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PROJECT INFORMATION
PROJECT NUMBER: 2022
PROJECT NAME: SCEGGS WILKINSON HOUSE
PREPARED: ML
APPROVED: CM
REGISTERED ARCHITECT: WS
REV: D

ISSUE	REASON	DATE
A	FOR INFORMATION	30.03.21
B	FOR INFORMATION	09.04.21
C	FOR INFORMATION	12.04.21
D	FOR INFORMATION	14.04.21

ACKNOWLEDGEMENT OF COUNTRY

We acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and culture. We recognise them as the traditional custodians of this land.

We pay our respects to their Elders past, present and emerging.

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Wilkinson House presents a rare opportunity to reinvigorate a historically significant but tired building to meet the ambitions and practical requirements of SCEGGS Darlinghurst. Established in 1895, the all girls' school's unique urban setting contributes to its diversity and the connections its able to make between the students and the world around them, fueling their ambition, duty and purpose. It's dense, urban setting is both its strength and weakness. By operating on a tiny footprint of inner-city land in Darlinghurst, SCEGGS combines its ambitions with constraints like no other leading independent school in Australia. It is essential that SCEGGS is able to maximise every opportunity and square metre available in its small Darlinghurst home.

As a part of the works proposed in the SCEGGS 2040 Masterplan, the rejuvenation of Wilkinson House aims to preserve what makes SCEGGS unique and keep up with the challenges of 21st century learning. It is an opportunity to secure the future of this unique, historic building and provide the optimum learning environment vital to preparing students to meet the demands and challenges of future workplaces and society.

The primary challenge for SCEGGS is its shortage of large classrooms that can effectively facilitate the current class timetable. Wilkinson House was modified twenty years ago to accommodate classrooms and has been used for teaching in those twenty years. However the need to accommodate technological developments and the spatial requirements of current and future teaching demands is becoming an escalating challenge to the school. SCEGGS has carefully considered other uses for Wilkinson House, but such a strategy would lead to a further deficit of classrooms. These classrooms cannot be accommodated elsewhere on the campus, so it is imperative that Wilkinson House continues to provide teaching spaces into the future.

The primary goal is to create large, flexible and well-lit learning spaces that will facilitate the school's evolving, teaching and learning ambitions for the next twenty years and beyond. Our proposal celebrates the building's heritage, whilst maximising its potential to facilitate the pragmatic requirements of the school, and being a place that is joyful and inspiring for students and staff; a place they look forward to using every day.

The Emil Sodersten design is robust and requires a light touch. Our proposal seeks to rejuvenate the well-preserved building exterior fronting Forbes and Saint Peters Streets by introducing sensitive and thoughtful interventions, enhancing the original features, providing clear links between floors and maximising the potential of the site.

Our proposal includes reconstructing the full interior and provides a new floor under the roof, making the building more robust and sustainable while providing much-needed floor space. The intervention makes reference to the original building fabric in a number of ways. Externally there will be minor additions introduced in copper and glass brick. A new ribbed copper roof, in the same silhouette of the existing roof provides naturally lit, multi-purpose spaces, roof terrace, and roof-mounted PV panels. A glass brick infill structure to the south, provides equitable access and marks a clear connection to the school campus. The glass bricks are robust, allow natural light in while balancing the need for privacy and visual animation to the street beyond. The centrally located terrazzo stairs and floors pay homage to the original stair and lightwell, while the ceiling lights and floor details in each classroom trace the outlines of former walls.

A sensitive touch and the right design strategy will secure the future of Wilkinson House as a special and vital building within the SCEGGS campus and Darlingurst community beyond. It will be a place that SCEGGS and the community takes delight in and cherishes. It will enable SCEGGS to fulfill its vision to nurture and empower the female leaders of tomorrow, and to symbolise female strength, leadership, kindness, inclusion, diversity, creativity, empathy, compassion and resilience.

INDICATIVE CONCEPT DESIGN

WILKINSON HOUSE

Designed in 1926 and completed in 1928, Wilkinson House was originally a residential flat building. It was acquired by SCEGGS in 1962 when internal modifications were made to convert it into a boarding house. In 2001, further internal modifications were made to convert the boarding house to accommodate classrooms for teaching. Wilkinson House has been used for classroom teaching over the last twenty years.

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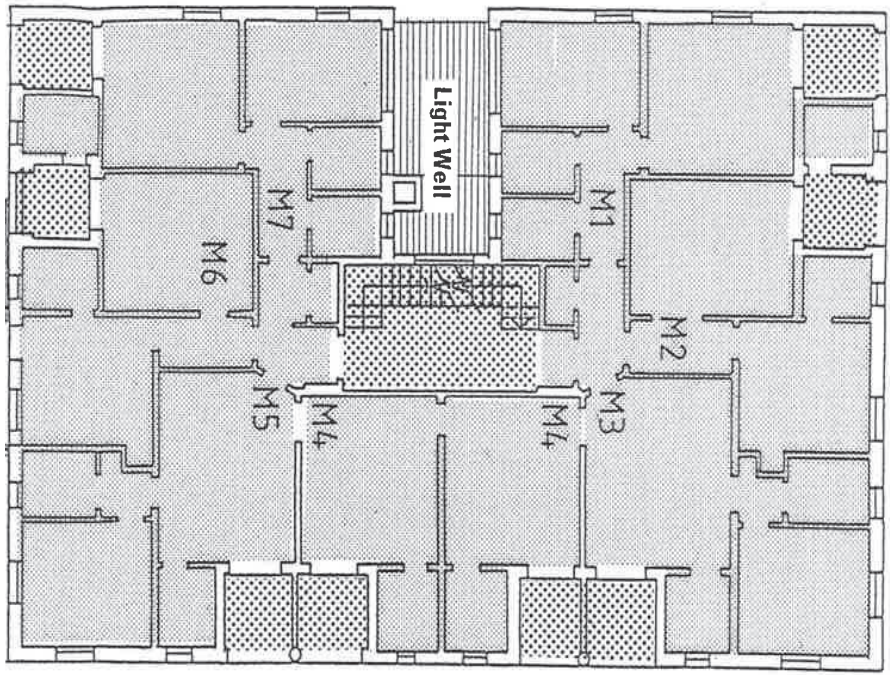

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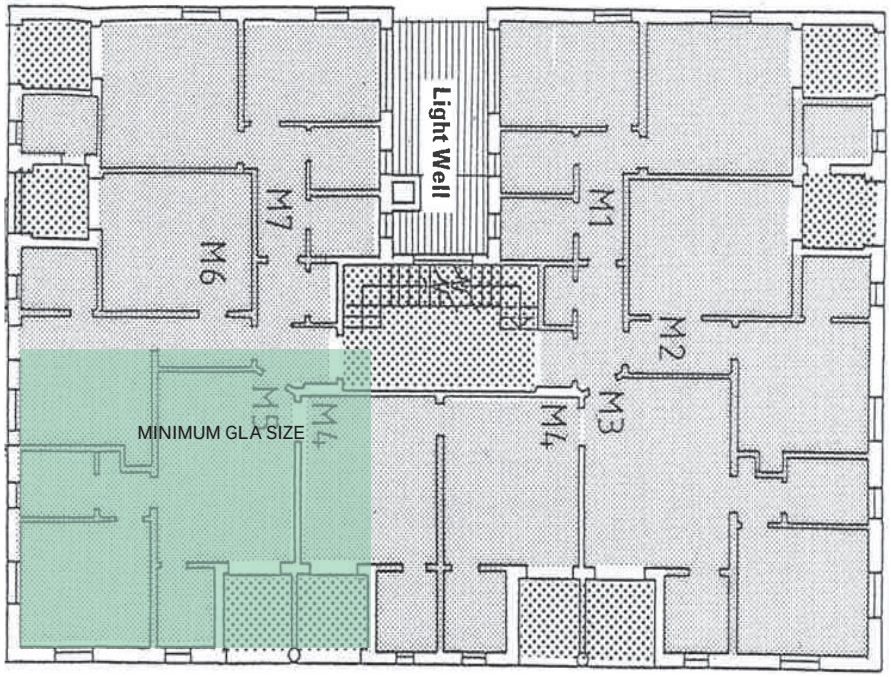

The Client Brief

- The school must have large, flexible General Learning Areas (GLAs) with a minimum floor area of 65m$^{2.}$ Anything smaller is a compromise..
- Close to square proportioned, rectangular rooms for required flexibility.
- Unobstructed views of multiple teaching walls for co-teaching.
- No irregular spaces within GLAs for full student visibility and safety.
- Naturally lit and ventilated teaching and learning spaces as part of the sustainability strategy.
- To maximise the number of General Learning Areas within the limited footprint of Wilkinson House.
- To future-proof the building and its GLAs with technology that can adapt to evolving teaching requirements.
- The existing balconies prevent the GLAs from achieving everything that SCEGGS requires of them to be effective teaching spaces.

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INDICATIVE CONCEPT DESIGN

HERITAGE STRATEGY

HERITAGE STRATEGY

The SCEGGS Darlinghurst site as a whole is identified as a heritage item, and the listing specifically includes Wilkinson House.

Our overarching heritage strategy is to preserve and restore the elements that make it special including:

- A light touch for the building exterior.
- The existing double hung windows will be restored and painted white.
- The arched openings with their columns will be restored, with new glazing to be set back behind the column capitals.
- The decorative portal and arch of the main entry will be restored, as will the wall sconces and crests.

Remove the elements that are detrimental to the building's integrity and functionality including:

- Remove the later security grilles on windows and balconies.
- Remove sirens and lights, and replace with sympathetic selections.
- Timber doors on the Forbes Street main entry are not original and will be replaced with a patterned security gate derived from the delicate original foyer doors, bringing in natural light.
- Replace the existing, poorly conditioned downpipes, with new copper downpipes.
- Remove the infill brickwork to the four original garage openings off St Peters Street, and install new glass bricks to increase natural light to the general learning areas behind.

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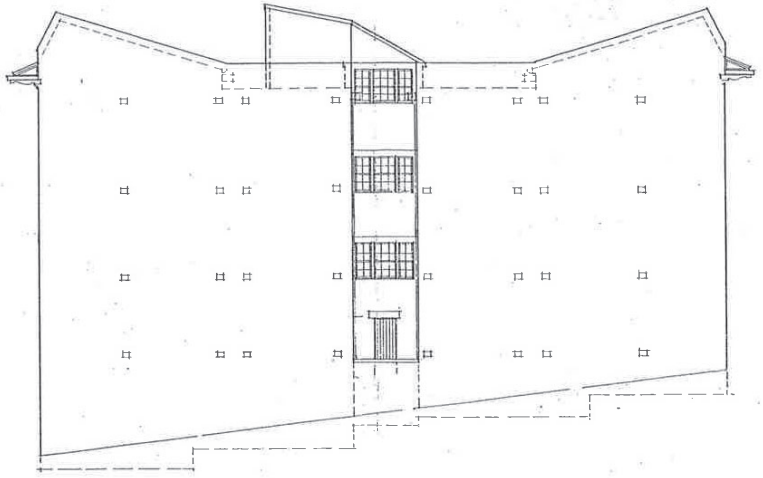
ORIGINAL ELEVATIONS

The original elevations show the elaborate brickwork detailing around the external frieze, and the elegant proportions of the facade.

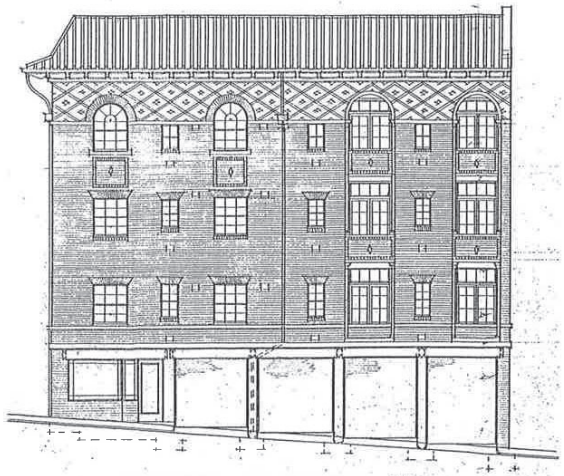
Our research indicates that Emil Sodersten used a variety of roof types in different buildings and these drawings suggest that the common Marseille tile used may not have been the first choice.

We derive the reconstruction of the mansard roof from this drawing, which shows a vertical articulation to the roof cladding.

