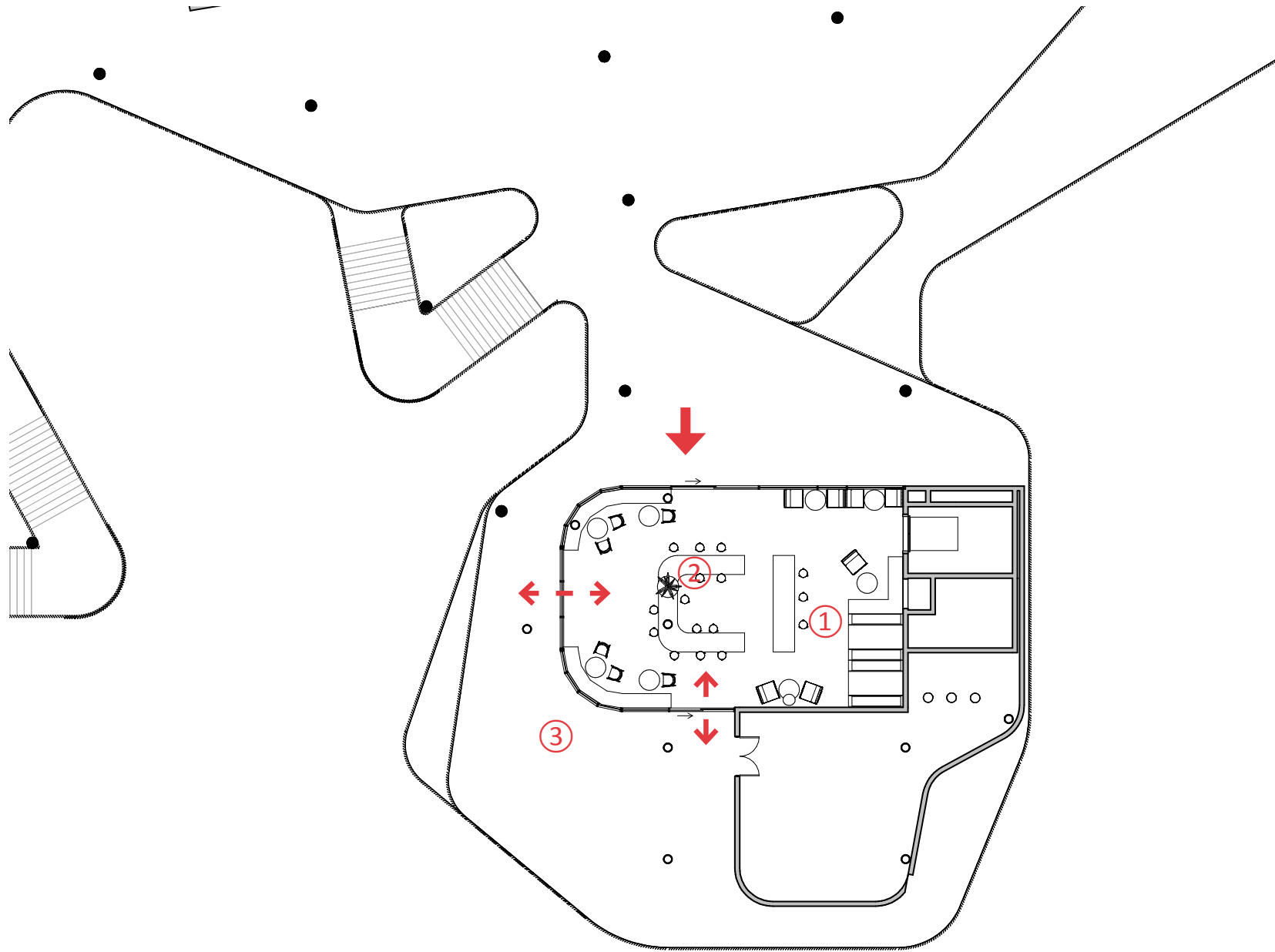


LEVEL 05

The fifth level of the Knowledge Centre is dedicated to the Senior Common Room. This is a place where the senior year group can socialise and collaborate outside of the classroom in an informal setting. The facilities within the common room allows for reheating of food, storage of lunches, lounge areas, cafe seating and a seamless connection to the outside balcony.



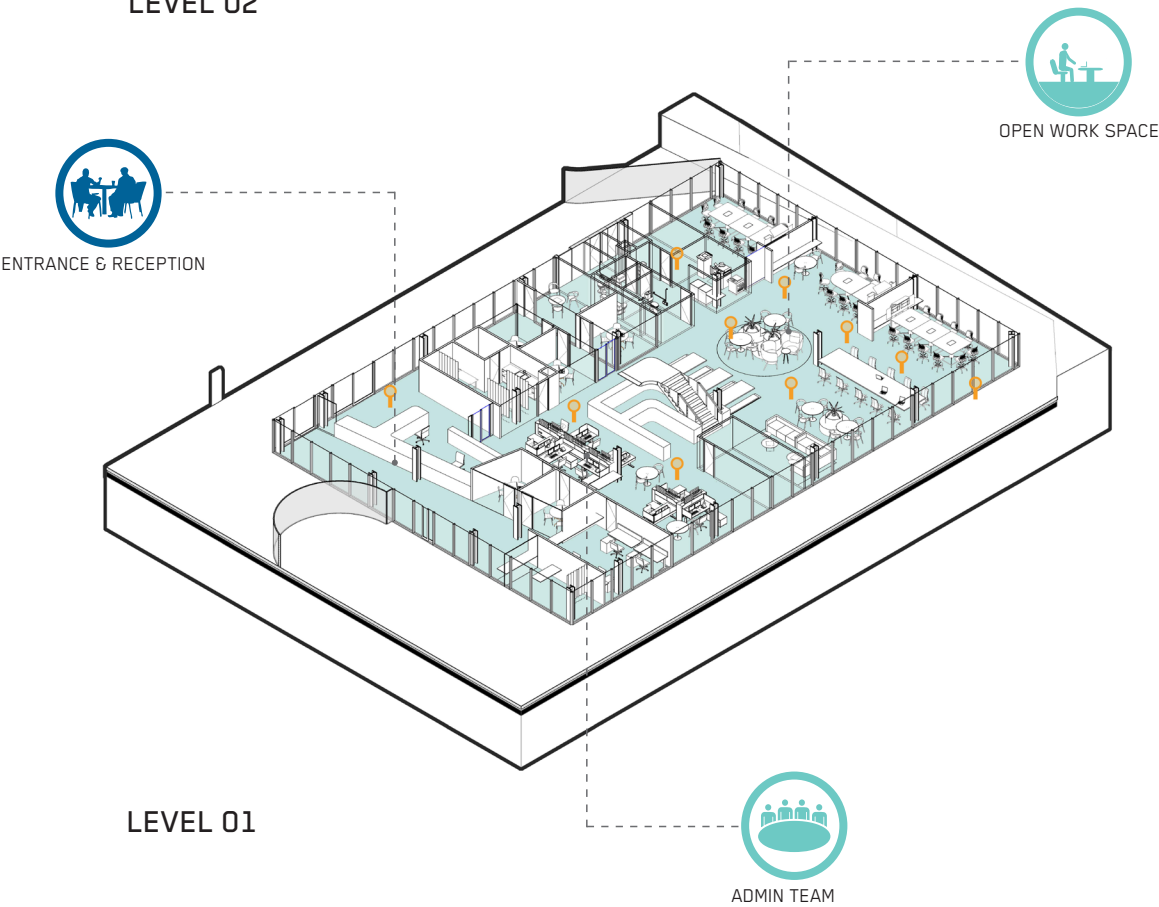
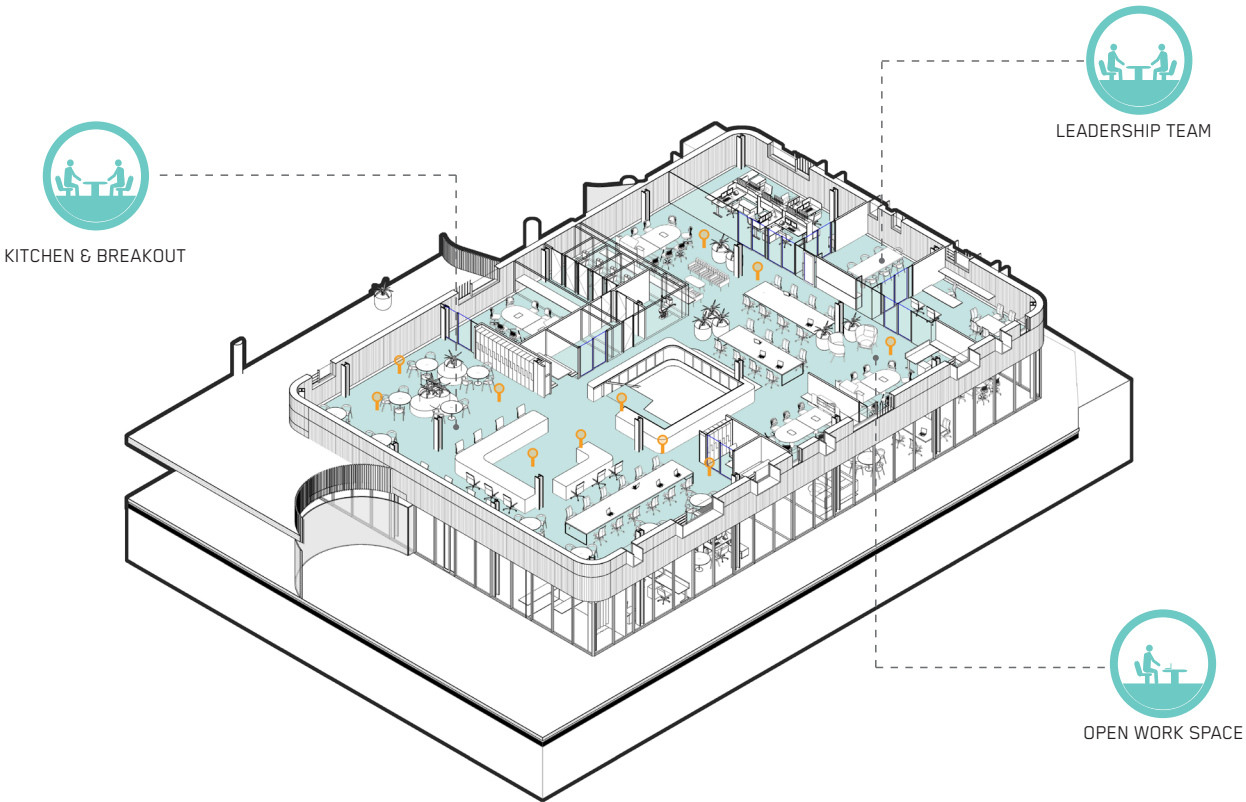
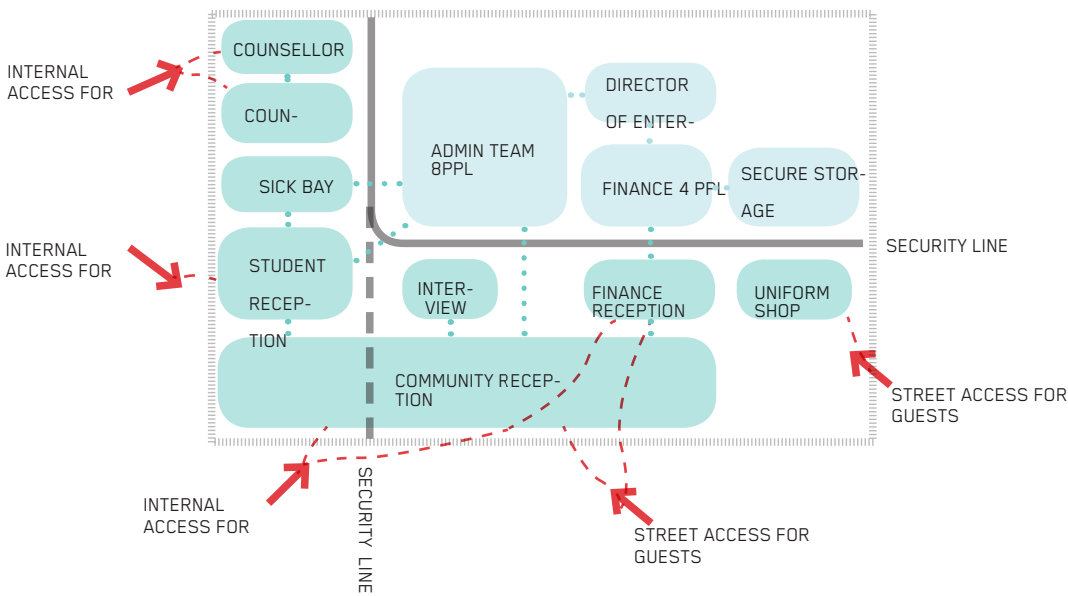




6.6 LEARNING SPACES  
6.6.10 PROFESSIONAL HUB

INTRODUCTION

The Professional Hub is located at the Northern end of Building North on the Ground and First floor. The Professional Hub is a central point where students, guests and staff can connect. The Ground Floor is home to the main support facilities for Guests and Students. The diagram indicates the relationships between the security lines and these 3 user groups (guests, students and staff).



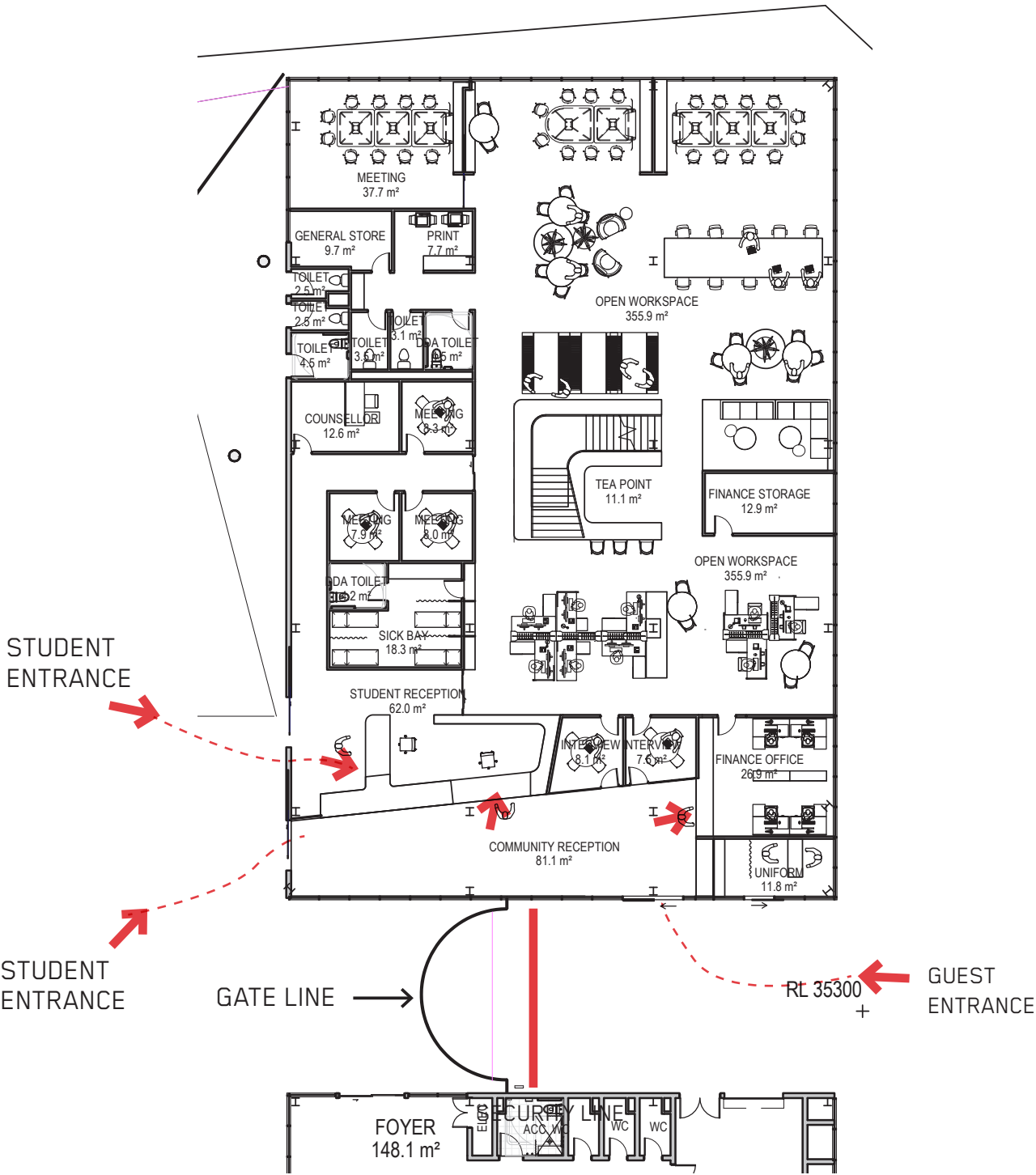
LEVEL 00

The Ground floor of the Professional Hub provides the key support facilities for guests and students. For guests, these facilities include a Community Reception, Uniform shop, Interview rooms and a Finance Reception. For students these support spaces include Counsellor rooms, a Sick Bay and a dedicated student reception.

