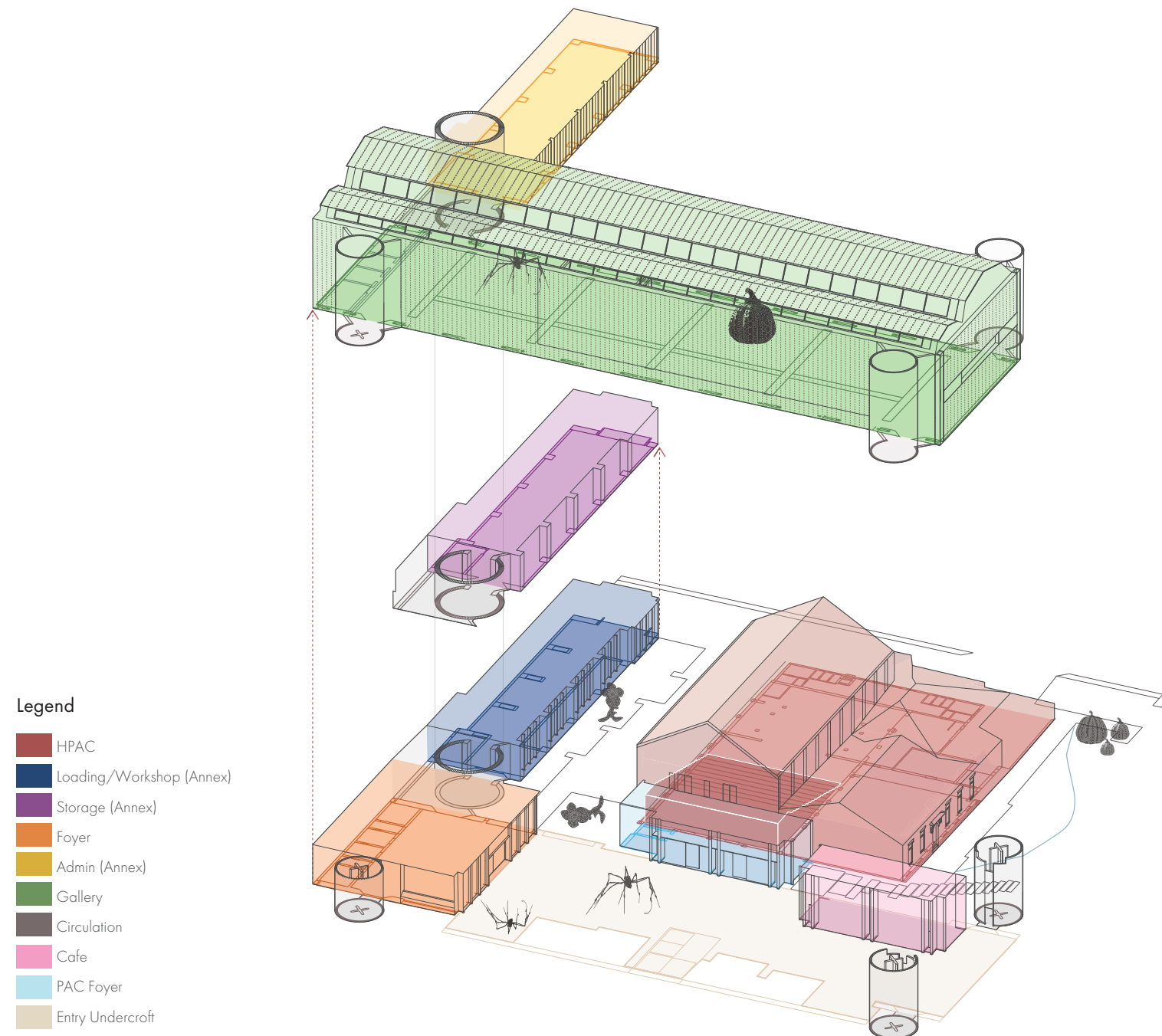
The New Hamilton Gallery proposal describes a high-quality art space with strong connections to its surrounding context (both currently and the future desired character).

Key to the Gallery's design is its connections to the activities of the wider precinct, both currently and in the future. The close integration of the Gallery and the existing PAC allows integration and activations from these cultural facilities. Colocated on the ground floor are complementary activities such as the café/restaurant, Gallery Entry and Shop as well as more public facing gallery spaces such as the workshop/event rooms.

Providing a powerful framing and orienting form, the gallery's main exhibition space is a clear linear volume with sufficient dimensions as to accommodate a wide range of traditional and contemporary art practices. The exhibition level's structural and architectural form permit a wide range of room and wall configurations with key building services located in the more fixed external wall elements. Along with the main exhibition space, the Gallery also includes a number of other art exhibition areas. The ground floor level includes a variety of external exhibition areas for traditional sculpture, performance or cultural events. Coupled to the inner sculpture court to the south is a series of workshop/event spaces in the Annex building which can be easily reconfigured for exhibition, art practice or performance.

The Gallery design includes a number of non-exhibition spaces for activities such as collection storage, administration and gallery management. These staff only activities are located in the southern Annex building which affords a direct connection to the main exhibition spaces as well as the ability to restrict access when required. The Administration areas are located on the upper most level of the Annex building with the Mezzanine level to include art storage. The ground floor Annex building level shares its use of loading and exhibition preparation (during setup and de-install this space can be isolated as required) with that of workshop and event spaces. This collocating of activities allows for efficient use of these areas given the time between exhibitions.

The Gallery design includes routes through the building for the movement of art. Given the wide variety of sizes, weight and sensitivities of art objects, this 'art-path' is a thermally close controlled environment with generous width, height, and floor loading allowances. This art path has a direct connection to the loading area, through the building to the exhibition level. The vertical transport component would be via an art lift with similar spatial and loading allowances. The ability to control the environment throughout this art path will represent significant efficiencies with respect to installation and de-installation of exhibitions.



Functional zones across the gallery



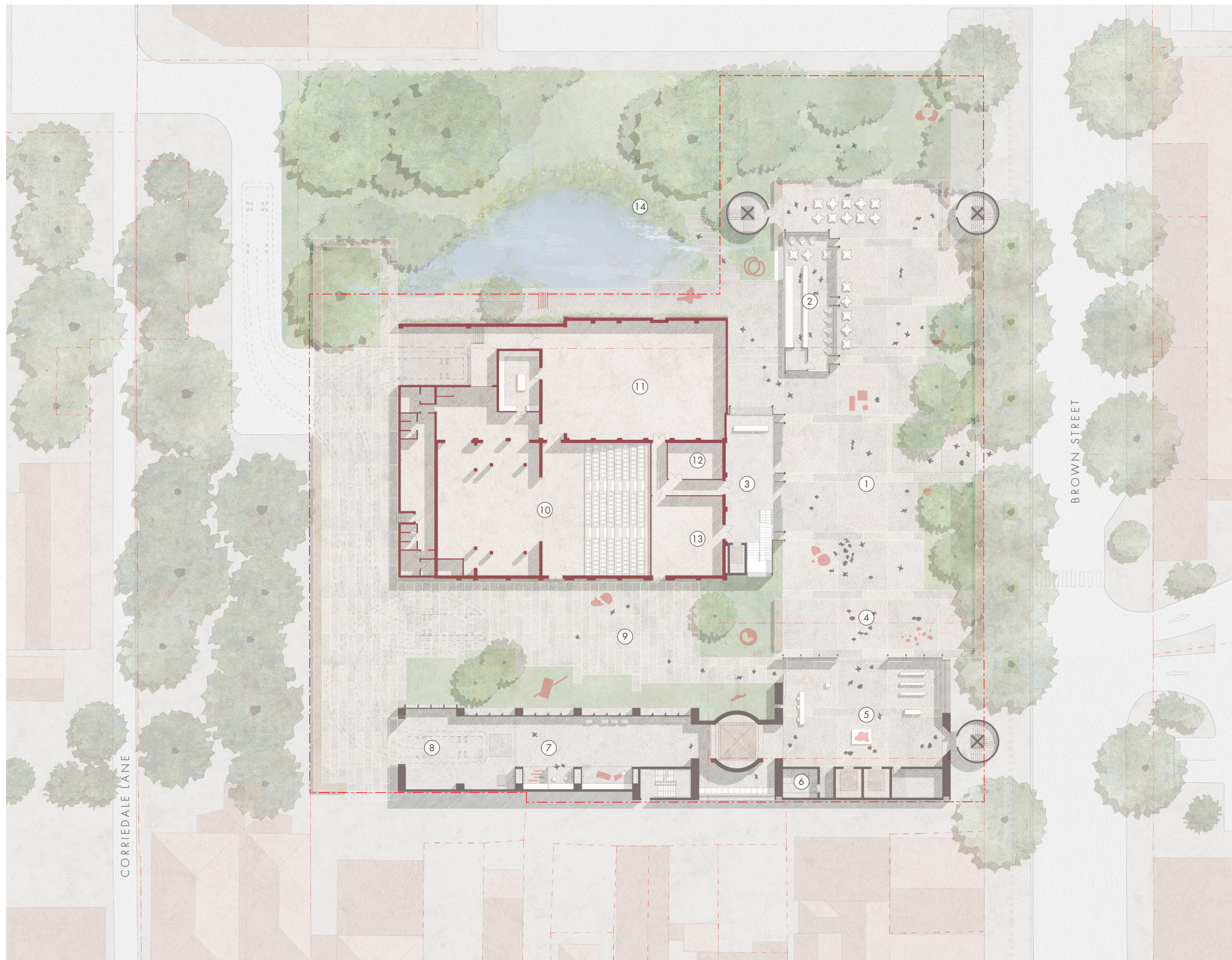


## Context Plan

1. Gallery (Exhibition)
2. Gallery (Annex)
3. Performing Arts Centre (PAC)
4. Vehicle Access
5. 72 Lonsdale Street
6. 118 Brown Street (McDonald's)
7. 108 Brown Street (Coles)
8. 179-193 Gray Street

1:1000





## Ground Floor Plan

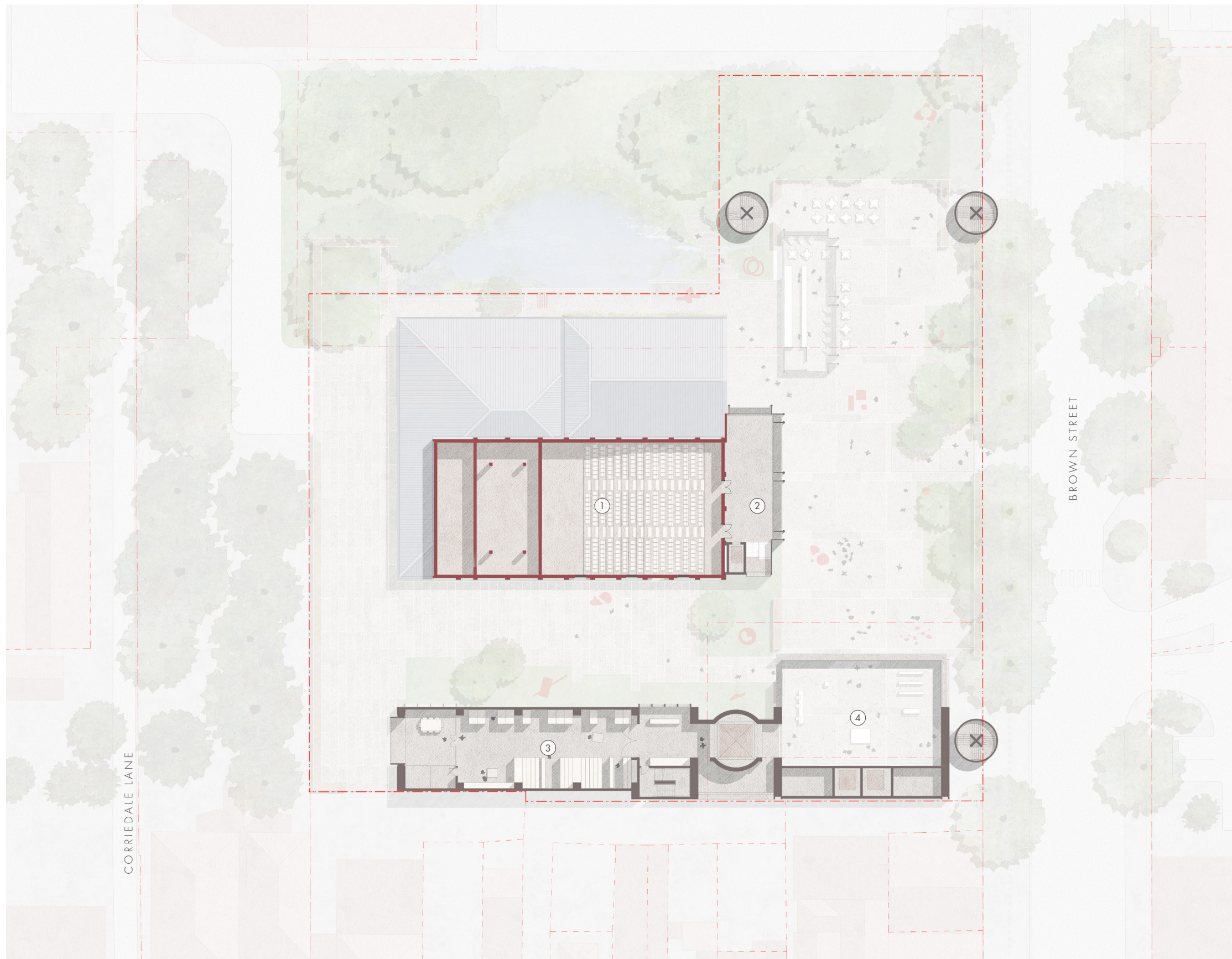
1. Event & Sculpture Forecourt
2. Cafe
3. PAC Foyer
4. Gallery Entry
5. Gallery Foyer & Shop
6. Amenities
7. Workshop
8. Loading Dock
9. Sculpture Courtyard
10. PAC Theatre
11. PAC Function Hall
12. PAC Amenities
13. PAC Store / Admin
14. Sculpture Garden

