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Addendum: SSDA Response to Submissions - Chatswood Public School

Upgrades to Chatswood Public School and Chatswood High School

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Addendum	Upgrades to Chatswood Public School and Chatswood High School SSDA Response to Submissions - Chatswood Public School	
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Client	School Infrastructure New South Wales (SiNSW)	
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Cover Image:
District views from Public School site

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Response to Submissions - Chatswood Public School

This Addendum document has been compiled by Architectus, with input from Oculus, in response to items raised in submissions from the Department of Planning, Industry and Environment (DPIE), Willoughby City Council and the public, relating to the height, bulk and scale of proposed Building P1 of the Chatswood Public School development.

This document will outline the current scheme and provide commentary on the options previously studied throughout the design process, and considerations taken to arrive at the current design response.

This document also references consideration of the design in the context of the Chatswood Planning & Urban Design Strategy.

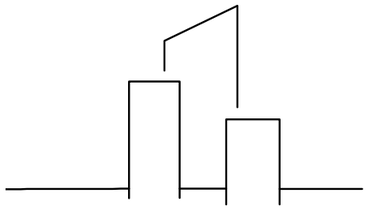
Image:
View of new Primary School Building P1+P2 from central play area.

01
Concept Appreciation

1 Concept

Two Distinct Campuses - City Campus

Pacific Highway



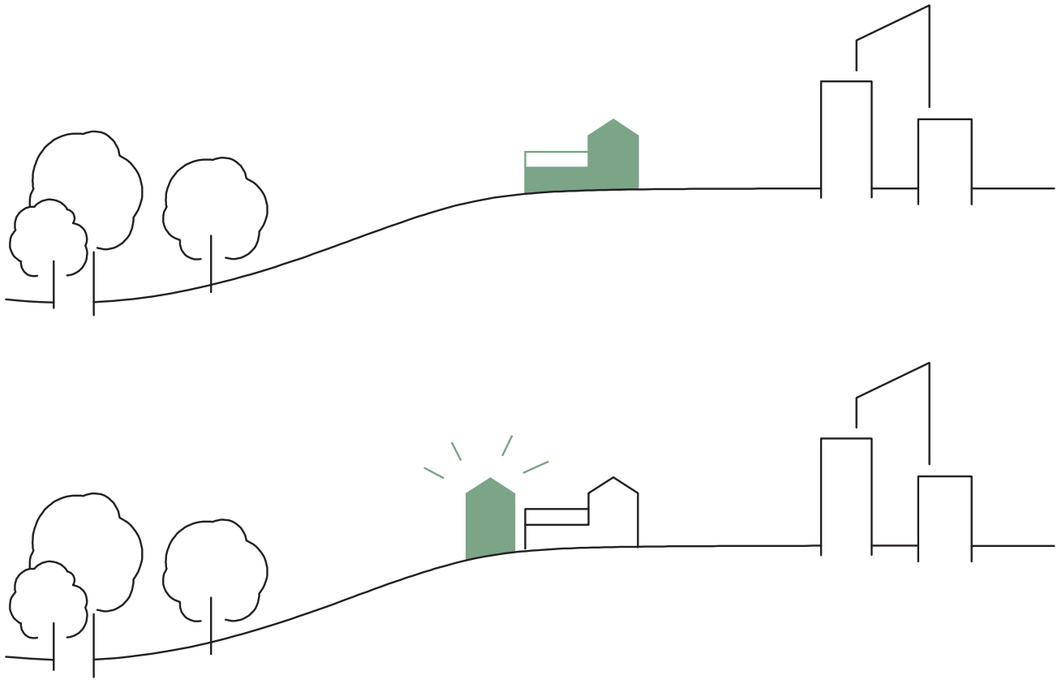
Being adjacent to Chatswood CBD, this site has a very urban context to its outer facing perimeter. The scale and articulation of surrounding buildings on Pacific Highway itself is civic and commercial. Within the site boundary itself, the existing heritage buildings soften and punctuate this urban scale with the introduction of brick and sandstone where a finer grain and human scale is more legible. Heritage Building A holds the corner of Pacific Highway and Centennial Ave with measured presence and is echoed further down Centennial Ave with heritage Building B which anchors the south west end of the site. Internally, the site has a calmer environment with significant district tree top views towards the national park. This creates a softer inner centre to the site which balances its outer urban edge.



City Campus Design Concept: A School On A Hill

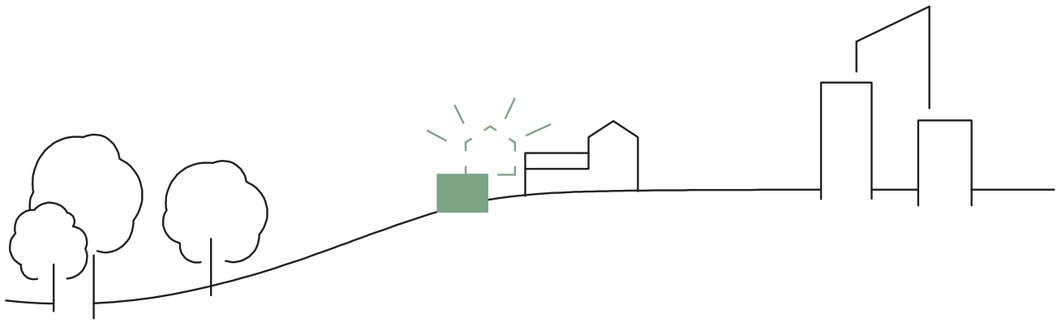
The development for the Upgrades to Chatwood Public School and Chatswood High School is based on the education rationale of neighbourhoods and collaborative learning. Both sites share common features including changing terrain, district views and green inner centres.

The Pacific Highway site is elevated high from the main road frontage with a far reaching outlook. The terrain following down Centennial Avenue. In this way, the Pacific Highway site has the character of “a school on a hill.”



