



GROUP USA

Architecture
Interior Design
Landscape Architecture
Urban Design
Graphic Design

ALEX AVENUE PUBLIC SCHOOL

Urban Design Report

Department of Education. — May 2019

AIMS & OBJECTIVES

This Urban Design Report has been prepared by GroupGSA as delivery Head Design Consultant (HDC2) that includes information and images prepared by Hayball on behalf of the Department of Education (DoE).

Hayball has previously prepared the Concept Design Report, for which this Report is based, on behalf of the DoE which formed part of the business case. This Urban Design Report is a record of the design evolution of the preferred option previously submitted in the Concept Design Report, and addresses

Site Analysis, design excellence parameters outlines in the Secretary’s Environmental Assessment Requirements for the submission for a State Significant Development Application.

This report has been prepared in collaboration with:

TSA – Project Managers

GroupGSA - Architect

URBIS - Planners

GroupGSA - Landscape Architects

List of abbreviations

DoE	Department of Education
EFSG	Educational Facilities Standards and Guidelines TSG - Technical Stakeholders Group
PMO	Project Management Office
ICT	Information and Communications Technologies WHS - Work Health and Safety
FM	Facilities Management
AMU	Asset Management Unit
HDC	Head Design Consultant
PRG	Project Reference Group
COLA	Covered Outdoor Learning Area
BCA	Building Code of Australia
AS	Australian Standards
DDA	Disability Discrimination Act

Issue	Title	Date	Prepared	Checked
1	SSD Submission	25.01.19	JD	MP
2	SSD Submission	01.02.19	JD	MP
3	SSD Resubmission	19.02.19	JD	MP
4	SSD Update	31.05.2019	MB	MB
5				
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WHO WE ARE

The philosophy of our team is firmly based on this understanding of the fundamental importance of education. Our practice offers unrivaled education knowledge and expertise.

At GroupGSA, we are motivated to design these spaces – from early learning centres and schools to tertiary institutions and specialised training facilities - because we are passionate about the power of education and knowledge.

GroupGSA has worked continuously in the education sector with recent projects seen as industry leading and including the latest pedagogical practices. We are at the forefront of the latest sector knowledge and current industry trends.

Our team understand the challenges inherent to learning organisations in this era of change, in which people seek personal yet inclusive spaces, communities expect more from institutions, and learning styles and needs continue to evolve.

We understand that to embrace these challenges takes an education partner who is experienced, diverse, reliable and passionate.

Shown is a selection of recently completed GroupGSA work in the education sector.



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PROJECT DESIGN STATEMENT

We are committed to designing a future focused school that is learner centric and meets the requirements of it's stakeholders and end users.

The design is a result of a collaborative process with the school, the DoE and interdisciplinary reviews.

An engagement with the school and its educators was undertaken through:

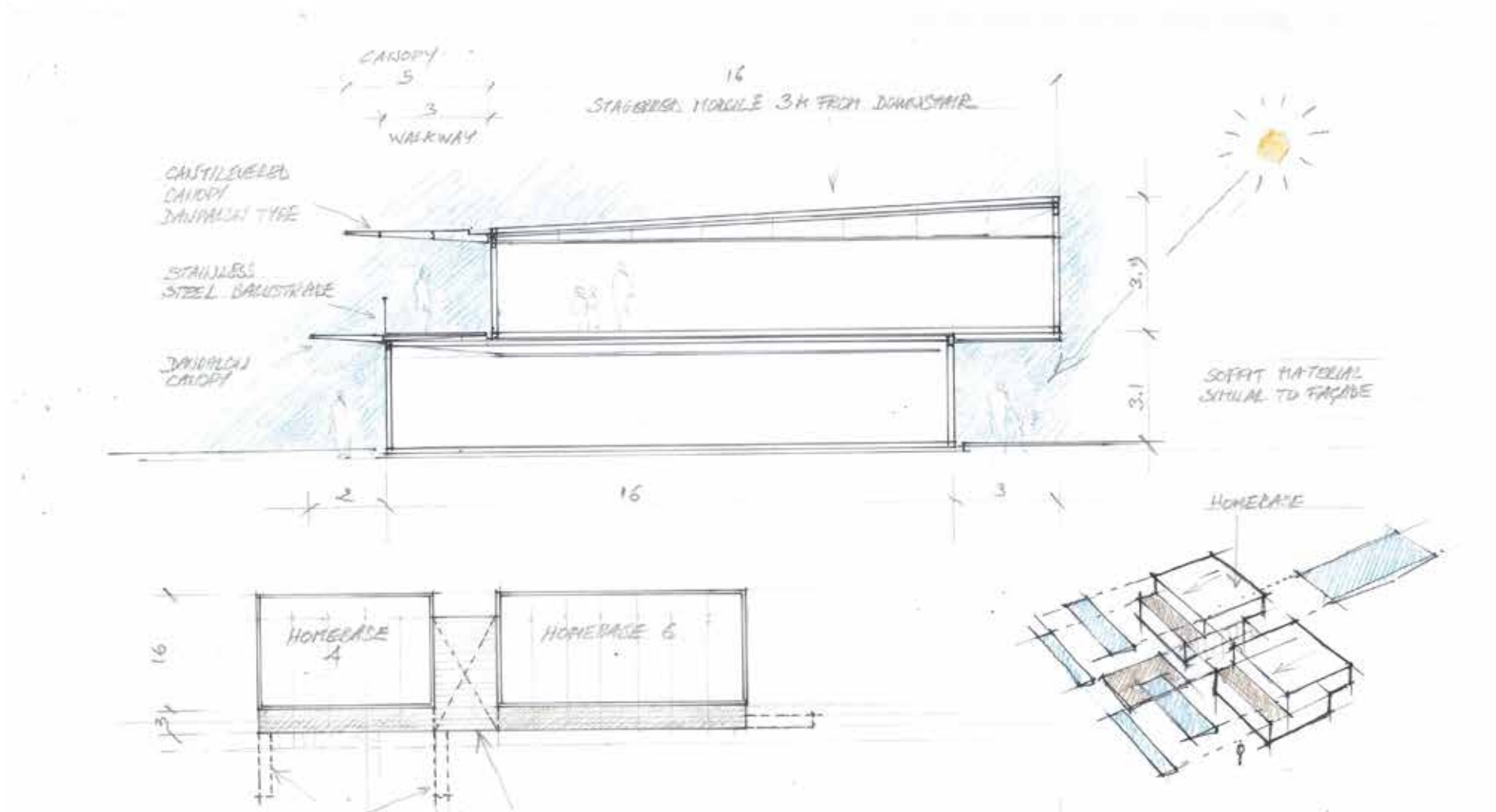
- Education Workshops with Dr Julia Atkin
- Mini design workshops
- Virtual tour of a future focused school including: live walking tour via Skype, interactive and in depth exchange between educators of the future focused school and educators of the School
- Precedent studies
- Fortnightly PRG

Collaboration also occurred with :

- The PRG including the Director of Schools, the School Principal, educators, P&C representative and Asset Management Unit representative
- DoE Technical Stakeholders Groups
- DoE Program Control Group
- Quantity Surveyor

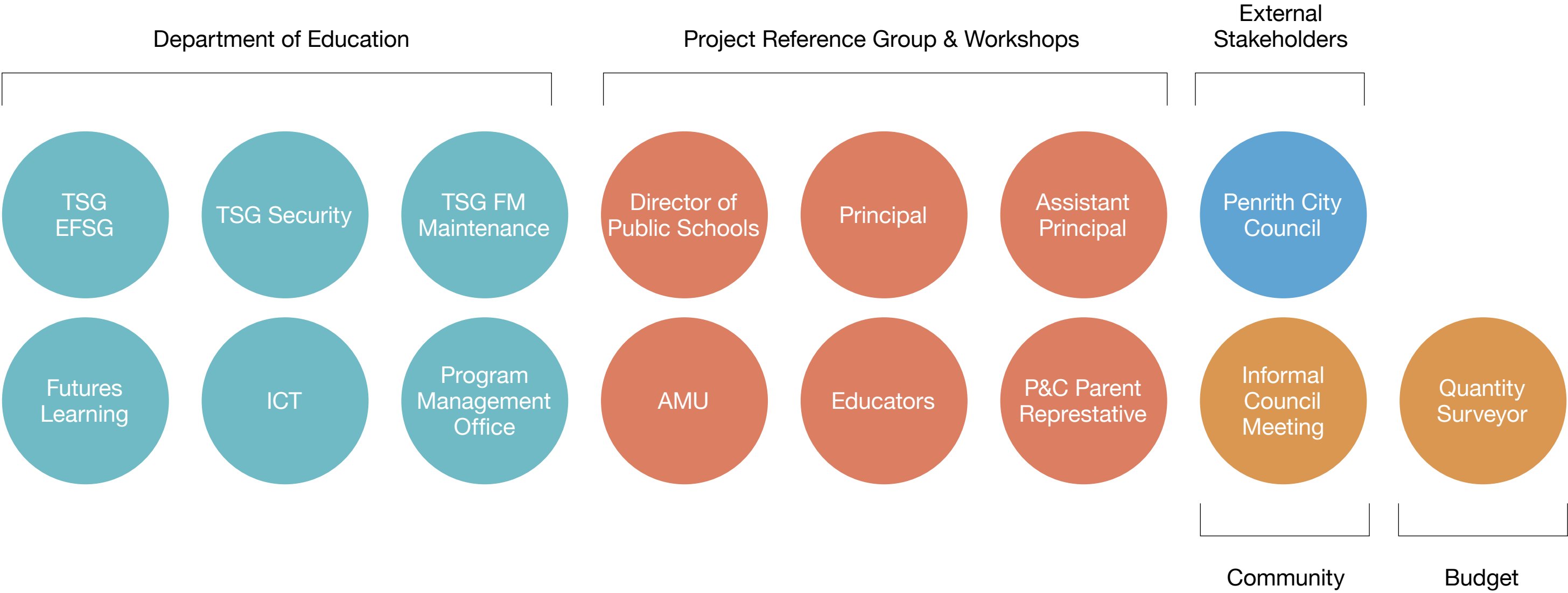
In addition to the above stakeholder workshops, we also conduct regular internal design workshops were undertaken throughout the process to ensure the most learner centric design was delivered. This included the following internal reviews:

- Learning space design reviews
- Interior design
- Outdoor learning space
- Quality management — Safety in Design



Initial design sketches

A COLLABORATIVE DESIGN PROCESS



02 PRE PROJECT INFORMATION



DOE EDUCATIONAL BRIEF

NSW DoE Educational Principles:

- 1: First and foremost, focus on the needs of learners and learning.
- 2: Build community and identity and create a culture of welcome, inclusion and belonging that reflects and respects diversity within the school’s community.
- 3: Be aesthetically pleasing.
- 4: Provide contemporary, sustainable learning environments that:
 - Promote learning for students and teachers through collaboration, social interaction and active investigation
 - Encourage learner self-management and self-direction
 - Support a full range of teaching strategies from direct explicit instruction to facilitation of inquiry and authentic project and problem based learning
 - Facilitate learning and connection anywhere, anytime by providing seamless access to ICT and integration of learning resources throughout the learning spaces
 - Be integrated into, and maximise the use of the natural environment
 - Enable aspects of the buildings, building design and outdoor spaces to be learning tools in themselves—for example, learning from the ecologically sustainable features of the design and associated energy management systems
 - Are age and stage appropriate
- 5: Embed the potential for re-configurability, both in the present for multi-purpose use and over time for changing needs

Project Specific Design Objectives Objectives

- Be flexible and allow customisation to suit different community contexts by providing both core and optional space types.
- Take into consideration shared access to local facilities.
- allow response to significant changes in student numbers.
- Offer a safe and secure learning and working environment that invites community participation and engagement.
- Be mindful of the needs of learners at different learning stages.
- Offer an engaging and supportive student experience suited to range of learning styles.
- Offer flexible and well-connected teaching and learning spaces.
- Offer technology-enabled settings with an emphasis on mobility.
- Have the capacity to support comprehensive curriculum delivery.
- Be configured to maximise meaningful and functional relationships and links between people, disciplines and resources.
- Support teachers in their roles as student mentors and members of a professional community.
- Maximise outdoor learning opportunities.
- Create a healthy and environmentally sustainable environment that serves as a tool for learning.
- Treat the entire school as a library by offering a central resource hub supported by distributed resource nodes as required.
- Respond to varied access and usage patterns.

LEARNING ENVIRONMENT

Educational Design Context

2008 Building the Education Revolution

Back in 2008 the Australian Commonwealth committed funding to 'Building the Education Revolution'. Shortly afterwards, state governments became cognisant of the need to link pedagogy with space. 21st Century learning was ignited.

2015- Future Focused Learning

From 2015 there has been a shift from traditional teacher led teaching to Future Focused Learning which:

- Encourages ingenuity
- Develops independence
- Encourages critical thinking
- And promote sstudents who are tech-ready

Futures Focused Learning grants students the skills of adaption to enrich their life, their career, and their community. A 2015 survey suggested a typical future generational work-life scenario will include 17 different places of employment in a lifetime. Now and in the future we expect employers will look for teams that work organically in collaborative groups to solve problems.

Future Focused Learning Environments

The traditional learning environments that focus on individual, teacher directed learning were incompatible with the collaborative, problem-solving involved with Future Focused Learning. This has required extensive refurbishment of existing schools to become compatible with the new collaborative, student led pedagogy. These refurbishments are to be guided by international trends, academic research (LEaRN)¹ and the recently released Design Guide for Schools (NSW)². The aim of Future Focused Learning environments are to be:

- Flexible and provide a variety of spatial settings for different learning modes
- Adaptable
- Technological and future ready
- A learning community
- Connected with the wider community

¹Government Architect New South Wales, "Design Guide for Schools", Vol. 2.0 (May 2018).

²"LeARN", 2018, <https://research.unimelb.edu.au/learnetwork/home>.



Five learning environment typologies defined by Dovey and Fisher (2014), adapted by Dr Benjamin Cleveland.

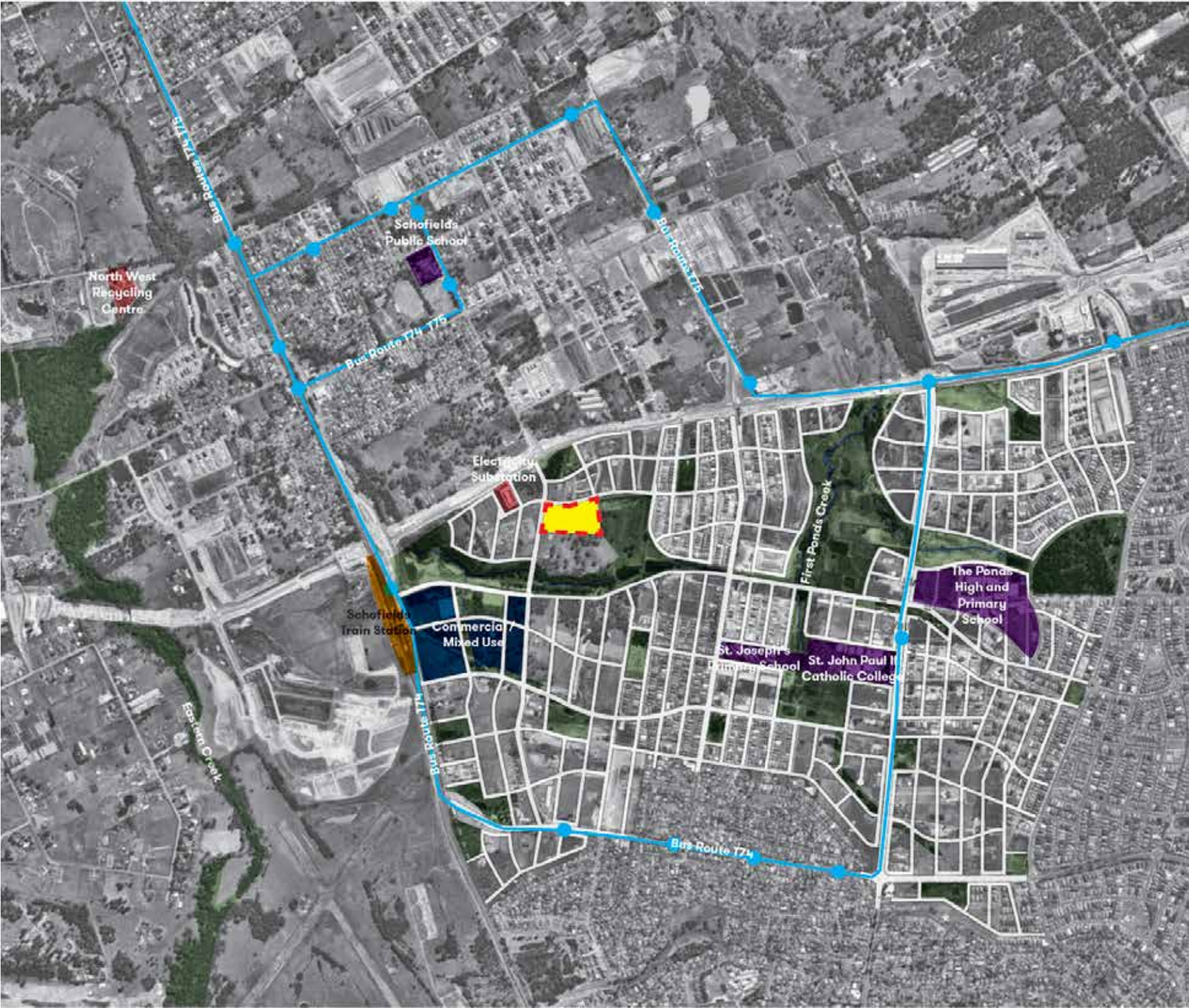
Project Approach

The Projects approach to future focused learning environments has been arranged around the 'D' diagram above to balance the needs and wants of the PRG, EFSG and Principals. The shift from model E (concept plans) has been emphasised surrounding recent models such as 'Nth Kellyville Public School where the arrangements as seen as a great working model.