0 2.5 5 10 20m



1:500



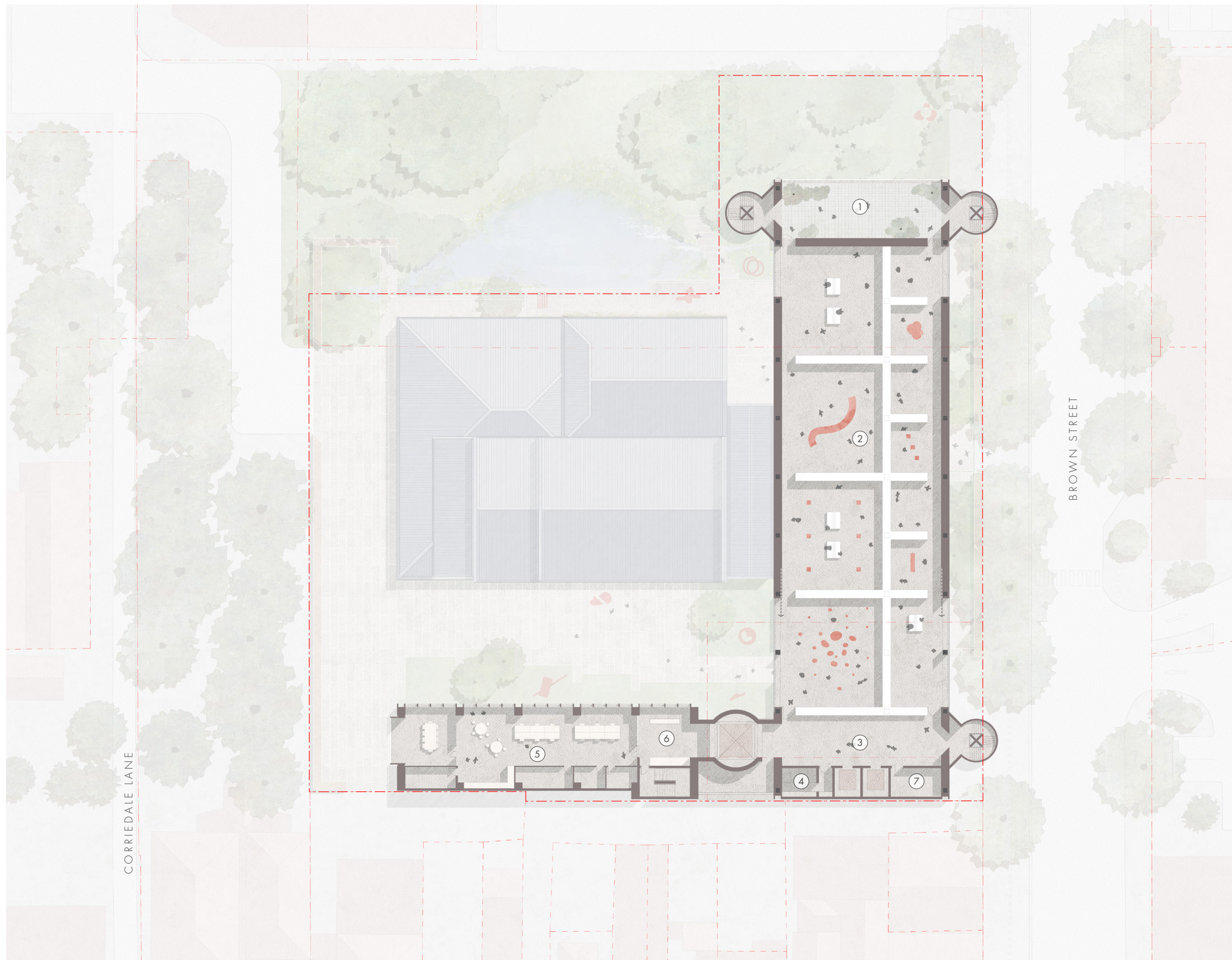


## Mezzanine Level Plan

1. PAC Foyer
2. PAC Theatre
3. Storage
4. Void

1:500





## Level 1 Plan

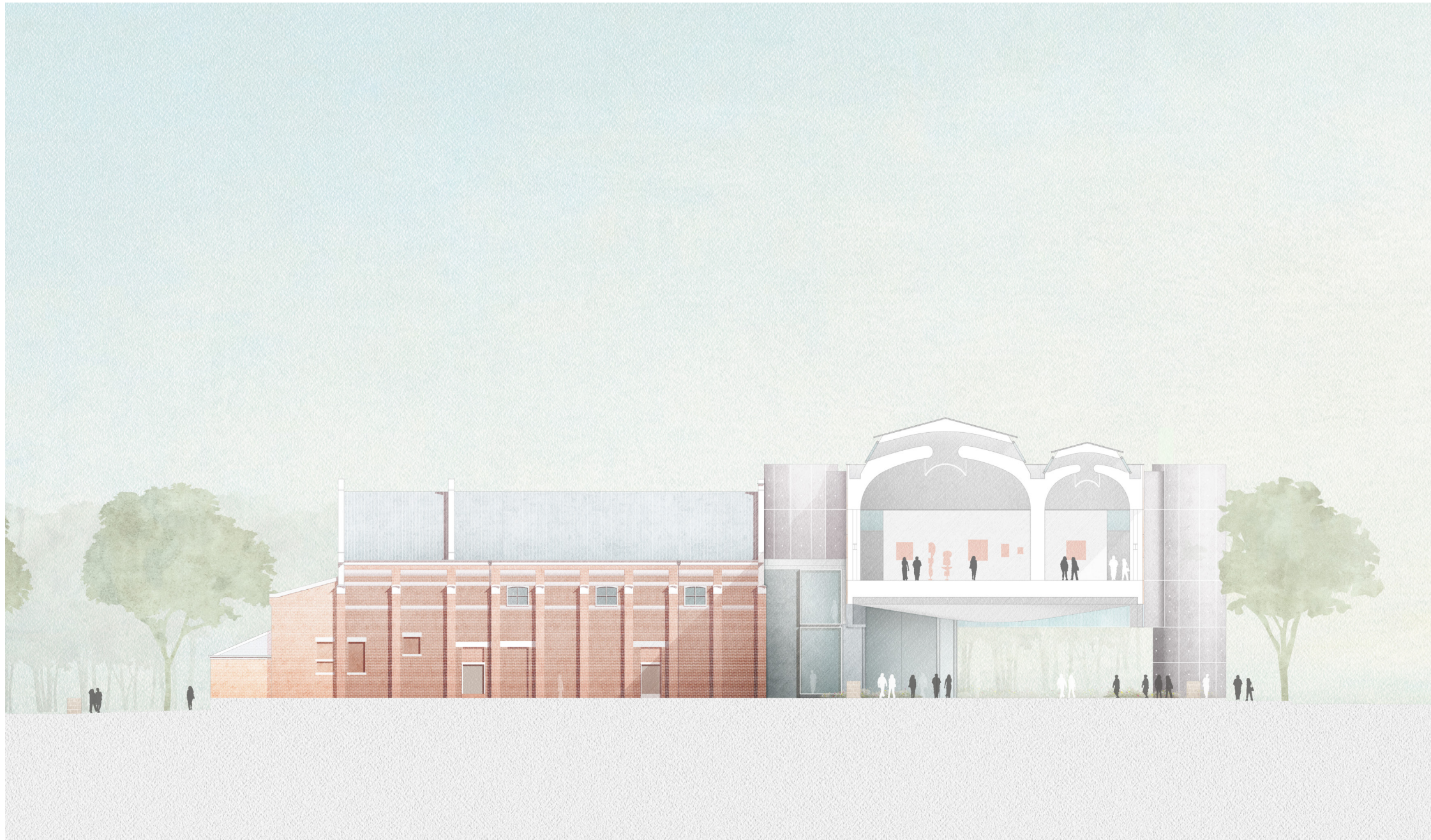
1. Terrace
2. Main Gallery
3. Gallery Lobby
4. Amenities
5. Administration / Office Space
6. Reception
7. Plant

