



Loreto Kirribilli Architectural Design Statement

Section 4.55

Loreto Kirribilli

fjmt studio architecture interiors urban landscape community

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fjmt

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1.0 Executive Summary

The proposed 50 year Master Plan for Loreto Kirribilli aims to gradually redevelop or replace buildings with dynamic, versatile spaces and studios, which will foster cross-curricular and innovative learning, including STEM; while better utilising the landlocked site and enhancing accessibility across the campus.

It is imperative that the built outcomes of the project truly capture the needs of education and the community to ensure the project achieves the desired result of the brief.

Stage 1 of the development will include a new Innovation Centre - a facility with a range of studios, presentation and open collaboration spaces.

Introduction

1.1 Overview

On 02 October 2018, the NSW Department of Planning and Environment (Independent Planning Commission) granted development consent for State Significant Development 7919 for the Loreto Kirribilli Concept Proposal and Stage 1 Development Application.

The consent was granted for the construction and use of an education building, including:

Stage 1 of the development comprising:

- demolition of B-Block, sections of the chapel and the sections of buildings in the eastern precinct
- excavation up to 13 metres (m);
- construction of a seven-storey Innovation Centre including four-levels of basement and a roof-terrace;
- extension to the existing gymnasium;
- construction of a five-storey connector pod in the northern precinct;
- construction of a connector pod with ramps and stairs in the eastern precinct;
- construction of a four-storey connector pod in the southern precinct including learning studios and an external learning terrace;
- alteration and refurbishment of the chapel;
- walkways connecting buildings;
- landscaping works including removal of 10 trees;
- stormwater works and remediation works; and
- enrolment of 30 additional students and two additional staff members.

Loreto Kirribilli are now seeking to submit a Section 4.55 application to modify the above consent (SSD_7919).

The application seeks approval for the following:

- adjustment of the set out of the western and the eastern wings of the facility to provide a reduced envelope which will improve the overall amenity of the site and the neighbouring properties. This includes a reduced excavation profile.

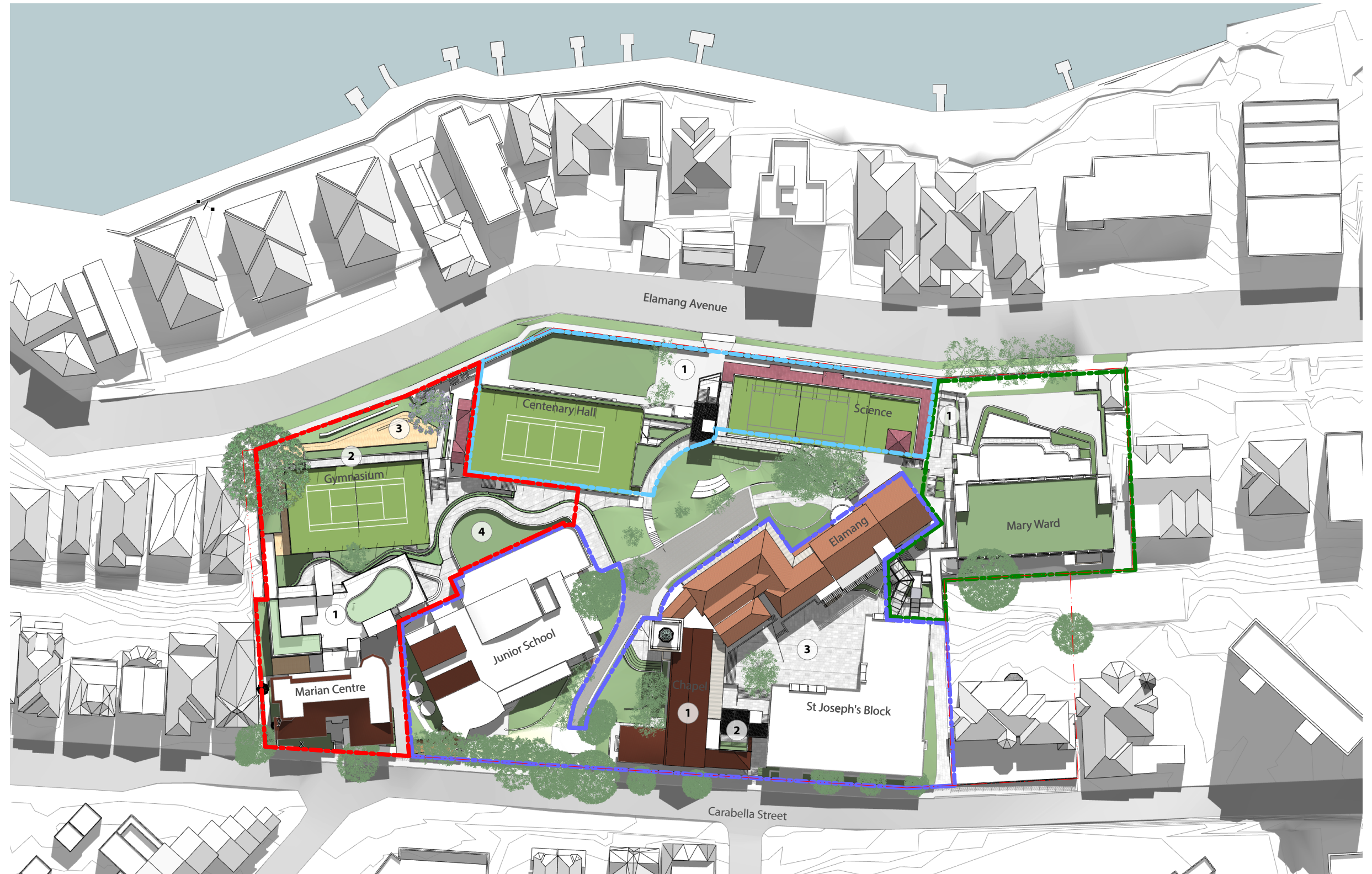
- adjustment to the facade and the removal of the external learning areas and as a result the materiality of the new Innovation Centre to address Condition B6.
- adjustment to external walkways to provide a safer amenity and an improved maintenance environment
- minor modifications to landscape to capture ongoing brief development
- minor internal planning amendments to capture ongoing brief development



Stage 1

Stage 1 of the Master plan will include works within the Western Precinct, Northern Precinct and partial works within the Eastern Precinct and Southern Precinct.

The subject of this Section 4.55 Modification is the works to the Western Precinct which have been modified as a result of the continued detailed design development for this portion of the site and in response to the identified conditions of the approval. The response to the identified conditions has resulted in an overall improved outcome for both Loreto Kirribilli and the immediate neighbours, through the realignment of the eastern wing of the facility and the improved setbacks to the north.



Western Precinct		Northern Precinct		Eastern Precinct		Southern Precinct	
1	Proposed Development Envelope - New Learning Hub. Seven storey building (3 storeys above ground - Carabella Street) including external roof terrace. Includes a vertical connector providing accessible access to the Marian Centre, Junior School, Gymnasium and the Centenary Hall.	1	Proposed development envelope for a six storey vertical connector pod consisting of a lift, stairs and lockers. New external walkways, providing an accessible path of travel between the driveway, Science, Centenary Hall, the carpark and Elamang Avenue.	1	Proposed envelope for an interim ramp connector, providing an accessible path of travel between Science and Performing Arts.	1	Internal refurbishment ground level of the chapel building.
2	Proposed Development Envelope - Two level extension to the existing Gymnasium					2	Proposed development envelope for a 5 storey vertical connector pod involving the restoration of the east Chapel wing to its original profile on Carabella Street. The connector pod will consist of a lift, learning studios and an external learning terrace. Providing an accessible path of travel between the driveway, Chapel, St Joseph's Block and the courtyard.
3	Proposed Landscaped terrace					3	New landscaped courtyard
4	Proposed external covered landscaped walkways, providing an accessible path of travel to the New Learning Hub. Including an extension to the Junior School play terrace.						

Western Precinct - Innovation Centre

1 Innovation Centre

Consistent with the SSD Approval, the Innovation Centre is spread over 7 levels, including roof top access to the adjacent Teaching and Learning Facility, the Marian Centre to the south.

The brief for the Innovation Centre is to provide a future focussed facility for all years.