LOCAL CONTEXT - SITE PLAN

- Address – Farmland Drive, Schofields, NSW
- Total Site Area – 20,000 sqm
- Local Government Area – Blacktown City Council
- Existing Site – The site for the new Alex Avenue Public School is situated between Schofields Rd, Alex Avenue and Railway Parade in Schofields within Blacktown City Council. The proposed site is located on a 2 hectare greenfield block of land, currently zoned as SP2 Infrastructure Zone. The proposed site is surrounded by low and medium density residential areas. There is a large recreation park and sport oval proposed to the east of the school site and a large commercial/ mixed use precinct further south of the site. Schofields Train Station is located around 1km south of the site.
- Planning Controls – State Environmental Planning Policy (Infrastructure) 2007, Blacktown Development Control Plan 2015 (BDCP), State Environmental Planning Policy (Sydney Region Growth Centres) 2006
- Closest bus stop is located within a walking distance of 1.3km east and train station is located west of the site within 1km walking distance.

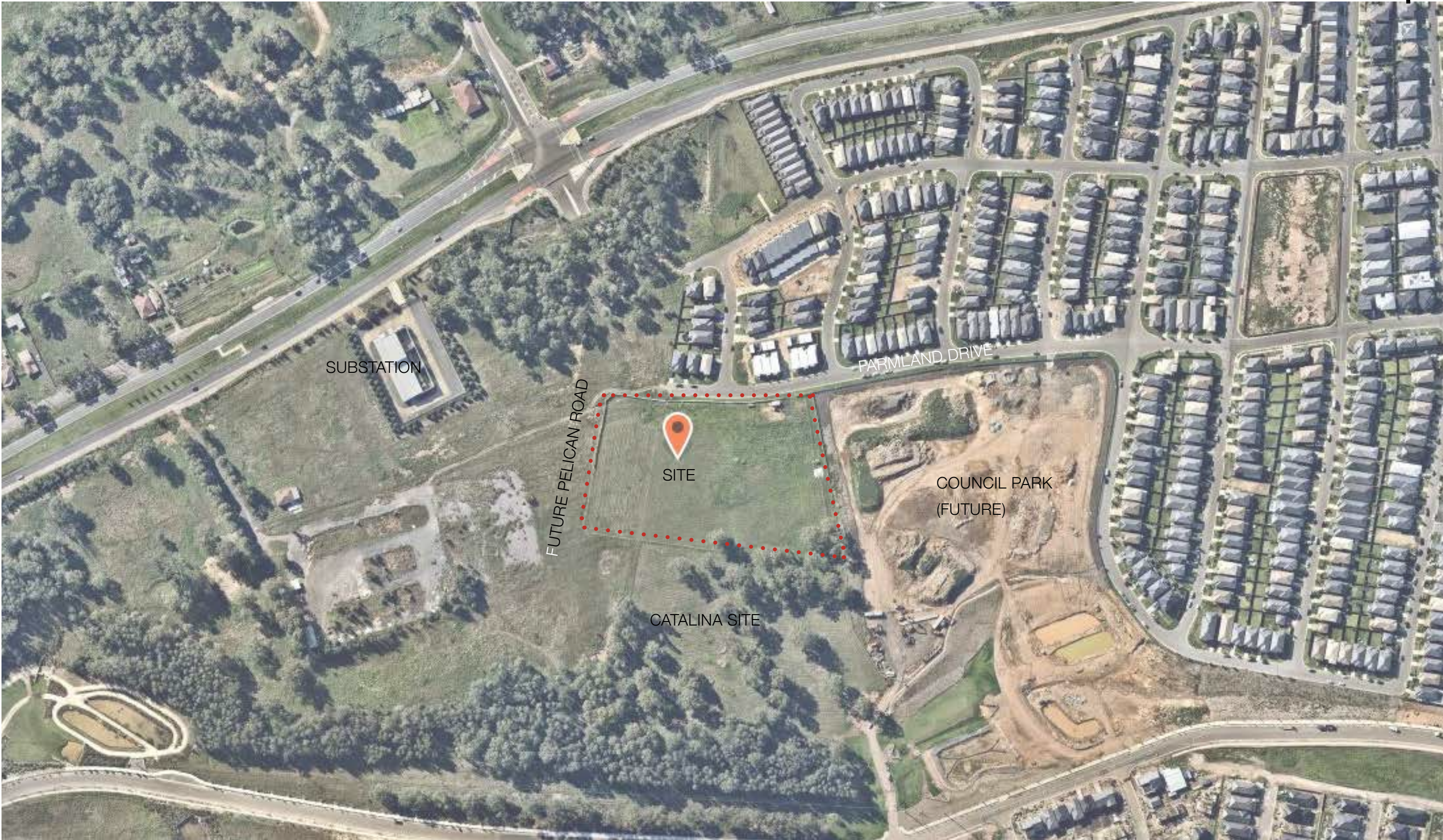


LEGEND:

- Parkland
- Authority/Government
- Community Facilities
- Schools
- Commercial
- Highways
- Bus Stops and train station

LOCAL CONTEXT - EXISTING URBAN SURROUNDINGS

Site Location - Farmland Drive Alex Avenue



LOCAL CONTEXT - EXISTING CONDITIONS

- 1. View looking west from Famland Drive
- 2. View looking east from Famland Drive
- 3. View looking south from Famland Drive
- 4. View looking east from north-west site corner
- 5. View from within the site looking south towards the tree canopies
- 6. View from within the site looking east
- 7. View from within the site looking south towards the tree canopies
- 8. View looking east from north-west site corner
- 9. View from within the site looking west
- 10. View from within the site looking south
- 11. View from the west site boundary looking north-east



LOCAL CONTEXT - EXISTING URBAN CHARACTER

Site Photos

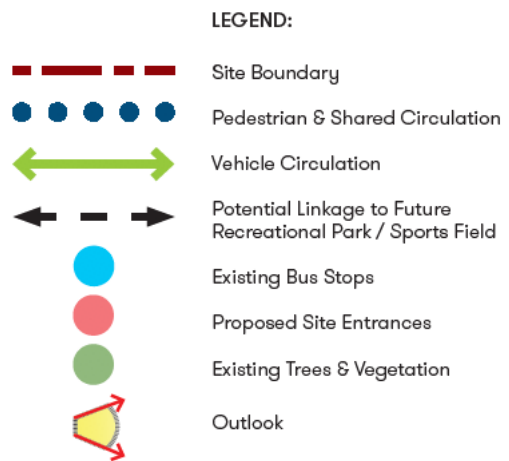


Typical Neighbourhood character is a contemporary and predominantly residential ‘project home’ style and is newly planned with roads established for new lots. The chaacter is a with a reflection of ‘Earthy’ tones and materiality. Greys, Charcoals and timber like materiality is a common theme.



The site falls from North to South approx 5m and is relatively at a low gradient. Native grasses, flowering shrubs and golden soils are evident across the landscape

The master plan proposals respond to a number of opportunities which the site provides. These include; the opportunity to create a connection to the public oval and recreational fields from the school site, an interconnected built fabric to the natural landscape of the southern boundary of the site and an opportunity to create a prominent street address at the corner of the site. Two pedestrian entries are proposed from Famland Drive and Pelican Road.



SITE LEVELS



04 CONCEPT MASTERPLAN



SITE LAYOUT DIAGRAM

Concept Masterplan

- New build 2 storey Learning spaces comprising:
 - + 40 Home Bases
 - + Core 35 Facilities, including: Library, Staff Hub, Administration and School Hall
- Site works and landscaping

Proposed Learning Spaces

Future focused learning spaces that support:

- Direct explicit teaching
- Project and problem based learning
- Quiet reading and reflection
- Performance & presentation

Proposed Outdoor Learning Courtyards and School Gathering

Provide opportunities for:

- Indoor / Outdoor Learning
- Active & Passive play
- Meeting, Gathering and Performance

- LEGEND:**
-  Campus entry
 -  Proposed pedestrian movement
 -  Interconnected external area
 -  Main entry
 -  Soft surface / outdoor play
 -  Shared plaza
 -  Shared car parking
 -  Proposed covered area
 -  New Build
 -  Vertical circulation node
 -  Internal/external connection
 -  Community connection



MASTERPLAN OPTIONS



Option A

OPPORTUNITIES

- Location of the Core Facilities creates street presence on the future Pelican Road.

CONSTRAINTS

- Construction timing for Pelican Road is unknown. This provides uncertainty in regards to the operation of the school entry location in the first few years of the school operating.
- Vehicle access to the School Hall is required for delivery vehicles, refuse collection and accessible car parking for visitors. Prior to Pelican Road being constructed, vehicle access into the school hall will require an additional service road being constructed alongside Pelican Road.
- The removed location of the hall and administration blocks from the public oval constrains any shared use opportunities as well as passive surveillance between the public spaces and school site.
- The location of the main learning building and learning courtyard along Farmland Drive may pose acoustic concerns given the proximity to low density residential housing.
- Locating the main school entry on a potentially busy road ‘Pelican Road’ creates safety concerns for pedestrians



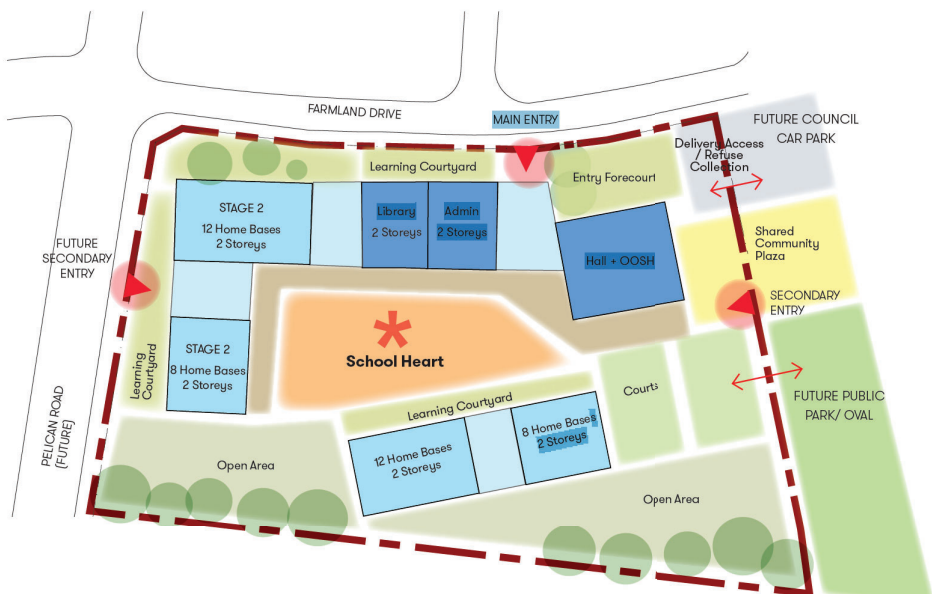
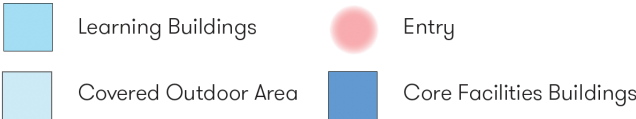
Option B

OPPORTUNITIES

- Location of the Core Facilities creates street presence on the future Pelican Road.

CONSTRAINTS

- Construction timing for Pelican Road is unknown. This provides uncertainty in regards to the operation of the school entry location in the first few years of the school operating.
- Vehicle access to the School Hall is required for delivery vehicles, refuse collection and accessible car parking for visitors. This creates a vehicle zone on the prominent corner of Pelican Road and Farmland Drive.
- The removed location of the hall and administration blocks from the public oval constrains any shared use opportunities as well as passive surveillance between the public spaces and school site.
- The location of the basketball courts alongside Farmland Drive may pose acoustic concerns given the proximity to low density residential housing.
- Locating the main school entry on a potentially busy road ‘Pelican Road’ creates safety concerns for pedestrians.



Option C (Preferred Option)

OPPORTUNITIES

- Provide two entry points- one on Farmland drive and a secondary entry on the future Pelican Road.
- Locating the Core Facilities adjacent to the public park and oval creates a community presence and welcoming entry for the school hall.
- Create shared-use opportunities between the council assets and the school, including; shared use of the school basketball courts, the council oval and the council car park.
- Opportunity to create a shared community ‘plaza’ between the school hall and the council park/ oval.
- Opportunity to create an integrated ‘community sports precinct’ on the eastern boundary of the site which includes the school sports hall, school basketball courts, council oval, council change-rooms and amenities, shared car park between all facilities.
- Spatial efficiencies are created due to the shared use arrangement of the council car parking location which also provides drop-off/ pick up locations and access for delivery vehicles and refuse collection.
- Proximity of the shared-use carpark to the staff and administration building is desirable in regards to way-finding for visitors and convenience for staff

CONSTRAINTS

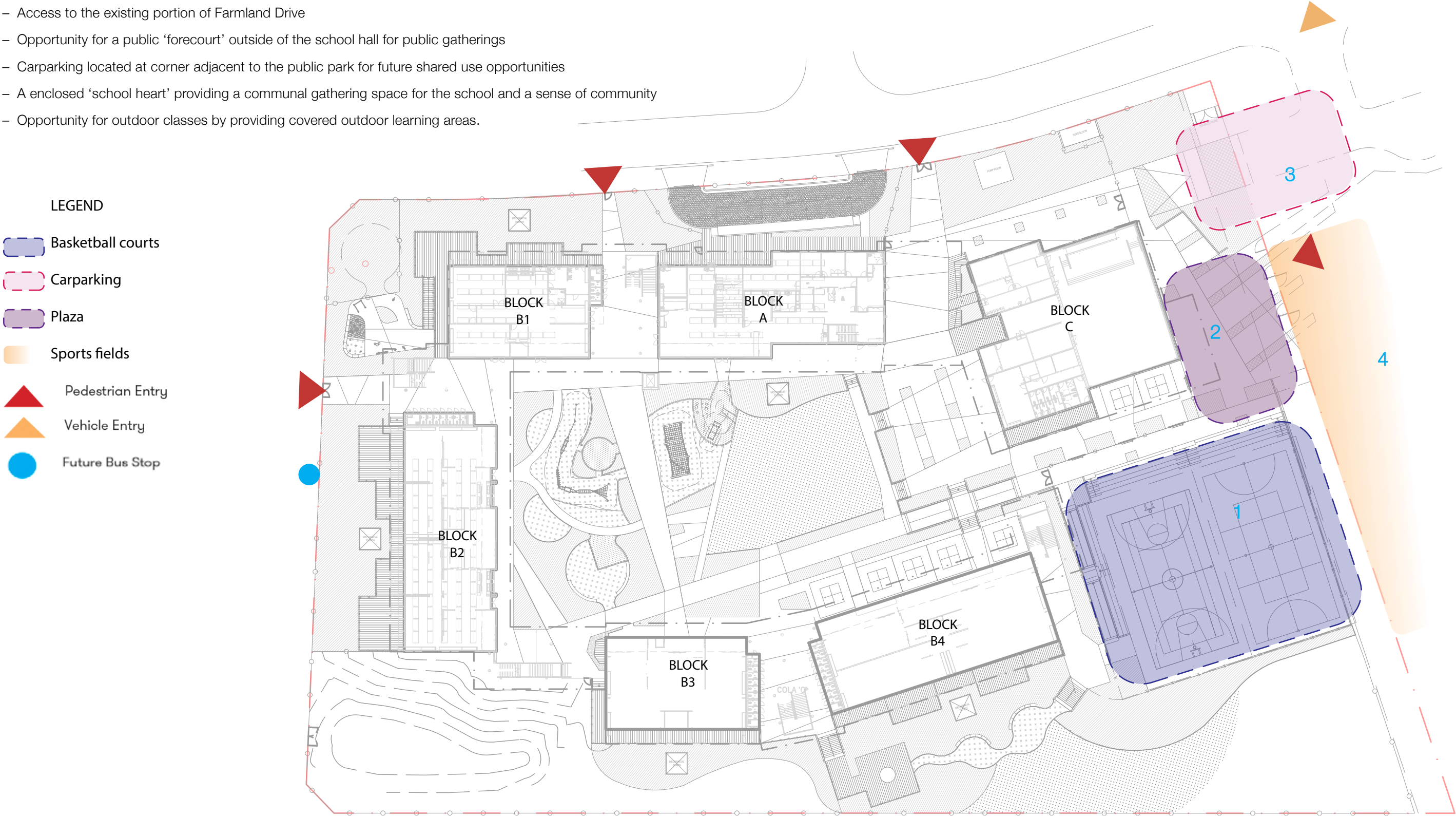
- Location of the main school entry is removed from the future Pelican Road (which is closest to the train station).