0 2.5 5 10 20m

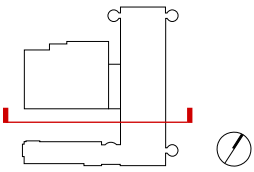


1:500

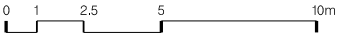




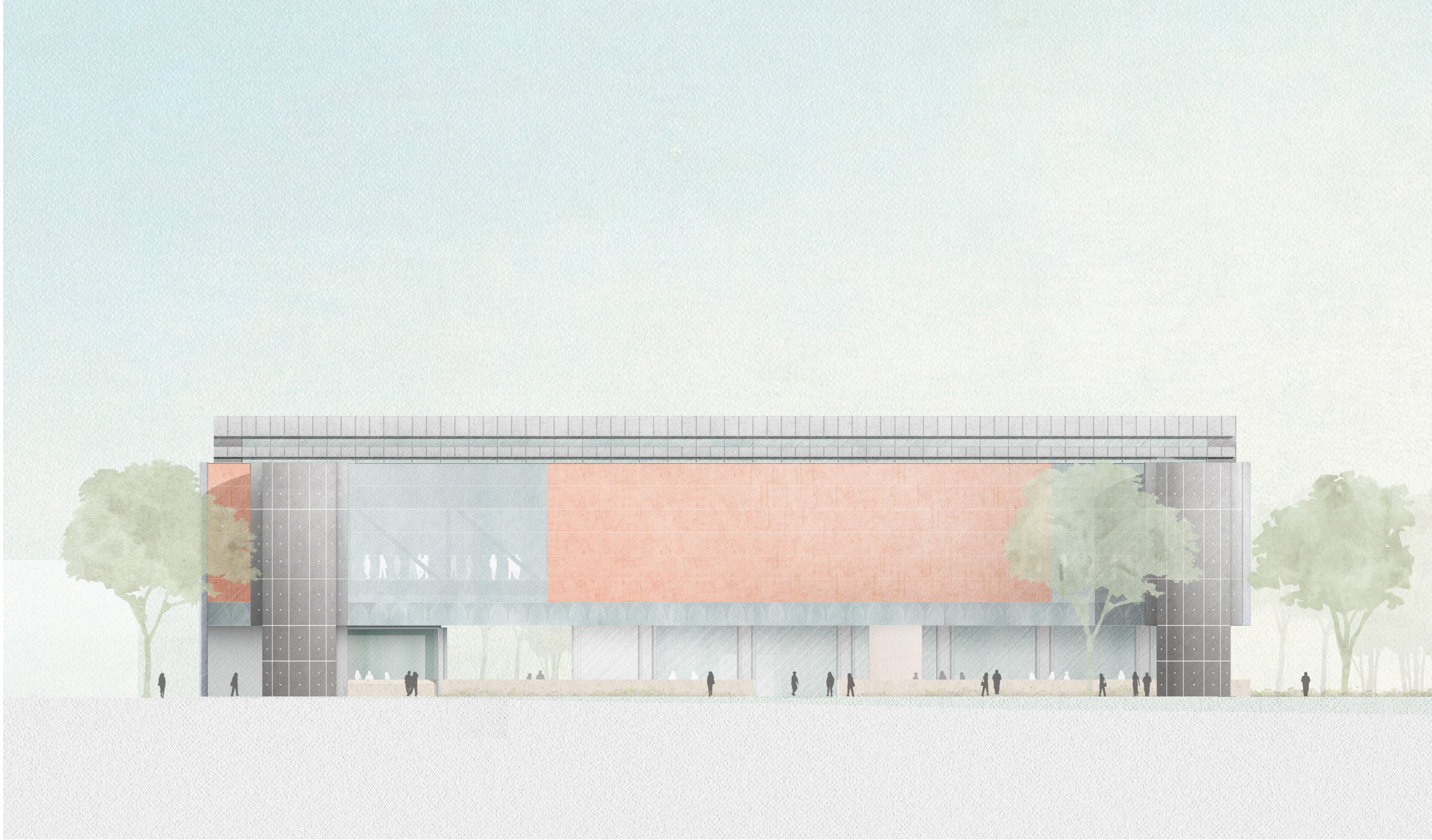
Section A



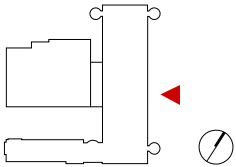
1:250



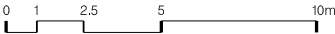




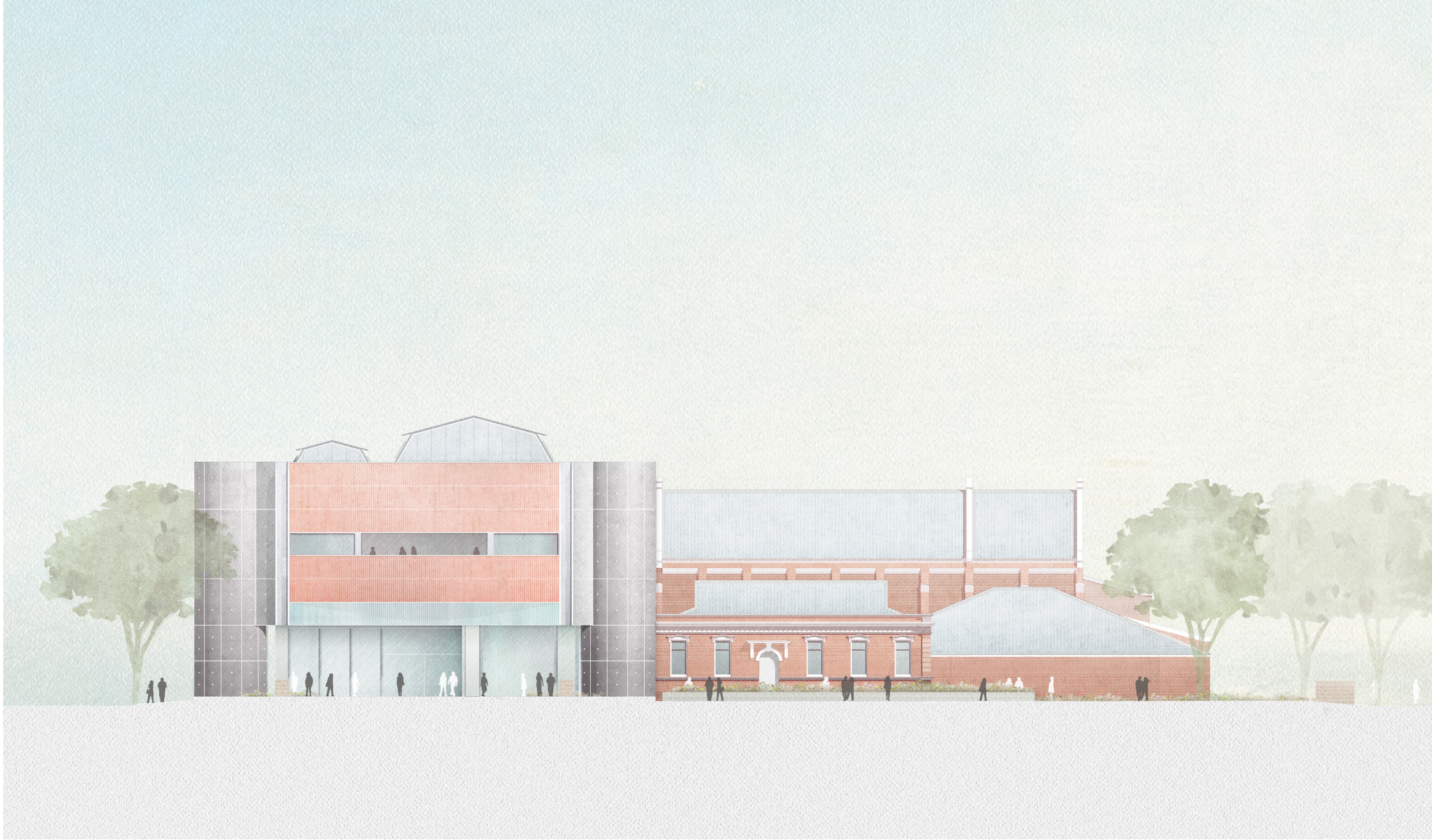
East Elevation



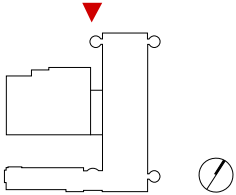
1:250



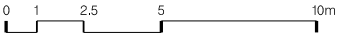




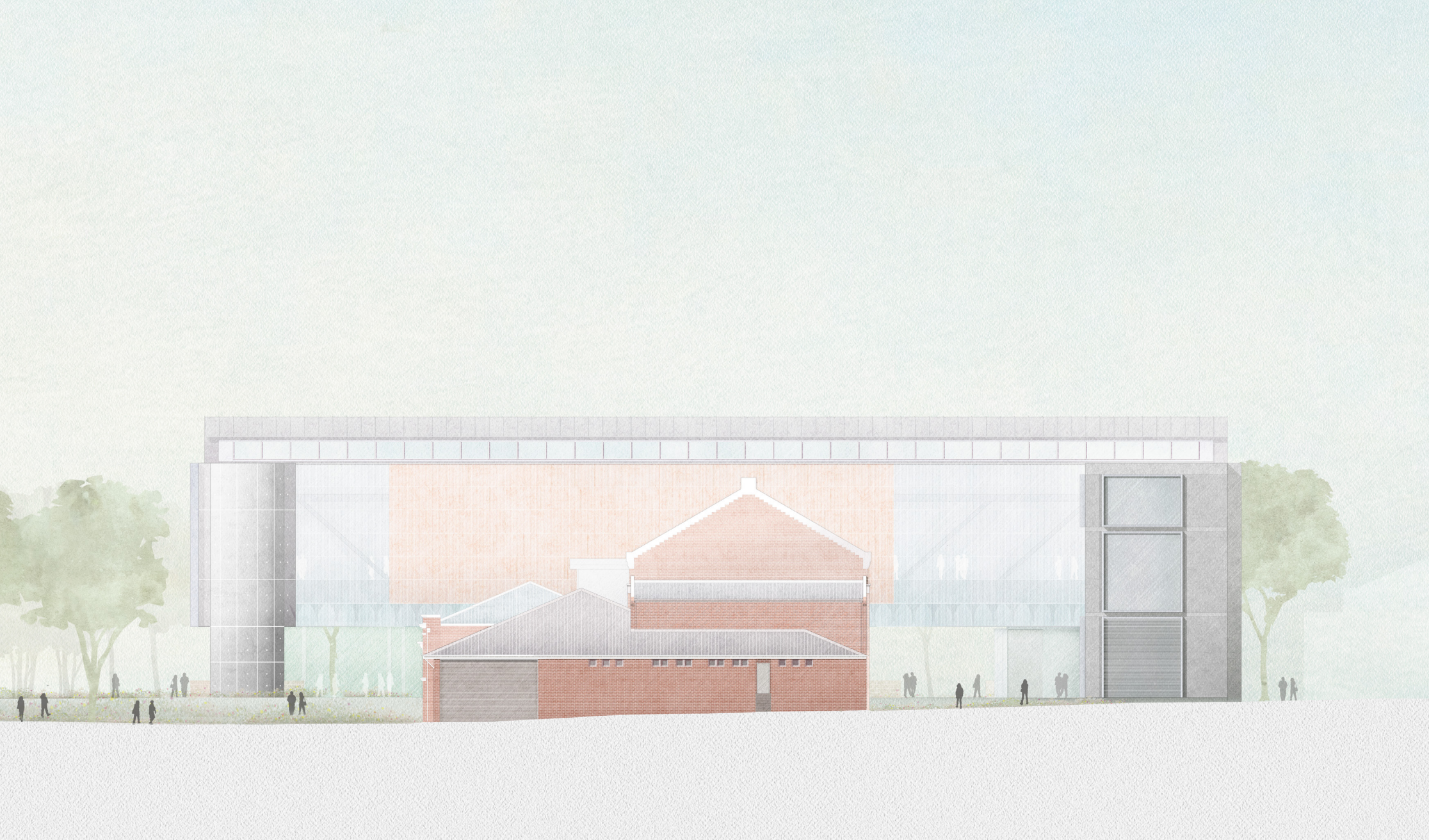
North Elevation



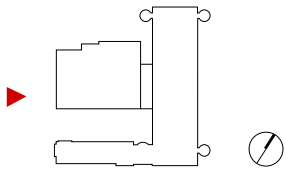
1:250



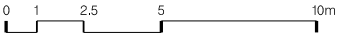




West Elevation

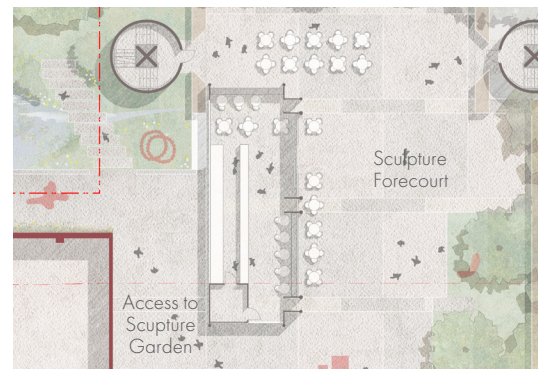
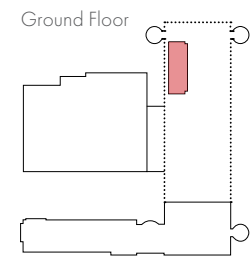


1:250

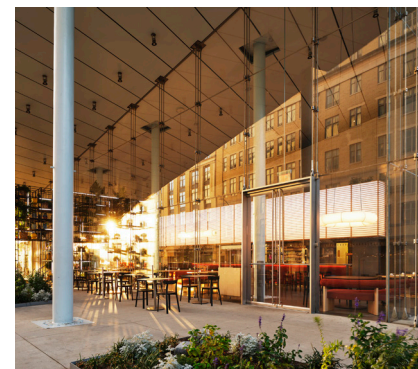




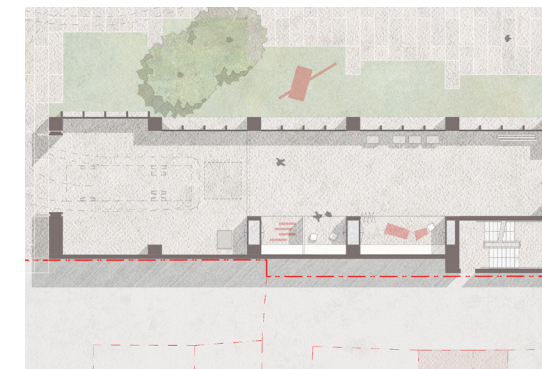
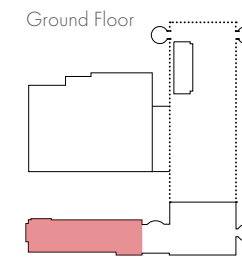
## 4.3 Functional Summary