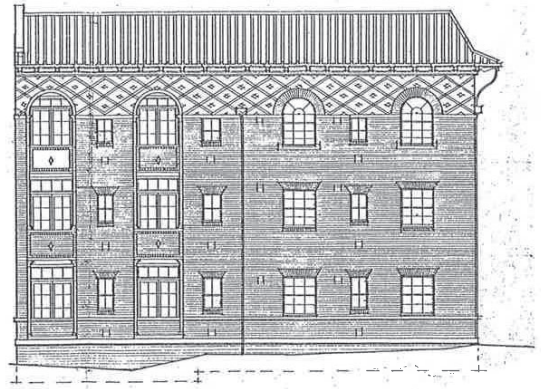
ELEVATION TO FORBES STREET.



BACK ELEVATION.



ELEVATION TO ST PETERS ST.

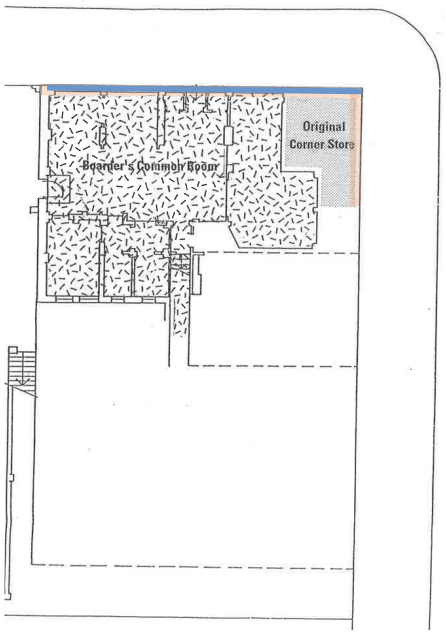


ELEVATION TO LANE.

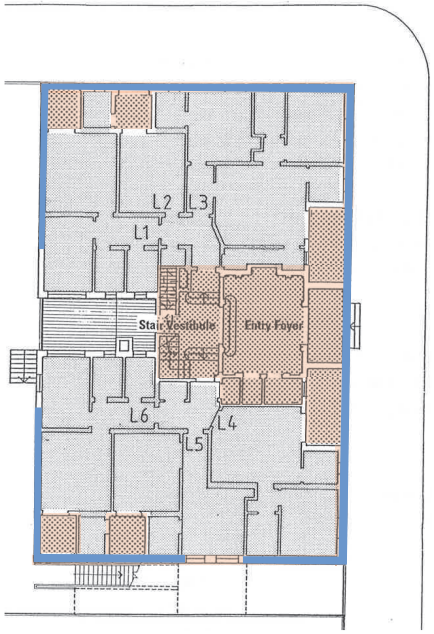
HERITAGE STRATEGY

These plans indicating the significance of building fabric have been a to guide our design response and proposal as follows:

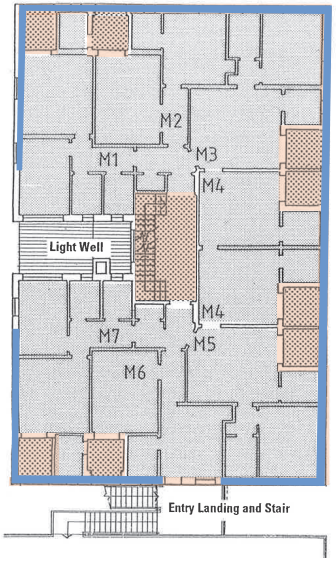
- Retain north, east, and south facades.
- Reconstruct every foyer and floor.
- Replace stair and vestibule with new, wider, and compliant stair constructed from the same grey terrazzo.
- Remove balcony doors and reuse for class room doors.
- All bricks from internal walls are reused in building
- Interpretation of location of old walls inlaid in floor and ceiling to recall placement of balconies and original rooms.
- Roof form is reconstructed with pressed copper cladding and brise-soleil



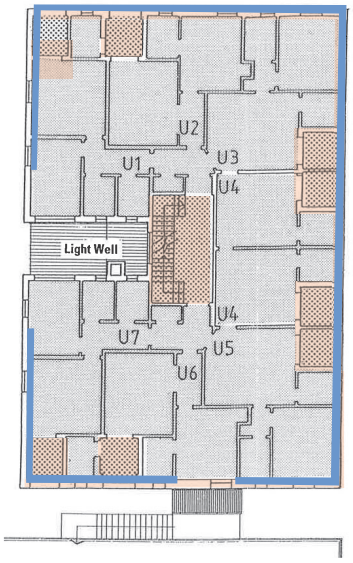
BASEMENT



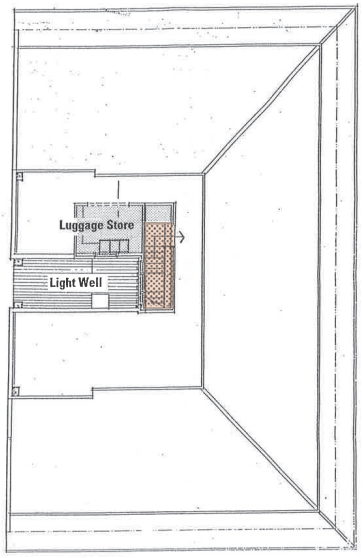
GROUND FLOOR



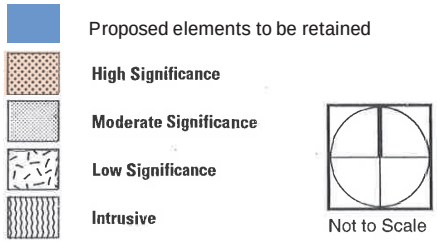
FIRST FLOOR



SECOND FLOOR



ROOF PLAN



KEY

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INDICATIVE CONCEPT DESIGN

KEY MOVES

KEY EXTERNAL MOVES

1. Rebuild mansard roof in copper with angled blades and clerestory windows that reference the vertical articulation of the original Emil Sodersten elevations.

2. New glass brick entry + lift structure connects building to the wider campus.

3.Elegance of heritage facade restored by removing unsympathetic additions including security bars.

4.Horizontal sun shading and glazing preserve facade integrity and greatly improves the GLA's within.

5.Pergola offers shade and privacy from overlooking.

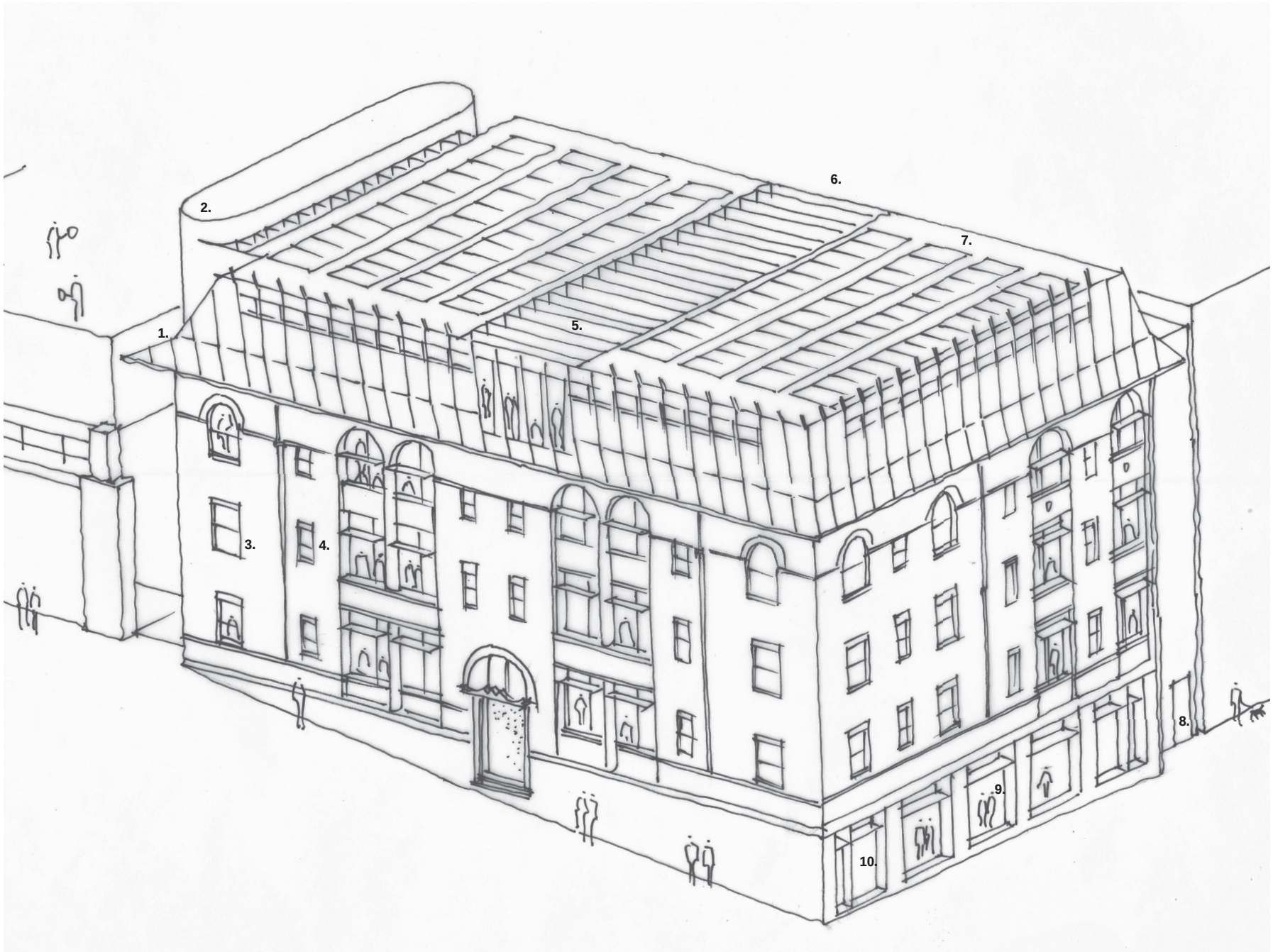
6.Top lit central stair also functions as thermal chimney for passive ventilation.

7.Roof supports solar farm and rainwater harvesting.

8.Connects to existing fire stair in Joan Freeman Centre. The existing original concrete frame is expressed.

9.Glass bricks provide sports GLA with natural light and privacy.

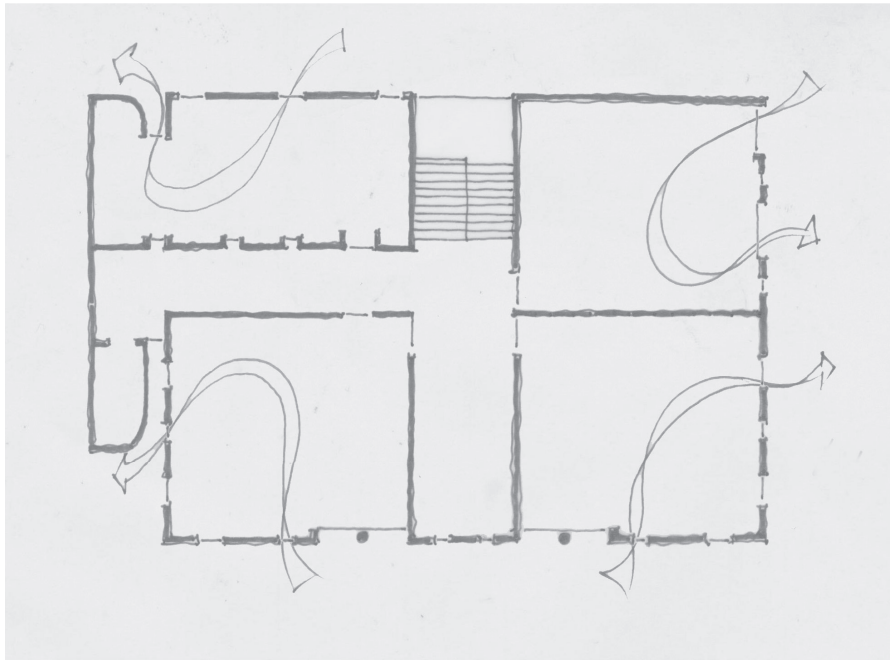
10.Existing sprinkler pump room retained.