COMMUNITY USE & INTEGRATION

Community Use Considerations

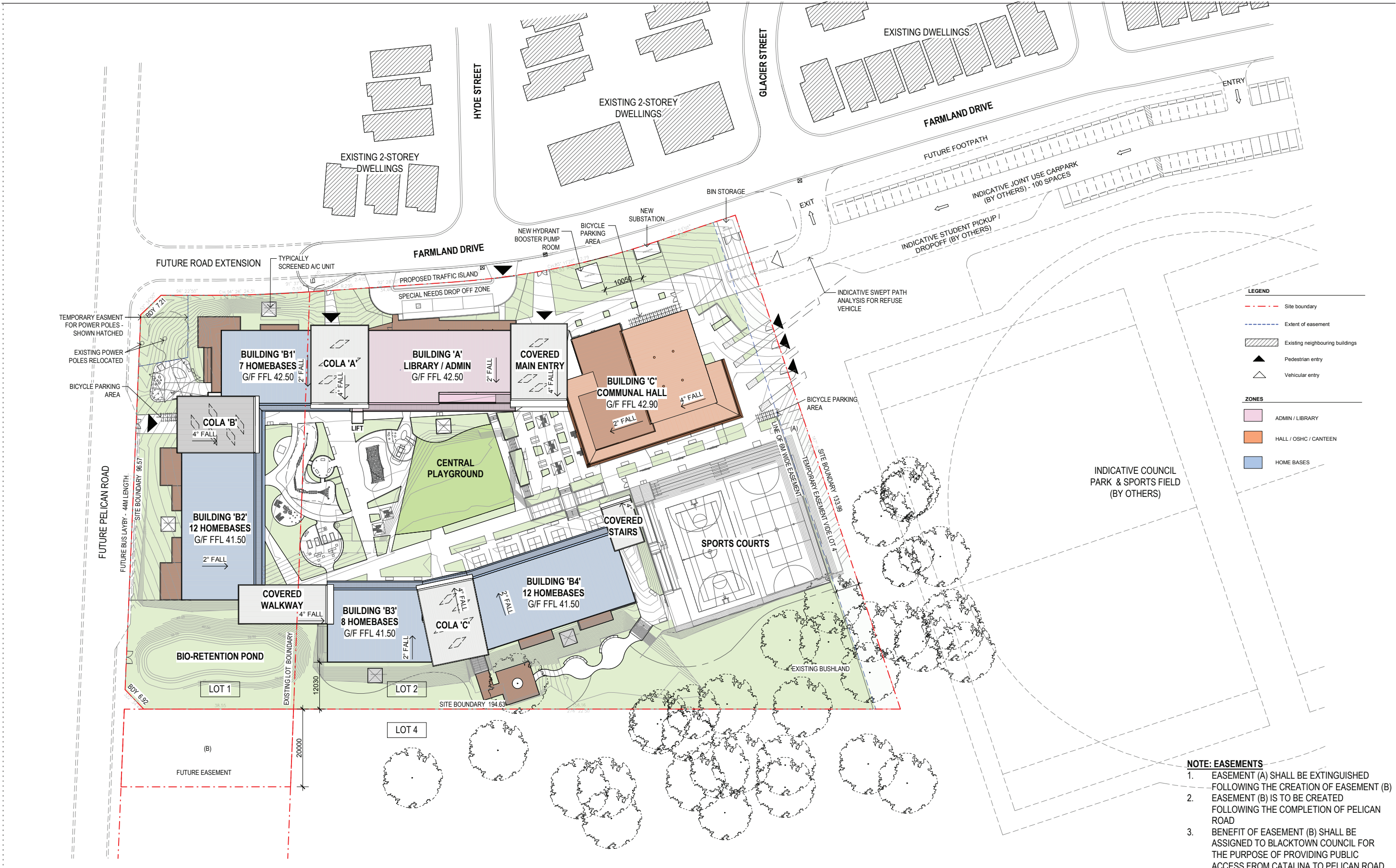
- Connection to the adjacent sporting facilities and future community centre
- Opportunity for shared use of the School Hall and the basketball courts for use by the community
- Access to the existing portion of Farmland Drive
- Opportunity for a public 'forecourt' outside of the school hall for public gatherings
- Carparking located at corner adjacent to the public park for future shared use opportunities
- A enclosed 'school heart' providing a communal gathering space for the school and a sense of community
- Opportunity for outdoor classes by providing covered outdoor learning areas.

1. Games Court usage after hours
2. Shared 'plaza' between the school and public sporting
3. Potential Shared Carparking Use between the Community and the School
4. Potential Shared playing fields