Cafe



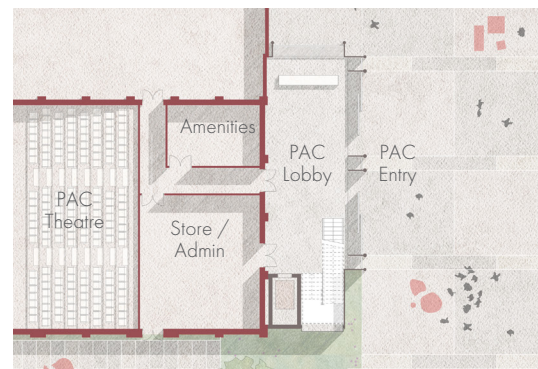
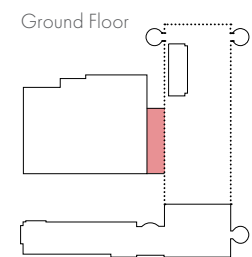
Whitney Museum, New York,  
RPBW



Workshops



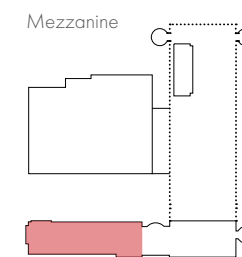
RIT, New York



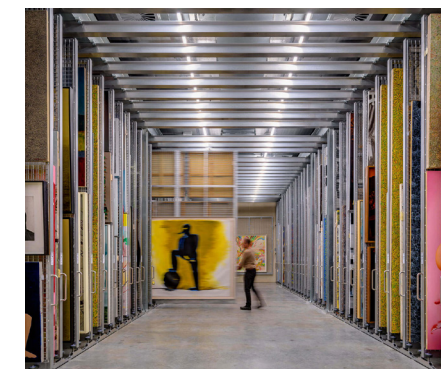
PAC Lobby



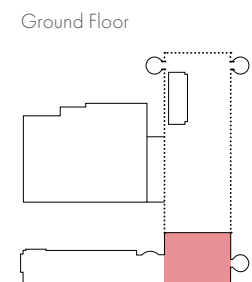
Zamora Offices, Spain,  
Alberto Campo Baeza



Storage



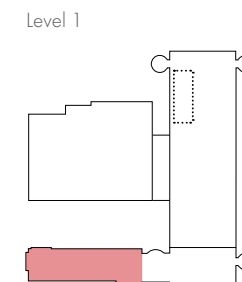
Dangrove Art Space, Sydney,  
Tzannes Architect



Gallery Foyer & Shop



West Bund Museum, Shanghai,  
David Chipperfield Architects



Administration



Roche Multifunctional Workspace Building,  
Germany, Christ & Gantenbein



## 4.4 Technical Summary

### Art path, gallery flexibility, mechanical and lighting systems

Whilst the proposal for the New Hamilton Gallery included herein is for a Concept Design only, careful consideration has been paid to the necessary technical aspects of this building type to ensure that the design presented is able to continue into the next stage.

Key to any gallery's success is the preservation and exhibition of art. An important aspect of this is the achieving of the necessary environmental control systems such that (when required) the Gallery can achieve the necessary close environmental controls required of institutions exhibiting significant pieces of art. The building's mechanical systems can achieve the required close environmental controls and can also operate at the more wider ranging conditions, e.g. Bizot Green Protocols. The routing of key environmental systems through the fixed outside walls allows the internal areas flexibility to cater for many different exhibitions arrangements. The confinement of this close control exhibition space to level 1 allows for a significant level of buffering from outside conditions, greatly assisting in limiting the variation in these conditions and the associated extra energy required to return these to a stable level.

The lighting strategy for the project is multi-faceted using both natural daylight as well as artificial systems. The daylighting strategy includes a number of skylights with solar control and reflective zones under them to soften the light quality reaching the gallery space whilst still connecting the space to the subtle variances of natural light and its changing nature through the day and seasons. Along with the external control devices, a parabolic profiled reflector runs longitudinally in the gallery spaces to ensure the top lighting, washes through the gallery, reducing unwanted glare effects.

The Gallery's design allows for careful control of user groups such that security and control are straight forward and without the need for excessive staffing or more active systems. The requirement of exhibition and storage areas to be accessed vertically means that users need to access the strictly controlled vertical circulation (stairs and lifts) rather than being able to directly access exhibition areas via more open approach routes. Art storage areas are confined to the Annex building such that there are further layers of access control to this zone.

The Gallery design is very mindful of allowing for emerging and yet to be described art practices. The allowing for generous perimeter cable routing along with a flexible internal structural grid caters to a wide range of physical sizes. Lighting control is such that these openings to outside can be easily screened without the reliance on complex window light control devices.

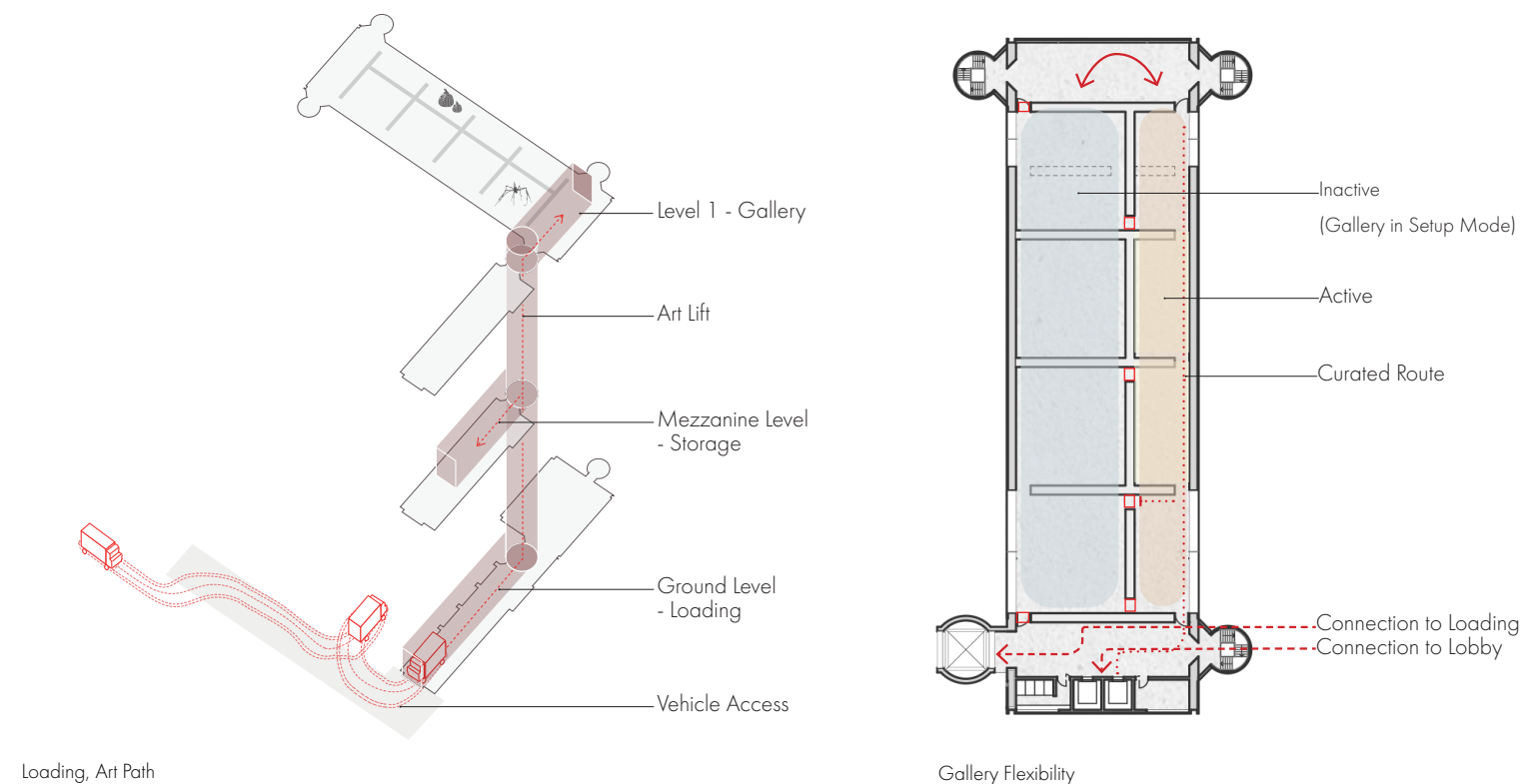
The visitor experience and management is straight forward in this gallery design given its clear and obvious circulation routes and entry. Rather than provide multiple ways into and out of the building (with many internal paths), the singular entry and vertical circulation route provides for a clear wayfinding experience and a way to ensure access control.

The main storage and administration areas are located in the upper levels which affords a high level of safety and security. No art storage is proposed on ground level removing obvious associated environmental and access issues. The art storage level in the centre level of the building uses the building's fabric as thermal buffering with the upper-level administration level being afforded more light and scenic views.

Located in the centre of nexus point of the design is the art elevator. This element, expressed on the façade, has been sized to allow for the straightforward movement of art objects throughout the facility.

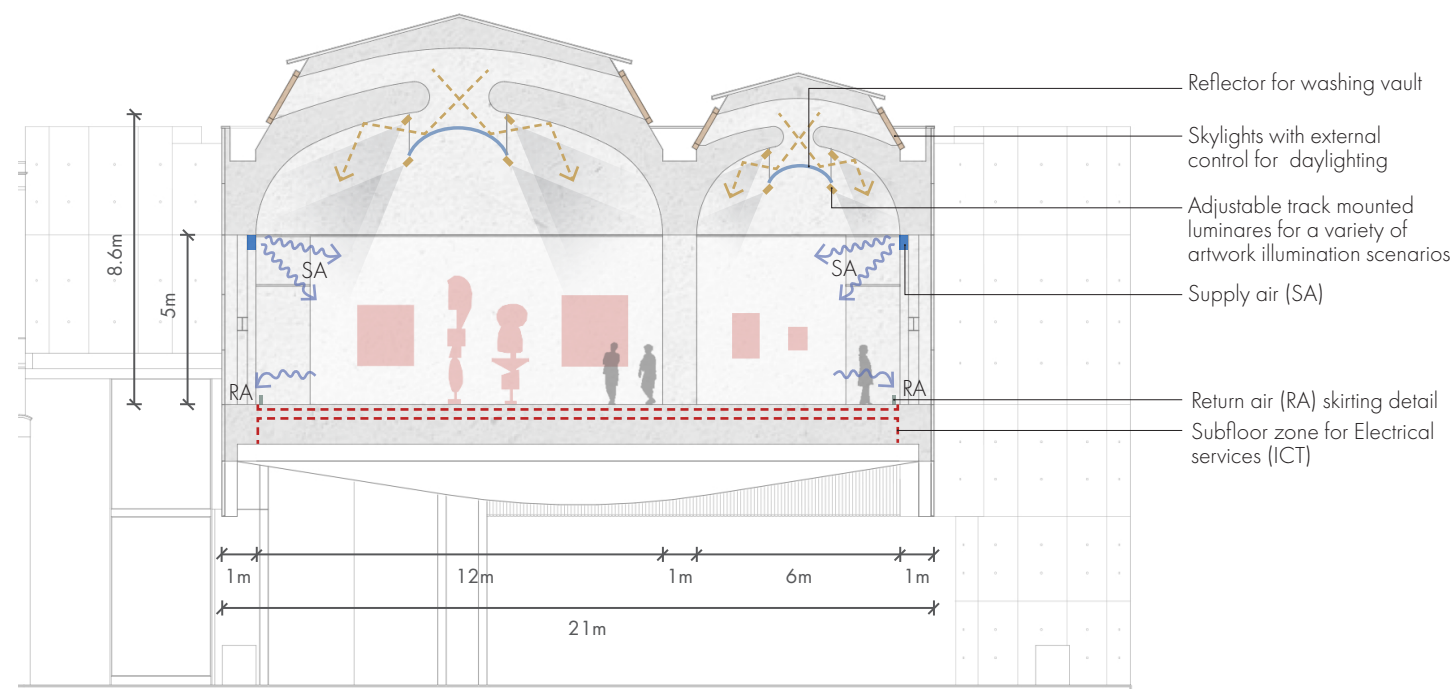
Whilst colocated to the adjacent Performing Arts Centre, the two buildings are proposed to still maintain fire separation to achieve the required fire safety requirements.