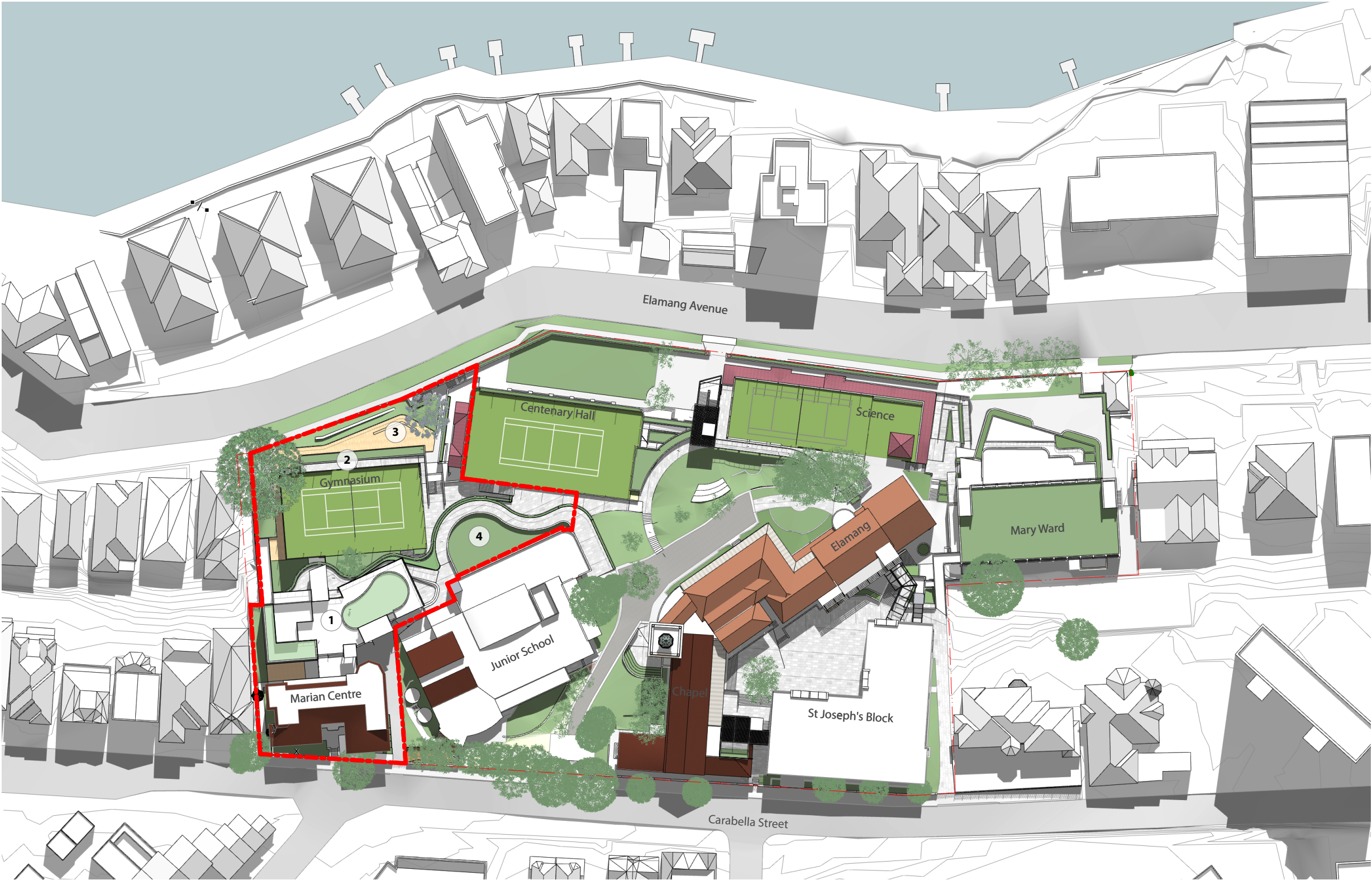
The accommodation includes;

- Flexible Design Studios
- Workshops / Maker spaces to house fixed equipment and machinery
- Storage, wet areas and preparation spaces
- Display spaces
- Shared collaborative learning spaces
- A Presentation Space
- Outdoor Learning
- Teacher Meeting Rooms and work areas
- Amenities
- supporting plant and service areas

3 Gymnasium (PDHPE)

The proposed extension to the Gymnasium has been further developed with regards to its facade. The accommodation for the PDHPE zone has also undergone a reconfiguration mainly internally and includes;

- Weights Room
- PDHPE Learning space
- Additional Storage facilities
- New Change rooms and Amenities
- Extension to the court runoff
- Side of court stepped seating
- PDHPE staff offices
- Upper level galleria
- New stair connection



3.0 Stage 1



Innovation Centre_Overview

The new “bookend” development site proposed within the Western Precinct will provide a new Innovation Centre for Loreto providing a Future Focussed Learning model using a lens of STEaM for years K-12. Since the granted development consent, the project has been further refined and developed with a number of improvements implemented in the current design.

The new building will link the Marian Centre and the Gymnasium to the Campus Core through a new lift, new access stairs and a number of external ramps and walkways providing full accessibility to the western precinct. It will provide much needed emergency access from the gymnasium and from the Centenary Hall for potential injuries.

The development of the proposal has considered the Design Principles as set up by the Master plan and addresses each of these.

The structural design for the proposal is a simple concrete frame with a number of connecting concrete terraces. The structural and services approach is as flexible as possible to enable for future internal changes as pedagogy and curriculum will inevitably change. The proposal will incorporate a number of sustainable features with a focus on passive environmental control. All major learning spaces are orientated to the north. The east and west facades are either shaded or have minimal openings.

Design Development

Since the SSD Approval in October, 2018 the design has further developed. The required SSD Approval conditions were reviewed and where required in corporated into the developed design, therefore the current design is a reflection of the approval conditions.

The design has also undergone Safety in Design reviews and Buildability reviews as part of the standard design development process. This includes amendments such as protection to external doors at Ground and Roof Level.

The outcome of these developments have been identified as follows and on the attached comparative layout plans.

Massing, Bulk and Scale

During the process of Design Development, the massing and scale of the Innovation Centre has been further considered to further reduce the scale of the northern elevation of the west and east wings and the northern staircase. In order to maintain a consistent scale with the surrounding built fabric of the campus and the surrounding apartment buildings and residential properties, the Innovation Centre has been expressed as a series of smaller volumes.

The western wing of the new building is aligned with both the Carabella Street and Marian Centre grid and to improve the amenity and the functionality of the learning spaces, the eastern wing has been realigned to the same grid. This change was also a result of the required redesign to meet the acoustic requirements of Condition B6. This realignment has resulted in a reduction in the overall excavation which will in turn reduce the construction time of the excavation. This will have a direct and positive impact on the number of truck movements.

The proportions of each element have been carefully considered in relation to the adjacent fabric of the existing school campus and also the surrounding residential context.

Height

The overall height of the new Innovation Centre remains consistent with the approved proposal and the specific nominated levels as outlined in Clause B4/Building Design, Items a), b) and c) have not been amended. Due to the revised orientation of the eastern wing, the location of the southern access stairs has been marginally revised and the volume of these stairs has been reduced to maintain view sharing from the adjacent properties.

Setbacks and Visual impact

The further development of the proposal has resulted in an increased setback to the north/

western corner and to the northern staircase. This will substantially increase access to views from the adjacent apartments to the north of 111 Carabella Street.

Refer to the attached View Analysis diagrams for a comprehensive comparative analysis.

Facade and acoustic performance

Following further design development of the functionality of the learning spaces and to meet Condition B6 (Acoustic performance of facades), the outdoor learning balconies have been incorporated into the learning studios. This has resulted in a required redesign of the facades.

It is proposed that the new facades will be high performance glazing with integrated shading to maintain the appropriate amenity. It is important that any selected design meets the school's requirements for maintenance, therefore the revised facades present an improved outcome.

Open spaces and adjacent landscaping

The integration of landscape and outdoor learning is an important aspect of the Loreto Kirribilli Campus and the pedagogical methodology of the school. Consistent with the Master plan, new landscaping providing both new and covered external recreation areas are provided as well as new outdoor learning opportunities. The landscaping to the external walkways has been reviewed to further consider maintenance and ongoing durability and safety.

Overshadowing

The main property affected by the new Innovation Centre is the residential property at 111 Carabella Street located to the west of the campus. This property is however currently overshadowed by the existing built fabric, between the core hours of 9.00am and 3.00pm on 21 June.

The proposed amendments present no additional overshadowing but rather the realignment of the north/west corner and the north facade of the new Innovation Hub will marginally improve the overshadowing to the adjacent properties.

