The Children's Hospital at Westmead
Multi Storey Car Park

State Significant Development Application No. SSD-10434896

Amended Architectural Design Report - Response to Submissions

05 July, 2021

Document CHW-AR-RT-MCP-DA098 [F]

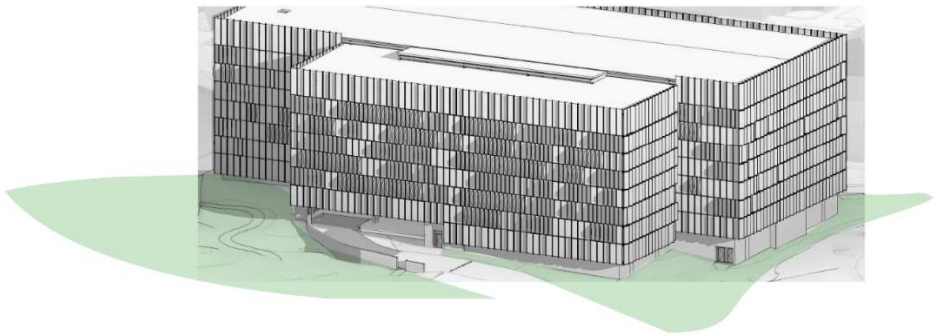

Figure Indicative Birds Eye View Image looking towards the north east corner of the MSCP.

Document Control

Date of Issue	Issue Number	Description	Author	Checked	Date Required
27/11/2020	A	SSD issue	BLP		27/11/2020
22/12/2020	B	SSD issue	BLP		23/12/2020
22/01/2021	C	SSD issue	BLP		22/01/2021
04/02/2021	D	SSD issue	BLP		04/02/2021
12/04/2021	E	SSD issue	BLP		12/04/2021
05/07/2021	**F**	**RTS issue**	**BLP**		**05/07/2021**

Design changes to the project

The following is a list of design changes from the last revision of the SSDA documentation:

1. Redbank road alteration works has a revised layout with 3m nominal building offset. The geometry of Redbank road was revisited by the traffic and civil engineers to accommodate the required swept paths for larger vehicles flowing across the bridge servicing the hospital. The road design alterations also had a pivot point constraint to avoid construction impacting the approach slab of the existing bridge. The re-alignment was driven by the desire to minimize disturbance to existing infrastructure assets, in turn minimizing the potential to disrupt vital links and services.

2. The revised north west corner vehicle ramped entry. As a result of the Redbank road change, the vehicle entry ramp changed in response and created a building interface to the west façade corner. The design team conducted workshops to ensure coordination of the ramp grades and required swept path analysis for the revised design. The swept path sketches are documented within the traffic engineer's report for information. The design team revised the vehicle ramp grades to rise up the additional height within the required compliant grades.

3. Relocation of the fire egress passage to the lower ground and path to Labyrinth Way. To accommodate the revised Redbank road layout, fire egress from Stair 3 was reconfigured to meet Labyrinth way in a safer strategy. The design update provided opportunity for a landscape softening treatment between the MSCP and Redbank road kerb line.

4. Relocate the pump room to the Labyrinth Way building side to the lower ground. In a similar design response, the pump room was relocated to the north east building corner and within close proximity to the fire brigade access. The fire brigade hardstand and booster confirmed accepted by FRNSW. The brigade hardstand and booster had not been shown on the site plan at the time of lodgement.

5. The building was lifted 350mm to support the bulk storage strategy for the project. Since the documents were lodged, there were multiple incremental design changes that collectively increased the volume of cut material in proportion to fill. In response to the revised civil engineer's cut and fill calculations, the design team was required to revisit the car park building levels to reduce the volumes of earth being carted off-site. A feasibility and environmental response to deal with the containment of contaminated soil within the site. The building

level 1 plan was increased in height to increased the opportunity to contain more contaminated fill on site, therefore increasing the overall height of the building.

6. Swap the Lift and Stair 1 cores to have the lift on the LHS. To incorporate the rise of entry level required, the car park southern entry and landscaping needed to be reassessed with a new design approach. BLP proposed the revised design to provide an equitable, appropriate and activated car park entrance point with lift access to the lower lobby side. The lift and stair cores were reconfigured to open up the south west corner lower lift lobby for a legible pedestrian entrance. A double-sided lift entry was required to support the lower lobby entrance and rise of nominal 1.5m height difference.

7. Removal of the landscaped grading to the south of the building and retain existing landscape levels. For a better design outcome, the graded landscape path to the south was removed. With the design of the lower lift lobby, the graded landscape was no longer required to enable level access into the car park. The playground design changed to suit the lifted building. (Part of exempt development) As described in point 8, the re-design of the entry and ground levels required a revised landscape design. The landscape design revised to include a proposed site crossing footpath in response to the government architects comments. General change to the landscape design to support the changed vehicle ramps, Redbank road and bulk storage strategy for the project. Refer to the Landscape architect's design and drawings for further detail.

8. The revised scope of PV glass and metal facades. With the introduction of PV to the roof, the decision was taken to continue the perforated metal façade to the east elevation. The revised south façade layout in response to the lift and stair core handing. In response to the created lower lift lobby entrance.

9. A complete PV covered steel framed roof to the top level. An opportunity to address safety concerns over jumping/fall from height and ability to utilize the roof for solar PV capture, increasing environmental benefits.

10. Revised the car park numbers due to design changes at the lower lift lobby and to coordinate with structure for the roof frame. The provision of the motorcycle parking has been increased through the development of the design and to align with the advice of the traffic engineer.

Table of Contents

Scope of the SSD

Figure 1.0 Aerial photograph in true north orientation identifying the site at the north east of the Westmead hospital precinct.

Response to SEARs Requirements

The table below provides reference to the supporting drawings which address the listed SEAR's general requirements.

SEARs Requirement	Response / Reference Section
General Requirements	
• A detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development.	Architectural Site Analysis Drawings
• Plans, elevations and sections of the proposed development.	Architectural Drawing Set
• Cladding, window and floor details, including materials.	Architectural Drawing Set
• A site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process).	Architectural Site Plan Drawings
• Plans and details of any advertising/business identification signs to be installed, including size, location and finishes.	Architectural Elevation Drawings
• Shadow diagrams.	Architectural Solar Study Drawings
• Any plans and diagrams included in the EIS must include key dimensions, RLs, scale bar and north point.	Architectural Drawing Set

1.0 Analysis

1.1 Context

The Children's Hospital at Westmead (CHW) is located on the corner of Hawkesbury and Hainsworth street in Westmead. The hospital occupies a site approximately 3 km North-West of the Parramatta CBD and 27 km West of Sydney.
The hospital is the main paediatric referral hospital for the west and it provides quality care and clinical services to approximately 80,000 sick children each year. It is the largest paediatric centre in NSW and provides excellent care for children across wider NSW.
With direct connection to Hawkesbury Road and Hainsworth Street, the Westmead Health precinct has a site area of 102,000m², approximately 11ha (DP Lot 1 DP1119583).

The CHW occupies land which forms part of the Darug people's traditional Ownership. For over 60,000 years, the area comprising present day Westmead and Parramatta has been occupied by the Burramattagal people, a clan of the Darug, who first settled along the upper reaches of the Parramatta River. Burramattagal is thought to be derived from the Aboriginal word for 'place where the eels lie down' to breed (within the Parramatta River).

The proposed development under this SSDA is a Multi Storey Car Park (MSCP) accommodating both staff and visitor car parking to be located on Labyrinth Way, on the site of The Lodge. The scope of proposed works includes:

- Demolition of the existing Lodge building on the site.
- Construction of a new MSCP of 8 car parking storeys, which is equivalent to the height of 5 storeys of the hospital. Facilitating 996 car parking spaces for staff and visitors as shown on the architectural drawings.
- Required tree removal.
- Landscape works to the adjacent external spaces of the MSCP site.

The MSCP will have vehicular entry from Redbank road and exit to Labyrinth Way. A split-level car park design approach to the floor plan provides an efficient travel through ramps rising half a level from left to right.
To enable the car park to function effectively, separate entry and exit ramped roads have been designed. For the car park layout to provide efficient parking numbers, an adjustment to the existing road was proposed and includes the scope:

- Realignment of Redbank Road with vehicular access connection to the MSCP.

The MSCP is being designed to be constructed in a single stage yet car parking will be staged operationally to come on-line with parking demand across the Precinct. The first stage of car parking operation will provide replacement car parking for the demolished P17 car park and a portion of the expected growth of 280 additional spaces in line with hospital activity projections until 2031.
The second stage of car parking operation to serve the remaining growth portion in hospital activity associated with the future PSB (subject to a separate SSDA) would only come on-line operationally with the PSB SSDA consent becoming operational, specifically at occupation.

Figure 1.1 Site Context Plan – Showing the surrounds in relation to the proposed multi storey car park and CHW site.

1.2 Access to Site

There are a number of opportunities for visitors to access the site via public transport. With the majority of visitors arriving on public transport via Hawkesbury Road, creating an opportunity to help reinforce this street as the main public and pedestrian zone.

For visitor accessing the site via private transport, the main entry to the hospital is from Hawkesbury Road. There is a drop off which then feeds directly into the main visitor carpark via a roundabout on Hainsworth Street. Staff vehicle access to the site will be from the north via Redbank Road / Dragon Fly Drive. The proposed MSCP will provide staff parking to accommodate vehicles at the periphery of the campus removing the requirement to park in the centre.

The Emergency Department for CHW is located in the recently completed Central Acute Services Building (CASB) building located immediately to the west of CHW and the bulk of Ambulances will be directed there.
The CHW has its own Loading dock located on level 2 and accessed via Redbank Road.

The site has excellent access to public transport, providing multiple options for patients, staff, visitors, and students including:

- For heavy rail, the Westmead train station is located approximately 10-15 minutes' walk west of the hospital.
- For light rail, the proposed Parramatta Light Rail development under construction will have a stop just south of the forecourt on Hainsworth street adjacent to the existing visitor's carpark.
- For high speed rail, the recently announced Sydney Metro West will connect the Sydney CBD to Westmead with a high speed, high frequency metro service.
- The Westmead metro stop will be located close to the Westmead Station to create a major transport node and interchange.
- For buses, the Bus routes 711, 712 and 818 terminate and begin their journeys on Hawkesbury Road with a bus stop located at the CHW forecourt.

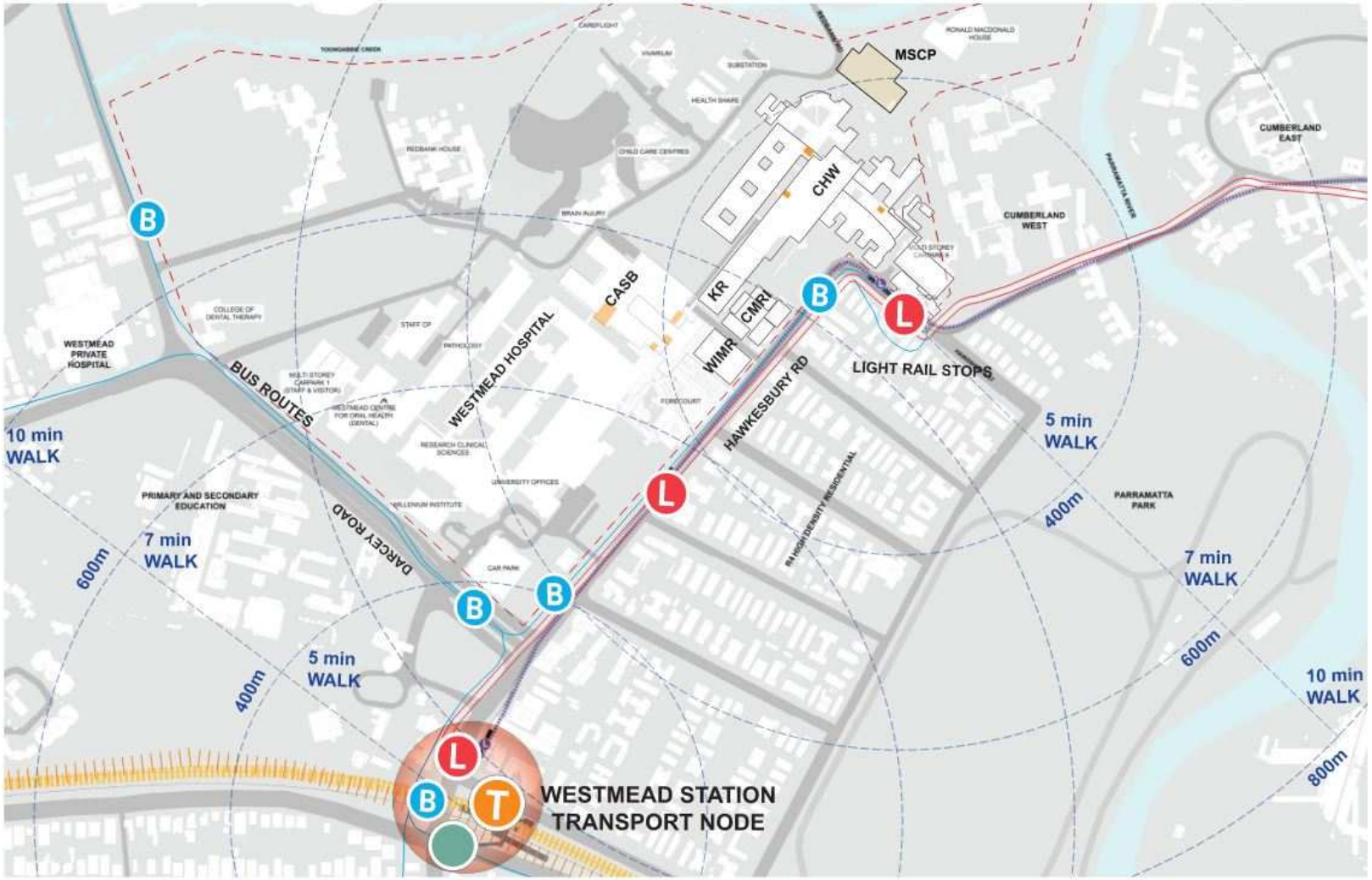

Figure 1.2 Public Transport and Pedestrian Access

1.3 Existing Buildings

A variety of distinct building elements exist in and around the proposed site. The proposed building will have a clear setback and detached interface in relation to the existing surrounding development. Existing block nomenclature and features are summarised below. For context, the proposed MSCP will be located to the east of Block 9.

Block No.	Function	Year/Architect	No. Levels	Areas per Level	Area
Block 3	KIDS RESEARCH Kerry Packer Building	BVN	3	1,186m2	3,558m2
Block 4	KIDS RESEARCH	1995 Laurence Nield	4	1,409m2	5,636m2
Block 5	DIAGNOSTICS Pathology, Cardiology, Pharmacy, Medical Imaging, NICU and PICU	1995 Woods Bagot	3	5,895m2	22,840m2
Block 6	MAIN BUILDING ED, Peri-operative Services, Operating Theatres, Executive and Administration Offices, Public Entry, Galleria and Retail	1995 Laurence Nield	4	5,710m2	22,820m2
Block 7	CHILDREN'S HOSPITAL MEDICAL CENTRE Medical Consulting Suites	1995 MSJ	4	1,117m2	4,467m2
Block 8	OUTPATIENTS Outpatients Clinics, Allied Health and Rehabilitation Services	1995 MSJ	3	3,794m2	11,382m2
Block 9	WARDS 10 Inpatient Units, Oncology, Renal Dialysis Unit	1995 Government Architects	3	6,195m2	18,585m2

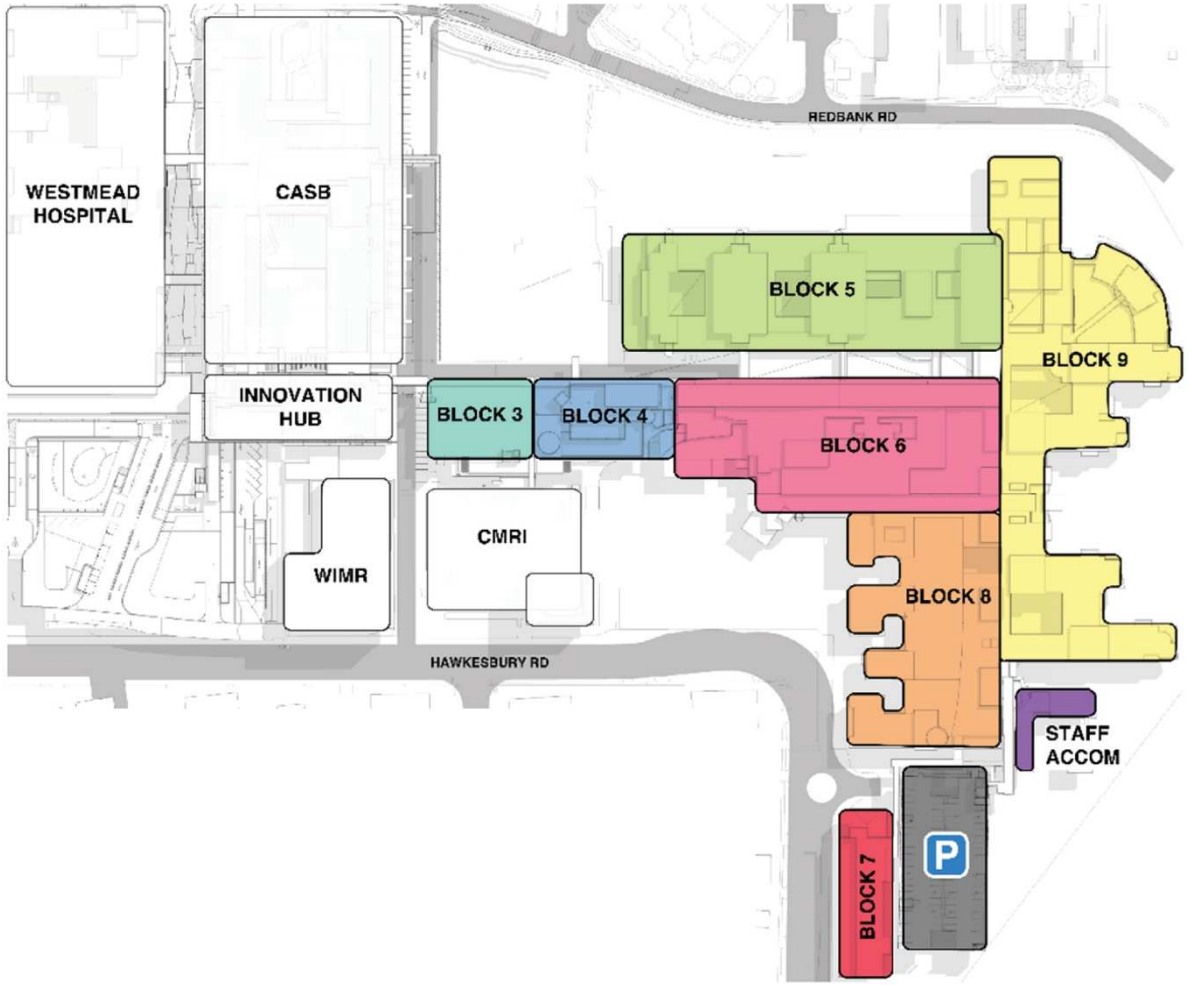

Figure 1.3 Existing CHW Building Stock

1.4 Topography

The topography of the whole of the Westmead Health precinct falls from the highest point at the South-West on the corner of Hawkesbury Road and Darcy Road to the North East near the Redbank Road bridge across Toongabbie creek. Vehicle entry into the proposed MSCP is from the low level of Redbank road ramping up to a higher deck level that is completely above ground. All of the car park floor is above natural ground and as an outcome natural ventilation through the perforated façade is supported.

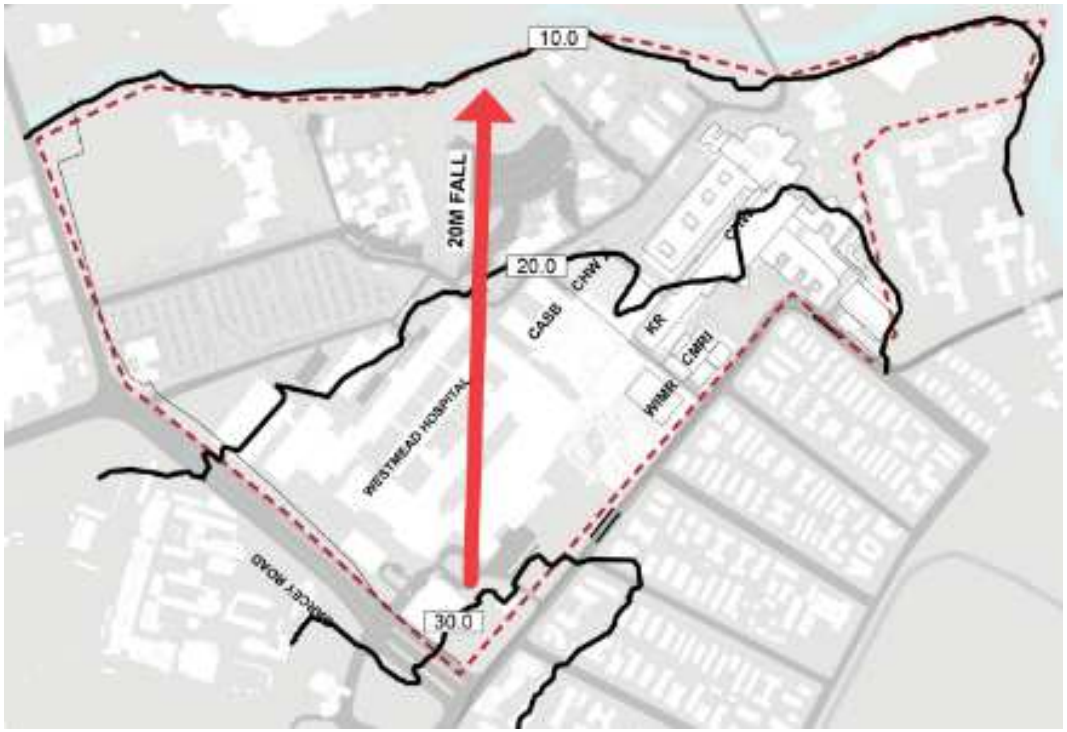

Figure 1.4 Topography diagram showing the south to north fall across the hospital.

1.5 Green Spaces

Westmead Health Precinct is approximately a 10 - 15 minute walk from the Westmead Train Station as illustrated on Figure 1.2.

The MSCP site is located to the south of Toongabbie Creek and to the west of the Parramatta River as illustrated on Figure 1.0. In close proximity to the site there is an existing network of waterway paths providing a connection with the natural environment.

Parramatta Park is located approximately 300m to the south east.

Subject to a separate planning application will be the proposed landscape plaza zone known as Kidspark which is part of the CHW2 core project scope. The landscaped zone includes revitalisation works to the existing CHW forecourt to provide, identity, play and recreation space and a zone for community gatherings and provides an external lobby to the Kid's Way entry.

1.6 Urban Planning

Title / Ownership / Site Lots
The extent of the Children's Hospital at Westmead MSCP works falls under the following lots:

- Lot 101 in Deposited Plan 1119583
- Lot 1 in Deposited Plan 1194390

These lots are under the ownership of the NSW Health Administration Corporation.

The Children's Hospital at Westmead MSCP works are subject to Zone SP2– Infrastructure (Health Services Facility) under Parramatta Local Environmental Plan 2011 as illustrated on the figure over.

Development control zones abutting the WHC site include

- High Density Residential R4 toward South East (across Hawkesbury Road)
- Public Recreation Zone RE1. Directly North (Toongabbie Creek) and east (Parramatta River).
- Mixed Use B4 to the South West (University of Western Sydney) and to the east (Cumberland East).

In addition, the site is in part affected by localised flooding impacts to the north.

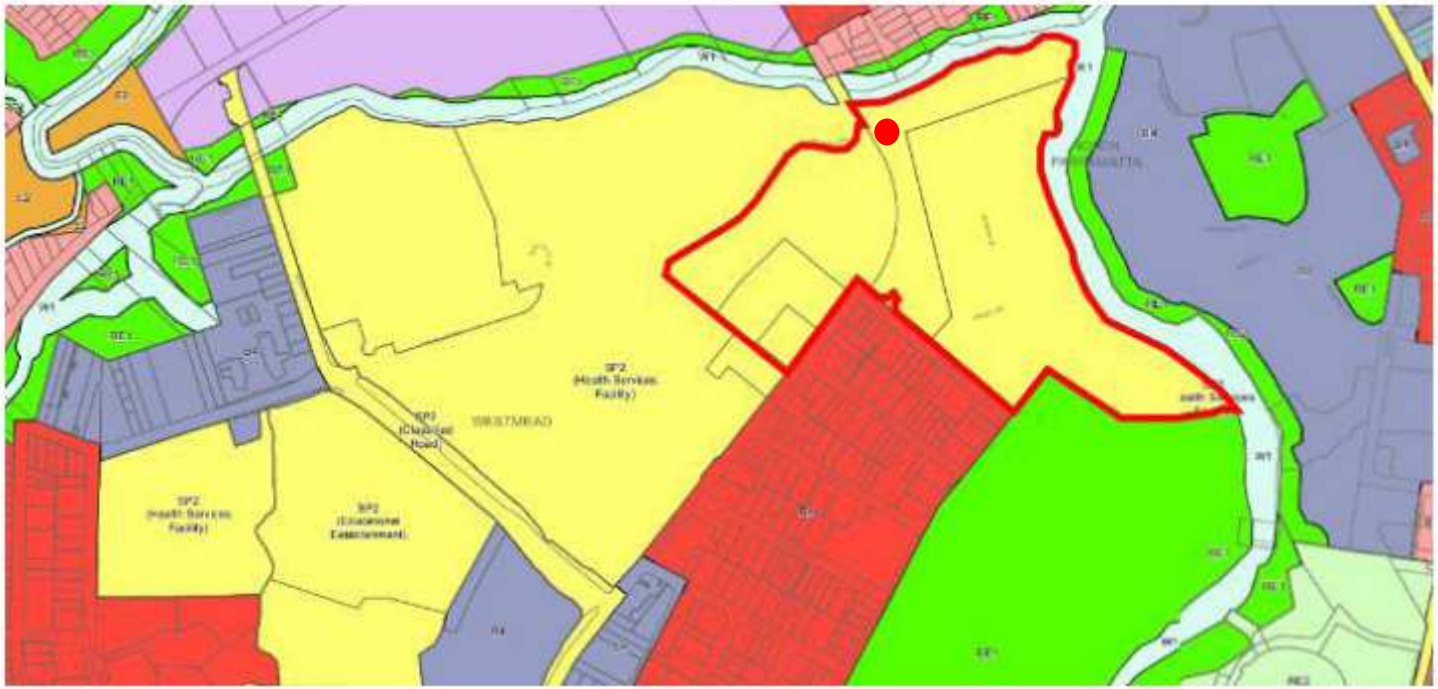

Figure 1.6 Extract of zoning map of Parramatta Local Environmental Plan 2011, Source: PLEP 2011, 6250_COM_LZN_004_010_20150122 and 6250_COM_LZN_009_010_20150122, with BLP edits (2020). Proposed MSCP marked with a red circle.

2.0 Masterplan Context

2.1 Master Planning Principles

The CHW Stage 2 is informed by a significant body of master planning work which sets the framework for future development of the CHW and wider Westmead Health Precinct.

The following Master Planning Principles were developed in collaboration with the project stakeholders:

- Parents and Families: Enable excellent delivery of paediatric health services for patients and their families.
- Presence: Enhance presence on Hawkesbury Road through a visible and identifiable street frontage for health and research
- Movement: Enable movement through the site to support the integration of health, research and education through flexible and adaptable spaces
- Connections: Promote connections to public transport on Hawkesbury Road and ambulance, logistics and staff car parking to Redbank Road
- Green Community: Facilitate further connection to the community and green spaces, including Toongabbie Creek and Burramatta – Place of Eel

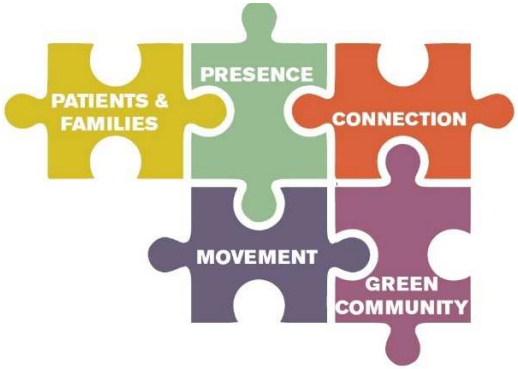

Figure 2.1 Abstract Diagram of Master Plan Principles

2.2 CHW 2 Zonal Master Plan

The Zonal Master Plan set the future development framework for the CHW site and identified the following key zones for further development as part of concept design for the CHW 2 redevelopment:

- The Site adjacent to the existing CASB will form the core of the redevelopment, facilitating the consolidation of acute paediatric services adjacent to the CHW 1 services: Paediatric Emergency Department, Acute Imaging, Operating Rooms, Intraoperative Imaging Services and Medical Short Stay. Subject to a separate planning application.
- Enabling key clinical links and adjacencies between the Stage 1 and Stage 2 services.
- Kid's Way is the key connecting space linking Hawkesbury Road to the main redevelopment site adjacent to the CASB and subject to a separate planning application.
- The existing Galleria is a triple height atrium which is the main public circulation spine trough the existing CHW.
- The Integration Zone lies at the intersection of Kid's Way and the Galleria providing both a logical wayfinding point and a place for education. Subject to a separate planning application.
- The proposed MSCP development has an adjacent connection to the Galleria for circulation through the hospital. Staff and visitors will be able to conveniently arrive to and depart from the periphery of the health precinct. The natural environment and landscape designed external space to the MSCP will have a calming positive experience for people.

2.3 Concept Design Response to the Master Plans

The concept design was developed within the parameters confirmed in the Zonal Master Plan and developed as below.

Figure 2.3 External Relationships Zonal Masterplan

The proposed MSCP is required to replace the P17 staff car park which has been demolished to make way for the proposed PSB building the subject of a separate planning application. The site of the Lodge, north east of the existing CHW and west of Ronald McDonald House.

3.0 Architectural Design

3.1 Conceptual Framework

The conceptual framework builds on the natural landscape of the surrounding area, close to the point where 3 waterways converge.

It is the point where the fresh waters of Toongabbie and Mills creeks meet the saltwater of Paramatta River that eventually runs into Sydney Harbour and the Pacific Ocean.
The meeting point of the 3 rivers was a historic meeting point for the traditional owner brought there annually to trade and fish for eel.

Further feedback on this concept from the Parramatta City Council Aboriginal Advisory Committee has yet to occur.

This coming together can symbolise a sharing of ideas, where the Sydney Harbour City meets the Westmead / Parramatta River city. The conceptual framework is based on the Journey and the life cycle of the waterways.

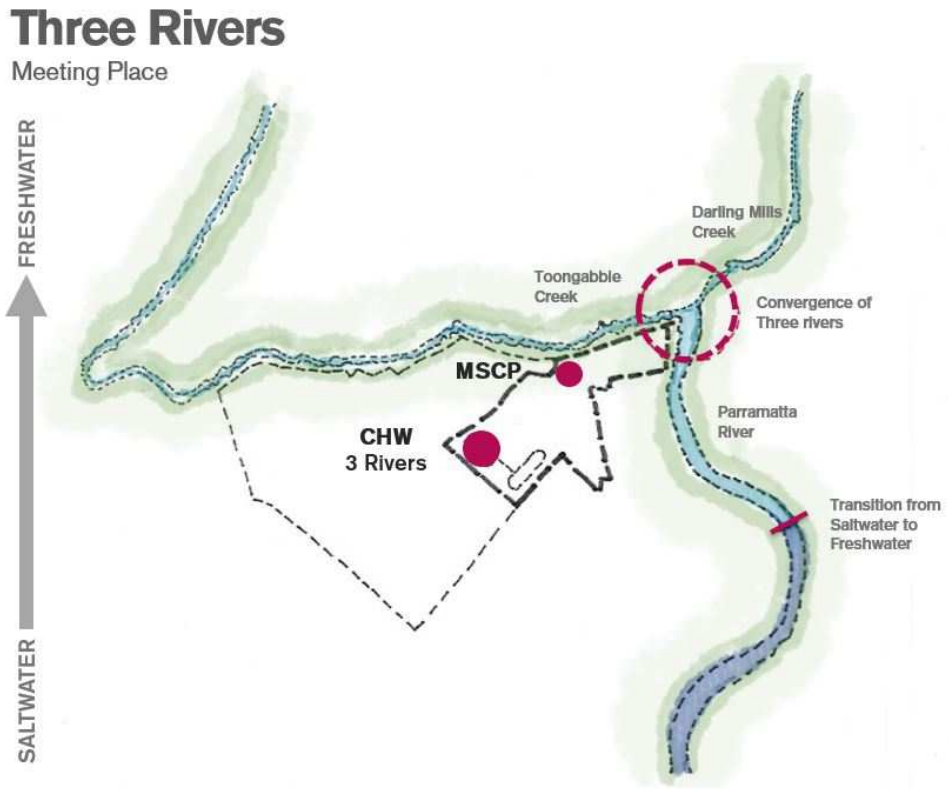

Figure 3.11 Conceptual Framework Map

Figure 3.12 Conceptual Frame work Key Words

3.2 Built Form

Façade and Materiality

The treatment of the façade for the multi storey carpark draws inspiration from its proximity to the local river networks and the sustaining properties that this offered the local indigenous communities. As described in the figure below, “Burramatta being place where eels lie down” and the “bream, mullet and flathead (that) were certainly caught”.

Figure 3.21 Parramatta River Aquatic Wildlife

Façade and Materiality

Looking back at the children's hospital, the south and west elevations are composed of a rhythm of feature aluminium panel modules. The design includes edge folded flat panels and edge folded flat panels with angled elliptical projections. The elliptical projecting panels are arranged across the facade to create a pattern that mimics the movement of eels through water. Their shape references fish scales. The more articulated façade patterning is applied to the western and eastern facades, as these will have the most visual impact on the surrounding occupants.

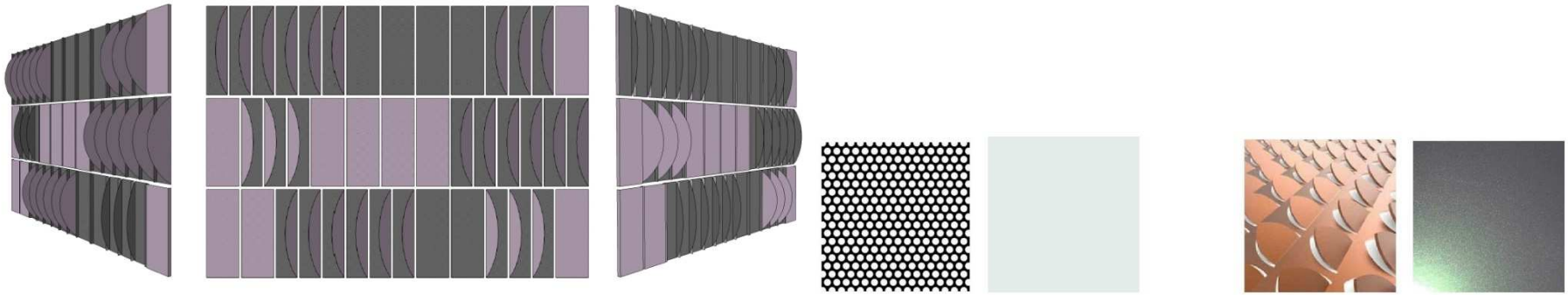

Figure 3.22 Façade Concept Diagram and images depicting the Perforation Pattern and Finish

The 2 panel types have 2 perforation patterns. The simpler flat panels have a standard hole punch (50% open area) and the elliptical projecting panels will have a 3 dimensional 'scale' punched and fold perforation. This aims to carry the 'fish scale' referencing through to the detailed, micro scale.