1. Interpreting Heritage Context

Heritage built form is prominent on the Pacific Highway site and can be interpreted in form, material and articulation.



2. Contrasting Open & Focused Spaces Through Diversity

Creating learning spaces that are diverse is also a key design driver, where the more focused learning space can be balanced with more open and connected spaces in between that allow for social interactions and collaboration.

Image:
View of new Building P1 + P2 overlooking the Lowers.

02
Response

2 Response

The material selection for the new buildings on the Chatswood Public School site have been carefully considered within the City and Heritage context.

The following selections were chosen as a simple palette, to create new, modern buildings which offer a respectful appreciation to the existing character:

Concrete
Framing device used by most new buildings

Brick
Facades and solid elements as nod to the surrounding character.

Glass
Glazing element

Steel & Aluminium
Material chosen for screening elements including balustrades, for longevity & low maintenance.

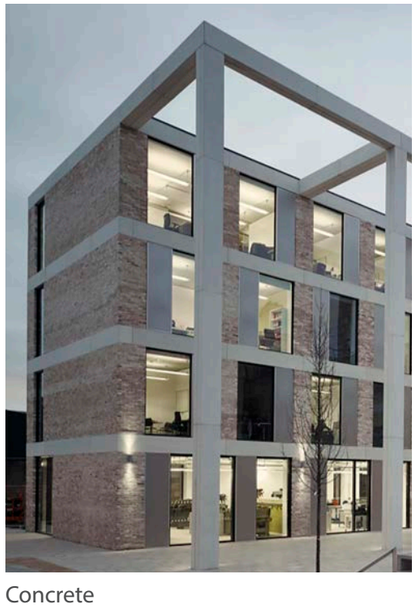






The facade treatment to Building P1 & P2 was driven by a number of factors, including

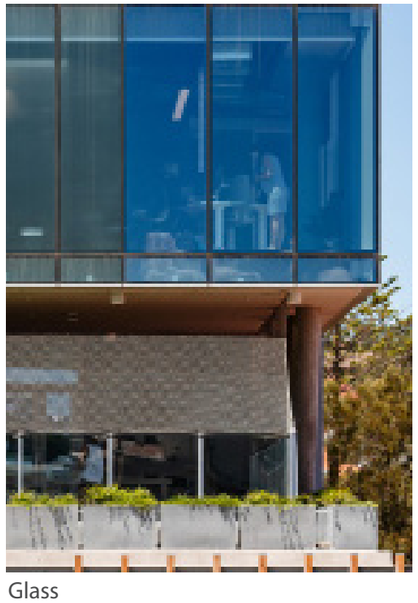
- Aspect & district views
- Solar control
- Education planning
- Privacy for students
- Visual bulk & scale
- Relationship to other buildings on site.



Concrete



Brick



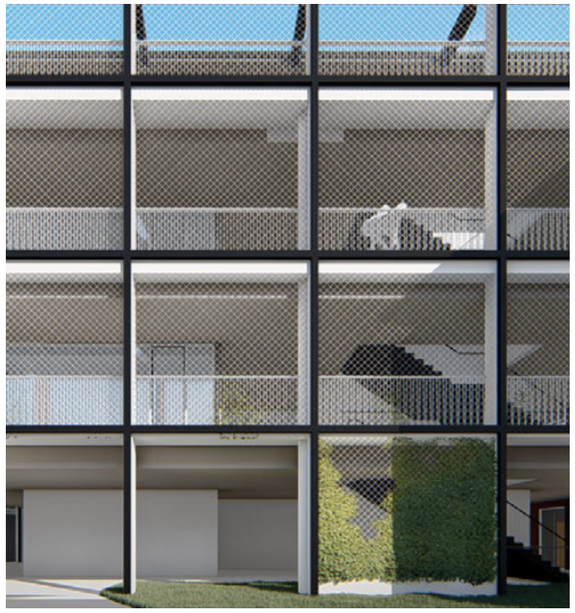
Glass



Steel & Aluminium

The overall proposed materiality for Chatswood Public School is similiar to the proposed materiality of the upgrades to Chatswood High School, creating a link between the two sites and an overall precinct palette.

- Use of brick to frame & create expression.
- Use of steel wire screening to outdoor areas.
- Alternative materials in addition to brick have been proposed for Chatswood High School in keeping with the character on the Centennial Avenue campus & surrounds, as a gesture to the bush setting.



Screening elements - Steel wire and planting





Chatswood High School - Proposed Building S - use of Brick for expression

Response

The North and South facades have the most glazing, to increase the opportunity for passive sun lighting to the internal spaces. Solar shading to the north is an important element. We reviewed both vertical and horizontal options, and found that horizontal shading provided the most benefit for sun control. This, paired with optimal spandrel heights assists with outlook and privacy for students.

The COLA in Building P1 at Ground Floor level was introduced to create much needed additional outdoor space for Chatswood Public School. Increase of outdoor space is one for the key requirements for the project. This space also provides relief for the building mass. Safety screening and planting is proposed to the perimeter of the COLA for student privacy and promotes softening of the building elevations. The location of the COLA at this level provides a direct connection and expansion of the outdoor space in the middle of the site, and encourages use of the Lowers space generally, through easier connections down to this currently under-utilised space.

The East and West facades offer a solid flank to the building volume. On the western facade in particular, we are conscious of controlling the harsh direct sunlight. Minimal, narrow glazing elements control sunlight and privacy along the western facade. While the COLA goes a long way to relieving the west facade bulk, we were conscious to carefully review the facade treatment to the upper levels, particularly as these would be most visible to the neighbouring residences.

To reduce the impact of scale to the western neighbours, we have reviewed the design for opportunities to provide more variation and articulation, with the proposed resolution as follows:

- Use of materials - in addition to brick, we looked at options of adopting a multi-material approach to the facade arrangement. This caused the western facade to look very busy against the character of neighbouring existing Building B. We landed on majority brick for simplicity and consistency. Brick as a material has an identifiable scale, which by its nature adds detail and variation. Introducing a darker brick to the lower levels separates the visual mass.