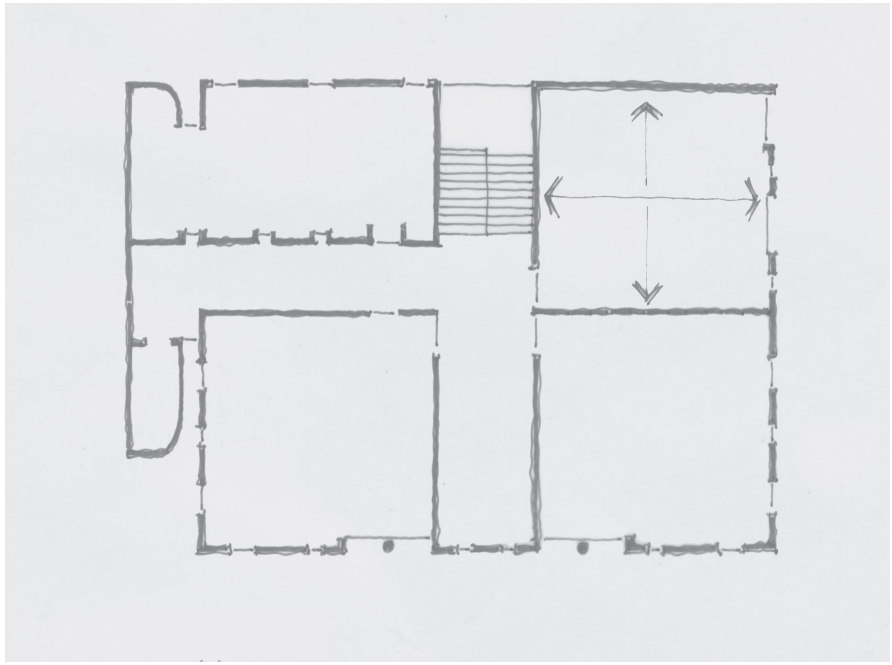
OPTIMISE THE PLANNING

The proposal seeks to create the best possible Group Learning Areas (GLAs):

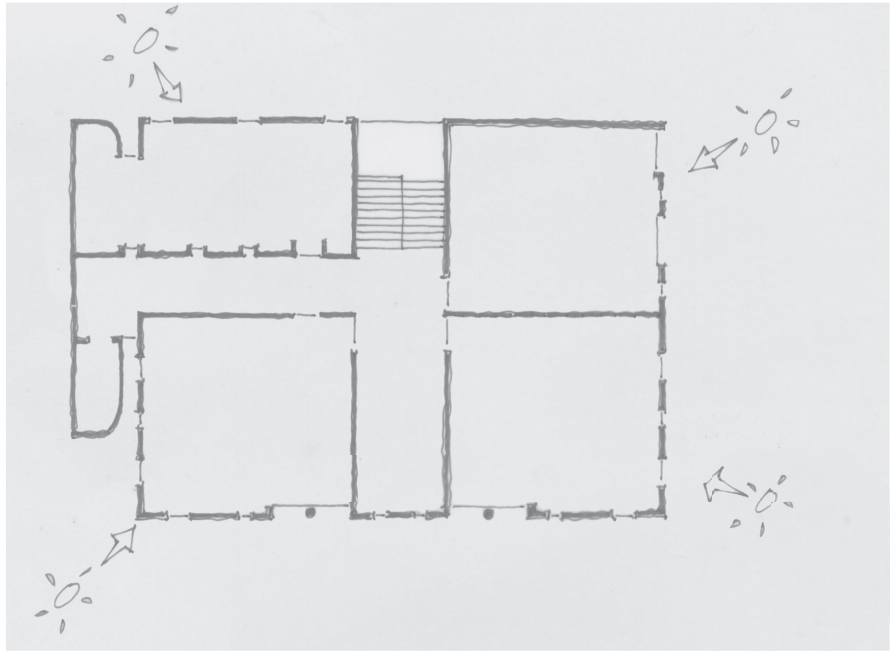
1. Building planning is based on four near-equal quadrants. The benefit of this is a simple circulation path where cross ventilation occurs through all corners providing fresh air learning environments and reduces energy consumption.
2. Large, wide and near square GLAs create optimum flexibility, providing students with uninterrupted views of teaching surfaces on all four walls.
3. Provide ample natural light to all GLAs and staff areas by removing existing balconies and other obstructions. The benefit is beautiful and welcoming learning environments that are of an equal quality.
4. Staff and amenity facilities are distributed across the building in the south-west quadrant, providing a strategic location for passive surveillance of breakout areas and a coordinated place for services. The benefit is that the three remaining quadrants are freed for use as GLAs without compromise.



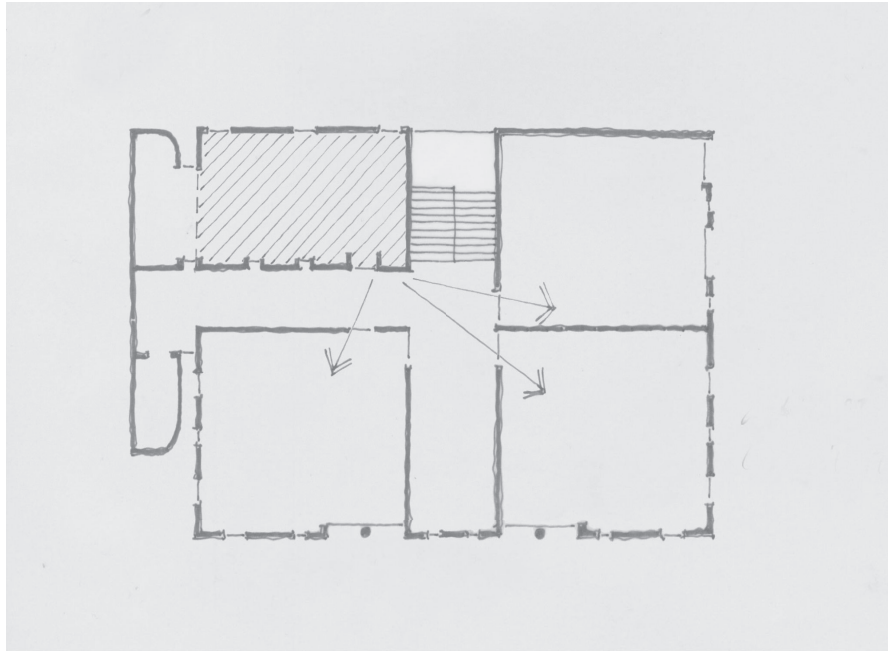
1.PLANNING BASED ON FOUR QUADRANTS



2.LARGEST GLA's



3. PROVIDE NATURALLY LIT CLASSROOMS



4. STAFF AMENITY + FACILITIES

GLA'S AND BALCONIES

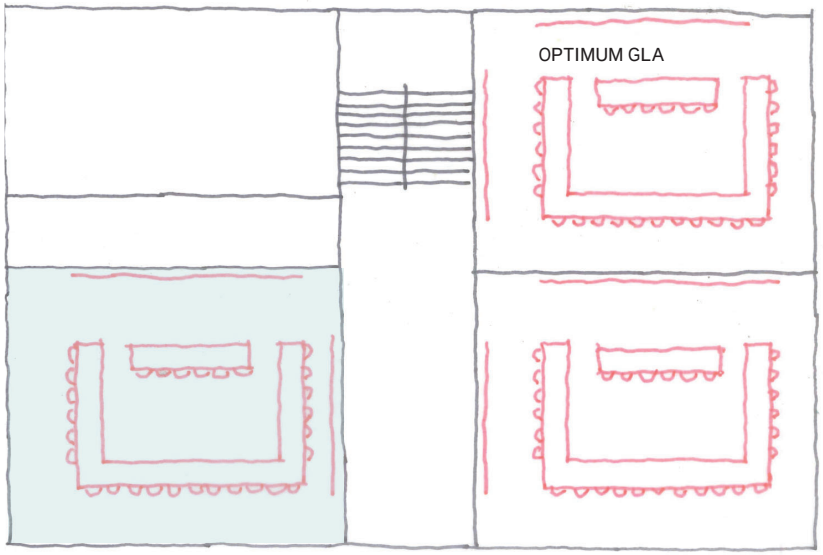
The existing balconies restrict the creation of large, square, flexible classrooms by restricting the desk layouts.

The proposal to enclose the balconies and remove the balcony walls is essential for the functionality of the GLAs with full horseshoe or cluster desk arrangements.

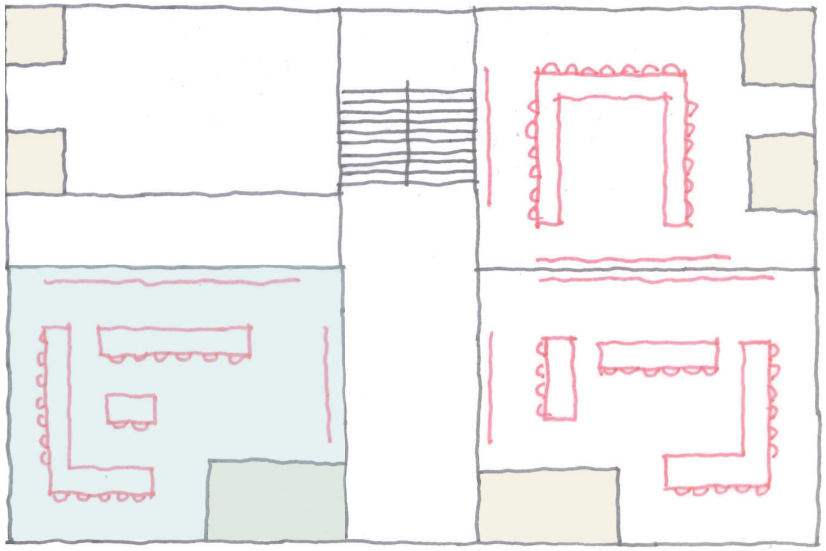
Rooms that are not square or rectangular are compromised teaching spaces.

- GLAs with balconies range from 59-67m2
- GLAs without balconies range from 66-74m2

MINIMUM REQUIRED GLA



GLA'S WITHOUT EXISTING BALCONIES 66-74M² INTERNAL GLA



GLA'S WITH EXISTING BALCONIES 59-67M² INTERNAL + 7M² BALCONY BREAKOUT

REMOVING OBSTRUCTIONS

Further reasons for removing the balconies:

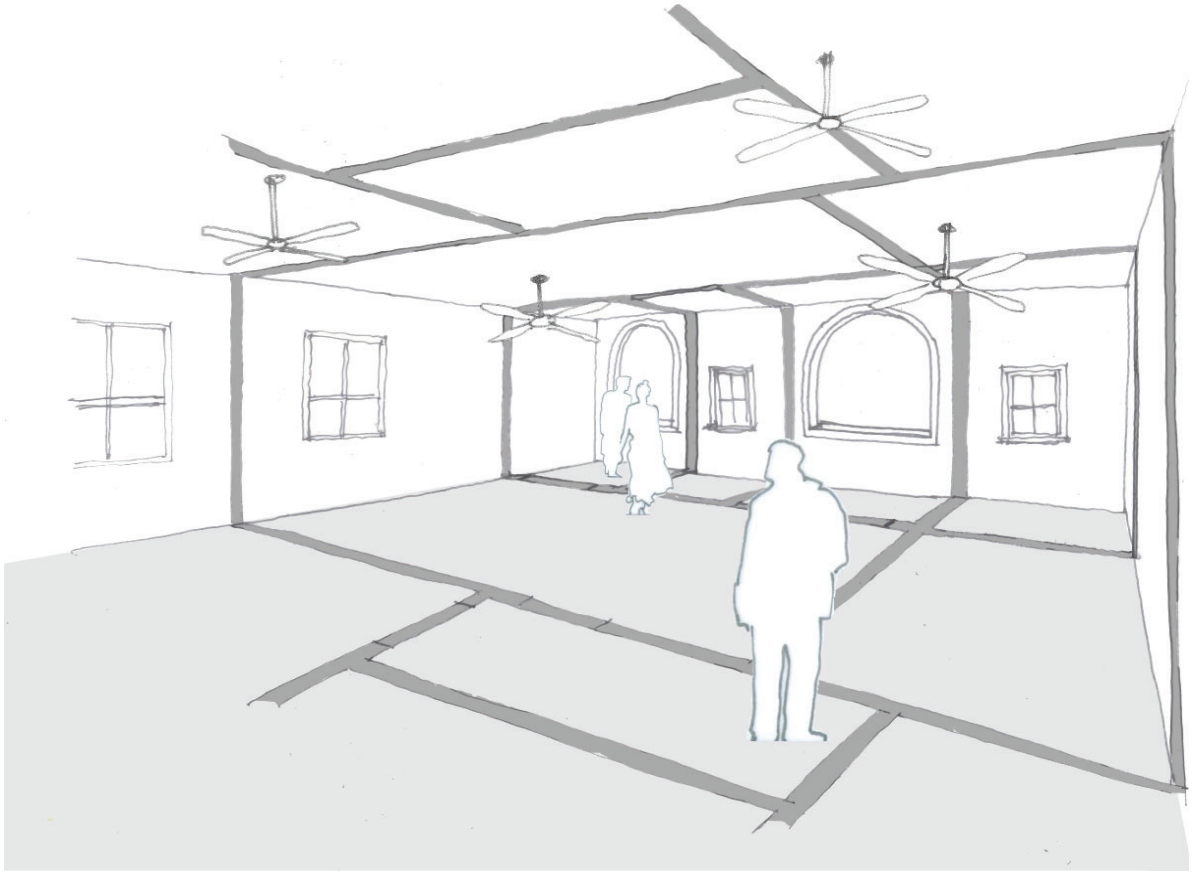
- They do not meet contemporary space requirements for child protection and safety due to limiting visibility from teachers.
- The glazed doors and highlights will be reused as classroom entry doors.
- They rob rooms of light and provide uneven internal daylight levels
- They protrude into the rooms and limit the flexibility of use: a teaching wall adjacent to a balcony limits use.