Services Design Development

As the project is now at an advanced stage of design development, there has been further detailed resolution of the required services. Whilst the plant area to the Lower ground Level 4 has been relocated and consolidated to the western side of the Roof Level in the area previously allocated for plant a new plant area is required to accommodate the kitchen exhaust flue.

The location of this flue and its associated enclosure has been positioned to maintain view sharing from 111 Carabella Street.

4.0 Materiality and Facades

General Description

The proposed refinements to the facades for the Innovation Centre have been developed to address an ongoing review of the functionality of the learning spaces and to address the requirements of the Noise Attenuation Measures as identified in Condition B6.

The main facade of the Innovation Centre, on Ground and Level 1 is either face brickwork, clear performance glazing, clear performance glazing with an interlayer to provide shading, tinted glazing and tinted glazing with external louvres to address thermal performance.

The articulation of the northern facades has been reduced in scale to better align with the surrounding context.

Similarly the main access and egress stair to the north has been reduced in scale. The stair has been set back at Ground level and has a curved northern facade to Level 1 and the roof terrace.

The selection of brickwork has been also revised to align better with the context of the adjacent Marian Centre and the adjacent apartment buildings. It is proposed to use a brick which is similar in colour as opposed to the previously identified "liver" coloured bricks.

The main facade types are indicated as follows:

FT01

Location:
Eastern, northern and western facades of Level 1 and forming the balustrade of the roof terrace.
Materiality:
This facade is articulated into smaller panels, still providing a "screen-like" appearance. Its materiality is an aluminium framed, double glazed unit (DGU) with an integrated screen. The integrated screen will provide solar shading.

FT02

Location:
Adjacent to FT01, this facade provides full height vision panels to the Studios behind.
Materiality:
The facade materiality is an aluminium framed, double glazed unit (DGU) with tinted glazing with external aluminium louvres to provide thermal performance.

FT02a

Location:
Adjacent to FT01 and FT04, this facade provides full height vision panels to the Collaboration area behind.
Materiality:
The facade materiality is an aluminium framed, double glazed unit (DGU) with tinted glazing with external aluminium louvres to provide thermal performance.

FT03

Location:
Ground Level, northern and eastern elevations
Lower Ground Level 1
Aluminium framed, DGU, performance glazing with integrated sliding doors

FT04

Location:
Glazed northern stair
Materiality:
Frameless performance curved glazing

FT05

Location:
Western and southern face brickwork facades
Materiality:
Aluminium framed slot facade DGU with integrated aluminum louvres.

FT06

Location:
Glazed northern stair (lower levels) and glazed southern stair
Materiality:
Performance glazing

FT07

Aluminium Framed Window Wall and High level
Awning window

FT08

Aluminium Framed Window Wall with safety glass
DGU and aluminium framed doors.

FT09

Full height aluminium framed louvres

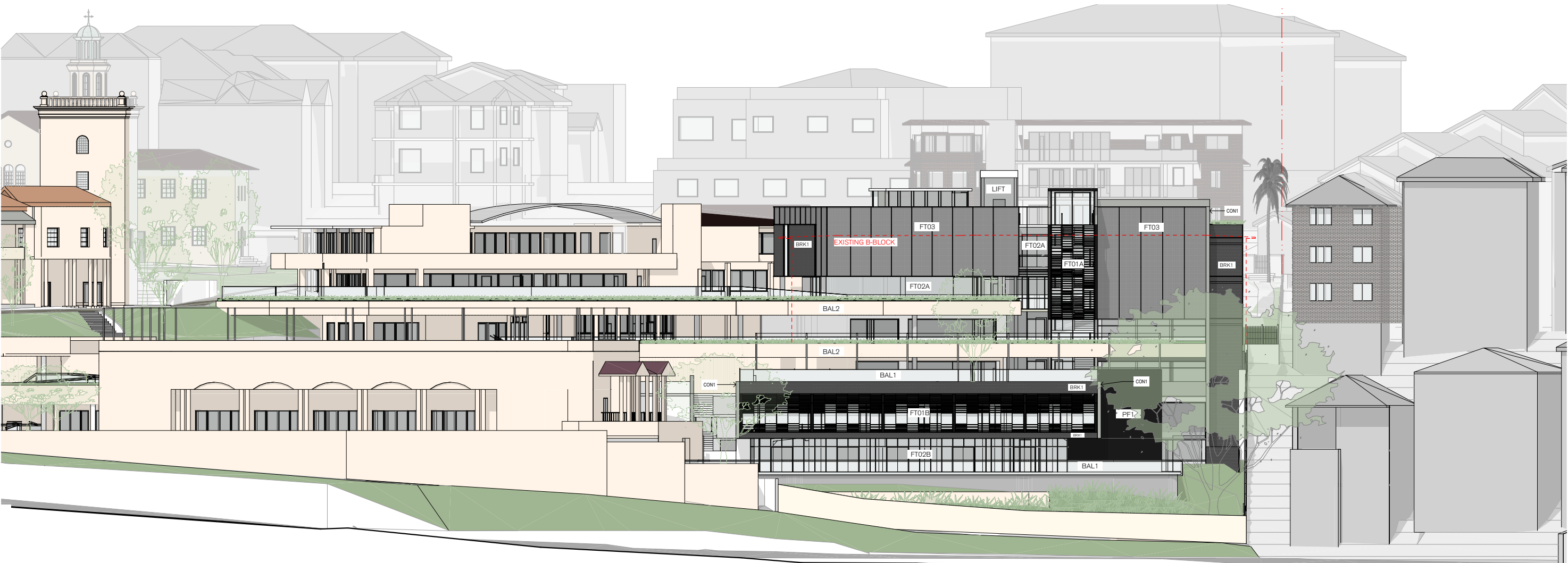
FT11

Location:
Lower Ground Level 3; Weights Room planter
Materiality:
Aluminium Framed Skylight with performance glazing

FT12

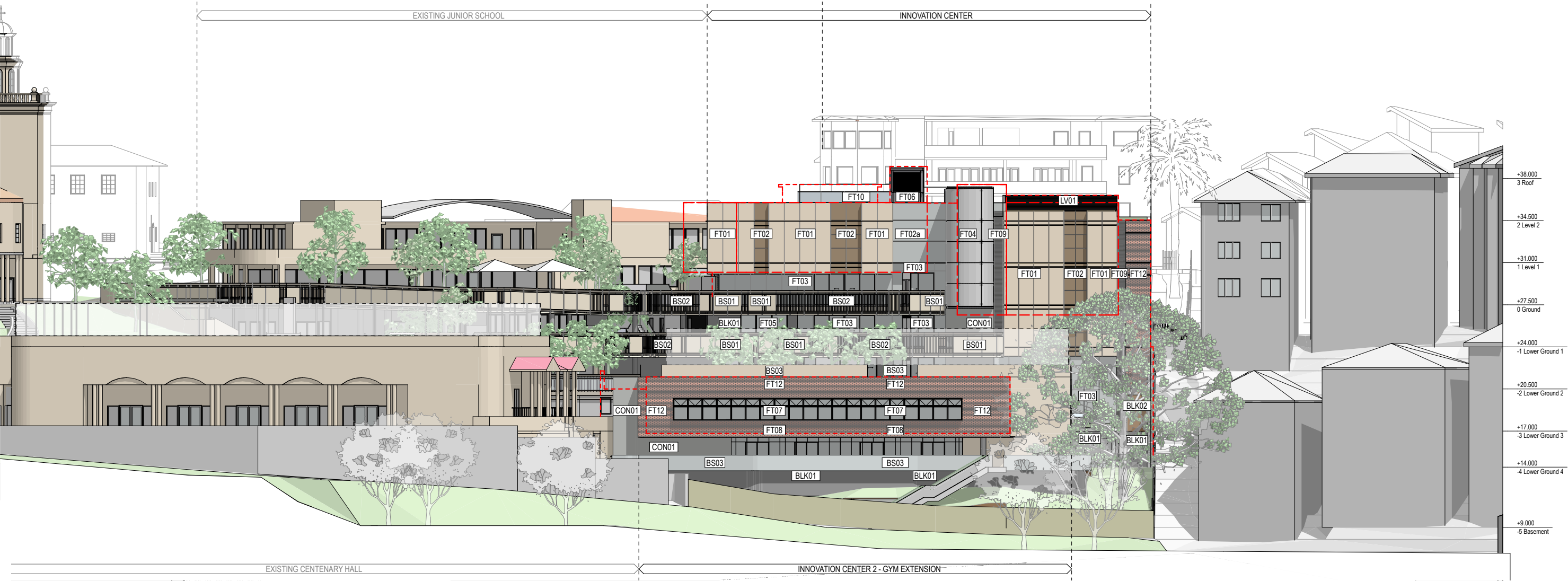
Location:
East, West and South Elevations
Materiality:
Face brickwork with expressed courses as indicated.