The New Hamilton Gallery has been designed to integrate into a whole-of-precinct masterplan project. As part of this project the necessary precinct enabling works will need to be considered and provided (both for the Gallery and any future Town Square and administrative buildings). Such work would include key site precinct infrastructure e.g. power, communications, drainage etc. Refer to the building services engineering portion of this report for a more detailed examination.



Loading, Art Path

Gallery Flexibility



Mechanical systems and lighting strategy





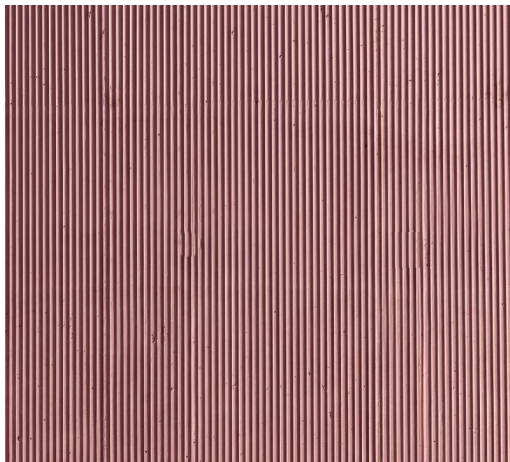
Interior  
Kimbell Art Museum, Louis Kahn



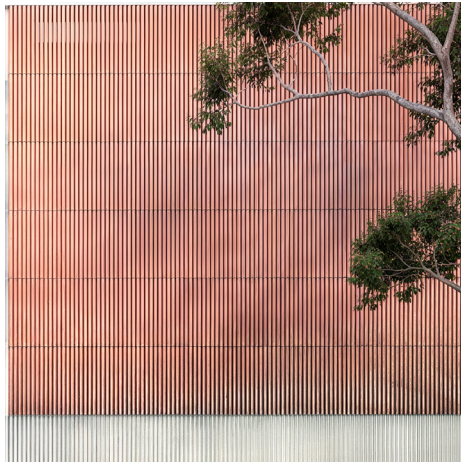
Concrete,  
Salk Institute for Biological Studies, Louis Kahn



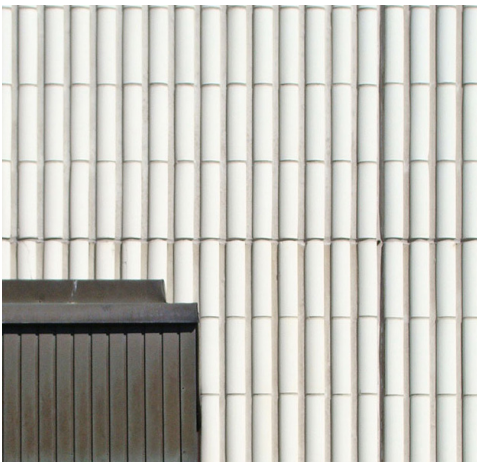
Concrete and Paving,  
Nordic Pavilion, Venic Biennale, Sverre Fehn



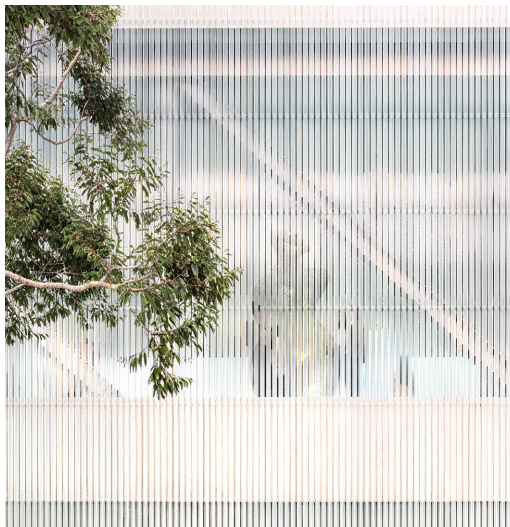
Terracotta Finish,  
Ceip Imaginalia Primary School, Diaz Romero Arquitectos



Fluted Terracotta Tile



Terracotta Tile,  
Jyväskylä Theatre. Alvar Aalto



Fluted Glazing



Fluted Glazing,  
Johnson Wax Building, Frank Lloyd Wright



Glazing,  
Zamora Offices, Alberto Campo Baeza



East Street Facing Facade,  
Foveaux Street. Candalepas Associates



Plasterboard,  
Church of the Living God, Candalepas Associates

## 4.5 Materials & Finishes - Building

The materials palette for the New Hamilton Gallery is based on robust, long lasting more natural materials. This is in contrast to materials which are unproven over time and rely on significant amounts of maintenance for their appearance. The building's façade materials are primarily a profiled ceramic tile rain-screen with fluted profiled fixed glazing. These are well established systems with an ability to adjust profiles, textures and tones, necessary for the amount of cladding required.

A key criterion for the selection of materials is their ability to be sympathetic to and also physically embody the local physical environment. The external works ground finishes are proposed to use significant amounts of local Grampians stone with a variety of finishes and textures. The integration of the different local stones, e.g. sandstone, limestone and granite, create a rich palette to provide distinct landscape experiences across the precinct. As part of this landscape design, it is proposed that the project makes significant use of native endemic vegetation which by its very nature is suited to the local conditions as well as embedding the project into its place.

The proposal features very limited use of materials which are made from a coating on a less resilient backing substrate. These materials have rely on a thin surface coating which can be easily damaged during the construction or maintenance phases. Rather, it is proposed to use materials whose surface finish is an embodiment of the material's composition e.g. encaustic tiles. Generally, materials with a substantive thickness to their surface weather over time in such a way that the changes they experience with age are more aesthetically pleasing than materials with a thin coating finish. Examples of these thicker integrate materials would be the ceramic cladding, the stone paving and off-form concrete structural elements.



## 4.5 Materials & Finishes - Landscape



Grampians Grey Gum



Eucalyptus



Local Stone



Austral Grass Tree



Ribbed Bush-pea



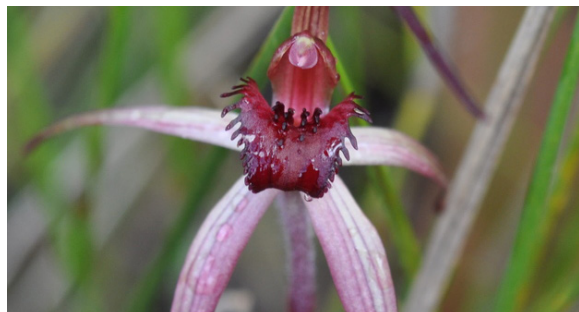
Sandstone Brick



Granite Paving



Local Stone



Grampians Spider Orchid



Silver Banksia



Grampians Grevillea

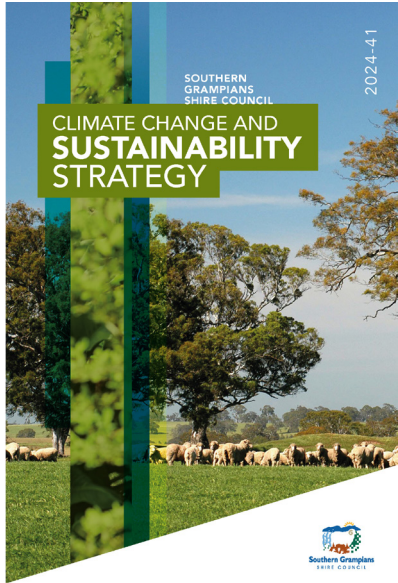


Dwarf Grampians She-oak

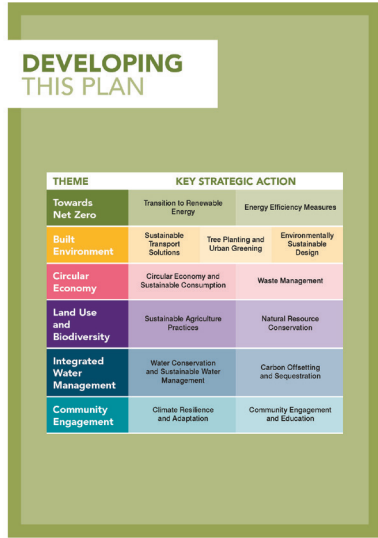


Golden Heath

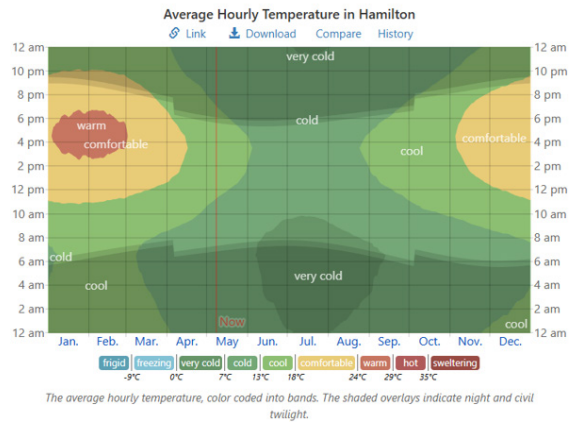




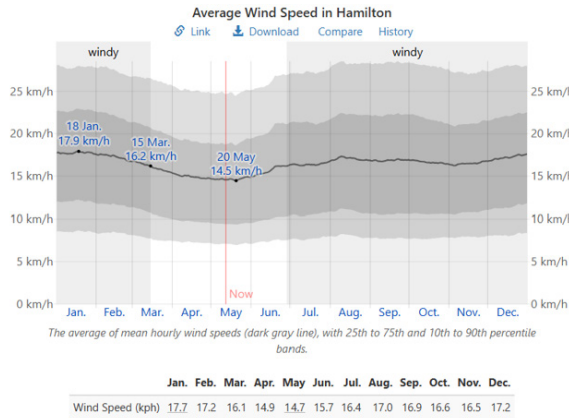
SGSC, Climate Change and Sustainability Strategy



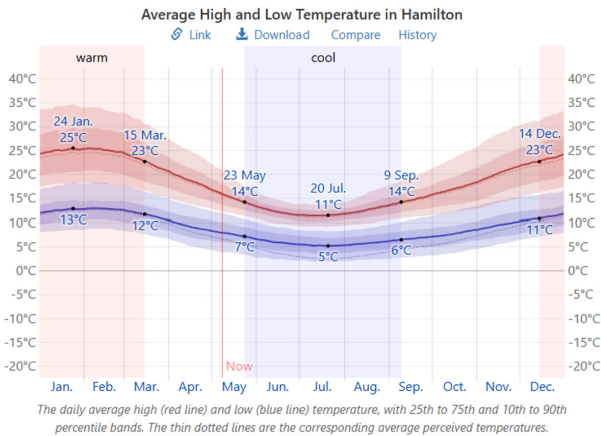
SGSC, Climate Change and Sustainability Strategy



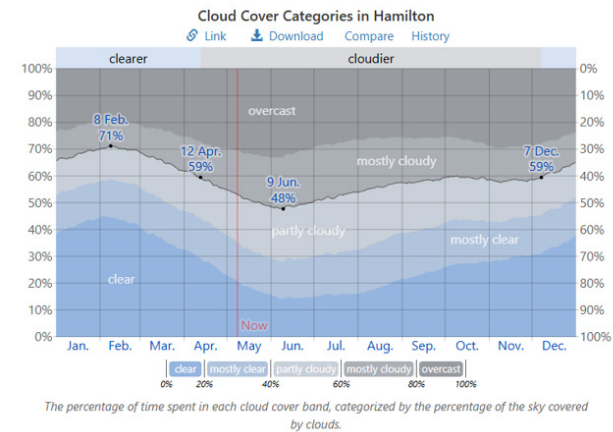
Average Hourly Temperature, Hamilton



Yearly Wind Speed, Hamilton



Yearly Temperature Variation, Hamilton



Yearly Cloud Coverage, Hamilton

## 4.6 Sustainability

Southern Grampians Shire Council has strong and well-defined sustainability aspirations which are captured in their Climate Change and Sustainability Strategy 2024-41. The proposed concept design has taken inspiration from these in developing the building form and layout. Key features of the strategy which are addressed are:

1. Towards Net Zero
2. Built Environment
3. Circular Economy.

Each of these themes is explored in the following sections.