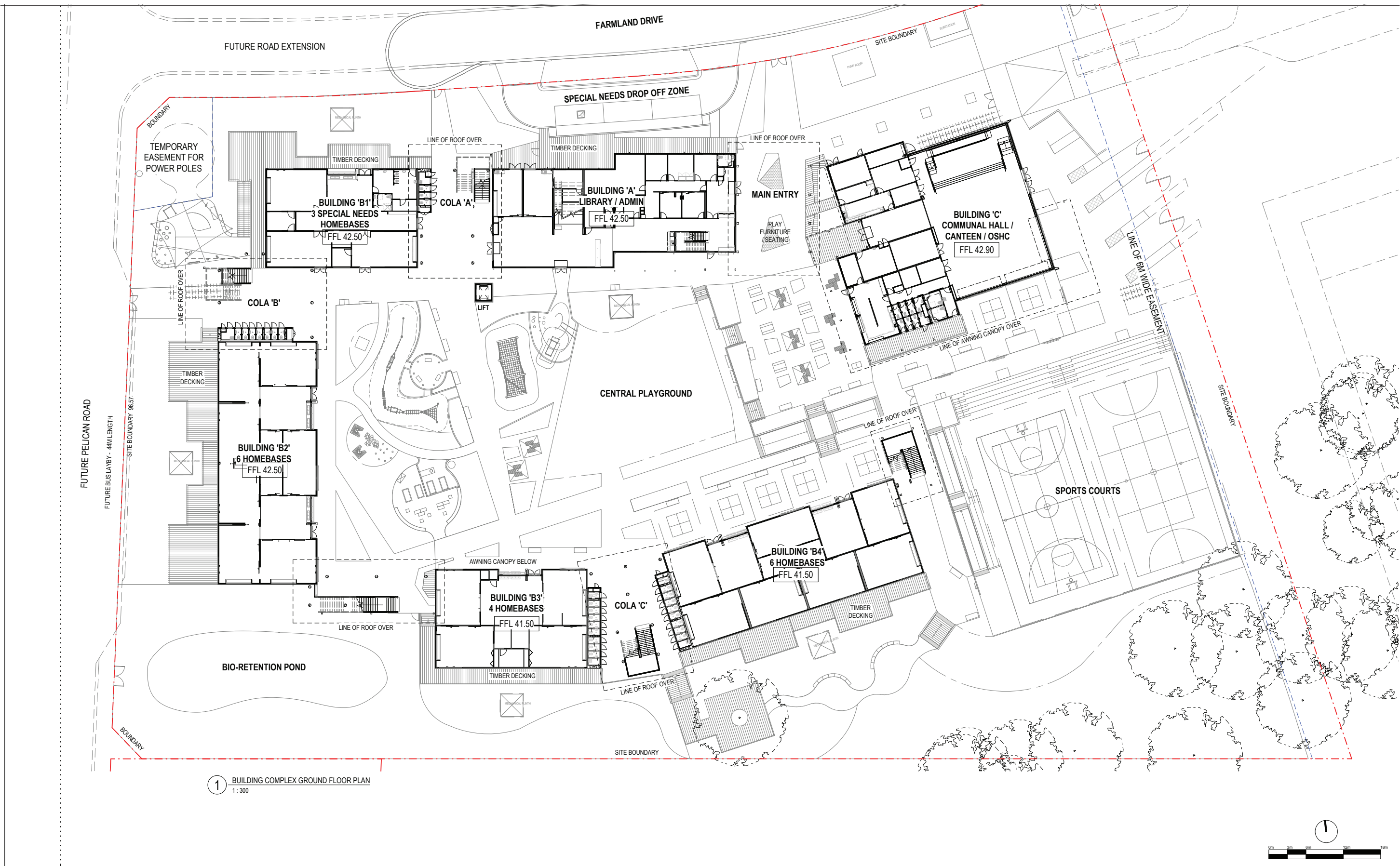




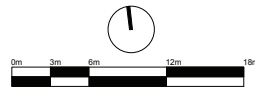
SITE LAYOUT



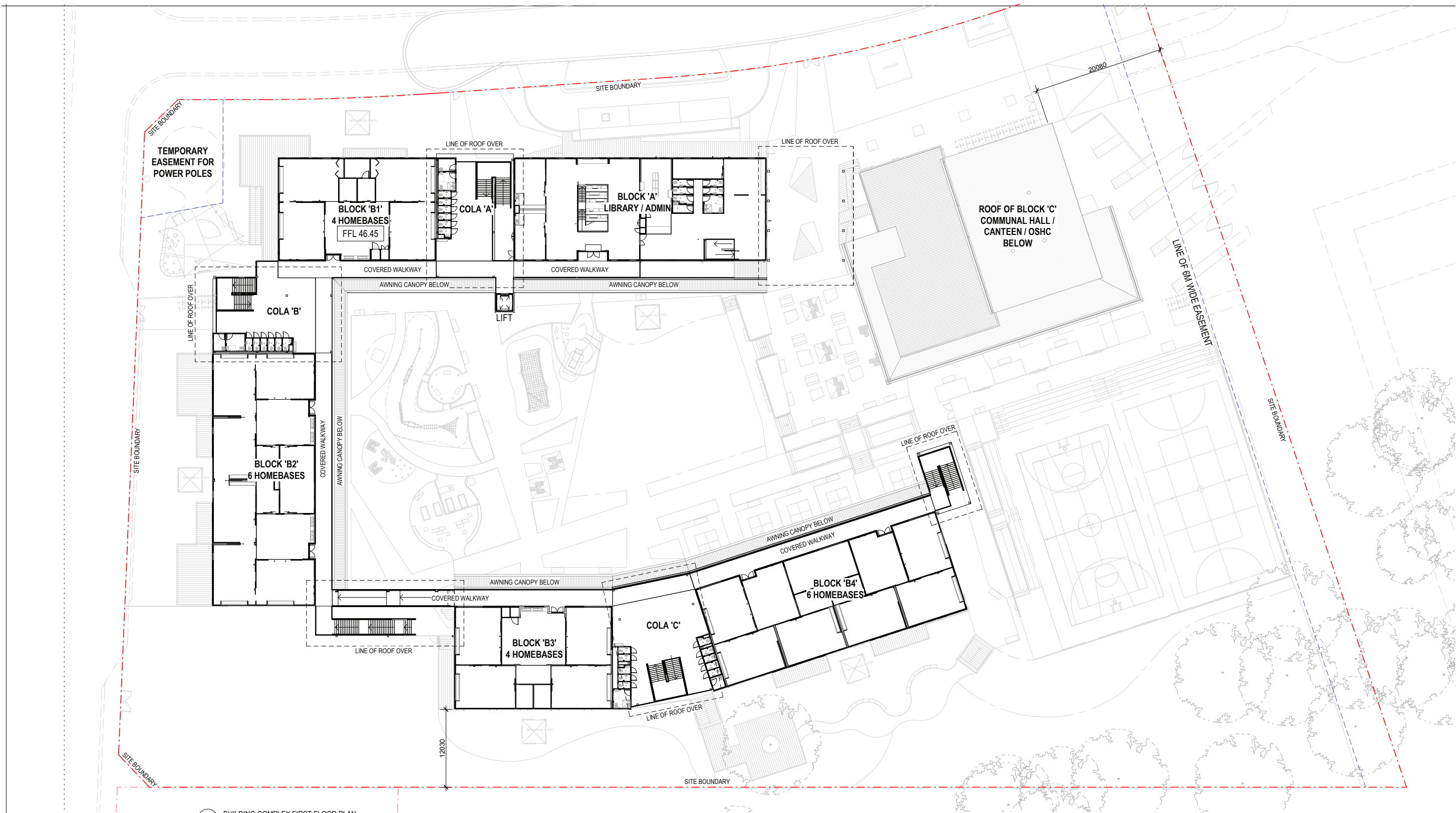
GROUND FLOOR OVERALL LAYOUT



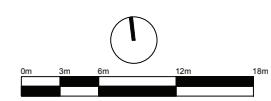
1 BUILDING COMPLEX GROUND FLOOR PLAN
1 : 300



LEVEL 1 OVERALL LAYOUT



1 BUILDING COMPLEX FIRST FLOOR PLAN
1 : 300



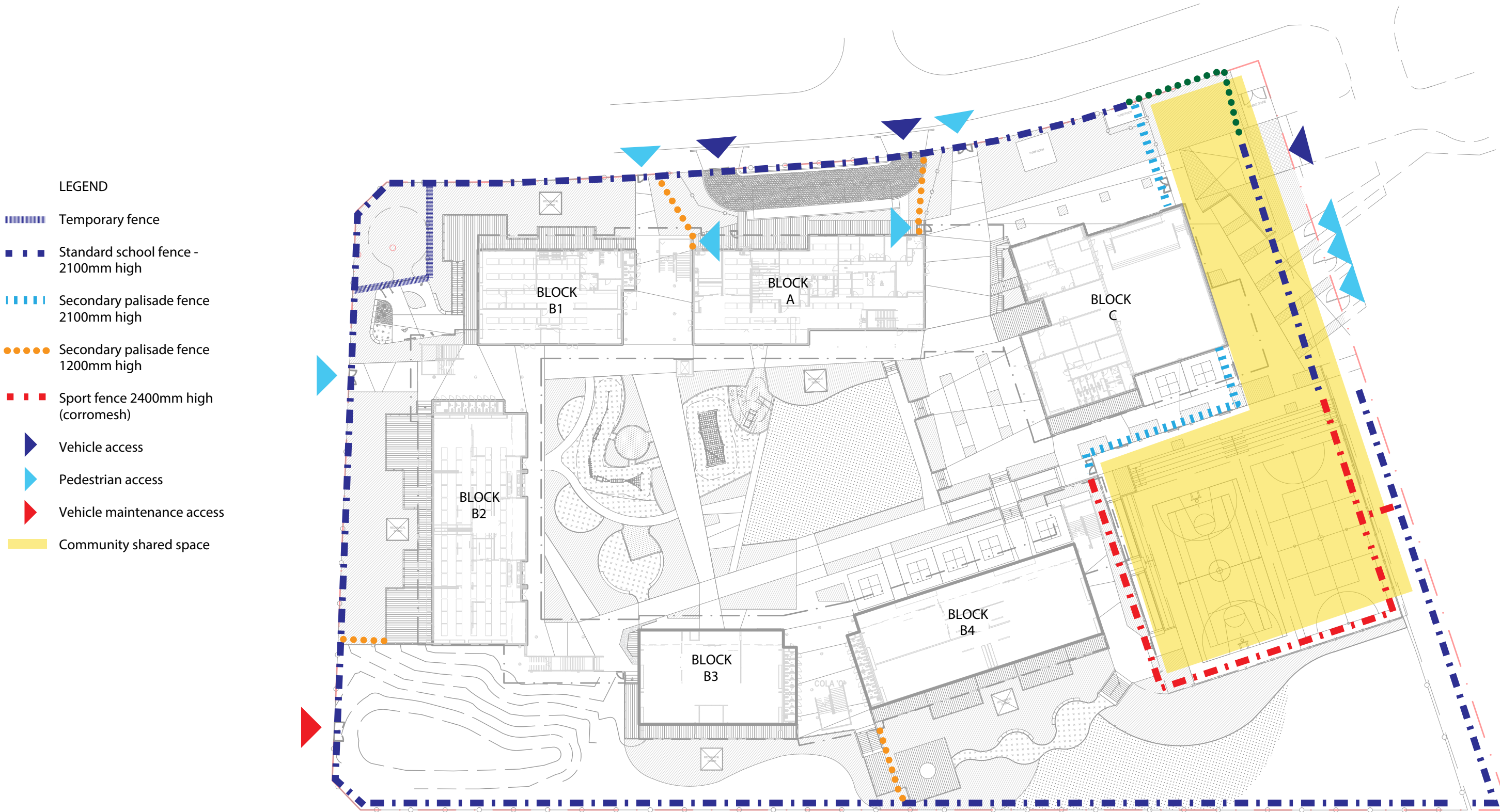
LANDSCAPE STRATEGY



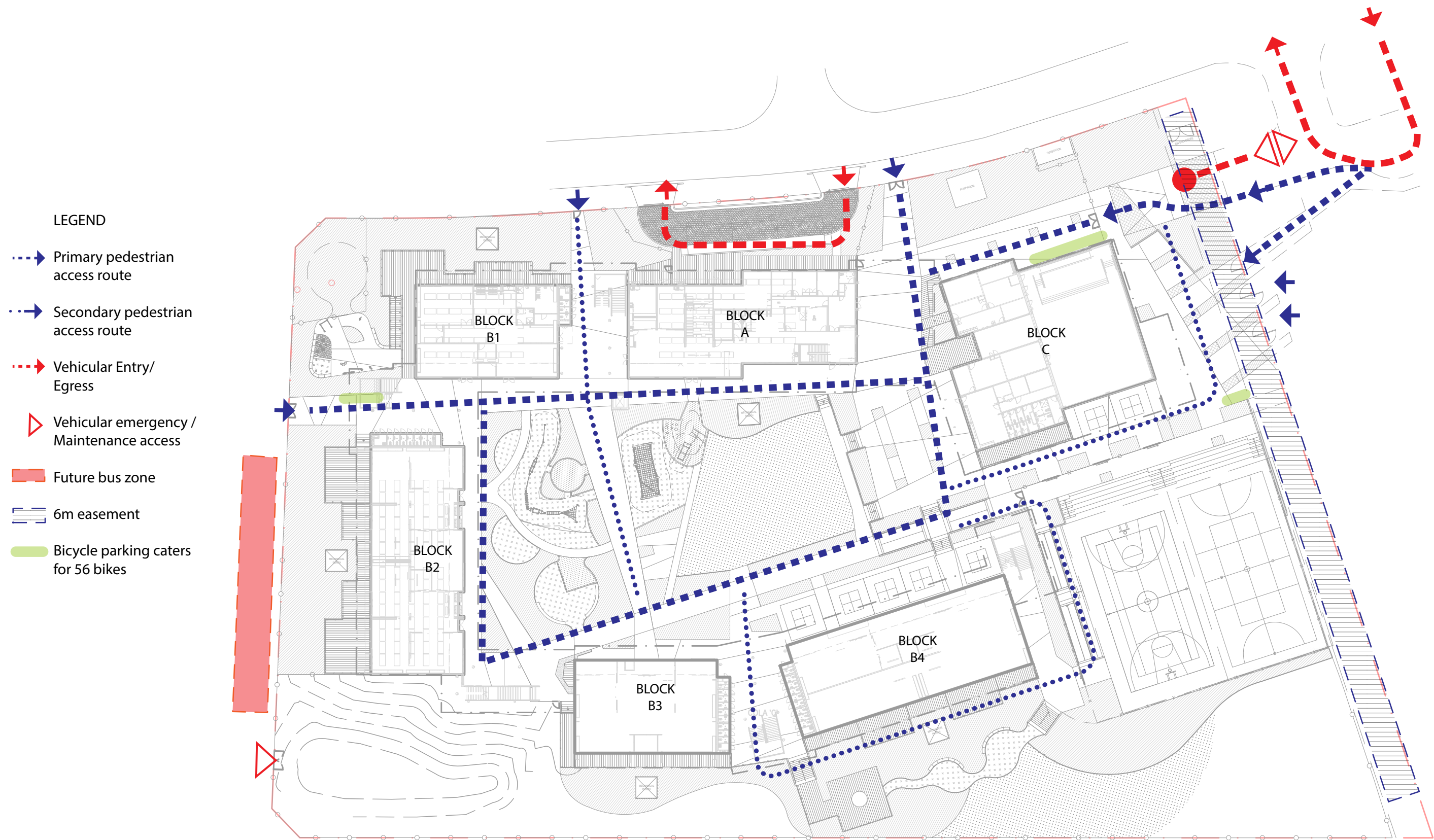
LANDSCAPE INSPIRATION



FENCING STRATEGY

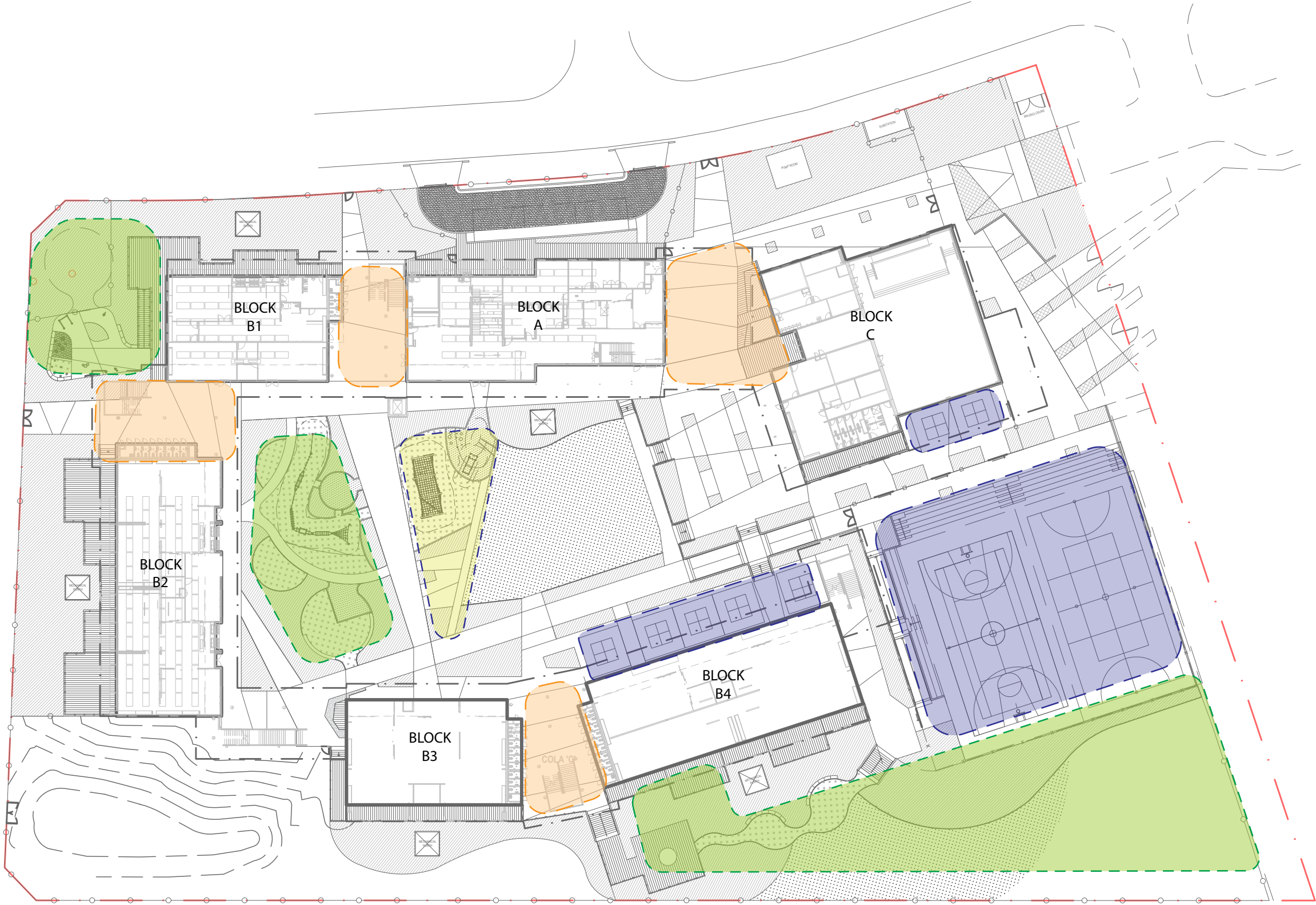


ACCESS & CIRCULATION STRATEGY



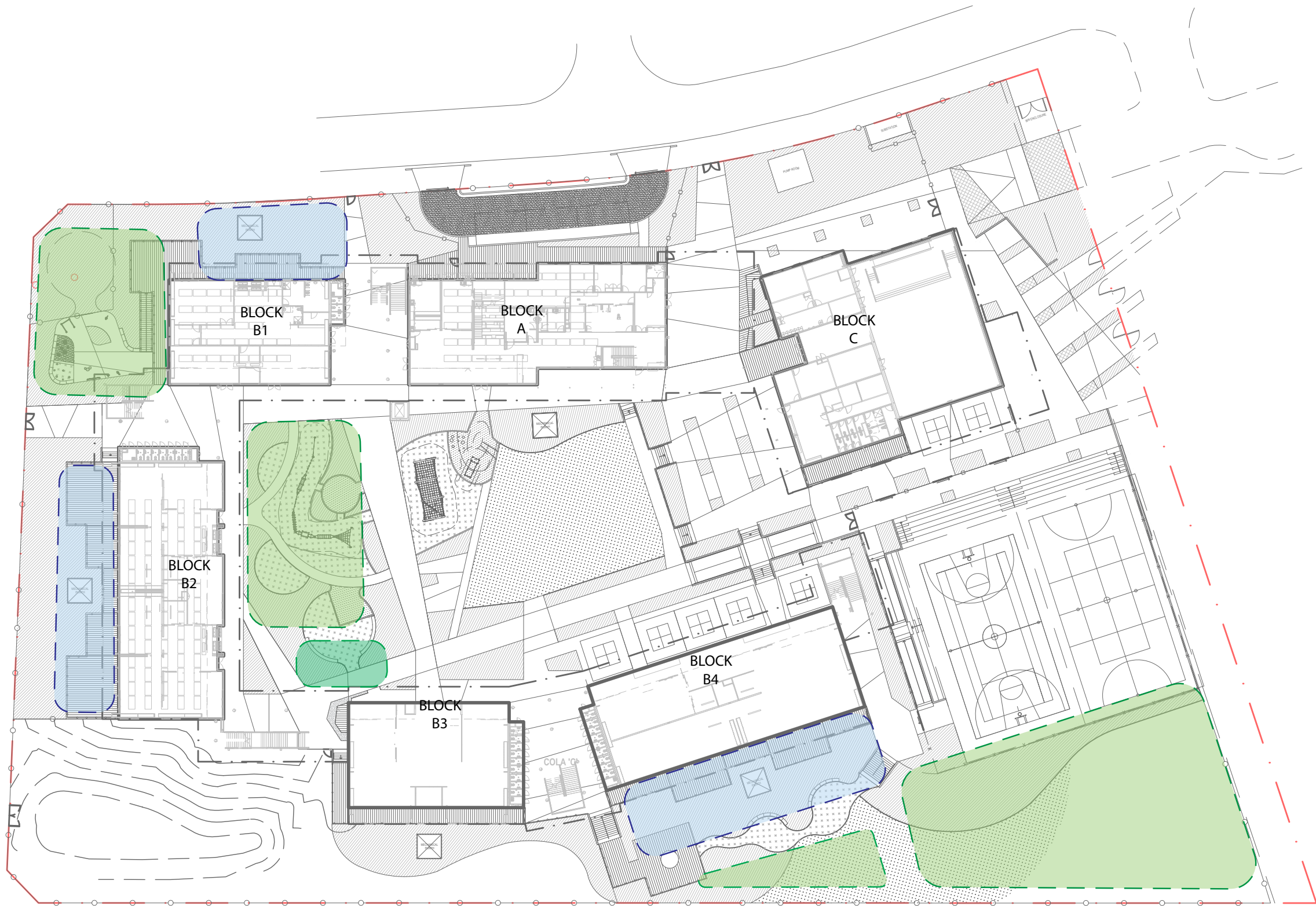
EXTERNAL AMENITY STRATEGY

- LEGEND
- Nature sensory play
 - Creative social
 - Active informal play
 - Active play basketball courts/ Handball



EXTERNAL AMENITY STRATEGY

- LEGEND
- Outdoor classroom
 - Nature play
 - Productive garden
 - Sensory garden



BUILT FORM - SCALE

The new School building relates appropriately to the immediate context through matching the scale of the existing streetscape and neighbouring residential and commercial buildings. The form of the new building is articulated to the street and residential frontages to reduce the perceived bulk and scale, complemented by variety of natural appearing materials and colour.

The design of the new building juxtaposes geometric shapes at street level with a diagrid structure creating an impressive and welcoming entry. The double storey building elements are expressed as rectilinear volumes, fragmenting the building form with an array of window locations playfully designed across the facades and providing visual interest at street level. The sinuous upper levels appear to float above, cantilevering along the home base structures providing outdoor covered learning areas, the generous setback distance from the boundary varies along the street frontage.

Built Form to respond to its context

- The skillion roof form is expressed throughout all learning neighbourhoods. The use of simple trapezoidal form provides a familiar pattern of learning areas for students.

Openings & Fenestration

- Openings are cut into forms providing natural cross ventilation to each learning area. The fenestration is a playful array of openings to strike interest in natural light and view.

Passive Solar Design

- Further openings for passive ventilation and natural light are created from highlight awning windows.

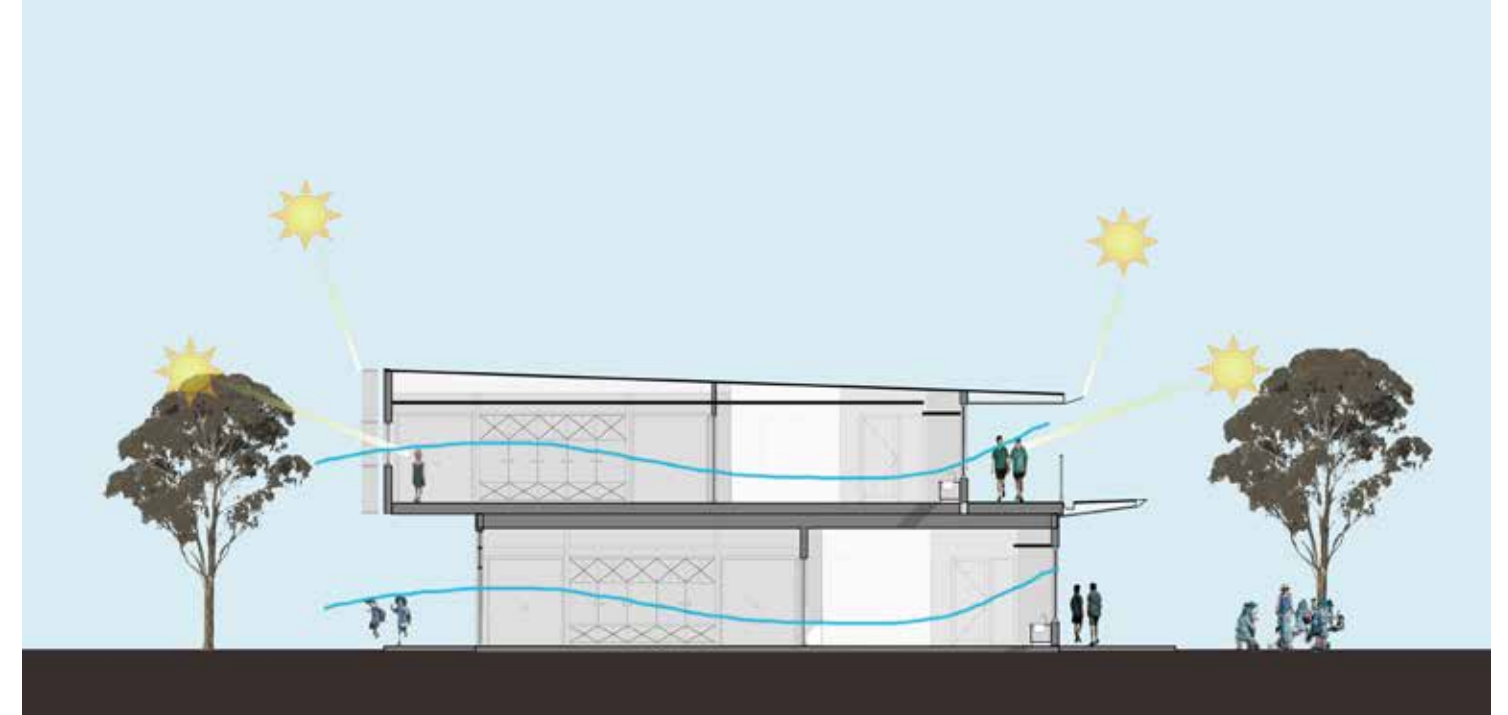
Intermediate Built Form

- Repetition of simple built form, clad in neutral toned materials provides students with an intermediate space easily associated for different learning activities.