The use of colour is also employed to strengthen the panels' arrangement. The flat panels will be finished in a metallic white powdercoat, a neutral backdrop to the more animated fish scale panels. These are finished in a dichroic metallic powder coating, which changes from silver, pink to purple depending on the movement of the sun for creating an active, ephemeral façade.

Facing the roads and away from the children's hospital, the north elevation is composed of building integrated photovoltaic cells (BIPV) oriented to generate energy and follow the sustainability objectives of the project. The intent is for the solar façade to be angled to absorb energy and to maintain the natural ventilation requirements of the carpark.

Solar Façade

During the design process, the design team explored the opportunity for part of the MSCP building façade to incorporate BIPV technology. BLP consulted with 2 European specialist manufacturers of BIPVs to gather knowledge from their experience. Both companies have successfully completed international projects and are looking to establish in Australia.

Design of the BIPV onto a naturally ventilated open car park façade is challenging and will be a custom design. The large surface area of the elevations also provides an opportunity to harness the natural energy resource of the sun. With environmental concern and an energy conservation strategy, the inclusion of BIPV to the façade is a positive initiative taken towards a sustainable future.

Figure 3.23 Indicative Solar Façade Module – Sourced from SolarLab

The image is an example of a feature coloured PV panel.

As identified on the architectural external elevations, a BIPV glass façade is proposed for the 2 vertical surface areas of the north elevation. Through coordination with the project façade engineer, a façade frame has been proposed to support the PV glass panels. The design intent includes a structural steel beam at the slab face with a bracket fixing to the PV glass box section frame. The PV glass support design will most likely be refined during the next phase of design and construction. The PV glass façade panels are angled towards north and there is a degree of angle variation to create a playful response with the façade. For the project, the design response skins the northern façade in a PV panel with a mild tint of bronze, pink and purple hues. The PV will be dynamic under different levels of light exposure and the time of day.

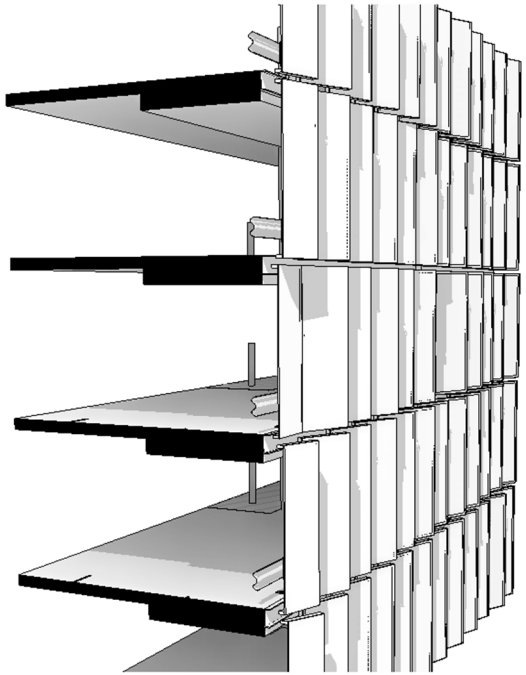

Figure 3.24 Indicative sectional view of the PV façade.

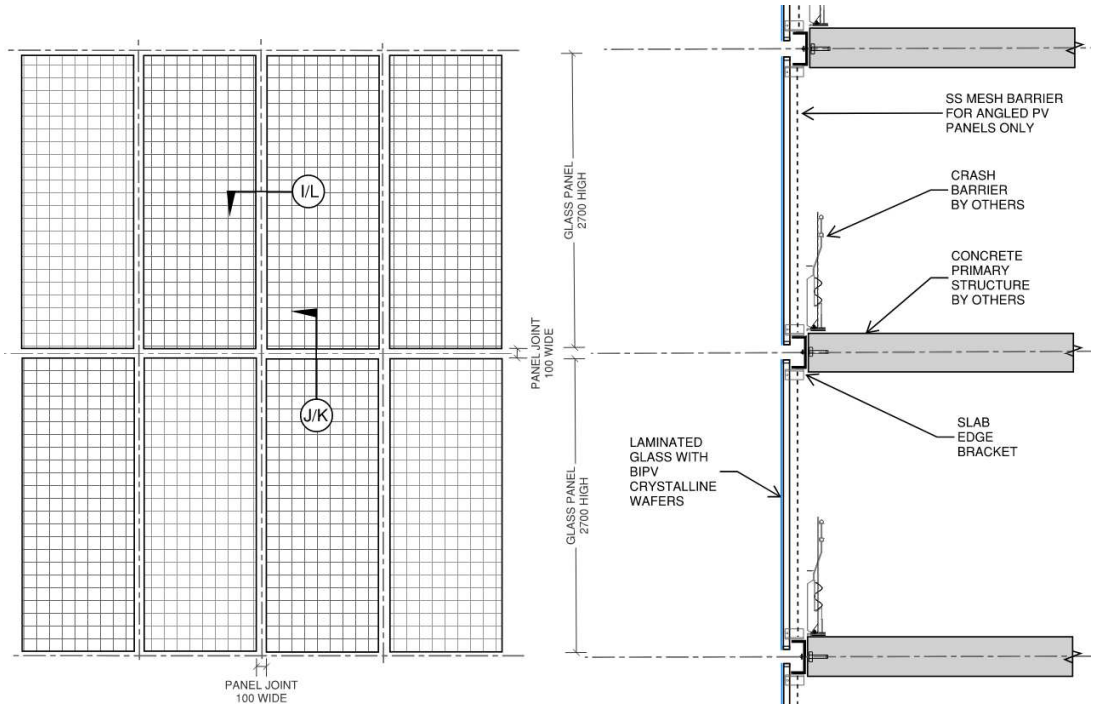

Figure 3.25 Façade partial elevation and façade section – Sourced from Meinhardt Bonacci

3.3 Wind Impact

Arup wind engineers have prepared a wind impact assessment of the proposed MSCP at The Children's Hospital at Westmead on the pedestrian level wind conditions for comfort and safety in and around the site.

An extract in italics from the comments of the study state *there is a potential for aero-acoustic concerns with respect to the 50% perforated screen, particularly if it extends above the rooftop / top level.*

The southern corner, adjacent to the pedestrian zone, is expected to be windy for both key prevailing wind directions.

Additional numerical modelling to be carried out to quantify the qualitative advice provided to date.

Acoustic

Stantec acoustic engineers have prepared a acoustics report for the MSCP. Refer to the actual report for the detailed acoustics findings and recommendations.

Advice extract in italics from the draft acoustics report includes the following:

General Acoustic Recommendations for Construction and Project Specific Recommendations (refer to the report)

Carpark Noise Mitigation

To ensure that compliance with the EPA's Noise Policy for Industry it is recommended that the envelope of the carpark achieves a minimum rating of Rw 5dB, assuming a steel material with 35% open area.

Noise Considerations

The following activities have been identified as being likely to generate noise with the potential to impact the surrounding environment. These noise sources include:

Intermittent noise from activities such as loading cars, slamming doors, patrons talking whilst walking to and from vehicles and traffic noise from car movements entering and exiting the carpark.

Photomontages – Visual Impact Assessment

The red dashed line illustrates the indicative outline of the proposed building beyond since it may be concealed by existing landscape and building context.

Figure. View from the bridge on redbank road

Figure. View from glengariff house

Figure. View from bridge road

Overshadowing and Shadow Diagrams

The building orientation of the MSCP has been designed for good connection with the existing landscape axis of the site. The building has a generous setback from the existing children's hospital however it is designed clear of the existing utilities easement to the east elevation.

The MSCP has an element of vertical height to provide the parking numbers, however the perforated character of the façade will contribute to a degree of transparency and create a filtered and ephemeral shadow to the adjacent building and landscape.

An important aspect of the site to note is to the south of the MSCP, children on the playground will have a degree of protection from the sun. Refer to the Landscape architect's plan and report for a detailed design response to the site requirements.

Figure 3.3 Site Diagrams Illustrating the Shadows of Winter (Left) and Summer (Right)

3.4 Access

People Journey

Access to the MSCP will be part of a comprehensively designed journey which provides clear wayfinding from the key public access points.

The journey will create a sense of identity and arrival at the campus. The design will include opportunities for play, distraction, information, respite, food and beverage.
The journey will be designed to enhance the child's experience and create a sense of arrival at the hospital which is non-clinical and welcoming.

The Key pedestrian journeys are illustrated in the figure over and include journey from the new MSCP through the existing CHW and Galleria.

Wayfinding Strategy

The wayfinding strategy aims to find a balance between clear direction from the MSCP while also informing visitors of journeys to other destinations that also form part of the Westmead Health Precinct. These destinations may be visited as part of the first and initial journey or during subsequent journeys and visits. The aim is to provide familiarity in look and feel for signage across the project.

An additional important aspect and opportunity for wayfinding is, to clearly design the graphics and the overall visual language. The communication will allow children - the target audience – early on to associate with the visual identity and content language of signs within the Westmead Precinct and specifically the MSCP, PSB and the existing CHW. Consultation between signage consultant, architect and aboriginal community representatives will be sought to successfully achieve this aspiration.

"UNIFIED – WELCOMING – PLAYFUL – CULTURAL and ACTIVATED" forms part of the architectural theming of the signage on arrival to CHW Stage 2.

Opportunities for additional and integrated layers for signage can be incorporated in the design, even in areas where children typically find their way around. This, without being literate in form of typical architectural and medical terminology. Colour, shapes,

and graphics can easily provide a subtle layer of information that is legible by children and adults alike contributing to the reduction of stress as finding directions is made intuitive.

Refer to CHW-AR-DG-MCP-DA041 for the location and proposed size of building signage. Detailed design for wayfinding and signage package is subject to further development.

Statutory signage will be provided throughout the precinct as required by NCC2019 and any other applicable Australian Standards, codes, and regulations.

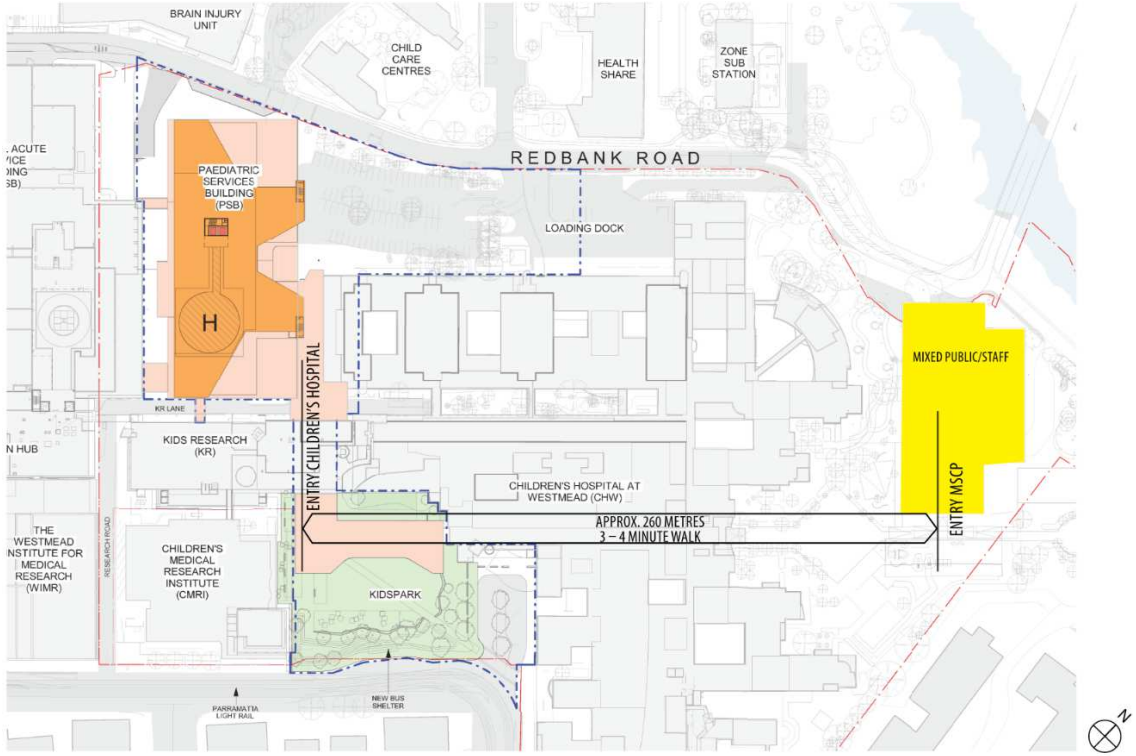

Figure 3.4.1 Indicative Wayfinding Board Image - Sourced from Minale Tattersfield.

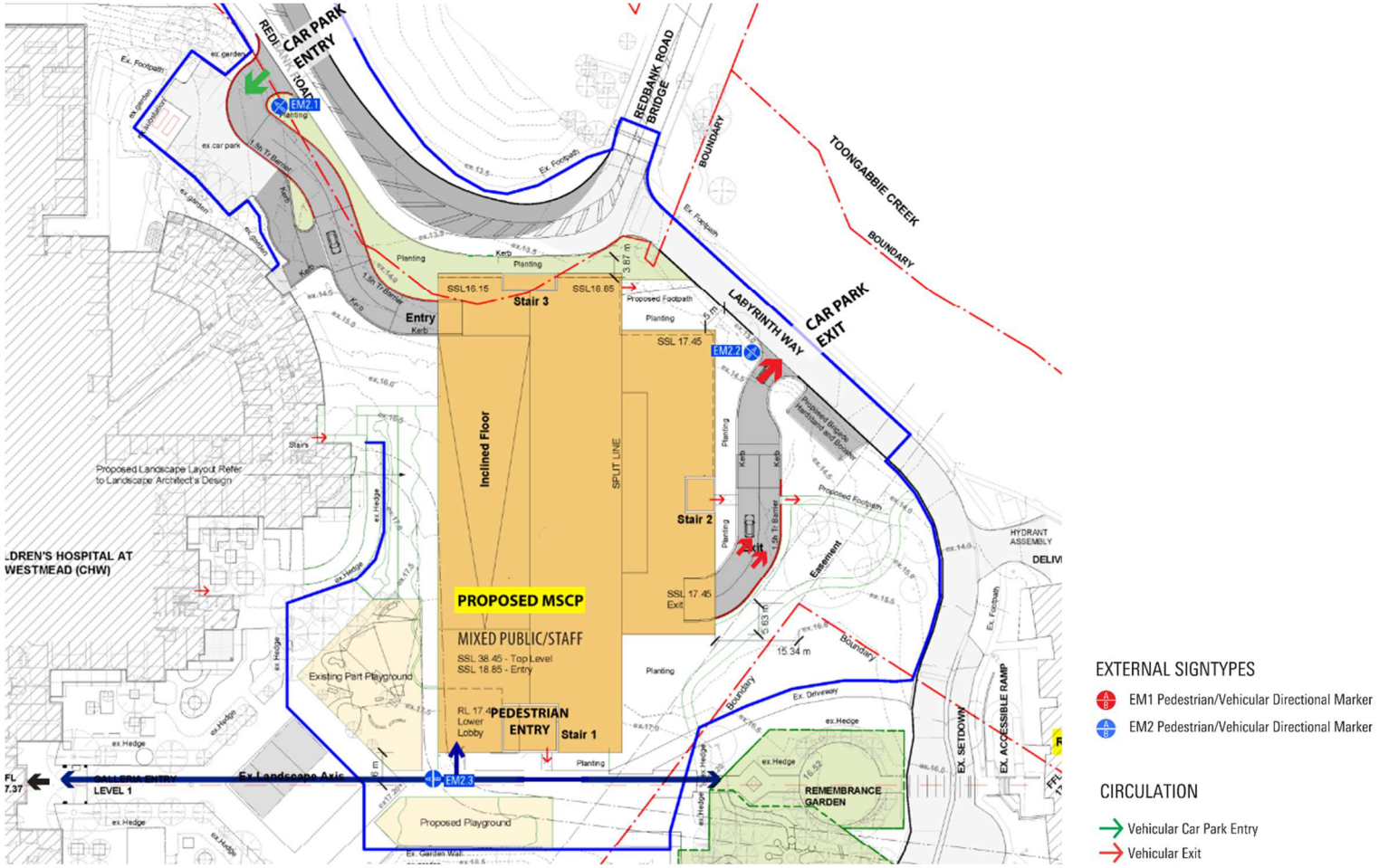

Figure 3.4.2 Indicative Wayfinding Diagram for the MSCP - Sourced from Minale Tattersfield.

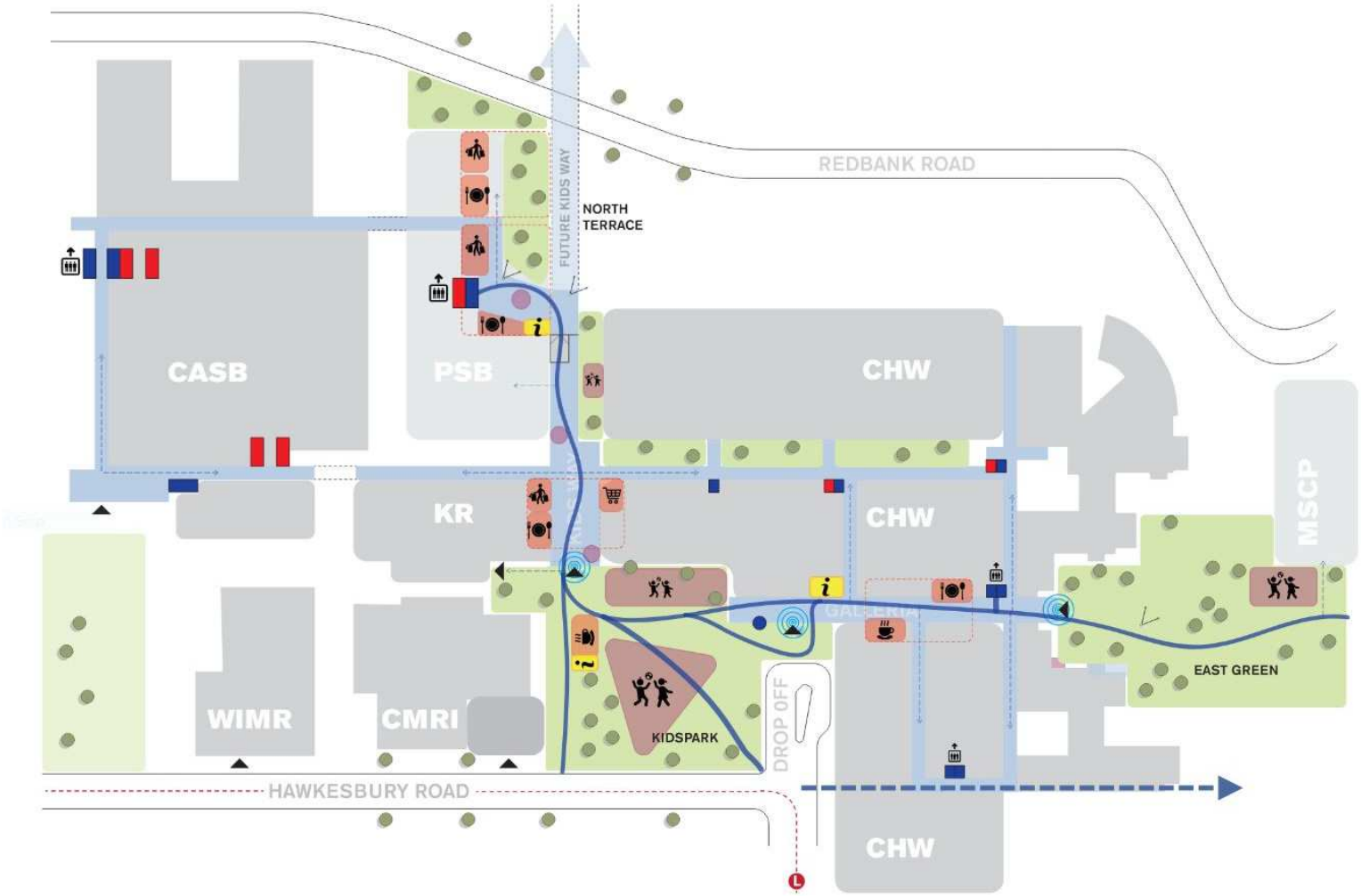

Figure 3.4.3 Proposed wayfinding concept

3.5 Rooftop Design and Services Strategy

Rooftop Design

The upper most level will have a steel framed metal deck roof laid to falls to direct rainwater to the stormwater drainage system. The steel framed metal deck roof is designed with the intent to support conventional type PVs. The large surface area of the MSCP building roof presented an opportunity to collect significant natural solar rays to support the energy requirements of the building and precinct. The roof covering also provides weather protection and reduces the risk of a person jumping from the top level. Refer to the electrical engineer's design and drawings for the PV detail and specification. The stair cores, lifts and lift lobby will also be roofed spaces to provide weather protection and the required shaft enclosures.

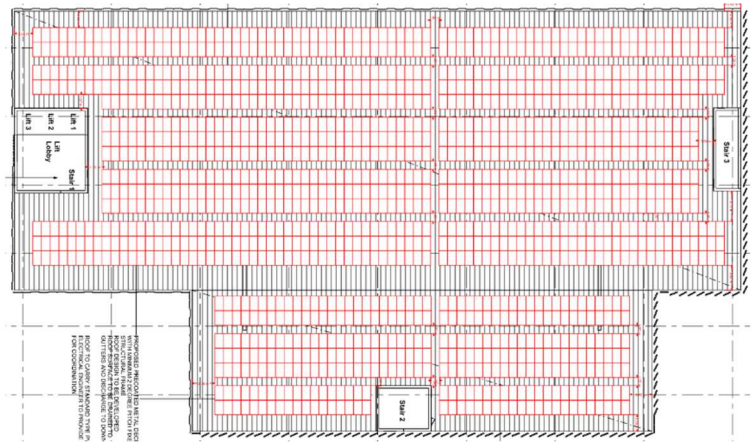

Figure 3.5 Plan showing in red, indicative roof mounted PV. - Sourced from Stantec. (Plan orientation rotated 90 degrees)

Plant Strategy

The main switch room is located at the entry level within close proximity to the substation connection. The MSCP design includes a naturally ventilated façade relieving the requirement for mechanical exhaust plant to service the car park levels. As a building services requirement, the communications rooms will require mechanical air conditioning units to control the thermal room conditions. Refer to the mechanical report for details.

3.6 CPTED (Crime Prevention Through Environmental Design)

The safety and security of staff, patients and visitors is of the highest priority in a hospital setting.

Effective planning and design is required to minimise and, where possible, eliminate foreseeable risks associated with the facility design to staff and others.

A fundamental strategy in the planning and design of safe and secure environments is the adoption of CPTED principles (Crime Prevention Through Environmental Design).

The public and the always open nature of hospitals allows for natural passive surveillance of open spaces. Secure spaces also exist due to the nature of access control and separation of flows between staff, patients and visitors.

The design addresses the four CPTED Principles in the figured table over.

Guidlines	Design Solutions
Natural Surveillance • Facilitate natural surveillance, line of site, open spaces overseeing by staff going about their normal business. Pathways, car parks in full view of staff, passers by, wards, offices etc	• Facilitate observation of as many spaces as possible • Provide line of sight wherever possible • Avoid alcoves and recesses in building façade that could facilitate concealment • Focuses on the placement of physical features, activities, and people to maximize visibility. This includes the lighting of public spaces and walkways at night.
Access Control • Approach to site – Vehicle, Pedestrian, Public transport • Site circulation • Access to building • Signposting • Physical and symbolic barriers for movement control of pedestrian and vehicle	• Segregation of public and clinical circulation • At-grade entries provided • Well defined circulation paths both internally and externally, that are open and well lit. • No through access of Paediatrics ward • Secure separated access and entry points (eg Mental Health) • Clear well defined entries to site and to buildings. Minimising the number of entry points • Signposting used to define staff only areas. • Provide barriers either physical or symbolic.
Territorial Reinforcement • Site delineation and access locations • Functional/transitional spaces, separation of functions • Space definitions/borders, ownership	• Clear delineation between Hospital Campus and boundary and surrounding area/suburb. • All entry areas are situated in locations that have maximum observation. • Security area located within close proximity of the ED public waiting area • Clear delineation of internal and external spaces, including usage separation of functions and transitional spaces for moving from public to semi-public/private to private. • Use of physical attributes that express ownership, such as fences, pavement treatment, art, signage, and landscaping.
Space Management • Well cared for spaces and buildings - maintenance	• Maintain spaces • Maintain the landscape and outdoor spaces to prevent any reduction of visibility from landscape overgrowth • Maintain landscape to reduce obstruction of lighting • Maintaining external lighting to ensure that all times it is operative.

Figure 3.6 CPTED Principles

3.7 Response to Better Placed

Better Placed is a policy developed by the Government Architect NSW that aims to improve the quality of our built environment by defining what is meant by 'good design' and establishing a framework against which good design can be reviewed.

The policy outlines the following 7 key objectives:

- Better fit: *contextual, local and of its place*
- Better performance: *sustainable, adaptable and durable*
- Better for community: *inclusive, connected and diverse*
- Better for people: *safe, comfortable and liveable*
- Better for working: *functional, efficient and fit for purpose*
- Better value: *creating and adding value*
- Better look and feel: *engaging, inviting and attractive*

Better Fit

The Westmead Children's Hospital, MSCP Building responds to and enhances its local context in the following ways:

- Overarching design principles established, to drive all facets of the design (urban, built form, architectural expression and landscape design) are rooted in the unique local context – the convergence of three rivers and the transition from saltwater to freshwater.
- The façade materiality of the built form draws inspiration from the surrounding waterways.
- The landscape strategy responds to both the local river environ and the endemic landscape of the Cumberland Woodland Plains.

Better Performance

Longevity, functionality, adaptability and robustness underpin the Westmead Children's Hospital, MSCP design:

- Façade material selections are robust, resilient, low maintenance and appropriate for the particular external weathering required of a car park.
- The landscaped external spaces of the MSCP promote social sustainability on the Hospitals Campus by providing much needed public and green spaces for visitors and staff.

Better for Community

The design of the public realm and external public spaces stitch the MSCP into the overall hospital campus, as well as, adding to the local community access to public amenity:

- The public domain has been designed to be open and engaging to the local community and one that encourages: play for all ages and levels of accessibility; respects and promotes local community diversity; one that allows for flexible programming and events to occur.
- The building seeks to provide the optimum experience for staff and visitors by linking to the existing campus and providing efficient pedestrian journeys to other key destinations through the Galleria

Better for People

The MSCP has been designed with the experience for people well considered:

- Generous public external, circulation spaces and legible entries ensures a clear and intuitive wayfinding experience.
- Mindful that the building users will be diverse- both in age, cultural background and may be from regional areas – spaces will be designed to address these needs via clear wayfinding and integrated arts and play strategies.

Better Working

- Extensive user consultation to develop and inform the design has been undertaken to create a building which will be functional, efficient and fit for purpose.
- Construction of a standardised 4 bay parking structural grid and split level ramp system ensures fluid movement through the car park and an efficient user experience.

Better Value

- Providing a public domain that is open and accessible to the wider community at all times.
- Providing a modern, future-proofed building that promotes precinct-wide integration will provide ongoing value for the immediate and wider community long into the future.

Better Look and Feel

The MSCP seeks to provide an engaging, tactile and memorable experience through the provision of:

- A generously scaled landscaped space that provides an engaging entry experience to the MSCP, the overall precinct and serves the wider community.
- The façade design is playful with the natural elements and creates a space that is engaging for visitors, children and families.
- Use of façade materiality that reflects the significance of this new building addition to the precinct, local and broader community, with particular attention that the building will be experienced both up close and from distance.
- Clarity in wayfinding to ensure visitors ease of navigation throughout the building.

3.8 Response to GANSW Comments

The following table provides references to the relevant and specific sections contained within this report which address observations made by the GANSW.

Records of the SDRP reviews are included in the appendix.

GANSW Comment	Response/ Reference Section
Session 1 First Review - SDRP #54 – 20.05.20	
Integration of the proposal with the Structure Plan currently under development by BLP and various other masterplans under development by others is crucial. Implementation of a stakeholder engagement process to facilitate coordination across the various plans under preparation is essential to achieve an integrated design as part of a broader master planning process.	(Refer to responses within the separate PSB SSDA.) Refer to Sections 2.1, 2.2 and 2.3.
The focus on landscape as the interface between the hospital, patients, visitors and the community is commended and should continue to be prioritised through design development	(Refer to responses within the separate PSB SSDA.) Refer to Landscape Strategy Report and Section 3.10.
Closely map the likely built form and microclimate consequences around the Integrated Front Entry Building (IFEB) and design KIDSPARK to provide the best amenity achievable within these parameters. Seek expert advice on wind behaviour around buildings and within open spaces, in particular.	(Refer to responses within the separate PSB SSDA.)
Clarify and detail how a sense of welcome and spatial scale appropriate to children will be achieved in the double-height undercroft of the IFEB. Investigate extension of the front entry both visually and physically from the IFEB to Hawkesbury Rd.	(Refer to responses within the separate PSB SSDA.)

GANSW Comment	Response/ Reference Section
Clarify and illustrate how the edge along Hawkesbury Rd will be treated to create safety without requiring the use of physical barriers such as fences, bollards, etc.	(Refer to responses within the separate PSB SSDA.)
Clarify and illustrate the edge conditions to all buildings and spaces all around the IFEB, including details of the proposed treatment to the area between the IFEB and Hawkesbury Rd, noting hard paved surfaces and vehicular areas should be minimised.	(Refer to responses within the separate PSB SSDA.)
Explain how activation and enlivening of KIDSPARK is envisioned within its built context.	(Refer to responses within the separate PSB SSDA.)
Illustrate potential future development to the south of Hawkesbury Rd and how this is envisioned to integrate/interface with the entry zone.	(Refer to responses within the separate PSB SSDA.)
Landscaped areas such as roof terraces, light wells, courtyards should be integrated into every level of the proposed buildings. Provide details of the location, amenity and accessibility of these landscaped areas.	(Refer to responses within the separate PSB SSDA.) Refer to the separate Landscape Design Report
Look for opportunities to bring landscape INTO the buildings, understanding some patients and most staff will have minimal opportunity for exploring the proposed outdoor spaces.	(Refer to responses within the separate PSB SSDA.)
Provide details of how the connection to Country and expression of Aboriginal Cultural Heritage will be made evident throughout the hospital campus and integrated with the built forms: for example, using place naming, landscape, materials, plant selection, art installations/murals, wayfinding devices, paving, colour, texture and so on.	The key design principles for the architectural and landscape design are derived from the site's unique qualities - the convergence of three rivers. This also acknowledges the river setting's importance as a 'meeting place' for the traditional owners. To date extensive and ongoing consultation has taken place with various local Aboriginal representatives to inform the design –

GANSW Comment	Response/ Reference Section
	focused on creating spaces that are welcoming for both the local community and regional kids and families. An Arts and Play Working group with Aboriginal representation has been established and is ongoing inclusive of the incorporation of indigenous content throughout the public domain, that can be appreciated by a broader indigenous community- ‘’see the sky, touch the earth’. A wayfinding strategy will be developed that provides multiple cues (text, colour, and imagery) to allow for ease of navigation by all. This will include investigating the incorporation of aboriginal language and/or imagery. A significant point to note is the considered protection of the existing aboriginal children’s garden on the site. The proposed MSCP is designed with an appropriate building setback from the space and identified on all site plans.
An Indigenous spatial designer should be engaged to work together with the design team and turn ideas of cultural heritage into physical and spatial expressions, integrated within the overall and detailed architectural proposal.	The project team is in the process of engaging an indigenous spatial designer.
Clarify how site topography will be incorporated into the east/west connections and spatial opportunities optimized.	The east west connection occurs primarily on L01 – RL 17.4 through the proposed MSCP lift lobby entrance and the existing CHW Galleria. The existing galleria transition ramp connects the public and staff to Level 02 – RL 21.6. The L01 galleria entrance has the connection to the eastern green space, the proposed MSCP and Ronald McDonald House.

GANSW Comment	Response/ Reference Section
Clarify how the proposed link to Toongabbie Creek will be incorporated into the massing of existing buildings.	(Refer to responses within the separate PSB SSDA.)
Illustrate key vantage points both within and outside of proposed buildings where a view of the sky can be captured.	(Refer to responses within the separate PSB SSDA.)
Illustrate how the project has considered and capitalized on opportunities specific to the site: for example district views from rooftops, activation of the carpark at ground and roof levels, etc.	(Refer to responses within the separate PSB SSDA.) The proposed MSCP and vehicle movement through the existing roads was considered extensively through consultation with our traffic engineer. Countless traffic sketches and workshop time was dedicated to designing a well-considered vehicle flow path of separate entry and exit journeys. The MSCP site has an existing public playground that is to be given a refresh as part of an exempt development. The playground space is an important function of the site addressed to enhance the current facility for the community.
Illustrate the sequence of movement from future public transport nodes to entry points and across and through the site along the proposed axial connections.	(Refer to responses within the separate PSB SSDA.)
Provide large sections across the site to illustrate resolution of levels and connections to ensure the permeability envisioned by the site plan can be realized.	Large scale site sections were presented as part of SDRP Session 2. Refer to the Landscape Report.
Session 2 Second Review - SDRP #66 – 02.11.20	

GANSW Comment	Response/ Reference Section
The size and width of the proposed canopy over the 'KIDSPARK' may be over scaled, impeding the successful growth of good planting. Further studies are required to demonstrate appropriate scale, light quality and shadow impacts.	(Refer to responses within the separate PSB SSDA.)
Covered walkways appear over scaled, requiring further revision and articulation. Illustrate their impact on useable open spaces.	(Refer to responses within the separate PSB SSDA.)
For the next SDRP, please provide a series of light quality studies for the campus circulation areas and shadow studies: sequential sketches /basic 3d models of key external spaces as one moves along, indicating how they are linked to the environment and their light quality.	(Refer to responses within the separate PSB SSDA.)
Further link the green spaces between the KIDS Way and the KIDSPARK.	(Refer to responses within the separate PSB SSDA.)
Upper levels and the façade design should enhance and exhibit green spaces, as well as spaces that are clearly for human habitation used for healing. Avoid the use of long expanses of uninterrupted reflective glazing on the façade.	(Refer to responses within the separate PSB SSDA.)
The extent of 'soft fall' surfaces to be kept to a minimum. Provide porous landscaping elements to help the land retain rainfall.	(Refer to responses within the separate PSB SSDA.)
The expanded carpark is closer to the river's edge than previously illustrated– examine possible reconfigurations to allow larger green spaces at ground level.	The site for the MSCP has multiple inherent man-made constraints including the roads, easements, the playground, monuments and required vehicle accessways to respect. The natural site feature of Toongabbie creek and the topographical fall of the land have also been key considerations for the design of the MSCP. During concept and schematic design, the team

GANSW Comment	Response/ Reference Section
	rigorously tested configurations with the above constraints considered for the car park site design. It is significant to note, the existing lodge building to be demolished for the MSCP has a relatively large building footprint that is within a similar proximity to the creek. The proposed MSCP building will in effect replace the footprint of the existing Lodge. Labyrinth way is serving as the separation of the site from the natural riparian zone and creek waterway system and will be retained as existing. As depicted in the site photos of the appendix, the existing site has large landscaped spaces of hard and soft surface. The proposed MSCP is designed closer to the existing roads at the north and respects the landscaped space to the south of the building. The landscaped axis from the galleria entrance to RMH will have a refreshed finish with the current activity of children and people movement maintained with the proposed design.
Entrance 6 should be expanded to feel generous and not secondary to other entrances on the site.	(Refer to responses within the separate PSB SSDA.)
Within the proposed new building, all corridors where possible should lead to light (a window) or an open public usable space, as to provide respite and encourage wellbeing.	(Refer to responses within the separate PSB SSDA.)
Where possible, provide natural ventilation / operable windows to common areas, wards and patient rooms.	(Refer to responses within the separate PSB SSDA.)