- Location of cut-outs to provide additional relief - as part of the education rationale, we looked at opportunites for outdoor connection direct from the learning neighbourhoods. Small COLA terraces have been integrated on the west & east facades. We studied the location of these to balance the relationship with the education planning and the look of the elevation. Having these spaces provides additional variation & articulation. The introduction of planting to the outdoor space for screening assist with outlook and privacy.

- Facade articulation - in addtion to the small COLA terraces, we reviewed other opportunities for articulation of the western facade. We were limited to the education planning internal, so we explored how the facade materials could be arranged. The use of brick has created opportunities for articulation, via shallow recesses. These compliment the outdoor spaces that punch into the facade and provide relief.



UPDATE: Building P1 - Western Facade



Building P1& P2 - Northern Facade

Building P1 - Western Facade

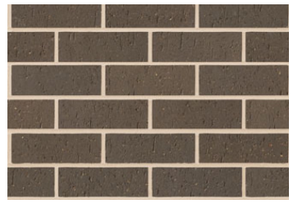


PREVIOUS: Building P1 - Western Facade



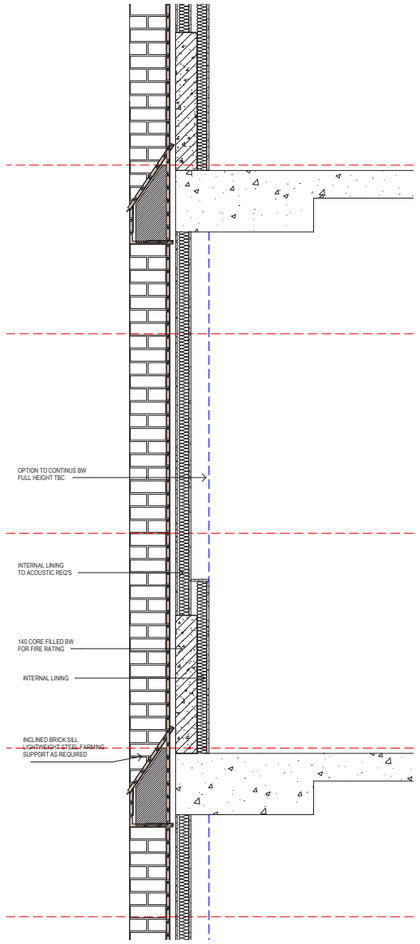






Proposed darker brick to the lower levels.