The Administration team is also positioned on the Ground floor with adjacency to the 3 points of Reception. The majority of the remaining space is dedicated to out of class 'work' points for teachers. These spaces consists of a variety of work settings to support individual and group activities.

The gate line shown acts as a line of security. Guests will enter the reception and sign in before the can access the wider school area. Similarly deliveries will have to gain access through this secure line before being granted access to the school.

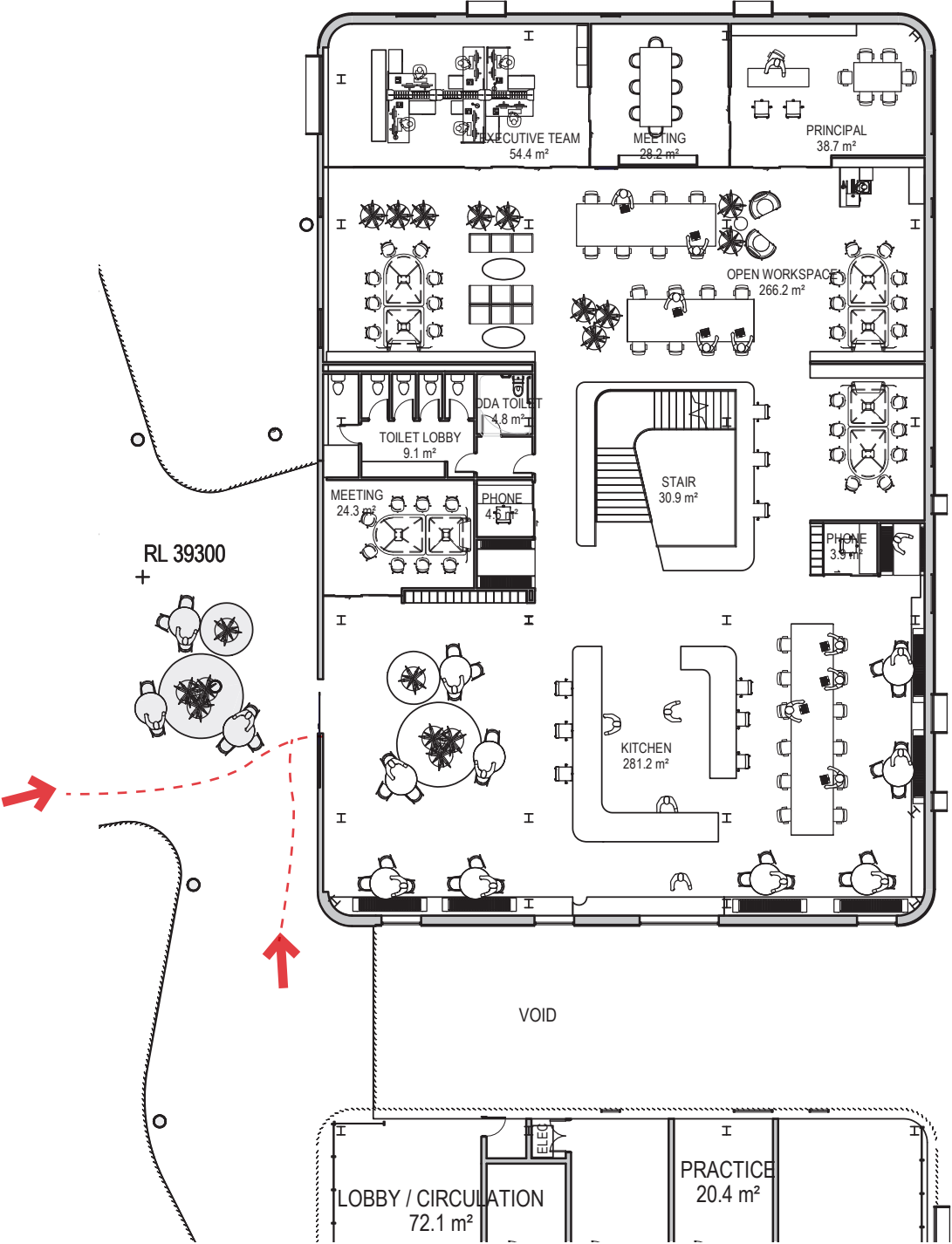
Separate circulation flows are indicated on the diagram to the right. These flow will be part of the overall way-finding strategy.

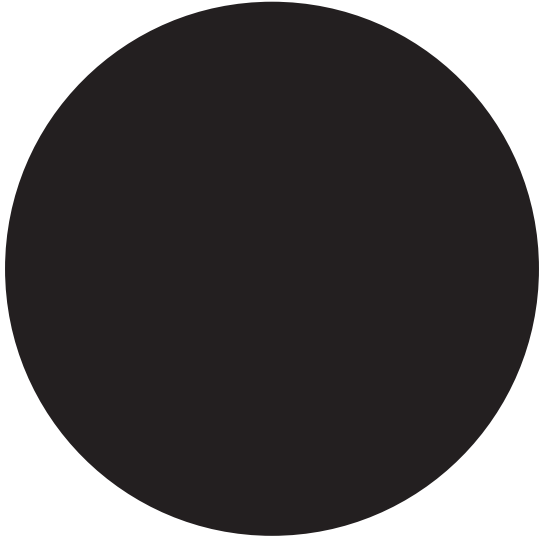


LEVEL 01

The First Floor of the Professional Hub is an extension of the teachers professional development work space on the Ground floor with the addition of the Executive Team and Kitchen.

The Kitchen space connects directly onto the Level 1 balcony and is intended to be another opportunity for staff and students to engage outside of the classroom. This area will have a variety of cafe seating to support individual or group gatherings. Occasionally the Kitchen space will be transformed into a 'forum' space for staff to gather during special events or all staff announcements.





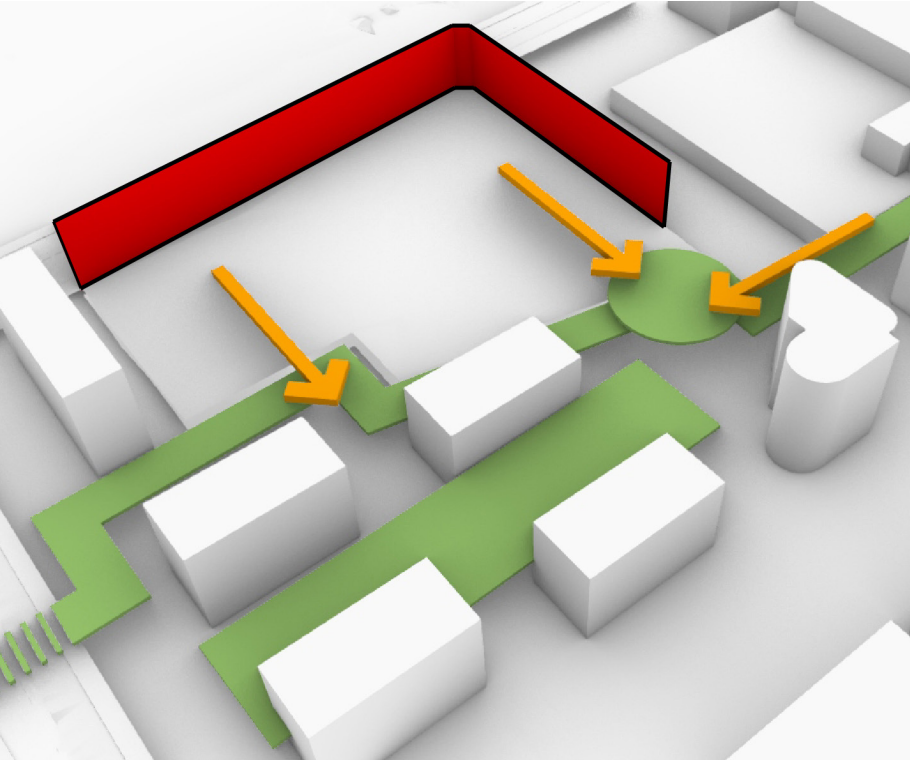
# 7.0 URBAN DESIGN



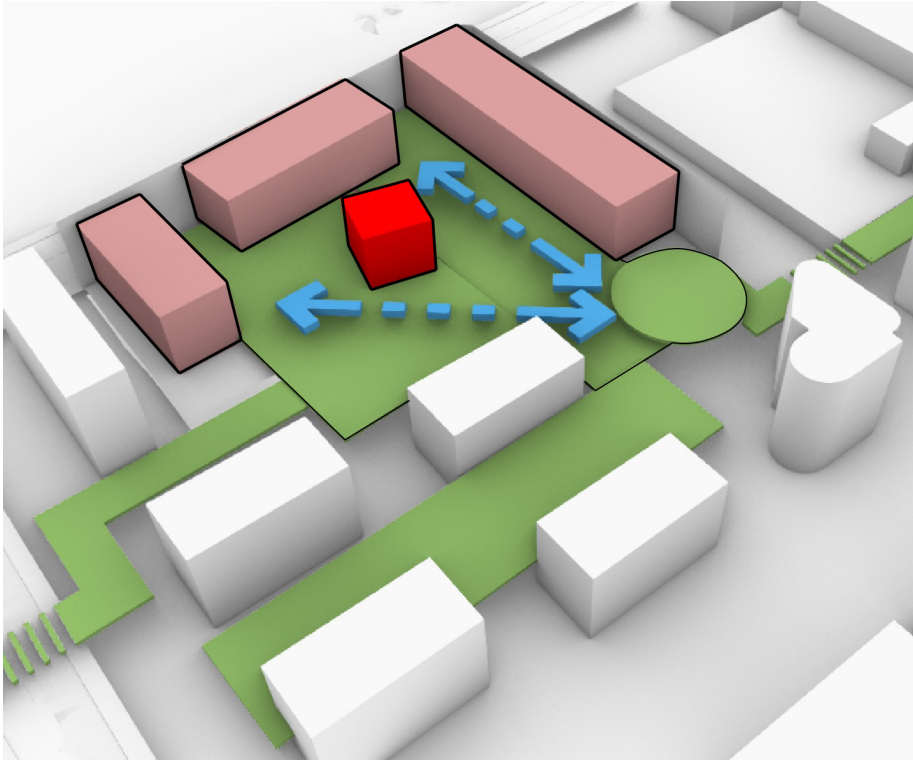
7.0 URBAN DESIGN

7.1 KEY MOVES

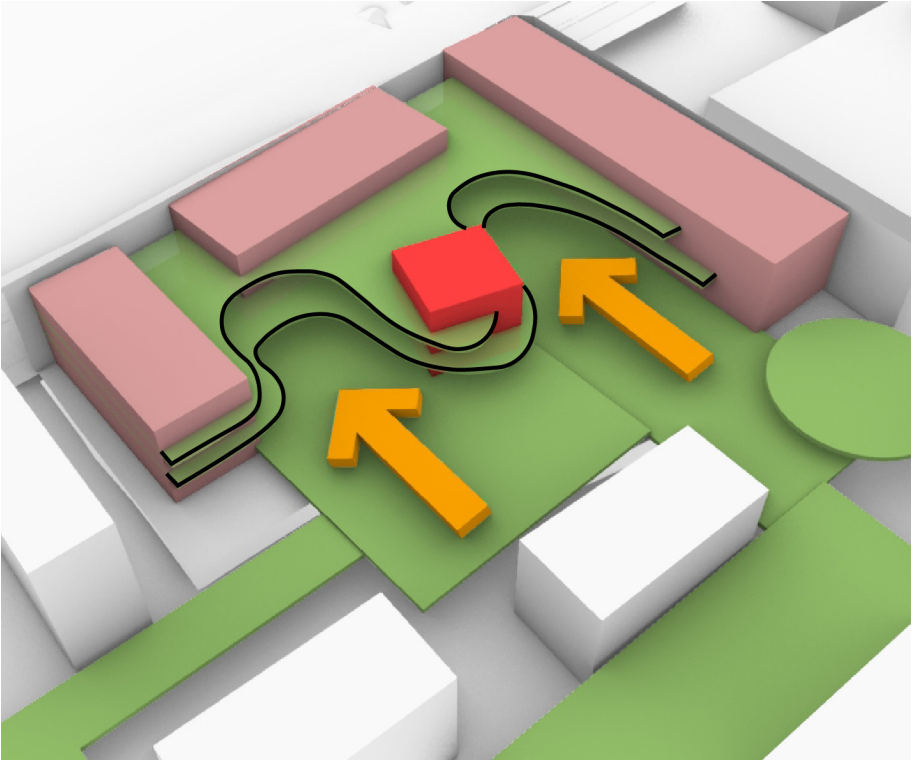
56



Buildings are orientated towards the pedestrian axial spine and plaza. The form then shelters internal spaces from the road.



Clear linear forms create internal courtyard spaces connected over a number of levels with the Knowledge Centre as the heart.



Outdoor spaces terrace up the building creating islands of outdoor learning and play opportunities



7.2 PLAZA ADDRESS

The entry plaza is a coordinated effort between the broader district developer Celestino and CEDP. The orientation of the main entrance of the school towards the master planned plaza area will serve to activate the ground plane, increase community integration and openness and work with CEDP's design principles. The landscape concept plans developed by McGregor Coxall allow for a bleed of design elements across the boundary and into the plaza to seamlessly integrate the schools entry zone with the public plaza.



FORMAL IDENTIFIABLE ADDRESS



MAIN PEDESTRIAN FLOW  
AND INTUITIVE WAYFINDING



BREAK OUT SPACE  
(TO INTERNAL EVENTS)



CONGREGATION, PLAY AND  
RESPITE SPACE

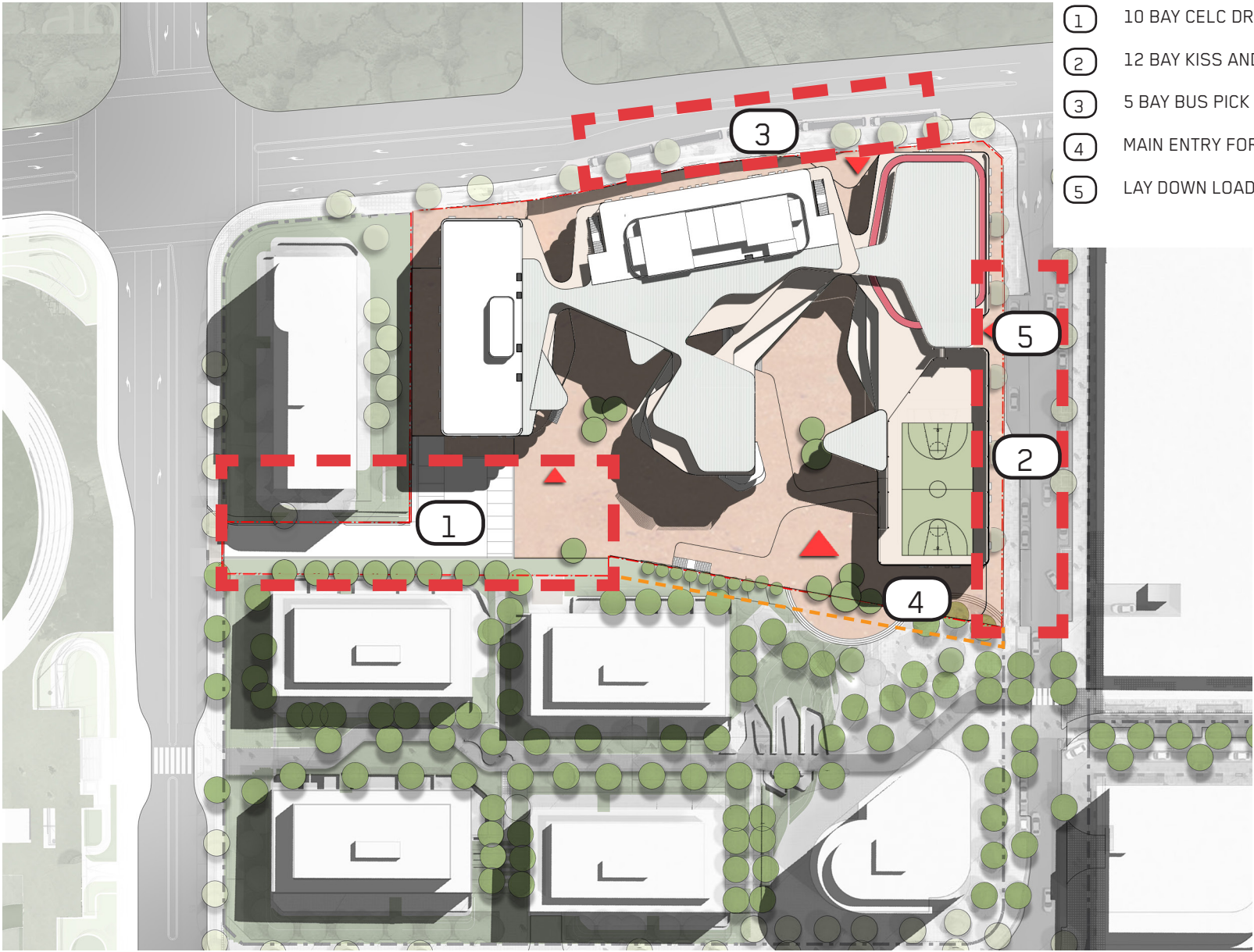


7.3 DROP OFF & SERVICING LOCATIONS

There are three main drop off points for Santa Sophia Catholic College. The first is situated on Road B at Level 00 includes a Kiss and drop area and a 'loading set down' area at its Northern end.