GANSW Comment	Response/ Reference Section
In the next SDRP, present the proposed sustainability initiatives and how these have been incorporated into the building and will enhance user experience.	(Refer to responses within the separate PSB SSDA.) As part of the Design Development phase of the project, ESD initiatives will be further refined and developed. This will be presented at the next SDRP Session.
Explore and illustrate proposal for the building to provide education opportunities to showcase sustainability, Aboriginal culture, art programs, architecture as wellbeing etc. – especially as this is a children's hospital.	(Refer to responses within the separate PSB SSDA.)
Amenity for the KIDSPARK: clearly indicate the scale and feel of the spaces for the (proposed) 2 stage development. Through sketches or diagrams, indicate how the space will be developed and change over time, including changes to landscape and architecture.	(Refer to responses within the separate PSB SSDA.)
Incorporate design guidelines into the masterplan to protect open spaces over time and mitigate potential negative effects such as wind and overshadowing.	(Refer to responses within the separate PSB SSDA.)
Session 01 Third Review - SDRP – 10.02.21	
GANSW Comment	Response/ Reference Section
For the PSB related comments.	(Refer to responses within the separate PSB SSDA.)
The location of the carpark, however, is still problematic and its resolution requires further careful consideration. The carpark occupies a prominent location on the campus with favourable aspect and views to the creek and the treatment of its façade, its scale, the building volume and its relationship to other buildings on the site require thoughtful design development.	The location of the Multi-Storey Carpark has been located to align with the Westmead 2036 Place Strategy, specifically to keep parking outside of the "Health Core". In consultation with Westmead Precinct Partners, the Health Core Master Plan determined that parking should be accessible from arterial roads into the precinct and be at the periphery of the site. The final location of the CHW MSCP achieves these principles, and allows staff and visitors to conveniently arrive to and depart from

GANSW Comment	Response/ Reference Section
	the periphery of the precinct, reducing the volume of vehicles circulating across the hospital. The carpark location and design avoid the existing easements and the journey to and from Ronald McDonald House whilst activating the periphery of the precinct, which is bounded by Toongabbie Creek. The natural environment, open green space and landscaped areas of the MSCP provide a welcoming entry/exit point for visitors. In combination with the playground and retail (subject to further commercial feasibility), seek to enhance the staff and patient experience. The facade design of the MSCP draws inspiration from its proximity to the local river networks and sustaining properties that it offered the local Indigenous communities. In support of the concept, the south and west elevations are composed of a rhythm of feature aluminium panel modules. The panels are arranged across the facade to create a pattern that mimics the movement of eels through water. A comprehensive response on the MSCP location and associated design was provided to GANSW in the briefing package dated 30 March 2021.
The overall strategy for retail and food and beverage should consider the activation of all green spaces including those adjacent to the proposed carpark; this will ensure the masterplan delivers active and engaging spaces for the use of visitors, patients and staff while taking advantage of the site's natural quality and amenity.	The landscaped spaces adjacent the proposed carpark include the public playground and periodical special events for the children. The proposed site design supports the continued occupation for events and a renewed public playground as part of an exempt development.

3.9 Community consultation

As part the SCHN's commitment to consumer engagement and to provide the design team with insights into patient and family requirements, several Consumer Workshops were undertaken by the SCHN, in order to gain an insight into the key issues from a consumer perspective to be considered during the Concept Design process.

Workshops were chaired by the, SCHN Communications and Engagement Manager and were held over Zoom as follows:

- 28th of May, 2020 – 5:00pm – 6:30pm
- 4th of June, 2020 – 5:00pm -6:30pm

Emerging themes

- Outdoor access: ability to see the sky, indigenous and multicultural spaces
- Access to fresh air and natural daylight: windows and views
- Accessibility: ease of access to space, night time access, leaving children
- Art and play
- Design for the full age spectrum: age -appropriate spaces, indoor and outdoor
- Community and communication: spaces to talk to other parents, social aspect
- Family spaces: indoor and outdoor spaces for families – close and extended
- Mental and physical health of parents and siblings
- Consideration of long stays: quiet spaces, family spaces, ability to sleep
- Availability of normal: ability to exercise, healthy food options, facilities and home like qualities, spaces for families and siblings, softening of space
- The spaces in between: waiting spaces while children are in treatment, quiet spaces for a phone call, separated tables in communal areas
- Spaces that are culturally appropriate: welcoming and safe

A key take-away for the design team was that for the patients and families who are cared for at the CHW, the hospital is much more than just a healthcare facility. For many it's a home for months at a time. As such, it's important to recognise that a significant part of a patient's childhood can be spent at the CHW – some patients grow up here, hence the design response must be more than just 'business as usual', we must create an environment in which we would be happy to see our own children grow up in.

These themes have informed the concept design process and will continue to help shape the building design as it progresses through schematic design and beyond. It is anticipated that ongoing consumer engagement will also continue throughout the subsequent phases of design.

3.10 Landscape and Open Space Design

Figure 3.101 Three Rivers Concept

The Westmead Health Precinct supports the transformation of Western Sydney into a global growth corridor of integrated health, research, education and training development, showcasing unprecedented investment into paediatric health facilities in NSW.

The opportunity is now to create a holistic integrated and permeable urban precinct capitalizing on the evolving conditions, the landscape and future infrastructure upgrades.

The precinct includes 2 proposed additional public domain areas of the KIDSPARK and the PSB not included as part of this application. The MSCP will have an upgraded external extension of the Galleria, providing continuous pedestrian connection from the PSB to Ronald McDonald House. The site area includes passive and active landscape areas accommodating a diversity of users.

Underpinning the design of the public domain space are the following key design;

- Unified; Create a unified and legible entry and arrival space.
- Welcoming; Create a space that is inviting, safe, comfortable and inclusive for patients, visitors and community members.
- Playful; Provide an engaging, interactive and adventurous play environment that sparks imagination and wonder.
- Cultural; Be positioned as a cultural destination within the community, reflecting indigenous history and culture.
- Activated; Create round the clock activation to service the needs of the broader community.

Refer to the Landscape report for detail.

Figure 3.102 Landscape Plan for the MSCP Precinct

Appendix

- Existing site photographs included to provide a visual context and appreciation for the site condition.
- GANSW Presentation #1 - SDRP #54
- GANSW Presentation #2- SDRP #66
- GANSW Presentation #3- SDRP

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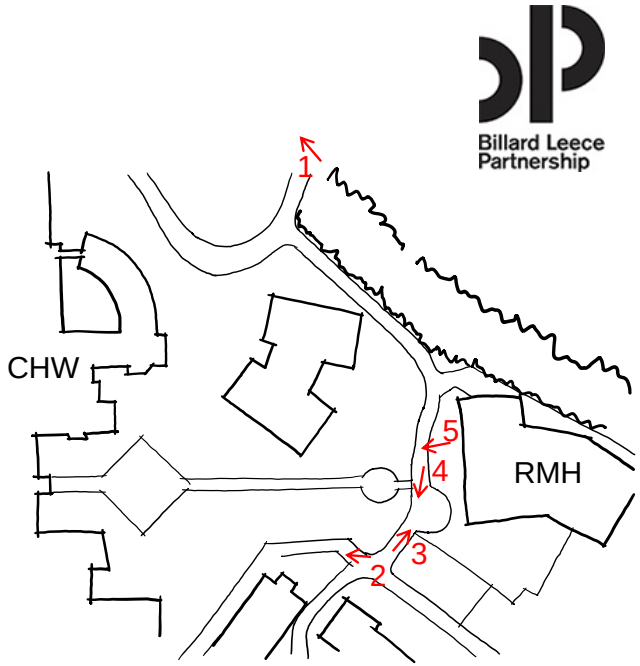

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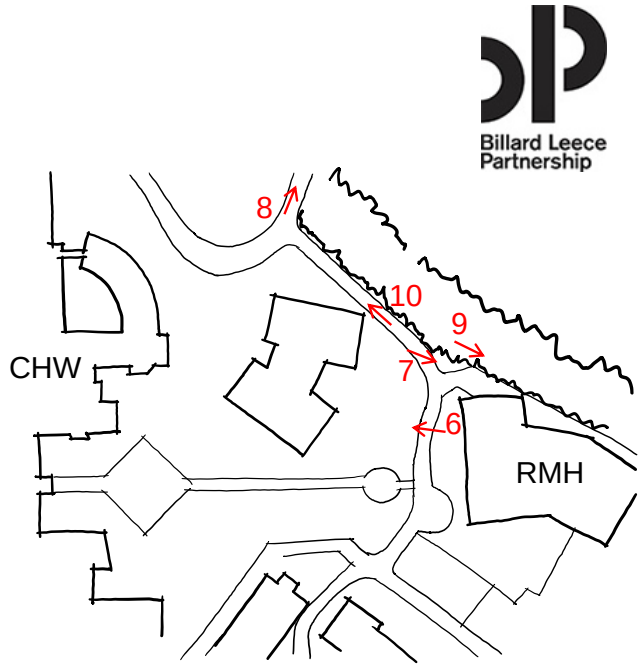

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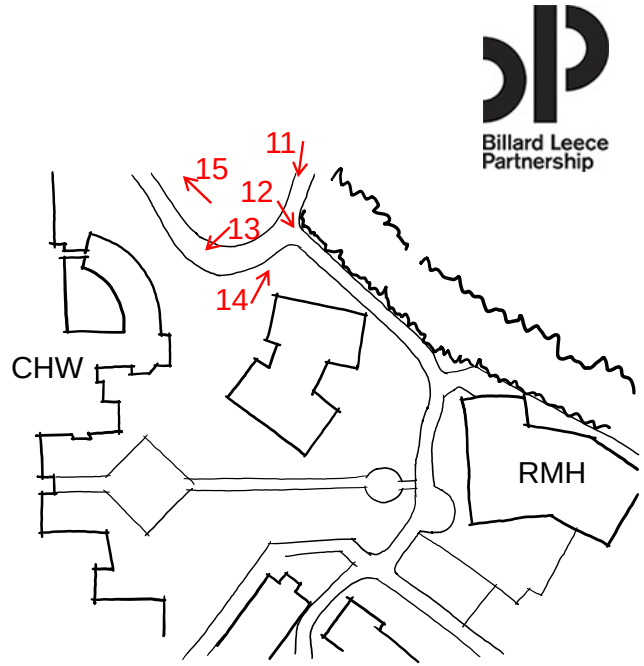

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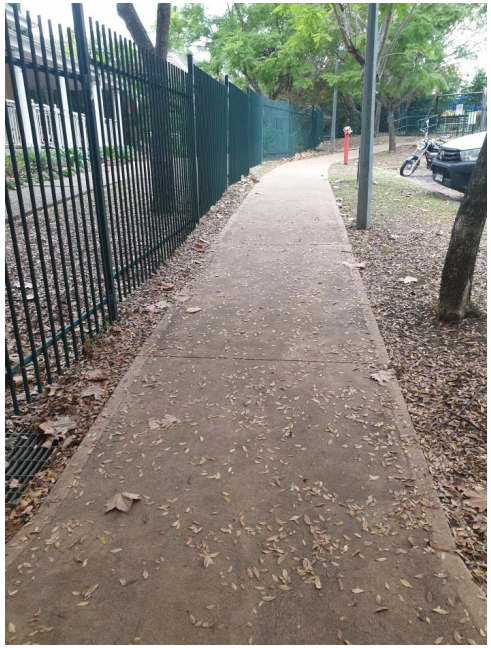

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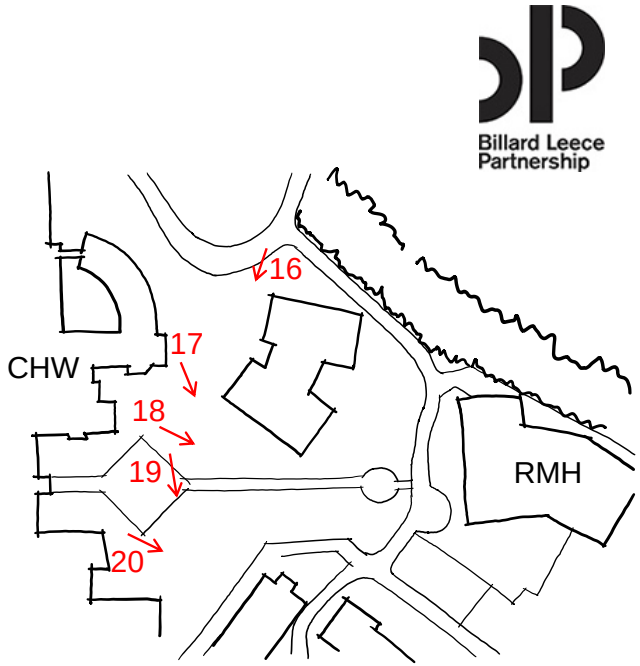

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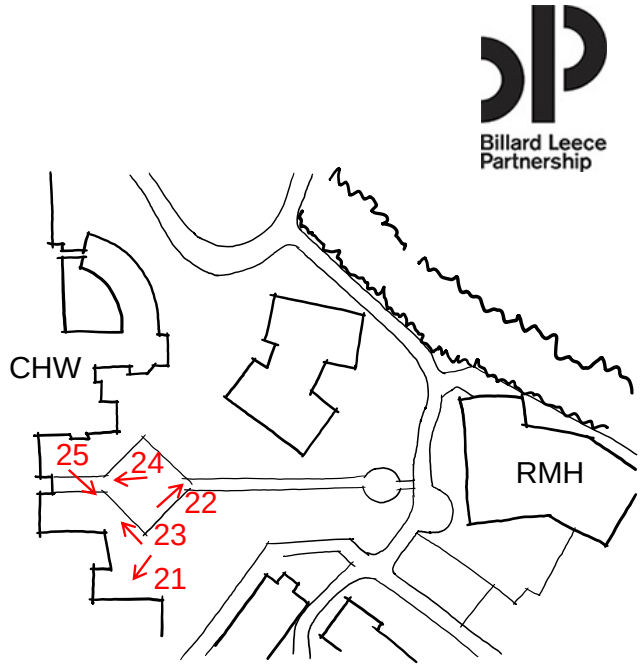

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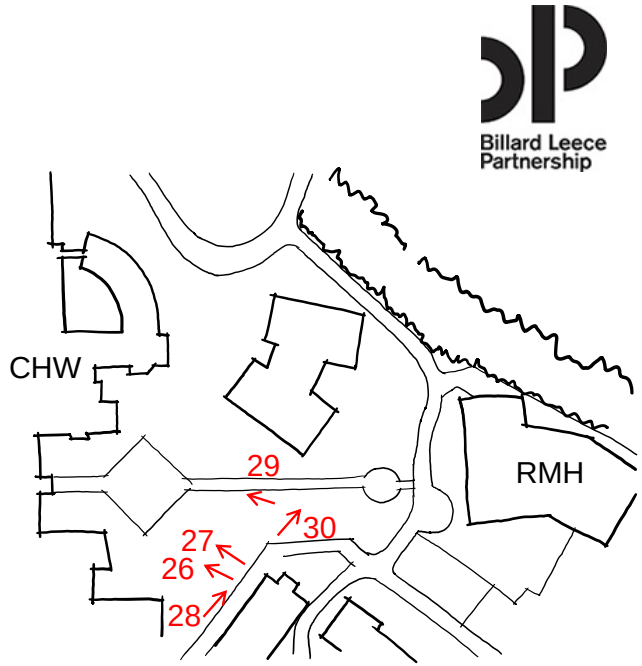

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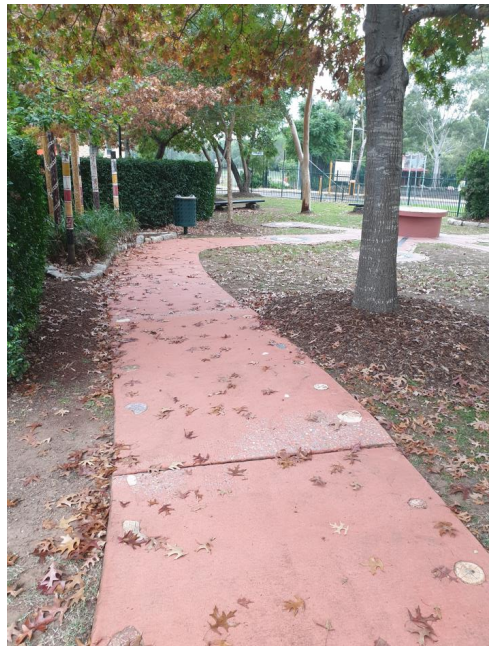

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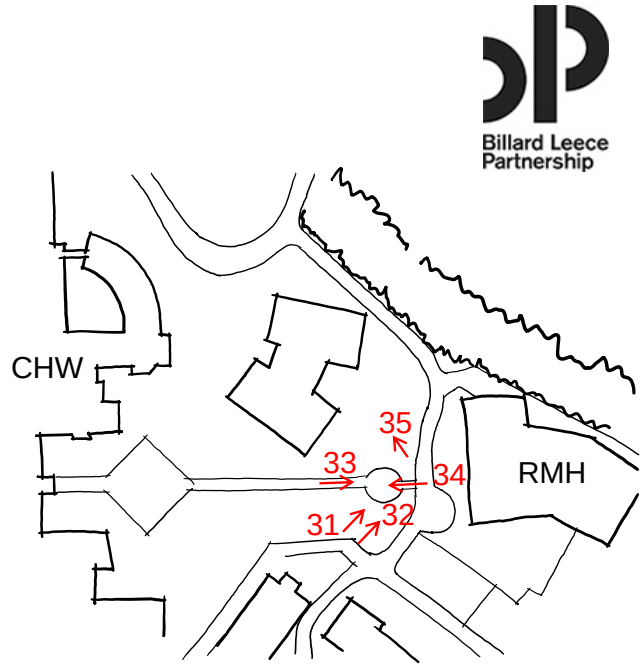

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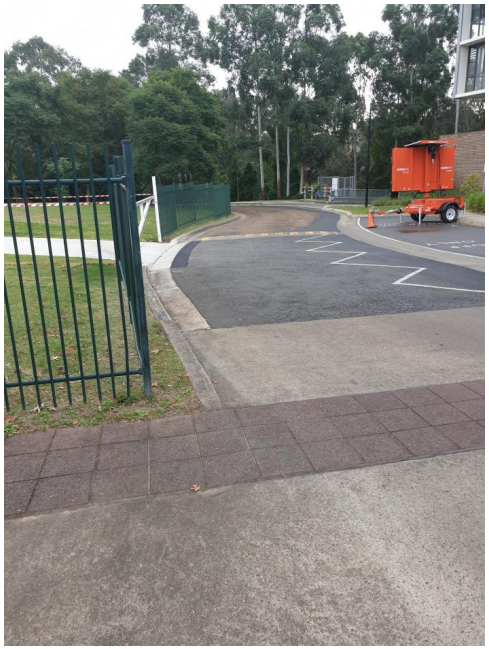

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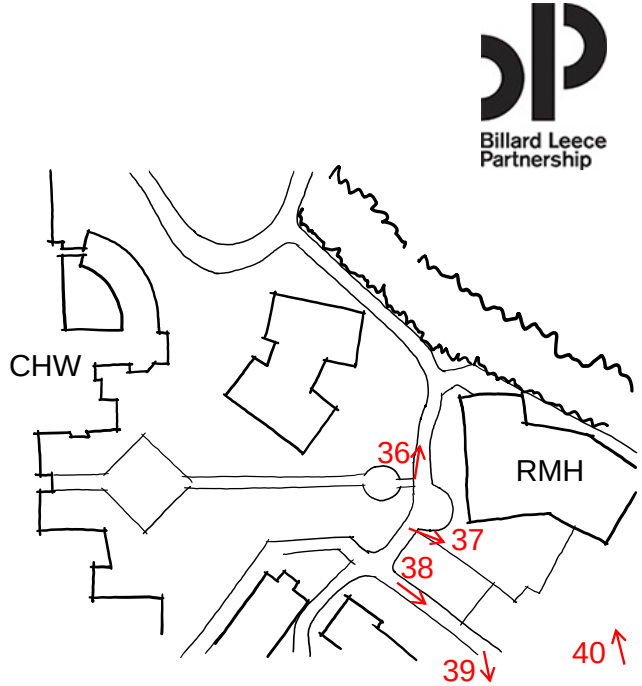

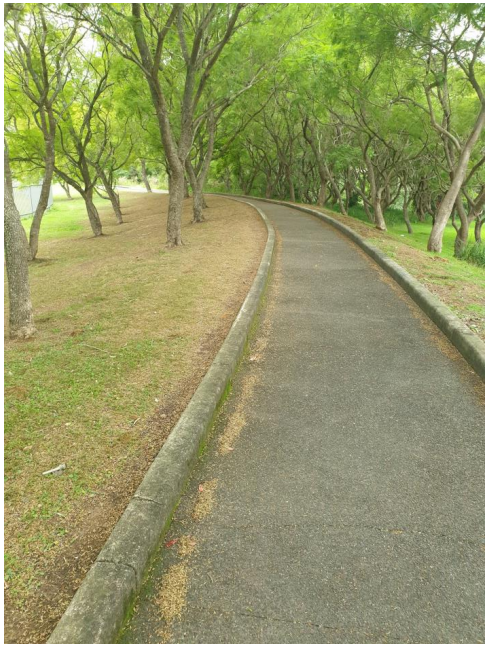

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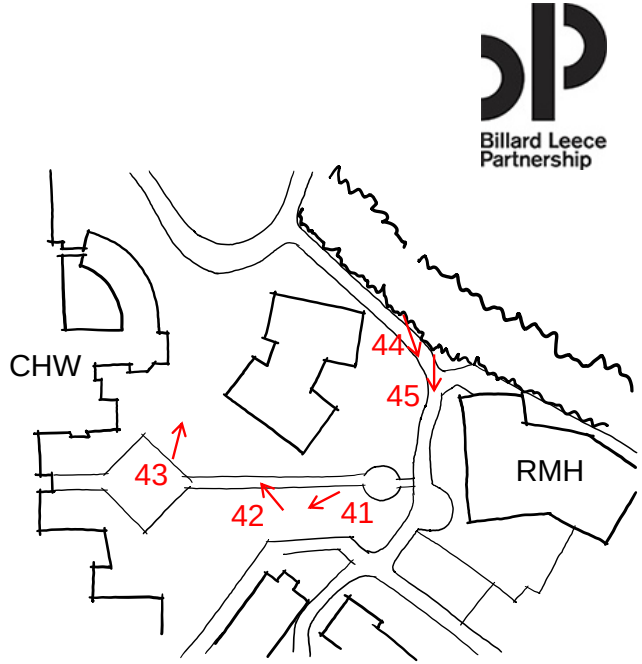

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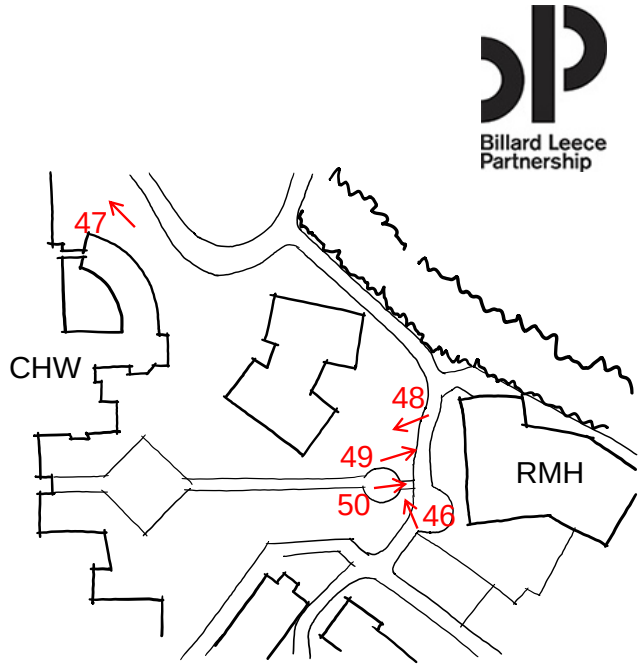

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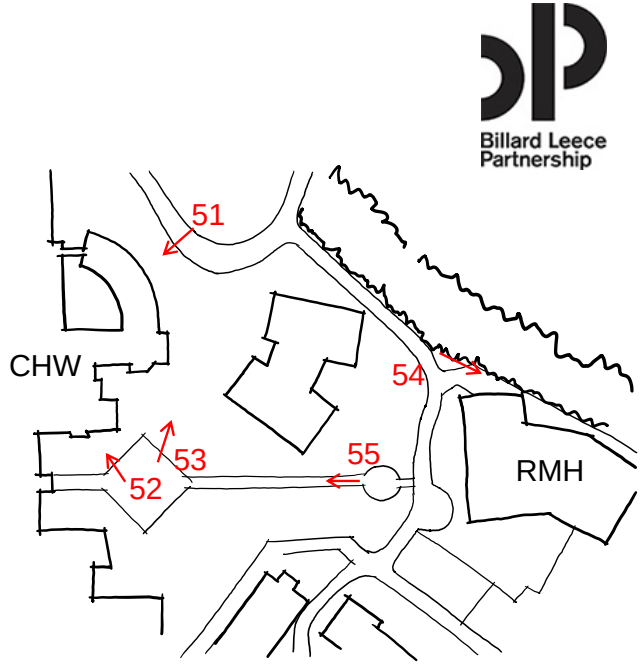

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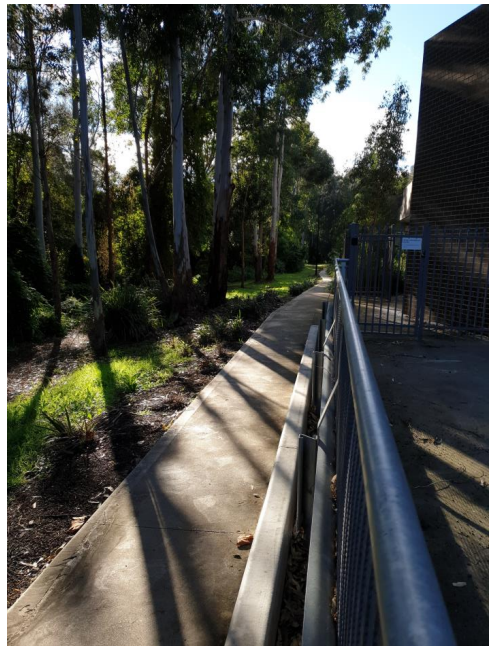

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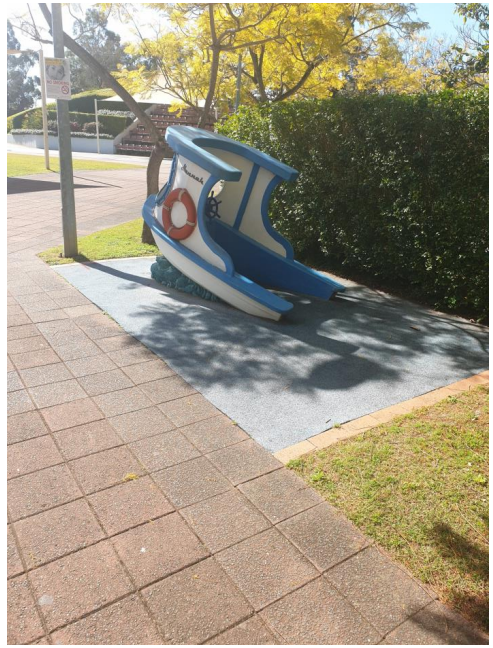

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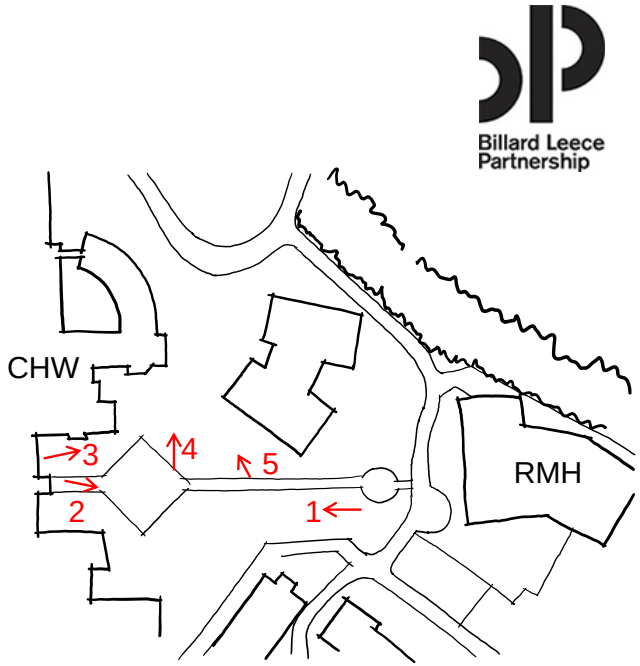

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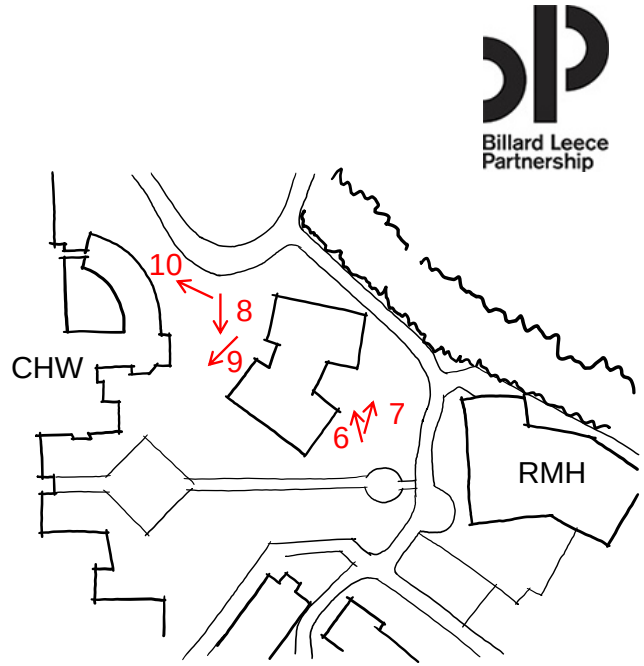

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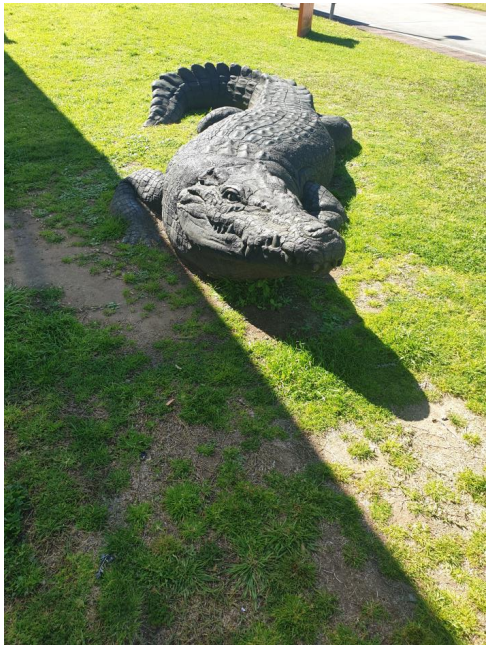

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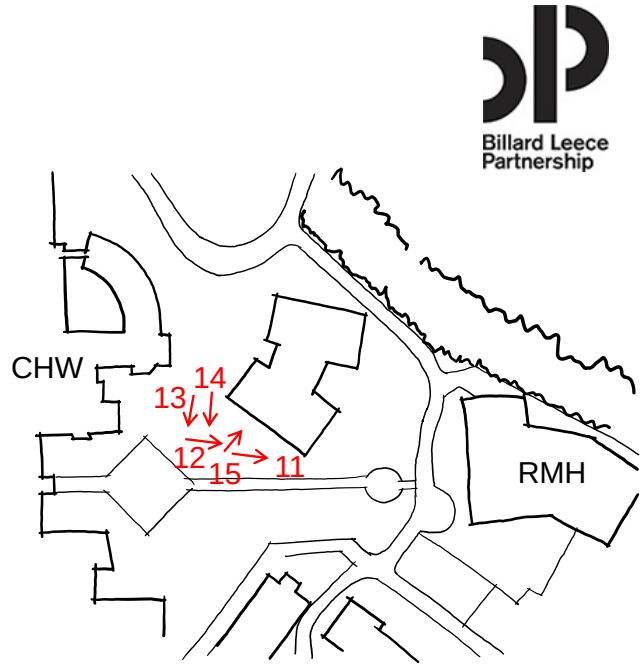

Figure 13.

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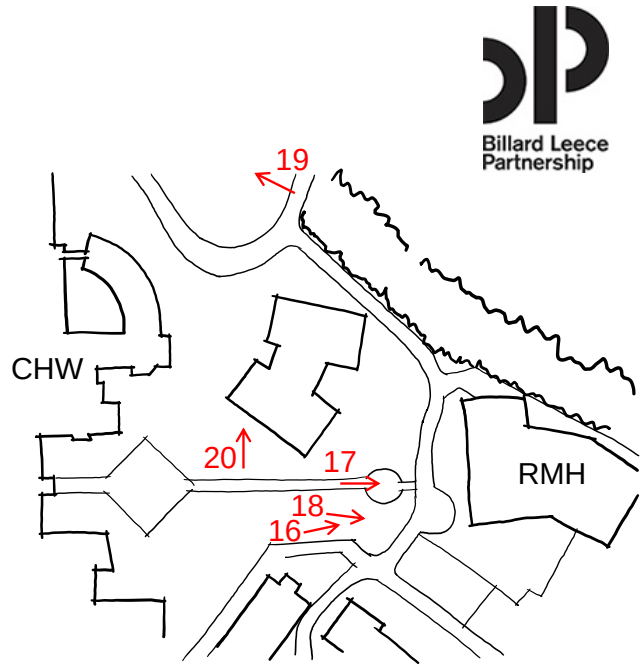

Figure 18.

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Figure 21.

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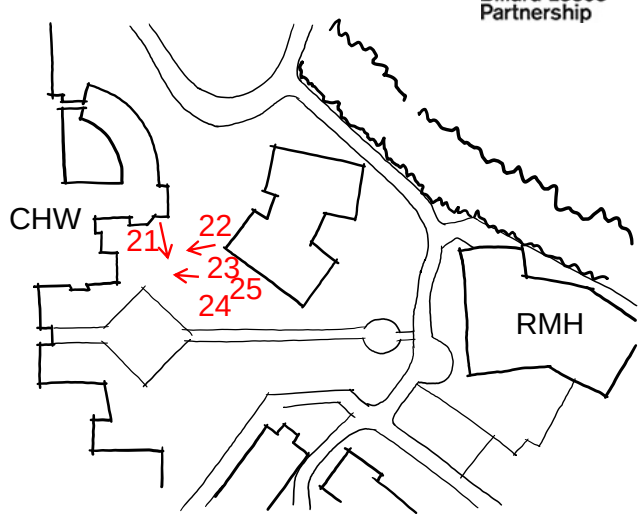

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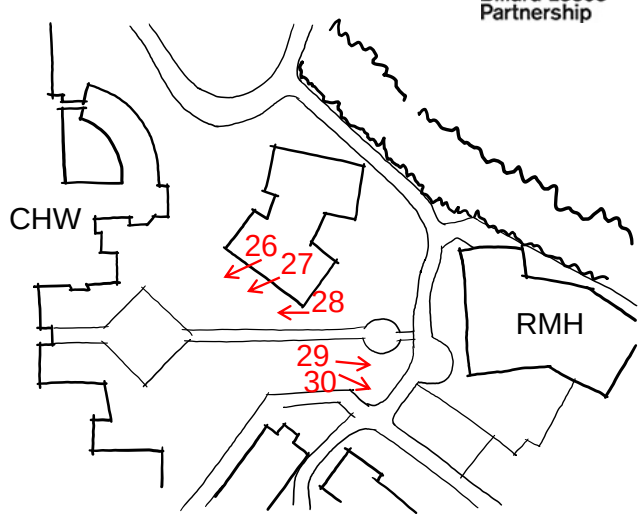

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Figure 31.