4.1 Approved SSD Elamang Avenue Elevation



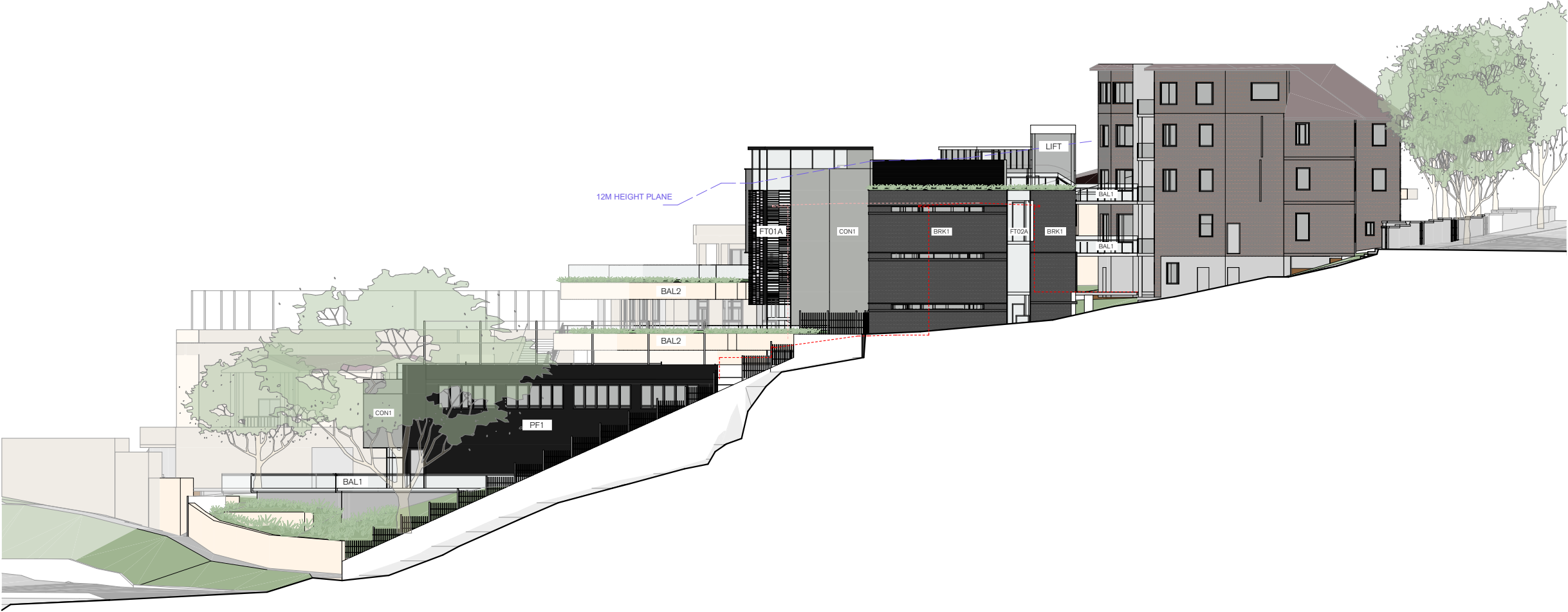
FT01	DGU with an integrated screen.	BAL1	BALUSTRADE - GLASS
FT02&a	DGU with tinted glazing	BAL2	BALUSTRADE - PLANTER
FT03	DGU with integrated sliding doors	BRK1	FACE BRICK
FT04	Frameless performance curved glazing	CON1	OFF FORM CONCRETE
FT05	slot facade with integrated louvres.	PF1	PAINT FINISH
FT06	Performance glazing	LV1	ACOUSTIC ALUMINIUM LOUVRES
FT07	Window	LIFT	GLASS LIFT TO ENG. SPEC
FT08	Window Wall & doors		
FT09	Full height louvres		
FT11	Skylight		
FT12	Face brickwork		

4.2 Revised Section 4.55 Elamang Avenue Elevation



FT01	DGU with an integrated screen.	BAL1	BALUSTRADE - GLASS
FT02&a	DGU with tinted glazing	BAL2	BALUSTRADE - PLANTER
FT03	DGU with integrated sliding doors	BRK1	FACE BRICK
FT04	Frameless performance curved glazing	CON1	OFF FORM CONCRETE
FT05	slot facade with integrated louvres.	PF1	PAINT FINISH
FT06	Performance glazing	LV1	ACOUSTIC ALUMINIUM LOUVRES
FT07	Window	LIFT	GLASS LIFT TO ENG. SPEC
FT08	Window Wall & doors		
FT09	Full height louvres		
FT11	Skylight		
FT12	Face brickwork		

4.3 Approved SSD Western Boundary Elevation



- FT01** DGU with an integrated screen.
- FT02&a** DGU with tinted glazing
- FT03** DGU with integrated sliding doors
- FT04** Frameless performance curved glazing
- FT05** slot facade with integrated louvres.
- FT06** Performance glazing
- FT07** Window
- FT08** Window Wall & doors
- FT09** Full height louvres
- FT11** Skylight
- FT12** Face brickwork

- BAL1** BALUSTRADE - GLASS
- BAL2** BALUSTRADE - PLANTER
- BRK1** FACE BRICK
- CON1** OFF FORM CONCRETE
- PF1** PAINT FINISH
- LV1** ACOUSTIC ALUMINIUM LOUVRES
- LIFT** GLASS LIFT TO ENG. SPEC

4.4 Revised Section 4.55 Western Boundary Elevation



- FT01** DGU with an integrated screen.
- FT02&a** DGU with tinted glazing
- FT03** DGU with integrated sliding doors
- FT04** Frameless performance curved glazing
- FT05** slot facade with integrated louvres.
- FT06** Performance glazing
- FT07** Window
- FT08** Window Wall & doors
- FT09** Full height louvres
- FT11** Skylight
- FT12** Face brickwork

- BAL1** BALUSTRADE - GLASS
- BAL2** BALUSTRADE - PLANTER
- BRK1** FACE BRICK
- CON1** OFF FORM CONCRETE
- PF1** PAINT FINISH
- LV1** ACOUSTIC ALUMINIUM LOUVRES
- LIFT** GLASS LIFT TO ENG. SPEC

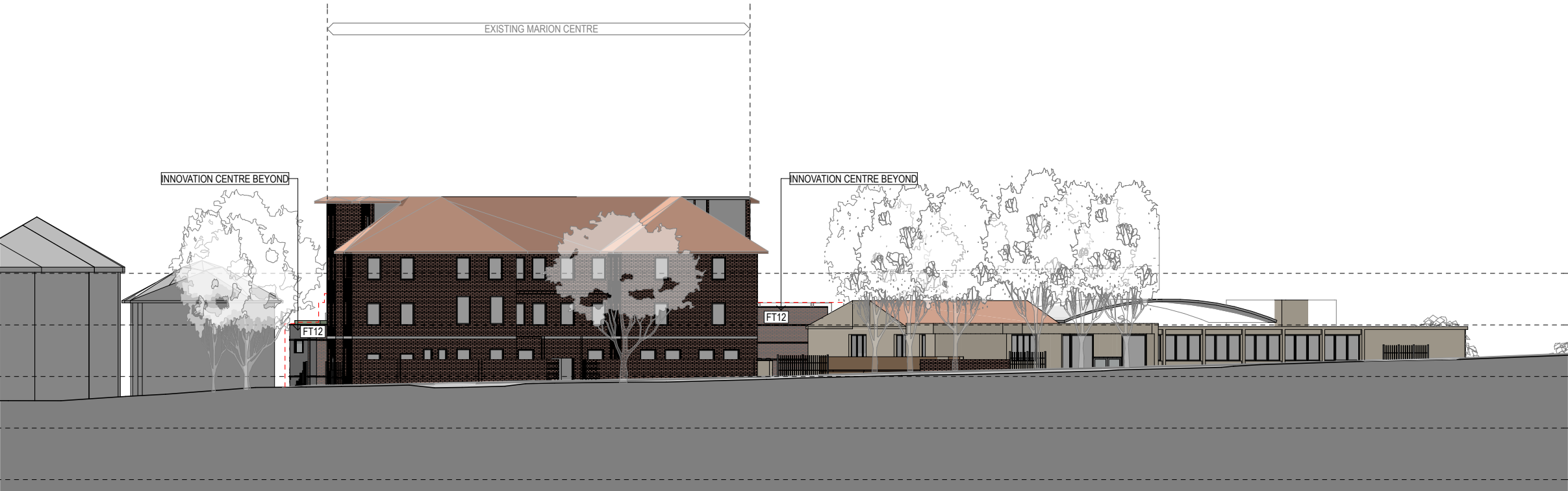
4.5 Approved SSD Southern Boundary Elevation