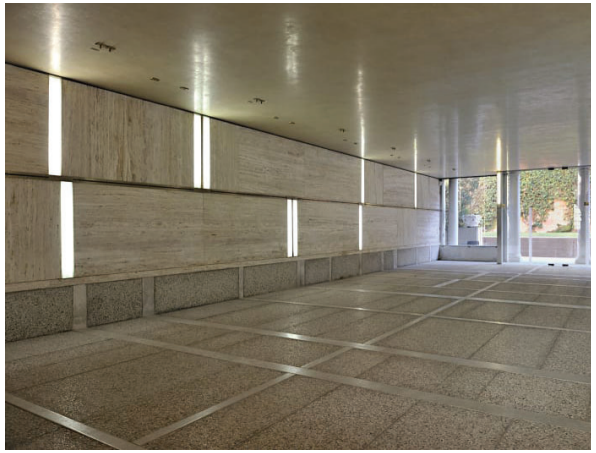
Without removing the internal balcony walls, the GLAs will be compromised and will not have the full flexibility the school requires. Removing the walls will help to unlock the full potential and usability of every, precious square metre of Wilkinson House without compromising its external appearance.

HERITAGE INTERPRETATION

The proposal makes reference to the original building fabric in a number of ways:

- Floor inlays outline the location of former walls which will provide visual difference for each classroom
- Lighting design to interpret location of former walls.





GLA FEATURES

1.Large operable windows for light and ventilation.

2.Ceiling fans to assist with natural ventilation

3.Perforated ceiling for acoustic attenuation.

4.Paneled whiteboard walls on all sides.

5.Reusing the original doors as entry doors

6.Lighting design to interpret location of the former building's walls.

Large operable windows for light and ventilation.

INDICATIVE CONCEPT DESIGN

OPTIMISE THE GLA LAYOUT

Near square GLAs gives students unobstructed views of teaching walls. 8m x 9.8m gives the largest possible GLA with maximum flexibility for organisation.

A unique character is given to each GLA where floor inlay, glazed entry doors and timber furniture may be coloured for wayfinding.

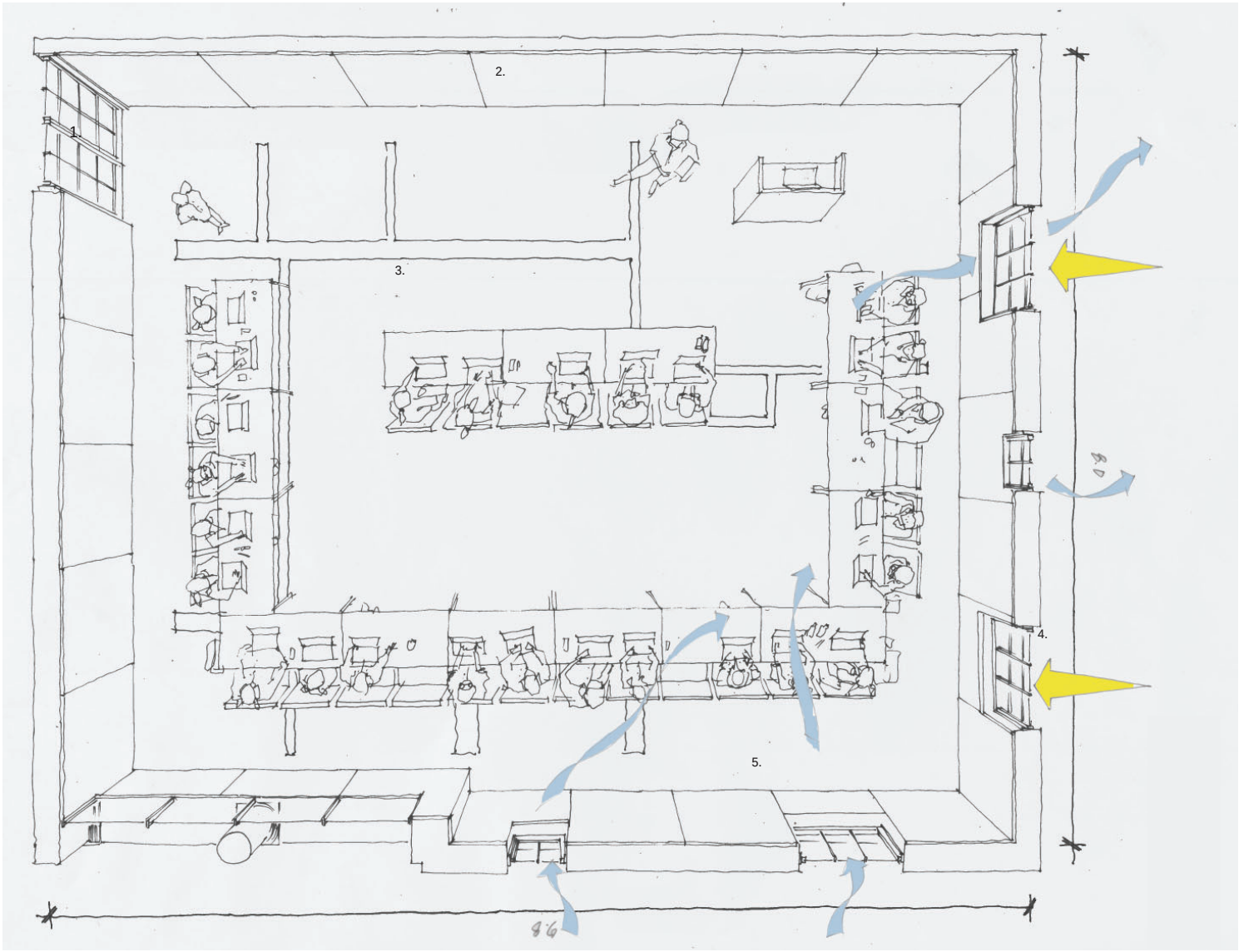
1.Existing glazed balcony doors recycled as classroom doors. New double-glazed top lights above allow classrooms to passively vent into thermal chimney.

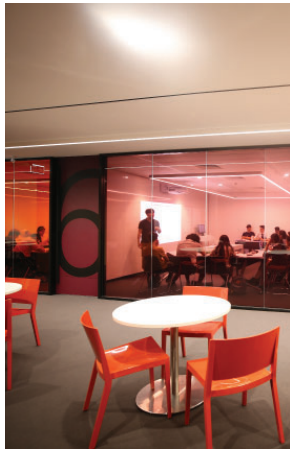
2.Short throw projectors on paneled walls means every wall is for teaching.

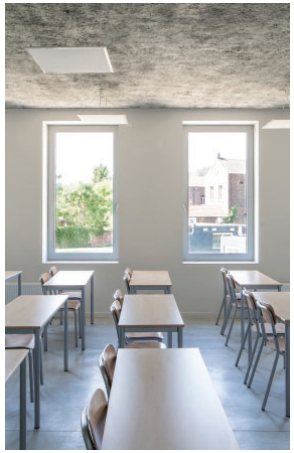
3.Inlay in floor retains memory of former layout and use.

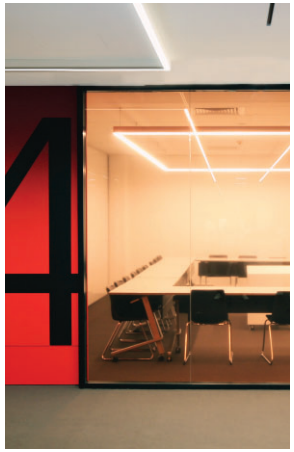
4.Windows on two sides for all GLA's optimise access to daylight. Horizontal sun shading reduces glare while keeping rooms bright and ambient.

5.Operable windows on BMI system enable cross ventilation.





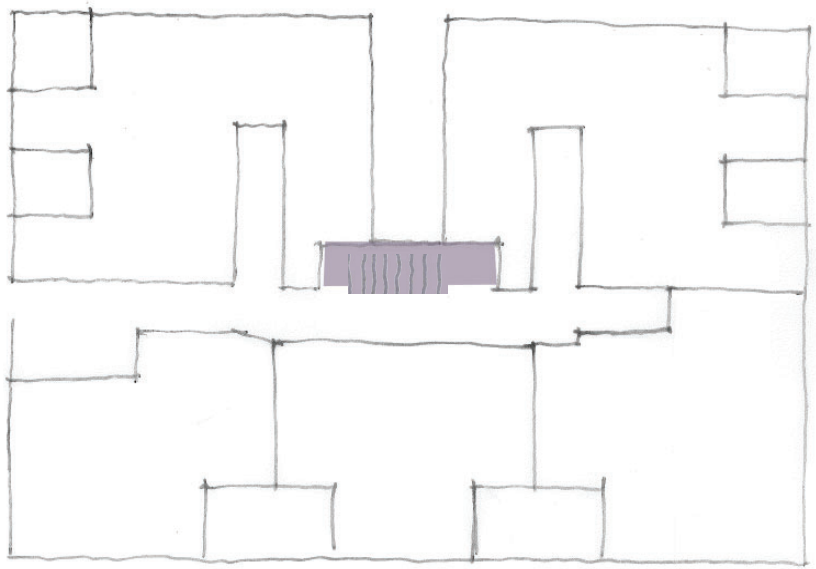




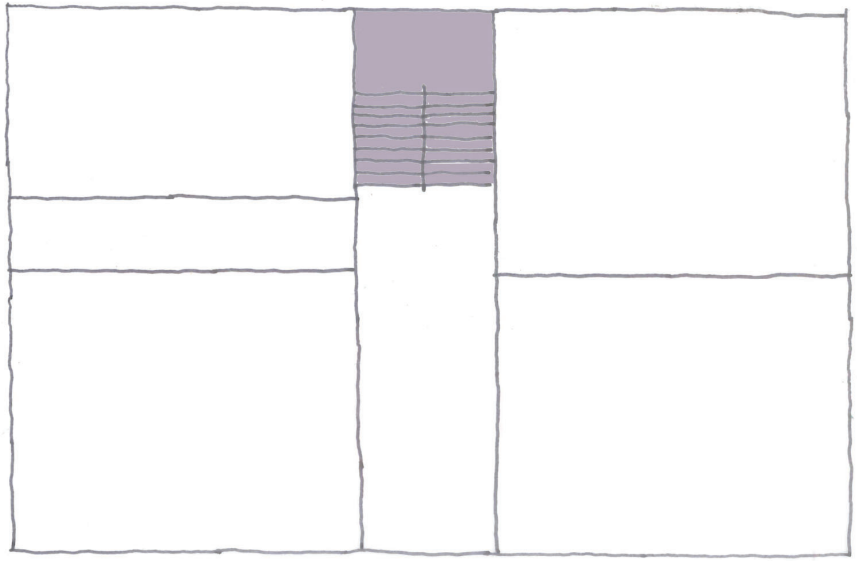
NEW STAIR

The location of the existing stair prevents an efficient circulation strategy and access to natural light. We see the stair as an exciting opportunity for meaningful reuse:

- Inefficient circulation prevents the creation of flexible learning areas of the size required by the school (70m^2).
- The stair is too small and narrow for the efficient and safe movement of large volumes of staff and students, especially during class changeover time.
- Grey terrazzo is used for the stair with a 1m high datum to acknowledges traditional detail and protect walls at low level. This is a robust, durable and elegant material.
- The stair should also be removed and replaced because of the following NCC non compliances.
- It is not fire isolated; isolation would be difficult to achieve due to its location and configuration.
- It is too narrow to accommodate safe egress for potentially 300 plus students and staff.