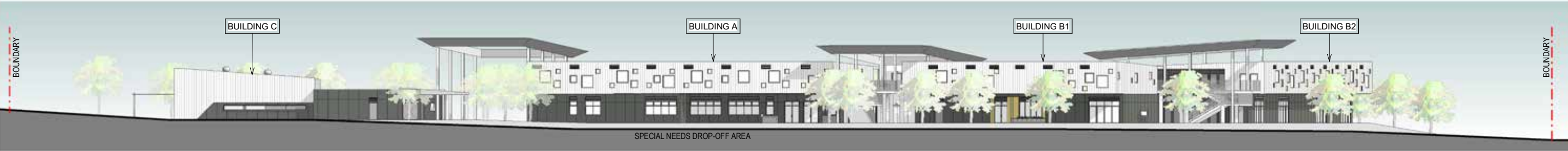
Sustainable School

Alongside the application of solar panels, shading & cooling devices alongside the above, each neighbourhood provides students with learning areas naturally cooled and ventilated for all conditions.

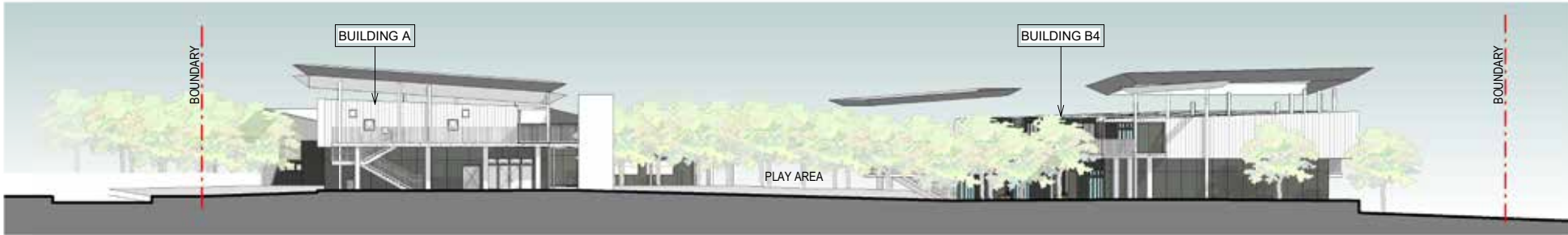
The typical home base modules are stacked at 16m widths with a 2.4m overhang to the 'outdoor learning' space below. The generous overhangs and articulated street facades provide an increased level of shading and privacy



BUILT FORM - SITE SECTIONS



1 FARMLAND DRIVE STREETSCAPE ELEVATION
1 : 300



2 SITE SECTION - EAST FACING
1 : 300



3 SITE SECTION - NORTH FACING
1 : 300

BUILT FORM - MATERIAL PALETTE

Built Form - Key Materiality

‘By drawing a connection to the local area through the material selection, residents and students alike feel like they’re part of a local lifestyle and a community. With these newly formed communities we have gained inspiration from the surrounding landscape’



Base Cladding: Cembrit Patina CFC

As the seasons change and the years pass, the natural ageing of the fibre cement leaves subtle traces on the surface, and the facade will gradually acquire a distinctive patina with a neutral tonal range, distinctive of the surrounding ironbark trees.



Cladding: Diversaclad - Shale grey

A meaningful connection to the surrounding light grey hues of the local neighbourhood character whilst providing a contemporary aesthetic to the ‘newly formed’ surrounding neighbourhood. The material is versatile and durable.



Framing and Fittings: Golden Touch & Basalt

The deep golden highlights of window framing and openings are ‘popped’ with a shimmering finish to compliment the surrounding landscape rock formations, rich farming soils and gravel beds



Soffits & Articulation: Timber appearance Aluminium

A purposeful nod to the surrounding natural beauty and historical farmlands

BUILT FORM - VISUAL AMENITY



Communal Hall

Main Entry

Administration

Homebase

The built form is predominantly 2 storey massing, with monopitch shapes that relate to the surrounding street scape. The Hall, to the left side of the main entry is a single storey annex structure at entry level with a double height ‘hall’ arrangement sentinel to the adjacent public park / domain and plaza.

‘Geometric invocation of playful openings and reveals invokes movement and interaction with light and views throught the day’ The interplay of the first floor windows to the Admin/Library and Homebase buildings bring interest to the façade and provide a joyful street presentation, whilst the geometric patterns of the COLA roofs provides a dance of natural light and interest across the ground surfaces and adjacent walls.

BUILT FORM - VISUAL AMENITY

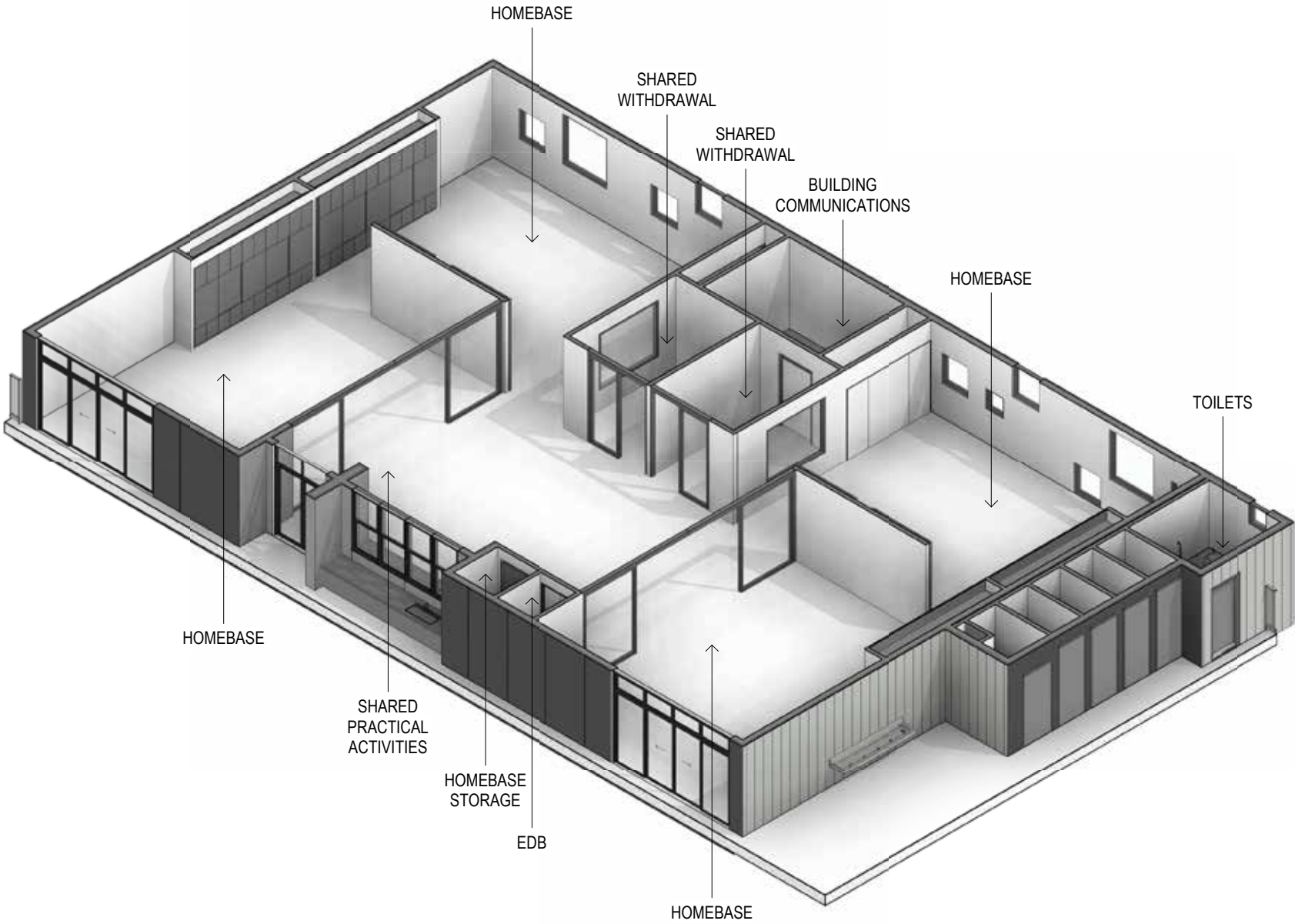


LEARNING HUBS

NSW EFSG General Education Principles Education Principle 4: Provide contemporary, sustainable learning environments that:

- Promote learning for students and teachers through collaboration, social interaction and active investigation.
- Encourage learner self-management and self-direction.
- Support a full range of teaching strategies from direct explicit instruction to facilitation of inquiry and authentic project and problem-based learning.
- Facilitate learning and connection anywhere, anytime by providing seamless access to ICT and integration of learning resources throughout the learning spaces.
- Be integrated into, and maximise the use of the natural environment.
- Enable aspects of the buildings, building design and outdoor spaces to be learning tools in themselves - for example, learning from the ecologically sustainable features of the design and associated energy management systems.
- Are age and stage appropriate

Education Principle 5: Embed the potential for reconfigurability, both in the present for multipurpose use and over time for changing needs.



LEARNING SPACES

We are committed to creating future focused learning spaces that truly support the development of teacher collaboration, student collaboration, self direction and self management. The design allows learners to engage and discover.

This is achieved by providing spaces that are:

1. Purposeful

- Purposefully designed spaces that meet specific learning needs such as:
 - + Size: large/ medium/ small group, independent learning
 - + Types of activities: practical activities, presentation, performance, group collaboration, independent studies, project based learning
- Purposeful spaces that support easy and ready movement between different learning activities and settings, so that valuable learning time is spent learning, not constantly setting up spaces.

2. Adaptable

- Easily adapted to create various settings to support different learning behaviour
- Adaptable spaces that are not only future focused, but also future proof for any change in pedagogical needs

3. Seamless and easy to use

- Smart design that is easy to use by all, including educators and learners
- Simple, uncomplicated systems that allow fast conversion of space, & design which facilitates team teaching, collaborative learning, project based learning and other pedagogical needs

To ensure optimal design of learning settings that is suitable for the school's needs, there will be continued research and development of furniture setting options in the next phase during Schematic Design in the PMO flow chart. The furniture setting options will be developed through a collaborative process with the school.



LEARNING SPACES



1. Small Groupings



2. Investigation Spaces



3. Large Groupings



4. Transitional Learning Spaces



5. Adaptable Learning Spaces



6. Medium Groupings



7. Technology/Media Development



4. Adaptable Learning Studio

ENVIRONMENTAL CONSIDERATIONS

The new School will include environmental strategies placed in visible locations to foster a culture of environmental sustainability

Key strategies adopted in the new learning building include:

- PV system to offset the energy consumption of the new building as per EFSG requirements, placed in a highly visible location.
- Louvres and ceiling fans to assist with cross ventilation of teaching spaces and purge warm air in the evening.
- Sun control to reduce cooling loads on the building and increase user comfort.
- Compost/Vegetable Gardens to encourage student engagement with sustainable practices.
- Water tanks to capture rainwater for reuse on-site.
- Native planting to contribute to the surrounding natural ecology
- Re-using natural site elements such as trees and stones in the landscape and site works.



PV Solar arrays



Native Planting + Fauna Habitat



Compost & Vegetable Gardens



Water Storage



Sun Control

BUILDING AS A LEARNING TOOL



Protractor on Ground



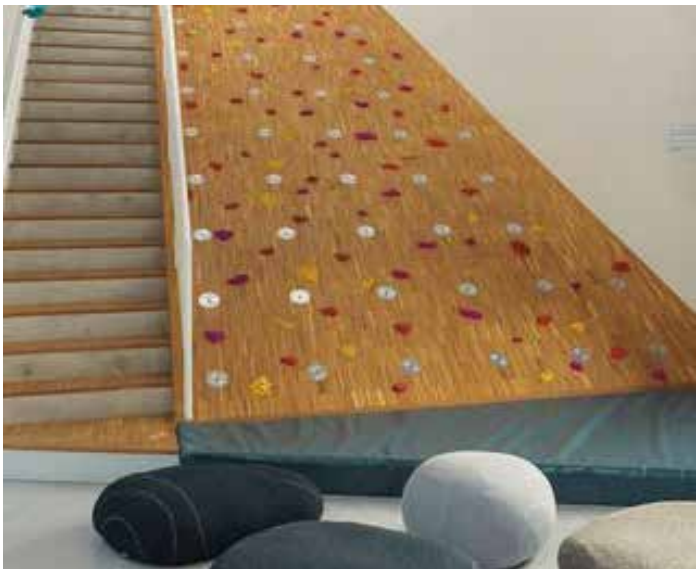
Blackboard on Wall



Soffit Graphics



Graphics on Wall



Movement as Play



Wayfinding

EXTERNAL SIGNAGE

The architectural team will develop an external signage system that takes up the NSW DoE EFSG principles, develops and adapts it to suit the architectural language of this particular site and context.

It will include characteristics that provide and reflect the new School identity , including the School Logo and vision at entry points.

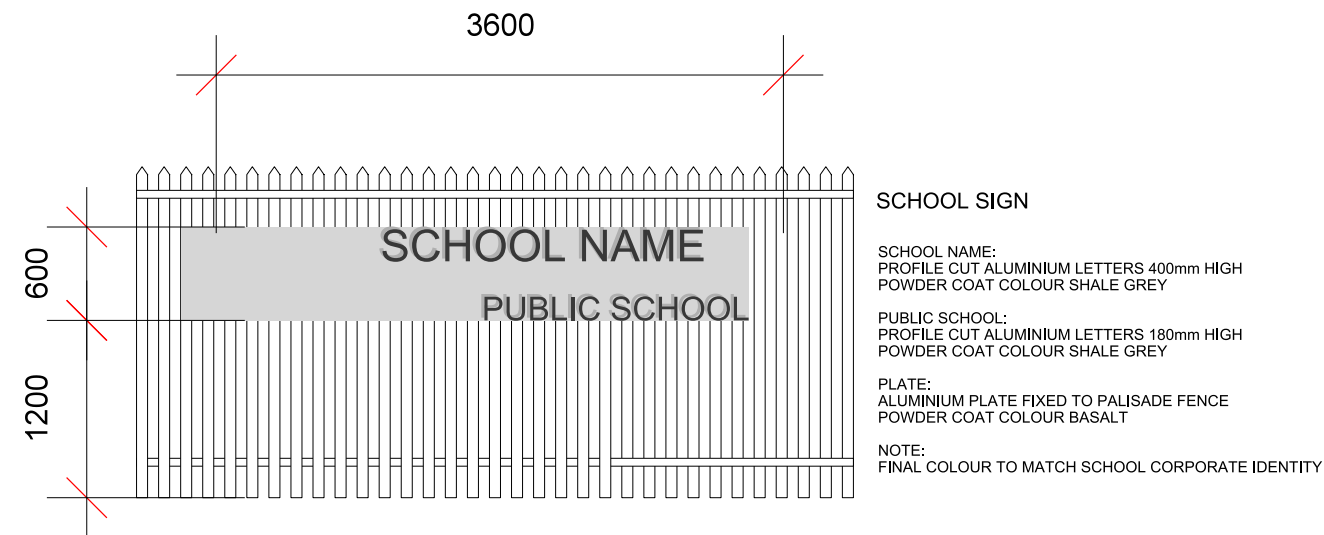
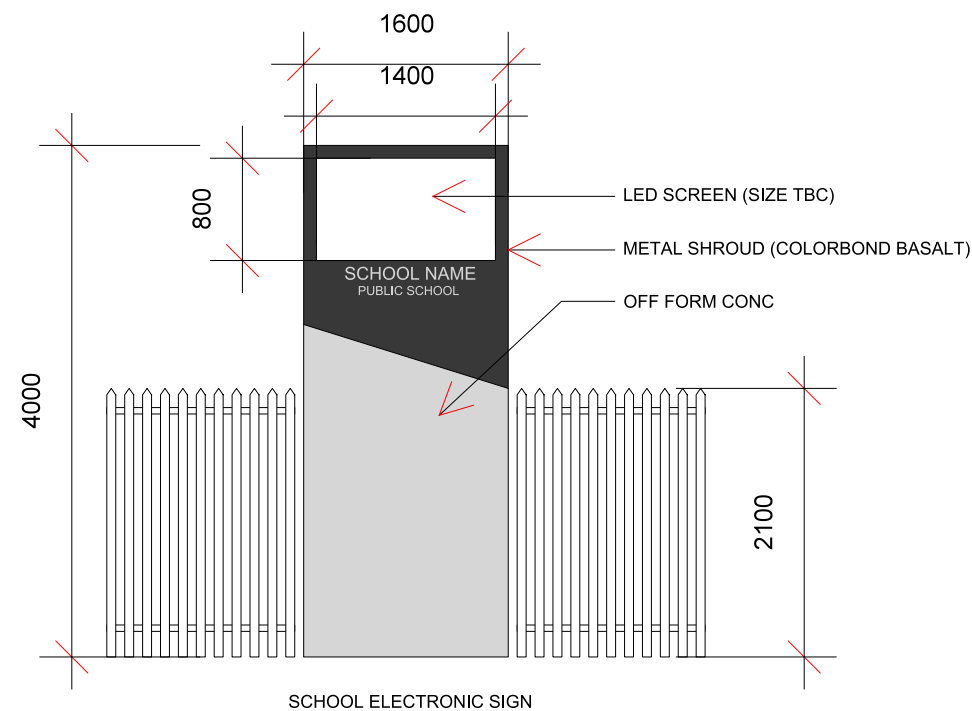
Signage will be designed to comply with all current guidelines and considering latest DoE precedents such as the NSW School entry refurbishment program.