Wire balustrade with planting behind to COLA & outdoor spaces



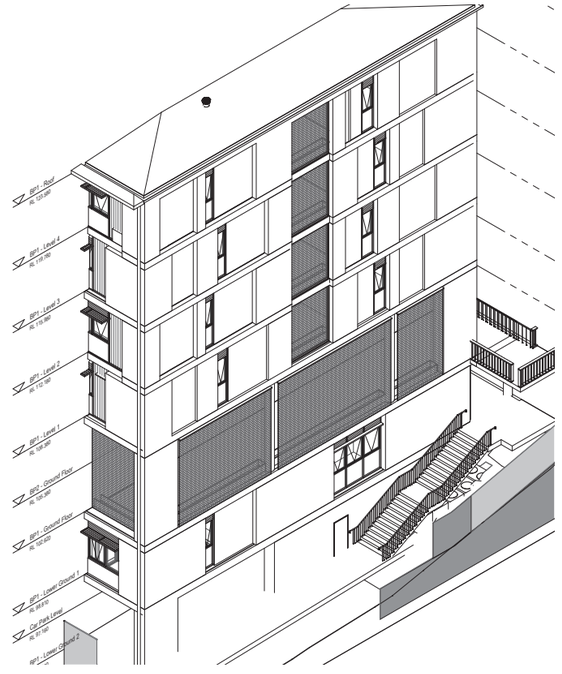
TYPICAL BRICK RECESS



UPDATE: Building P1 - Western Facade - 2:00pm April 23rd

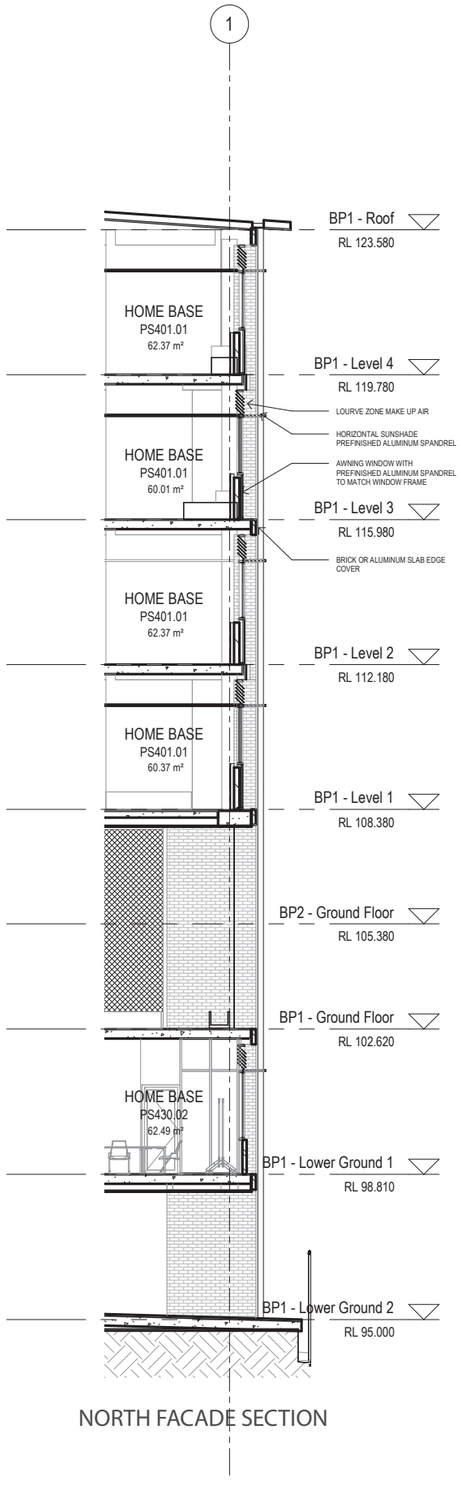


UPDATE: Building P1 - Western Facade - 3:00pm April 23rd



UPDATE: Building P1 - Western Facade

Building P1 - Northen Facade



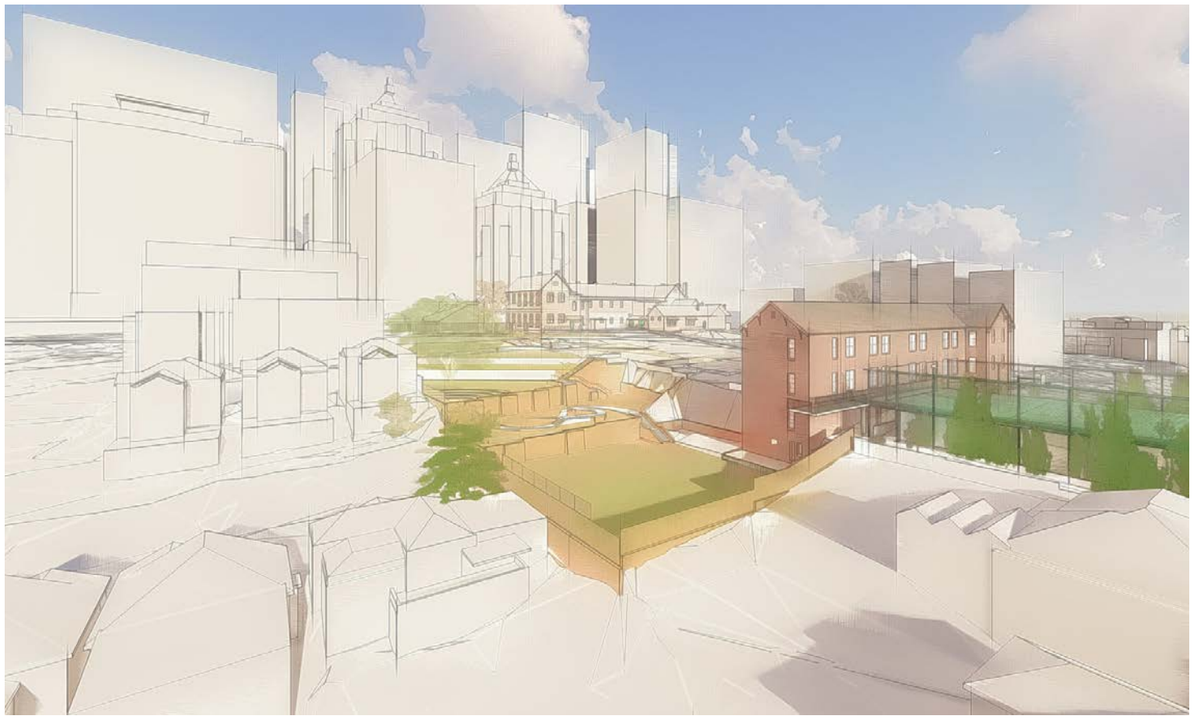
NORTH FACADE SECTION



Building P1 -North Facade - 9:00am September 23rd



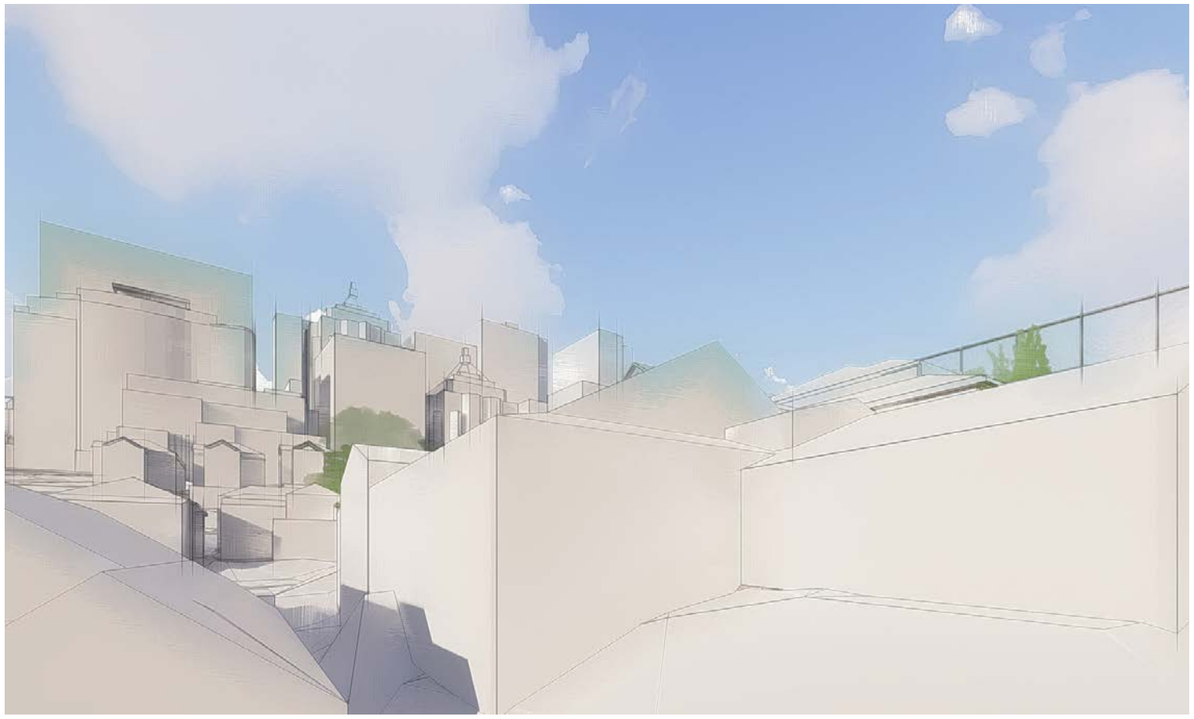
Building P1 -North Facade - 12:00pm September 23rd