**Towards Net Zero.** All new works will be developed to exceed the minimum code efficiency utilising electricity as the energy source. All electric operations will allow the building to take advantage of existing and potential new photovoltaics and will also remove fossil fuels from site. Aligned with the council aspirations for net zero, the electric only building can be powered by purchased renewable energy.

The building roof is well oriented and does not create significant self-shading, making it an optimal location for on-site photovoltaic energy production.

**Built Environment.** Passive design of the building has been a significant driver in the development of the concept scheme. The protected area under the gallery will be a focal point for the community and provision and a comfortable, multipurpose space where minimal energy usage has been prioritised.

Careful consideration of the prevailing conditions has been made to ensure useful, quality daylight though both the massing and material selections. The usage of the space will be organised to ensure that even in windy outdoor conditions, there are sheltered locations where locals can still gather and enjoy the space.

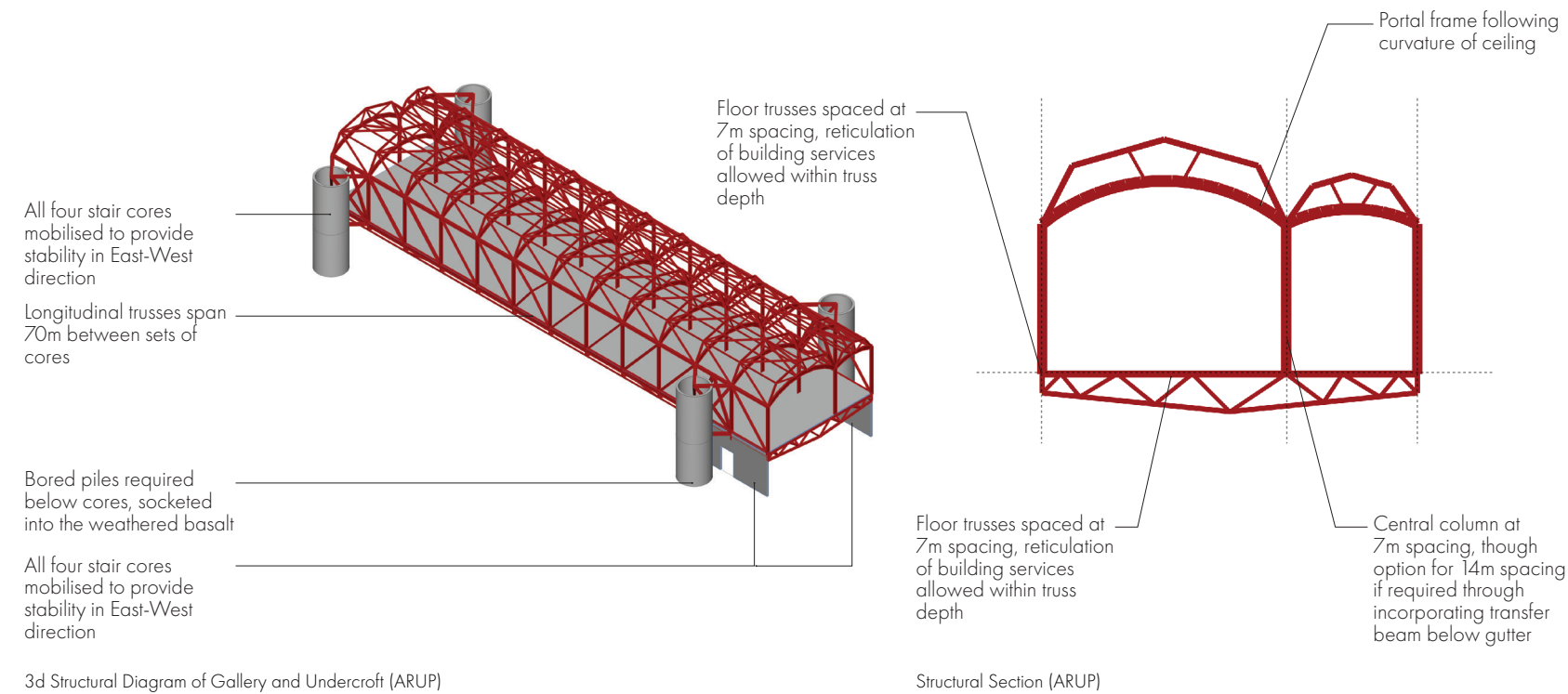
Planting around the site will prioritise endemic species that thrive in the local environment and help to enhance local biodiversity. The greenery will also work with the passive design of the building to manage light and air movement through the public domain.

Detailed understanding of travel habits for users and patrons of the facility will be developed in future stages to assist in curating a sustainable transport strategy. Features under consideration include provisions for EV charging, bike parking and end of trip facilities for council employees who may run/ride on their commute to work or potentially exercise during their lunch break.

**Circular Economy.** In developing the concept, a key feature has been the retention and celebration of the historic heart of the site; the Performing Arts Centre. Socially this represents and good outcome but this also results in a positive environmental outcome. Retention and update of an existing structure means less virgin materials are used in the development of the overall site.

The development does include new buildings. One replacement is proposed to enhance the usability of the existing offices and provide extra space that was not available. Options to extend the current facility were explored though discounted as the existing structure was not suitable for extension. The new gallery space creates both the controlled art gallery, and the covered sculpture garden below – two new functions with one building. The focus for new buildings is structural efficiency which also provide robust and adaptable buildings for future use.





## 4.7. Structure

The main gallery building is a long span structure, creating a vast column free space in the undercroft below the gallery space. Trusses span 70m between pairs of cores at either end of the building, utilising an efficient 8m depth and placed within the wall build up on either side of the gallery.

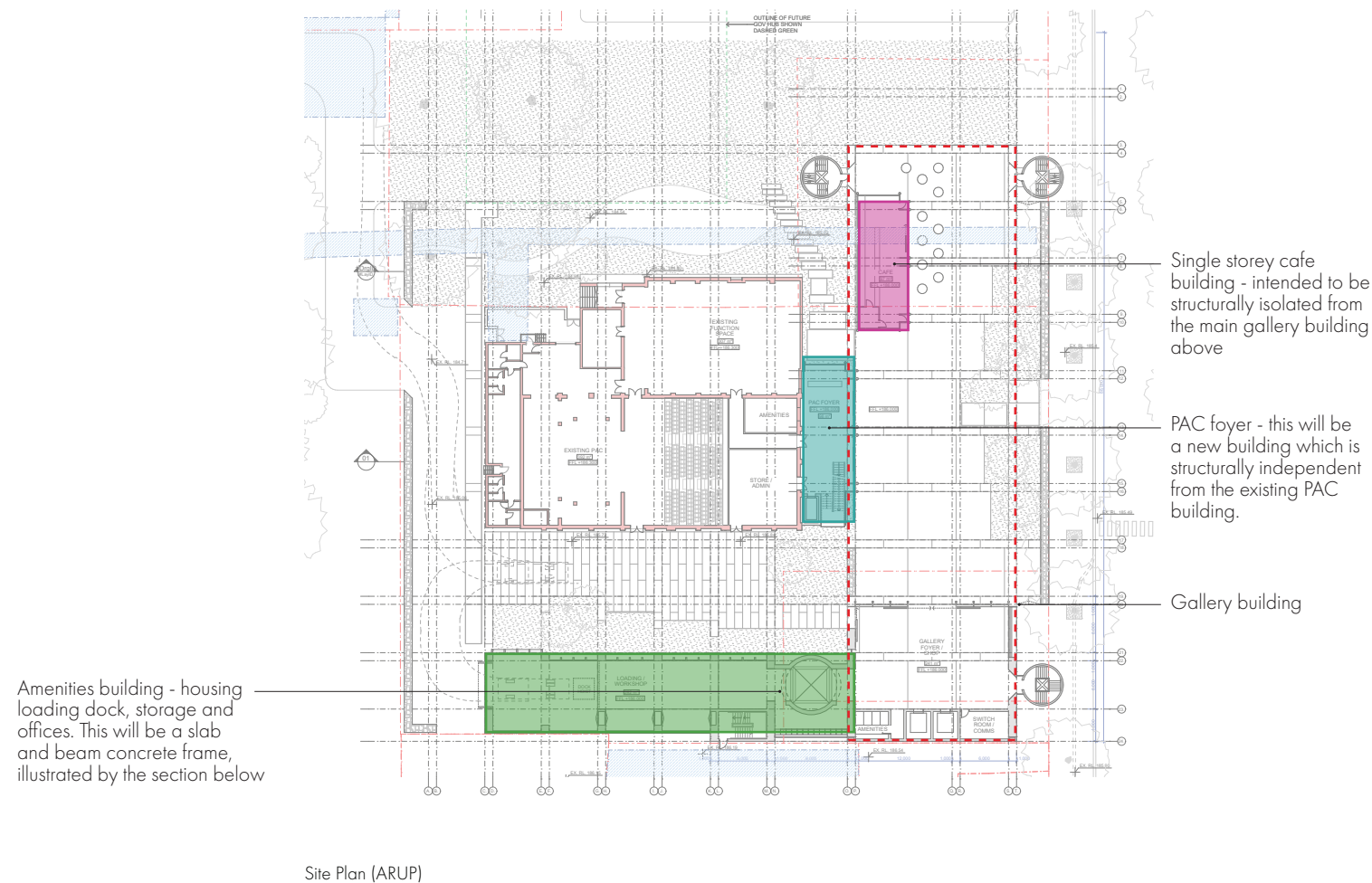
These longitudinal trusses are predominately supported on four circular concrete cores, approximately 5m in diameter, which also contain egress stairs. The four cores will provide lateral stability from wind and seismic loads in the East-West direction. In addition, shear walls placed either side of the foyer will provide stability in the North-South direction.

The gallery floor consists of a concrete slab supported on composite steel beams, which span between floor trusses spaced at 7m, to align with the nodal spacing of the longitudinal trusses. The floor trusses create a zone, 2.5m deep at the centre, where building services may be reticulated down the length of the building.

The gallery roof consists of curved rafters following the ceiling profile, above which props support the skylights on both sides of the roof. The rafters will have moment connections so as to provide portal frames which stabilise the top chord of the longitudinal trusses and act to transfer wind and seismic load down to the floor slab. In turn, the floor slab transfers lateral loading back to the cores through diaphragm action.