EXISTING STAIR



PROPOSED STAIR

INDICATIVE CONCEPT DESIGN

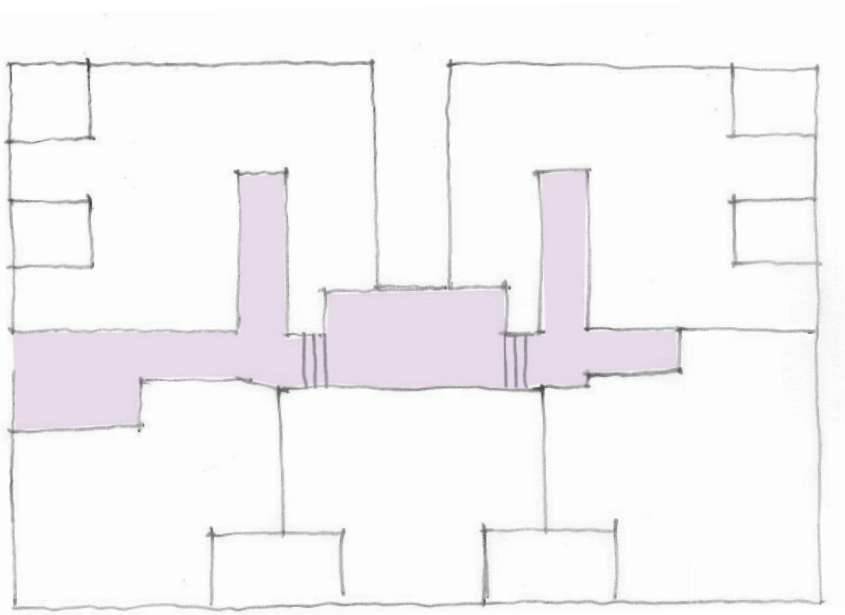
GENEROUS BRIGHT STAIR

- An open stair in the former light well will be and bright.
- It is wide and visible, therefore safe in terms of both security and safe movement. It will be accessible to all.
- An open stair can be achieved with a fire engineered solution utilising hold-open fire doors which will be recessed into the adjacent walls.
- The heritage significance of the stair will be reinterpreted by incorporating the terrazzo of the original stair into the new stair and circulation spaces
- Complies with NCC egress widths.
- All bricks removed in demolition will be recycled with a bagged finish retaining the material integrity of the building.

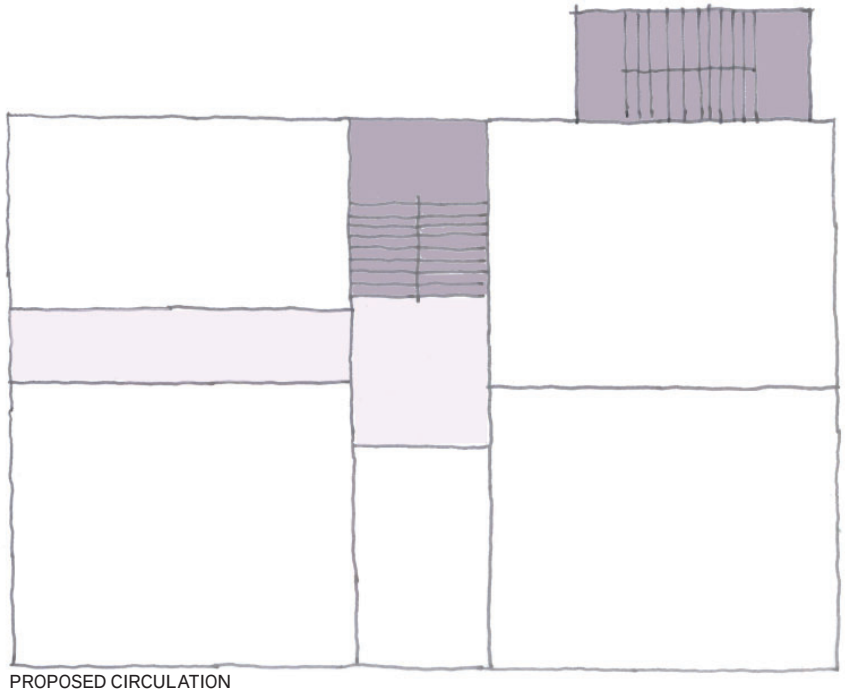
Image to the right is an indicative concept design

STREAMLINED CIRCULATION

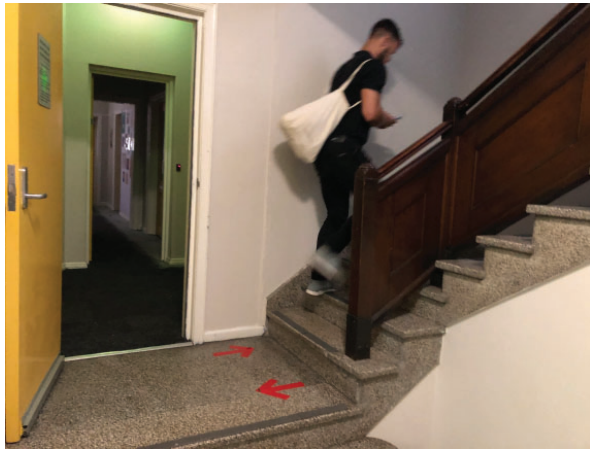
- Both the existing stair and resulting circulation around it restrict the creation of 70m² flexible GLAs. By relocating the stair, the resulting circulation will allow for the creation of large GLAs.
- The current widths of the corridors are narrow, vary in width, and have nooks and crannies that result in a potentially unsafe environment where it is easy to get lost or hide.
- The proposed circulation will be wider, straight and streamlined, making it easier, efficient, safe and pleasant for students and staff to navigate.
- On the ground floor we will eliminate the level change between the north and south parts of the building, with the aim to provide universal access to as much of the building as possible.
- A lift is proposed in the breezeway between Wilkinson House and the Centenary Sports Hall. We have located the lift in this area to prevent valuable floor being consumed by circulation.
- We propose to utilise the existing fire stair of the Joan Freeman Centre as a second fire egress. Wilkinson House benefits from this by having more usable floor space.

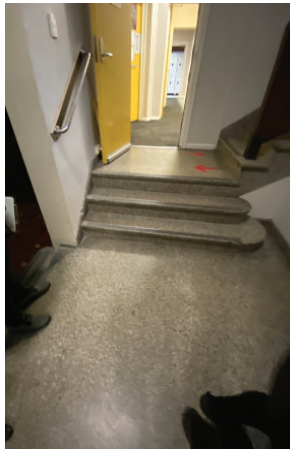


EXISTING CIRCULATION



PROPOSED CIRCULATION

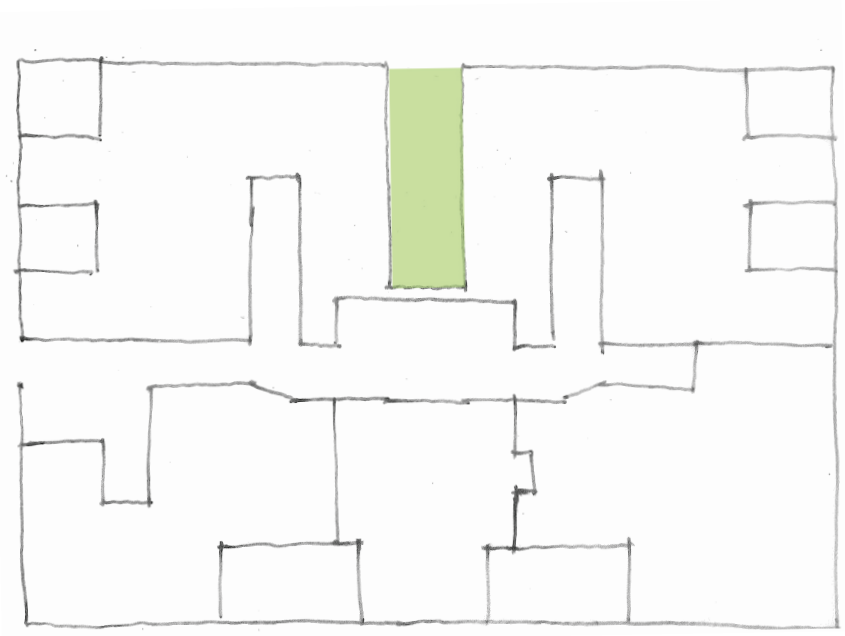




RECONSTRUCTED LIGHTWELL

The existing lightwell bisects the west side of the building. It is unremarkable and underutilised as a light source. However, the location of this opening is ideal:

- It is better to replace the lightwell with a wider, functional stair.
- Enclose with glass to allow light into the centre of the building.
- An open riser stair will let more light into the building.
- The dismantled bricks will be used to construct the new walls.
- The stair in this location will still read as a lightwell so that the building retains the essence of its original format.



EXISTING LIGHTWELL

PROPOSED LIGHTWELL

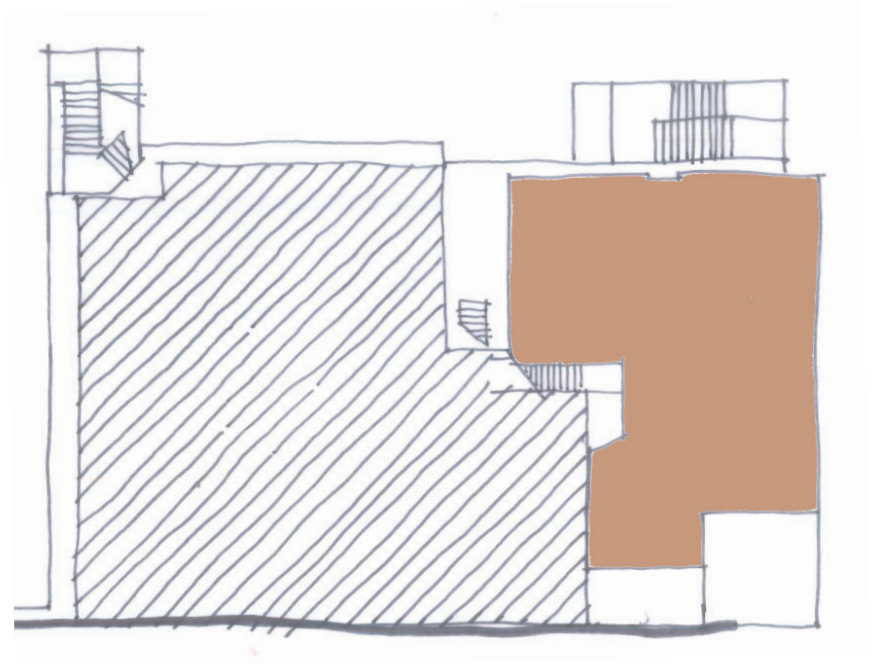
INDICATIVE CONCEPT DESIGN

BASEMENT REQUIREMENTS

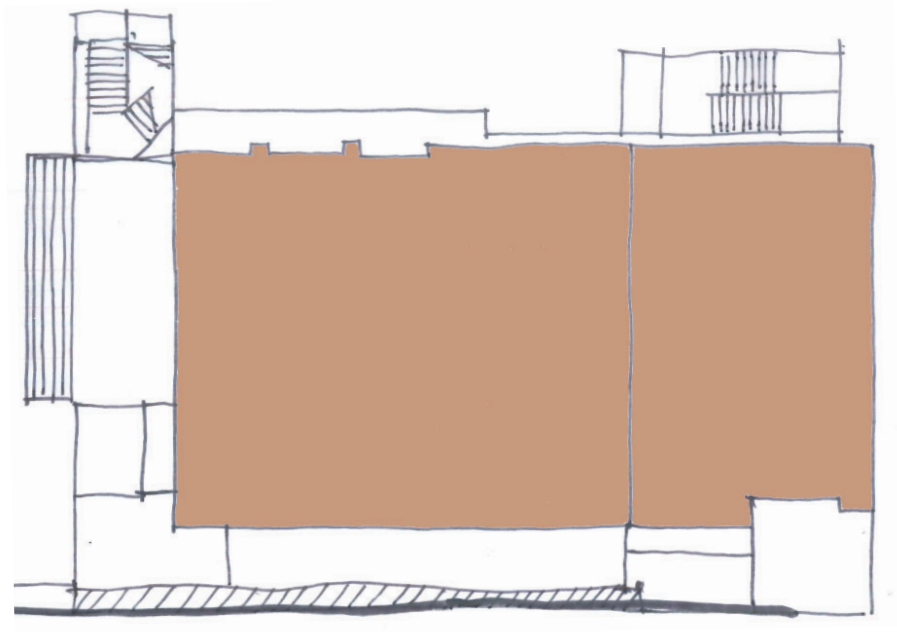
The existing basement level has low ceilings and has a dungeon-like feel.