Building P1& P2 - Pre-Development - View towards Chatswood CBD



Building P1& P2 - Post-Development - View towards Chatswood CBD



Building P1& P2 - Pre-Development - Jenkins Street view towards Chatswood CBD



Building P1& P2 - Post-Development - Jenkins Street view towards Chatswood CBD

Response

The COLA in Building P1 at Ground Floor level creates much needed additional outdoor space for Chatswood Public School. Increase of outdoor space is one for the key requirements for the project. The existing site has a deficit of useable outdoor space, currently at 3.5sqm per student which is well below requirements. The proposed overall scheme increases outdoor space to 9.0sqm per student. The COLA space in P1 also provides relief for the building mass. Safety screening and planting is proposed to the perimeter of the COLA for student privacy and promotes softening of the building elevations.

The currrent planting selection for the perimeter of the COLA is Rhaphiolepis Indica 'Indian Hawthorn', an evergreen scrub that can grow up to 2m high in the current width & depth of planter box. The Indian Hawthorn is a good screening planting, that will grow to a suitable height for privacy, while still ensuring daylight into the COLA space. Oculus have reviewed alternatives, however, a taller plant will require increased planter size which will encroach into the outdoor space. A taller plant species may also reduce daylighting. This planting will also be used in the small outdoor COLA terraces.

New planting is proposed at the Lowers along the site boundaries. The current planting selection to these areas is Acmena smithii 'Sublime Lillypilly', a hedging plant which grows up to 5m high, and can grow higher than 5m if left without pruning. The shaded location behind the high fencing would mean that it would take some time to grow to that height. Planting mature plants to this zone may assist. And alternative plant selection offering extra height is the Waterhousia Florisbunda 'Weeping Lillpilly'.

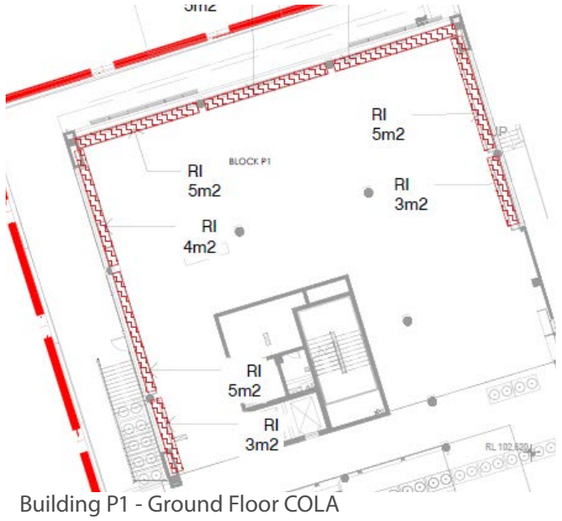


Rhaphiolepis Indica 'Indian Hawthorn'

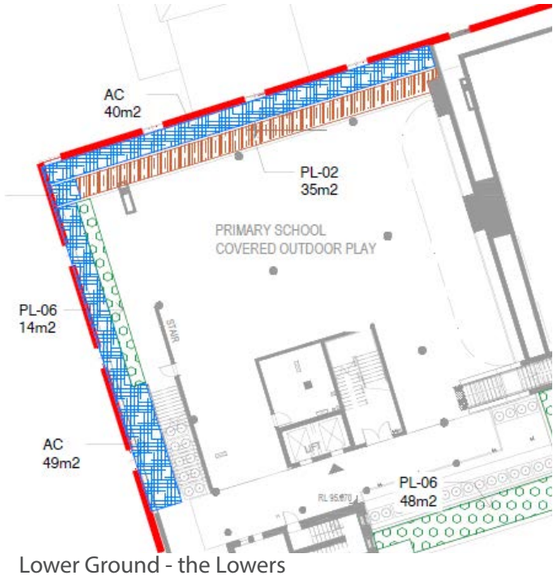
Proposed planting to COLA & the small outdoor area COLA terraces



View from Jenkins Street facing Chatswood CBD



Building P1 - Ground Floor COLA



Lower Ground - the Lowers



Acmena smithii 'Sublime Lillypilly'

Proposed planting to the Lowers boundary



Waterhousia Florisbunda 'Weeping Lilipilly'



Building P1 - Western Facade

Response

During the design process we reviewed numerous options for the new building for the Chatswood Public School on the Pacific Highway site (DPIE and Public Submissions), these included:

- Locating building mass along Pacific Highway - this revealed structural implications of building high over a hall and was not considered a good solution for the relationship to the heritage Building A, despite location across from Chatswood CBD.

- Locating more building mass over the proposed car park - this option proved to be inconsistent with the surrounding streetscapes along Centennial Avenue and Jenkins Street.

- New building in place of the existing hall, plus new buildings at the Pacific Hwy frontage and the Jenkins Street frontage to distribute new accommodation aroudn the site - while this option assisted in keeping new building heights down, it significantly reduced accessible outdoor space. This also did not consider heritage views between the existing buildings

- Partially building on the Lowers, plus new buildings at the Pacific Hwy frontage and the Jenkins Street frontage - while this option assisted in creating better connection to existing outdoor space, reduced accessible outdoor space elsewhere.