Figure 32.

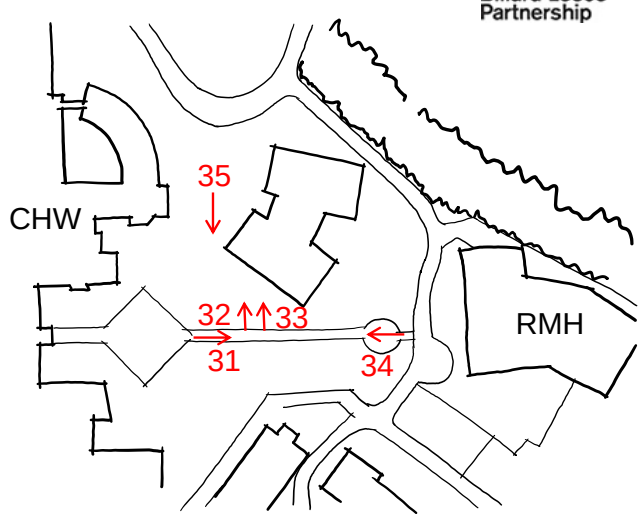


Figure 33.

Figure 34.

Figure 35.

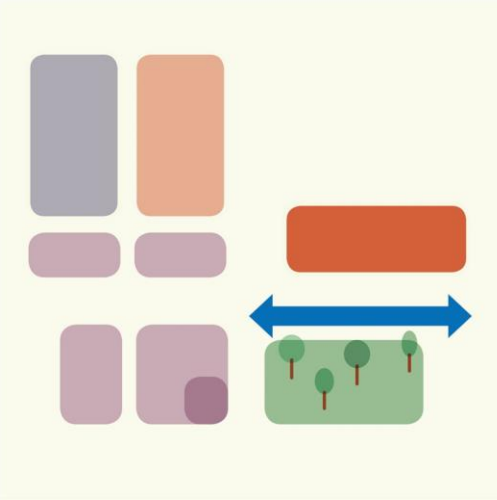
Billard Leece Partnership

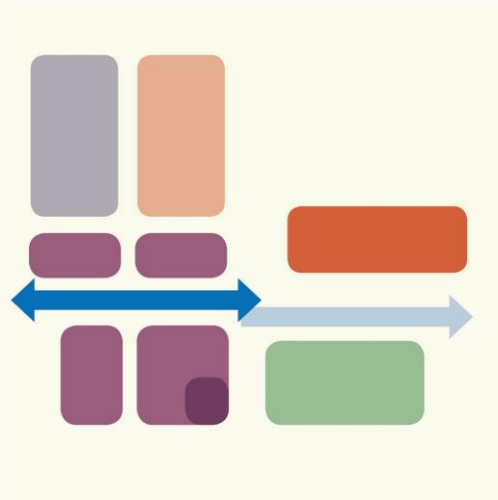
Children's Hospital at Westmead (CHW)

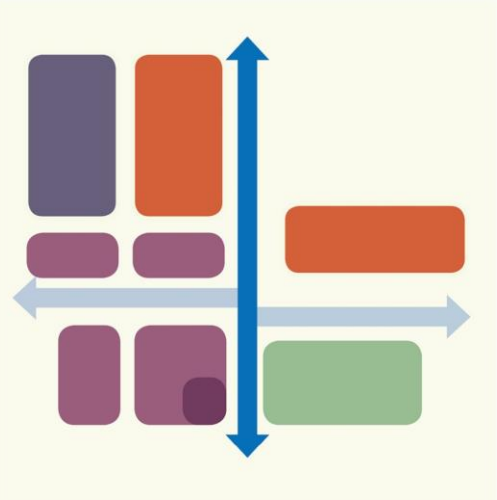
Stage 2 Redevelopment

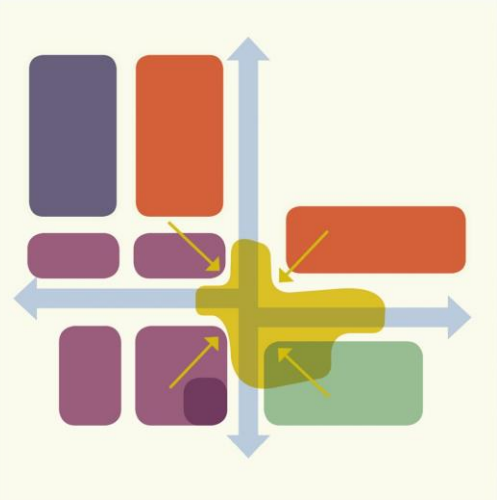
NSW State Design Review Panel 54

20th of May 2020









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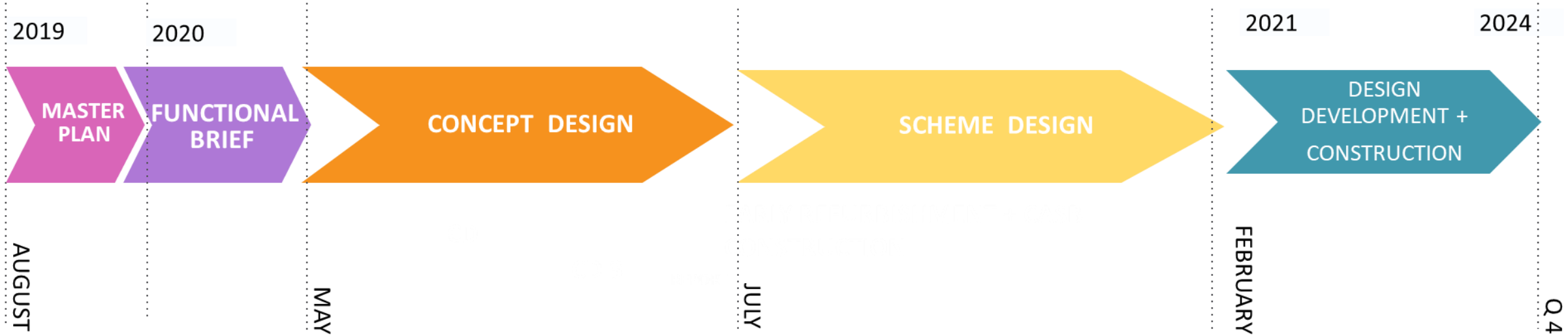
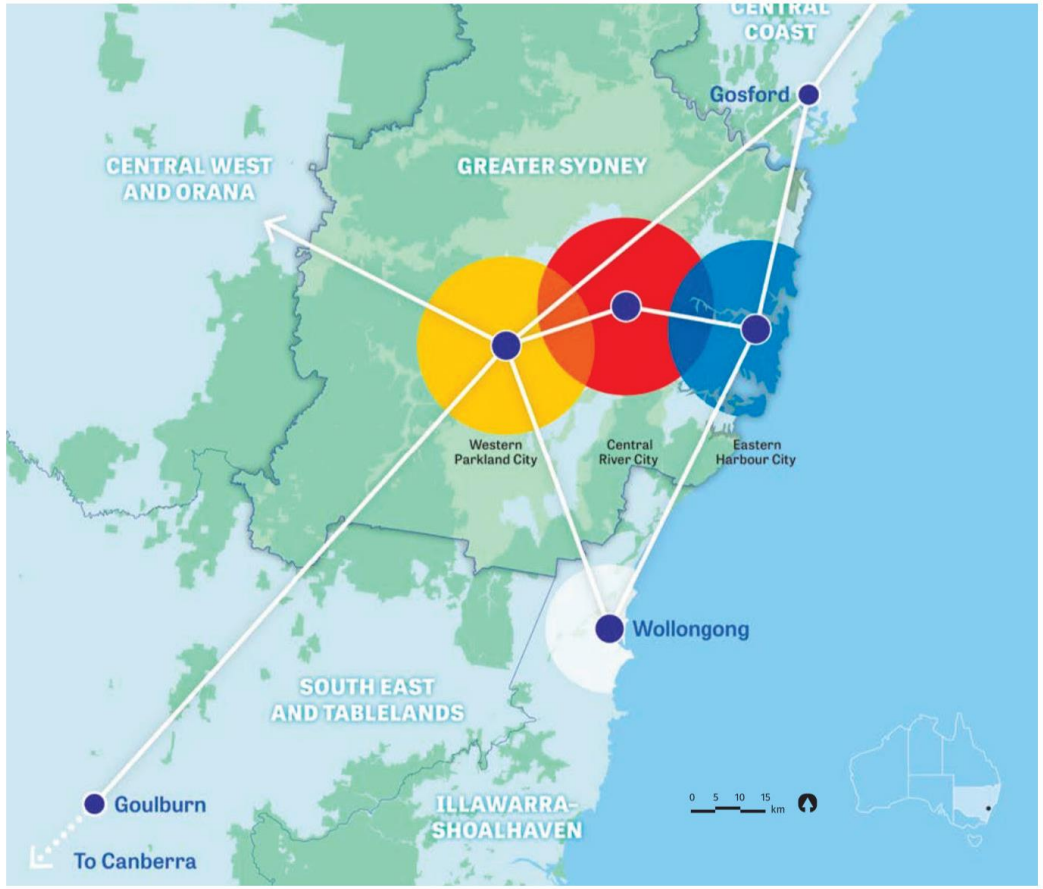
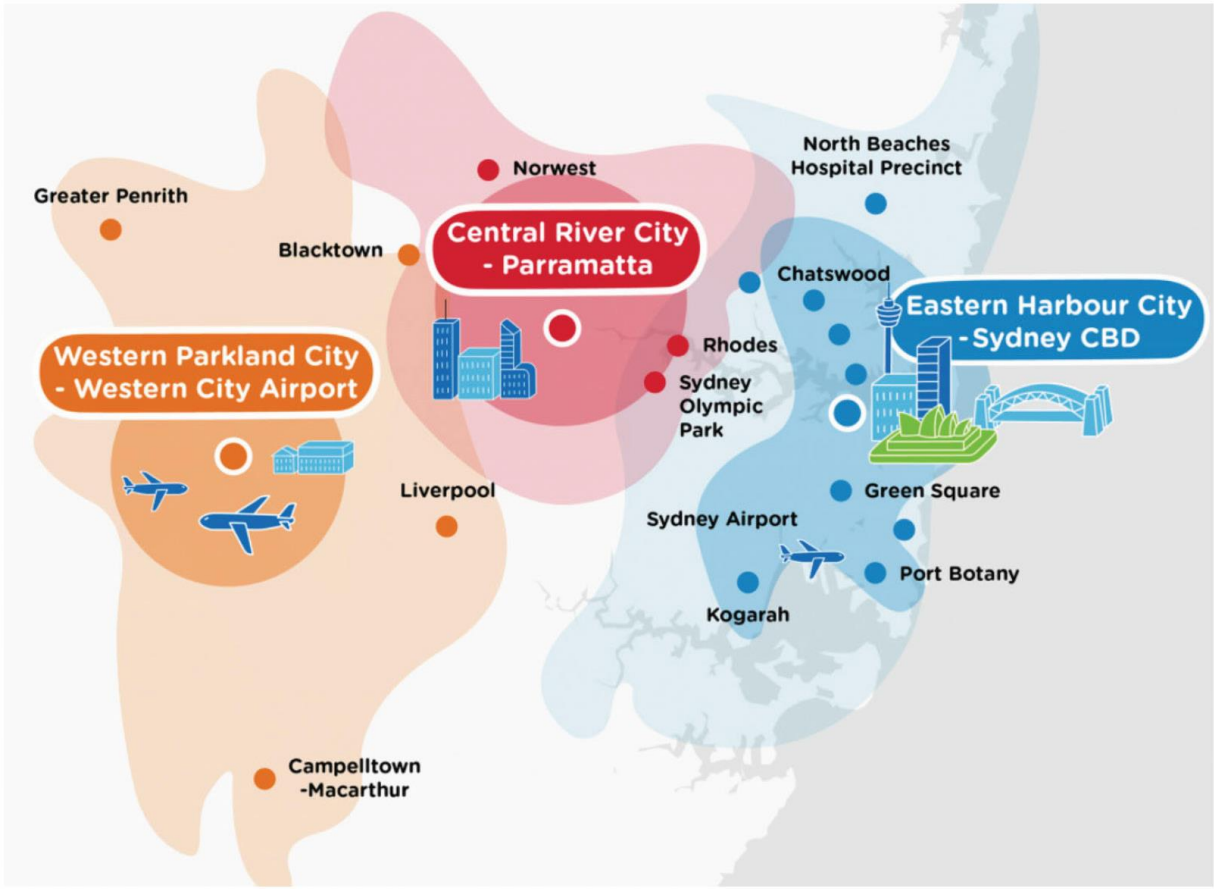


The Greater Sydney Commission

Central River City



Metropolis of Three Cities, Greater Sydney Region Plan, Greater Sydney Commission

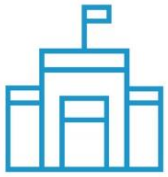


Metropolis of Three Cities, Greater Sydney Commission

The Greater Sydney Commission

Billard Leece Partnership

WESTMEAD PRIORITIES



INFRASTRUCTURE

A city supported by infrastructure

A collaborative city

LIVEABILITY

A city for people

A city of great places

PRODUCTIVITY

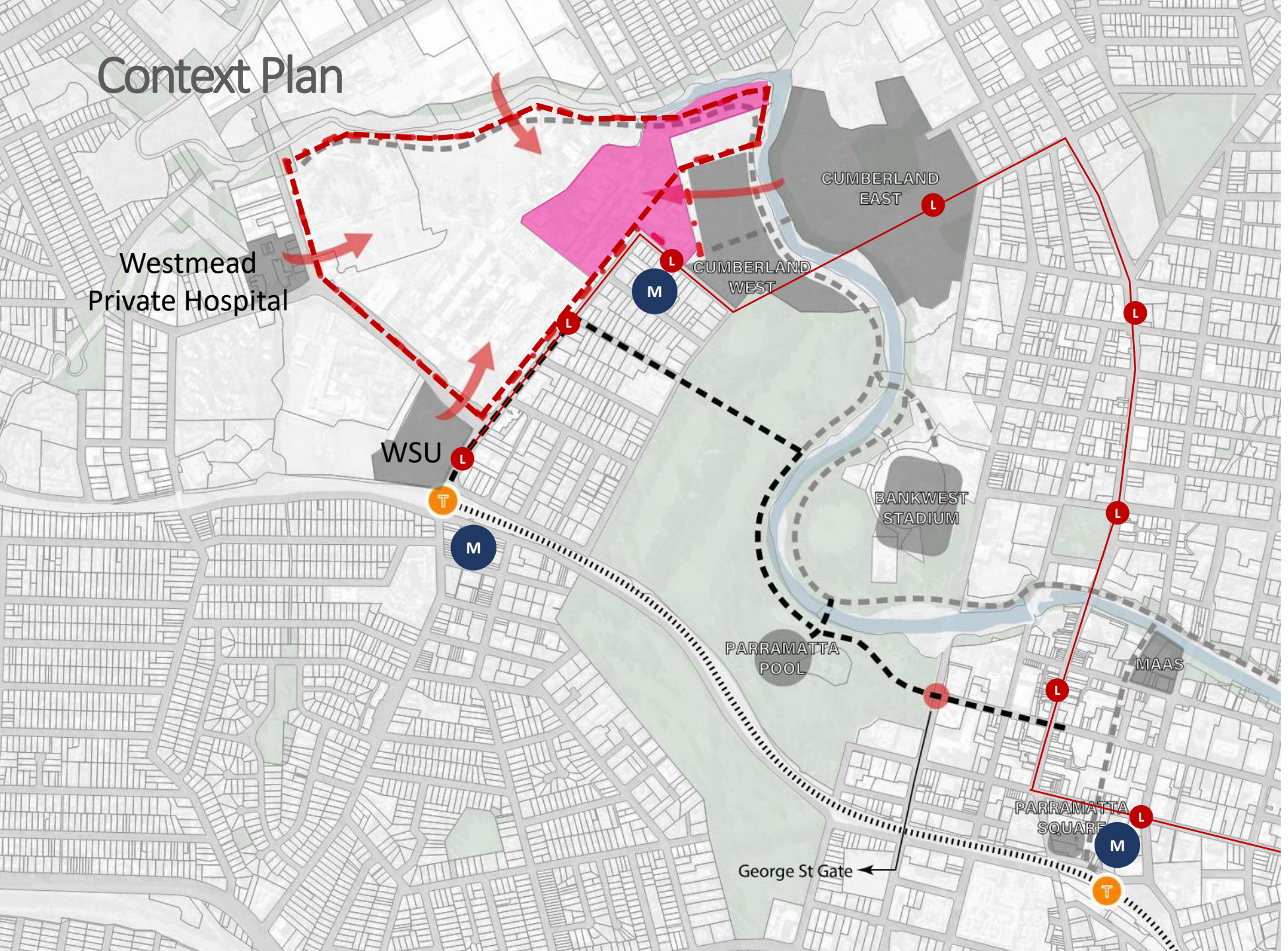
Well connected city

SUSTAINABILITY

A city in its Landscape

The Precinct Vision

Context Plan



Billard Leece Partnership

- The Children's Hospital at Westmead
- M Future Metro Stations
- L Lightrail
- T Train Station
- Westmead Health Core

Context and Site Photos

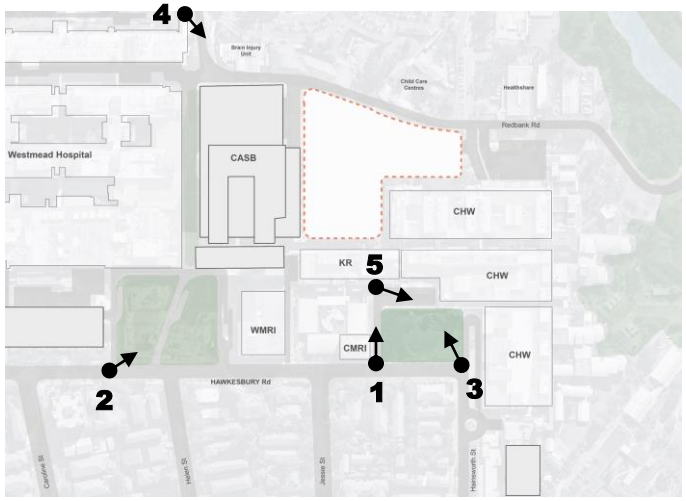
1. From Hawkesbury looking towards KR

2. From Hawkesbury looking towards CASB Forecourt

3. From Hainsworth Looking Towards CHW Forecourt

4. From Darcy Road looking down Dragonfly Drive

5. Looking Towards Galleria/ CHW Ambulance Bay



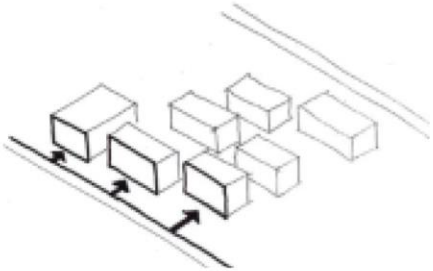
Key Plan

CHW Master Plan Principles

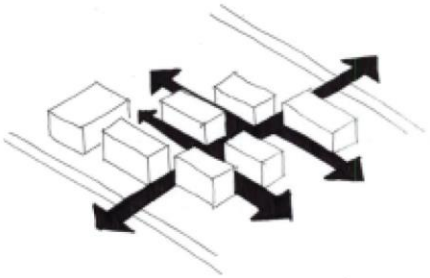
Billard Leece Partnership

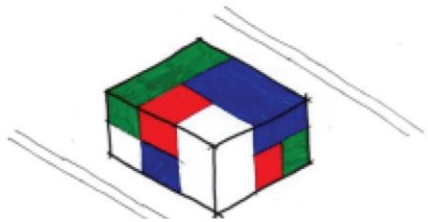
1 Patients and Families
Enable excellent delivery of paediatric health services for patients and their families

2 Presence
Enhance presence on Hawkesbury Road through a visible and identifiable street frontage for health, research and education

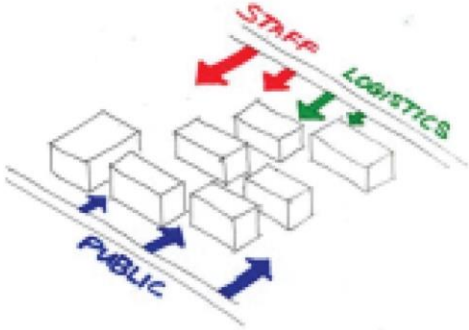


3 Movement
Enable movement through the site to support the integration of health, research and education through flexible and adaptable spaces

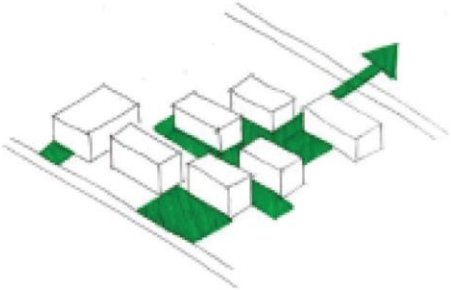




4 Connections
Promote connections to public transport on Hawkesbury Road and ambulance, logistics and staff carparking to Redbank Road



5 Green community
Facilitate further connection to the community and greed spaces, including Toongabbie Creek and Burramatta - Place of Eels

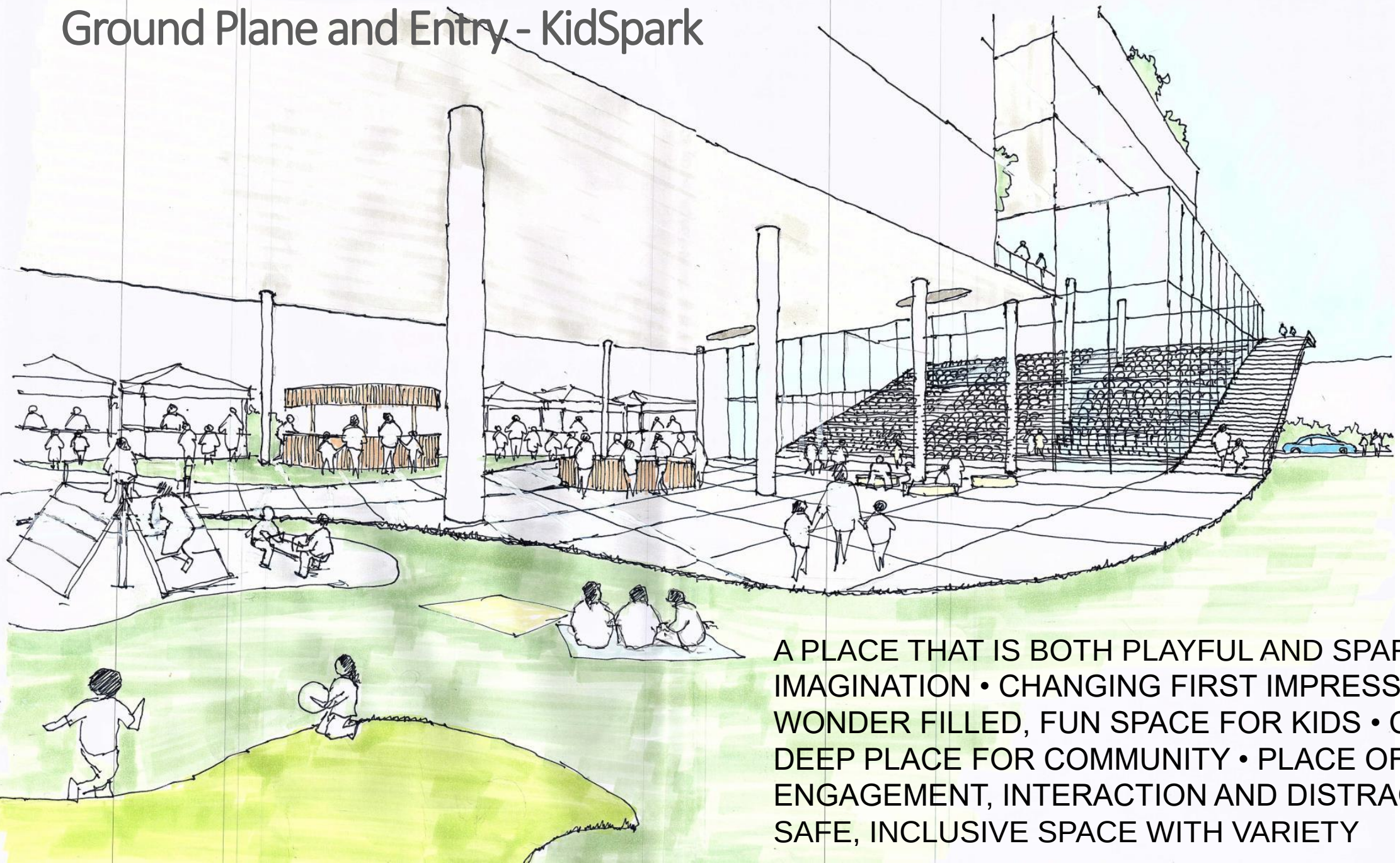


Site Plan – Artist's Impression

Billard Leece Partnership

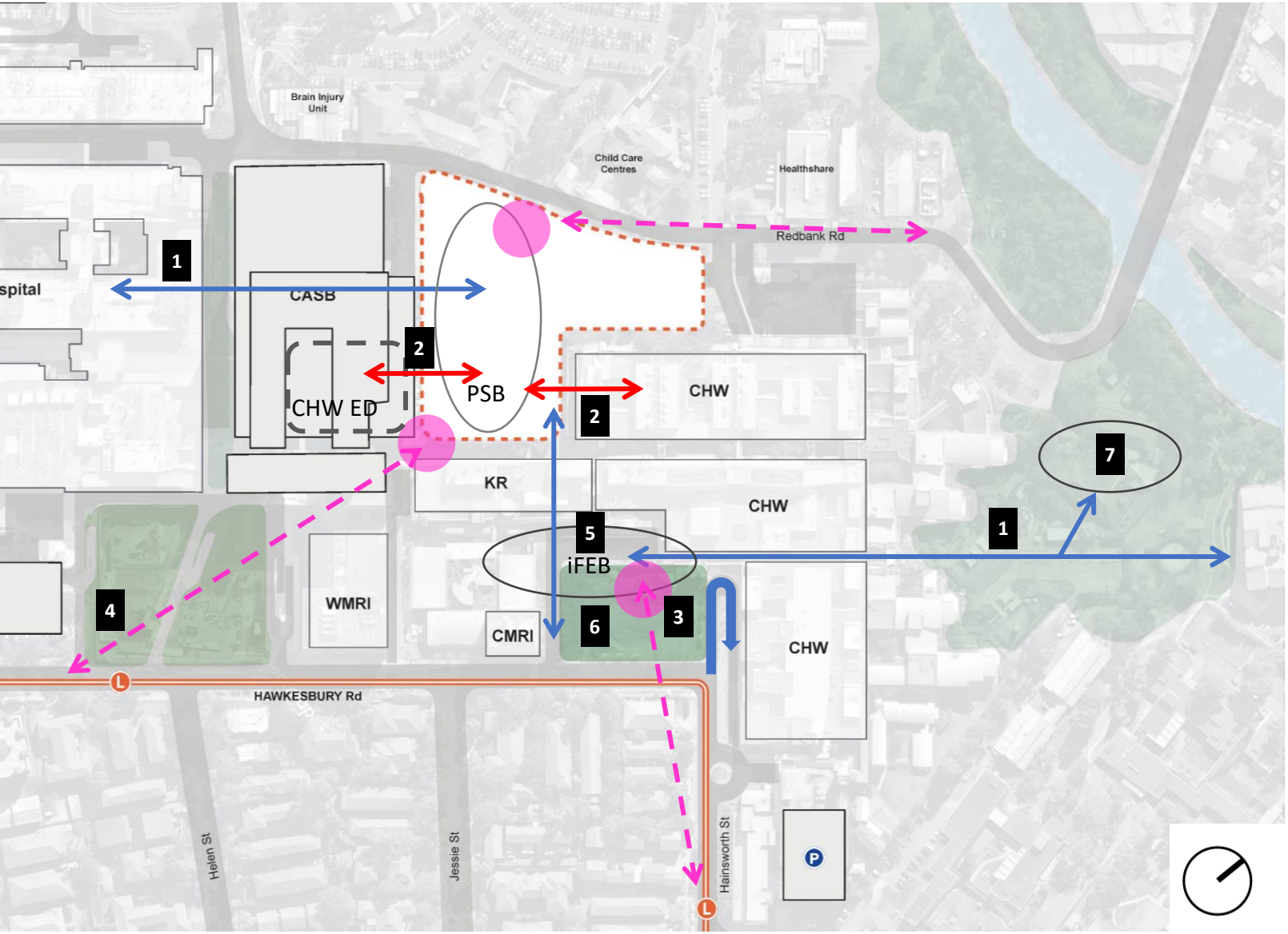
- The Children's Hospital at Westmead Stage 2-
  - Paediatric Services Building
  - Integrated Front Entry Building
  - Staff Car Park
- Future
- Pedestrian Pathways
- Roads

Ground Plane and Entry - KidSpark



A PLACE THAT IS BOTH PLAYFUL AND SPARKS IMAGINATION • CHANGING FIRST IMPRESSIONS • WONDER FILLED, FUN SPACE FOR KIDS • CULTURALLY DEEP PLACE FOR COMMUNITY • PLACE OF ENGAGEMENT, INTERACTION AND DISTRACTION • A SAFE, INCLUSIVE SPACE WITH VARIETY

Site Plan, Analysis and Principles



1. Public campus Connections
2. Clinical Connections
3. The front entry and primary identity remains off Hawkesbury Road
4. Maximise visibility and identity from the west
5. Permeable ground plane below Integrated Front Entry Building (iFEB)
6. Kidspark is a landmark communal space designed to provide a space to gather, provide relief and amenity for children and visitors
7. New car park & amenities provides easy access to the CHW
8. iFEB building creates a strong integrated presence and clear entry identity from Hawkesbury road

CHW Master Plan

Billard Leece Partnership

Timeline

Short Term

Medium Term

Long Term

Future

KEY:

- RESEARCH & EDUCATION ZONE
- CHW STAGE 2 DEVELOPMENT
- INTEGRATION ZONE
  - Entry Points
  - Family Zones
  - Education Spaces
- FUTURE CHW DEVELOPMENT ZONE
- CONNECTING SPACES
  - Kid's Way
  - Research St
  - Galleria Extension
- GREEN SPACE
  - Forecourt
  - Courtyard Areas
  - Roof Gardens

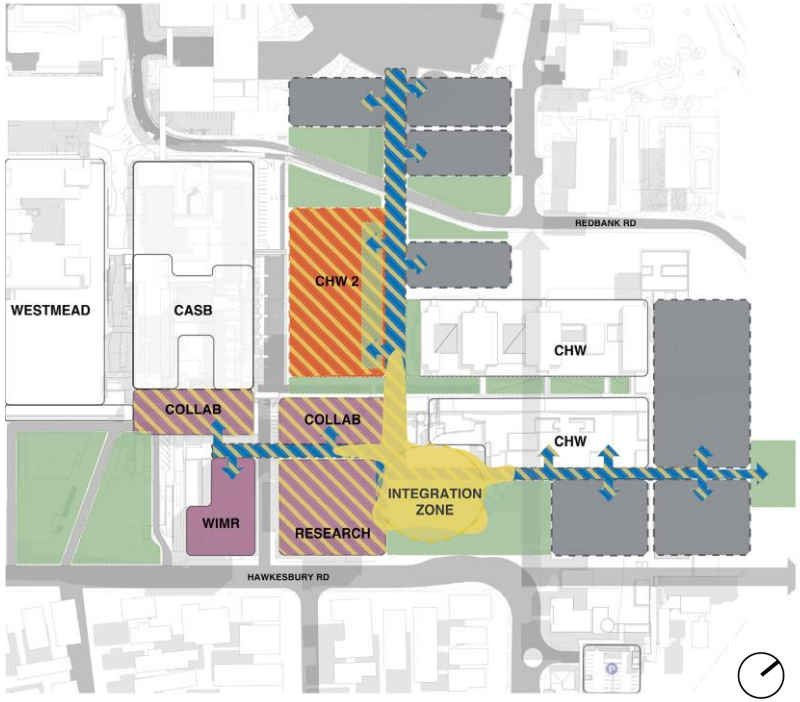
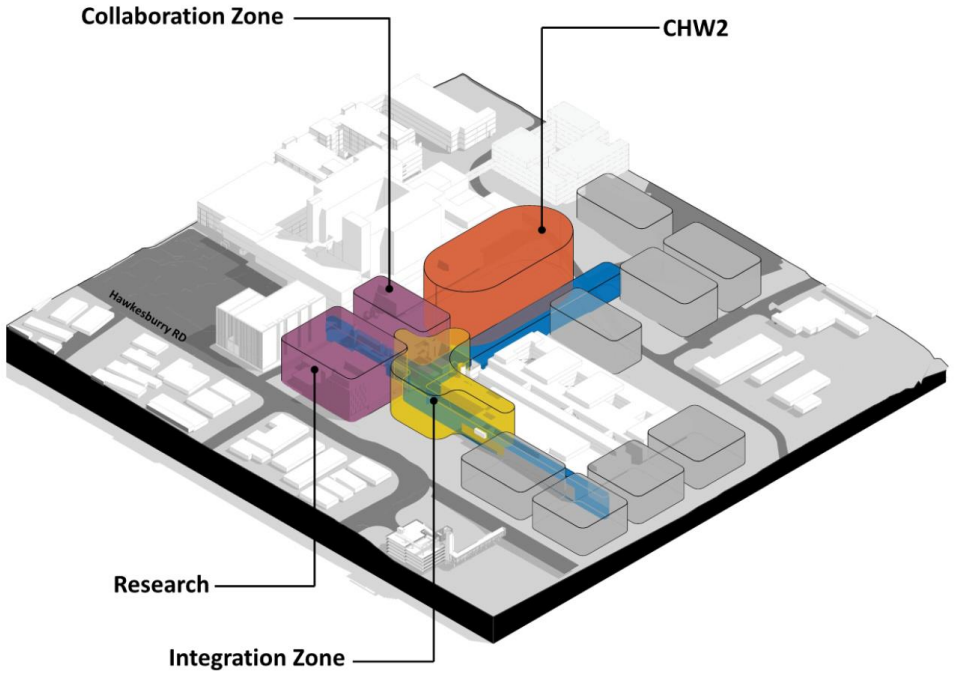