The second is located on Fontana Drive and is a 'bus set down' area designed to hold 5 buses.

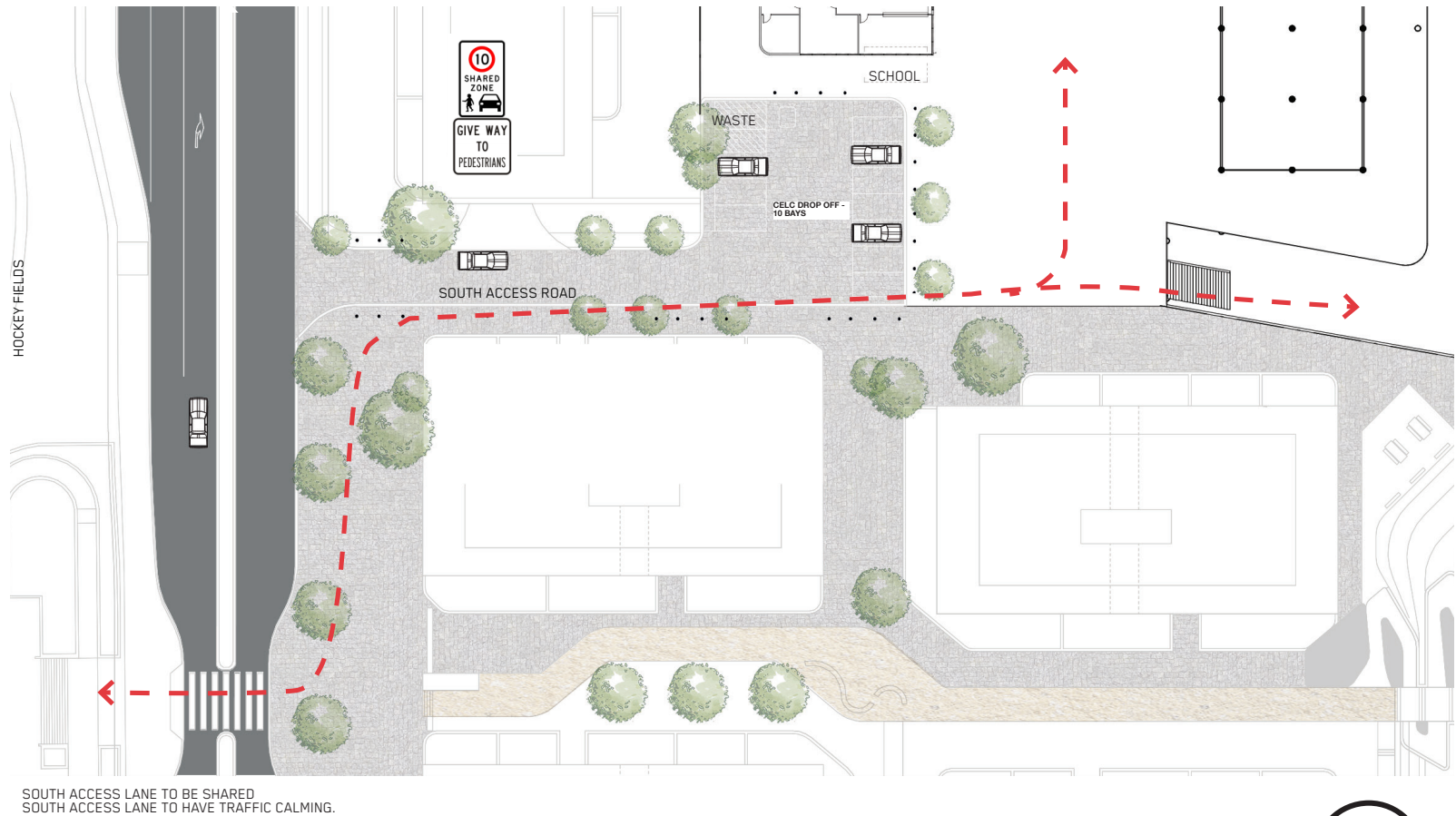
The final drop off area is located on level 01 and is accessed via the Southern Access Road. This area is designed to allow for the drop off of students to the Catholic Early Learning Centre. This area also accommodates waste store and pick up. Refer to the waste management plan and operations plan for more details



7.3.1 SOUTHERN ACCESS AND CELC DROP OFF

The concept proposes a safe and separate drop off for the Catholic Early Learning Centre. This is provided through the private road access to the south that is accessed from Red Gables Road.

The southern access road will be a shared zone and will utilise landscaping elements to ensure traffic calming. There are 10 car parking spaces proposed and a waste collection area.



PEDESTRIAN IDENTIFYING PAVING



LOW KERBS HELP TO REINFORCE A PEDESTRIAN FRIENDLY ENVIRONMENT



GREEN STREETS



HIGH QUALITY PEDESTRIANISED CORSO AND PROMENADE AT HUMAN SCALE

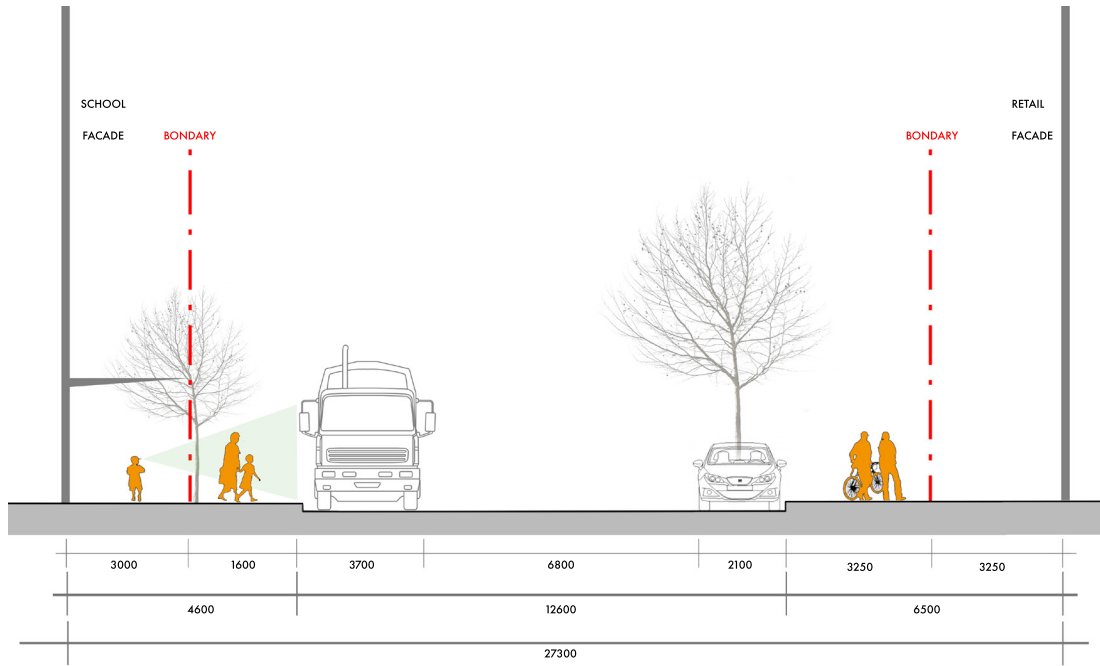


7.3.2 ROAD B

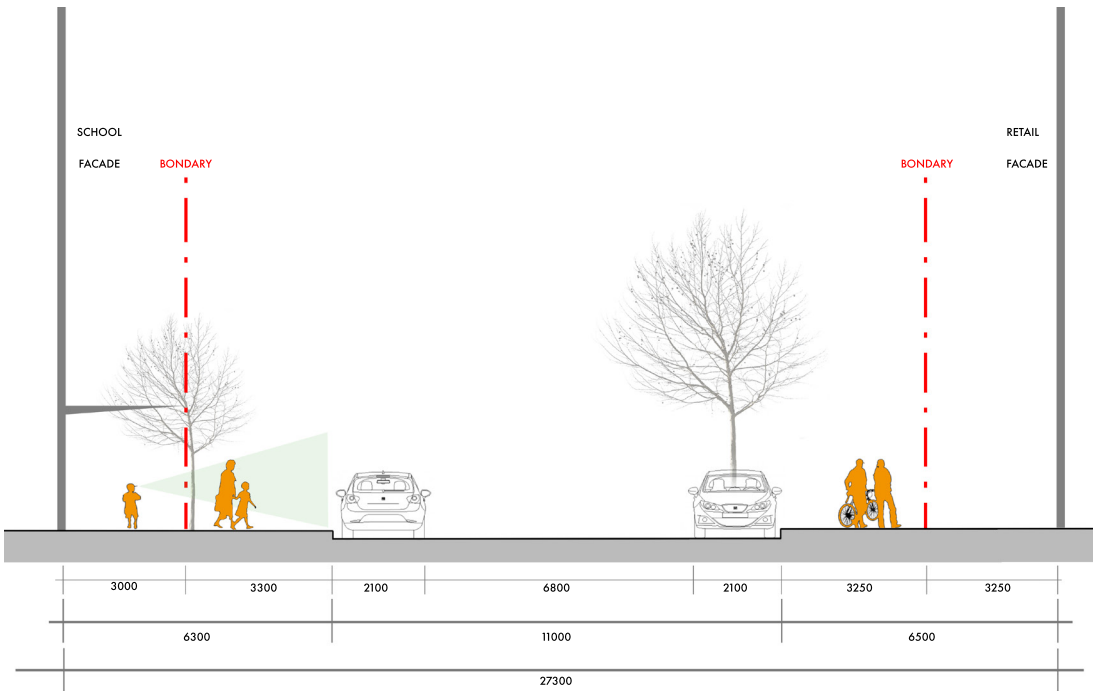
Road B to the north of the site provides the location for the school's main kiss and drop. The waste collection and loading strategy is also located along this road.

Low rise retail units face opposite the school, the design of which are yet to be finalised by the developer Celestino. It is anticipated that the retail will be in place during 2021.

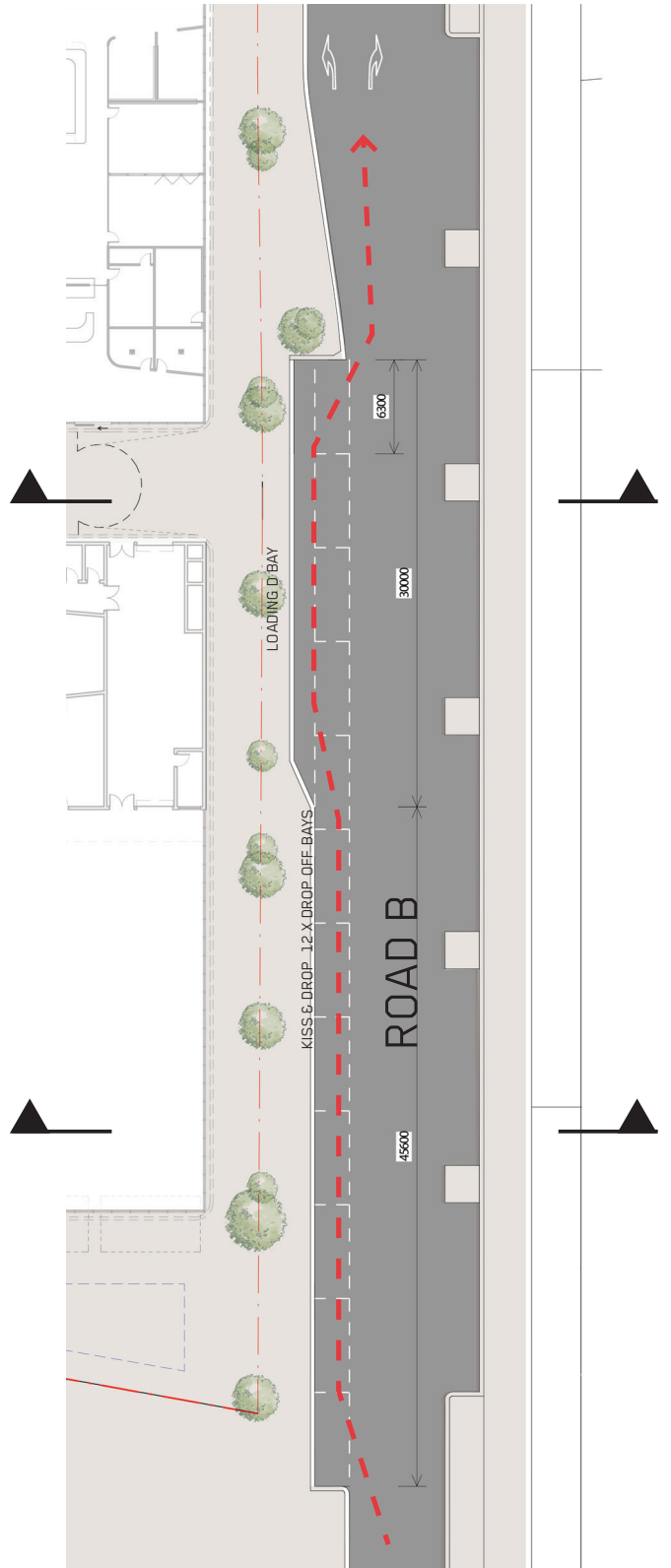
A coordinated landscape strategy has been developed during schematic design between CEDP's landscape consultant and Celestino's landscape consultant.