- FT01** DGU with an integrated screen.
- FT02&a** DGU with tinted glazing
- FT03** DGU with integrated sliding doors
- FT04** Frameless performance curved glazing
- FT05** slot facade with integrated louvres.
- FT06** Performance glazing
- FT07** Window
- FT08** Window Wall & doors
- FT09** Full height louvres
- FT11** Skylight
- FT12** Face brickwork

- BAL1** BALUSTRADE - GLASS
- BAL2** BALUSTRADE - PLANTER
- BRK1** FACE BRICK
- CON1** OFF FORM CONCRETE
- PF1** PAINT FINISH
- LV1** ACOUSTIC ALUMINIUM LOUVRES
- LIFT** GLASS LIFT TO ENG. SPEC

4.6 Revised Section 4.55 Southern Boundary Elevation



FT01	DGU with an integrated screen.	BAL1	BALUSTRADE - GLASS
FT02&a	DGU with tinted glazing	BAL2	BALUSTRADE - PLANTER
FT03	DGU with integrated sliding doors	BRK1	FACE BRICK
FT04	Frameless performance curved glazing	CON1	OFF FORM CONCRETE
FT05	slot facade with integrated louvres.	PF1	PAINT FINISH
FT06	Performance glazing	LV1	ACOUSTIC ALUMINIUM LOUVRES
FT07	Window	LIFT	GLASS LIFT TO ENG. SPEC
FT08	Window Wall & doors		
FT09	Full height louvres		
FT11	Skylight		
FT12	Face brickwork		

5.0

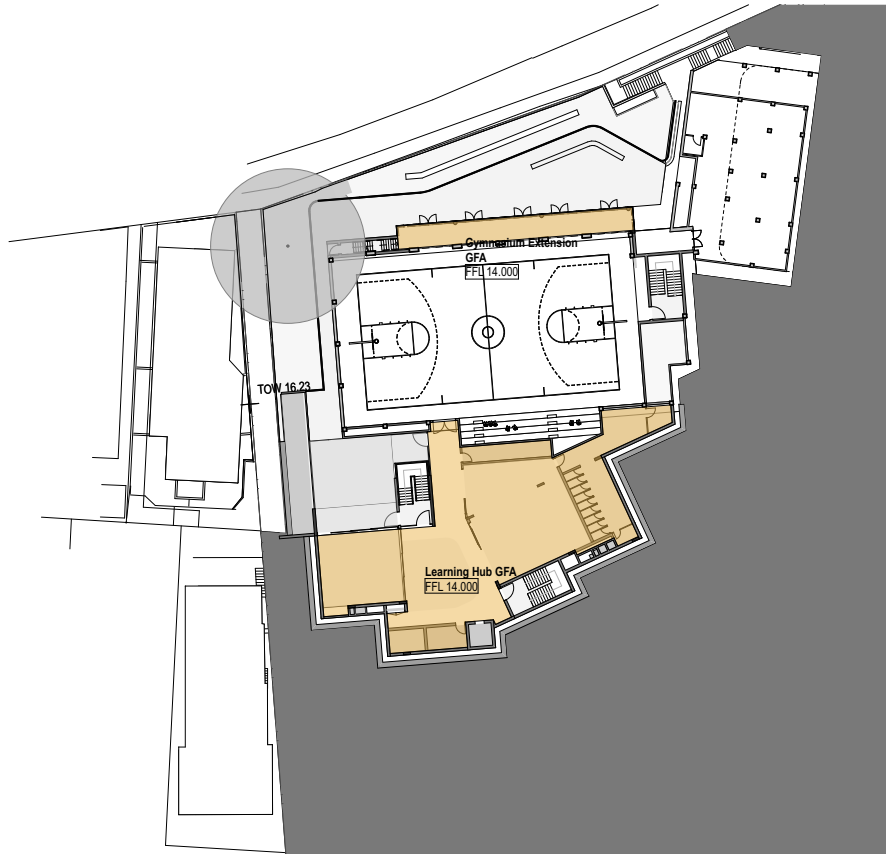
Approved SSD Area & Accommodation Schedule Summary

Area - Western Precinct Learning Hub GFA Schedule

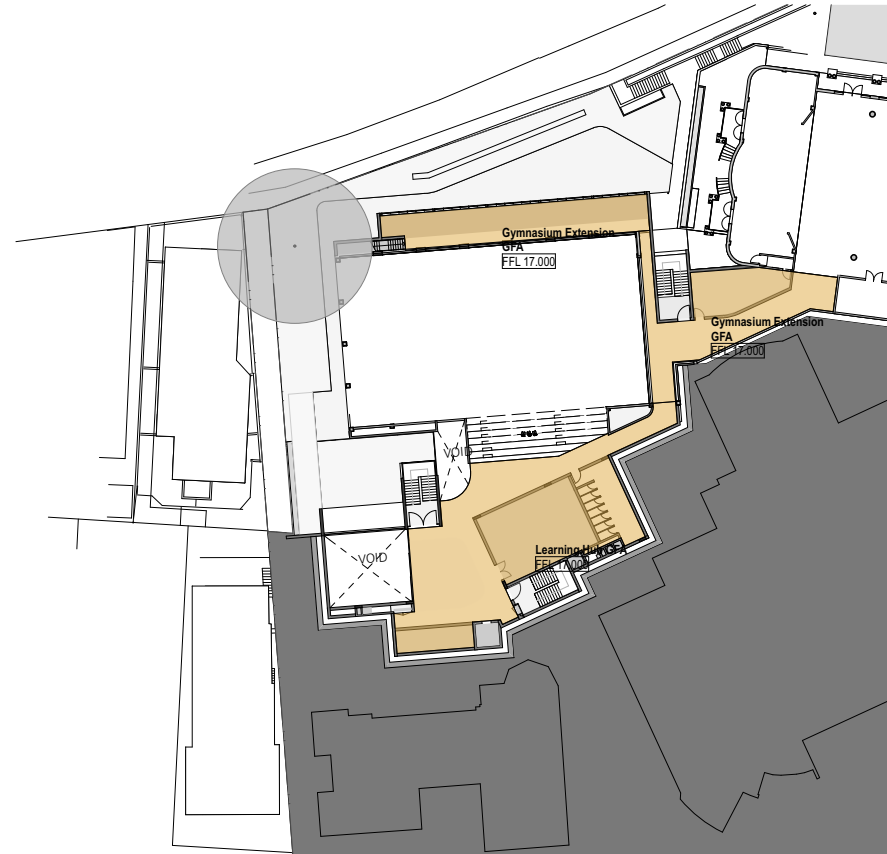
PROJECT	Master plan		
Room Name	Floor (Story)	Zone Category	Area
Learning Hub GFA			
	Level 1	Education	384.05
	Ground	Education	372.72
	Lower Ground 1	Education	425.13
	Lower Ground 2	Education	415.17
	Lower Ground 3	Education	359.37
	Lower Ground 4	Education	489.76
			2,446.20 m²
Gymnasium Extension GFA			
	Lower Ground 3	Education	150.97
	Lower Ground 3	STAFF / ADMINISTRATION	114.04
	Lower Ground 4	PDHPE	67.04
			332.05 m²
			2,778.25 m²

Note:

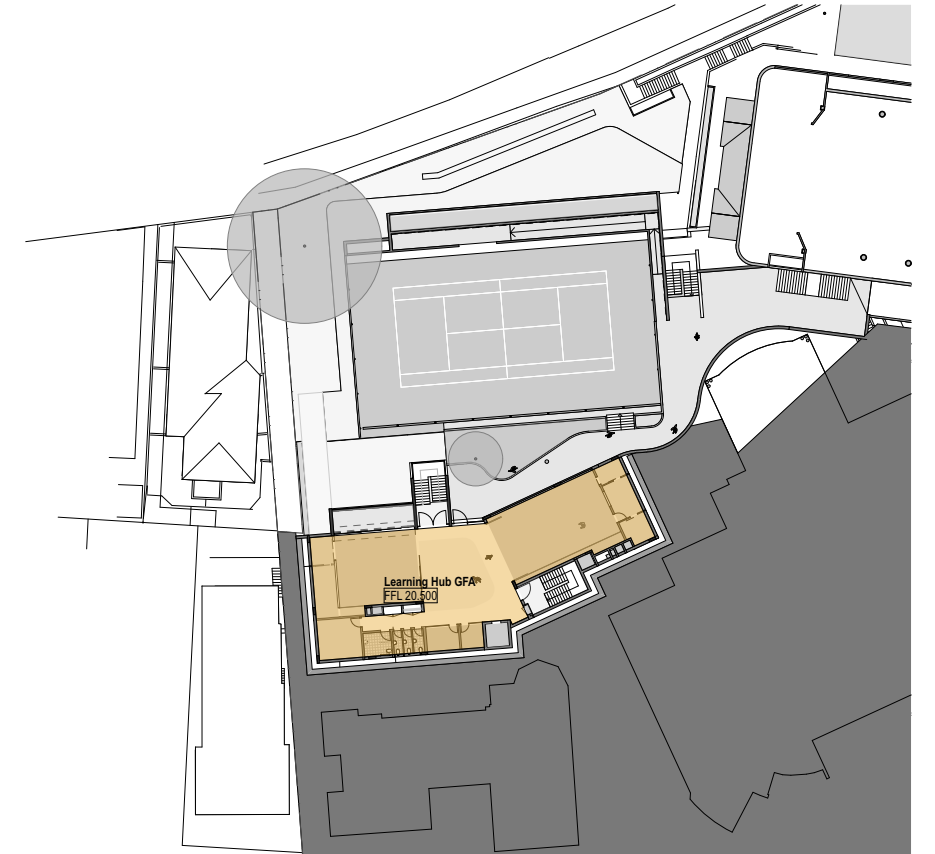
The calculation of the GFA did not include external balconies.



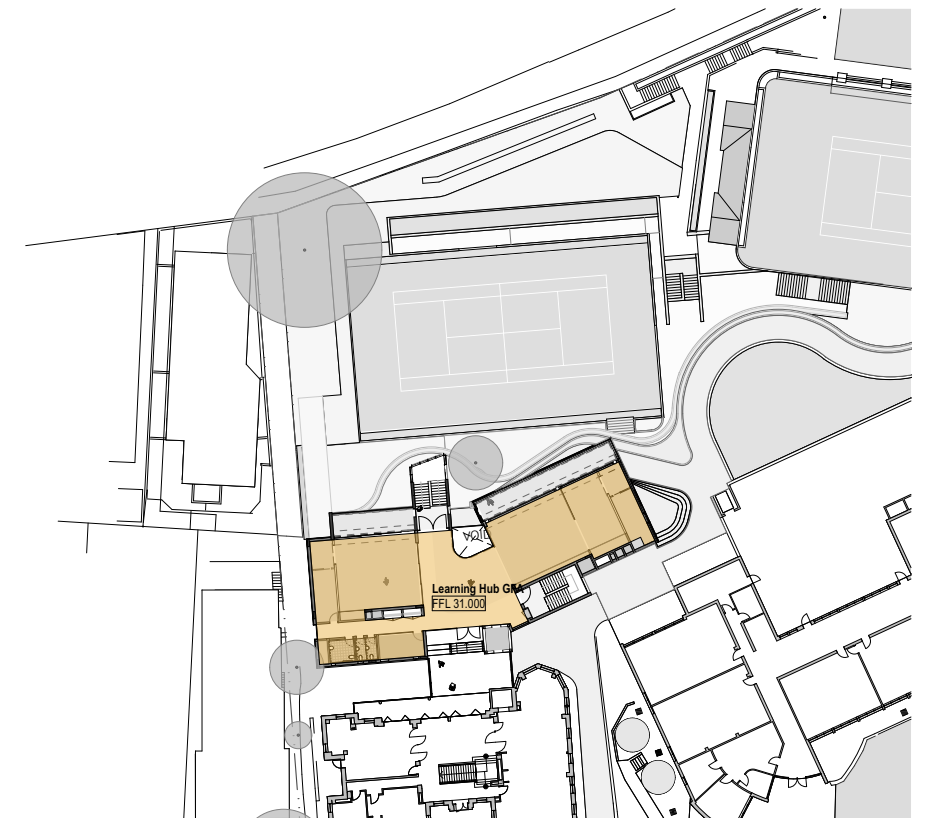
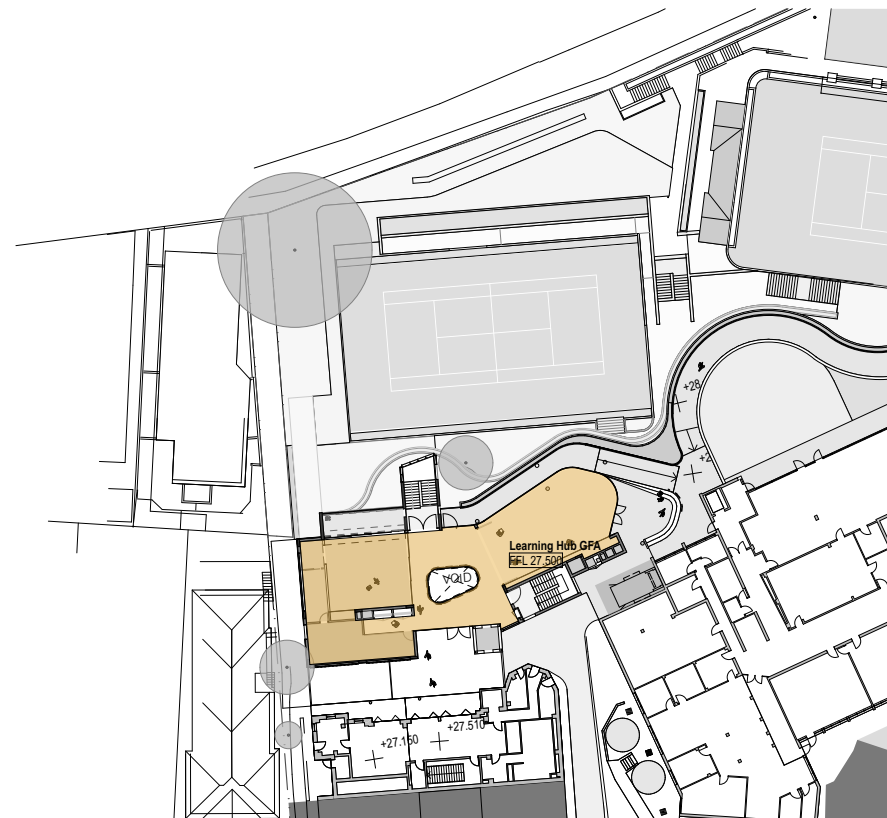
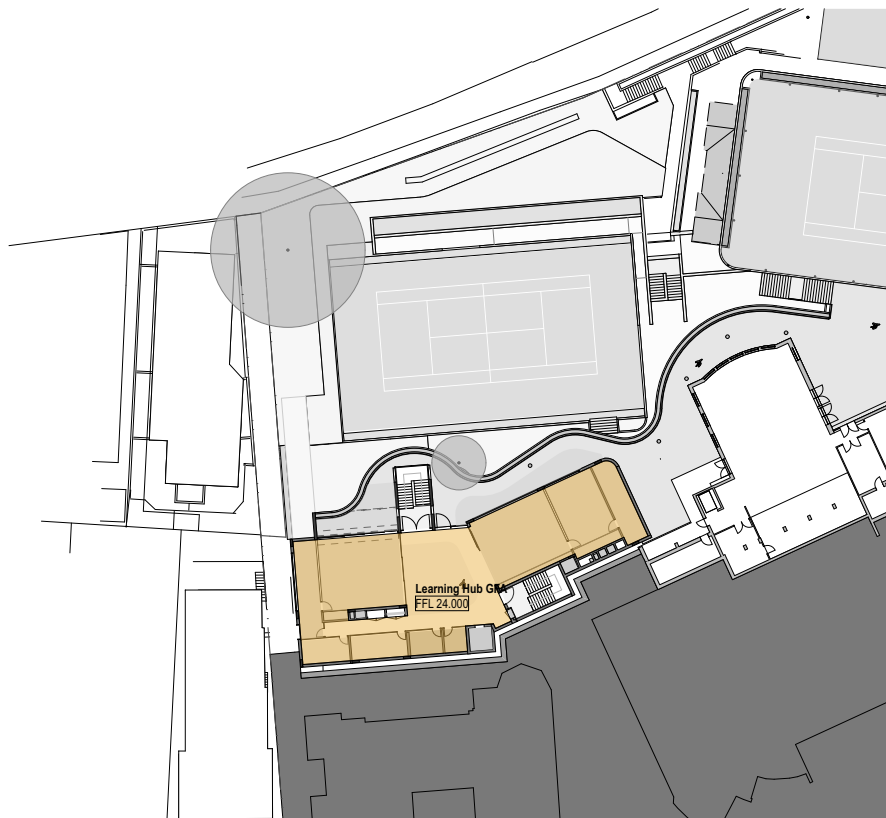
1 PLAN Level A
1:500