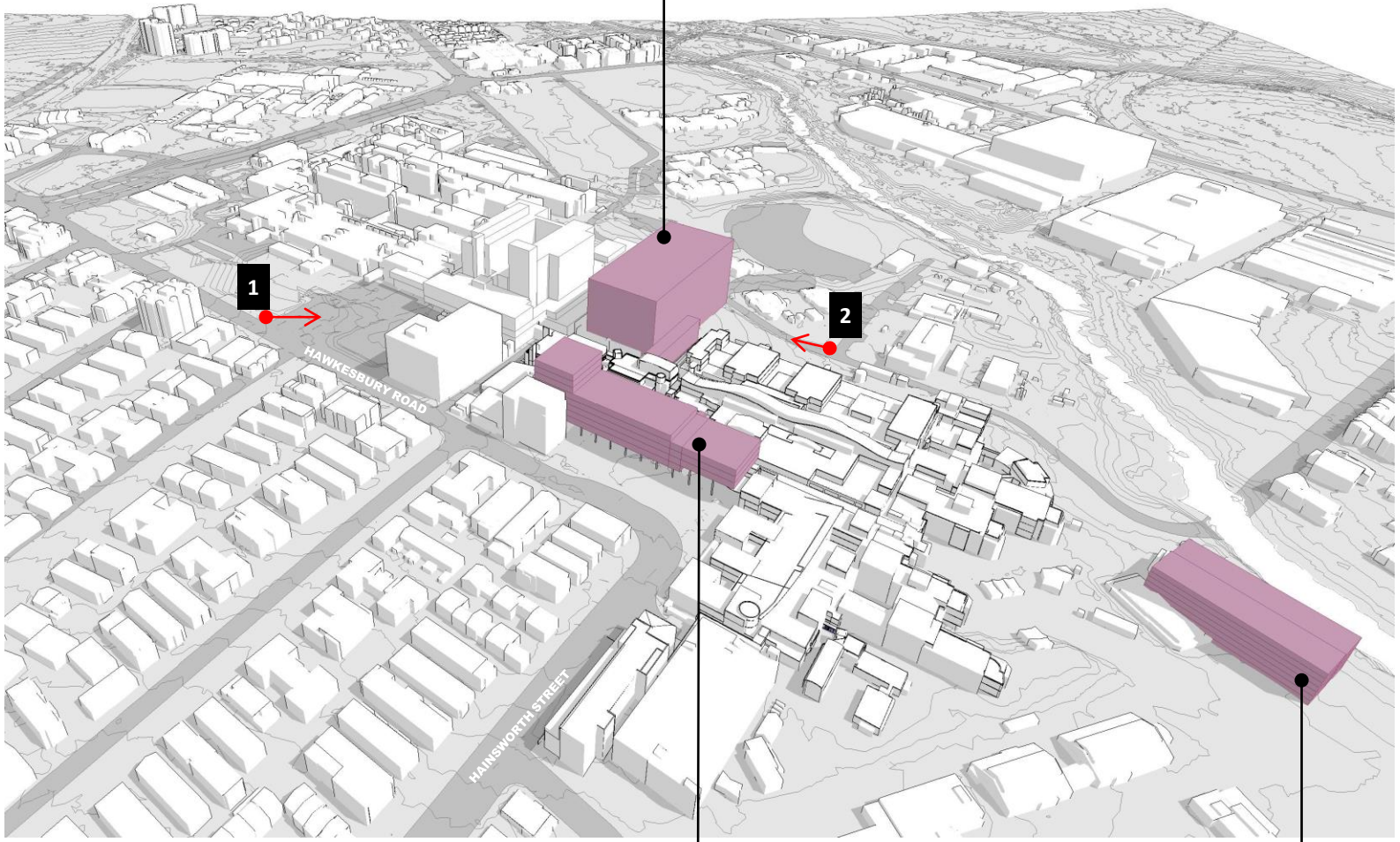
Figure 50 Future - Building Development Zones



Sketch Massing

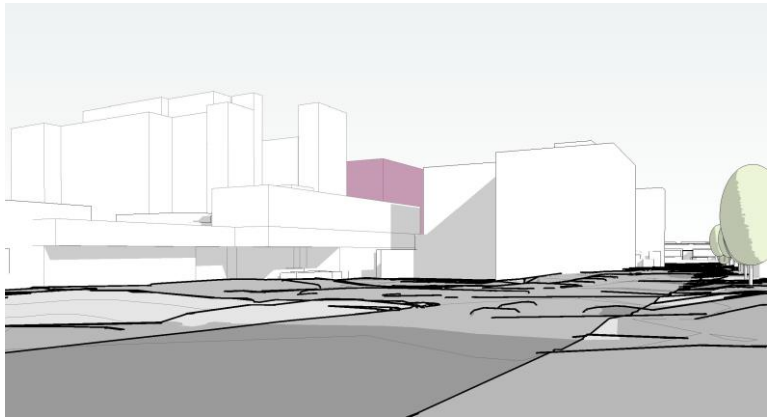
Billard Leece Partnership

Paediatric Services Building

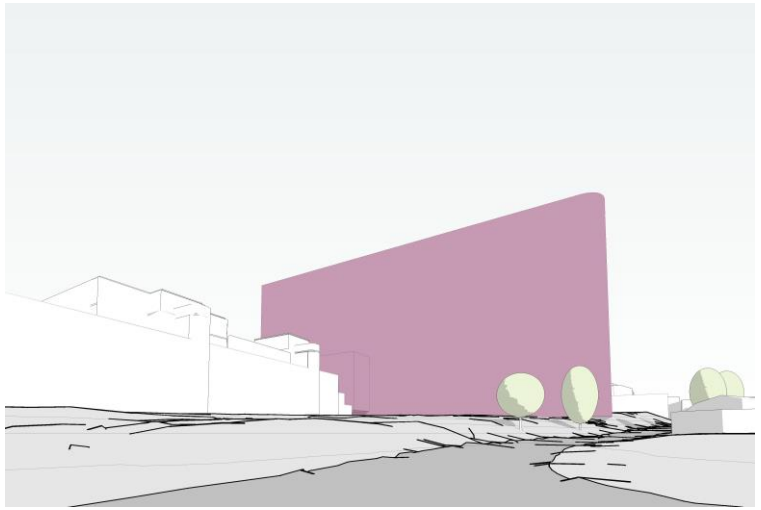


Integrated Front Entry Building

Car Park & Amenities

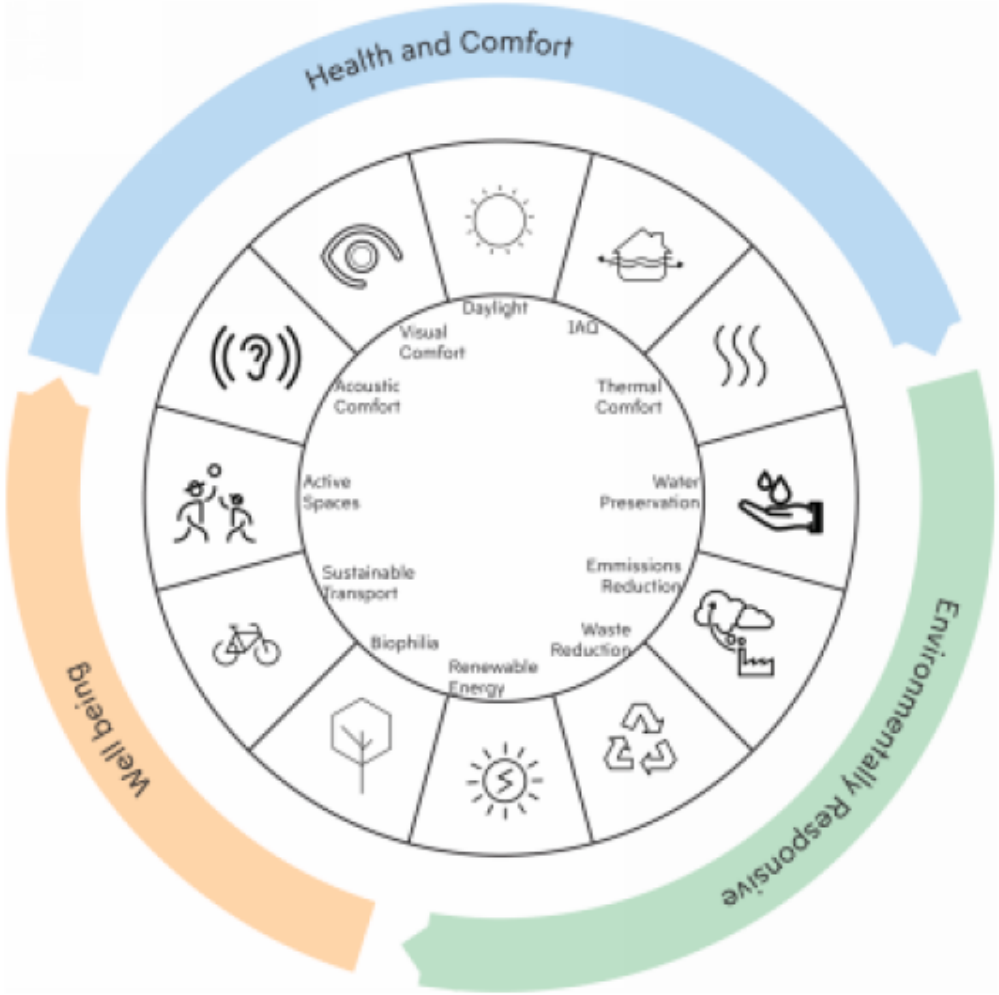


1. Hawkesbury Road view



2. Redbank Road view

ESD



Sustainability Outcomes:

- Creation of healing environments, both indoor and outdoors that are comfortable and healthy;
- Protect all existing high-value environmental features of the site and create new habitats;
- Promotion of sustainability and building as a teaching tool;
- Minimisation of non-renewable resource consumption;
- Cost-effectiveness of energy usage over the building life span;
- Minimisation of waste during the construction and operation of the building
- Reliability and ease of monitoring, tuning, reporting and maintenance of the building;
- Future proofing the hospital for use of renewable energy and eliminate use of green-house gases

Approach to Indigenous Culture and Heritage

Arts & Culture Strategy

- Align with the priorities of the Network's Aboriginal Strategic Plan, to create health care services for Aboriginal children and families that provide access to high-quality services that are **evidence-based**, **culturally safe** and **responsive** and support optimum outcomes for child health, development and wellbeing

- Build upon the extensive consultation undertaken with Aboriginal staff, patients and community during Stage 1 of the Westmead Redevelopment project to create a **culturally safe** environment that **understands** and **respects** Aboriginal and Torres Strait Islander people

GOVERNMENT ARCHITECT NEW SOUTH WALES

02.06.2020

Angela Jeffery,
Senior Project Director, HI

Via email –
angela.jeffery@health.nsw.gov.au

PROJECT: The Children's Hospital at Westmead Stage 2 Redevelopment
RE: SDRP SESSION 54 – 20.05.20 (first review)

Dear Angela,

Thank you for the opportunity to review the above project at an early stage at the SDRP session held on 20.05.20.

The masterplan analysis and rationale of the project are generally supported, in particular:

- Creation of 'Kids Park' as the front entry to the Children's Hospital;
- Creation of north/south and east/west links through the site;
- Improvements to circulation and wayfinding;
- Connection to Toongabbie Creek and other natural assets;

The following commentary provides advice and the matters raised should be discussed at the next SDRP:

- Integration of the proposal with the Structure Plan currently under development by BLP and various other masterplans under development by others is crucial. Implementation of a stakeholder engagement process to facilitate coordination across the various plans under preparation is essential to achieve an integrated design as part of a broader masterplanning process.
- The focus on landscape as the interface between the hospital, patients, visitors and the community is commended and should continue to be prioritised through design development.
- Closely map the likely built form and microclimate consequences around the Integrated Front Entry Building (IFEB) and design Kids Park to provide the best amenity achievable within these parameters. Seek expert advice on wind behaviour around buildings and within open spaces, in particular.
- Clarify and detail how a sense of welcome and spatial scale appropriate to children will be achieved in the double-height undercroft of the IFEB.

Investigate extension of the front entry both visually and physically from the IFEB to Hawkesbury Rd.

- Clarify and illustrate how the edge along Hawkesbury Rd will be treated to create safety without requiring the use of physical barriers such as fences, bollards, etc.
- Clarify and illustrate the edge conditions to all buildings and spaces all around the IFEB, including details of the proposed treatment to the area between the IFEB and Hawkesbury Rd, noting hard paved surfaces and vehicular areas should be minimised.
- Explain how activation and enlivening of Kids Park is envisioned within its built context.
- Illustrate potential future development to the south of Hawkesbury Rd and how this is envisioned to integrate/interface with the entry zone.
- Landscaped areas such as roof terraces, light wells, courtyards should be integrated into every level of the proposed buildings. Provide details of the location, amenity and accessibility of these landscaped areas.
- Look for opportunities to bring landscape INTO the buildings, understanding some patients and most staff will have minimal opportunity for exploring the proposed outdoor spaces.
- Provide details of how the connection to Country and expression of Aboriginal Cultural Heritage will be made evident throughout the hospital campus and integrated with the built forms: for example, using place naming, landscape, materials, plant selection, art installations/murals, wayfinding devices, paving, colour, texture and so on.
- An Indigenous spatial designer should be engaged to work together with the design team and turn ideas of cultural heritage into physical and spatial expressions, integrated within the overall and detailed architectural proposal.
- Clarify how site topography will be incorporated into the east/west connections and spatial opportunities optimised.
- Clarify how the proposed link to Toongabbie Creek will be incorporated into the massing of existing buildings.
- Illustrate key vantage points both within and outside of proposed buildings where a view of the sky can be captured.
- Illustrate how the project has considered and capitalised on opportunities specific to the site: for example district views from rooftops, activation of the carpark at ground and roof levels, etc.
- Illustrate the sequence of movement from future public transport nodes to entry points and across and through the site along the proposed axial connections.
- Provide large sections across the site to illustrate resolution of levels and connections to ensure the permeability envisioned by the site plan can be realised.

Please refer to the design package requirements form for information on materials to be provided at the next SDRP. A landscape presentation should be included as part of the next SDRP.

Please contact GANSW Design Advisor, Carol Marra (Carol.Marra@planning.nsw.gov.au), if you have any queries regarding this advice.

Sincerely,

Rory Toomey
Principal Design Excellence
Chair, SDRP

CC

NSW SDRP Panel members	Diane Jones, Kate Luckraft, Rory Toomey (Chair – GANSW)
GANSW Design Advisor	Carol Marra
DPIE	Ingrid Berzins
HI	Caleb Teh, Claire Muir
Billard Leece Partnership	Tara Veldman, Alessandro Filippi
Hassell	Kevin Lloyd
PWC	James Wright

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New South Wales

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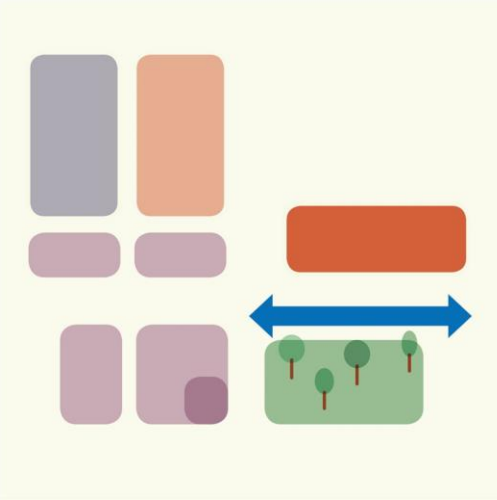
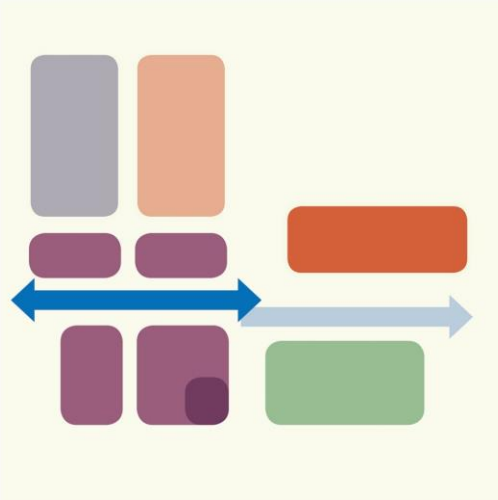
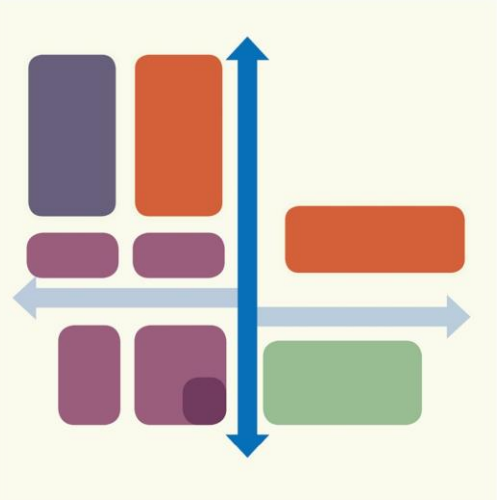
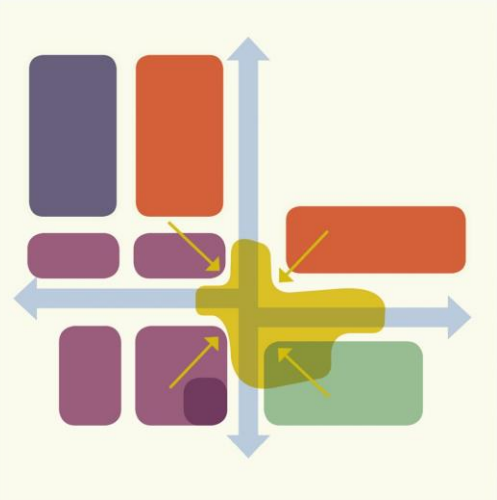
NSW GOVERNMENT

Billard Leece Partnership

Children's Hospital Westmead (CHW)
Stage 2 Redevelopment

SDRP Session 02

18 November 2020

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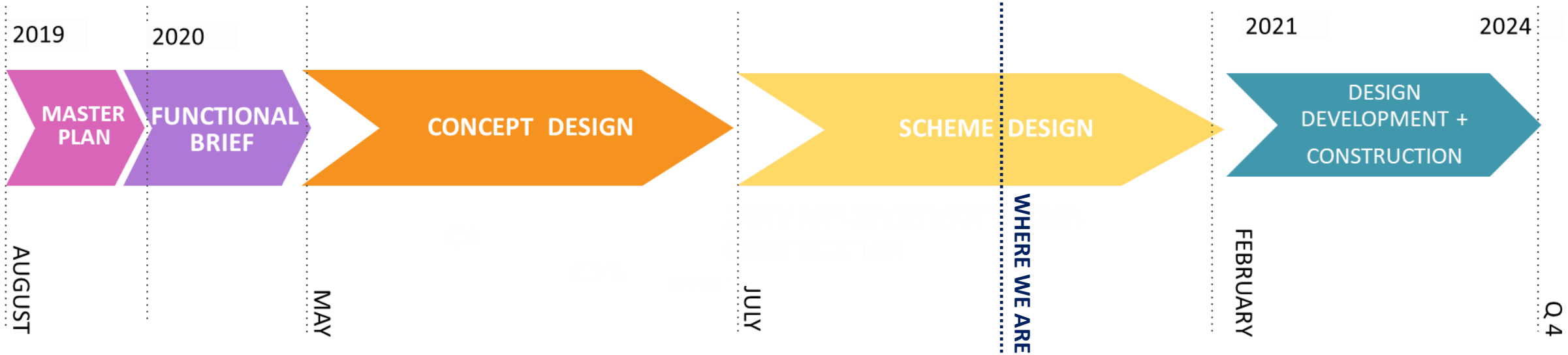
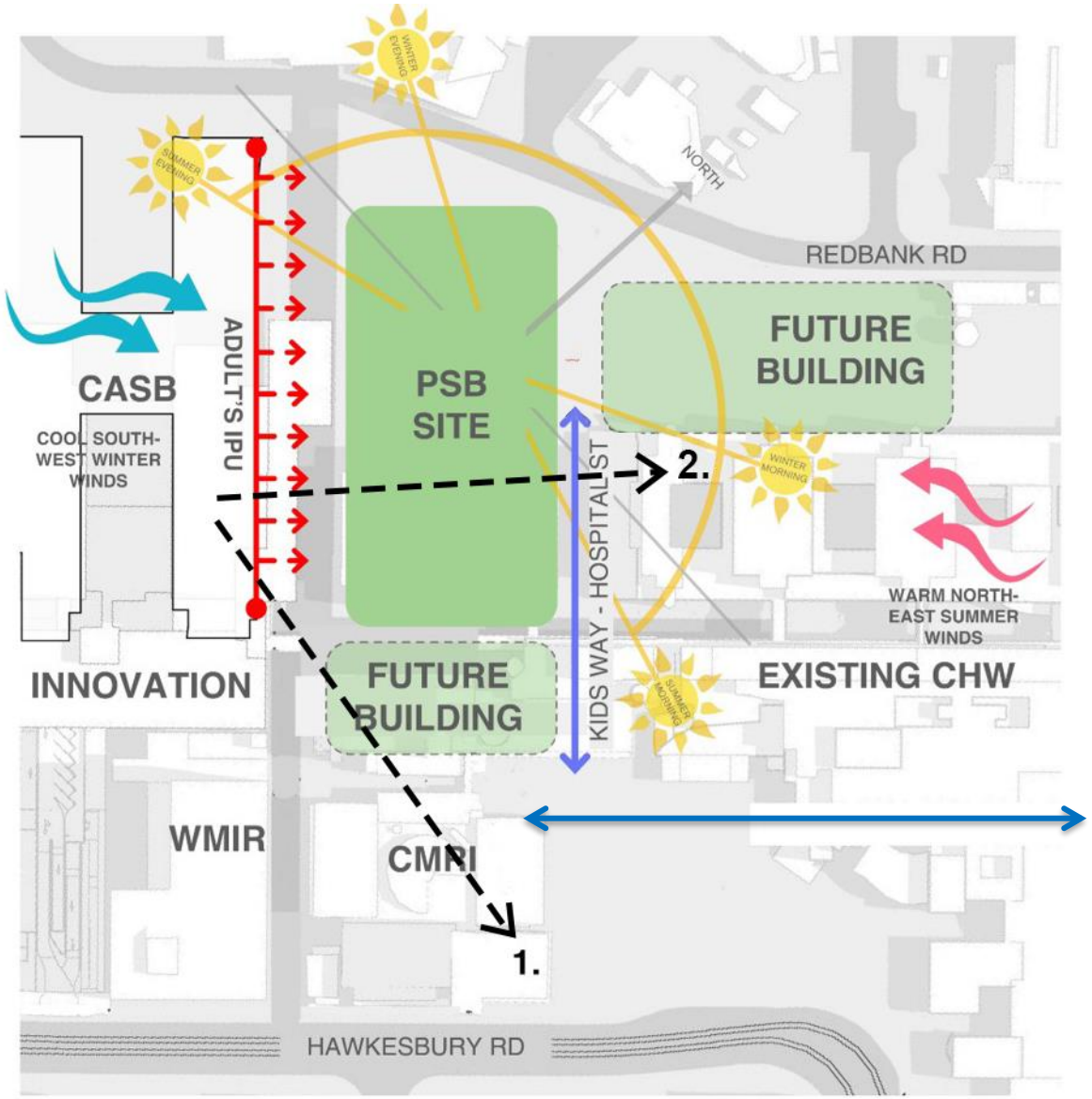


Site and Context

Context

The Site – Existing Built Form I Design Considerations for The PSB



Site Design Considerations

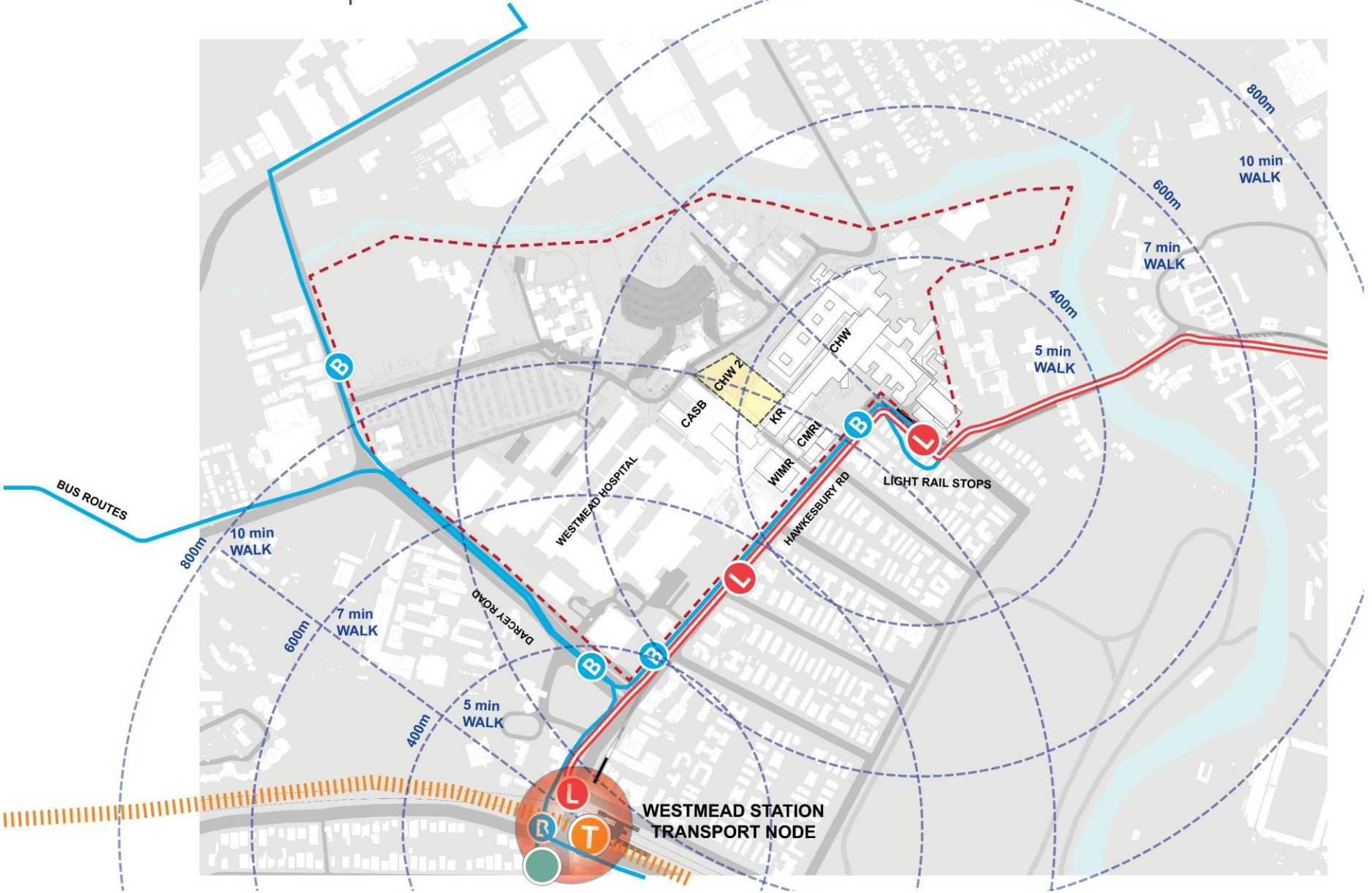
Distant Views –
Taken from the Helipad of CASB

Context

The Site – Existing Built Form I Streetscapes

Context

The Site – Site Movement I Public Transport and Pedestrian Access



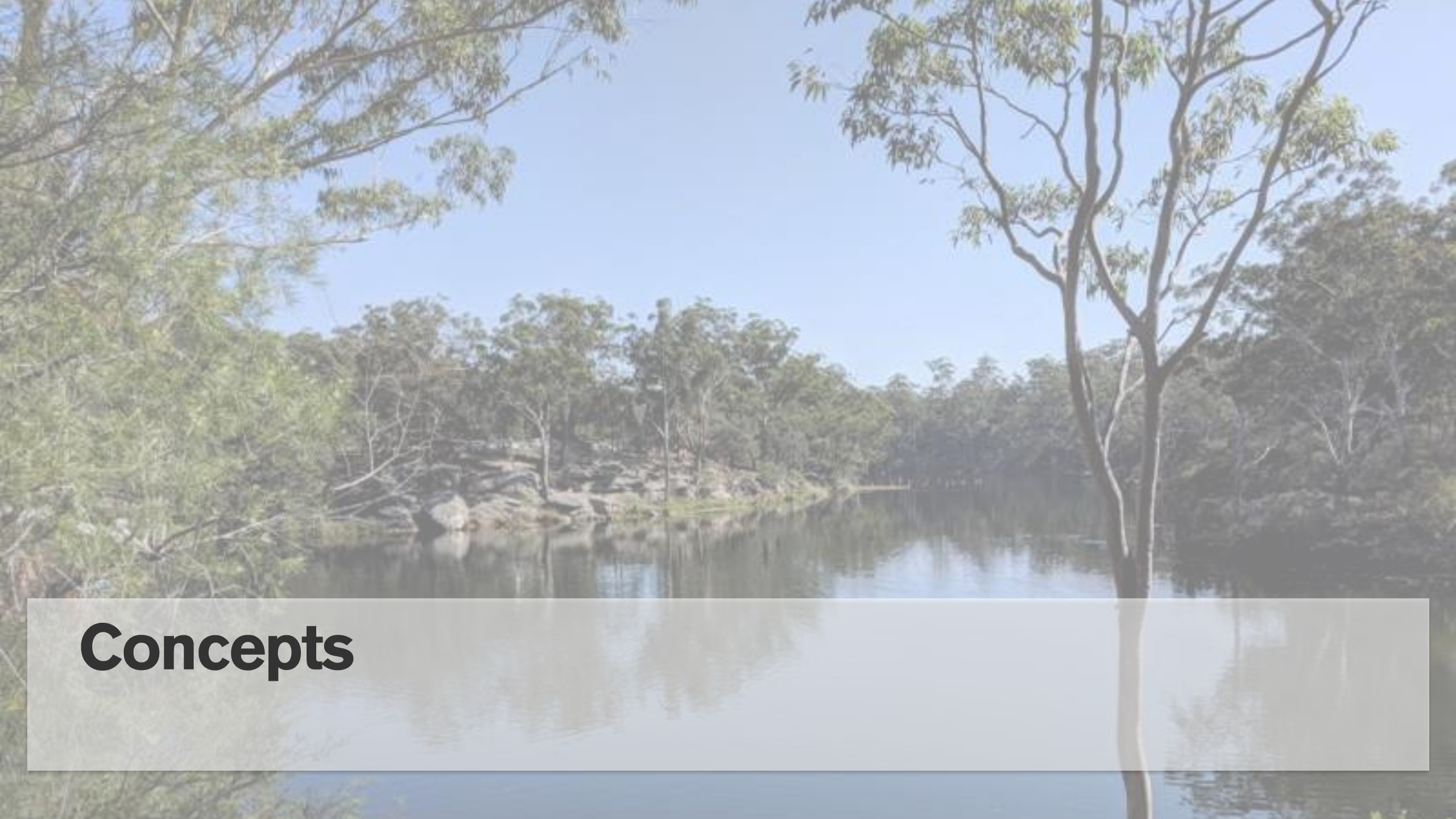
Context

The Site – Westmead Health Core Structure Plan

Green Link Parks
Toongabbie Creek Activation
Health Core
Mixed Use
Future Research
University
Shared Zone
Westmead Plaza
Hospital Entry Plaza
Ground Floor Activation
Sporadic Activation
Pedestrian Linkage
Indicative Footprint
Development Opportunity Zone
Major View Line
Secondary View Line
Pedestrian Trail
Ambulance & Service Road Only
Major Road
Secondary Road
Railway
Light Rail, Pedestrian and Cycle
Light Rail
Light Rail Stop
Hospital Entrance
Transport Node
Cultural Node
Green Node
Potential Built Form Node
Secondary Nodes
Secondary Node - Discussion Point
Future Metro Station

Context

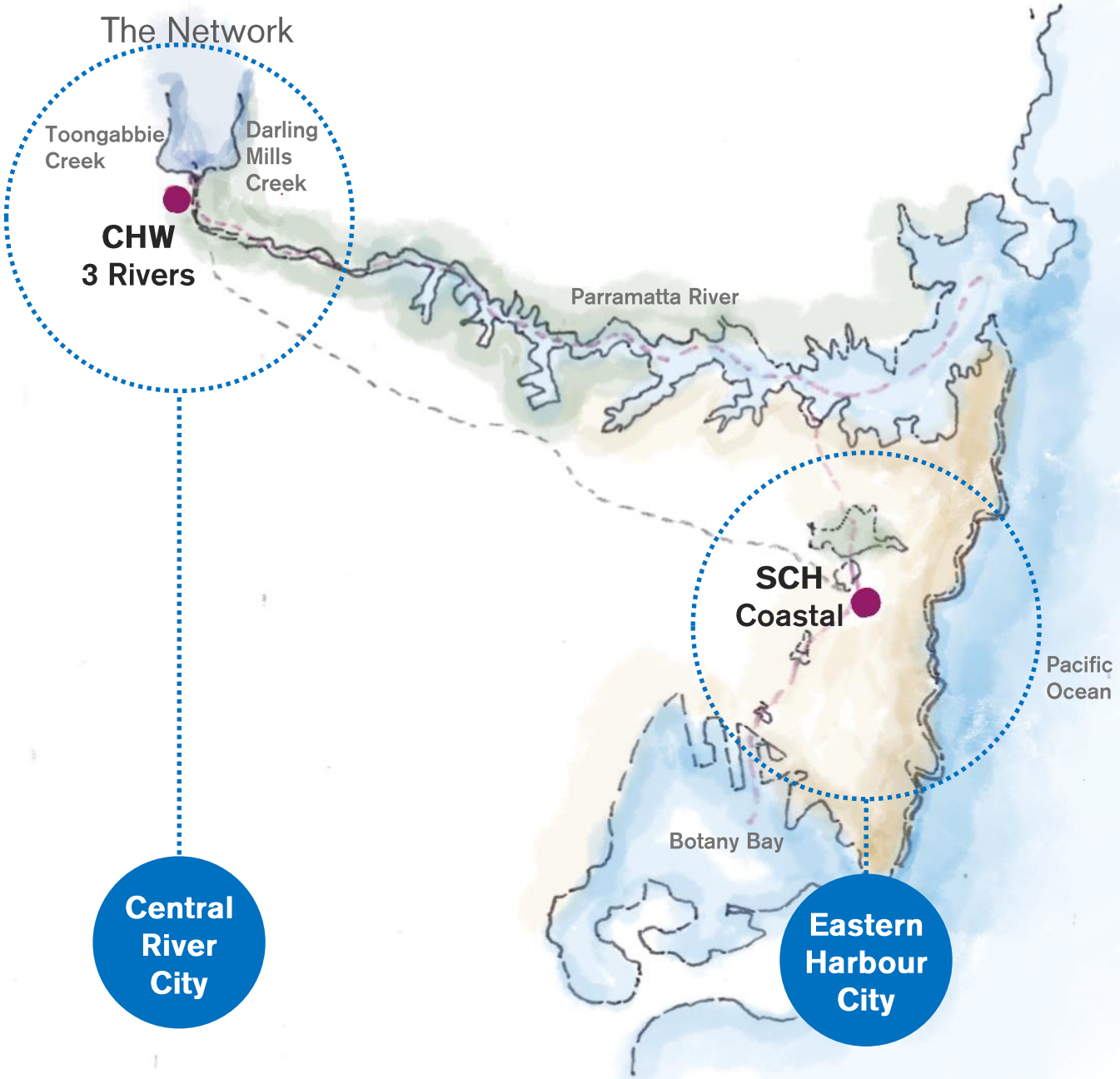
Public Realm



Concepts

The Network - Saltwater + Freshwater

The Network



Fresh air and access to nature

Historically Sydney hospital's were sited close to the water to take advantage of the **healing and restorative** properties that these environments offered.