ROAD B SECTION - LOADING



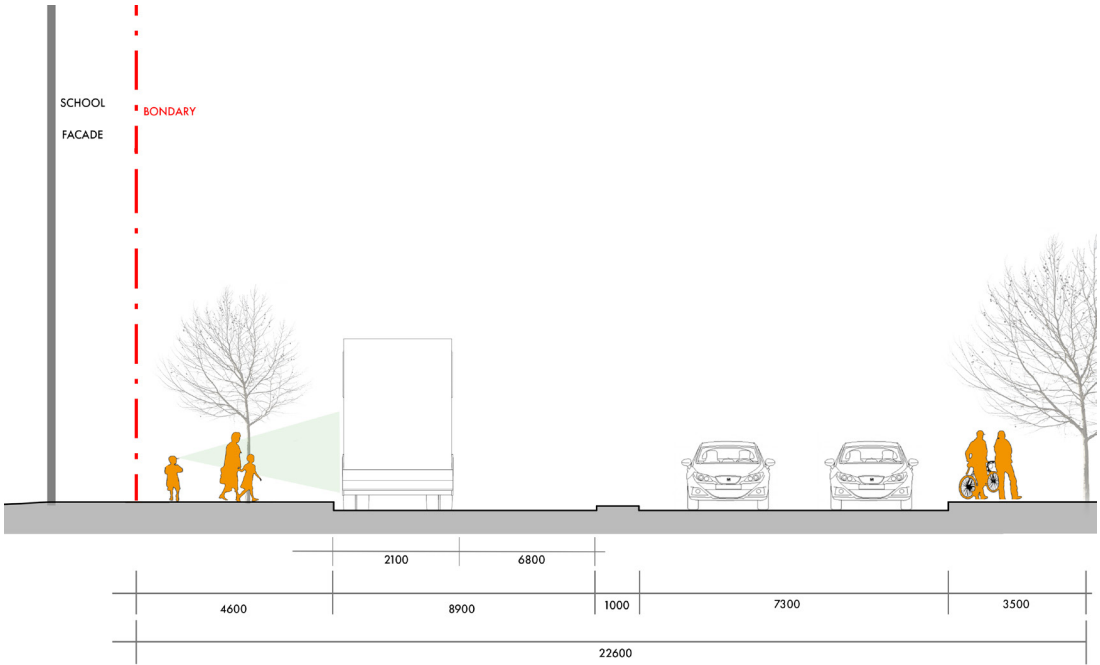
ROAD B SECTION - KISS & DROP



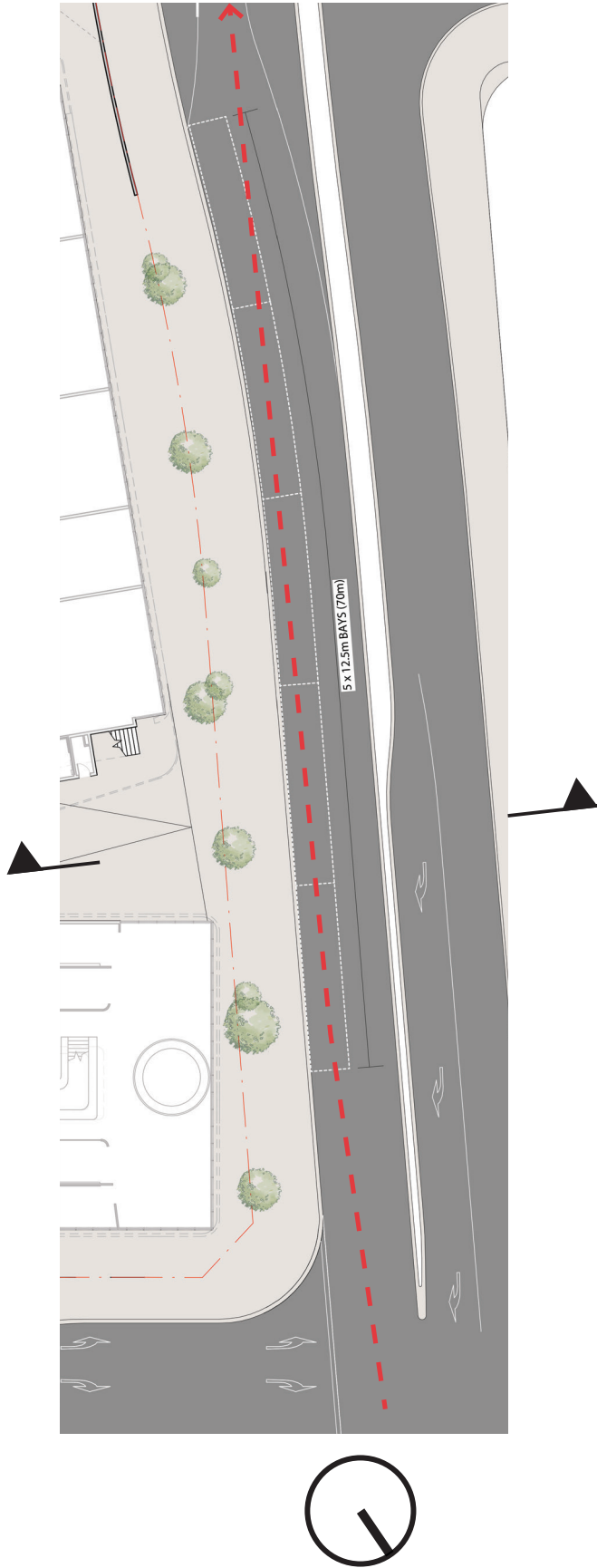


7.3.3 FONTANA DRIVE - BUS DROP OFF

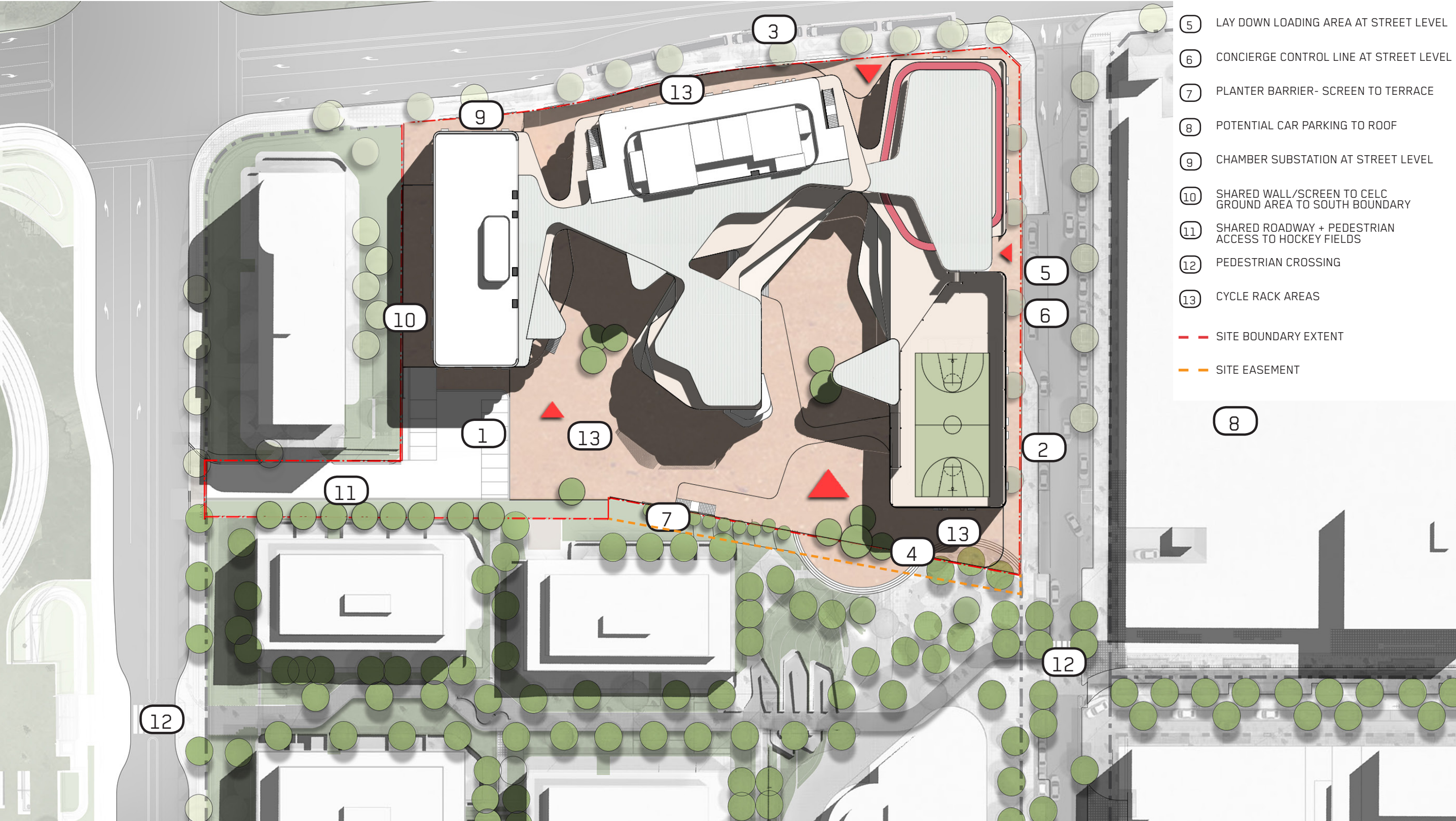
A bus drop off area on Fontana Drive has been designed to incorporate 5 buses, which will allow direct access for the students into Santa Sophia Catholic College. A coordinated landscape strategy has been developed that considers the safety of students and the public.



FONTANA DRIVE SECTION - BUS DROP OFF



7.4 OVERALL MASTER PLAN





7.5 BIRDS EYE VIEW

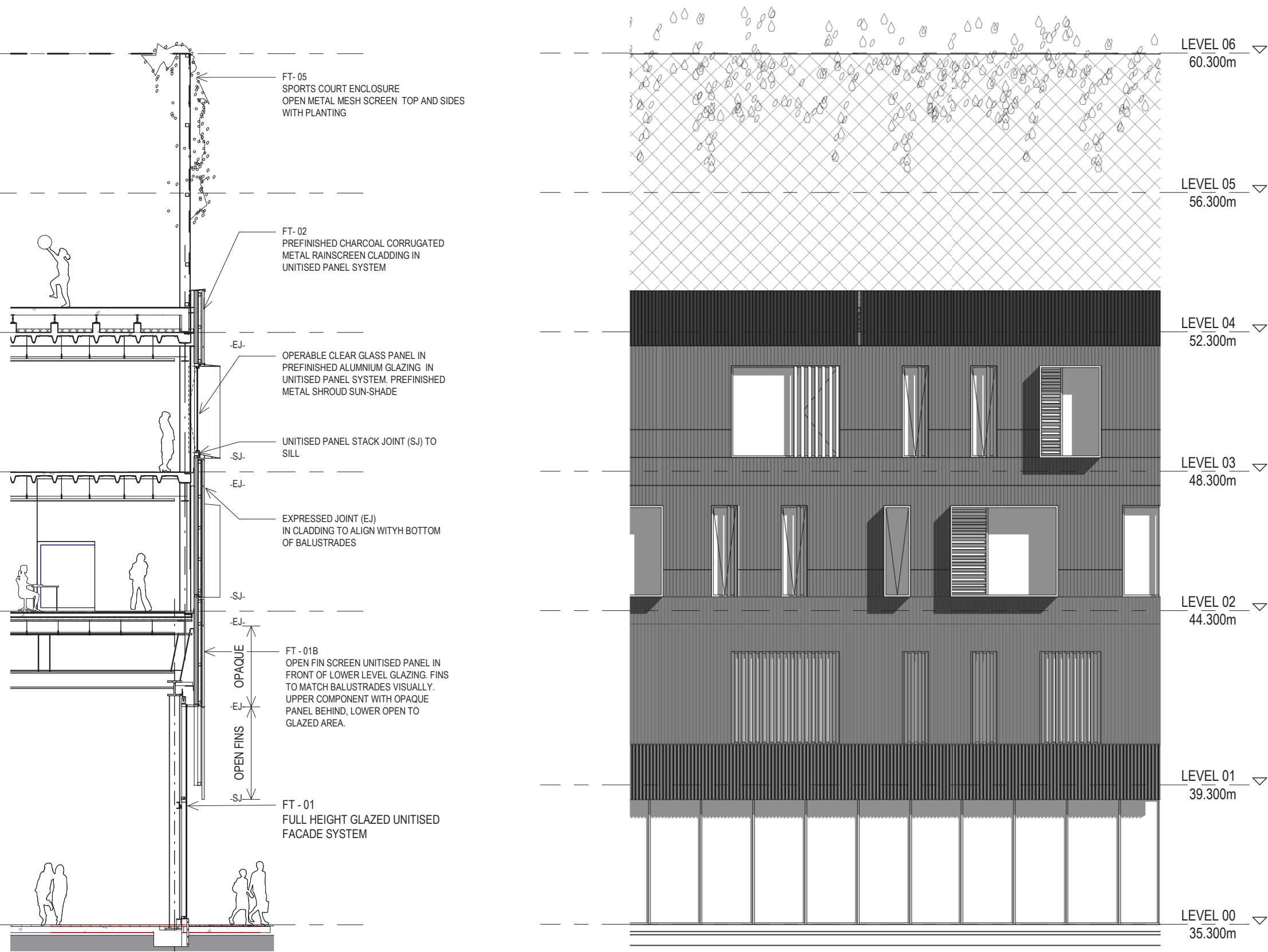


ARTIST IMPRESSION



7.6 FACADE DESIGN AND MATERIALS

64

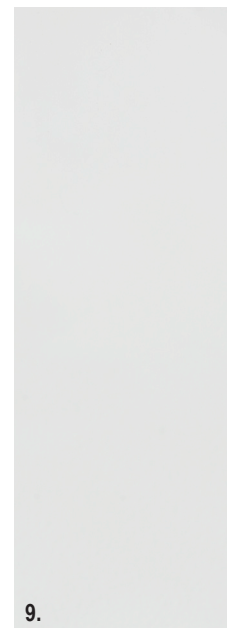
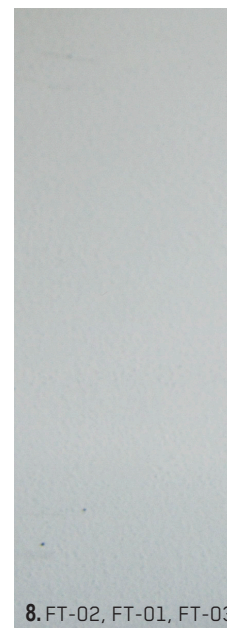
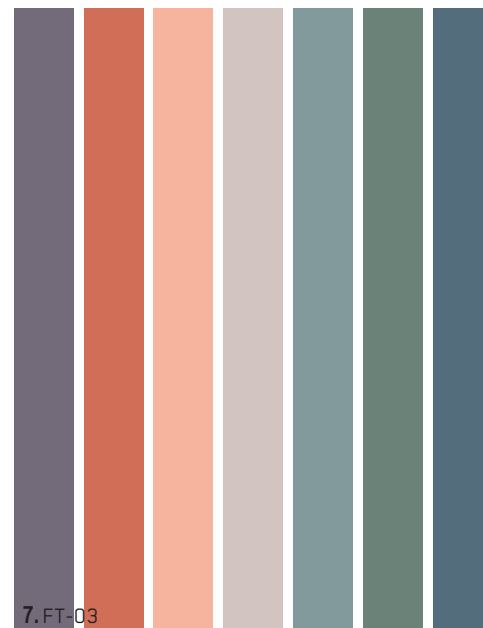


FACADE SECTION THROUGH AUDITORIUM AND UPPER BASKETBALL COURT



FACADE PRECEDENT IMAGES





- 1 Powder-coated charcoal metal. Used on corrugated metal panels (FT-02) and the palisade balustrade (BAL-01)
- 2 Powder-coated yellow metal shrouds and frames to windows in FT-02
- 3 Exposed concrete soffits & Acoustic ceiling
- 4 Landscape planting
- 5 Timber to elements in public areas
- 6 Stone paving to ground level areas
- 7 Multi-coloured powder-coated mullion colours to curtain wall of FT-03
- 8 Glazing to external windows and curtain walls
- 9 Glazing to internal classroom entries sheltered by decks over





# 8.0 DESIGN EXCELLENCE

## 8.1 EDUCATION SEPP

### PRINCIPLE 1 – CONTEXT, BUILT FORM AND LANDSCAPE

While currently not built, Santa Sophia responds to the master plan proposal for the town centre at the Gables generated by Celestino. Through a series of iterative workshops the design team, the client and the developer worked through a number of proposals to arrive at the current form. This form draws on the location of the public plaza and responds sympathetically to the proposed surrounding residential blocks.

The built form was conceived as islands in a sea of decks, guided by the outdoor space requirements and the local climate. Within the built form the students move horizontally through their year groupings and vertically to destination specialised spaces. The built form uses the natural topography of the site to introduce a change in level and direct access to a drop off location for the Catholic Early Learning Centre. Pickup and drop off points have been considered in the overall entrance and exit strategy of the school. The height and scale of the school is appropriate within the context of the residential blocks proposed in its immediate surrounds.

The landscape proposal has been prepared by McGregor Coxall and has been carefully curated to improve the amenities both within the school grounds and to its public address. The text below has been supplied byMcgregor Coxall to detail their design intent.

The Gables precinct, including the Santa Sophia school, is being realised within the Cumberland Woodland Plains, of Sydney’s western hinterland. Before being developed by colonial Australia as pastures and farmland, the region was the home country of the Dharug people, who lived in the area for tens of thousands of years. Beyond their places of settlement, the Dharug cultivated the landscape to create open grassed spaces amongst stands of trees and creek lines. These spaces and places were used by the Dharug for resources, gatherings, ceremonies and seasonal events. The elements within that landscape, open grassland, stands of trees, the materials within a tree’s trunk, the riparian corridors and the creeks – these assumed cultural, economic and social significance.

In the landscape design for Santa Sophia school, we express these layers of history and the strong connection to the landscape, creating both a sense of place founded in the local, and an educational environment rich in sensory information and learning experiences. The principles of the landscape design connect to the Diocese’s values and objectives of care, custodianship and consideration, while providing spaces for learning, play, congregation and reflection, in which spirituality and sustainability are intertwined. The landscape will provide a network of spaces, moments and opportunities informed by a sensibility of place, local ecologies and the natural environment, while providing evocative environments in which to enact all the rituals of school and childhood.

### PRINCIPLE 2 – SUSTAINABLE, EFFICIENT BUT DURABLE

The design of Santa Sophia incorporates ESD principles in addition to a commitment to achieve a positive social outcome to the Gables precinct. The building has been designed to achieve the equivalent of 4 Star Green Star Rating. Refer to the ESD report for more information.

A green travel plan has been developed and it is anticipated that a high level of traffic to the site will be by bus, bicycle and on foot from the large master-planned precinct surrounding the future school.

The materials used in the proposed new building have been specified for their aesthetic, efficiency, low maintenance qualities and durability. Corrugated powdercoated metal sheeting has been used consistently across the facades

### PRINCIPLE 3 – ACCESSIBLE AND INCLUSIVE

One of the client’s key briefing requirements was to ensure that the school would appear welcoming and accessible to the wider community and to actively encourage the sharing of it’s facilities with the wider community. With this in mind, Santa Sophia has been specifically sited to link the community into the heart of the school. The entry forecourt, while controlled, will provide a draw point for the community to utilise the school’s facilities for after-hours purposes. The operations report developed by TSA details the sharing of facilities

While secure lines have been included within the school design it is intended that the building edge provides the majority of the street security. Effort has been made to provide security without the feeling of enclosure and being shut off away from the community. Refer to Landscape report for more detail.

The proposed school is designed as a series of large decks allowing for accessible circulation throughout. The horizontal arrangement of year groups coupled with the verticality of specialist spaces facilitate easy navigation. The position of year groups has been considered in line with CEDP’s pedagogical model and referenced against timetabling to ensure adequate time to access specialist spaces.