By locating the new Buildings for Chatswood Public School along the northern boundary it provides most benefit for the project and for the school, by:

1. Creating better connection, accessibility and use of the Lowers, which is currently difficult and under-utilised outdoor space;

2. Taking advantage of the level changes of the Lowers and affords to maximise scale without over powering the existing heritage buildings;

3. Maintaining the scale & key heritage views between the existing buildings and along the streetscapes of Centennial Av and Pacific Highway;

4. Enables access to key district views from teaching spaces.

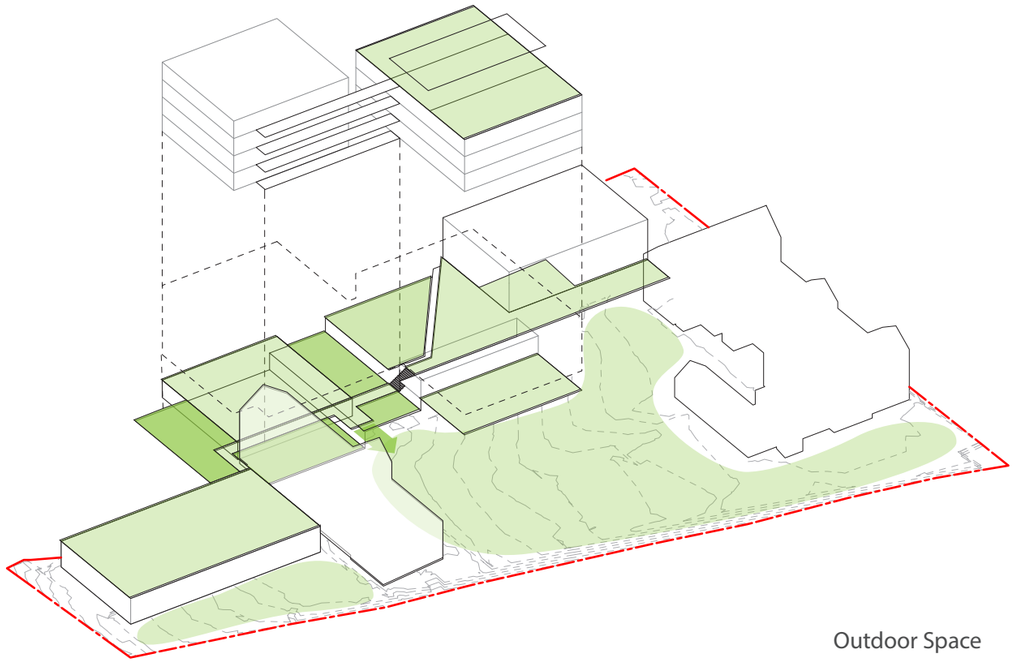
5. Maximises use of existing outdoor space, and creates opportunities for additional outdoor space.

6. Enables the car park to be utilised for outdoor play on top, and maintains consistent streetscapes along Centennial Avenue and Jenkins Street.

7. Enables shaded outdoor space to the interior of the site during summer.

8. Has minimal shadowing impacts to neighbouring properties on the west in comparison to the shadowing causing by the Chatswood CBD.

The height of Building P1 is largely due to the creation of the COLA space at Ground level, and also raising the building to maintain the Lowers outdoor space. Maximising outdoor space is a key requirement for the school. The overall scheme increases the outdoor area from 3.5sqm per student (well below suitable requirements) to 9.0sqm per student. The new Buildings P1 & P2 create new opportunities for outdoor spaces, and allow better connections to existing outdoor spaces.



Outdoor Space



Pacific Highway Site Section AA

Response

Another factor driving the height of Building P1 is the education planning and the location of stage groups. The the size of the plan footprint for Building P1 enables a four Home Base Learning Neighbourhood which can support the model of teaching championed by the school. Building P2 complements this rationale.

The distribution of teaching spaces in Building P1 & P2 attains the brief and achieves the school's operational requirements. The way the teaching spaces have been distributed permits the mass of Building P1 & P2 to be the same height, with suitable access to the P2 rooftop play space from a teaching level and this is ideal for the school operationally and for effective surveillance of students.

During the development of the design, we were conscious of the location of the new builidings in relation to the neighbouring residences. We considered the following options to moderate the visual bulk and scale:

- Increasing the setback between P1 and the western boundary - we looked at moving P1 east closer to the mass of P2. The result uncovered new problems, including loss of outdoor space at the Mid-Lower due to P1 encrouchment, and the creation of a more solid mass facing the James Street frontage.

- Setting back P1 at the upper levels only - this option resulted in needing to move teaching spaces elsewhere on the site and disrupted the endorsed Learning Neighbourhood model. Having to move briefed accommodation elsewhere on site also meant loss of outdoor space.

- Sliding the upper levels of P1 to the east - having an offset to the building mass with a large cantilever creates structural consequences.

- Reducing the height of P1 - much like setting back the upper levels, the associated teaching spaces would need to be located elsewhere. This would preclude the implementation of the required & endorsed Education rationale. It would also mean loss of outdoor space.

We expanded our considerations to the facade treatment and ways to reduce visual impact and ensure privacy to the neighbours. We have incorporated the following into the current design:

1. Horizontal solar shading to the north - increases privacy to neighbouring residences by impeding overlooking. The horizontal "banding" created by the shading contributes to breaking up the mass of the northern facade.

2. The COLA space in P1 provides relief for the building mass. Safety screening and planting is proposed to the perimeter of the COLA to increase privacy and promotes softening of the building elevations. The increase of the opening of the main COLA level, now reads as a definite break in the building.

3. Minimal glazing to the western facade to control the harsh direct sunlight and enable privacy.

4. Location of cut-outs to provide additional relief - small COLA terraces have been integrated on the west & east facades. We studied the location of these to balance the relationship with the education planning and the look of the elevation. Having these spaces offset brings movement to the facade. These areas are screened for privacy.

5. Facade articulation - in addtion to the small COLA terraces, we reviewed other opportunities for articulation of the western facade. We were limited to the education planning internal, so we explored how the facade materials could be arranged. With the use of brick, we can make shallow recesses along the facade to compliment the movement created by the small COLAs.