The Client's brief is to provide the largest usable area possible in the basement level with a total of 300m² being ideal. This can only be achieved by:

- Demolishing the existing Forbes Street foyer, which is at a lower level that does not facilitate the required ceiling height required in the basement level
- Rebuilding the foyer with a new floor level to match the predominant level of the existing ground floor.
- Rebuilding the foyer at the proposed higher level will provide the required ceiling height required for the Sports and PEHD departments.
- The new basement teaching space will be linked to the Centenary Sports Hall directly to the south.
- The foyer will become a new Special Occasions Foyer only to be opened and used for special school functions.
- The reconstructed foyer will not increase traffic volume during day to day operation of the school.



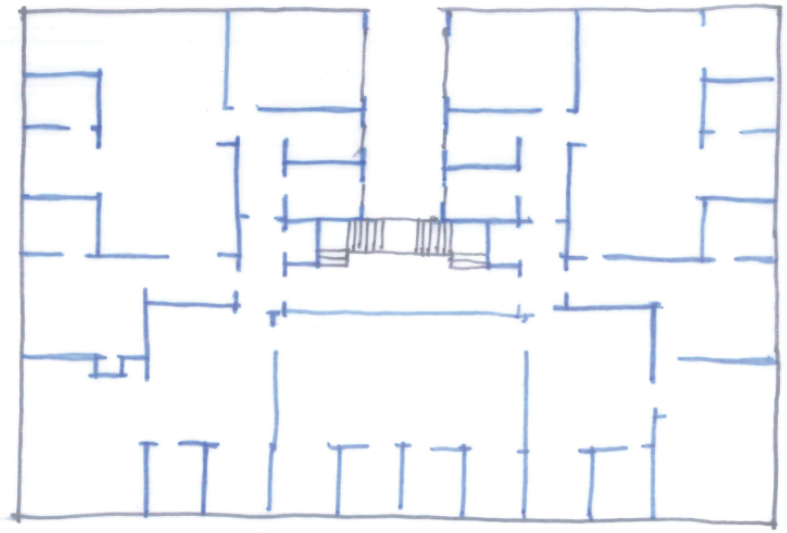
EXISTING BASEMENT



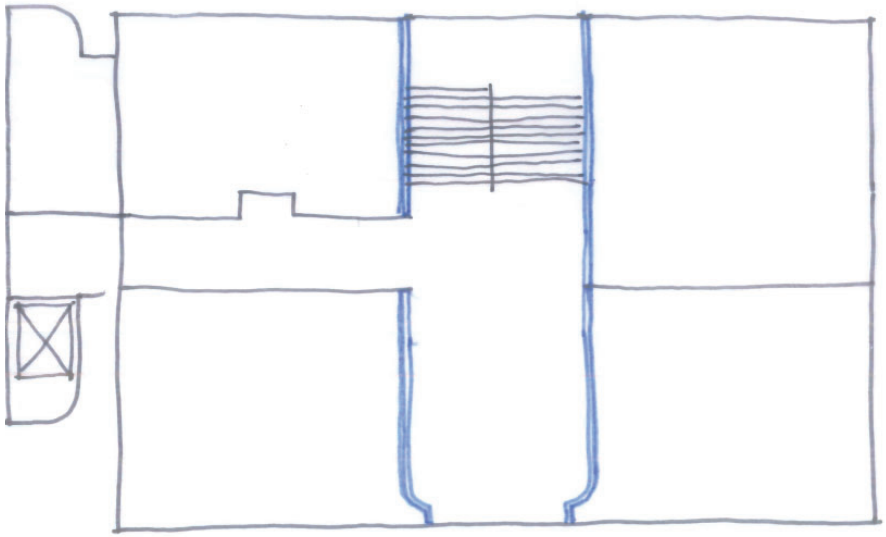
PROPOSED BASEMENT

REUSE OF SALVAGED MATERIALS

- Reuse of salvaged materials will imbed the heritage of the materials in the new building.
- Reuse of salvaged materials is a part of the sustainability strategy.
- Bricks salvaged from the demolition of existing walls will be cleaned and used to rebuild new walls in the proposed stairwell and breakout areas
- The walls built from salvaged bricks will be bagged
- The existing grey terrazo will also be salvaged where possible and re-used as cladding in the new stairwell.



EXISTING TYPICAL PLAN WITH WALLS TO BE DEMOLISHED IN BLUE



TYPICAL PLAN SHOWING LOCATIONS WHERE SALVAGED BRICKS ARE TO BE REUSED

MORE THAN CIRCULATION

CENTRAL SPINE

1. Generous 4m wide central stair in the original lightwell- reinforces a clear circulation spine through the building.

2. Open treads provide filtered light and ventilation throughout.

3.Grey terrazzo floors and a 1m high datum (integrated with handrail) to acknowledge historic detailing.

SOCIAL CONNECTIONS

4.Inviting breakout areas with banquette seatings define social hubs on each level that can be passively surveyed by staff in adjacent offices.

5.The foyer, proposed for breakout space, must be reconstructed at a raised level to maximise essential PEHD teaching space in the basement below.

6.Filtered views of the street and into the foyer are offered through new glass and metal front door.

7.New basement slab connects large sports GLA to existing gym and Centennary Sports Hall.

RECONSTRUCTED ROOF

8.Roof form is reconstructed with pressed copper cladding and brise-soleil

9.Rebuild roof to utilise space in roof zone to provide essential GLAs, multi-purpose room and a secure outdoor terrace.

SUSTAINABILITY IN ACTION

We propose to integrate passive sustainability solutions to optimise the performance and durability of the building. SDS has experience in successfully integrating ESD principals in adaptive reuse projects. Principals proposed here include

10.Reuse bricks for new walls

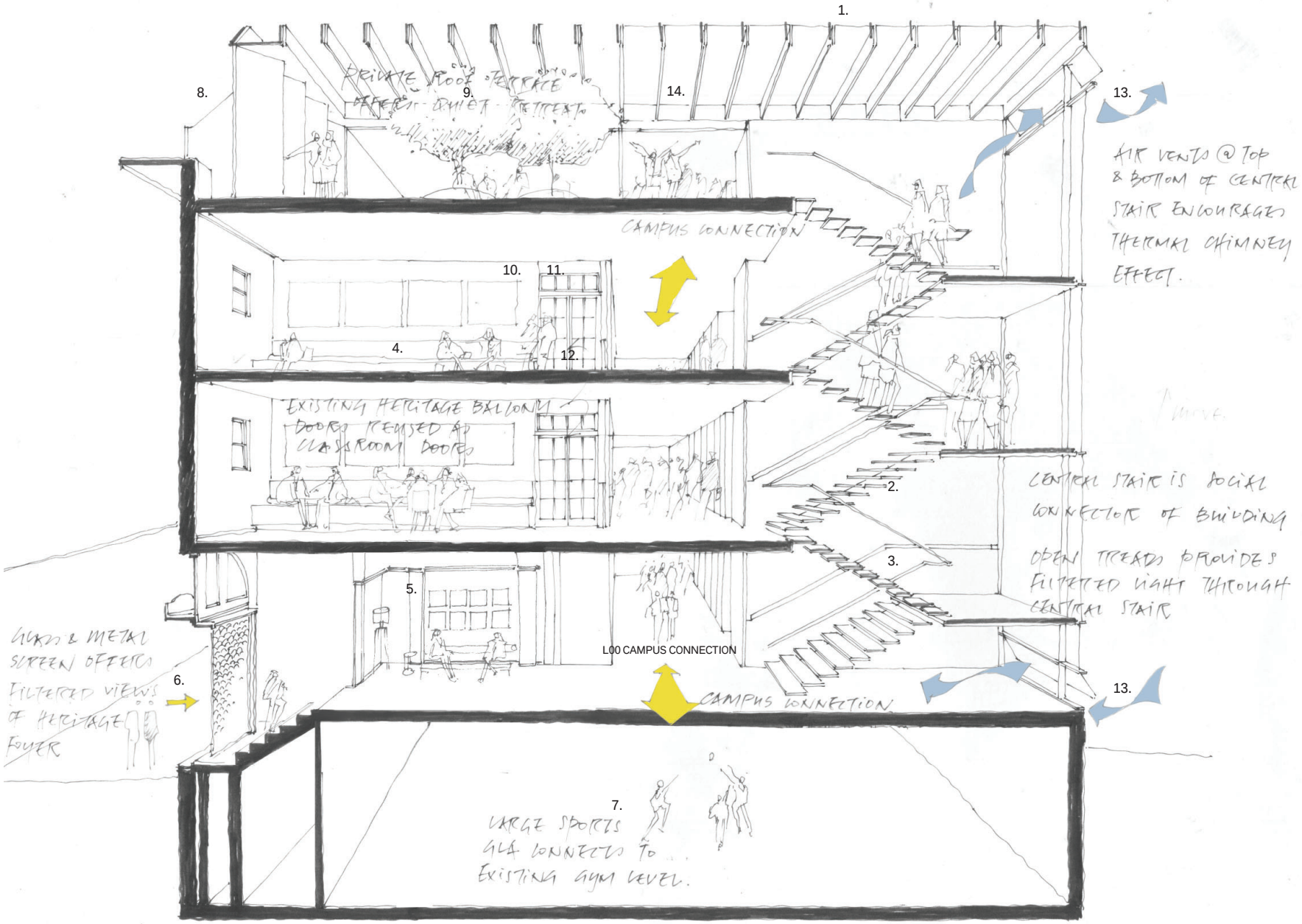
11.Heritage balcony doors recycled for classrooms.

12.Gut the building interior including timber floor structure and reconstruct all floors in concrete for fire safety, thermal mass, acoustic attenuation and durability.

13. Central stair vents at top and bottom creating thermal chimney effect.

14. PV solar farm on roof.

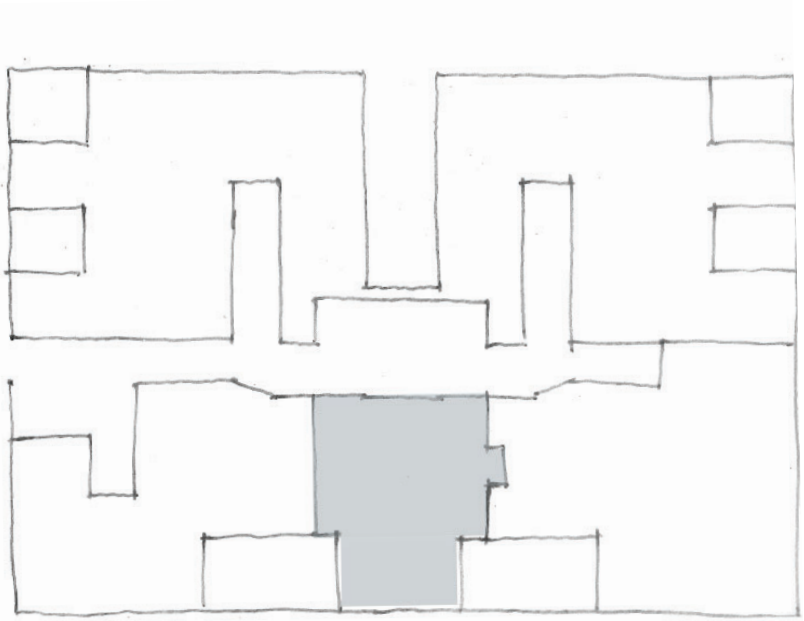
15. Ceiling fans to assist natural ventilation



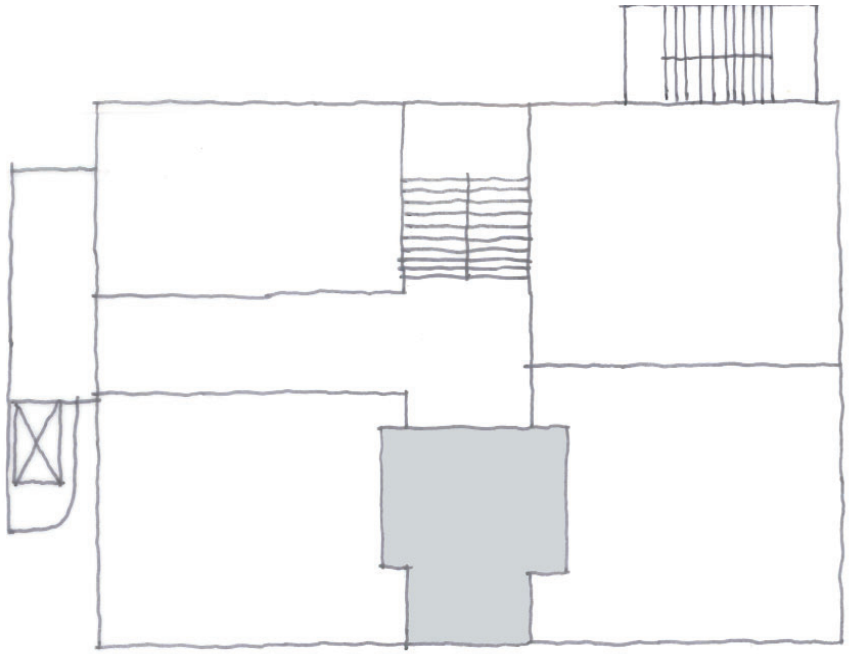
- The entry foyer is underutilised and requires a more useful purpose.
- It is currently dark and uninviting.
- Reuse the wall and ceiling moulds.
- Retain terrazzo flooring.
- Proposed strategy is to disassemble and remove the existing foyer, to facilitate faster, more cost effective construction, and then rebuild the foyer at the new, raised level.