The school and landscape has been designed in accordance with the relevant Australian Standards and the Disability Discrimination Act’s obligations of equitable and dignified access.

### PRINCIPLE 4 - HEALTH AND SAFETY

The building has been designed to maximise outdoor space, natural light and ventilation to promote the wellbeing of occupants. The mechanical strategy works on a mixed mode basis and windows are operable. Low VOC materials will be specified in the construction of the school to ensure the health of the occupants.

A green travel plan has been developed by the traffic engineers which aims to promote walking and cycling to the school. Secure bicycle parking is also provided to facilitate this. To prioritise pedestrian traffic and encourage walking and cycling no parking is provided on site. Pick up and drop off zones will be actively controlled under CEDP’s management plan. The school entries have been reviewed in terms of pedestrian safety Check

The principles of CPTED has been referred to in the overall design:

- Toilets have been grouped and designed as capsule toilets to deter bullying and allow for passive surveillance
- An external lighting will be designed for surveillance and visibility outside school hours in line with operation report
- The outdoor spaces have been shaped to allow for passive surveillance by staff
- The school is proposed as being secure and open in line with its operational plan (TSA – check)
- External lighting will be used to illuminate external spaces
- The school will install security cameras and alarms in line with its operational plan (TSA – check)

PRINCIPLE 5 – AMENITY

BVN worked closely with Celestino to deliver a design that minimises the negative impacts on surrounding built forms in terms of outlook, overshadowing, visual and acoustic privacy. The urban design proposal uses the negative spaces between proposed buildings for the majority of the bulk of the school and positions the overall mass to the road boundaries.

The collaboration between design team of CEDP and Celestino has extended to influencing the design of the building immediately to the south (building 4F). The building proposed to the south is being actively designed to minimise overlooking into the school in addition as maximising the outlooks away from the school building.

The outdoor space provision for the school has run through a rigorous client and design process to achieve an active, engaging and exciting space that caters for the school’s projected population of 1920 students. The outdoor deck areas also function as outdoor learning areas and are directly connected to the learning spaces through sliding glazed doors. A joinery wall divides the learning spaces from the outdoor decks and provides toilet amenities, in addition to bag storage for younger years, seating and water fountains for students.

The servicing strategy of the site has been examined in detail with the client and consultants to deliver an approach that works both for the school and its immediate surrounds and neighbours. As a result, the proposal will not generate excessive acoustic impact on future neighbouring properties.

PRINCIPLE 6 WHOLE OF LIFE, FLEXIBLE AND ADAPTABLE

It is anticipated that the Gables will be home to 10,000 residents at completion and that Santa Sophia College will provide education services for 1920 children in the community and it’s surrounds. The proposed building provides facilities to meet the schools immediate and future needs in addition to identifying facilities that could be shared with the wider community when the school is not in operation. Please refer to TSA’s operational plan for more detail.

Four Star Green Star equivalence is being sought and the life-cycle of materials and components have been considered in this process

The structural grid utilised in the design of the general learning spaces as well as the specialist learning spaces is flexible to allow for future changes in use over time. The learning spaces have been specifically designed to accommodate a range of learning settings, environments and group sizes and the overall scheme provides a variety of teaching spaces. The mechanical strategy has been designed to adapt to potential changes over the lifecycle of the building.

PRINCIPLE 7 – AESTHETICS

Santa Sophia College has run through a rigorous internal, client driven and state design excellence process. The immediate surrounds are in development and the school seeks to respond to its context as depicted by the overall master plan and council approved planning proposal. In particular, to allow the school to be used as a welcoming addition to the public realm by orientating its main entrance to a public plaza.

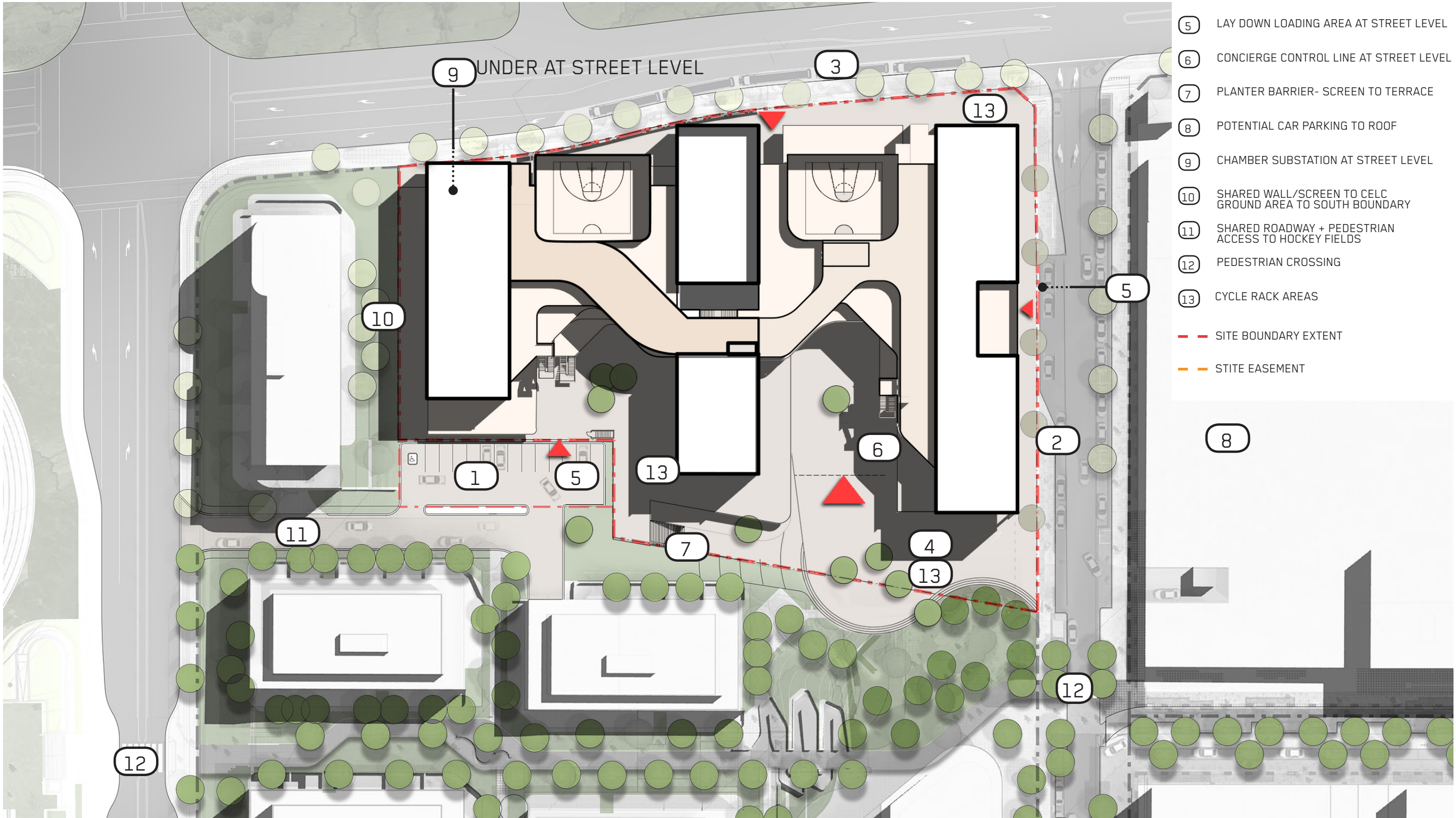
The design principles that have been applied to the concept have generated a building that will positively impact on its immediate proposed neighbourhood. The mass and scale of the proposed building is in keeping with the height and scale of the proposed multi-unit residential blocks in the immediate vicinity of the school. The materials for the building have been chosen both for their durability as well as their aesthetic qualities. Accent colours to windows have been chosen to lighten the façade against its durable metal sheeting whilst steel palisade balustrades allow a lightness to the outdoor space decks.

The service zones have been carefully integrated with the internal façade joinery line and have become an active design element. Where possible the building has been used as the secure line for the school, landscaped secure lines have also been used and the proposal consciously steers away from long lengths of palisade fencing. The landscape design proposal to the school will deliver a positive addition to the school in addition to the overall town centre by creating an active and exciting destination





8.2 CONCEPT SITE PLAN PRESENTED TO SDRP 30/01/2019



# 8.3 MINUTES FROM CONSULTATION WITH SDRP

## INTRODUCTION

BVN attended a meeting with the SDRP on the 30/01/19. The concept presented to the SDRP is illustrated in the graphic to the right. The current design has taken on board the comments from the SDRP.

In particular the maximising of light to the general learning spaces and the generosity of the vertical circulation. The concept was then adapted with regard to these points. At the time of the meeting, landscape was a recent appointment and the overall concept has progressed in line with recommendations made by the SDRP.

PROJECT: SANTA SOPHIA CATHOLIC COLLEGE, CONCEPT DESIGN  
RE: SDRP SESSION 01 – 19.01.30

Dear Elaine,

Thank you for the opportunity to review the above project. Please find below a summary of advice and recommendations arising from the design review session held on Wednesday 30 January.

Please note that this letter and subsequent letters of advice relating to the SDRP will be distributed to the meeting attendees listed below.

We commend the design team for the clarity of their presentation and were pleased that both the client and developer attended the session.

There was strong agreement that, while the design is clearly still conceptual, the proposed spatial strategy has potential to create an engaging learning environment and vibrant campus hub to the town centre. The panel voiced concerns around the limited open space provision within the site boundaries; evidence of a formal agreement with council for College use of public open space is required prior to the SDRP giving its support to this proposal.

The next presentation to the SDRP (date and time to be confirmed by the GANSW design advisor) should respond to the following.

### Concept

The location of the College in relation to future playing fields and the nearby primary school is well considered, ensuring that the playing fields will be well utilised by both schools and also accessible for the community. Given the limited open space available on campus, however, the Panel felt that the College's access to the playing fields should be clearly defined and secured prior to any future engagement with SDRP.

The Panel is impressed with the seamless integration of the campus with the town centre – and in particular the absence of perimeter fencing.

The campus will activate and energise the future town centre, with its facilities providing most of the community amenity. The school auditorium, library etc should be designed to have a strong connection with the urban spine.

The central location of the campus also affects access to its key arrival points. As there is unlikely to be frequent public transport serving the town centre, surrounding street network is likely to be very busy, and student arrival and drop off, access to the playing fields etc may conflict with traffic generated by adjacent residential, retail and office developments.

Strategies for dual use of adjacent roof top parking are strongly supported as this will minimise surface parking and ensure that more of the ground level is available for landscape and active play.



We have concerns with the blank and largely inactive southern frontage of the adjacent retail site, particularly as it faces the College's main entry, and recommend that the developer review the design of this frontage to ensure activation at ground level.

### Landscape and public domain

We are encouraged with the absence of underground parking throughout the town centre as this creates opportunities for deep soil planting and in the longer-term, sustainable tree canopy. However, the landscape strategy presented has a distinctive 'urban' feel - with little of the greening, shading or softening qualities suggested by its 'garden shire' setting.

There is little information about the design of the campus ground plane and this raised concerns with the character of the open space, particularly as the campus open spaces have a south east orientation. More information on the dimensions and amenity of outdoor play should be provided for all levels but particularly at the ground plane.

It is the panel's view that the current landscape approach features a number of discrete 'statement' elements [the tree, the cloud] where what is needed is an integrated approach to softening and greening the proposed large, urban building.

The pedestrianised urban spine connecting the lakefront with future playing fields has great potential to create a vibrant and active frontage for the campus. As noted previously, the absence of fencing is strongly supported. However, this will require careful and detailed resolution of the campus interface with the urban domain to ensure that a safe, secure and sustainable alternative can be achieved. The CPTED principles must be understood and incorporated in the design at all stages and scales.

While the personal safety of all users is paramount it was noted that some users, particularly school age girls, are avoiding certain types of public spaces. This should be a consideration as the design progresses.

### Architecture

The compact configuration of the campus is notable. The proposed articulation of built form has the potential to mitigate the significant scale and bulk of the structure and create a suitably engaging and expressive architecture. This will rely strongly on further resolution of fenestration, elevational treatments, materiality etc

A consequence of the compact form is the high proportion of internalised spaces which require inventive architectural strategies to bring light and air into the College interiors. The cross-sections tabled at the review did not demonstrate how this would be achieved and the panel felt that more consideration should be given to resolving this critical aspect of the design and demonstrated in the next presentation.

It was also noted that the provisions for vertical circulation are not generous. For this project, vertical circulation is an opportunity to not only internally connect the campus but to create generous, light filled atria that foster incidental interactions amongst the College community.

### Aboriginal cultural heritage

The panel was encouraged by the design team's knowledge of Aboriginal cultural practice generally and felt that the design would benefit from more active engagement and consultation with the Dharug community elders to incorporate an understanding of site-specific histories and narratives into the Concept Design. GANSW is available to provide assistance.


Our recommendations are summarised below:

- Provide more information on the architectural resolution generally - including, but not limited to fenestration, elevational treatments, materiality etc

- Provide east west sections to show how internal spaces can be naturally lit and ventilated, and the relationship of undercrofts with open space
- Provide information on environmental controls – active, or passive etc
- Review the design of vertical circulation as noted above to ensure generously scaled and engaging vertical circulation zones.
- Provide a traffic management strategy addressing key issues in relation to:
  - management of pick up / drop off
  - access between the College campus and playing fields across Red Gables Rd
- Engage with traditional owners as noted above
- Provide a landscape strategy that:
  - is consistent with GSC tree canopy targets, considering shade, greenness, deep soil opportunities, etc
  - better integrates with the College's 'garden shire' setting
  - considers the dimensions and amenity of open play areas
  - addresses and integrates with nearby remnant and existing waterways and riparian zones
- Provide a detailed plan of the ground plane, including the resolution of:
  - interface of open space with College buildings
  - interface of the campus with its civic frontages
- Community engagement strategy, especially in relation to:
  - traffic management – pick up and drop off
  - access and use of the College's hall and library and relationship with civic spaces
  - access and use of community playing fields

I trust that this information is helpful and look forward to seeing this project as it progresses.

Sincerely,



Rory Toomey  
Director of Design - Government Architect NSW  
Chair, Santa Sophia Catholic College SDRP

#### CC

NSW SDRP Panel members

Department of Planning & Environment  
Catholic Education Dioceses Parramatta  
Celestino  
BVN  
McGregor Coxall  
Urbis  
TSA Management

Ashley Dunn, Shelley Penn, Justine Clark, Tony Caro (The Hills Shire Council representative), Rory Toomey (Chair – GANSW)  
Scott Hay  
Matthew Scard  
David Doyle  
Julian Ashton  
Tom Rivard  
Alaine Roff  
Tom Singleton

8.3 MINUTES FROM CONSULTATION WITH SDRP

INTRODUCTION

BVN attended a second meeting with the SDRP on the 11/04/19 and following is the summary feedback.

PROJECT: SANTA SOPHIA COLLEGE  
RE: SDRP SESSION 02 – 11 April 2019

Dear Alaine,

Thank you for the opportunity to review the above project. Please find below a summary of advice and recommendations arising from the second design review session held on Thursday 11 April 2019.

Please note that this letter and subsequent letters of advice relating to the SDRP will be distributed to the meeting attendees.

While we acknowledge the team’s request to focus within the site boundaries at this review, the nature of the project makes it impossible to consider amenity, performance and the overall success of concept in isolation from its surroundings. Consequently, some comments relate to the relationship with the broader context.

The following recommendations relate to design considerations for the Santa Sophia College and should be read in addition to the advice from SDRP01.

Site Location + Strategy

The site and its relationships with the proposed town centre and open spaces require further development. The panel recommends the following be presented at any future review (as a minimum):

- Clearly explain the facility sharing arrangement between the school and the playing fields and the local public school.
- Clearly explain the circulation paths between the school, playing fields, the lake, town centre, bus stops, drop off points etc.
- Provide details of how conflicts of pedestrian and traffic movements will be resolved, with particular reference to the crossing of main roads.
- Demonstrate how pedestrian and traffic movements are impacted by the waste management strategy for the school.

- Provide a traffic and parking strategy.

### Architecture, Landscape + Strategy

The panel supports the changes to the design development since SDRP01. Given this is a vertical school, the architecture and the landscape will be explained in future presentations. The panel noted the Knowledge Centre created a strong heart to the site and supported the look of the school building.

The panel recommends the following be presented at any future review (as a minimum):

- Modeling of school population movements across the day through the vertical, horizontal and shared spaces of the school.
- An acoustic analysis of the hard surfaces, floor to ceiling heights and soffits in the circulation and learning spaces. Quiet and loud spaces to be clearly identified throughout the plans and sections.
- Provide a 3D fly-through of the internal spaces to explain the spatial qualities of the circulation and learning spaces.
- Provide a plan indicating how the ground floor spaces will function as playground, gathering, arrival, and circulation space for all students to access the hall.
- Provide detail landscape plans for all levels, specify where deep soil is to be provided to support larger trees.
- Provide detail sections through the building that illustrate how the spaces will be used; demonstrate how ESD objectives will be achieved.