PREVIOUS: Building P1 - Western Facade



UPDATE: Building P1 - Western Facade

Response

The Willoughby Council Chatswood CDB Planning & Urban Design Strategy to 2036 was introduced in January 2018, and aims to establish a strong framework to guide future private and public development as the CBD grows over the next 20 years. It aims to provide capacity for future growth, achieve exceptional design and a distinctive, resilient and vibrant CBD. The Strategy does not amend or change the zoning or planning controls of any land or property in Willoughby Council. It provides the strategic vision for the long term growth of Chatswood CBD, in line with the Sydney Region Plan and North District Plan of the Greater Sydney Commission.

The key objectives for Chatswood CDB include:

1. Promoting office growth and a diverse mix of uses.

2. Creating great public spaces and urban design quality.

3. Greening the CBD.

Although the Chatswood Public School site is not the focus of the Strategy, it is considered to be part of the Centre, within a strategic transition zone between the CBD and the low density residential dwellings. This supports the approach to height for the new buildings on the Chatswood Public School site.

The increased outdoor space and landscape reasoning proposed for the project supports the Strategy's objective for quality urban design.

The proposed new Public School Hall fronting Pacific Highway will be considered for shared use with public groups, supporting the Strategy's objective in promoting a diverse mix of uses for the Centre.