2 PLAN Level B
1:500



3 PLAN Level C
1:500



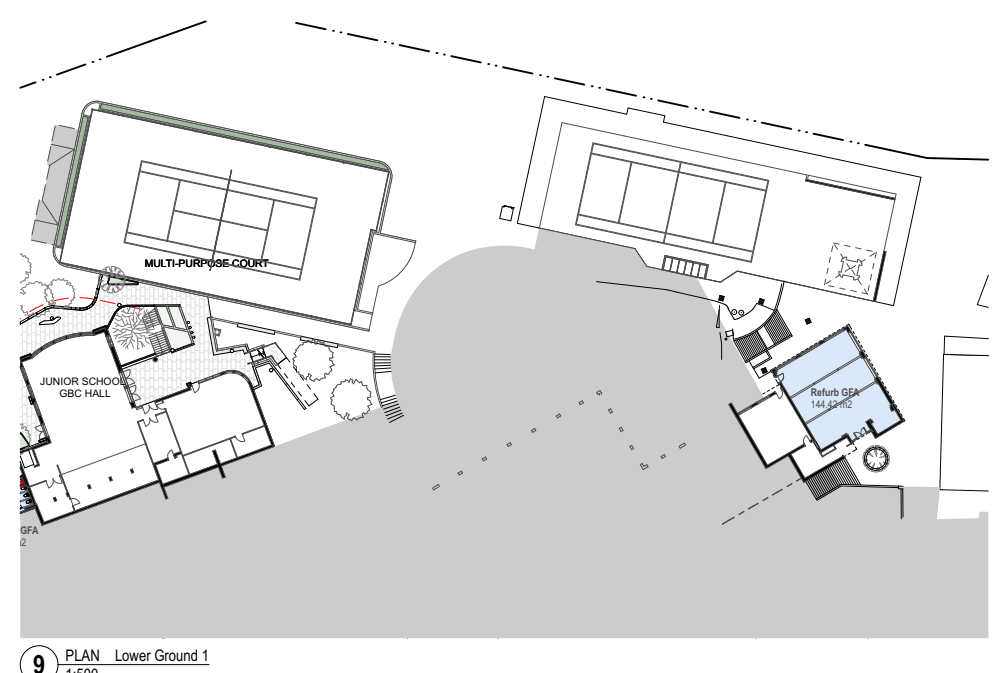
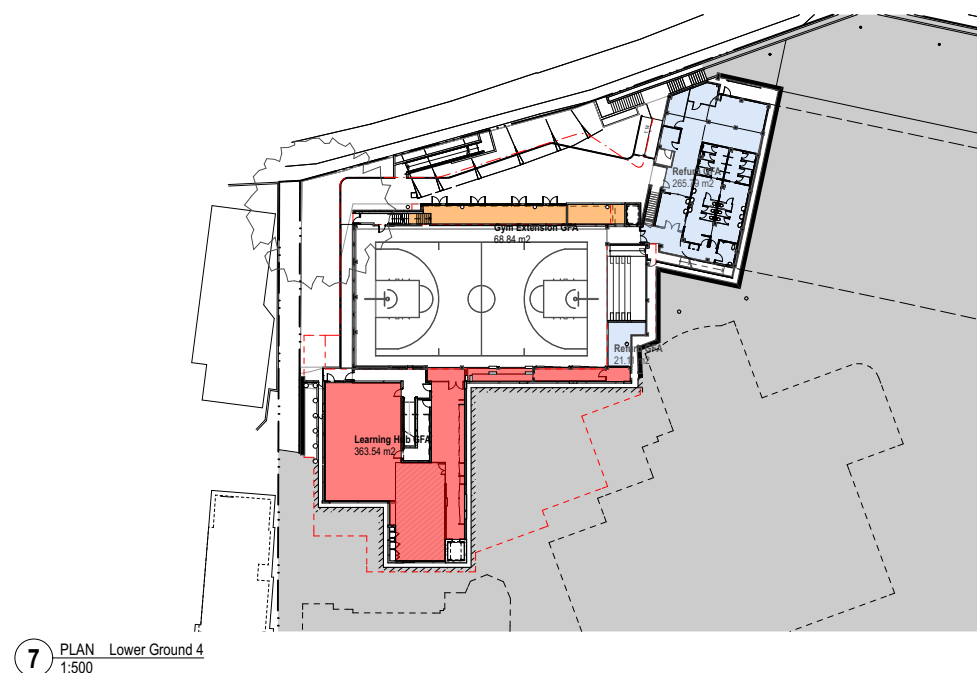
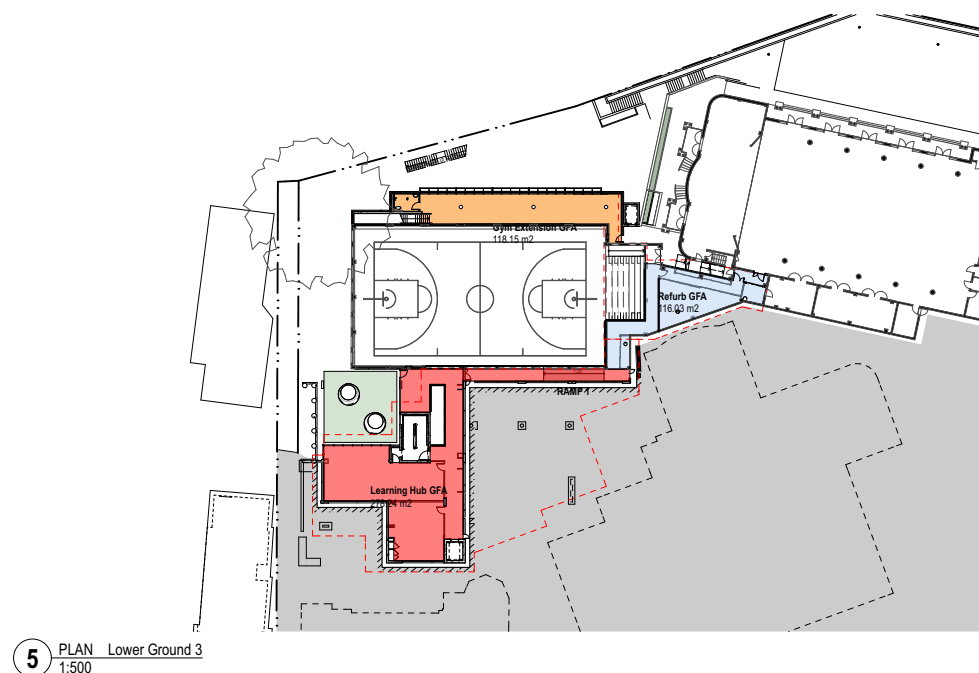
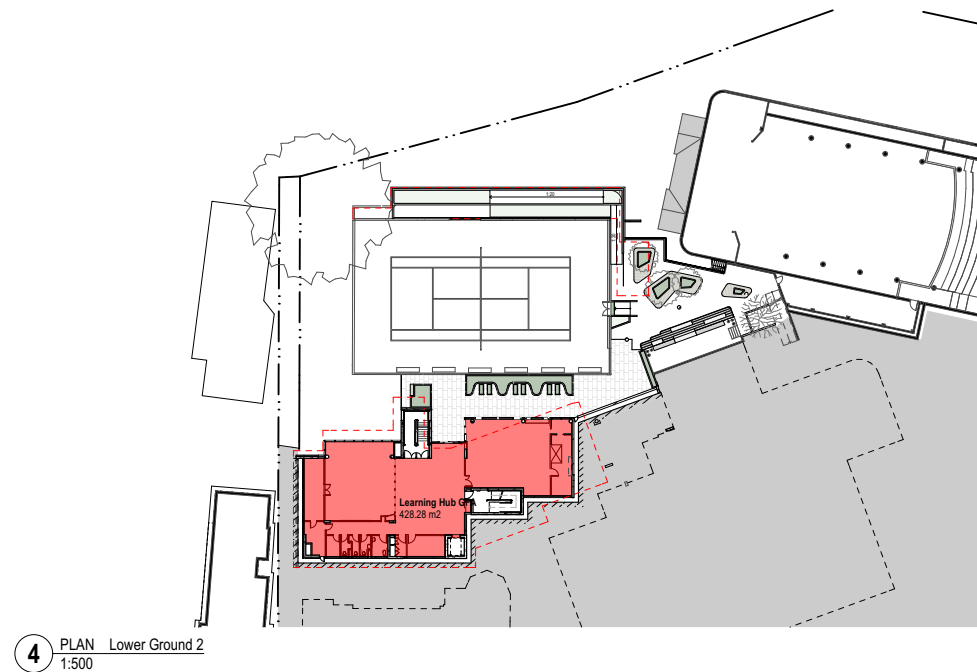
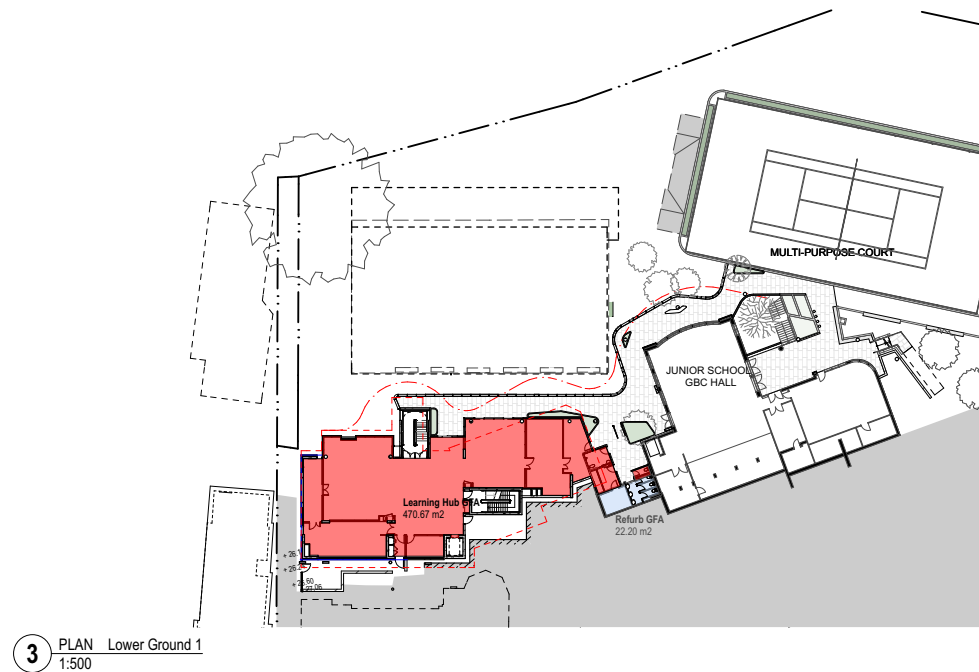
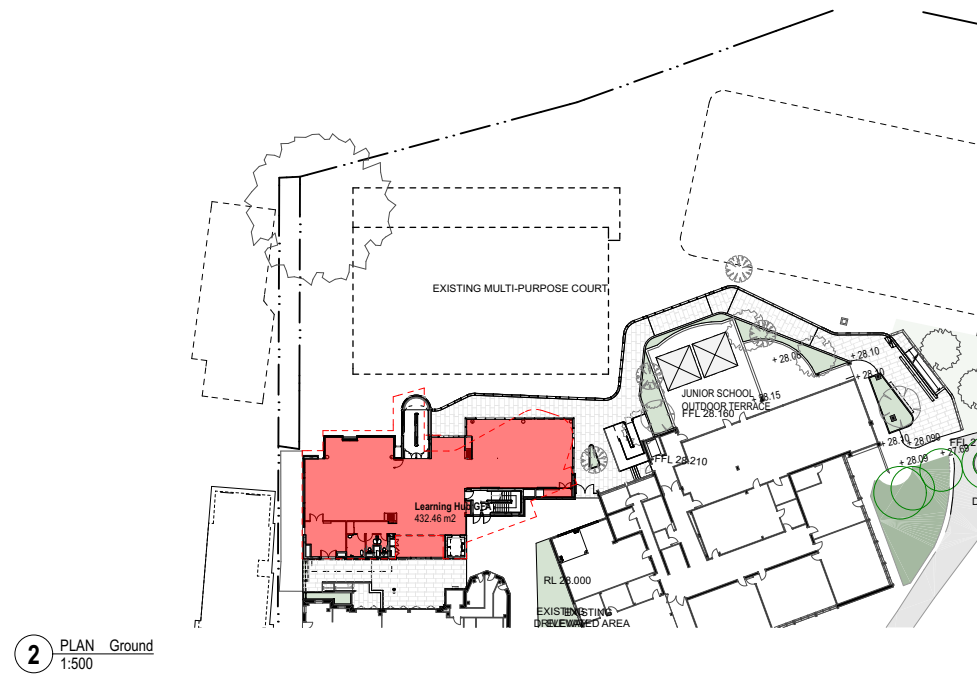
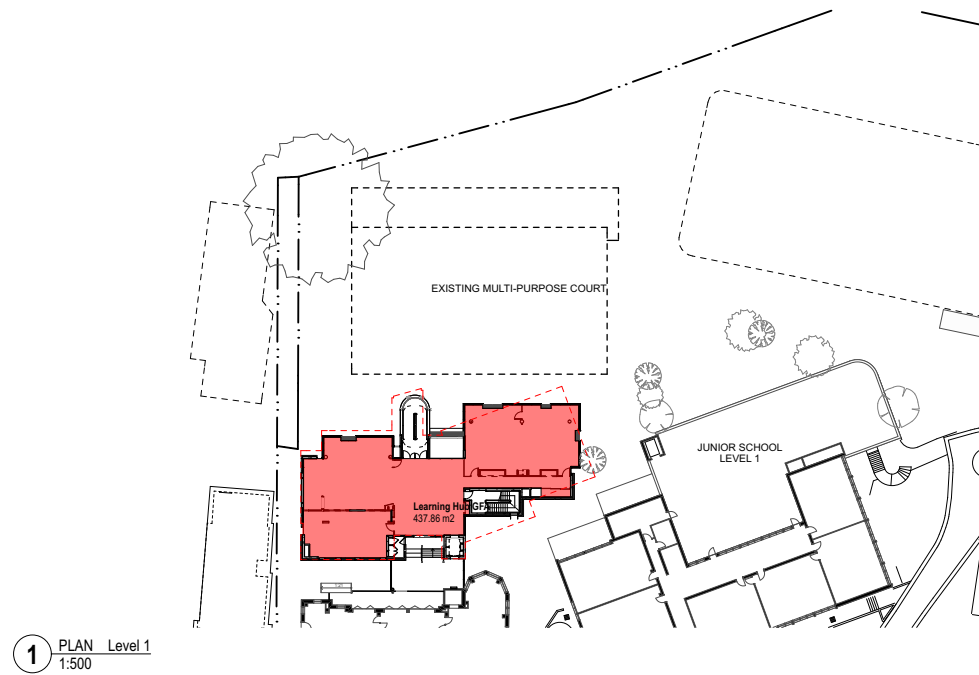
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Proposed Area & Accommodation Schedule Summary

Room Name	Floor (Story)	Zone Category	Area
Refurb GFA			
	Level 1	Education	342.9
	Lower Ground 1	Education	166.6
	Lower Ground 3	Education	116.0
	Lower Ground 4	Education	286.9
			912.4 m²
Learning Hub GFA			
	Level 1	Education	437.9
	Ground	Education	432.5
	Lower Ground 1	Education	473.6
	Lower Ground 2	Education	428.3
	Lower Ground 3	Education	278.2
	Lower Ground 4	Education	363.5
			2,414.0 m²
Gym Extension GFA			
	Lower Ground 3	Education	118.2
	Lower Ground 4	Education	68.8
			187.0 m²
			3,513.4 m²

Note:

The calculation of the GFA includes all areas as indicated in red, however does not include works to existing areas as indicated in blue.



--- SSD BUILDING OUTLINE
--- SSD WALKWAY/BALUSTRADE OUTLINE