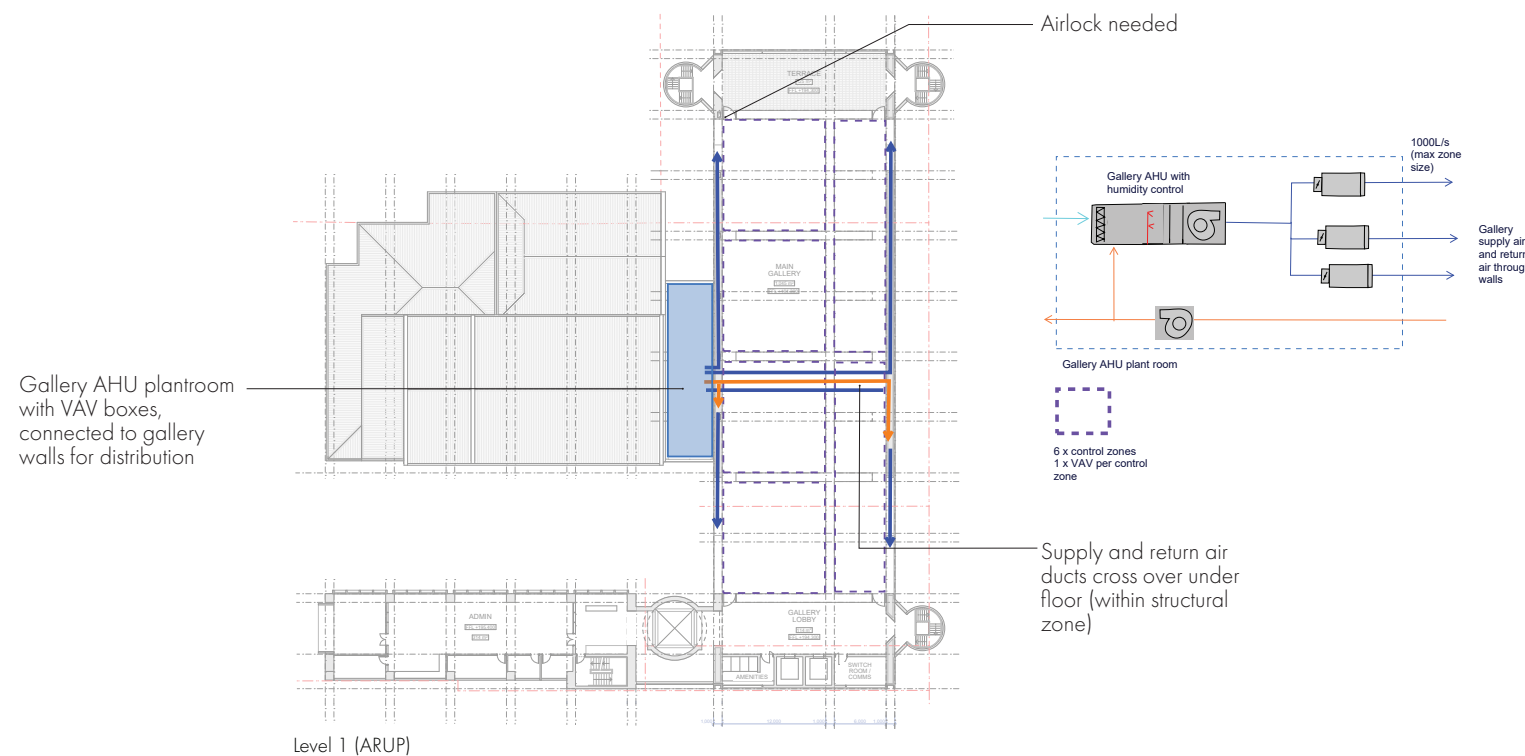
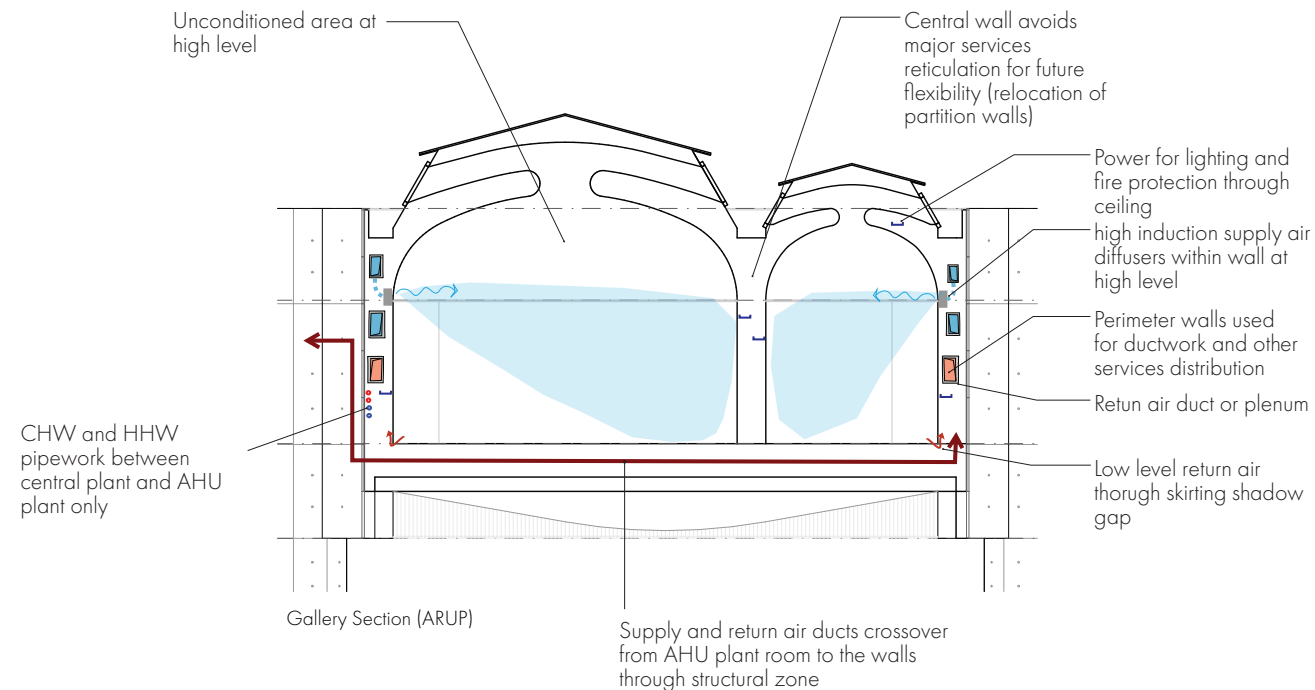
The roof is supported on internal columns spaced at 7m which also act to provide stability to the roof. If required, the spacing of these internal columns could be adjusted to 14m, either throughout the length of the building or just at select locations to enhance flexibility. To achieve this, a deep transfer beam will be placed in the ceiling space to support the curved rafters.

The area below the suspended gallery space is intended to be used to exhibit sculptures, some of which may be large in scale. The intent for the undercroft area would be to use a ground bearing slab, with local thickening or piles provided if required for sculpture loading. The existing layer of uncontrolled fill will need to be removed and replaced with engineered fill. Note the cost to remove these materials will depend on the waste classification of these soils which will need to be assessed as part of an environmental site soil contamination investigation.





## 4.8. Building Engineering



### Environmental Control

The gallery, workshop and storage spaces will be provided with close-control HVAC systems in line with client aspirations to host touring exhibitions with stringent environmental control requirements. This means both humidity and temperature will be controlled.

The gallery HVAC system is proposed to be a variable air volume, all air system achieving a fully mixed room in the zone of art hanging. This approach is typical for modern galleries and provides a stable, unstratified and flexible environment. The gallery can be split into separate control zones to allow each space to respond to the internal environment providing an energy efficient system.

Gallery walls are often accessible to assist in mounting, lighting and powered displays. Ductwork and services distribution will be concealed in the gallery walls. The intent is to keep major ductwork to the perimeter walls to allow future reconfiguration of the internal partitions. smaller services such as power and comms will likely need to distribute through the ceiling and central walls to accommodate lighting and artwork. Water should be avoided in the gallery where possible. A connection between the AHU and central mechanical is needed.

Ancillary spaces such as administrative areas will be provided with standard HVAC systems to provide comfort conditions, fed from the central chilled and heating water plant located on the BOH wing roof. Miscellaneous ventilation systems will be provided for amenities areas, general stores and the like as well as gas purge exhaust ventilation where gaseous fire suppression is provided.

Tight bands of temperature and humidity control result in operationally energy-intensive mechanical plant to achieve the tight control bands/environmental conditions. The last 15-20 years have seen significant amounts of research on how environmental conditions influence the lifespan of different materials to inform relaxed design criteria and reduce operational energy usage for cultural institutions.

The following industry guidelines are typically used to benchmark internal environmental conditions:

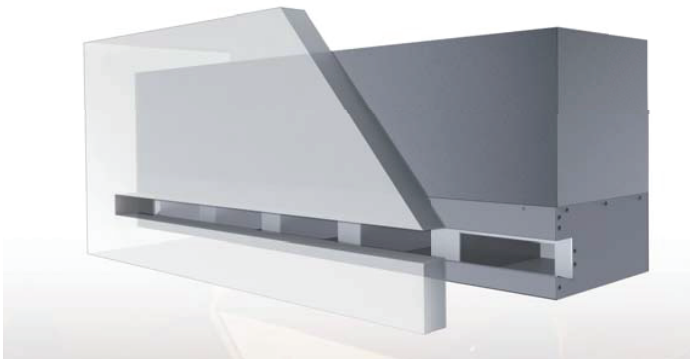
- ASHRAE Classifications (American Society of Heating Refrigeration Air-Conditioning Engineers)
- HCC Recommendations, 2002 (Heritage Collections Council Australia)
- Bizot Green Protocol, 2015 (The Bizot Group - the group of the world's leading museums)
- AICCM Guidelines, 2018 (Australian Institute of Conservation of Cultural Material)
- The Bizot Group have prepared guidelines which were agreed at the IIC 1 congress in Hong Kong and the ICOM-CC 2 conference in Melbourne in September 2014.

The guidelines note that the majority of art (containing hygroscopic material) on public display can tolerate a wider environmental control band than previously allowed for provided that the relative humidity (RH) deviations are within a 10% range. The aim is to protect art and reduce environmental impact to mitigate climate change, prioritising passive and low-energy technology solutions. AICCM are aligning the approach in Australian institutes and summarise the industry recommended temperature and humidity ranges.





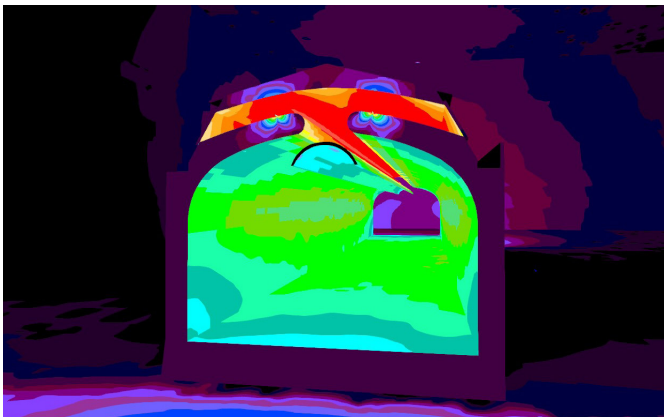
Munch Museum, Oslo, estudio Herreros



Linear Whirl Diffuser



Gallery light distribution study (ARUP)

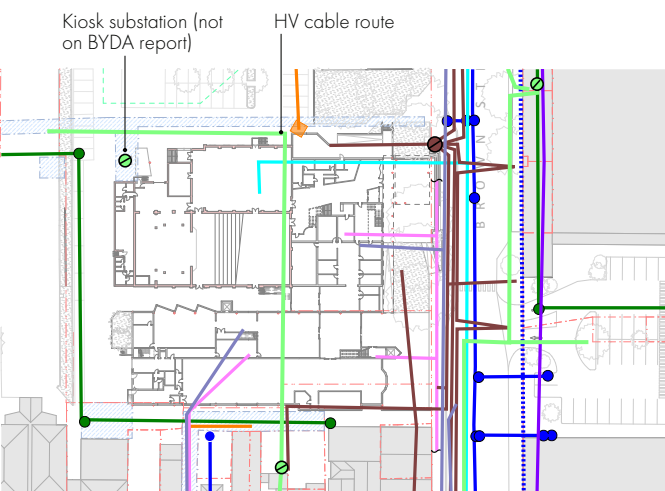


Gallery light distribution study (ARUP)



PAC

Kiosk substation (not on BYDA report)



Precinct services diagram (BYDA)

## 4.8. Building Engineering

### Lighting

The lighting strategy for the project is multi-faceted using both natural daylight as well as artificial systems. The daylighting strategy includes a number of skylights with solar control and reflective zones under them to soften the light quality reaching the gallery space whilst still connecting the space to the subtle variances of natural light and its changing nature through the day and seasons. Along with the external control devices, a parabolic profiled reflector runs longitudinally in the gallery spaces to ensure the top lighting, washes through the gallery, reducing unwanted glare effects.