CBD boundary
Open space
B3 Commercial core
B4 Mixed use
No change

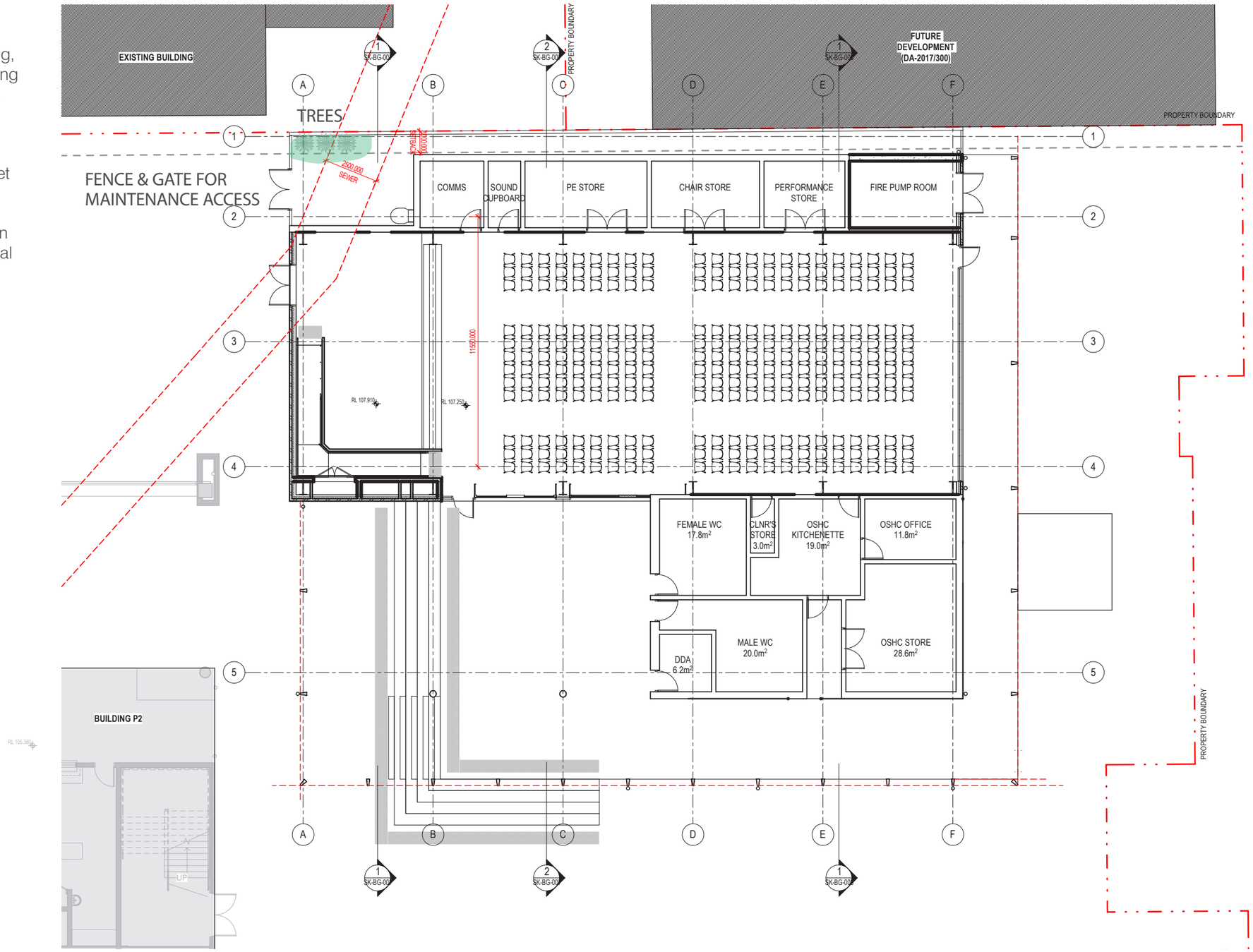




Building G Setback - Plan

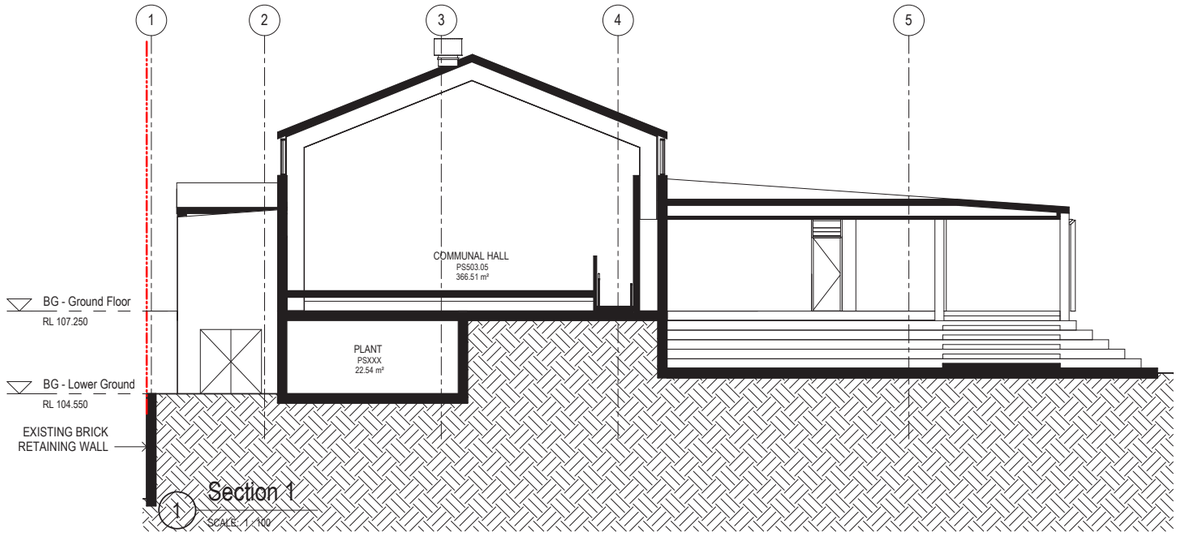
In response to a request by the Department of Planning, we reviewed the relationship between proposed Building G (the new Hall) on the Chatswood Public School site, and the neighbouring residential property. We have enacted the following updates:

- Greater setback at north-west corner to James Street neighbour.
- Achieved by relocating & consolidating bathrooms in the southern part of the plan, and creating an overal boundary setback of 1000mm.
- Fence & gate added for maintenance access.

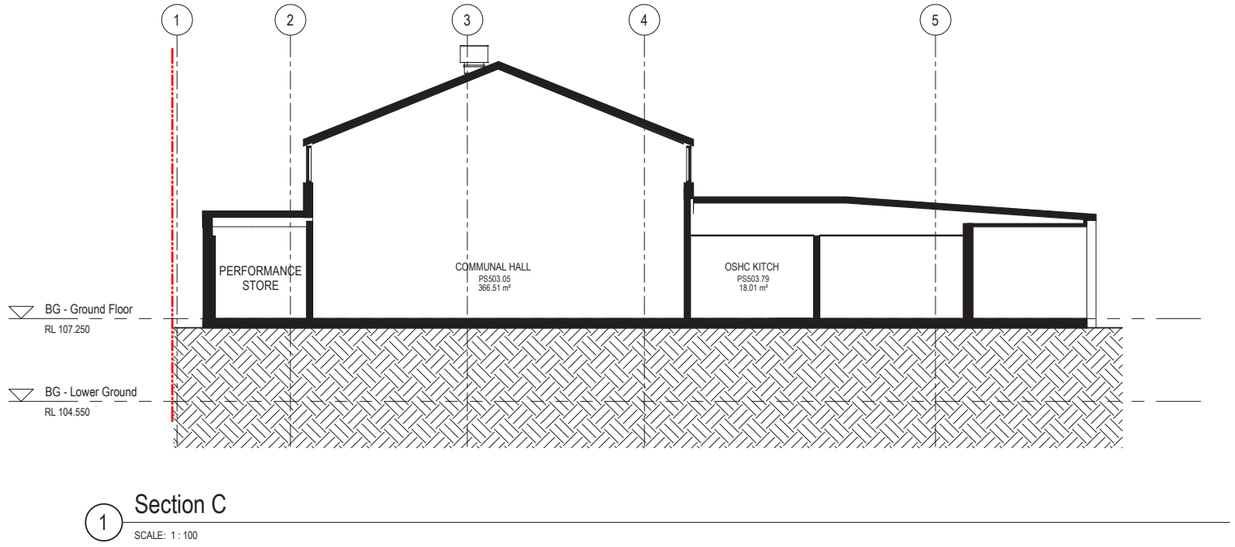


BUILDING G FLOOR PLAN - 1:100@A3

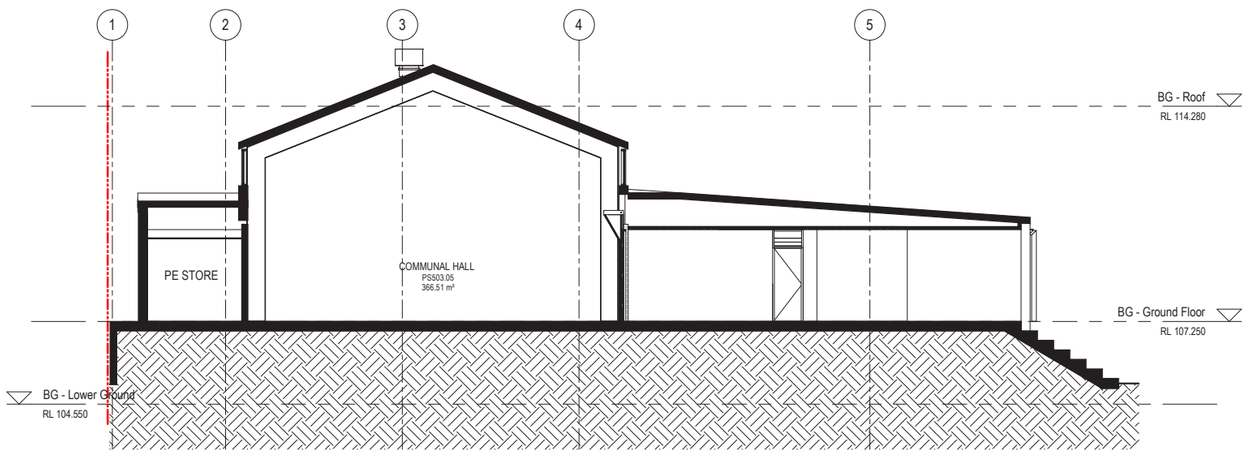
Building G Setback - Sections



SECTION 01



SECTION 03



SECTION 02

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