The signage addressing the School Community frontage will implement IT communication displays and will be agreeable with the built and landscaped environment.

After hours lighting will also be provided to entry signage areas, reflecting the Communal use of the facility.

We will be developing some other type of signage communication, that complements the standard directinal signage systems and provides a creative thinking, subliminal communication for all supporting the idea of buildings as learning tools.

Some research will be required to cater for different student needs and abilities.



MAINTENANCE STRATEGY

As part of the HDC's consultation with the Project Reference Group and Department of Education Technical Stakeholders the design has considered the long term maintenance strategy of all proposed work.

Key strategies adopted in the new learning building include:

- Selection of external materials which have low maintenance and longevity such as face brick, concrete, aluminium, Zinalume roofing.
- Avoiding paint finishes which require ongoing maintenance.
- Providing roof access from inside the building.
- Roof drainage strategy utilising eave gutters and maintaining appropriate pitches.
- Selection of internal materials with resilient finishes to allow cleaning and provide durability.



CPTED

Crime Prevention through Environmental Design

We have designed our buildings to be safe using the following three concepts.

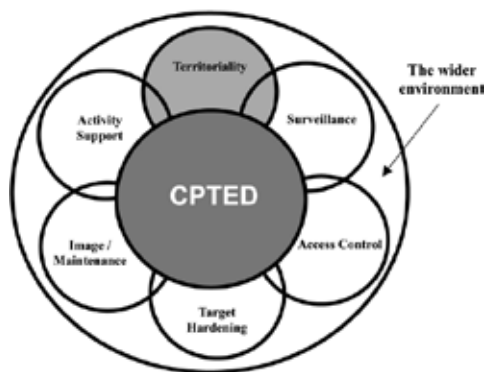
- Crimes against people and property are less likely to occur if other people are around
- It is also important that other people are able to see what is happening
- It is important to give people options and safe choices, particularly in their responses to what is happening.

The design of the new school has considered the following;

- How to provide clearly identified, overlooked and well-used routes to gain access to the buildings and sports fields;
- How to ensure security monitoring using the NSW DoE guidelines are placed at strategic locations along key routes especially for after hour usage;
- How to improve surveillance through:
 - + Informal surveillance along the circulation route to all classrooms along the visible central walkways circumnavigating the courtyard.
 - + Views to the site entry from the front office.
 - + Securing gates in remote parts of the site to allow for controlled access.
 - + The clustering of after-hours activities within the same area,
 - + Controlling and monitoring after-hours access to buildings and facilities.
- How to introduce other activities such as outdoor learning and play spaces, along important routes to augment activity and surveillance.

Also other items considered include;

- Ensuring that after-hours staff car parking is well-lit and in close proximity to building access points;
- Ensuring that well-lit and sign posted pedestrian routes throughout car parks link the users to the main entrance of the buildings;
- Consideration of lighting design.



We have used six key principles to inform the approach to the different built environment.

1. Surveillance

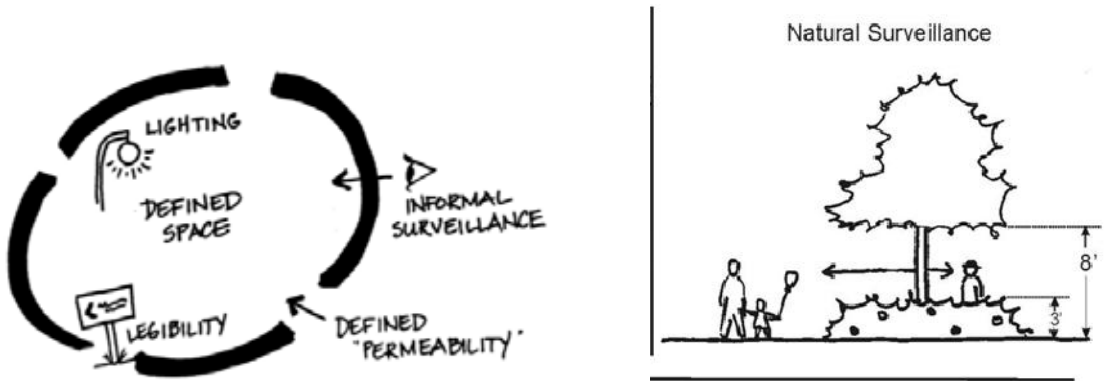
The idea of passive surveillance is central to CPTED. We have designed our buildings to encourage movement between uses. This maximises student flow paths and visual surveillance in and around the buildings. For example;

- The main circulation path connecting the classrooms is open and visible;
- The central courtyard and covered assembly areas are visible from the circulation walkways;
- The classrooms and COLA spaces on each level overlook the outer landscape areas;
- The incorporation of large glass frontages and windows to the library and hall enables visual contact from inside to outside and vice versa.
- Large open spaces in between the classrooms enable surveillance to surrounding landscape.
- Many mature trees where possible will be retained on site which allow views under canopies.
- Design of lighting reduces the effects of shadows and glare which might put people at risk.
- The car park locations are restricted in their positions, however, are under CCTV surveillance, fenced, sign posted and light to ensure a safe environment.

2. Legibility

An urban environment is said to be legible if it is designed in ways that allow people in it to easily know where they are and know how to get where they are going. The access paths can be understood, are not confusing and students won't get lost.

- The buildings have been designed so that the important and appropriate routes can be seen and easily accessed.
- The access paths allow the students and users to be confident and assured and less stressed in the spaces.
- Inclusion of landmarks within the school environment will aid legibility.
- The building's interior courtyard fabric has been designed with appropriate variety which will create legible urban environment.
- Buildings will incorporate wayfinding including signage, maps, building names and room numbers.



3. Territoriality

Most people would prefer to avoid embarrassment or incident by being aware of other’s territory and not trespassing by accident. A sense of clarity helps determine how spaces will be used and what represents appropriate behaviour within them.

- The school will be fully fenced which clearly defines the overall site and the division between the areas that can be accessed after hours and areas that are out of bounds after hours.
- Security is also supported by these legitimate boundaries. Due to the ‘open’ nature of the type of fence, surveillance is not lost.
- The height of the school fence assists in the security management of the school site.
- The School design will creatively use built and landscape features like planting, changes of material and texture, shelter, changes of level, artwork, signage, low walls, seating and the like to define desired movement areas and delineate borders.
- The approach and entry to the buildings is simplified to reduce ambiguity and confusion.

4. Ownership of the Outcomes

Passive surveillance is the most powerful CPTED strategy when people are able to see what is happening, goes on to respond in ways that will enhance their safety and the safety of others. The sense of ‘ownership’ is crucial to the success of CPTED and the sustainability of the school. Therefore the architectural design needs to be inspirational so that the school community lives to embrace these passive surveillance qualities. The school design facilitates the school spirit and can encourage people to feel safe to be out and about in their environment.

- A level of shared responsibility is encouraged through a feeling of combined ownership of the built environment.
- The buildings are designed to promote a sense of pride in the community.
- The design recognises the needs and aspirations of many groups within the community, government agencies and key stakeholders.
- Understanding that the school must not alienate local community so as not to withdraw their engagement or support.

5. Management

The maintenance and management of the physical asset is important. Spaces that are broken down, dirty, vandalised, full of rubbish and generally looking unloved reduces the sense of pride and ownership by the community. Places that are well looked after send out messages to would be offenders that the community cares. Not only does maintenance strategies for the environment need to be considered at the early design stages but integrated systems of both routine and emergency maintenance must be instituted early and continue to operate during the life of the school.

- The building designs will be detailed to minimise damage and the need for undue maintenance, without undermining the aesthetic and functional qualities that make it attractive.
- Systems of both regular and reactive maintenance and repair must be implemented to maintain the quality of the places.
- The design aims to use sturdy/ durable materials without resorting to harsh, industrial strength, prison-like materials that

might undermine the attractiveness of the place.

- Implement a system to encourage the quick reporting of safety risks.
- Implement a system for prompt cleaning, repair or replacement of infrastructure that is damaged.

6. Vulnerability

Isolated places make people and property more vulnerable. Hidden places provide opportunities for unforeseen crime.

- The built environment is designed to reduce or limit risk from assault by providing active and overlooked places and identified routes to important places.
- Access from the school car park ‘drop off’ zone to the school entrance gate is visible and in close proximity to the school entry gates.
- Within a constrained site footprint, the school design aims to eliminate hidden corners, blind spots or bends that create places of concealment which prevent surveillance and limit choices.
- The designs of the buildings do not create strong shadowing to adjacent properties or interfere with the appropriate amenity of the neighbours.
- Closed tunnels and bridges which limit surveillance are excluded.
- School gates are to be locked after hours.
- Natural light infiltration and open circulation where views out of the buildings can be appreciated is
- seen as essential design components to reduce the feeling of vulnerability.

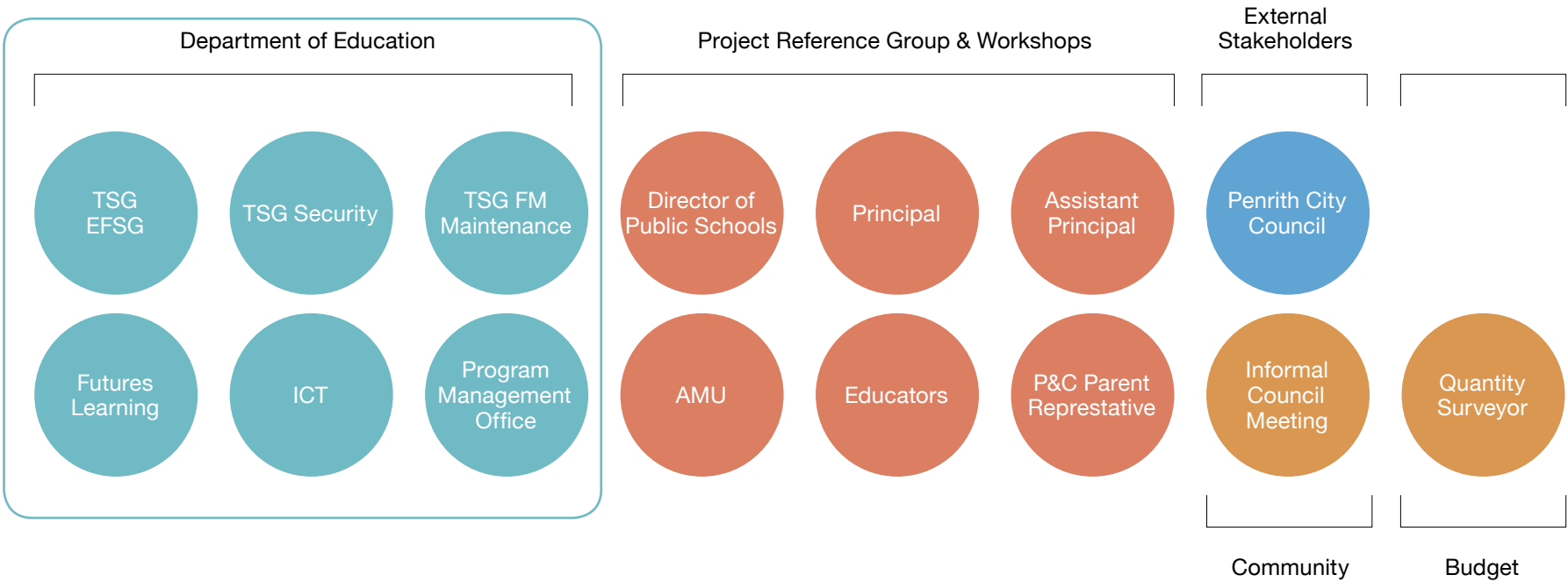


DEPARTMENT OF EDUCATION STAKEHOLDERS

Through the Masterplan / Concept Design / Schematic Design phases GroupGSA attended meetings with Department of Education stakeholders. The meetings included representatives from the Program Manager’s Office, Educational Facilities Standards & Guidelines, ICT, Security and WHS, ensuring the design aligns with the Department of Education framework.

Key outcomes from the Department of Education meetings include:

- 1. Determining scope priorities. Teaching Space / Admin / Staff / Library / Special Programs
- 2. Determining building locations and overall site relationships
- 3. Including circulation areas within the learning common in addition to UFA brief.
- 4. Including spatial allowance for Electrical / Communications and Security within the floorplan of new building. DB cupboard on both levels of 2 story building, in a ventilated space.



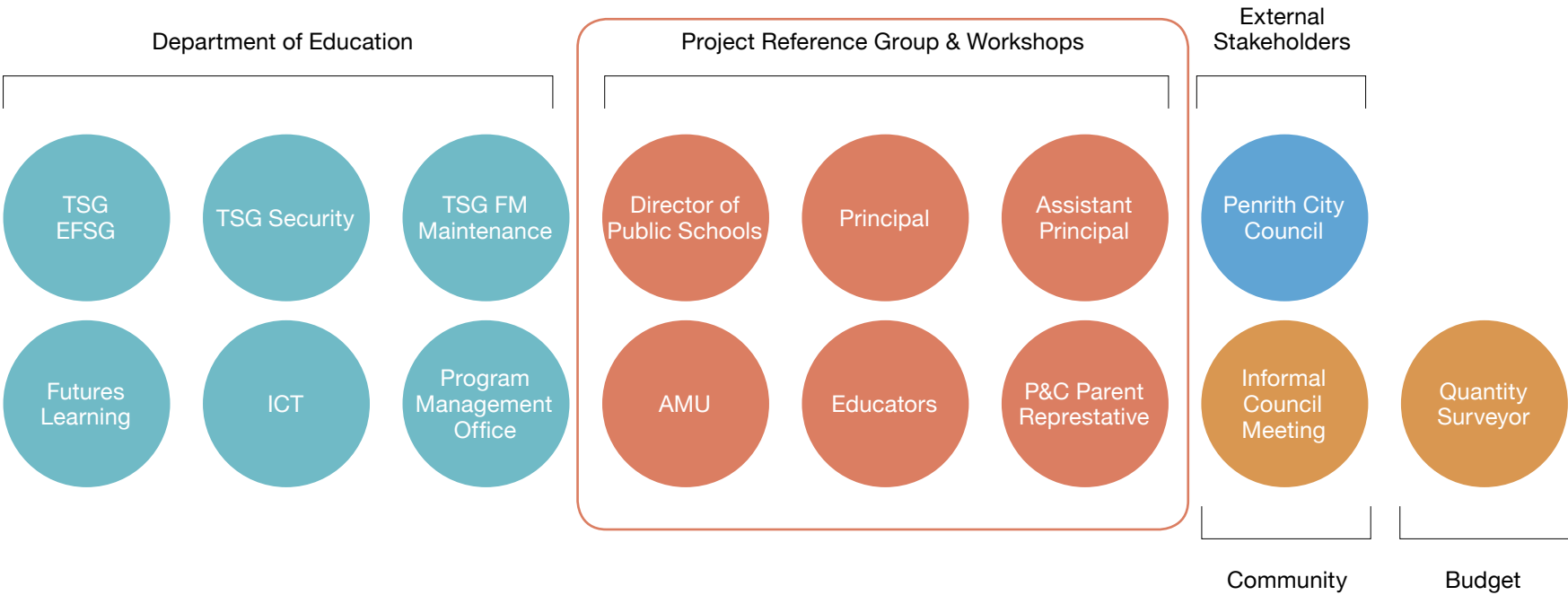
PRG MEETINGS

Through the Masterplan / Concept Design / Schematic Design phases the HDC attended fortnightly Project Reference Group (PRG) meetings.