### Electrical & ICT

It is understood from the sustainability goals adopted by Council that an all electric strategy is adopted for the New Hamilton Gallery. A discussion of the necessary precinct services is discussed below.

The New Hamilton gallery will contain robust and versatile Information and Communications Technology (ICT) infrastructure. These systems will be built around a reliable and scalable network with adequate spatial capacity for future new technologies. Further investigation will unfold in the next stage with a focus on providing a flexible and robust system provisioned for the future whilst being mindful of the project's budget and requirements today. Examples of this provisioning would include easily accessible services routing zones for future cabling upgrades as well as logical and accessible base building systems, readily upgradable in the future.

### Fire Services

The current Civic complex including the Gallery, Library, Council and PAC is not currently sprinkler protected. Given the nature of the redevelopment and its associated uses and adjacencies, it may be beneficial to propose sprinkler protection to part or all of the new development. Given the gallery's art storage component, a gas suppression system protecting this area should be evaluated.

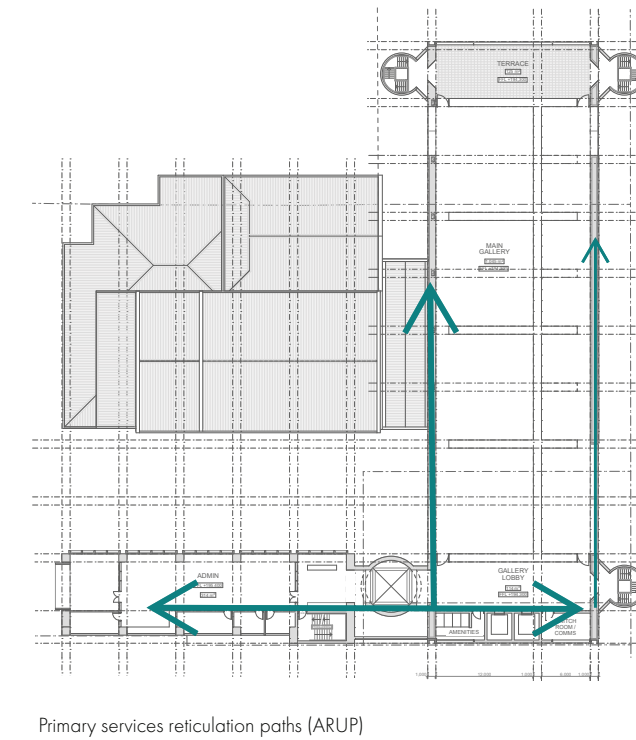
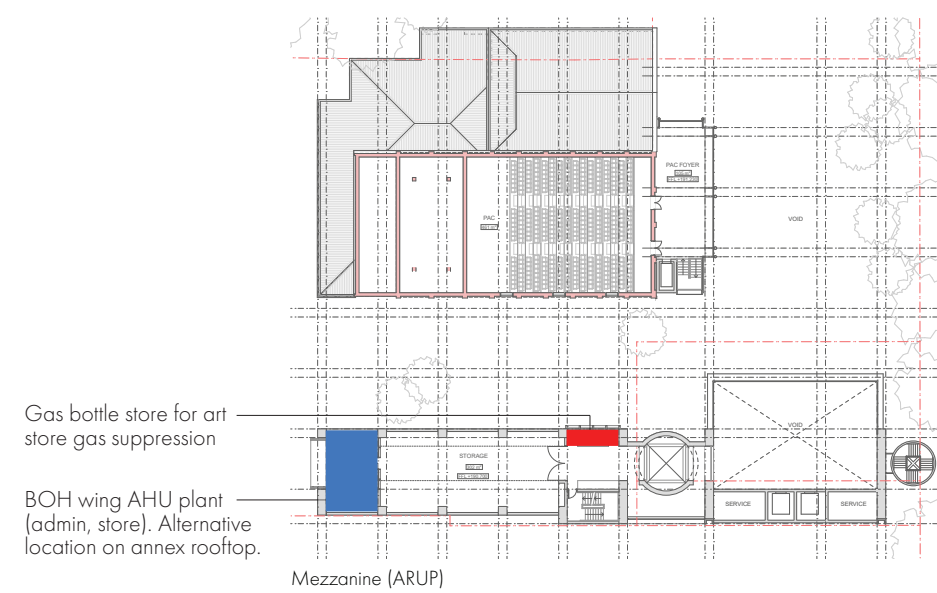
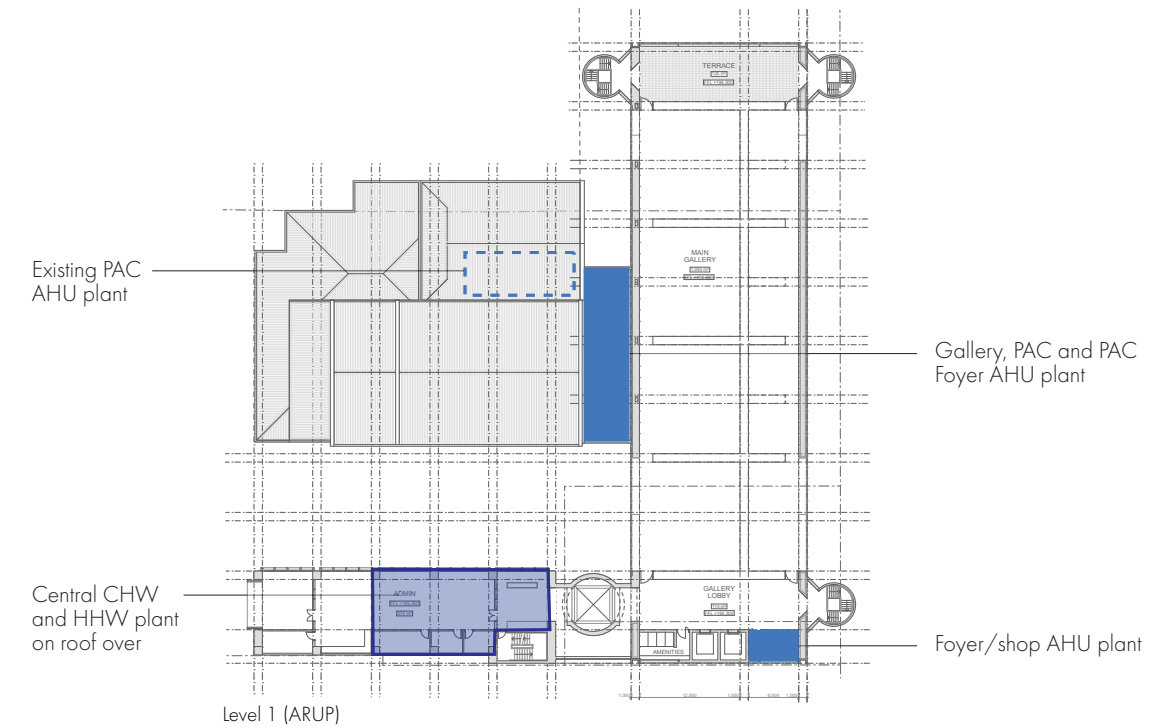
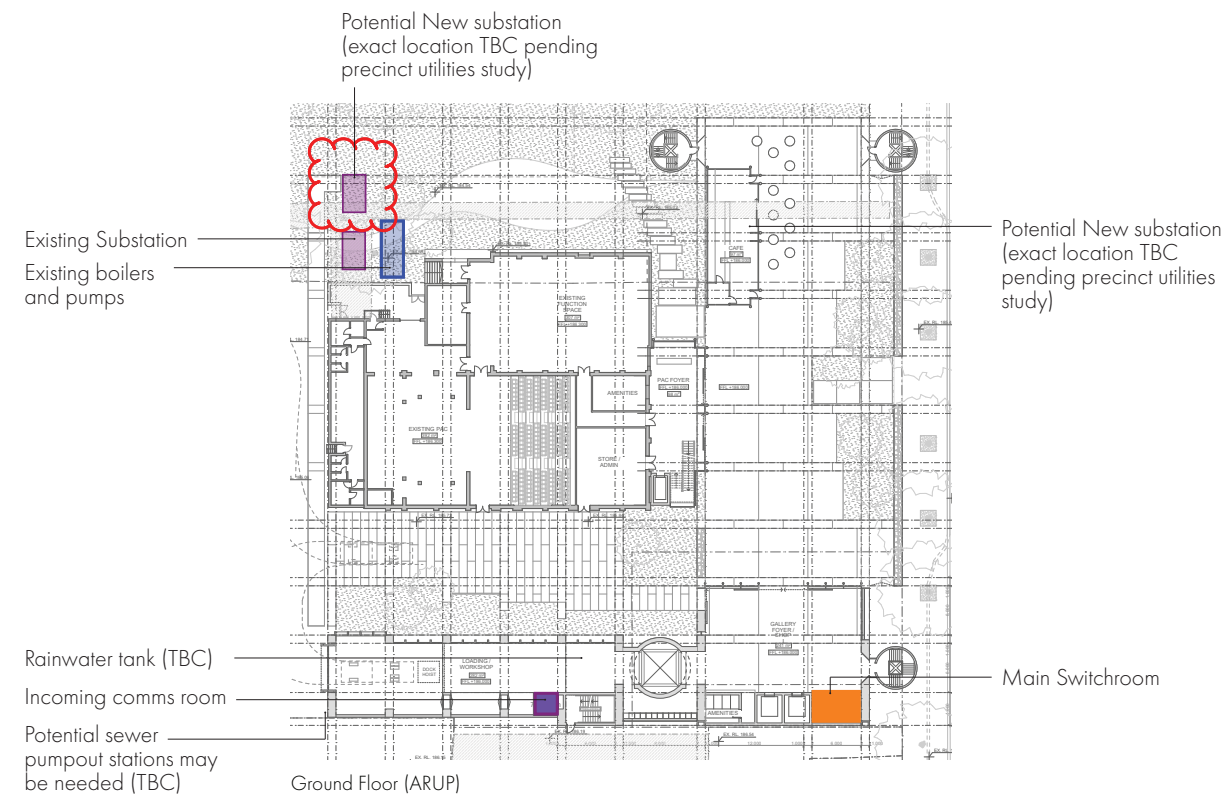
### Precinct Services

The current electrical supply to the site is outlined in the attached DBYD documents in the appendix. Given the sustainability goals outlined by Council strategies, it is likely that an electrification upgrade pathway would need to be prepared as part of any precinct redevelopment enabling works. As part of this. It is likely that a new HV cable service, substation and reticulation routing occurs. The current ad-hoc arrangement of kiosk substations (rear of the PAC and at the northern end of the Brown Street frontage) are unlikely to be able to provide sufficient supply for a precinct. Further, these locations inhibit certain activities or future expansion.

Similar to the discussion for electrification, a services redevelopment masterplan should be prepared to understand the likely services required to be upgraded as part of the precinct redevelopment and to ensure that no one component of this work is unfairly burdened with this.



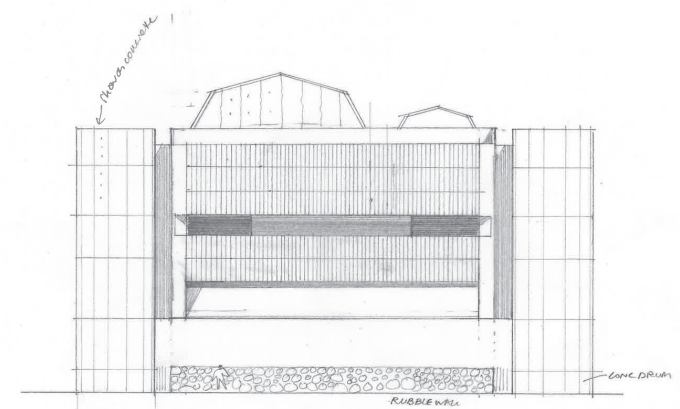
## 4.8. Building Engineering





DRAFT

**HG** HAMILTON  
GALLERY



## NHG New Hamilton Gallery

Concept Design Report

Public Display 3 June - 20 June 2025

Angelo Candalepas and Associates