The proposed entry room can be an inviting breakout and study space in its day to day function. It will also serve as a grand entrance for special school functions.

- Removing the solid front doors and replacing with a screen will allow natural light to flood the room .
- The proposed stair in the existing lightwell will also bring more light into the space.
- Heritage features such as the fireplace and original doors will be restored and reinstalled.
- SDS has restored heritage interiors including numerous suites in BMA House in Macquarie Street.



EXISTING GF FOYER + ENTRY



PROPOSED GF FOYER + ENTRY

ROOF STRATEGY

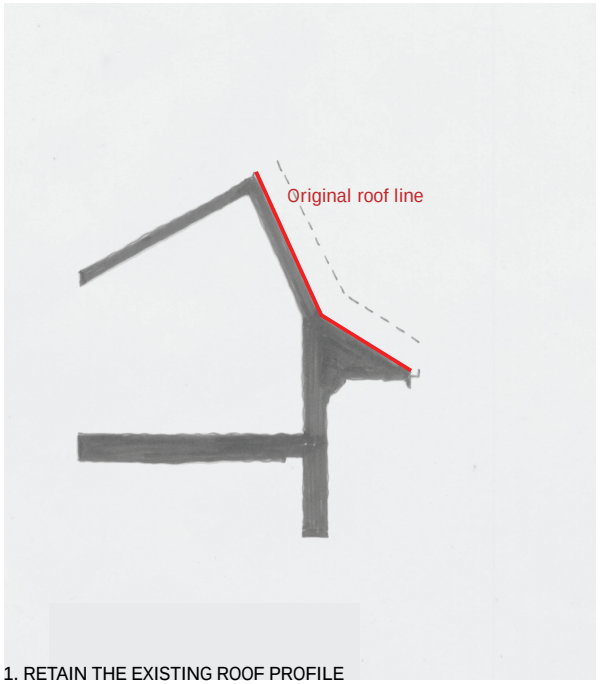
1.Existing mansard roof profile retained and remade in copper, a material sympathetic to the surrounding context.

2.Form high level openings in roof profile to provide natural light to teaching spaces

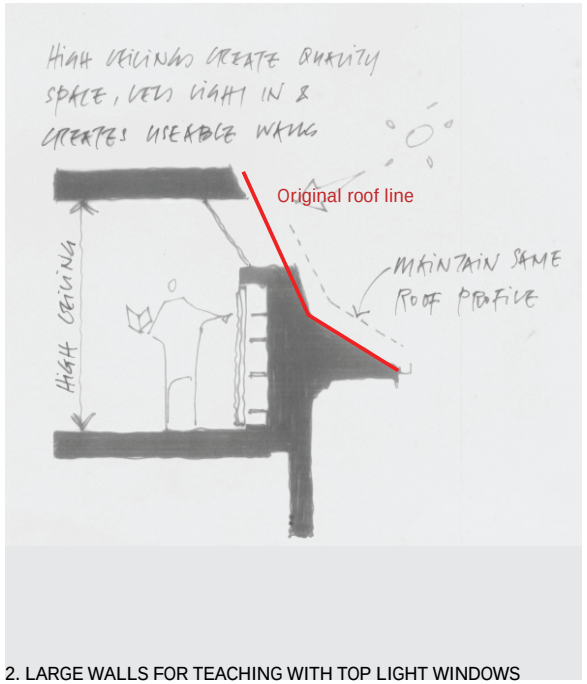
3.Vertical ribs, derived from original elevation drawings, shelter classrooms from hot summer sun, allowing warm winter sun.

4.Vertical ribs shield classrooms and terrace from overlooking whilst providing framed views out to the city beyond.

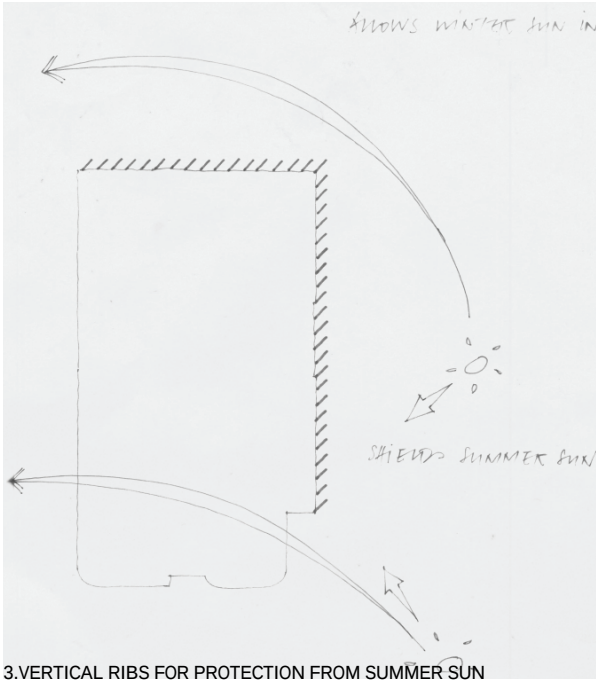
5.Plan arrangement focused on flexibility and can be arranged in a number of ways to suit purpose. The proposed outdoor terrace can facilitate outdoor learning, recreation and well being.



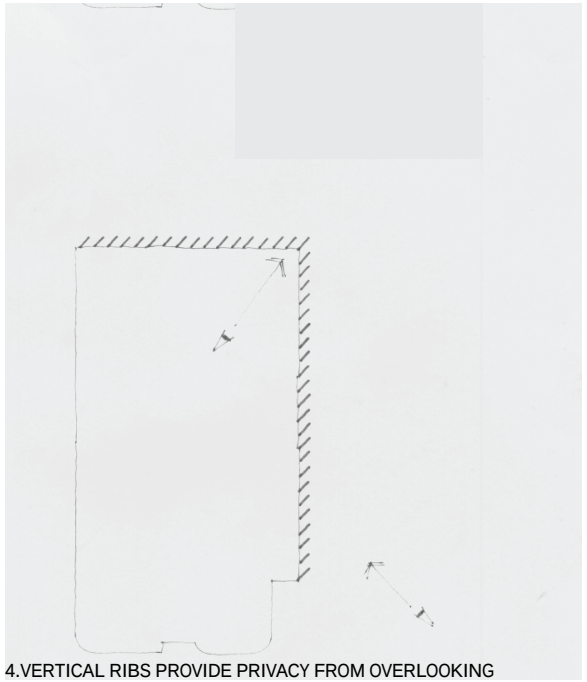
1. RETAIN THE EXISTING ROOF PROFILE



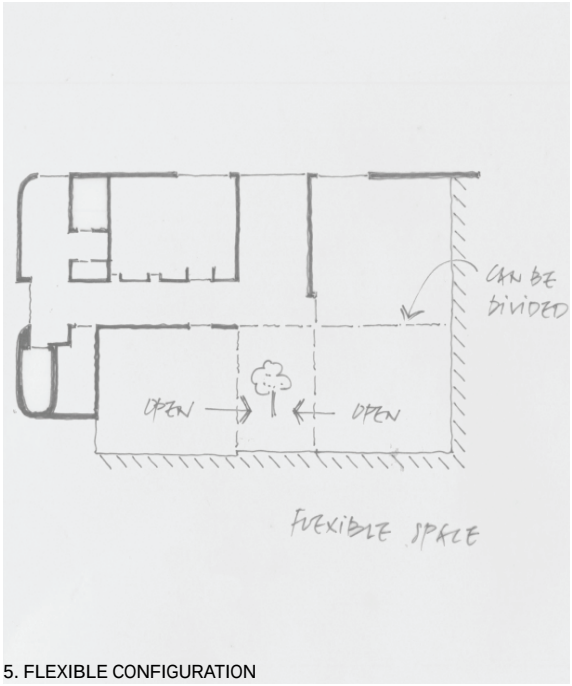
2. LARGE WALLS FOR TEACHING WITH TOP LIGHT WINDOWS



3.VERTICAL RIBS FOR PROTECTION FROM SUMMER SUN



4.VERTICAL RIBS PROVIDE PRIVACY FROM OVERLOOKING

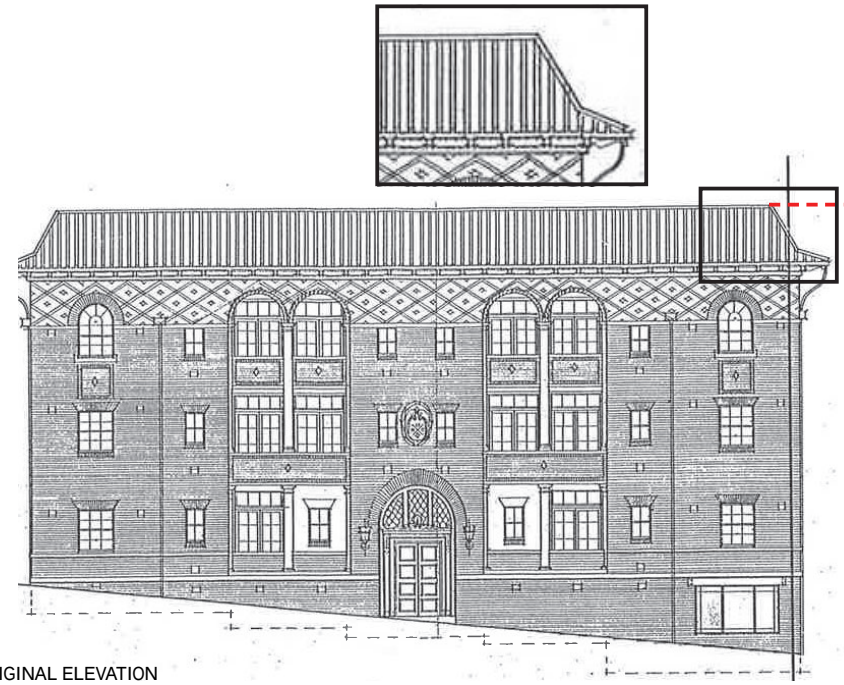


5. FLEXIBLE CONFIGURATION

ROOF FORM + HEIGHT

To meet SCEGGS's brief for more GLAs while being faithful to the original drawings with vertical emphasis to the roof we propose to:

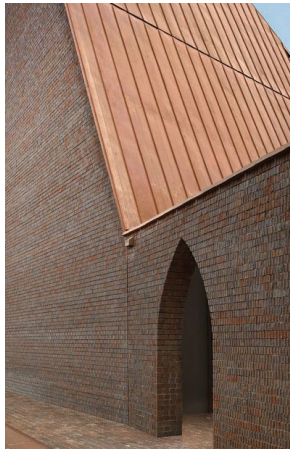
- Rebuild roof and utilise space in roof zone to provide the required large multipurpose room for a Year 12 Common Room or additional GLAs and an outdoor terrace.
- It is essential that the re-interpreted roof is raised in height by 200mm in order to unlock the possibility of a fourth floor and much needed floor area.
- Angles create privacy (from Horizon Apartments) and solar control to the high-level windows.