The regular meetings ensures the design is aligned with the school's ethos and operational needs. Attendees for the PRG includes the Director of Schools, the school leadership group, school educators, P&C representative and Asset Management Unit representatives from the Department of Education.

Key outcomes from the PRG discussions include:

1. Determining scope priorities
2. Masterplan building locations and overall site and building relationship
3. Determining an appropriate learning model
4. Specific requirements for the special programs and library spatial allowance to facilitate performance space, technology hub and community use
5. Determining scope and use for the Library and Staff area allocation in the brief
6. Understanding the school key issues in relation to safety and operations of the new building
7. Establishing priorities for the landscape design and the school's learning precincts K-2, 3-4, 5-6
8. Stage 2 requirements and site access during construction.



EDUCATION WORKSHOP

During the Concept Design phase the desig team attended an education workshop to discuss the appropriate learning model and pedagogy for the proposed learning space. This workshop was facilitated by Dr Julia Atkin.

Participants from the school include: Principal, parent representative, key educators from the school. The HDC and GHD also attended the workshop.

The half day workshop included the following:

1. Dr Julia Atkin presentation on collaborative education models and world best practice
2. Dr Julia Atkin presentation on Australian examples of education environments which facilitates 21st century learning models
3. Group exercise to establish key Hopes and Concerns with the proposed learning spaces
4. Group exercise to workshop strategic approach to realise the hopes and address the concerns identified by the school
5. Group exercise to brainstorm learning activities undertaken in the learning studios throughout the day
6. Group exercise to create and design learning settings required to facilitate the learning activities identified by the school
7. The school then provided additional feedback on the proposed design in regards to operational needs and learning needs

Agenda	Leader
Purpose of the workshop – intended outcomes	
<ul style="list-style-type: none">• All to see the Educational facilities design work happening in NSW within the global context of the re-design of schools for contemporary and futures focused learning• Architects and Project Managers to more deeply understand the schools' vision for learning and the appropriateness of the emerging designs for each school's vision• Educators to share their hopes and concerns for the potential development at their schools and collectively develop a strategic approach to maximise the hopes and minimise concerns• Architects to share a couple of days in the life of a school working with designs to illustrate how the learning spaces can be utilised in a variety of ways to suit a range of operational approaches	

STRATEGIC APPROACH to maximise hopes and minimise concerns	POTENTIAL CONCERNS about the new facilities
	<div>Staff Difficulties in pedagogy</div> <div>Loss of History and culture</div> <div>Leading and Managing change - sell the Education campaign</div> <div>Concern: Space - ensuring play/outdoor learning areas are not compromised.</div> <div>Conceptual - Acoustic Sustainability Features</div> <div>How do we maintain connections between the students and staff in the large space</div>

HOPES for the new facility	STRATEGIC APPROACH to maximise hopes and minimise concerns	POTENTIAL CONCERNS about the new facilities
<div>Learning spaces are adaptable enough to meet the diverse learning needs of students and pedagogies staff.</div> <div>The spaces can be maintained and sustained over time</div> <div>Community connection and understanding is vital</div> <div>Collaboration between stakeholders is key.</div>	<div>- Education Campaign - Informing and sharing with students, staff, parents/carers on the learning/teaching changes in the school and why the changes are best for students learning.</div> <div>- Differentiated quality professional learning for teaching and support staff allowed the explicit instruction of the capabilities across curriculum in newly configured learning spaces.</div> <div>- Honour the past/history of a school that is valued whilst moving the school forward.</div>	<div>The focus is on quality teaching and learning not furniture</div> <div>Acoustics Sustainability How do we maintain deep connections between students and staff in large, open spaces?</div> <div>Ensuring outdoor play and learning spaces.</div>

EDUCATION WORKSHOP OUTCOMES

Key outcomes from the Education workshop include:

1. Hopes:

- Opportunity to enhance student engagement and learning with new learning environments
- Enthusiasm around the multi-purpose tiered seating as it can be used as a learning space, presentation space and independent work space.
- Teachers supported the idea of 10-15min of direct instruction at the start of a lesson / day, then disperse into the wider learning hub for project work.
- Highly enthusiastic about having a space which is especially designed for team teaching. Currently already trying to achieve this in the existing fabric.
- Excited by the flexibility and adaptable learning settings offered by the proposed learning hub.

2. Concerns:

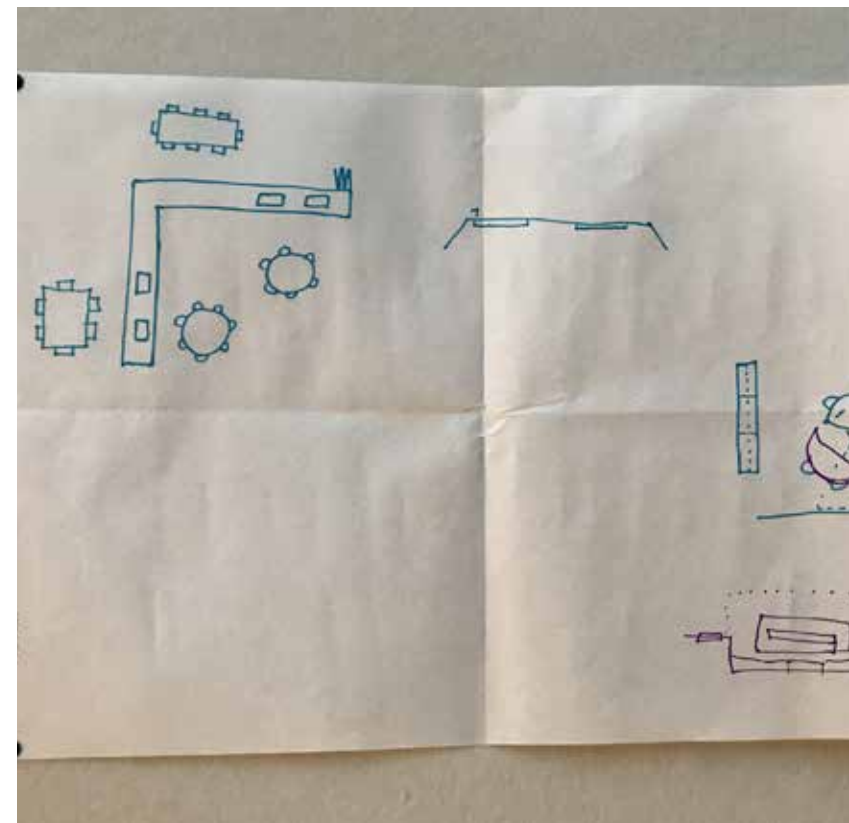
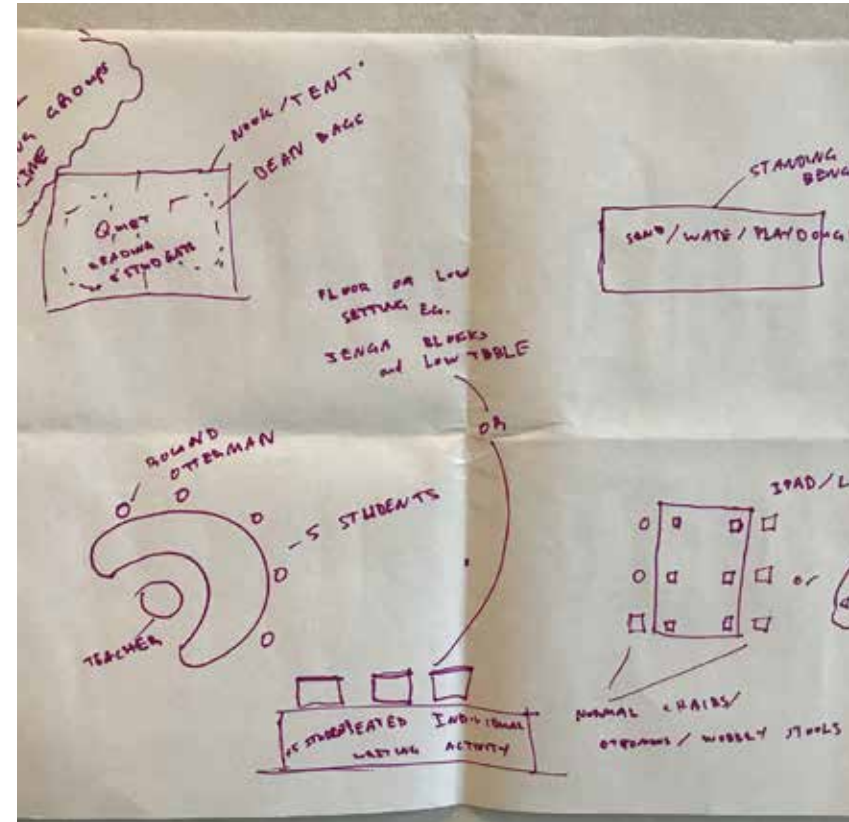
- Acoustics throughout the spaces a concern, will the teachers voice be heard
- Lack of structured environment not suitable for all students
- Adequate provision of dedicated personal storage for teachers and students.
- Lack of community understanding to adjusting to new pedagogy and helping them understand

3. Suggestions/Strategies/Comments:

- Educate the community on pedagogical evolution of the school
- Assist in the transition of teachers into the new space in order to avoid reverting back to cellular style of learning

Design workshop post Education workshop:

After the above education workshop, The HDC had numerous design review with Dr Julia Atkin addressing the hopes and concerns of the school.



SITE TOUR - ST CLARE'S PRIMARY SCHOOL MELBOURNE

Stakeholders participated in a virtual site tour with the HDC of St Clare's Primary School, a catholic school in Victoria. The tour was organised to assist the school in understanding the benefits of collaborative learning and envisioning the types of spaces which are associated with this learning model.

The tour included the following:

1. Introduction of St Clare's Primary School by the principal Helen Staindl.
2. Tour through St Clare's Primary School learning community for years K-3. The tour took place while class was in session, allowing the educators to observe students learning and staff teaching as a team in the space.
3. Discussion and Q+A session between the St Clare's Primary School Principal + Deputy and the Principal & teachers from the school. Some of the questions/ discussion were around the following:
 - Professional development/ training for team teaching
 - Benefits of team teaching and project-based learning and how purposeful designed learning spaces affects learners positively, including learners with special needs
 - Lessons Learnt
 - Acoustics
 - Storage
 - Use of the learning hub for the whole learning community, requiring the timetabling of spaces
 - Outdoor learning opportunities in the design.

Key outcomes from the tour include:

- Hearing educators explain the benefits of team teaching and positive effects it has on learners and educators.
- School gaining a greater understanding and visualising shared practical activities areas and tiered seating areas.
- School gaining a greater understanding of the built-in joinery storage solutions being proposed in the new learning hubs.
- Concerns around acoustics in the St Clare's Primary School learning spaces.
- Concerns around open nature of some of the St Clare's Primary School learning spaces.



SITE TOUR - BELLEVUE HILL NSW

As members of the PRG, the local school principal, Peter D'Ermilio and Director of Schools, Rick Seretis participated in a site tour at Bellevue Hill Public School. The tour was lead by Sue Bennett, Bellevue Hill Principal, and facilitated by Dr Julia Atkin. The tour was organised to allow the school to see a future focused learning space with a contemporary pedagogy. The tour occurred during school hours and stakeholders were able to see the space in action, such as teaching methods within a contemporary learning space, acoustics of open learning area and learning common, furniture for various learning settings and how these affect learner behaviour within this space. In turn this also assisted the stakeholders in visioning their day to day operation of the proposed space.

The site visit included the following:

1. Introduction of Bellevue Hill by Principal Sue Bennett:
2. Tour through Bellevue Hill during class time. Able to observe students learning and staff teaching in a contemporary environment.
3. Discussion/ Q+A session facilitated by Julia Atkin, with:
 - Bellevue Hill leadership group and teachers
 - educators from Wollongong, Liverpool West, Prestons and Gwynneville
 - Discussion include:
 - + Importance of various learning settings Transition process
 - + Change management
 - + Setting learner behaviour protocol

A summary of successful learning design elements observed and the other participating schools include:

- Acoustic level is good even within open learning space
- Practical Activities Area was well used as a learning space not reserved only as a practical activities space
- Furniture settings are varied, not all desks and chairs
- Sharing of resources and storage between class groups
- Successful use of low and mid height furniture to divide spaces
- Learners have adapted to the space and understands behaviour protocol within each space

The visit provided the project PRG with a better understanding of the proposed design in a spatial and acoustic sense.




COMMUNITY CONSULTATION SURVEY


Through the Concept Design and Schematic Design phases the HDC assisted GHD in preparing graphic, written content and surveys for community consultation sessions.

Consultation has occurred with:


- 1. The School Community, including parents and carers
- 2 School staff and educators
- 3. The local general community




A) Direct explicit teaching for small groups
Comments:




B) Direct explicit teaching for large groups
Comments:




C) Project & problem based learning
Comments:



D) Quiet reading & reflection
Comments:



E) Performance & presentation
Comments:



F) Encourage learner self management
Comments:

School:

Role:

Name (optional):

Email (optional):

Questionnaire

Future Focused Learning Settings

Referencing the description & images labeled A-F, please make any general comments in the space under the image. In the box beside each learning setting type, rate how important having the setting is. Scale 1-5 (5 high)

A) Direct explicit teaching for small groups

B) Direct explicit teaching for large groups

C)Project & problem based learning

D) Quiet reading & reflection

E) Performance and presentation

F) Encourage learner self management

☐
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PRINCIPLES OF QUALITY DESIGN FOR SCHOOLS

Design Quality Principles listed within the State environmental Planning Policy (SEPP) for Educational Establishments and Child Care Facilities 2017 are to be employed when designing new schools and school building upgrades, these principles are a set of values that enable a common understanding between school developers, design teams, school staff, students and community when designing new school buildings or building upgrades. According to Education SEPP 2017, the principles of Design Quality for state significant development are as follows:

(1) Context, Built Form & Landscape

Schools should be designed to respond to and enhance the positive qualities of their setting, landscape and heritage, including Aboriginal cultural heritage. The design and spatial organisation of buildings and the spaces between them should be informed by site conditions such as topography, orientation and climate. Landscape should be integrated into the design of school developments to enhance on-site amenity, contribute to the streetscape and mitigate negative impacts on neighbouring sites. School buildings and their grounds on land that is identified in or under a local environmental plan as a scenic protection area should be designed to recognise and protect the special visual qualities and natural environment of the area, and located and designed to minimise the development’s visual impact on those qualities and that natural environment.

(2) Sustainable, Efficient & Durable

Good design combines positive environmental, social and economic outcomes. Schools and school buildings should be designed to minimise the consumption of energy, water and natural resources and reduce waste and encourage recycling. Schools should be designed to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements

(3) Accessible & Inclusive

School buildings and their grounds should provide good wayfinding and be welcoming, accessible and inclusive to people with differing needs and capabilities. Schools should actively seek opportunities for their facilities to be shared with the community and cater for activities outside of school hours.

(4) Health & Safety

Good school development optimises health, safety and security within its boundaries and the surrounding public domain, and balances this with the need to create a welcoming and accessible environment.

(5) Amenity

Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood. Schools located near busy roads or near rail corridors should incorporate appropriate noise mitigation measures to ensure a high level of amenity for occupants. Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service areas.

(6) Whole of Life, Flexible & Adaptive

School design should consider future needs and take a whole-of-life-cycle approach underpinned by site wide strategic and spatial planning. Good design for schools should deliver high environmental performance, ease of adaptation and maximise multi-use facilities.

(7) Aesthetics

School buildings and their landscape setting should be aesthetically pleasing by achieving a built form that has good proportions and a balanced composition of elements. Schools should respond to positive elements from the site and surrounding neighbourhood and have a positive impact on the quality and character of a neighbourhood. The built form should respond to the existing or desired future context, particularly, positive elements from the site and surrounding neighbourhood, and have a positive impact on the quality and sense of identity of the neighbourhood.

RESPONSE TO EDUCATION SEPP/GANSW DESIGN PRINCIPLES

1. Context, built form and landscape

Throughout all phases of design, the School masterplan has respectfully considered the future neighbouring residential community and furthermore the existing streetscape presence of the school. The following criteria have been emphasized to maintain respectful built form and contextual design excellence:

- The new built environment respects the medium density scale and form of the neighbourhood and community precinct.
- It does not interfere, respects and capitalises on the use and views into the bordering area
- The new built form takes up a simple language of monopitch metal deck roofs, masonry and light weight cladding that is familiar to the neighbourhood surrounds.
- Respect and respond to its physical context, neighbourhood character, streetscape quality and heritage
- Consider interpretation of Aboriginal cultural heritage and native flora & fauna within the design of buildings and open spaces in consultation with local Aboriginal community
- Respond to its natural environment including scenic value, local landscape setting and orientation
- Retain existing vegetation where significant
- Include tree planting and other planting that enhances opportunities for play and learning
- Take advantage of its context by optimizing access to nearby transport, public facilities and local centres
- Consider height and scale of school development in relationship to neighbouring properties.