### Summary & Recommendations

The panel is primarily concerned about the quality and amenity of proposed open spaces. The provision of age appropriate spaces for formal learning and informal play has also not been adequately demonstrated.

The quantum of open space provided and its suitability is not convincing - the panel has concerns around the sharing of the basketball court and the quality of open space between buildings.

For the next presentation:

- Provide 3D fly throughs of the internal spaces, the circulation and gathering spaces on each floor to explain the spatial quality, daylighting and scale.
- Provide developed sections through the site and proposed school buildings, learning centre and the hall.
- Sections to validate ESD principles in the design.
- Provide a plan that explains the integration of the internal site to areas outside the site such as the sporting fields which the school relies on.
- Provide a series of diagrams to show the daily movements within the school across different times, including access to external areas and waste drop off.
- Provide area calculations indicating the student to space ratios across the school campus.
- Indicate on plan how a triple function space will successfully function.
- Indicate how the spaces will accommodate students of different ages for different activities.
- Provide precedent examples of successful vertical schools of 2000+ populations

I trust that this information is helpful and look forward to seeing the proposal as it develops.

Sincerely



Rory Toomey  
Principal Design Excellence  
GANSW

SDRP Chair





8.4 CURRENT SITE PLAN





8.5 DESIGN PRINCIPLES

**8.5.1 CEDP DESIGN PRINCIPLES**  
CEDP have developed their own guiding design principles which are used to underpin all new design work. The design team for Santa Sophia have been cognisant of these principles from the inception of the project and they have implemented into the design of learning spaces.





8.5 DESIGN PRINCIPLES

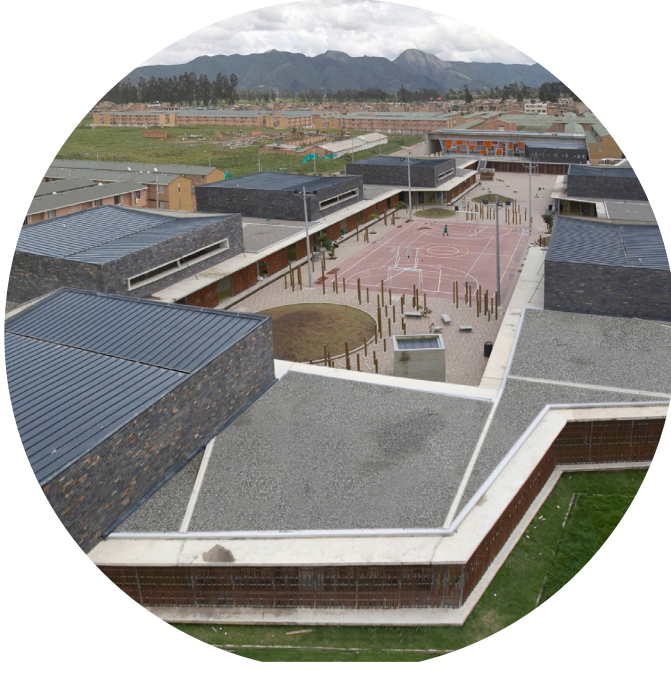
8.5.2 PROJECT SPECIFIC DESIGN PRINCIPLES



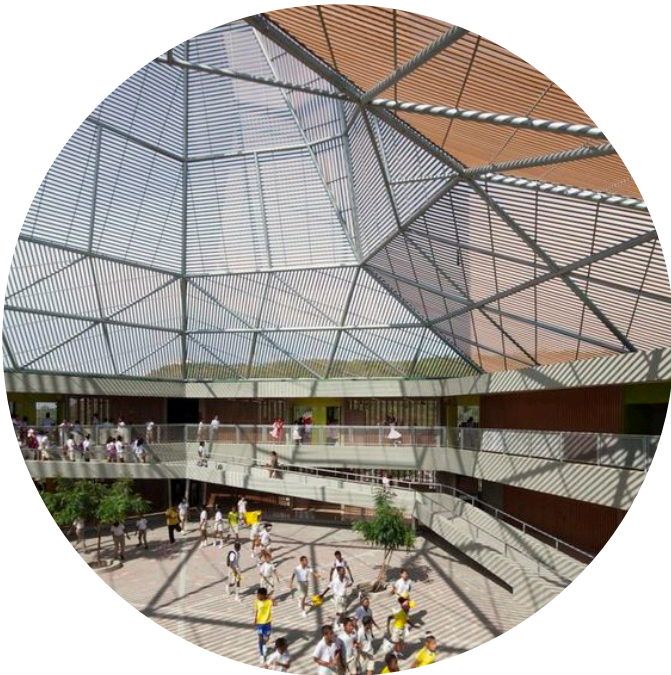
**WELCOMING AND INTEGRATED INTO THE COMMUNITY**  
Integrated public frontage with inviting entrance



**SECURITY CONTROL INTEGRATED INTO LANDSCAPE**  
Utilising change in levels and built form to delineate School boundaries without excessive need of fences and gates.



**BUT CONNECTED**  
The different year groups and associated outdoor spaces have visual adjacency whilst maintaining the necessary separation of circulation flow and management



**CLEAR AND INTUITIVE MOVEMENT**  
Walkways and vertical transport should be easily legible with way-finding informed by the architecture



**UTILISATION OF TOPOGRAPHY TO CREATE DEFINED SPACES**  
Using the change in level to create the necessary delineations between public and private school areas and in turn the various age groups. Tiered topography also allows functions to be stacked below the roof outdoor space



**BUILT FORM TO CREATE THE VARIETY OF OUTDOOR SPACE**  
Maximising opportunity for outdoor learning and play spaces by creating various courtyard and terrace spaces on and between the built form. Outdoor spaces are intended to be sheltered but to also have access to daylight



8.6 LEP RESPONSE

80

Hills Shire LEP, Clause 7.7 Design excellence	Assessment of Proposed Development	
(1) The objective of this clause is to deliver the highest standard of architectural and urban design.		
(2) This clause applies to development involving the erection of a new building or external alterations to an existing building if the building has a height of 25 metres or more.		
(3) Development consent must not be granted to development to which this clause applies unless the consent authority considers that the development exhibits design excellence.	<p>This Design Report has clarified the design intent of the proposal and demonstrated how design quality has been achieved in accordance with the Design Guide for Schools and the Design Quality Principles outlined in Schedule 4 of the Education SEPP and clause 7.7 of Sydney Local Environmental Plan (LEP).</p> <p>The proposed Santa Sophia College development has undergone a comprehensive design development process and CEPD are committed to a quality outcome. Design excellence has been established through the detailed analysis of the site and the application of the Design Guidelines and Development Parameters</p>	
(4) In considering whether the development exhibits design excellence, the consent authority must have regard to the following matters:	The proposed development incorporates a high standard of finishes and materials. Please refer to the façade section and landscape design report for external finishes and detailing	
(a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,		
(b) whether the form, arrangement and external appearance of the development will improve the quality and amenity of the public domain,	The form has been consciously designed to improve and add to the proposed public domain of the town centre. The integration of the plaza into the main access to the school creates a welcoming gesture. The materials and massing of the building are sympathetic to the proposed residential buildings in the vicinity	
(c) whether the development detrimentally impacts on view corridors,	The proposed development will not detrimentally impact on view corridors as demonstrated the design report and the SSDA drawing set.	
(d) whether the development detrimentally impacts on any land protected by solar access controls established under a development control plan,	The design team have worked closely with the developer of the town centre to protect the amenity to the proposed residential buildings surrounding the school.	
(e) the requirements of any development control plan to the extent that it is relevant to the proposed development,	Refer to the EIS	

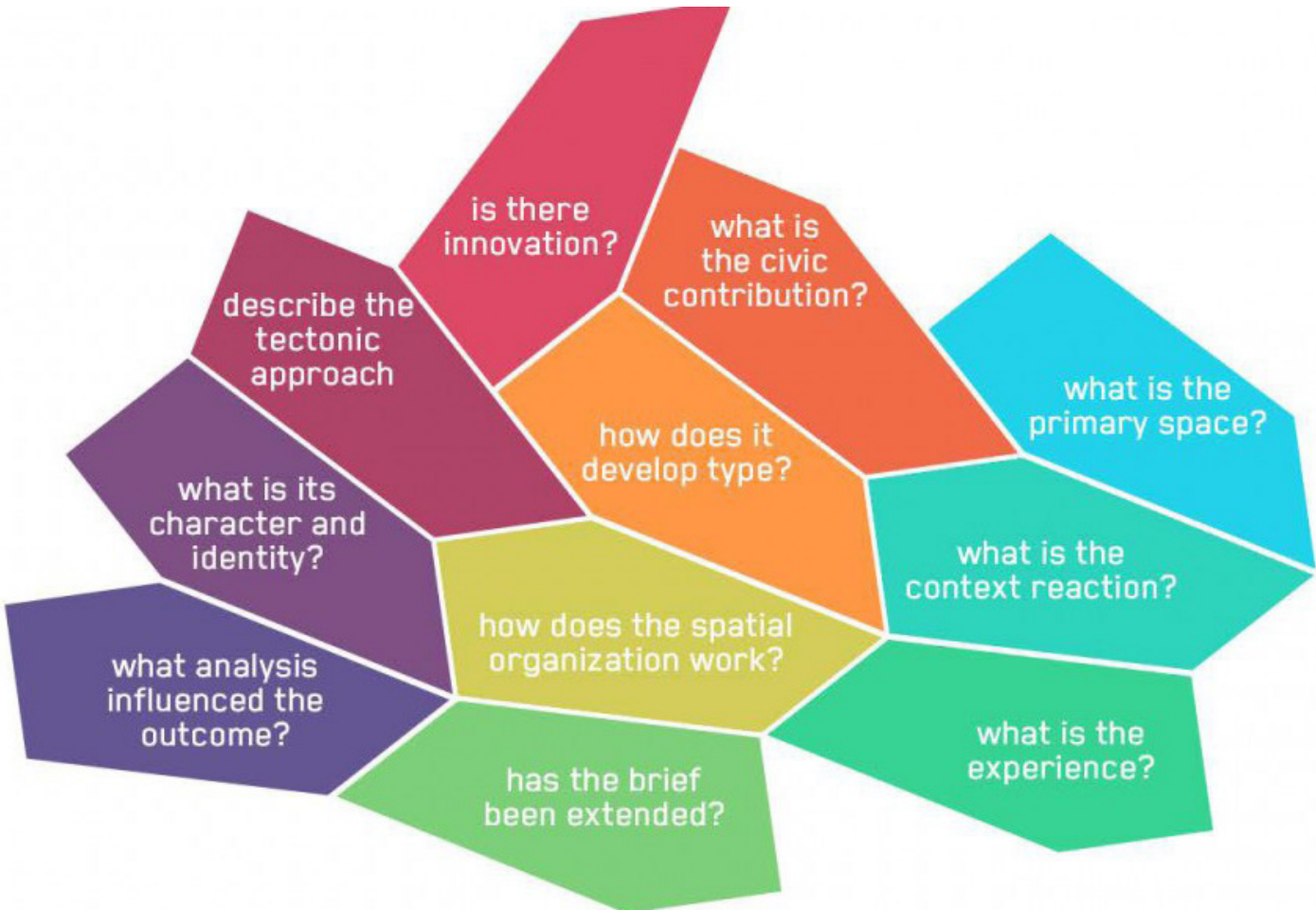
1

(f) how the development addresses the following matters:	The land is located within the future town centre and is suitable for the proposed development.
(i) the suitability of the land for development,	
(ii) existing and proposed uses and use mix,	
(iii) heritage issues and streetscape constraints,	
(iv) the relationship of the development with other development (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,	The proposal complies with the ADG in terms of setbacks to the proposed residential building. The massing of the building as been designed to maintain the amenity to the proposed surrounds. Building 4F (to the south) is currently being designed by the developer, Celestino, in close collaboration with the design team for Santa Sophia.
(v) bulk, massing and modulation of buildings,	The bulk of the building form has been concentrated to the perimeter of the site to allow for protection, both acoustic and visual, to the learning spaces and outdoor decks.
(vi) street frontage heights,	<p>Acceptable street frontage heights will be achieved by compliance with the Design Guidelines and Development Parameters provided at Section x of this report and the proposed building envelopes.</p> <p>The proposed street frontages relate to the existing street frontage heights of the existing and neighbouring buildings.</p>
(vii) environmental impacts such as sustainable design, overshadowing, wind and reflectivity,	<p>Sustainable design is proposed and is discussed in detail within the ESD report. The school is aiming for 4-star Green star equivalency</p> <p>Impacts of overshadowing and solar access, visual and acoustic privacy, and noise are discussed in Section 3 of this report and within the drawing set. Wind and reflectivity are addressed in the EIS.</p>
(viii) the achievement of the principles of ecologically sustainable development,	Four star Greenstar equivalency is proposed and is discussed in the ESD Report.
(ix) pedestrian, cycle, vehicular and service access, circulation and requirements,	Pedestrian access and service access are discussed at Section 6 of this report.
(x) the impact on, and any proposed improvements to, the public domain,	The proposed development aims to improve and enhance the public domain by providing a building that is in scale with surrounding development, that responds to its proposed context in a sympathetic manner and that utilises its design principles to create a welcoming and accessible addition to the local community.

(f) how the development addresses the following matters:	The land is located within the future town centre and is suitable for the proposed development.
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8.7 INTERNAL DESIGN EXCELLENCE REVIEWS

BVN hold regular design reviews of their projects. During these sessions the diagram to the right is utilised to highlight design areas for discussion. Santa Sophia College was presented a number of times to the overall studio to utilise their collective creativity to problem solve and to ensure design excellence across the project.







# 9.0 SECURE LINES





# 9.1 SECURE LINES

## OVERVIEW

The school is required to be entirely closed off during school hours and at night. To provide this security, while at the same time maintaining the openness and connectedness to the public domain, the following design principles for the secure line are followed:

- Maintain sight-lines and visual connection on either side of the secure line
- Fences and gates have an aesthetic and character that connect to the architecture of the school and the site
- Minimise the use of fencing, by using level differences and building walls as part of the secure line
- The gates and fences will create new spaces
- To soften the space and to screen off the parked cars and bikes, a planted fence will be provided at the early learning entry
- Big pivot gates are used to maintain openness of the Civic Plaza and to provide access to the school
- Secure bike storage is provides at the early learning entrance and near the 'Hall'
- Additional non-secured bike storage can be provided along the north side of the Hall.

\* Above text supplied by McGregor Coxall.  
\* For secure lines diagram refer to McGregor Coxall drawings.



TRANSPARENCY



ELEMENTS BUILT INTO SECURE LINE

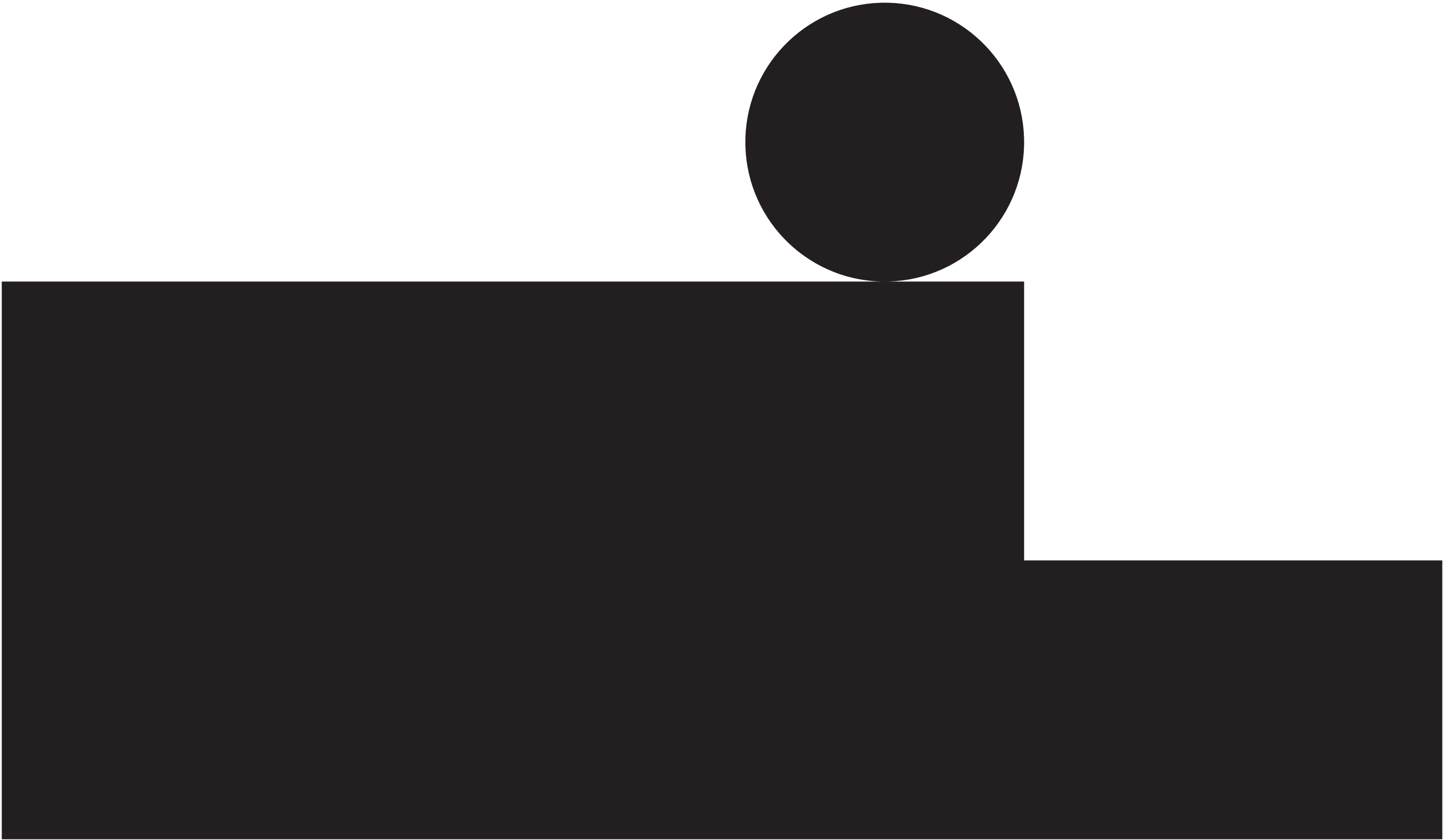


INTEGRATED SECURE LINES WITHIN LANDSCAPE



PIVOT DOORS





# 10. CIRCULATION



10.1 ARRIVAL

SCHOOL ARRIVAL

To support school arrival there are multiple entrance and drop off locations. The three major drop off points are South Entry Drop off, Fontana Drive Bus Drop off and Road B Kiss and drop. Road.