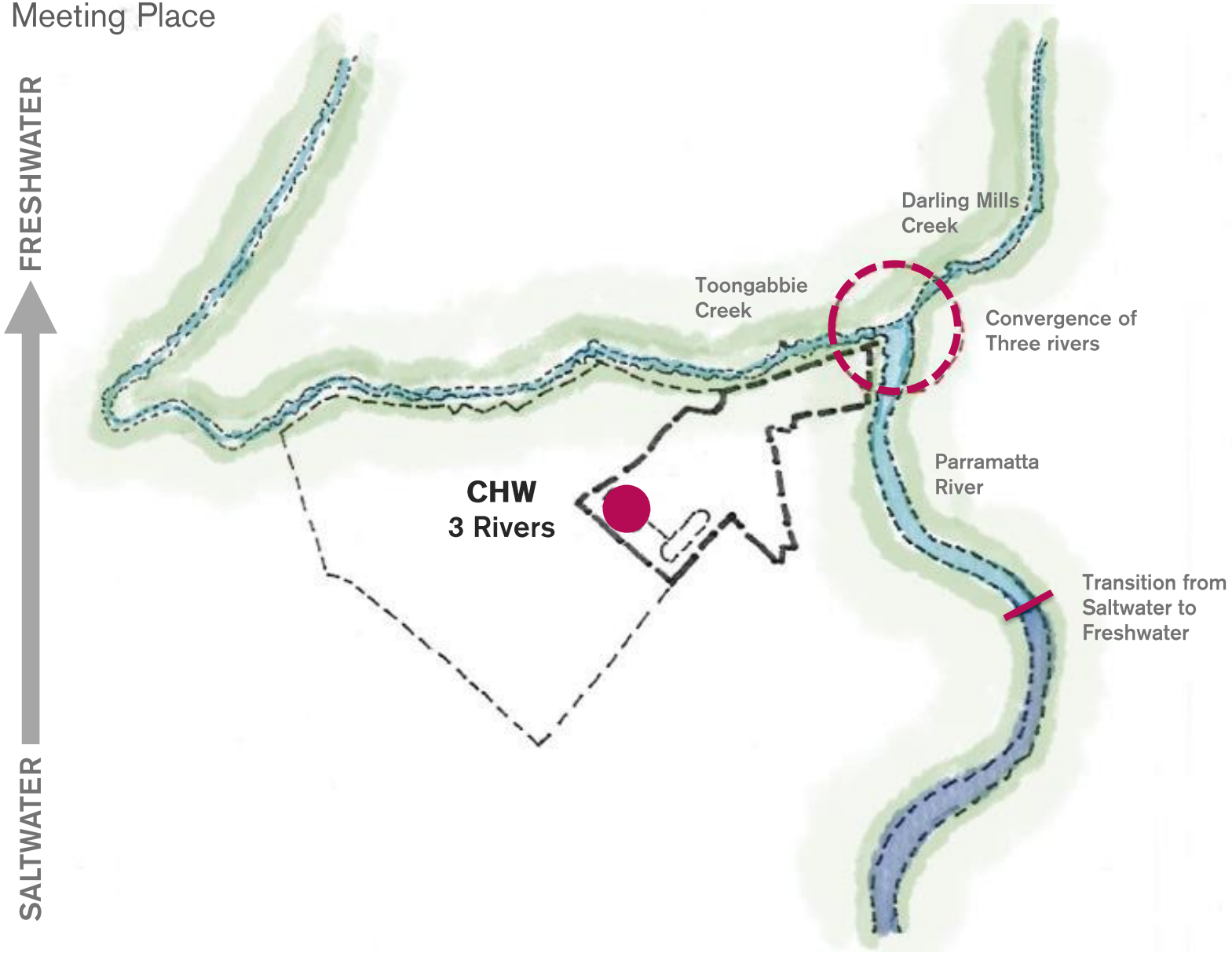
Once again…….

we can draw inspiration from the unique ecologically settings offered to both hospitals to create a **network** conduit.

Both share the story of the convergence of **saltwater and freshwater**

Three Rivers

Meeting Place



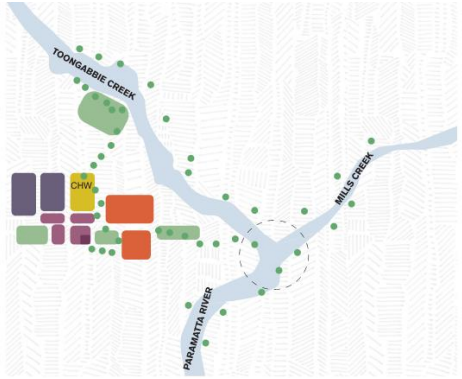
Overarching Design Principles

Three Rivers

- Celebrates the Central River City and the Hospital's immediate surrounds
- References the site's unique positioning between three river networks convergence; where saltwater meets freshwater
- Connects both the Indigenous and European historical landscapes

These themes will inform:

- Building massing
- Material selection
- Interior palette
- Wayfinding
- Landscape



BRINGING TOGETHER OF IDEAS

RIVER LIFE

SHAPES OF THE RIVER

RIVER PLACES

IMAGINATION OF A CHILD

RIVER STORY

Design Intent

Public Realm

Design Intent

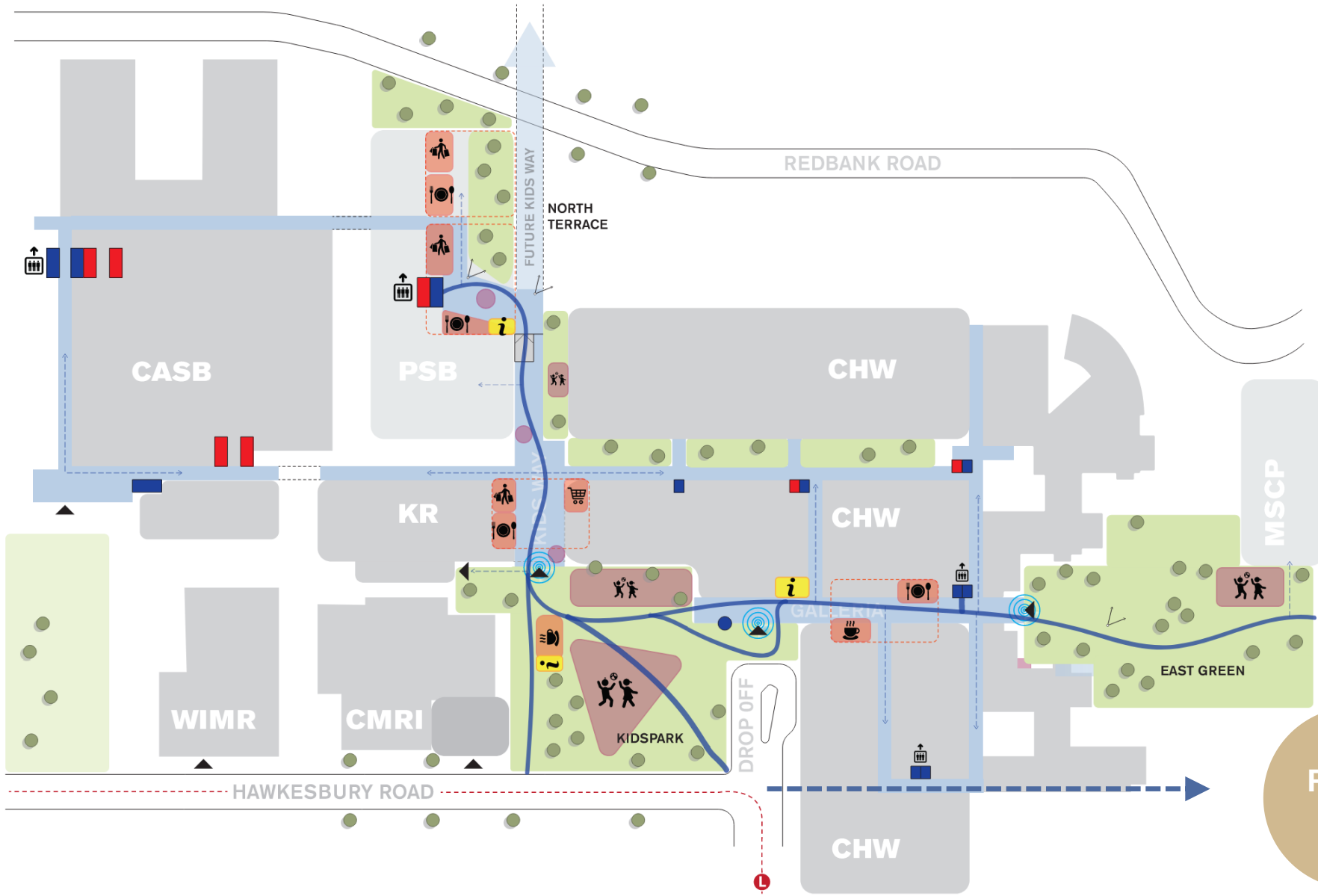
Translation Public Realm

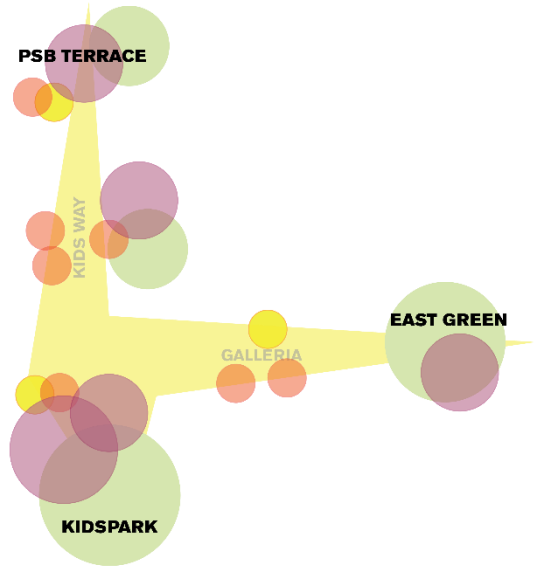
Masterplan

Design Intent

Translation Public Realm I Site Linkages

Destinations





RIVER LIFE

RIVER PLACES

RIVER STORY

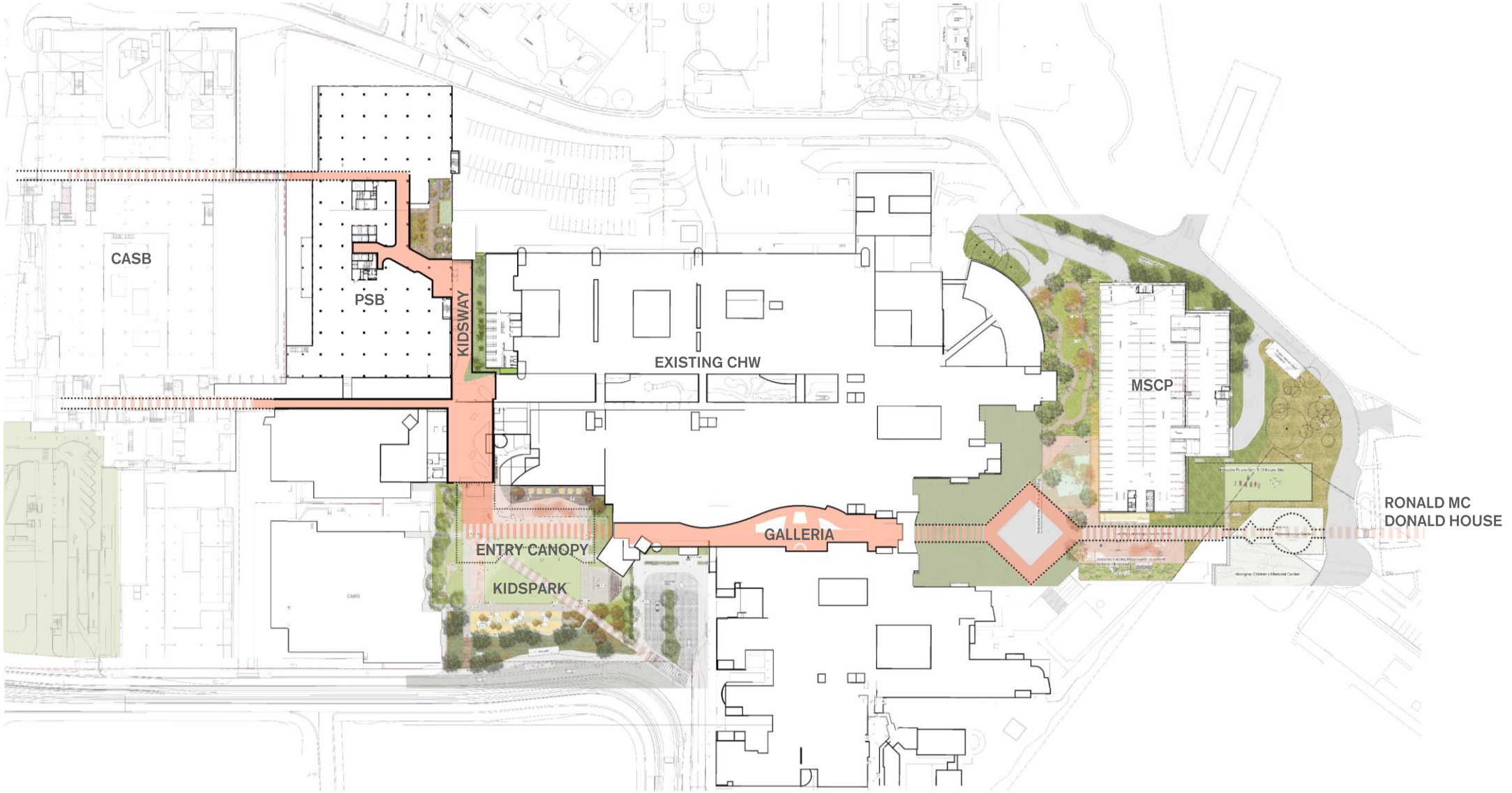
Design Intent

Entries and Arrival Experiences

Entries and Arrival experiences

Creating Places

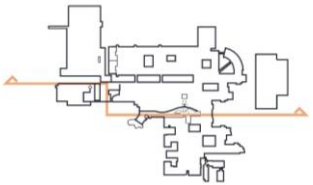
Public Links and Entries

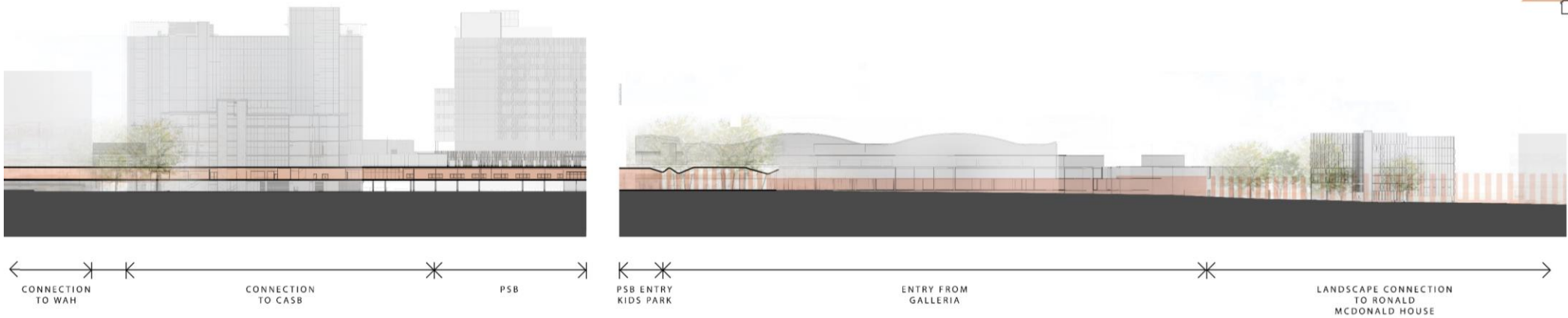


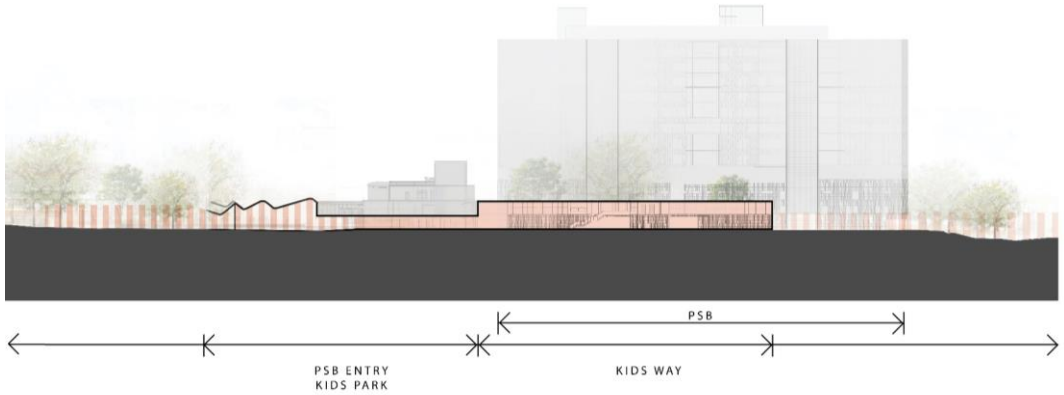
Entries and Arrival experiences

Creating Places

Public Links and Entries





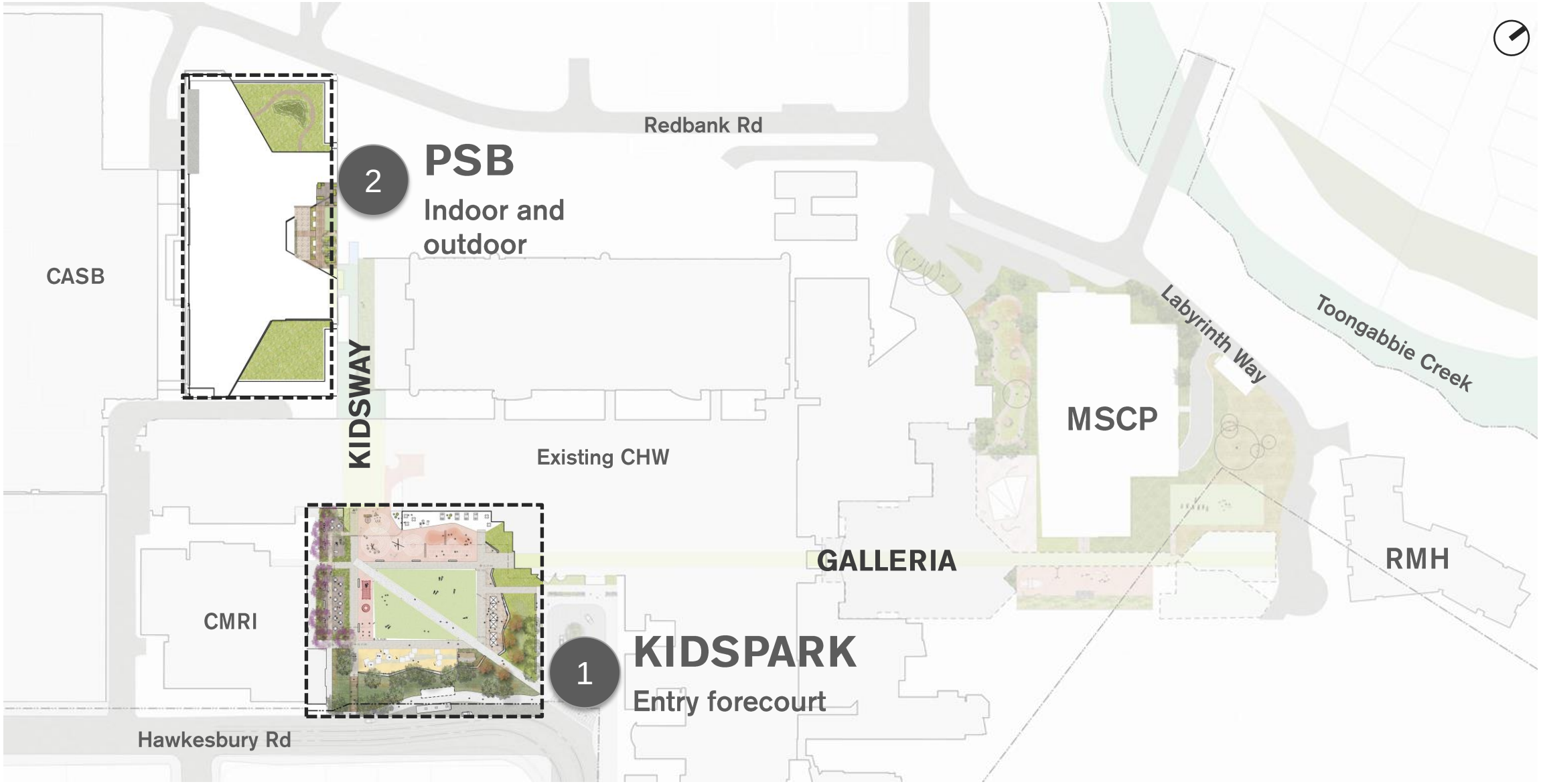


Design Intent

Landscape Design

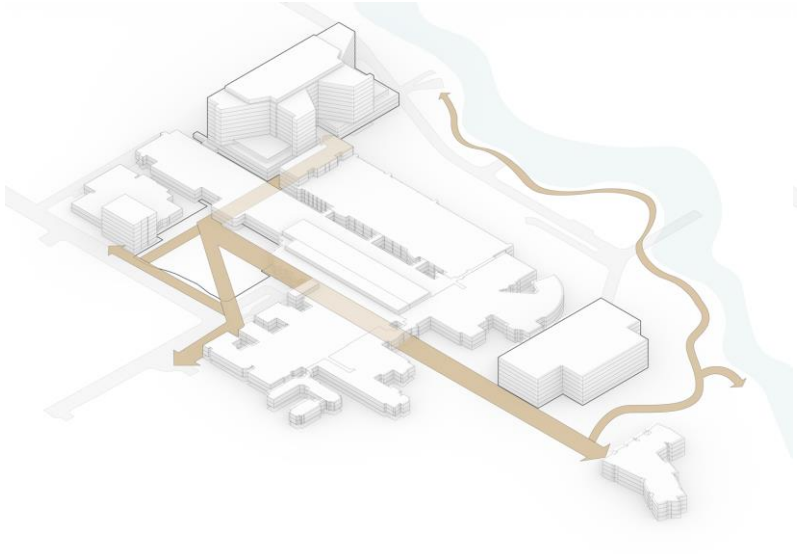
Design Intent

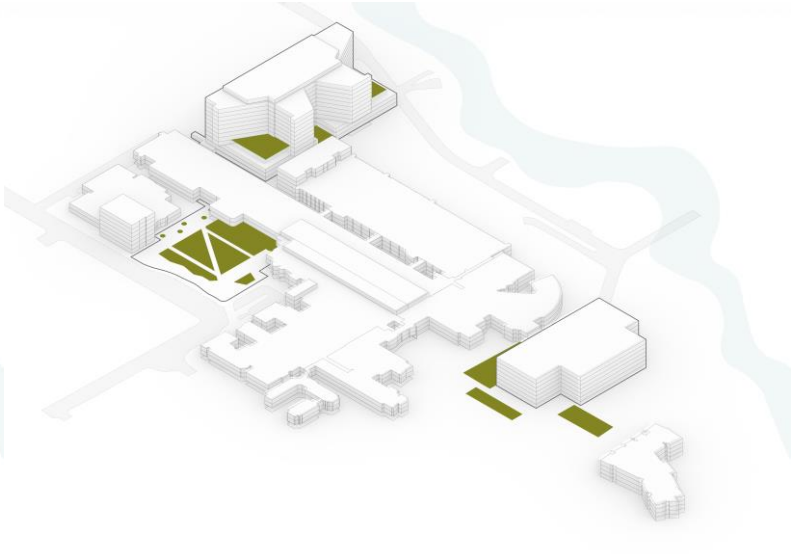
Translation Landscape – Key Public Domain Areas



Design Intent

Translation Landscape – Design Principles





RIVER LIFE

Connecting the life of the river with the life of the Children's hospital.

RIVER PLACES

Places of gathering, play and healing.

RIVER STORY

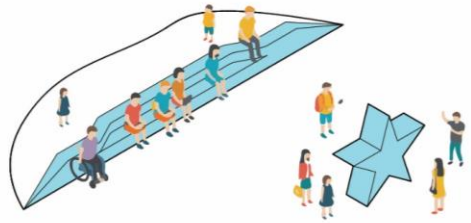
Connect with the dynamic story of water through indigenous history and public art.

Design Intent

Translate Landscape Design Objectives

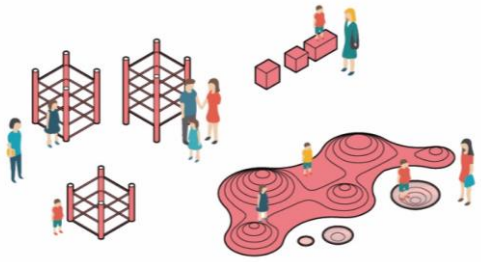
Create an interconnected green environment enhancing both mental and physical health

Provide intimate spaces for families & carers

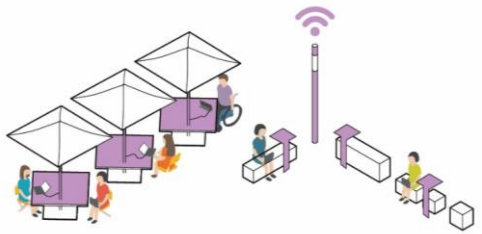


Spark interest and engagement through the use of interactive elements.

Provide safe and inclusive open spaces
Catering to the needs of the diverse audiences



Provide age appropriate & diverse play spaces



Create smart, multi-functional spaces to bring the life of the hospital outside

RIVER LIFE

RIVER PLACES

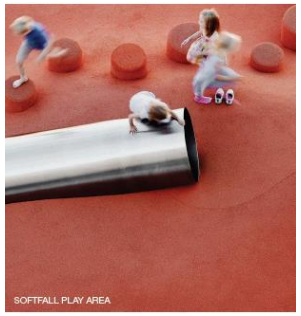
RIVER STORY

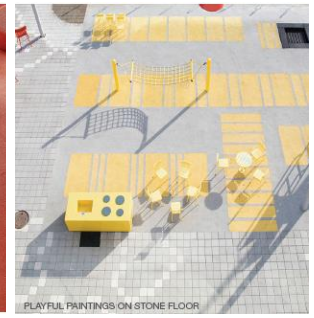
Design Intent

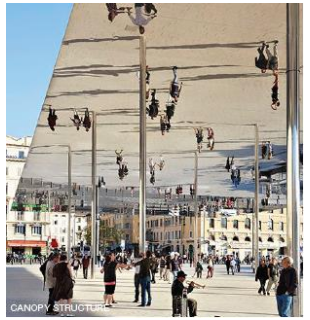
KIDSPARK - Program

Kids Park

Kids and Youth Play

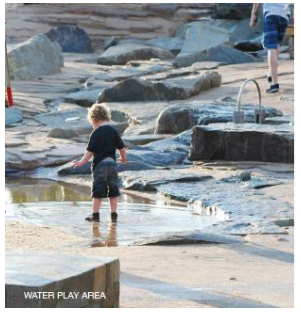


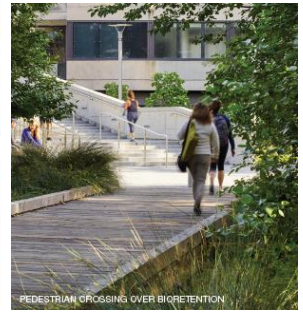


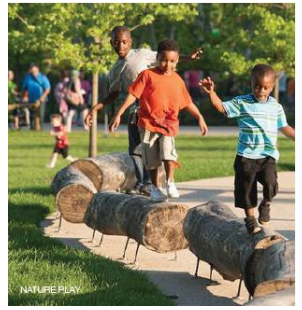


Meet, Rest and Event

WSUD and Nature Play



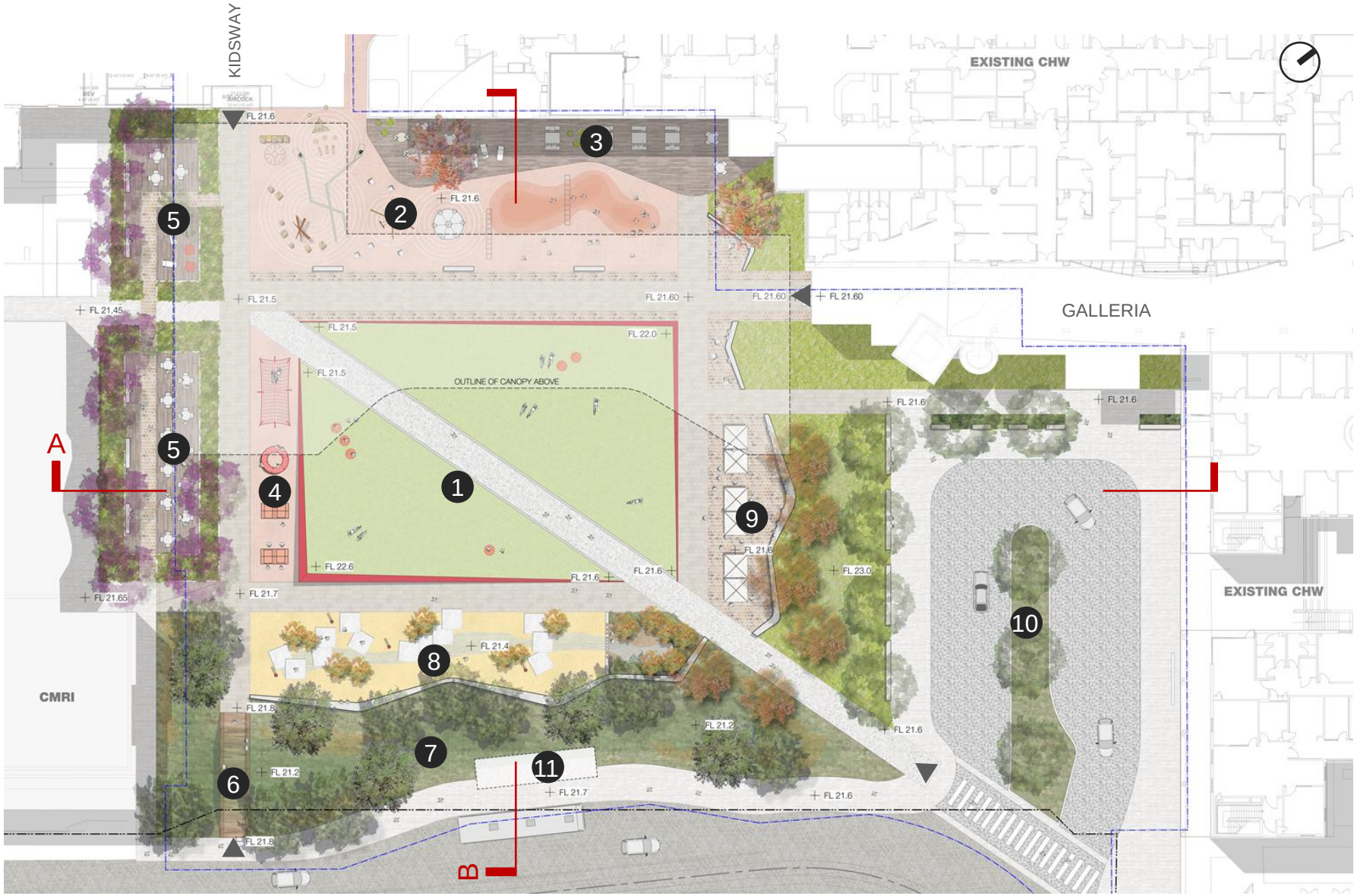




Landscape Plan

Translation Landscape

Kids Park

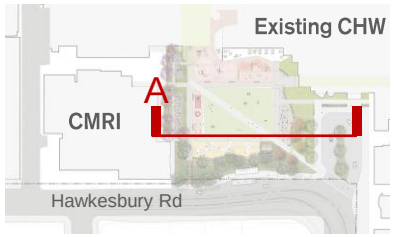


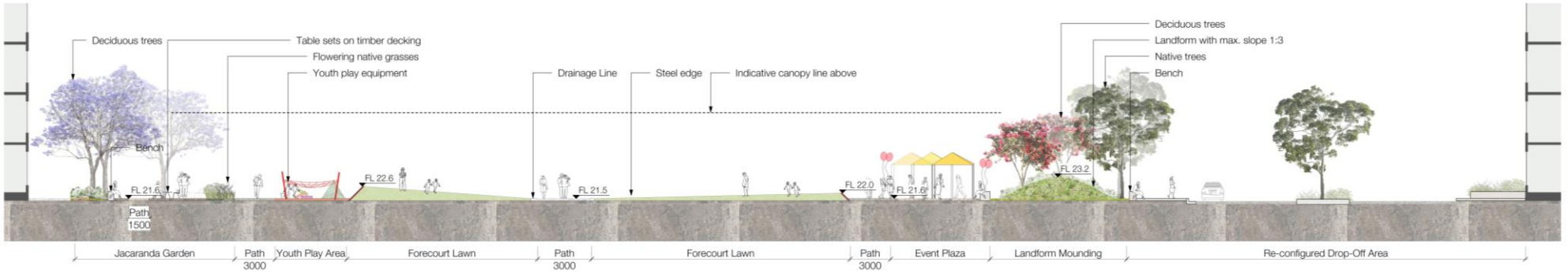
1. Forecourt Plaza
2. Kids Play Area
3. Outdoor Deck
4. Youth Play Area
5. Jacaranda Garden
6. Hawkesbury Road Entry
7. WSUD Rain Garden
8. Nature Play Area
9. Event Plaza
10. Re-configured drop-off
11. Bus Stop

Landscape Sections

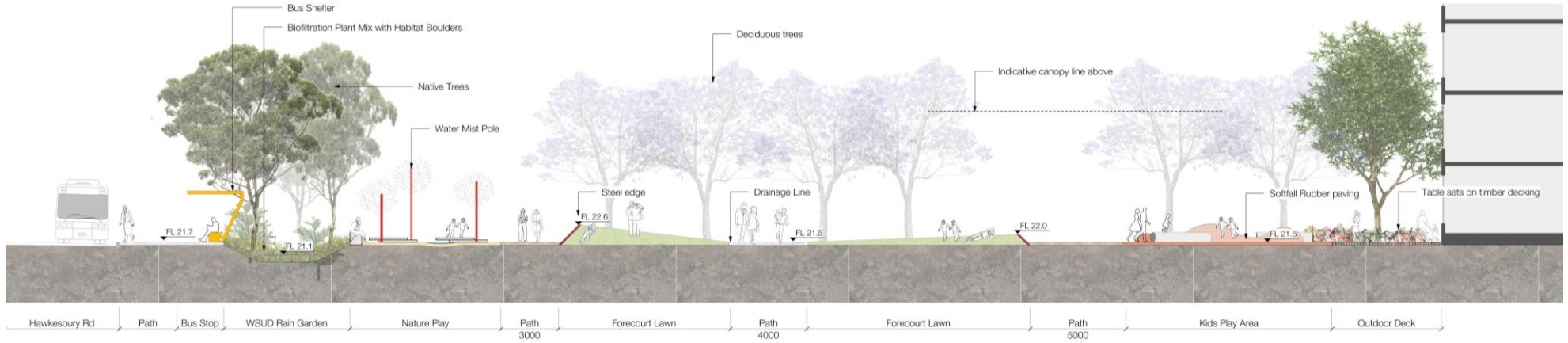
Translation Landscape

Kids Park





Section A

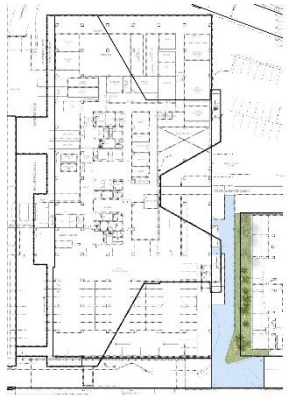


Section B

Landscape Plan

Translation Landscape

Showcase locally native Rainforest Gully species and connect with indigenous heritage and local flora and fauna



PSB Lv02 – Key map

Kidsway – Level 02

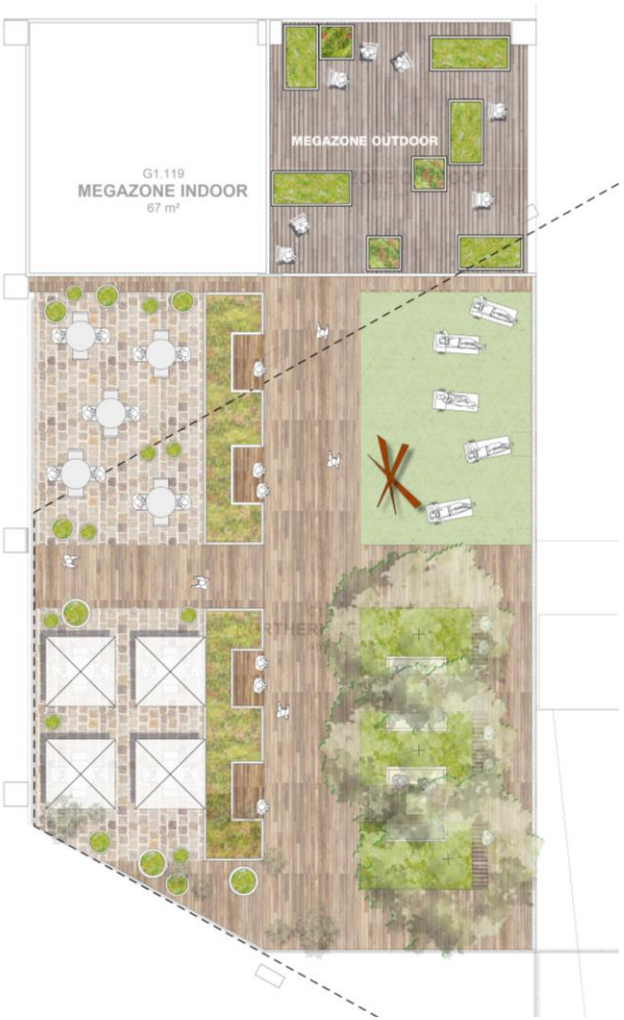
Landscape Plan

Translation Landscape

Level 03 will be a key outdoor space for the PSB.