2. Sustainable, efficient and durable

- The landscape design addresses views into the natural environment as well as including some aboriginal cultural heritage references in its design towards the biodiversity zone at the East
- The new design is durable, resilient and adaptable, the open floor plates enable spaces to evolve to meet future requirements.
- Positive environmental measures have been considered in the new design including passive design principles, material choices, services efficiency and use of recycled and recyclable materials.
- An ESD report outlining GBCA Best Practice targets met or to be met at design development stage forms part of the SEARS lodgement.

3. Accessible and inclusive

- Taking into account principles of equality and diversity, the model is based on current mainstream learning models.
- The new shared school heart is adjacent to the central sports field and creates a core for integration of the PS and general community. A communal entry into this centrally integrated heart has also been provided.
- Wide opening gates are proposed to facilitate the community engagement principles.
- Dual entries (one on Cullen Avenue and another Lakeside Parade) encourage site access from both street frontages.

4. Health and safety

The success of the School masterplan has been the spatial organisation of

4. Health and safety

The success of the School masterplan has been the spatial organisation of built form and fenestration to address the following health & safety principles in order to provide a safe, supportive environment for students. GSA have emphasized the need for passive surveillance and student safety throughout all phases of design to ensure students needs are accommodated in all areas of the school, students and vehicles do not mix and the masterplan assists with Crime Prevention.

- Following DoE guidelines, a security plan has been designed to maintain a safe school with delimitation of boundaries, fencing, electronic devices, good massing of the design avoiding blind spots and general consideration during the design process.
- The School frontage provides a welcoming accessible environment while still keeping in mind safety and security considerations.
- Locate buildings and design facades that optimise fresh air intake and access to daylight
- Prioritise pedestrians and avoid conflicts between vehicles and people
- Provide covered areas for protection from sun and rain
- Support safe walking and cycling to and from school through connections to local bike and foot paths and the provision of bike parking and end of journey facilities
- Support passive surveillance, including through the location of toilets and areas for communal use outside of school hours
- Incorporate Crime Prevention Through Environmental Design (CPTED) principles
- Clearly define access arrangements for after school hours
- Consider location and number of toilet facilities to allow safe use by different age groups and genders.

5. Amenity

- The residential character of the neighbourhood, adjacent recreational facilities and the surrounding natural settings were considered when planning the site to utilise the existing environment.
- Integration of the existing established community was considered throughout the design consultation, proposing diverse design solutions to facilitate both integration and partial separation when required.
- Access to sunlight and natural ventilation were drivers of the facade design with louvred glass windows utilised throughout the design.
- Each Homebase has direct access to covered outdoor learning and the natural environment blurring the lines between inside & out in addition to providing the ability to team teach multiple classes at once.
- External walls of each Homebase are glazed to meet NCC-BCA requirements and incorporate operable windows optimising natural daylighting and cross ventilation.
- Each Homebase has direct access to interactive AV display to ensure a 21st century learning environments achieved. Additionally printer stations, mobile technology stations and wireless connectivity will also be implemented throughout the school.
- The vegetation area provides unique play environment, and opportunities to learn about ecosystems, biodiversity and conservation. The vegetable garden provides an opportunity for students to learn about where food comes from, about ecosystems and the life cycling of plants, and gain gardening, planting, and harvesting skills. This is further enhanced by monitoring energy production via the solar panels.

6. Whole of life, flexible and adaptive

- Participatory Pedagogy education principles were adopted to the school's design, which features diverse and integrated learning areas accommodating a community of learners facilitated by teams of teachers.
- Learning communities are open plan and have been designed to be adaptable to diverse scales of learning environments, from small, medium, and communal through a combination of mobile joinery, pivot doors and sliding screens.
- Seamless connections between indoor and outdoor learning environments are provided to make most use of the external landscape.
- These spaces are easily adaptable to both different needs and diverse user groups including communal groups, parents and carers, benefactor associations, educational gatherings and student learning and social activities

7. Aesthetics

GSA have emphasized materiality and overall built form throughout all phases of design to ensure the school integrates with the public, encourages learning from design to meet future learning and environmental requirements. The School Masterplan has implemented the following aesthetic principles in order to provide an engaging and contextual environments to achieve design excellence:

- The built form predominantly 2 storey massing, with monopitch shapes that relate to surrounding street scape.
- The character of the neighbourhood is improved by providing a carefully designed frontage with communal use facilities that support the existing established communal use facilities.
- Carefully chosen material palettes relating to the adjacent built environment and the use of buildings as a learning tool are key principles of the design outcomes.
- Achieve a purposeful composition of materials and elements through a rigorous design process
- The perimeter palisade fence will be broken up along the street frontages by stepping fence panels and forming low level gardens. This will soften the approach to the school making it more welcoming to the wider community.
-

GANSW DESIGN PROCESS AND EVALUATION

1. Community integration

The PS Project Reference Group and community groups identified the need to promote interaction with the local community. The existing adjacent child care centre and Community Hub provides the site with a new Learning Precinct character. The new development creates legibility, identity to the existing community character and intends to give a new landmark to the area.

2. Collaborative brief: Foster agreement from the school and community on the preferred pedagogical approach

The functional brief and education rationale was carefully developed through a collaborative design process, setting ambitions, goals and approach strategy. The design team, educator specialists, education policy makers, teachers, school executives, DoE area director, parents and carers representatives developed the design through a structured consultation process. The Local Community was also consulted in the process through info booths.

3. Participatory pedagogy: A strong brief with a clear set of values

Different pedagogical approaches for primary schools were studied locally and internationally and discussions on pedagogical approach was an important part of the Consultation.

Ultimately the School determined a most suitable and adaptable teaching and learning style for the demographics particular needs. School staff liaised and visited St Clares Primary School Melbourne, setting standards and lessons learnt that could be incorporated and improved in the new development. Spaces are designed to be easily adaptable to pedagogic, demographic and information technology changes.

4. Procurement: Set up a procurement process to appoint the best designers

GroupGSA Architects were appointed by the DoE based on their extensive experience in Educational architecture based on strong Education pedagogy principles. It was valuable to discuss pre-existing built assets in order to set out a basis to develop the brief and design goals. The intention is to deliver a cost-effective and long-term community asset.

5. Master Plan: Allow time for design,site planning and master planning in collaboration with the school and community

Several master planning options were discussed with the PRG, before a preferred option was developed in further detail along with the functional program brief.

The master plan options addressed location, massing, urban fabric, infrastructure, demographics, transport , services opportunities and constraints. Educational rational and school specific needs and goals where also part of the consultation process at master planning stage.

6. Design reviews

Design reviews were undertaken internally at all milestones including masterplan stage, concept design stage, appoved concept design stage and tender. They benchmarked the design intent against the functional brief and educational expectations. These reviews included interdisciplinary staff from outside the project team.

Design reviews feedback and proposed changes and opportunities were further discussed and agreed upon with the Project Reference Group, DoE Project Management Office, the DoE technical stakeholder group, and GANSW.

7. Design champion

The Project Reference Group was set at the beginning of the consultation process, prior to the Masterplanning stage. A Parents and Carers representative, as well as a local School Principal and different head teachers were included in the group. Their role was to set priorities and influence decisions as a reference to the State Government Client.

8. Always complete a post-occupancy evaluation and continue to adapt the environment as things change

The design champions are totally independent of the Design team and will follow through the design and procurement process.

GroupGSA architects encourage stakeholders and DoE to obtain and keep records on objective outcomes of the design, efficiency, maintenance, fit for purpose functionality of the school.

The information becomes a benchmark for future project deliveries, impact on design outcomes, efficient use of space, community use, energy efficiency and any other matters that will benefit the future designs and stakeholders.

RATIONALE FOR THE DESIGN - EDUCATION PRINCIPLES



Learning + Teaching

Achieve academic growth with focus on core education skills

- Lifting the standard of reading and numeracy.

Facilitate individualised targeted learning

- Focus on the individual needs of students and provide tailored education solutions to suit.

Utilise technology to enhance education

- Establish digital connections with the broader community and equip students with the skills for the digital world.

Maximise indoor and outdoor learning opportunities

- Create stimulating and interconnected learning landscapes, for both learning and passive/active play.

Collaborative teaching environment

- Better integrate teachers, support staff and service providers so that learning outcomes can be more readily achieved.

Nurture, welcome and care

- Foster the accepting, respectful and welcoming nature of the school.



Environmental Responsibility

Education through environmentally sustainable measures

- Use sustainability measures to reduce the ecological footprint of the school while acting as a tool for education.

Reduce waste and encourage reuse

- Create a culture of environmental sustainability which continues into life outside school, creating responsible students.



Community

Capitalise on the culturally diverse local community

- Capitalise on multiculturalism by engaging with the diverse cultural groups in the local community, integrating diversity into the fabric of everyday school life.

Sharing resources with a growing community

- Understanding the needs of the wider school community and sharing the school's facilities.

Accessible to all

- Encourage community permeability to a school which is open to all. Foster connections through the gathering of the school and wider community.

RATIONALE FOR THE DESIGN - DESIGN PRINCIPLES



Welcome

- Provide a legible and welcoming point of entry to the school.
- Facilitate appropriate community use of school facilities



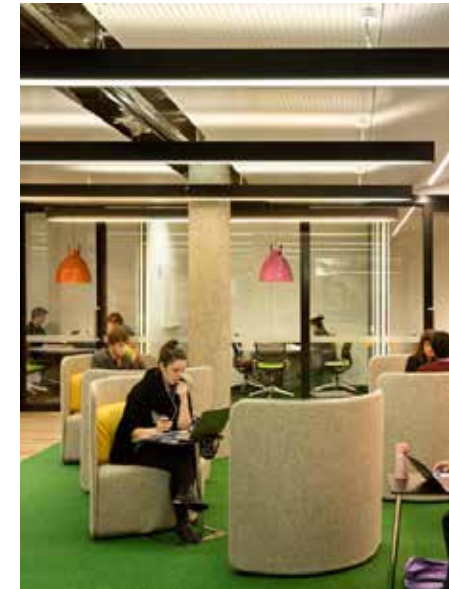
Enhanced learning

- Provide education settings that support a variety of learning levels and needs
- Provide spaces that support direct instruction where required
- Create learning settings that facilitate focussed small group learning
- Provide acoustic separation and attenuation to small group learning settings
- Embrace technological advances that support the core curriculum but also facilitate experimentation with video conferencing and the like
- Provide enhanced amenity to all new learning spaces in terms of light, air and visual permeability
- Provide spaces for indoor and outdoor gathering on a range of scales from 1-4 persons through to 150 persons
- Create spaces that promote indoor/outdoor connection



Interconnected Landscape

- Address the current disconnection between the two zones of the campus
- Where possible, improve visibility and usability of areas which are currently out of bounds or under-used
- Preserve the open expansive nature of the field as an asset to the school



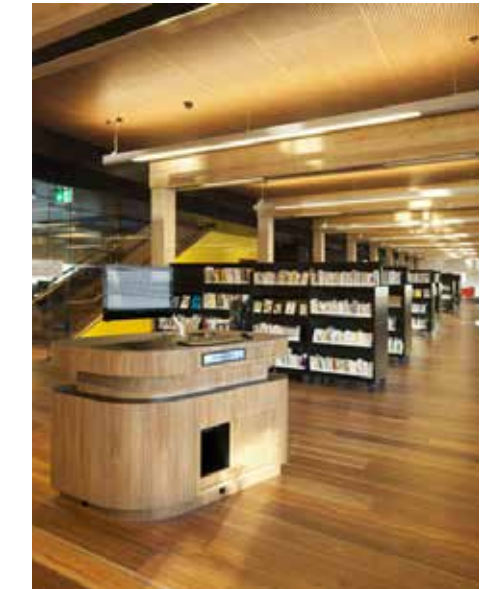
Support & better integrate staff

- Create a central space that all staff want to congregate in
- Improve passive surveillance of the staff and administration spaces
- Provide upgraded and reorganised facilities to enable staff to collaboratively plan.
- Better interconnect the staff spaces with the remainder of the school to enhance interaction and supervision.



Grow

- Facilitate and allow for predicted growth
- Create buildings that are adaptable to future change
- Create a strategy for future growth in addition to the current building works program



Environment

- Utilise construction methodologies with a reduced carbon footprint
- Recycle, reuse, reduce wherever possible.
- Investigate alternate construction techniques such as prefabrication
- The building works should teach and contribute to learning outcomes. Key strategies include:
- Place any ESD systems in highly visible locations so that they can be interpreted and used
- Use sustainable built fabrics that change, weather and age gracefully
- Investigate tectonic building approaches so that the way the building has been designed and built can be clearly understood and explained

MASTERPLAN ASSESSMENT

As part of the ‘Master-planning Phase’ 3 masterplan options were presented for consideration by the Project Reference Group and Client Stakeholders. The three design options were assessed based on the established project specific Education Principles and Design Principles which were developed with the Project Reference Group. The 3 proposed masterplan layouts are charted and scored against the matrix of principles in order to achieve the best design outcomes for the school as per their ‘project vision’. This also ensures the final design embodies the first principles which we have established together with the school.

As part of this process, it was established that ‘Option C’ provides the most opportunities for the school and is most in-line with the school’s vision for their future community. Some of the key elements of ‘Option C’ which scored highest in relation to the school’s vision included;

- Consideration of the future changes to the surrounding context (due to the unknown time-frame for the construction of Pelican Road)
- ‘Enhanced Learning’ and ‘Interconnected Landscape’ through shared community use of outdoor spaces
- Enhanced ‘Welcome to the Community’ through joint-use opportunities of facilities
- Reduced ‘Environmental Impact’ and ‘Value’ due to spatial efficiency due resulting from shared use of car-parking
- Based on this assessment, ‘Option C’ masterplan was selected to proceed into the Schematic Design phase.

Criteria	Option A	Option B	Option C
Welcoming to the Community <ul style="list-style-type: none">– Create an urban welcome mat and inviting experience into the school campus.– Provide multi-function spaces that can also welcome and facilitate better community use.– Create safe, inclusive spaces for all types of students that promote wellbeing.	✓✓	✓	✓✓✓
Enhanced Learning <ul style="list-style-type: none">– Provide learning settings that support and enhance a full range of teaching activities from individual, to one to one, to small group, to larger group learning.– Provide spaces that support disciplinary and interdisciplinary learning.– Provide bespoke defined specialist learning spaces readily accessible from the general learning spaces– Provide a level of acoustic separation that suits the intended learning setting.– Create seamlessly interconnected spaces that promote indoor and outdoor learning on a range of scales.– Provide enhanced amenity to all new learning spaces in terms of light, air and visual permeability.– Re-imagine traditional learning spaces such as libraries as contemporary learning spaces for collaboration andengagement.– Provide opportunities for community engagement to enhance learning outcomes	✓✓	✓✓	✓✓✓
Interconnected Landscape <ul style="list-style-type: none">– Enhance site wide interconnection and equitable access.– Create specialist precincts across the campus such as indigenous edible gardens and community kitchen garden.– Create weather protected outdoor rooms which incorporate defined learning functions.– Create opportunities for shared community use of landscape and sports courts	✓✓	✓	✓✓✓
Support + Better intergrate Staff <ul style="list-style-type: none">– Create a centrally located staff hub to facilitate cross cultural learning and a sense of belonging.– Create a leadership centre where professional learning and data monitoring can occur.– Provide facilities that enable teachers and support staff to collaboratively plan and research, supporting innovative learning.– Provide a range of spaces that also include both open plan and more cellular space for more sensitive activities.– Provide teacher resource trolleys and defined usable collaboration spaces collocated with the learning environments.	✓	✓	✓✓✓
Growth <ul style="list-style-type: none">– Facilitate predicted growth into the future.– Create a masterplan which is adaptable to future changes of the surrounding context.	✓✓	✓✓	✓✓
Environment <ul style="list-style-type: none">– Encourage sustainable transport wherever possible.– Utilize construction methodologies that have a reduced carbon footprint.– Recycle, reuse, reduce wherever possible.– Minimal acoustic impact to the surrounding residences.– Minimise traffic impacts <p>The building works should act as a teacher and contribute to learning outcomes. Key strategies include:</p> <ul style="list-style-type: none">– Place any ESD systems in highly visible locations so that they can be interpreted.– Specify built fabrics that change, weather and age gracefully.– Investigate tectonic building approaches so that the way the building has been made can be clearly understood and explained.	✓✓	✓✓	✓✓✓
Value <ul style="list-style-type: none">– Opportunities for shared use of council facilities.– Spatial efficiency	✓✓	✓✓	✓✓✓
Total	13	11	20



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