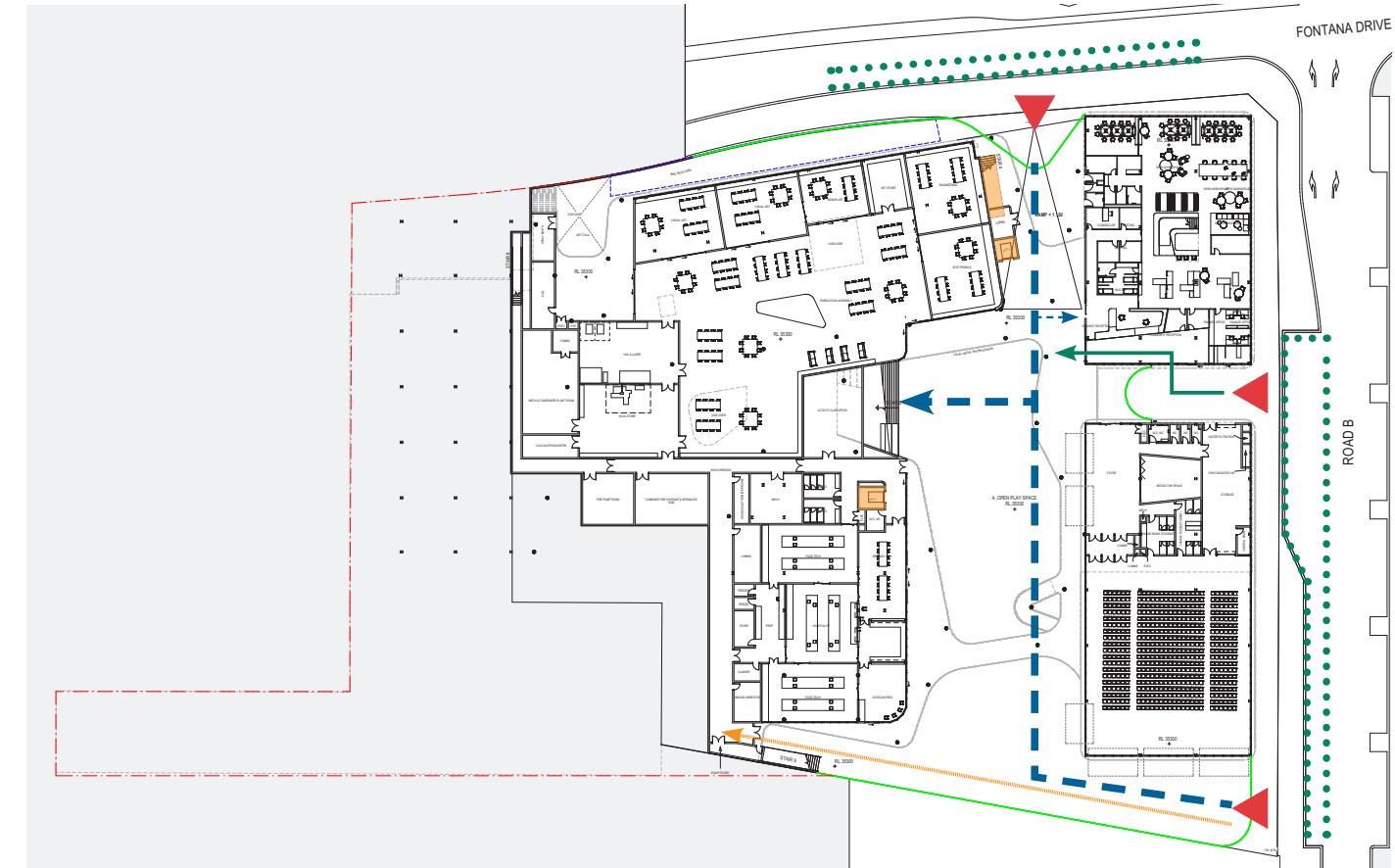
Student Arrival

Students will arrive by bus on the Fontana Drive bus drop off location and the Road B kiss and drop zone. From here they can directly access the school, sign in to reception or head to class via stair 2. Students can also utilise the escape stair4 directly from the Fontana drive bus drop off.

Students, although not encouraged, may arrive at the CELC drop off location. From here the can enter the outdoor play space on level one and make their way to class directly via stair 6 , stair 1 or stair 3.

Public Arrival

The public can enter the school from road B and will have to enter thought a secure line via the reception in order to sign into the school. If arriving on level 1 they will have to sign in via the CELC reception area.



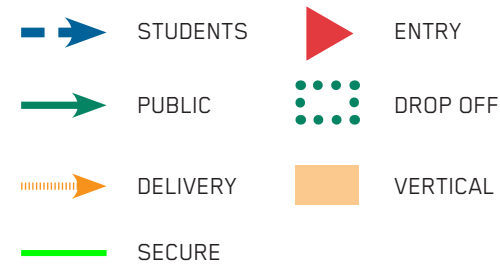
LEVEL 00

Servicing

There are two key servicing points at the school; Level 00 delivery located on Road B and Level 01 in the CELC drop off area.

Deliveries that arrive on Level 00 at the end of the kiss and drop zone will gain access to the school via reception. From here they will then gain access directly to Level 00 and the upper levels via either of the two lifts on Level 00.

Deliveries that arrive on Level 01 at the CELC drop of area will gain access to the school at the CELC Reception area.



LEVEL 01

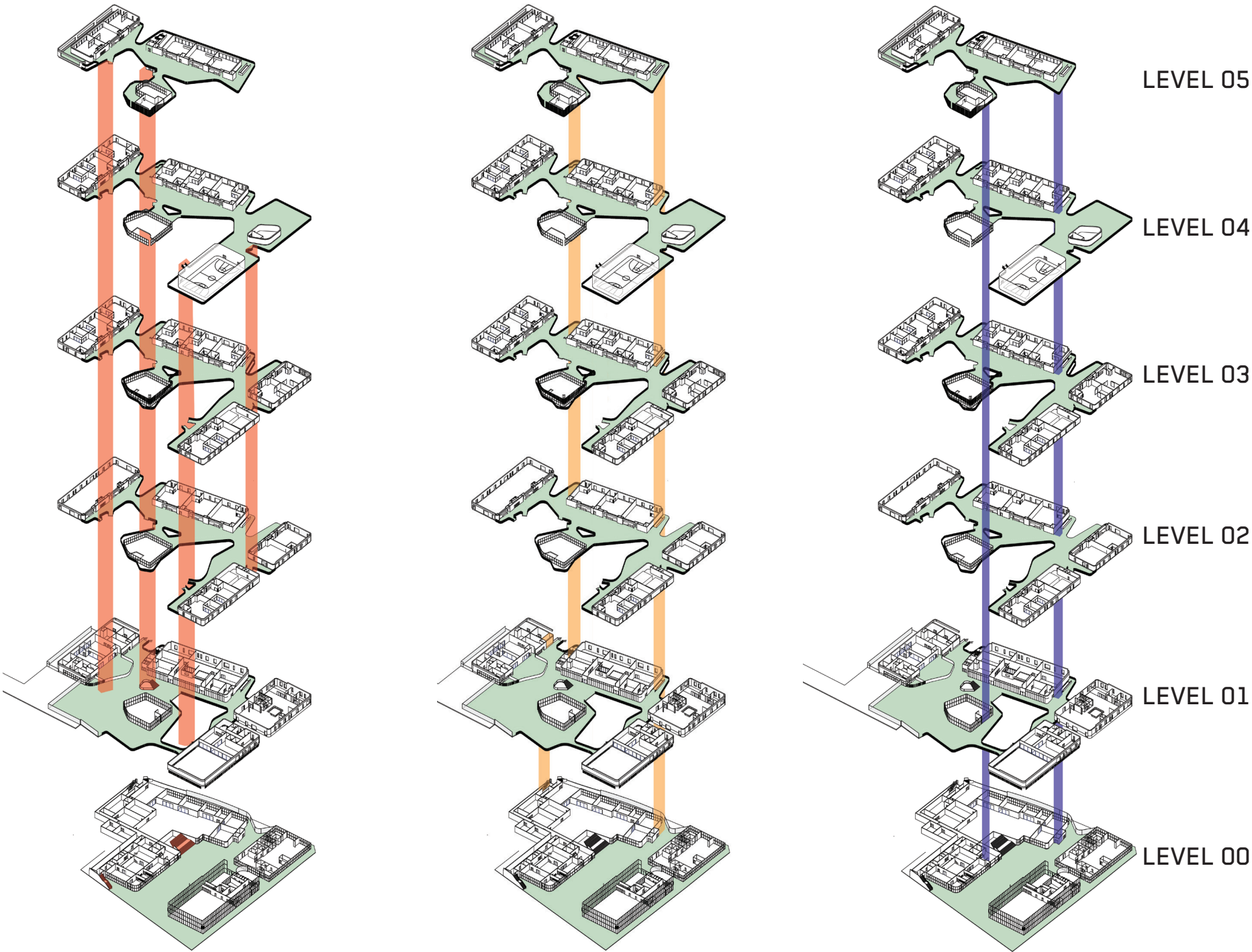
10.2 VERTICAL CIRCULATION

VERTICAL CIRCULATION

The vertical circulation at Santa Sophia is supported by 3 key circulation stairs, 2 additional escape stairs and 2 lifts. These have been equally disbursed between the South, Central and North building to ease congestion.

Stairs 6, 1 and 3 are designed as the central access stairs for the 3 buildings. Stairs 5 and 4 are utilised for escape but will be utilised as secondary vertical circulation . Finally, the two lifts will cater for students and delivery from level 00 to level 05.

- MAIN CIRCULATION STAIRS
- ESCAPE STAIRS
- LIFTS







# 11. SERVICE INTEGRATION



11.0 SERVICES INTEGRATION

INTRODUCTION

Building services have been strategically designed to maximise efficiency of the systems and integration with the built fabric. The services will partially be exposed and will become part of the learning experience for the students.

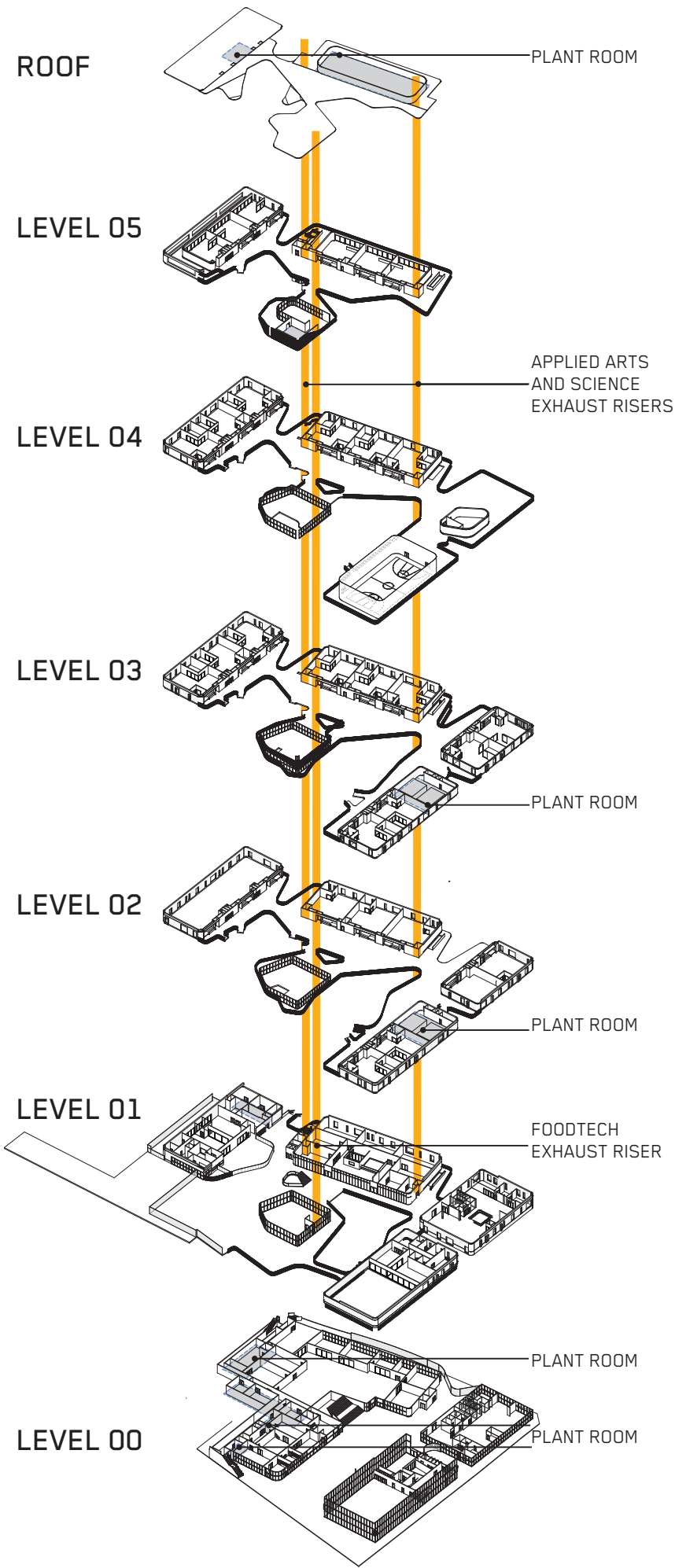
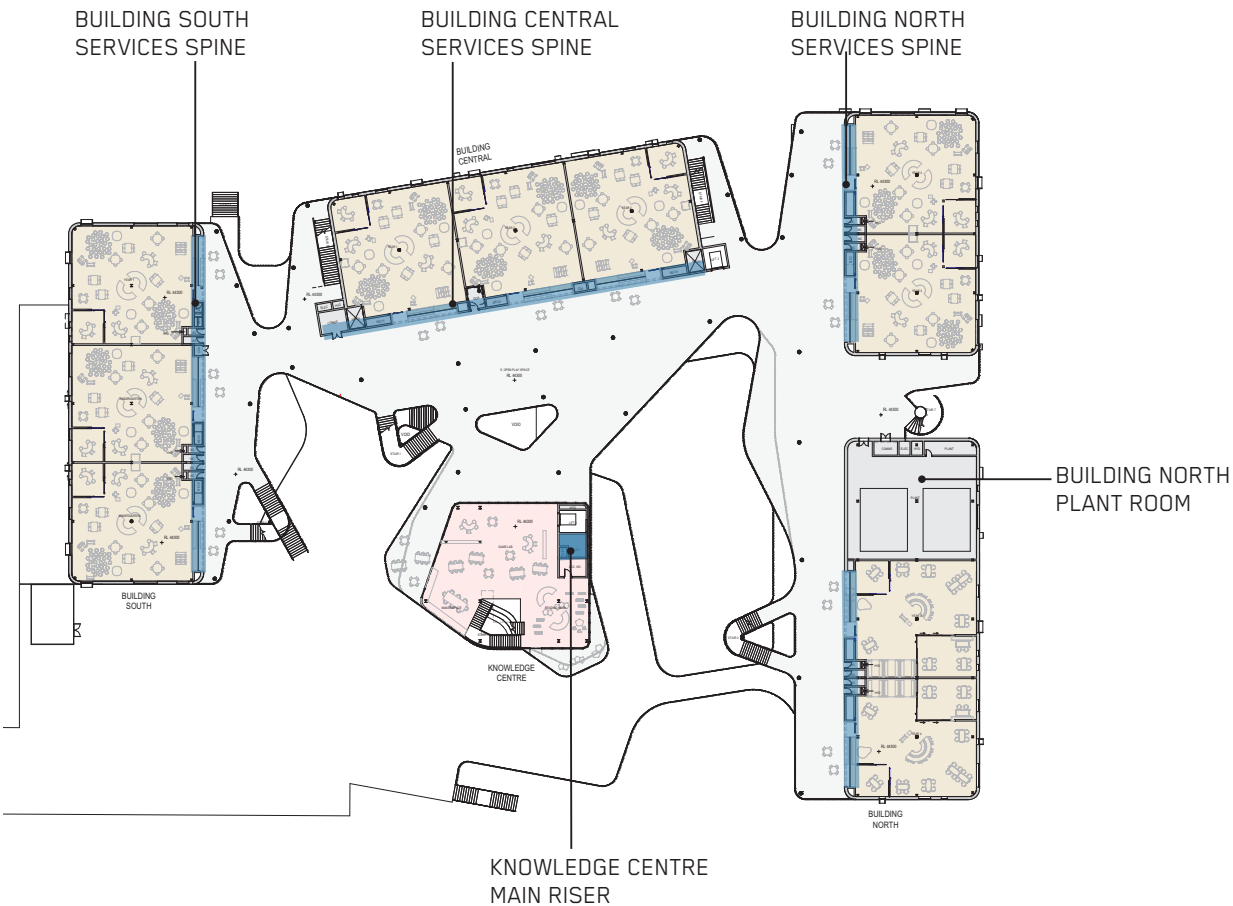
The main plant rooms are located on Building Central roof and on level 00 under the upper courtyard .