Intent is to provide a range of opportunities for relaxation and gathering in varying sizes with areas of sun and shade.

PSB Lv03 – Key map

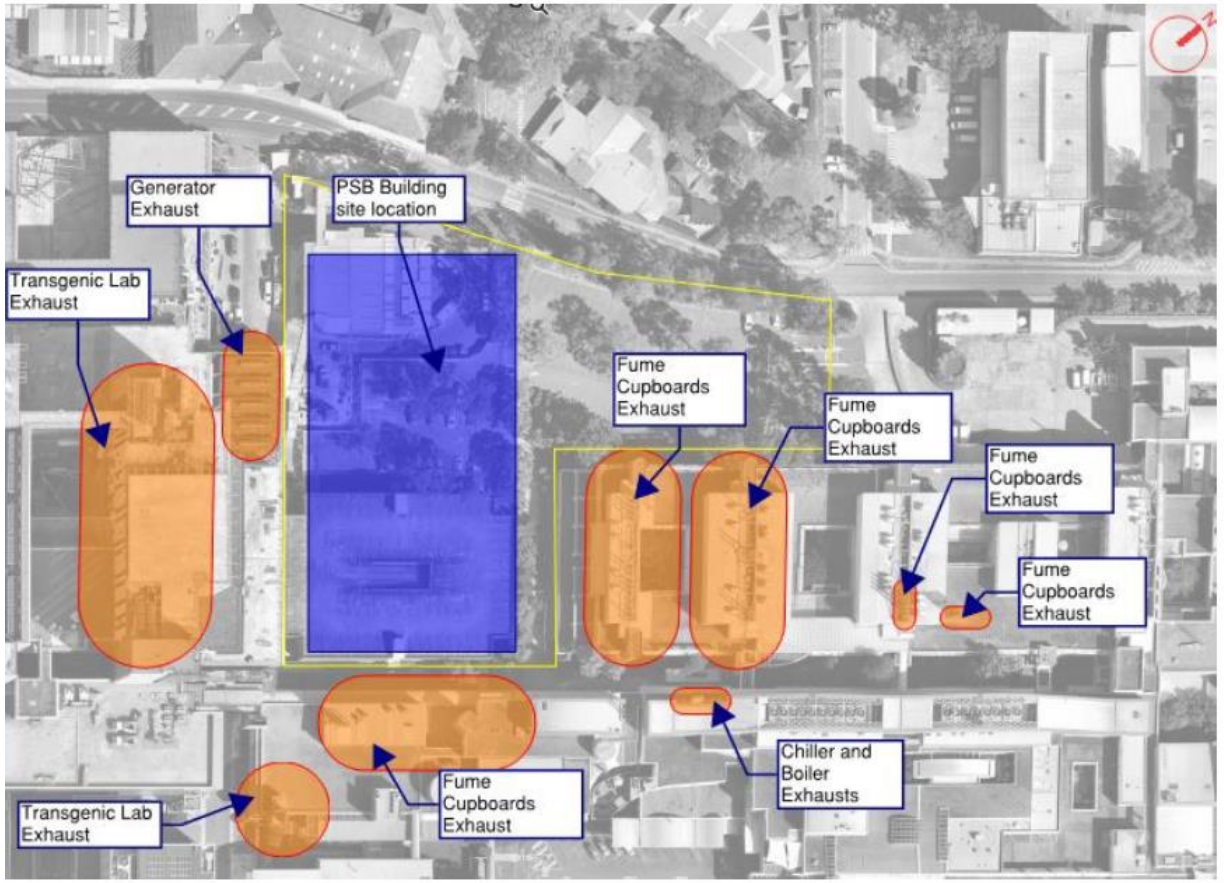


Kidsway – Level 03

Landscape Plan

Potential Constraints on Other Outdoor Areas

A range of seating and gathering spaces will be provided across multiple levels of the PSB.

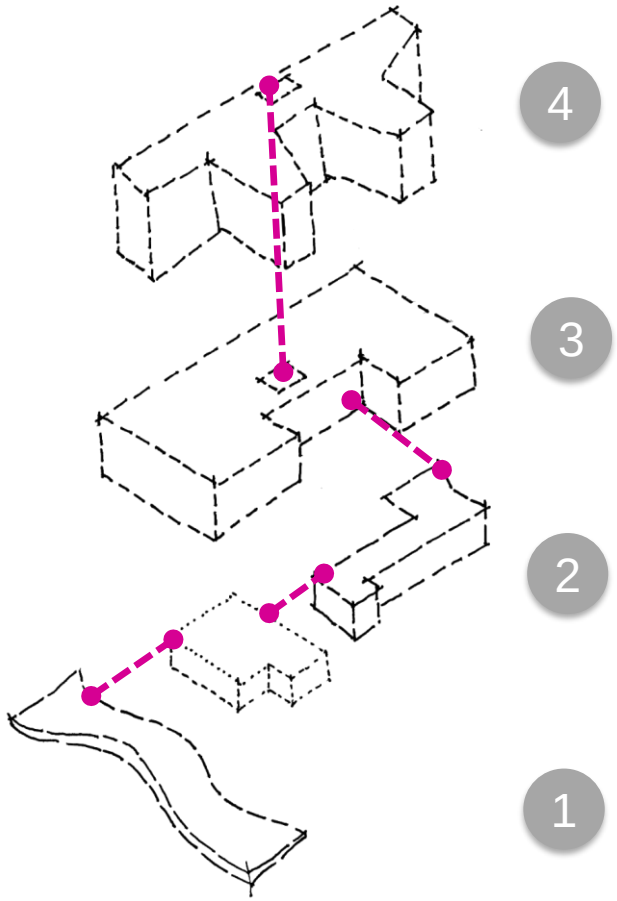


Design Intent

Built Form

Design Intent

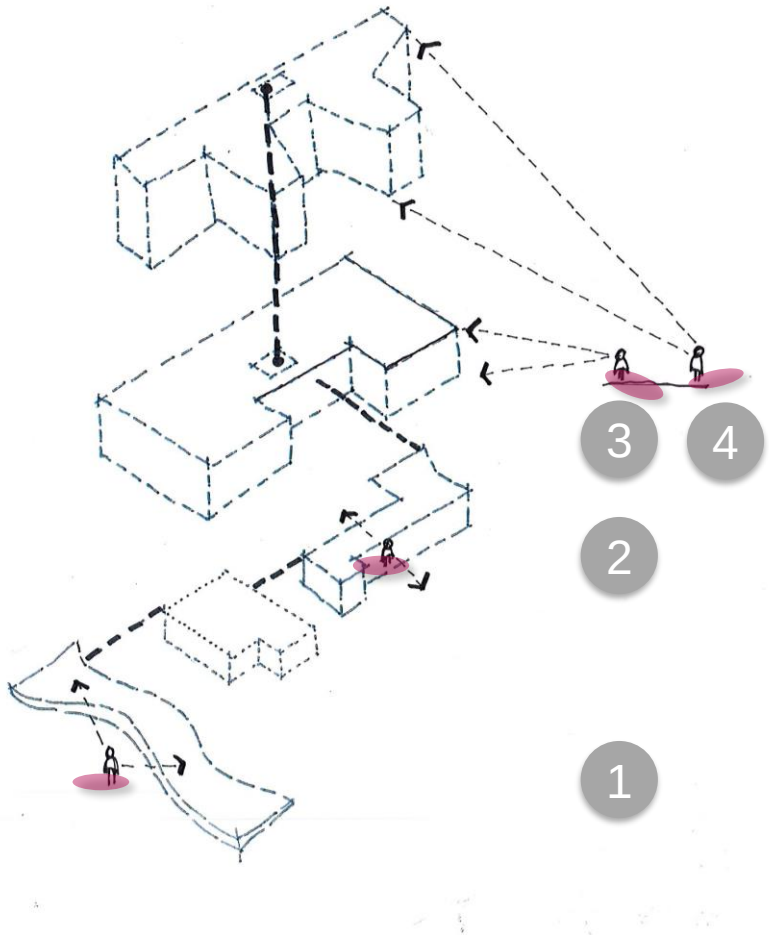
Translation Built Form



Sequence of Forms

4 Key Elements are employed to create the flow through the Built Form:

1. The Entry Canopy
2. The Glazed Connector
3. The Rectilinear Form
4. Sculptured Form



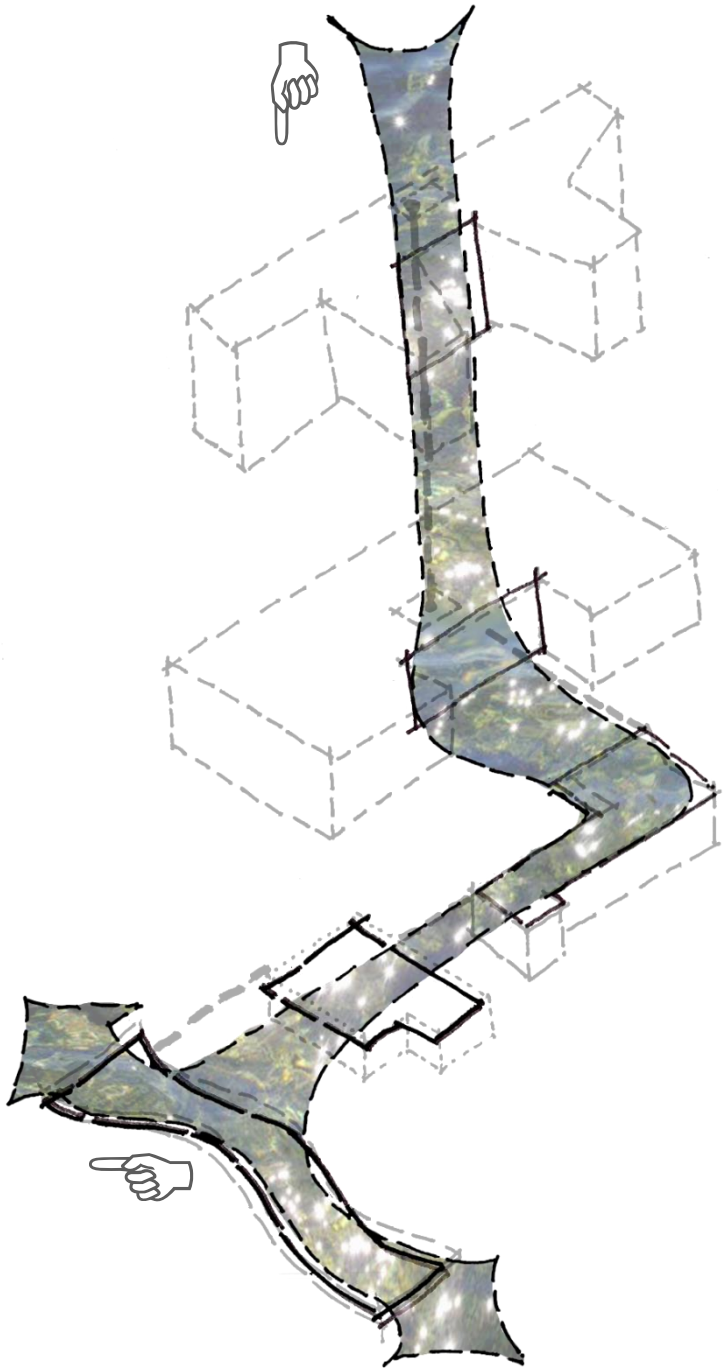
Flow of Forms

These 4 Key Elements allow for different experiences and materiality as one moves through or engages with the built form :

1. Overhead I Protective I Embracing
2. Connection to the outside
3. Intimate engagement with the form
4. Distant engagement with the form

Design Intent

Translation Built Form



The flow of the river

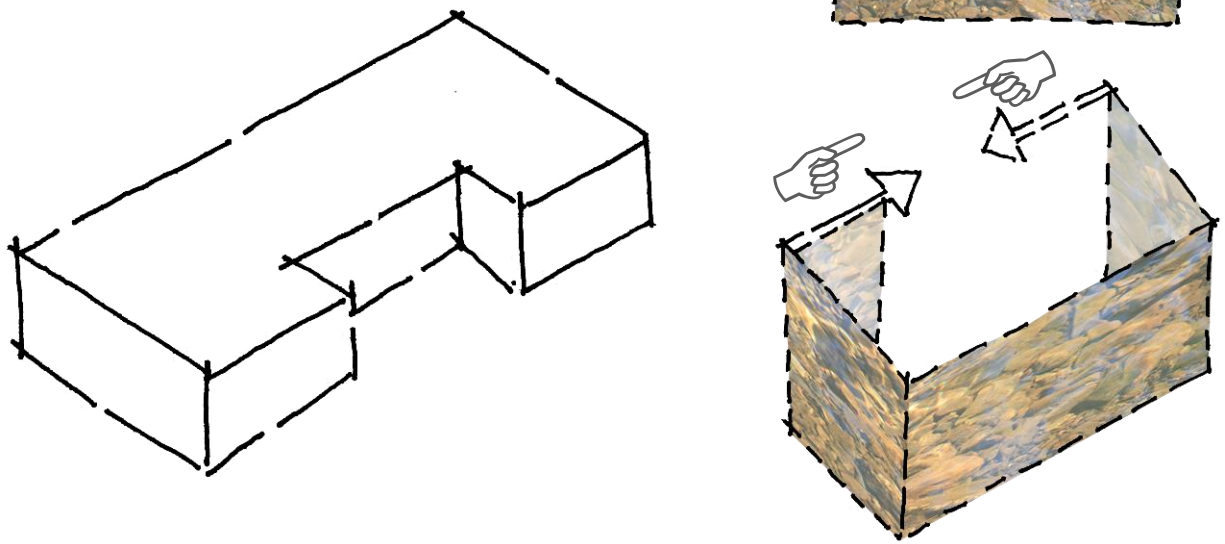
The built form will be tied to together with an element that ‘pours’ through and touches different surfaces along its journey - be it the façade, walls or soffits.

This gesture aims to draw people up and through the building.

BRINGING TOGETHER OF IDEAS

Design Intent

Translation Built Form



Rectilinear Form

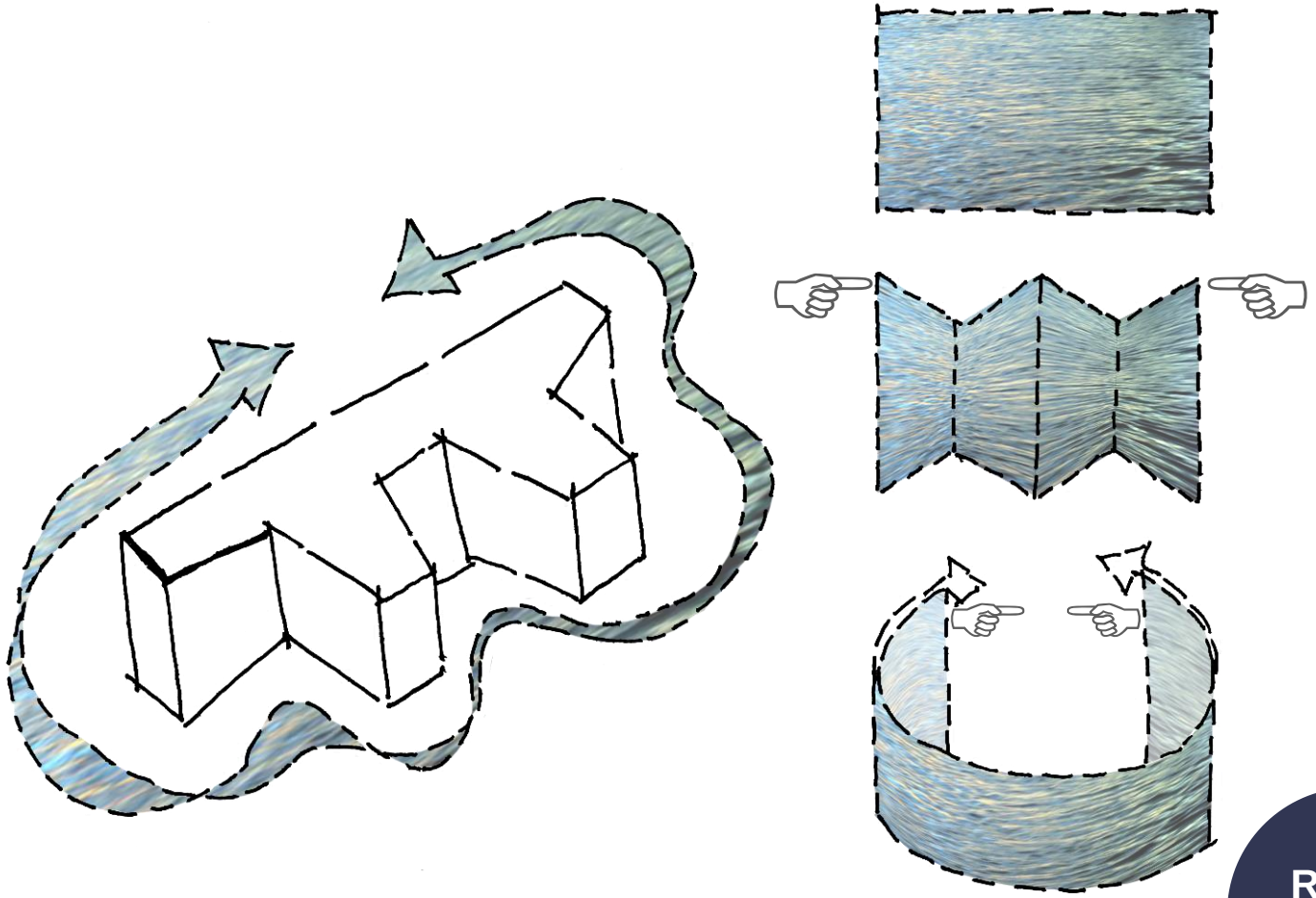
The textures at the rivers edge are reimagined as a wrapping around the podium levels, where there will be more up-close engagement with the built form.

SHAPES OF THE RIVER

RIVER PLACES

Design Intent

Translation Built Form



Sculptured Form

The shimmering texture and play of light across the surface of the river is imagined as an unfolding and wrapping around the form.

The materiality of sparkle and fracturing of light is to be appreciated from a distance.

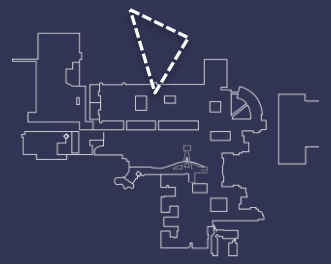
IMAGINATION OF A CHILD

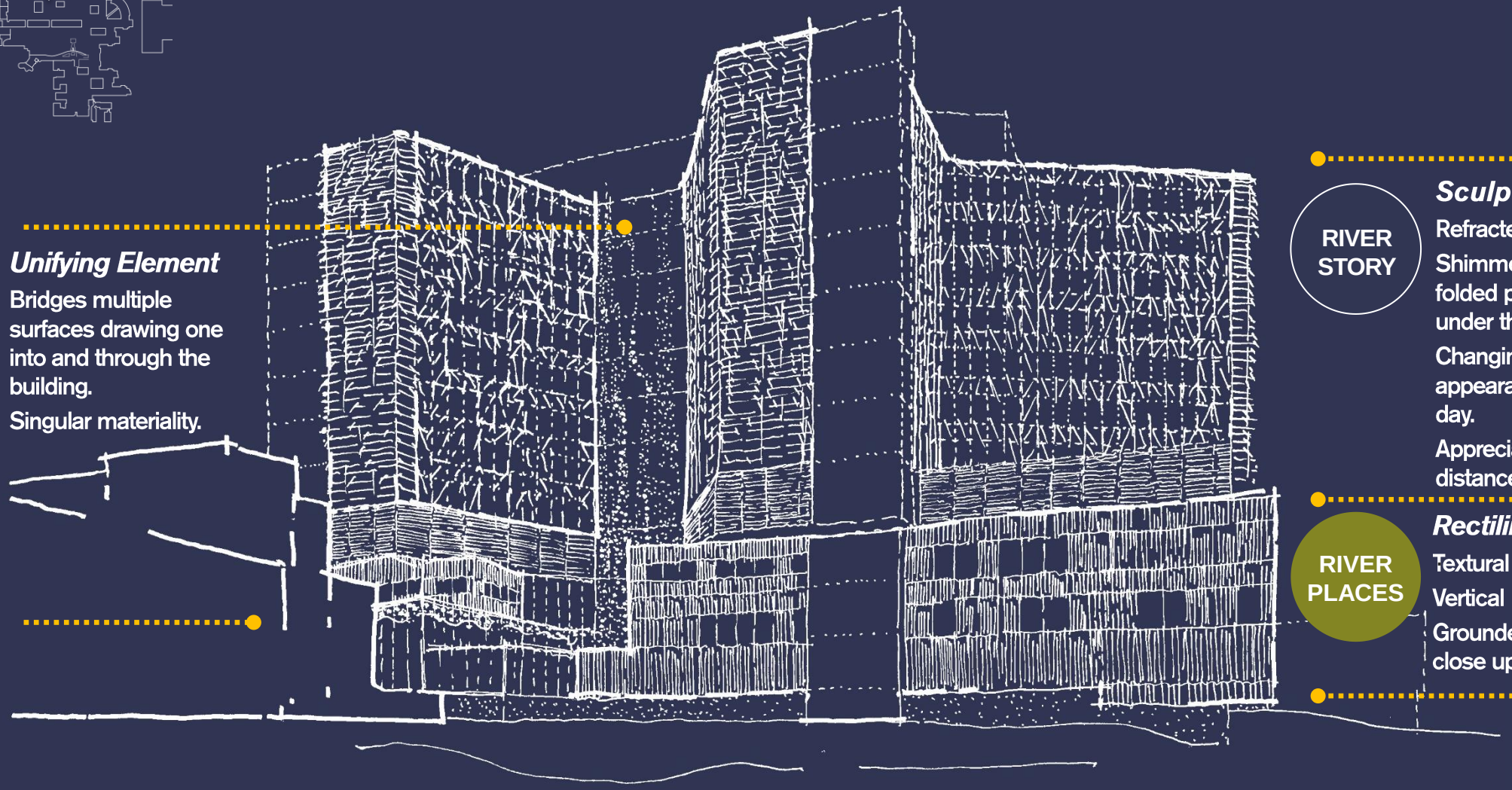
RIVER STORY

Design Intent

Built Form– View from Redbank Road

Built Form and Material Hierarchy





RIVER LIFE

Unifying Element

Bridges multiple surfaces drawing one into and through the building.

Singular materiality.

RIVER STORY

Sculptural Form

Refracted Expression.

Shimmering finish and folded panels that sparkle under the play of light.

Changing visual appearance throughout the day.

Appreciated from a distance.

RIVER PLACES

Rectilinear Form

Textural Form

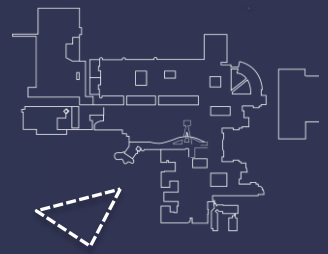
Vertical Expression.

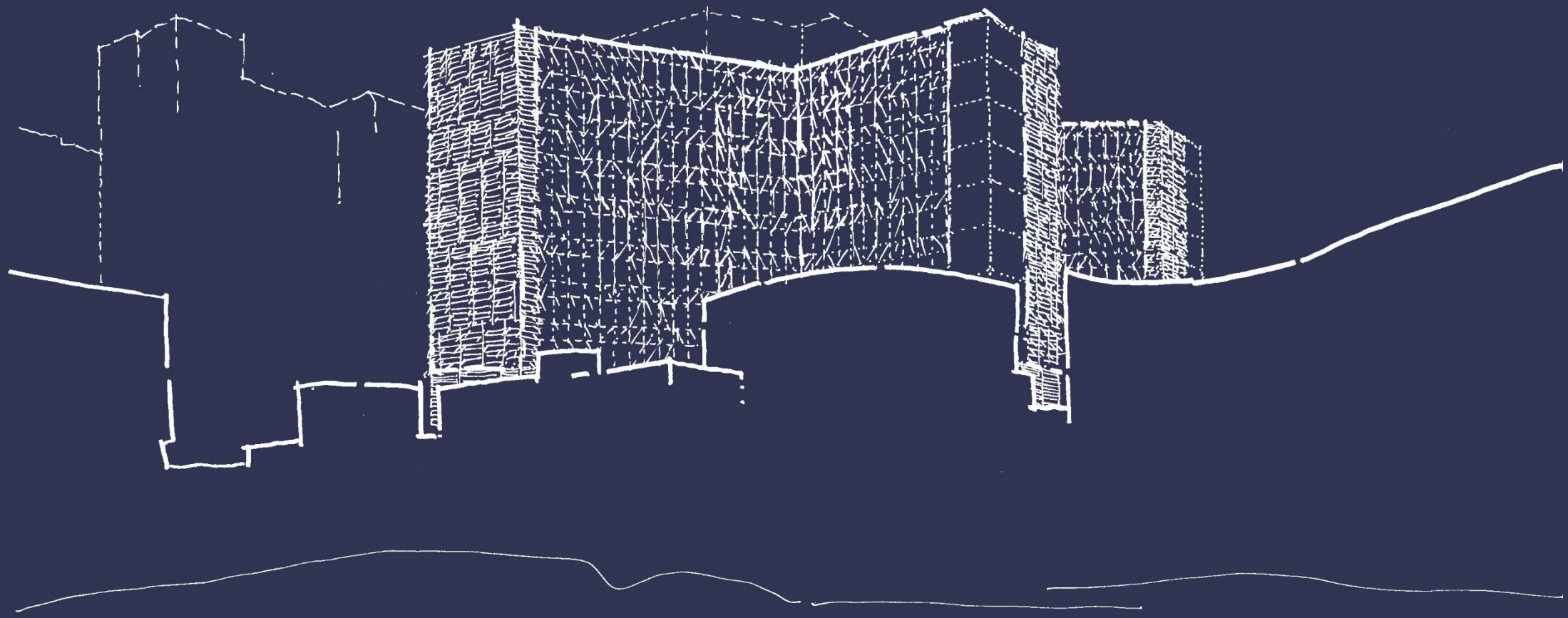
Grounded base appreciated close up.

Design Intent

Built Form – View from Hawkesbury Road

View

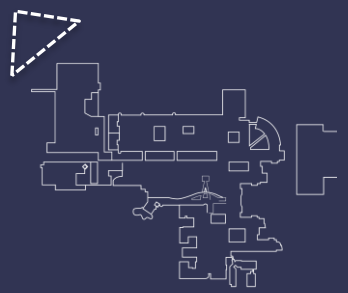


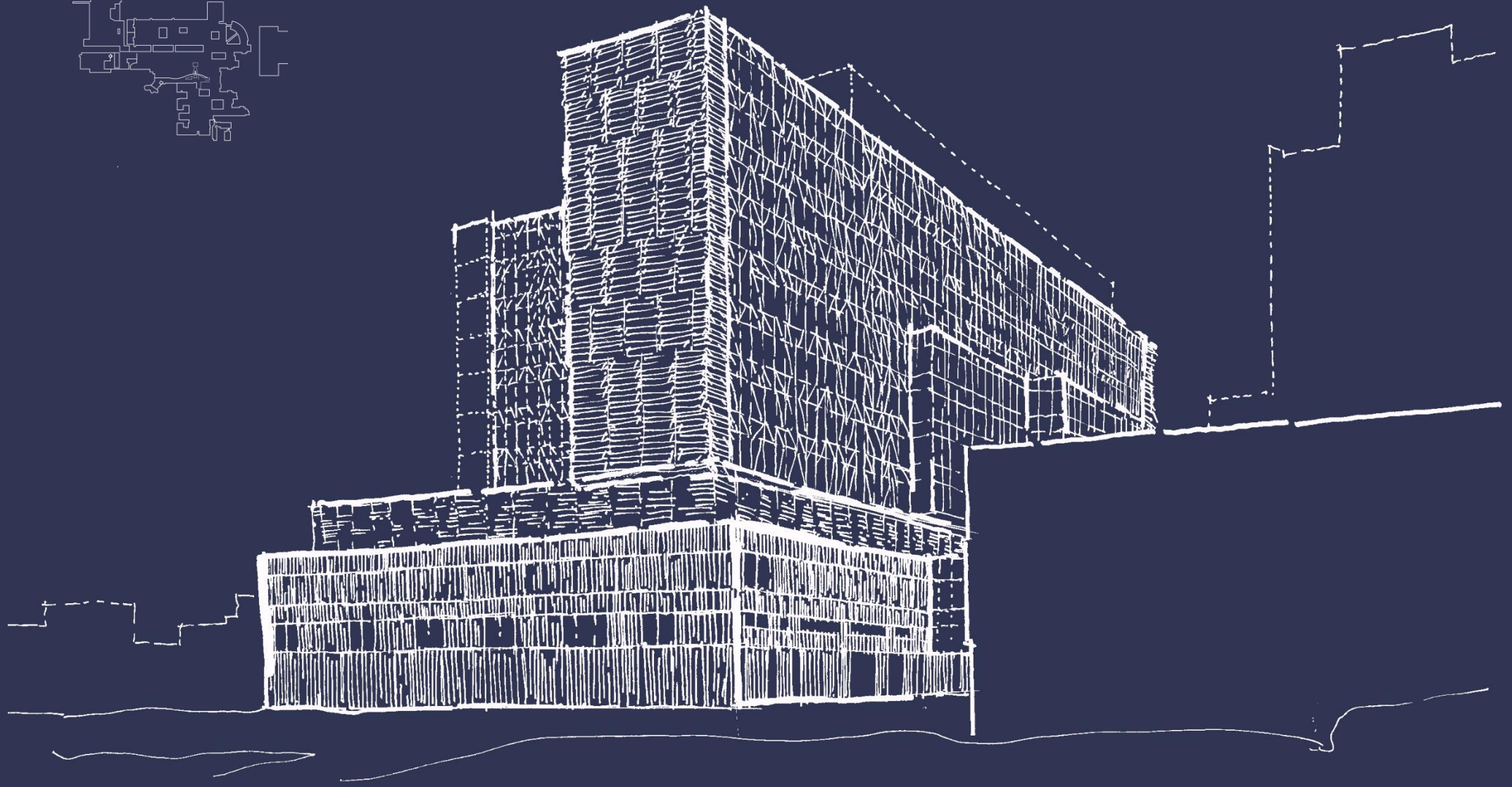


Design Intent

Built Form – View from Redbank Road I South Western Elevation

View

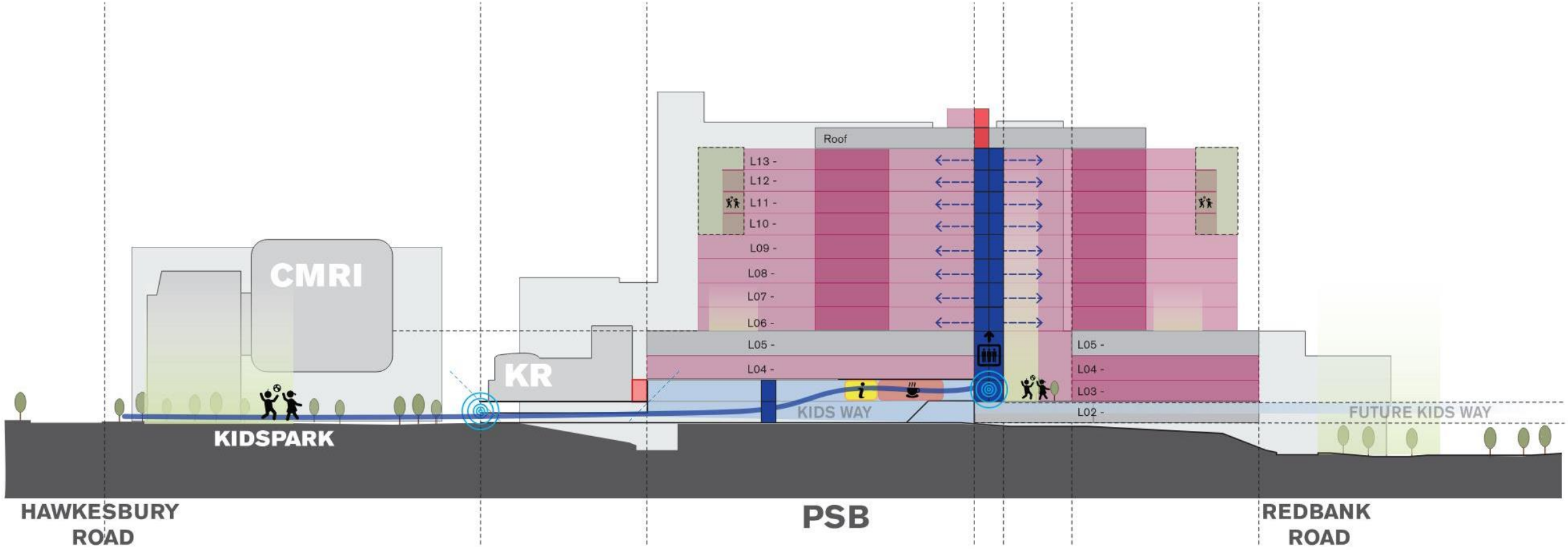




Design Intent

Built Form

Section



Design Intent

Built Form I Creating Places

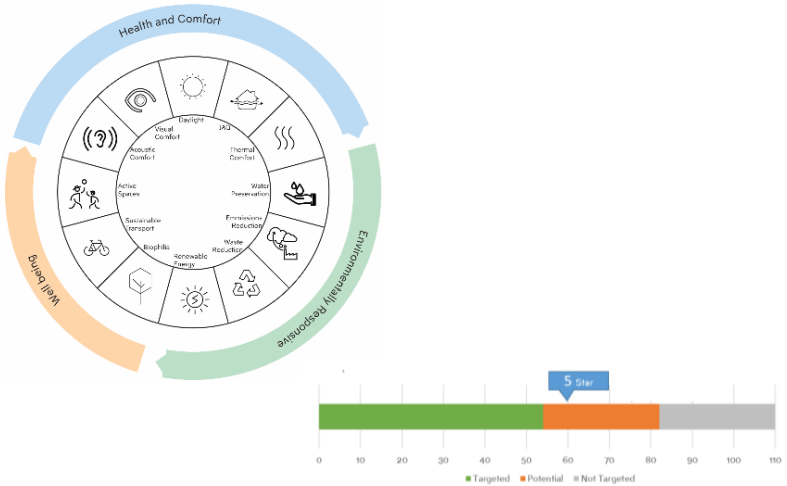
Kids Park Entry

Design Intent

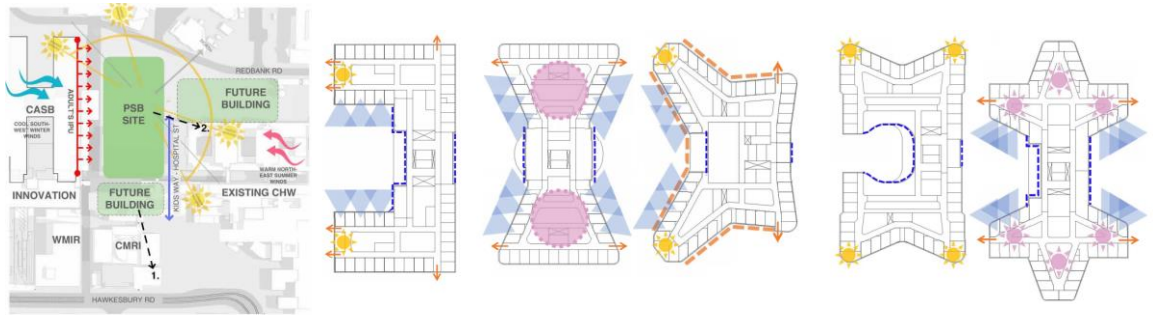
Built Form

ESD

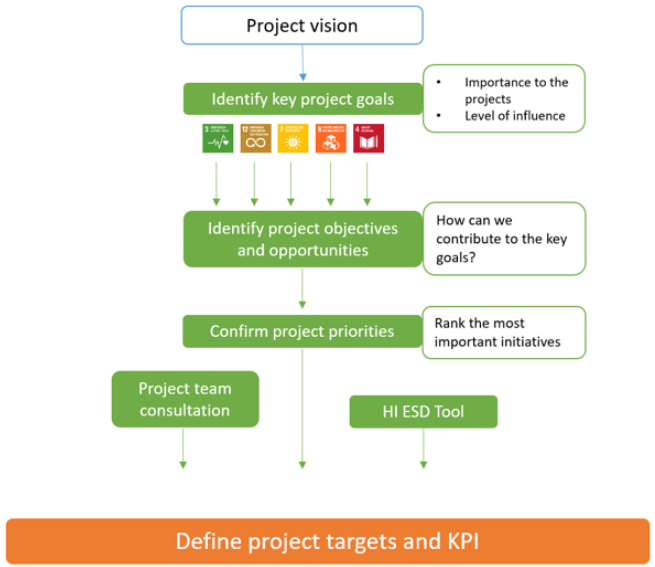
HI ESD Tool: 5 Star Green Star Equivalency



Environmental considerations for building optimisation



ESD Strategy Development Process



1	Good health and well-being	**A long list of intiatives has been identified against each catergory. An assessment will be undertaken to refine the long list a short list during the SD phase. This will consiZder potential whole-of-life cost benfits and alternate funding opportunities**
2	Affordable and clean energy	
3	Industry, innovation and infrastructure	
4	Responsible consumption and production	
5	Climate Action	
6	Clean water and sanitation	
7	Life below water	

Consultation

Consumer Engagement

Process

Consumer and Community Engagement has been undertaken to gather feedback and insights from key stakeholders to ensure the project meets the needs of patients, families, staff and the community now and into the future.