ORIGINAL ELEVATION

INDICATIVE CONCEPT ELEVATION

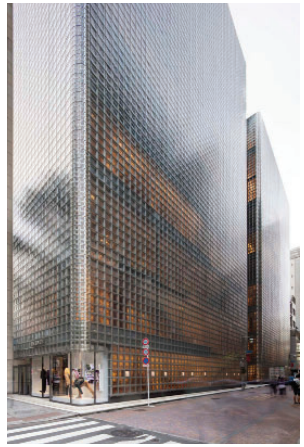
INDICATIVE CONCEPT VIEW

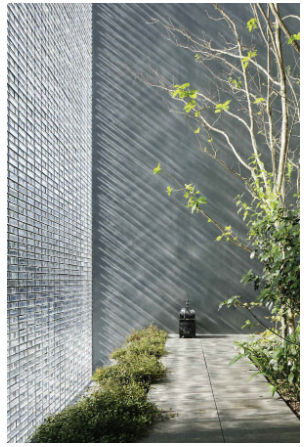


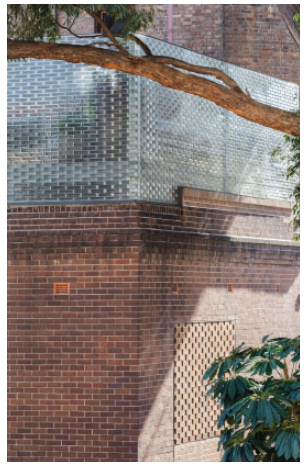
NEW ENTRY & LIFT

- As the school's main entry into Wilkinson House is from within the campus, the current entry is unclear and unceremonious.
- Our proposal articulates this entry for clarity to all users of the campus, through a new infill structure that connects Wilkinson House with the Centenary Sports Hall and the main campus.
- The proposed form of the entry structure + materiality is contemporary, contrasting with the heritage fabric of Wilkinson House.
- The new entry structure will be clad in glass brick; the brick format speaks to the adjoining red brick, and the glass will let light in.
- The translucent quality of the glass bricks will also provide the required level of privacy and security.
- The glass brick is a light touch, which will make the structure appear dematerialed, and therefore recessive and fluid between two heavier looking buildings.
- The proposed lift location is functional for circulation, does not consume valuable floor space, and does not breach the roof form of Wilkinson House.

Image to the right is an indicative concept design







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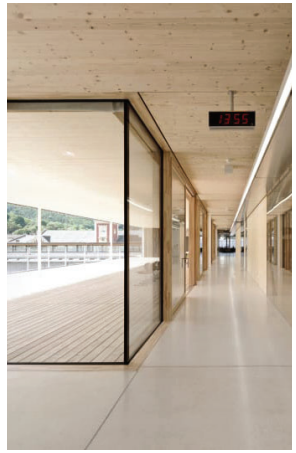
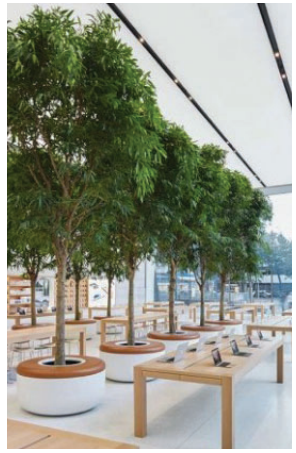




smart design studio

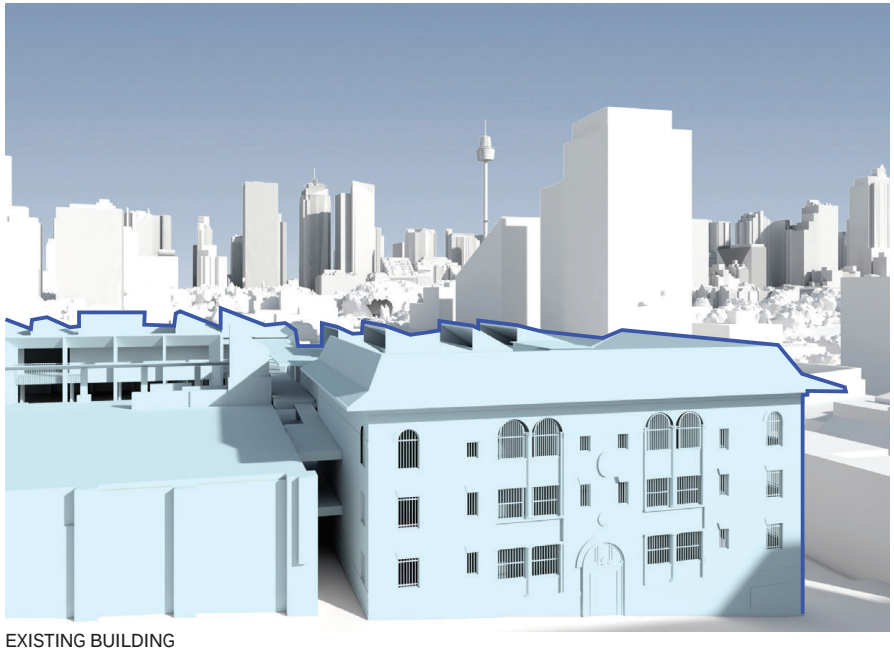
PROJECT
2022 WILKINSON HOUSE
PRESENTATION PAGE 29
ROOF TERRACE PERSPECTIVE

VIEW STUDY

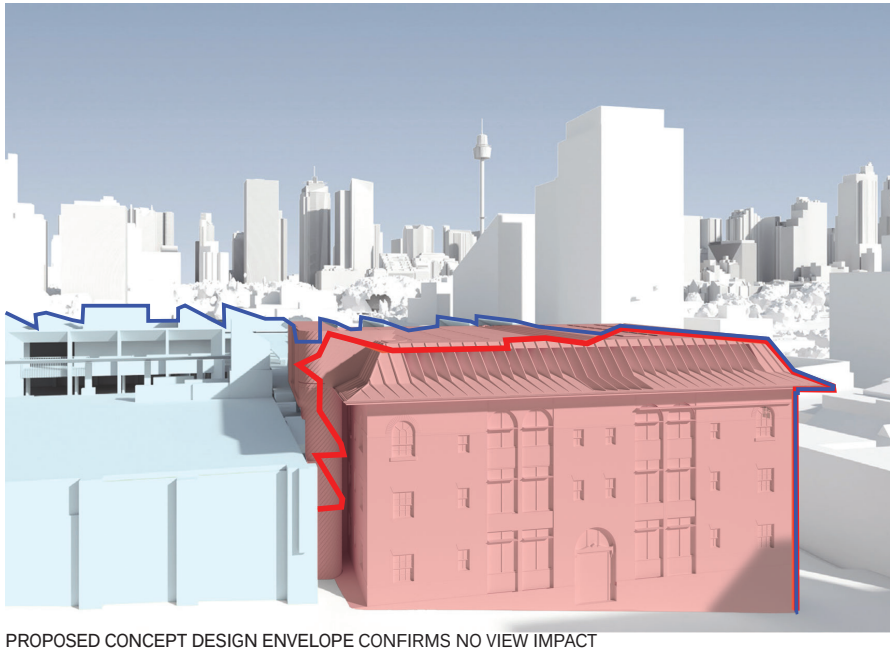
- The new ridge of the proposed roof is 200mm higher than the ridge of the existing mansard roof.
- The proposed ridge height remains below the 15m building height limit permitted by LEP control.
- The tallest point of Wilkinson House is the ridge of the north west parapet that adjoins the Joan Freeman Centre. The proposed height of the roof is lower than this point by 75mm.

KEY

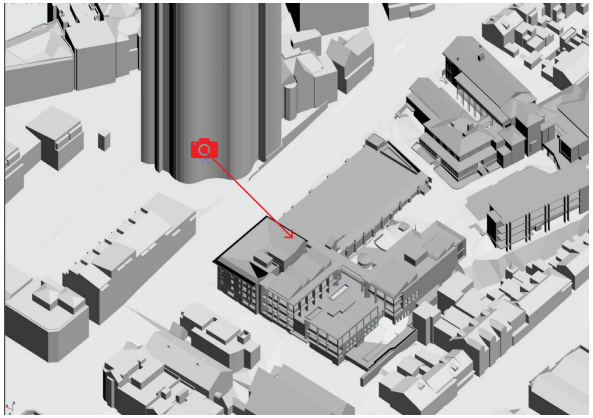
- Existing SCEGGS buildings
- Proposed Wilkinson House
- Outline of existing Wilkinson House
- Outline of existing SCEGGS campus buildings



EXISTING BUILDING



PROPOSED CONCEPT DESIGN ENVELOPE CONFIRMS NO VIEW IMPACT



3D VIEW SHOWING CAMERA POSIION

3D VIEW CLOSE-UP VIEW SHOWING CAMERA POSITION

It is essential that the proposed roof is raised by 200mm in order to unlock the fourth floor and much needed floor area. Providing a fourth floor is imperative for the feasibility of the project and maximising every opportunity the land-poor campus can afford while having little or no view or privacy impact on neighbouring buildings.

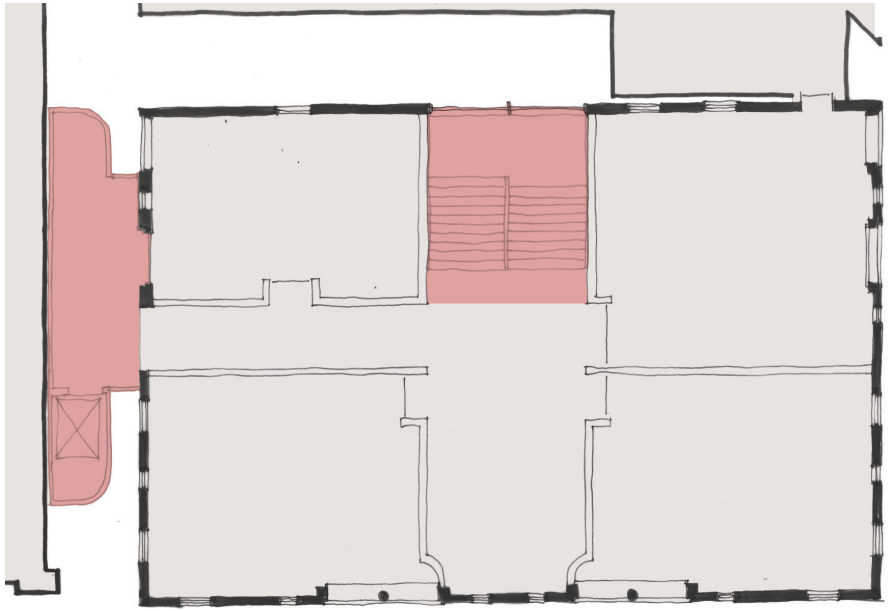
EXTENT OF PROPOSAL

- The proposal has a minor imapct to the existing Wilkinson House envelope.

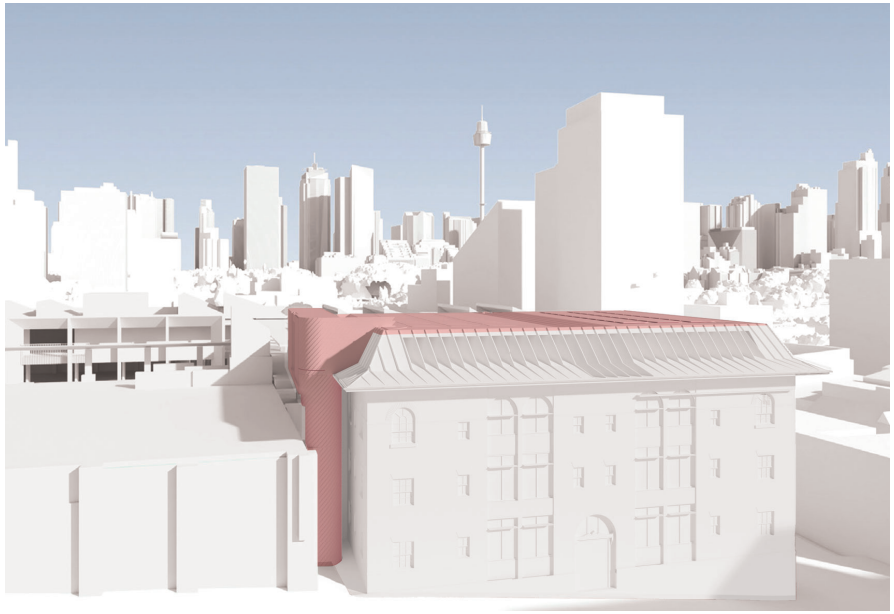
KEY

Existing envelope

Proposed addition



PLAN



3D VIEW

CONSTRUCTION SEQUENCE

Smart Design Studio has over twenty years' experience in working with heritage buildings and have successfully in adaptive re-use.

Carefully "designing" how to build the building will save time and money.

From left to right:

- White Rabbit Gallery in Chippendale
- 632 Crown Street, the former studio of Smart Design Studio.
- 515 Crown Street, Surry Hills