The air handling units, providing fresh air supply to the teaching spaces are decentralised, generally located on each building’s roof top,in order to minimise ductwork runs and loss of efficiency. Building North follows a different principle: the mechanical plant-rooms serving the learning spaces and the Performance Hub are located centrally on level 02 and 03 in leaving this building’s roof top free from plant and available to the school as an area for fitness and open play.

The building substation located in South-Western corner of the building with direct access from Fontana Drive and directly adjacent to the main switch room.

Electrical and communications risers have been strategically located to ensure the most efficient coverage is achieved.

Two large mechanical risers located in Building Central cater for the high extraction requirements of the laboratories on level 01 and applied arts rooms on level 00.







# 12. SIGNAGE



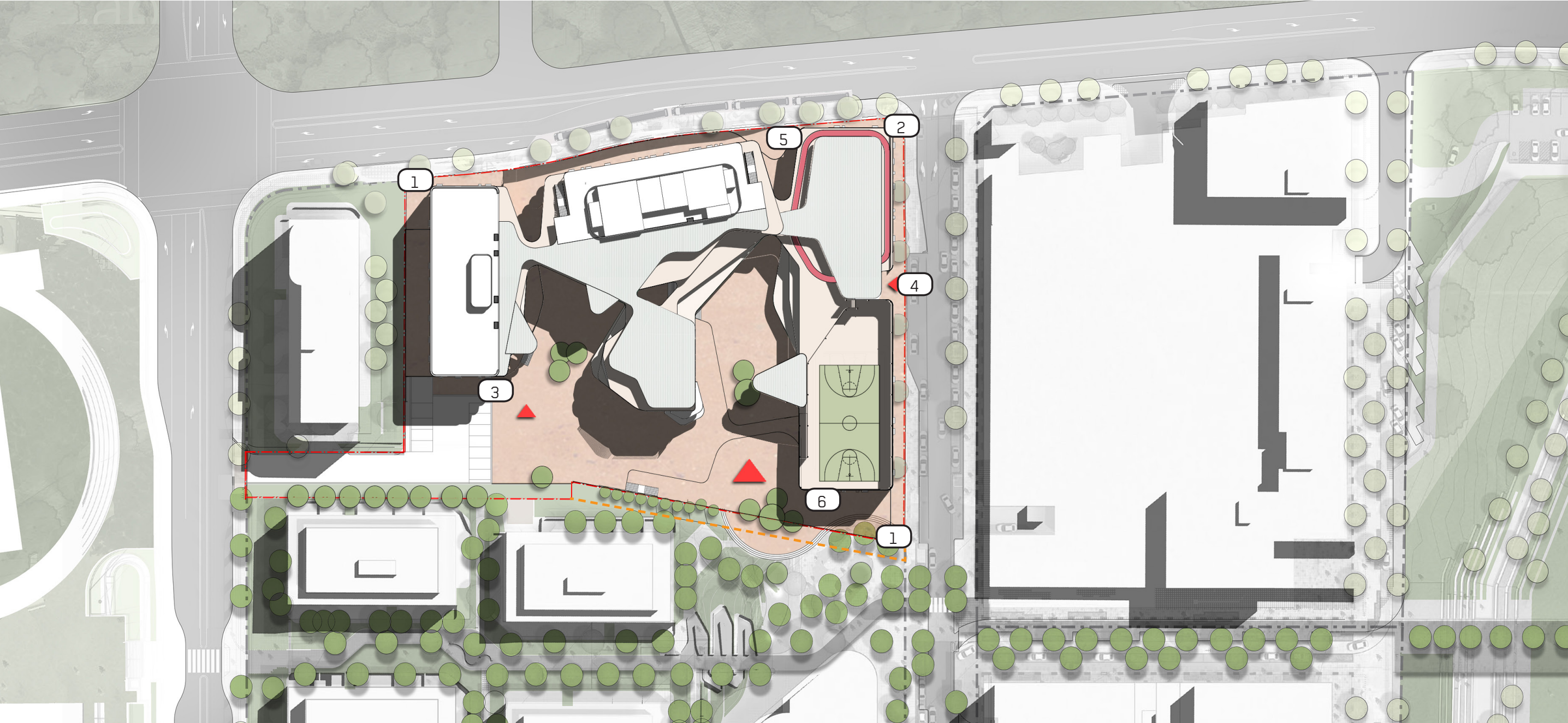
# 12.0 SIGNAGE

## 12.1 SIGN LOCATIONS

### SIGNAGE

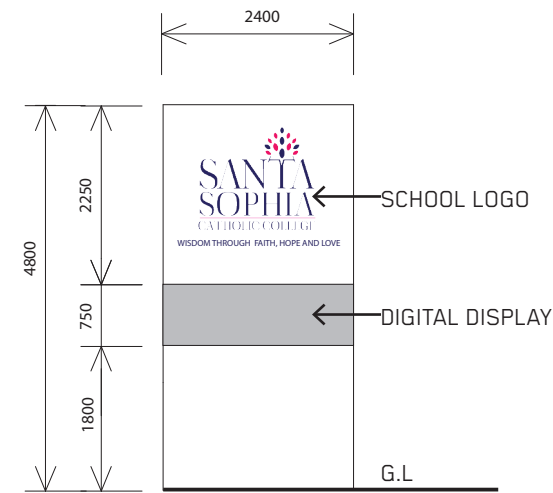
Signage is proposed in the locations indicated on the site plan in the following page.

Small signage is attached directly to the building facade whilst larger signage will be placed to avoid clash with cycleways and pedestrian movement.

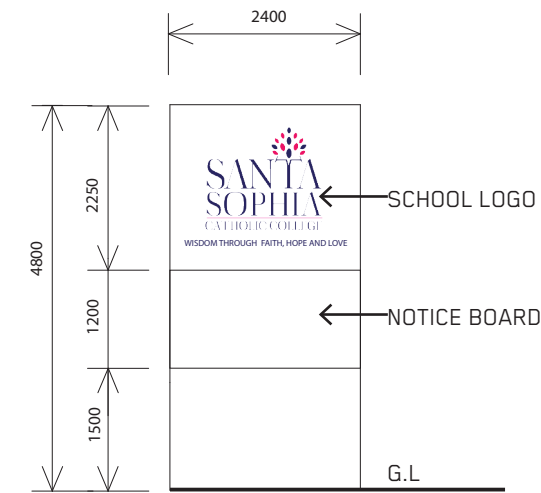


12.0 SIGNAGE

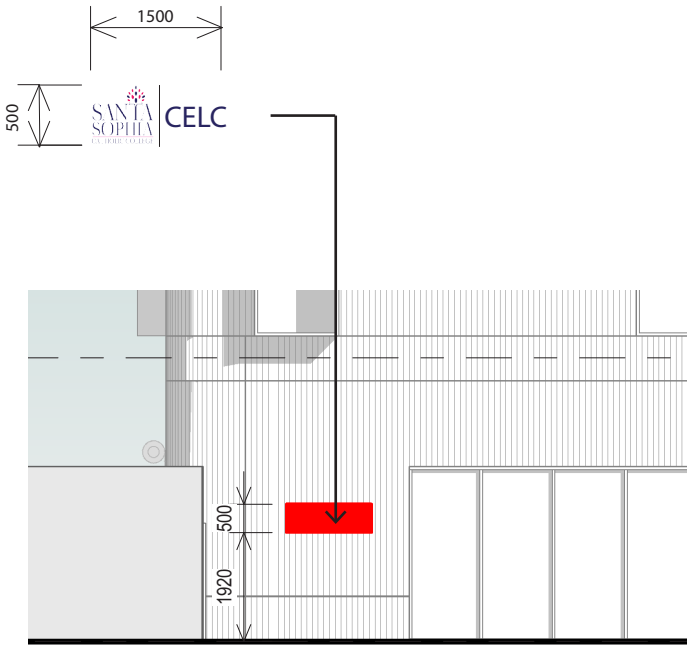
12.2 SIGN TYPES



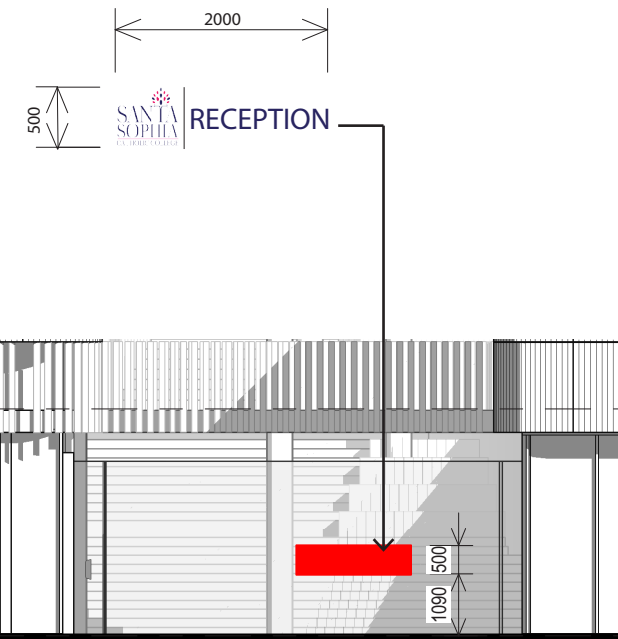
**SIGN TYPE 1**  
Free standing :  
School logo and digital panel.



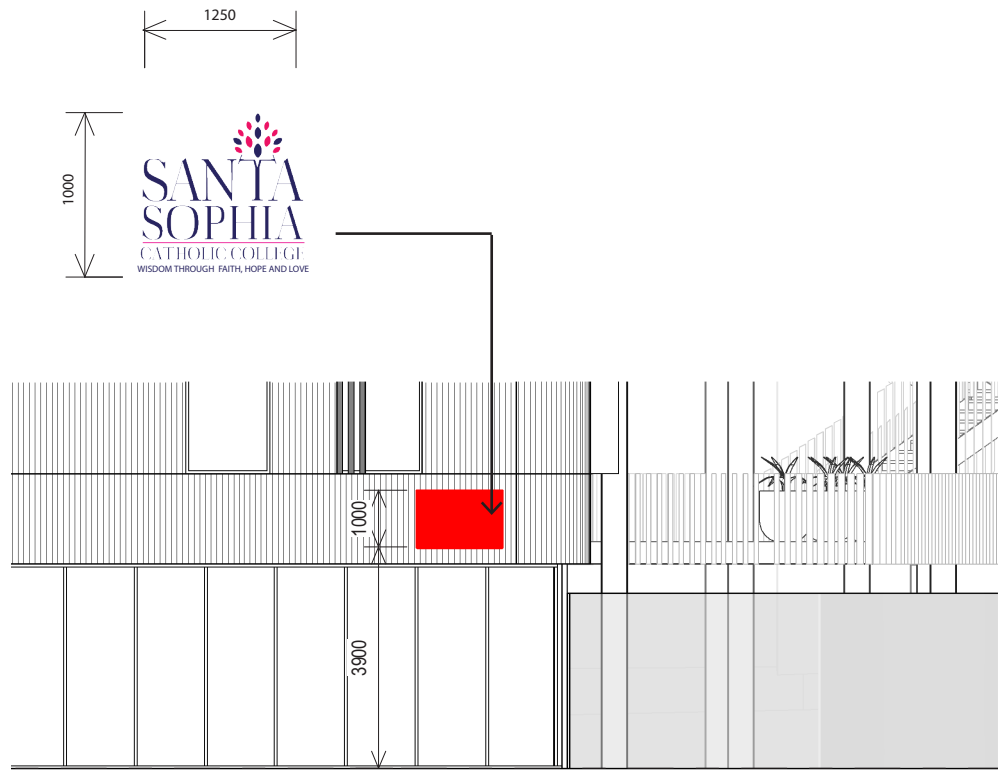
**SIGN TYPE 2**  
Free standing :  
School logo and Notice Board



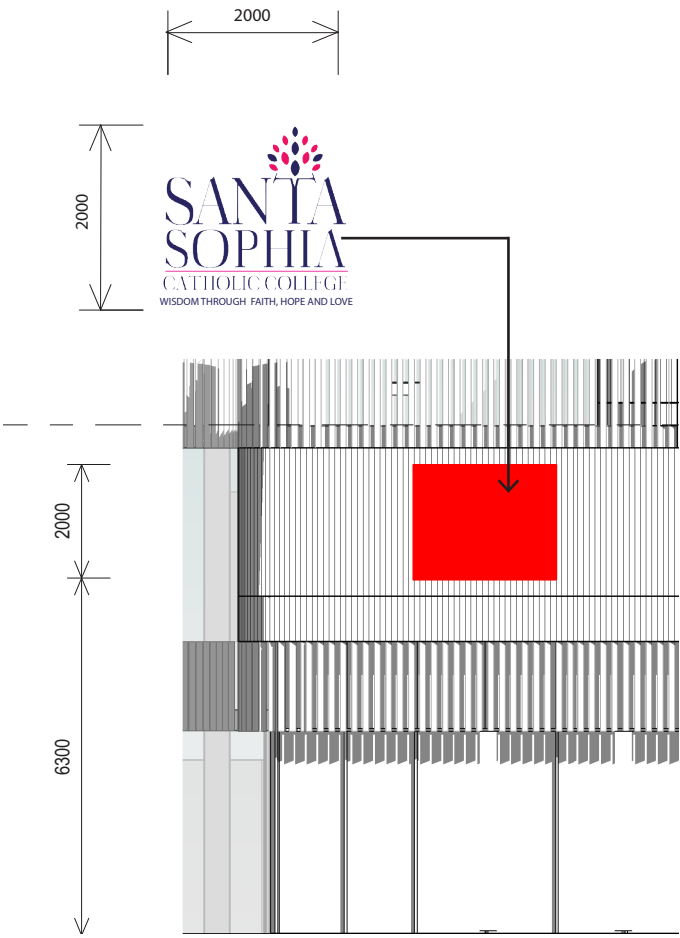
**SIGN TYPE 3 - CELC\_ LEVEL 01**  
Mounted directly to school facade:  
School Logo & Reception text.



**SIGN TYPE 4 - RECEPTION \_ LEVEL 00**  
Mounted directly to school Secure Fence Line  
School Logo & "Reception" text.



**SIGN TYPE 5 - FONTANA DRIVE ENTRANCE\_ LEVEL 00**  
Mounted directly to school facade:  
School Logo & Reception text.



**SIGN TYPE 6 - PLAZA \_ LEVEL 00**  
Mounted to facade:  
School Logo Backlit





# 13. VIEW ANALYSIS

13.0 VIEW ANALYSIS

100



**VIEW FROM INTERSECTION OF FONTANA AVENUE AND ROAD B**  
This view captures the view of the school at the approach on Fontana Avenue. No adverse effects on the surrounds are anticipated



**RED GABLES ROAD ENTRY**  
This view captures the approach to the CELC and access to Level 1 of the school.  
This view captures the height of the school towards the southern boundary.





13.0 VIEW ANALYSIS



**PLAZA ENTRY**  
This view captures the entry into the school and the open nature of the approach from the intended civic plaza area



**FONTANA DRIVE AND RED GABLES INTERSECTION**  
This view captures the approach to the school along Fontana. It is as yet unknown how the building at the boundary will develop. This view captures that height suggested by the approved planning proposal.