- 6 workshops - A total of 20 families participated
- A children's and adult's survey - A total of 530 survey responses
- Children's activity sheet - 50 activity sheets completed
- Over 30 stakeholders

Key Themes

- Outdoor access – ability to see the sky, indigenous & multicultural spaces
- Access to fresh air and natural daylight – windows and views
- Accessibility - ease of access to space, nighttime access, leaving children
- Art and play
- Design for the full age spectrum - age-appropriate spaces, indoor & outdoor
- Community & communication - Spaces to talk to other parents, social aspect
- Family spaces - indoor & outdoor spaces for families – close and extended
- Mental and physical health pf parents and siblings
- Consideration of long stays - quiet spaces, family spaces, ability to sleep
- Availability of normal - ability to exercise, Healthy food options, facilities and home like qualities, spaces for families and siblings, Softening of space
- The spaces in between - Waiting spaces while children are in treatment, quiet spaces for a phone call, separated tables in communal areas
- Spaces that are culturally appropriate – welcoming and safe

Consultation with the **consumers and the community** to date:

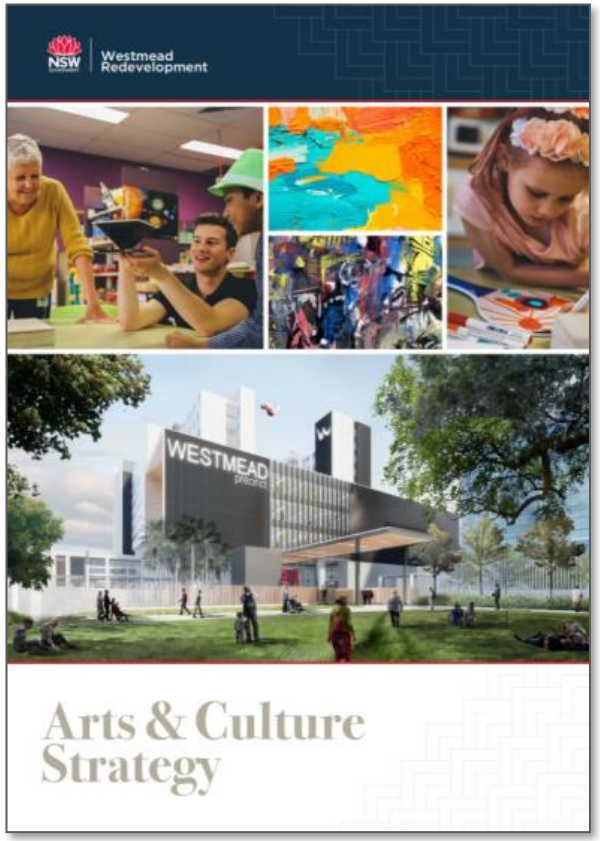
- Clinical Services Directions project
- Consumer workshops via Zoom with **30 families**
- Surveys – A total of **888 respondents from Adults and Children**
- Children's activity worksheets
- Closed EOI for consumer committee: 30 applicants
- Upcoming consumer workshops online (October)
- Consumer participation in PUGs

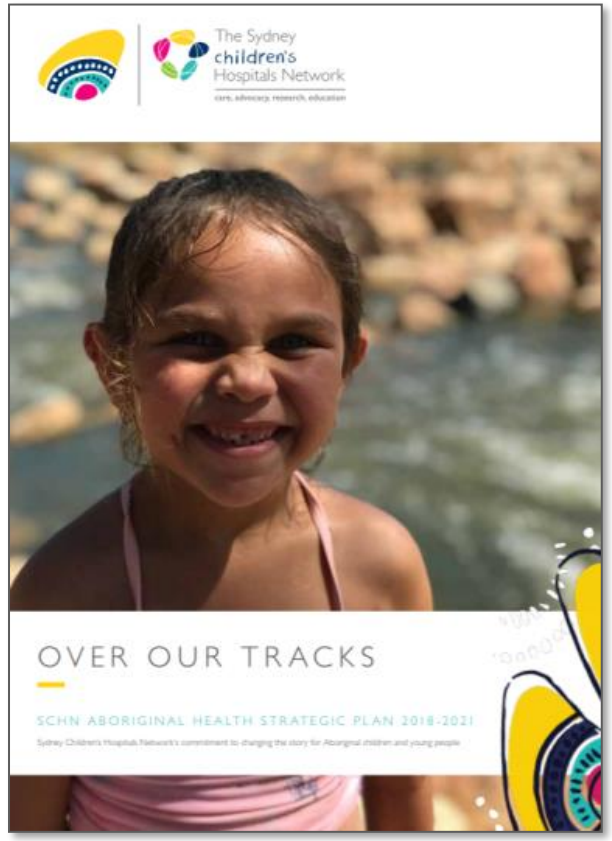
Consultation

Approach to Indigenous Culture and Heritage

Ongoing consultation with Indigenous stakeholders including:

- Presentation to and ongoing engagement with the established Aboriginal Consumer Committee
- Consumer engagement with Aboriginal families. This will also inform the development of consumer journeys
- On going consultation with the Land Council and local community organisations
- Arts and Creative Play Survey - 135 survey participants across the network. Working group established, one key emerging theme is the development of culturally appropriate responses throughout the hospital.
- Consultation ongoing with the local Aboriginal Health Unit - to create welcoming and safe spaces for Indigenous kids, families and visitors (local and regional)





The Sydney children's Hospitals Network
care, advocacy, research, education


Thank You

GOVERNMENT ARCHITECT NEW SOUTH WALES

27 November 2020

Claire Muir
Senior Planning Advisor
Health Infrastructure

claire.muir@health.nsw.gov.au

PROJECT: The Children's Hospital at Westmead Stage 2 Redevelopment
RE: SDRP SESSION 66 – 18.11.20 (second review)

Dear Claire,

Thank you for the opportunity to review the above project at an early stage at the SDRP session held on 18.11.20.

The project has advanced in a positive direction since its first SDRP. Areas of the presented masterplan that have further developed and are supported include:

- The composition of the masterplan is thoughtful and logical – especially the inclusion of extensive landscape spaces;
- The areas for public use and where the community come together which create an inviting public domain;
- The internal plans for the building are commended for incorporation of public and green spaces which should be retained and enhanced during further design development.

The following commentary provides advice and the matters raised should be discussed at the next SDRP:

- The size and width of the proposed canopy over the 'Kids Park' may be over scaled, impeding the successful growth of good planting. Further studies are required to demonstrate appropriate scale, light quality and shadow impacts.
- Covered walkways appear overscaled, requiring further revision and articulation. Illustrate their impact on useable open spaces.
- For the next SDRP, please provide a series of light quality studies for the campus circulation areas and shadow studies: sequential sketches / basic 3d models of key external spaces as one moves along, indicating how they are linked to the environment and their light quality.
- Further link the green spaces between the Kids Way and the Kids Park.
- Upper levels and the façade design should enhance and exhibit green spaces, as well as spaces that are clearly for human habitation used for healing. Avoid the use of long expanses of uninterrupted reflective glazing on the façade.
- The extent of 'soft fall' surfaces to be kept to a minimum. Provide porous landscaping elements to help the land retain rainfall.

- The expanded carpark is closer to the river's edge than previously illustrated– examine possible reconfigurations to allow larger green spaces at ground level.
- Entrance 6 should be expanded to feel generous and not secondary to other entrances on the site.
- Within the proposed new building, all corridors where possible should lead to light (a window) or an open public usable space, as to provide respite and encourage wellbeing.
- Where possible, provide natural ventilation / operable windows to common areas, wards and patient rooms.
- In the next SDRP, present the proposed sustainability initiatives and how these have been incorporated into the building and will enhance user experience.
- Explore and illustrate proposal for the building to provide education opportunities to showcase sustainability, Aboriginal culture, art programs, architecture as wellbeing etc. – especially as this is a children's hospital.
- Amenity for the Kids Park: clearly indicate the scale and feel of the spaces for the (proposed) 2 stage development. Through sketches or diagrams, indicate how the space will be developed and change over time, including changes to landscape and architecture.
- Incorporate design guidelines into the masterplan to protect open spaces over time and mitigate potential negative effects such as wind and overshadowing.

Please refer to the design package requirements form for information on materials to be provided at the next SDRP.

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

Please contact GANSW Design Advisor, George Savoulis (George.Savoulis@planning.nsw.gov.au), if you have any queries regarding this advice.

Sincerely,

Carol Marra
Senior Design Advisor
Chair, SDRP

Government Architect
New South Wales

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L17, 12 Darcy Street
Parramatta NSW 2150

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CC

NSW SDRP Panel members	Diane Jones, Kate Luckraft, Carol Marra (Chair)
GANSW Design Advisor	George Savoulis
DPIE	Ingrid Berzins
Billard Leece Partnership	Tara Velman, Alessandro Filippi
Health Infrastructure	Caleb Teh, Peter Lawless
PwC	James Wright
McGregor Coxall	Dajon Veldman

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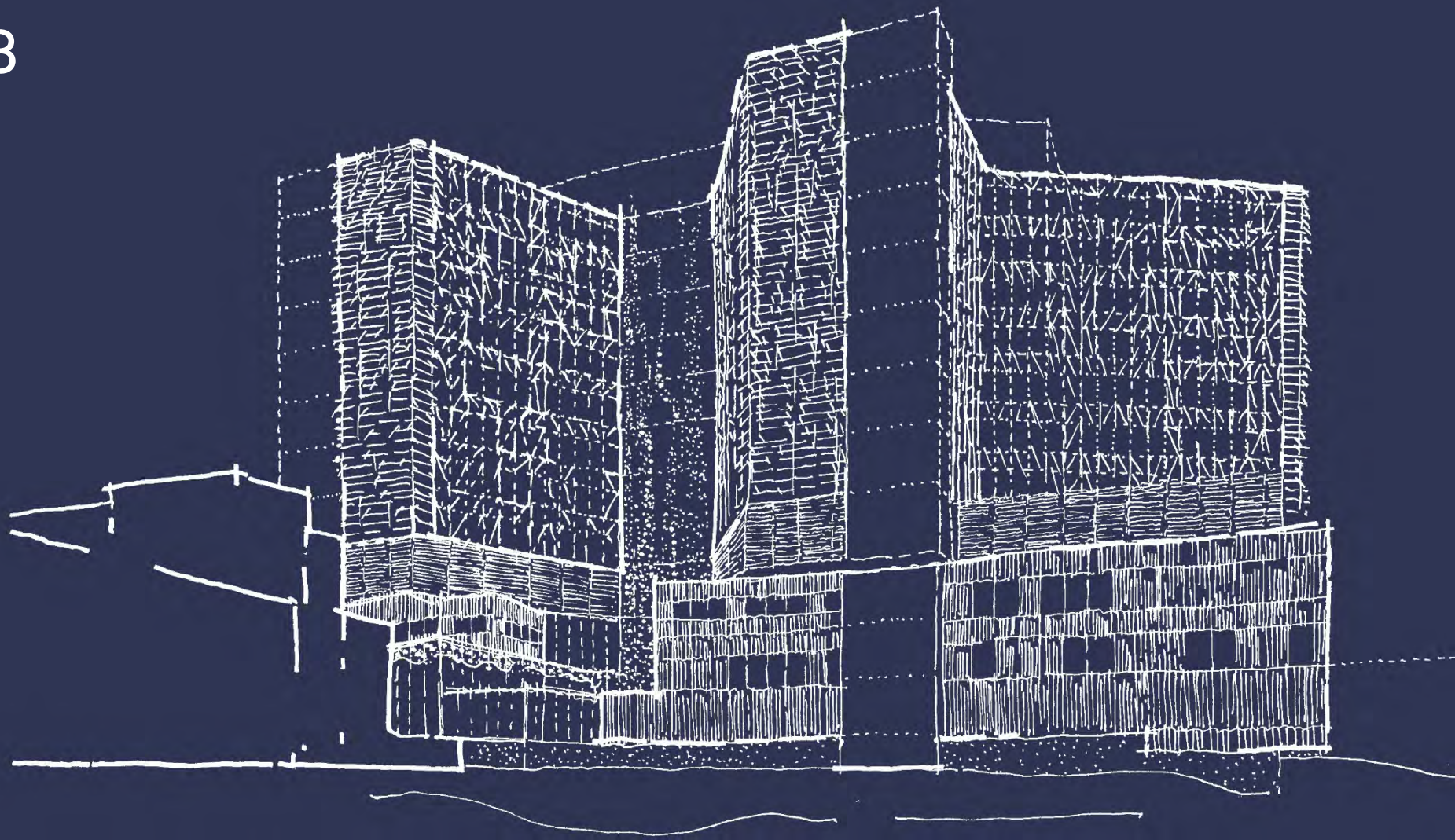
Children's Hospital at Westmead
Stage 2 Redevelopment

SDRP Session 03

10 February 2021

Billard Leece Partnership



Project Background and Status

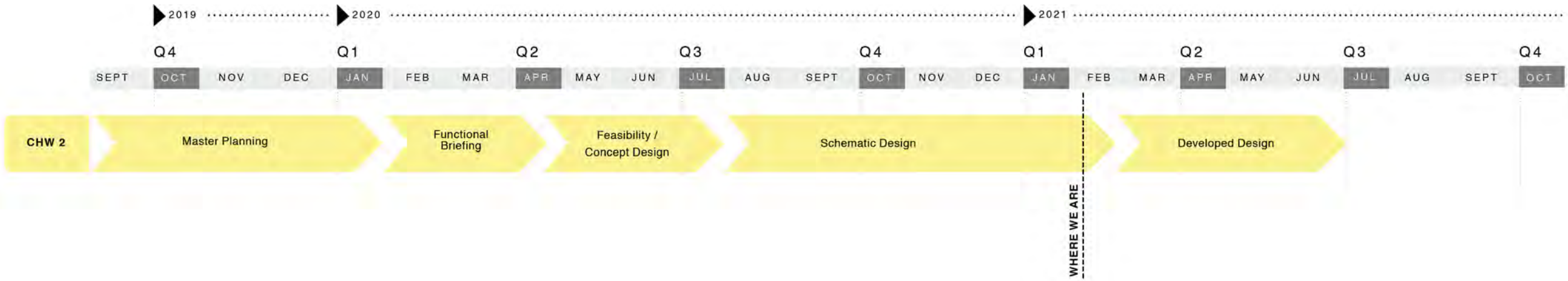
Project Background

The NSW Government has committed $619m for The Children's Hospital at Westmead Stage 2 Redevelopment. The opening of the Westmead Central Acute Services Building (CASB) will see the completion of The Children's Hospital at Westmead Stage 1 works.

As a further development of the Westmead Health Precinct, this grows the precinct as one of the largest health, research, education and training precincts in the world.

The Stage 2 redevelopment will include a new *Paediatric Services Building* and to complement the Stage 1 investment and replacement of car parking.

Project Status

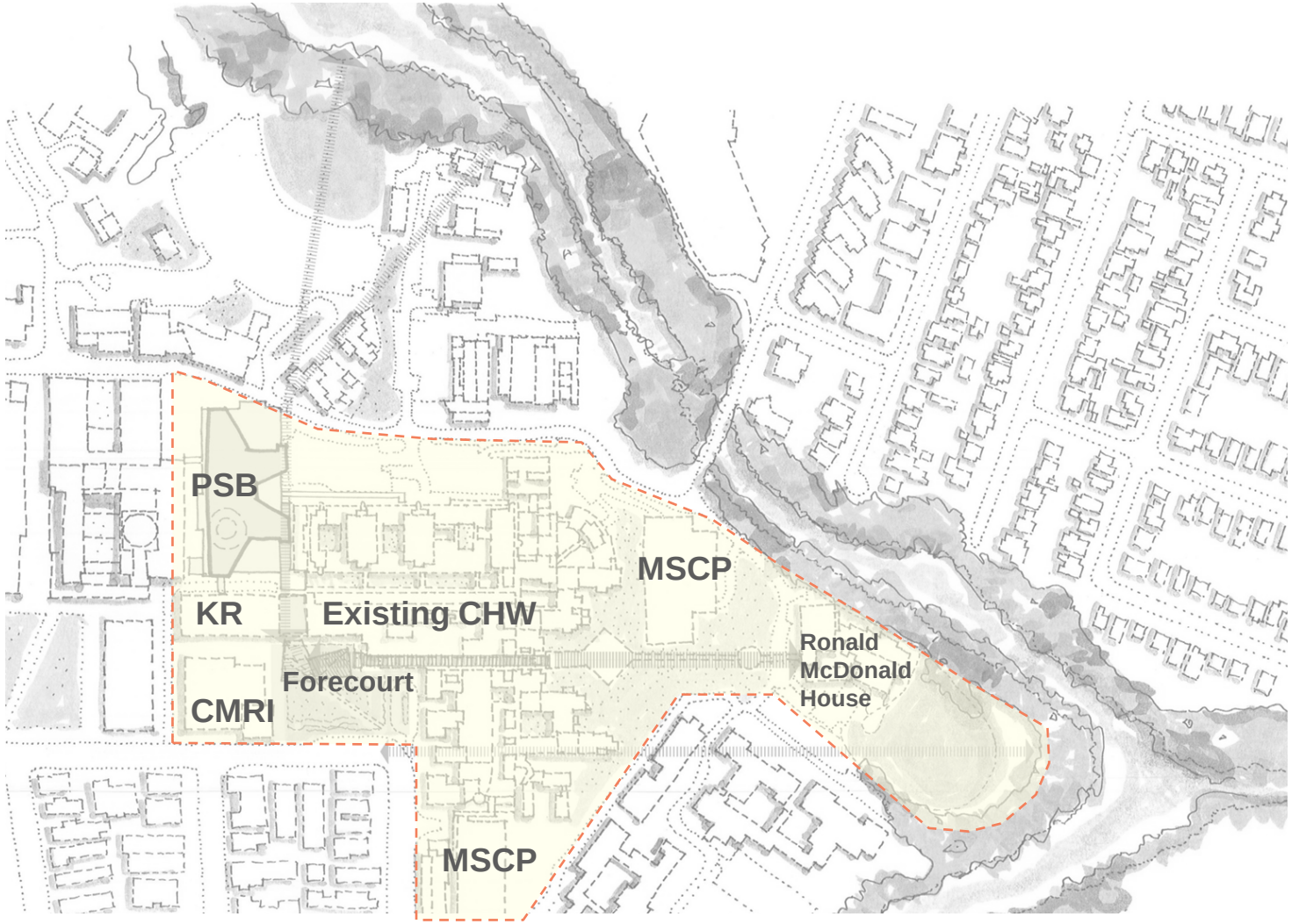


KIDSPARK Defined

KIDSPARK is the new term used to describe the internationally renowned paediatric core of the Westmead Health Precinct, comprising the CHW and CMRI Campuses and the healthcare, education, training and research that these facilities undertake.

KIDSPARK'S major aims are to:

- Accelerate research discover
- Enable rapid translation and commercialisation of research
- Create jobs and training opportunities in new industries
- Create a smarter learning health system
- Significantly decrease healthcare delivery costs
- Improve the lives of thousands of children with incurable diseases.



KIDSPARK

Agenda

- Design Concepts and Community Engagement
- Precinct Public Domain Overview
- Paediatric Services Building
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  - Elevation Studies
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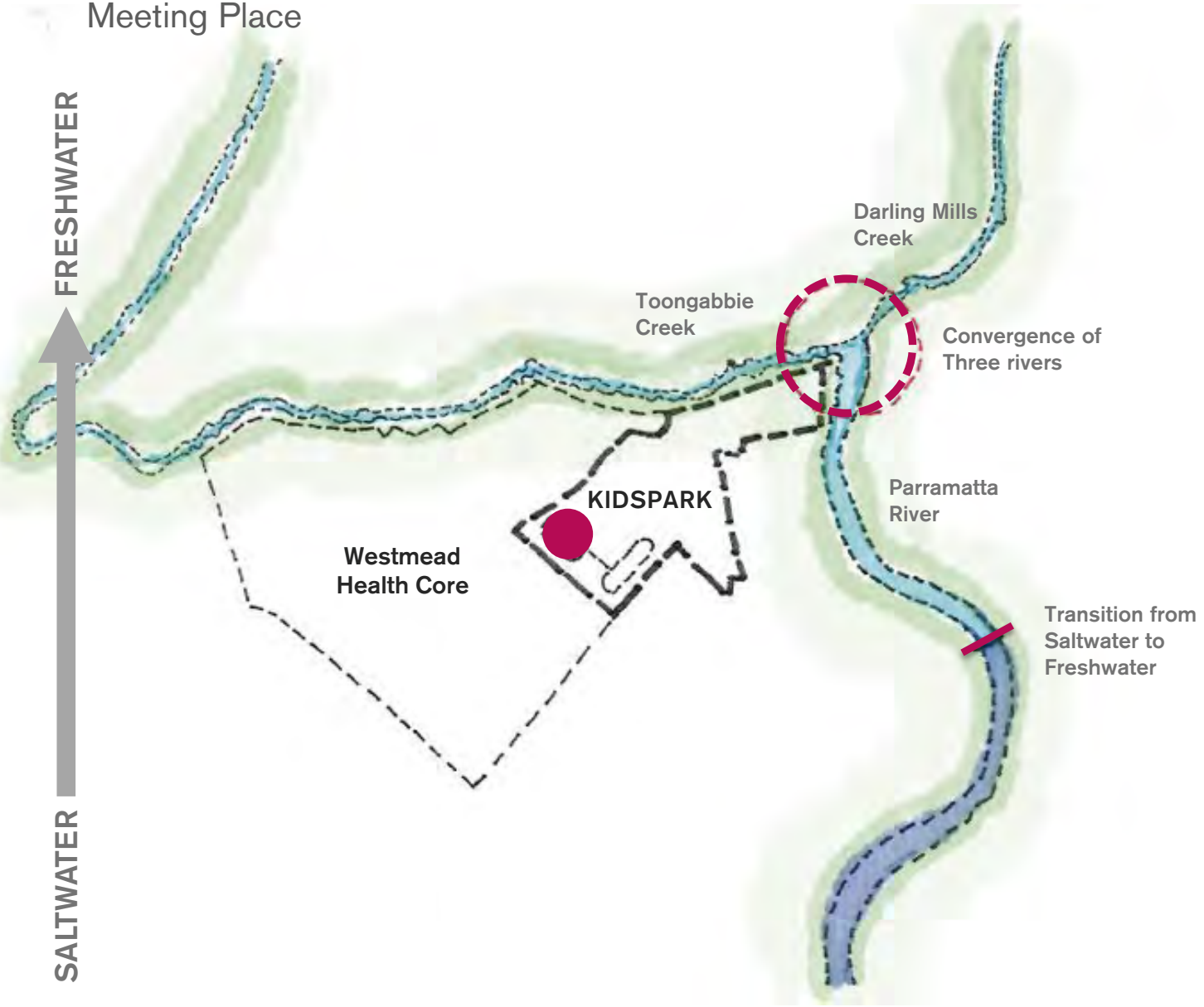
  - Design Concept
  - Form and Massing

Three Rivers

Meeting Place

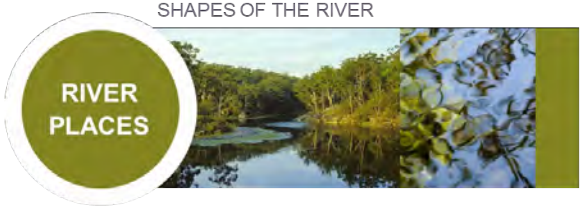


Three Rivers

- Celebrates the Central River City and the Hospital's immediate surrounds
- References the site's unique positioning between three river networks convergence; where saltwater meets freshwater
- Connects both the Indigenous and European historical landscapes

BRINGING TOGETHER OF IDEAS

SHAPES OF THE RIVER



IMAGINATION OF A CHILD

Sustaining Ecology

A History of Gathering and Sustenance





Burramattagal 'place where the eels lie down'

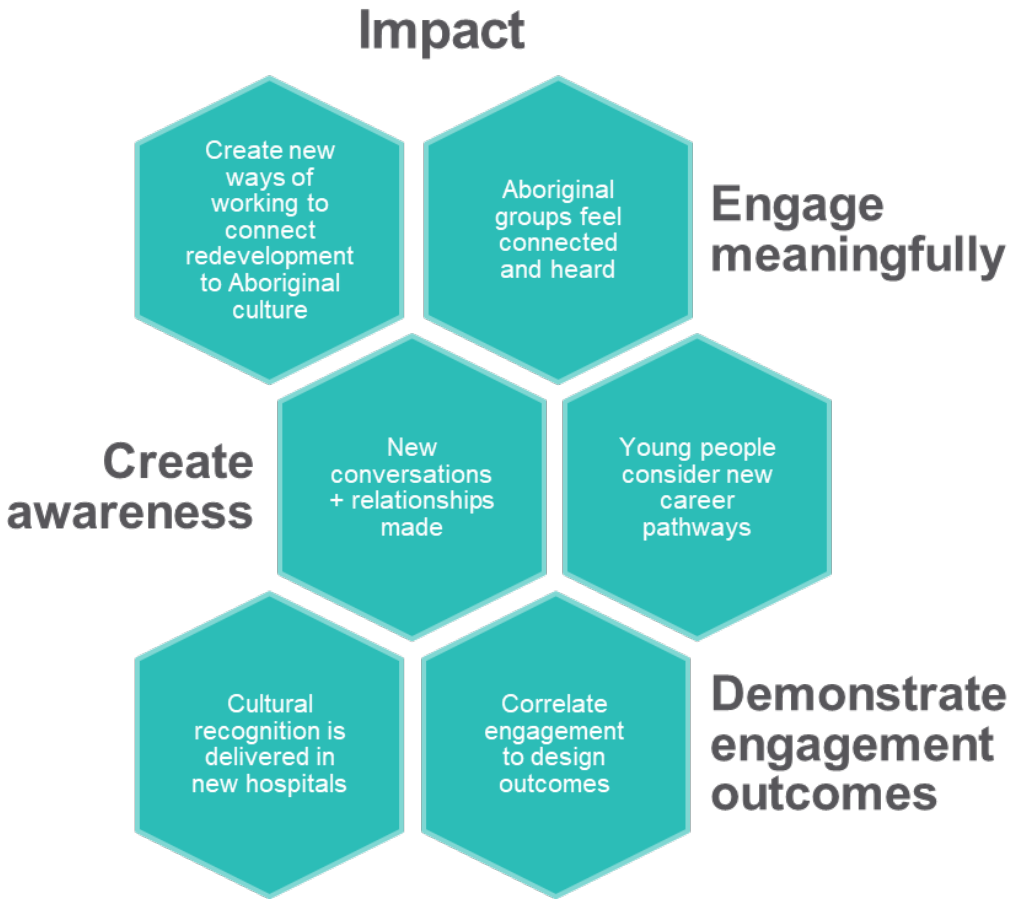
Burramattagal people, a clan of the Darug, have a close connection with the river. The river provided a rich source of food and transport and was the of cultural significance for Aboriginal people. There are many sites and objects along the river that people have a connection to, both physically and spiritually.

For the **early colony** the surrounding areas soon developed as a farming settlement to feed the colony.

By the late 1850s the River foreshore had been considerable altered and became the site for heavy industry – the **working river**.

Historically, most of the Parramatta River used to be swimmable and was the focal point for many social and recreational activities, after many years of degradation of the water quality, the river is once again **alive with activity**.

Community Engagement



SCHN Aboriginal Engagement Strategy

Arts and Play Strategy

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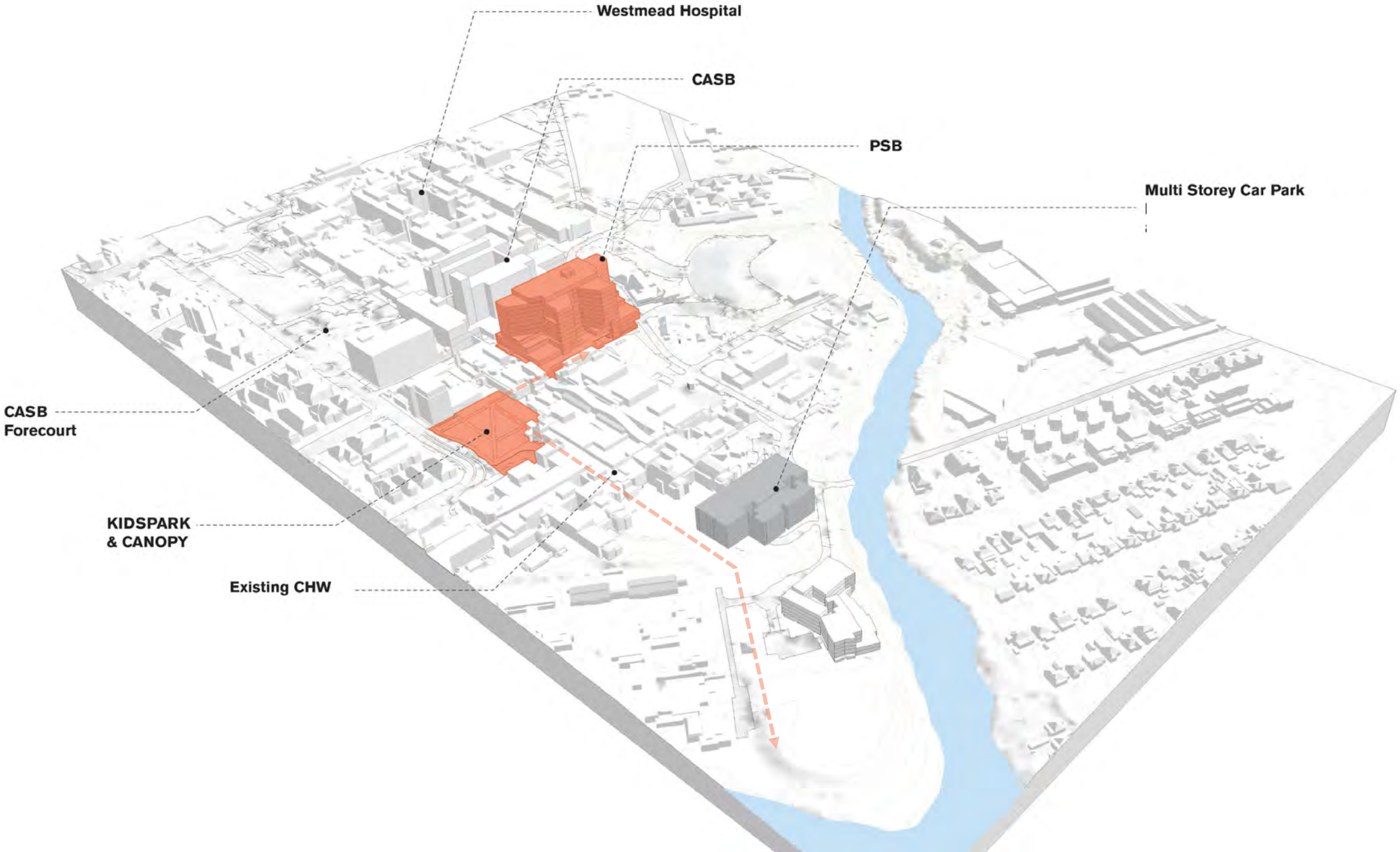
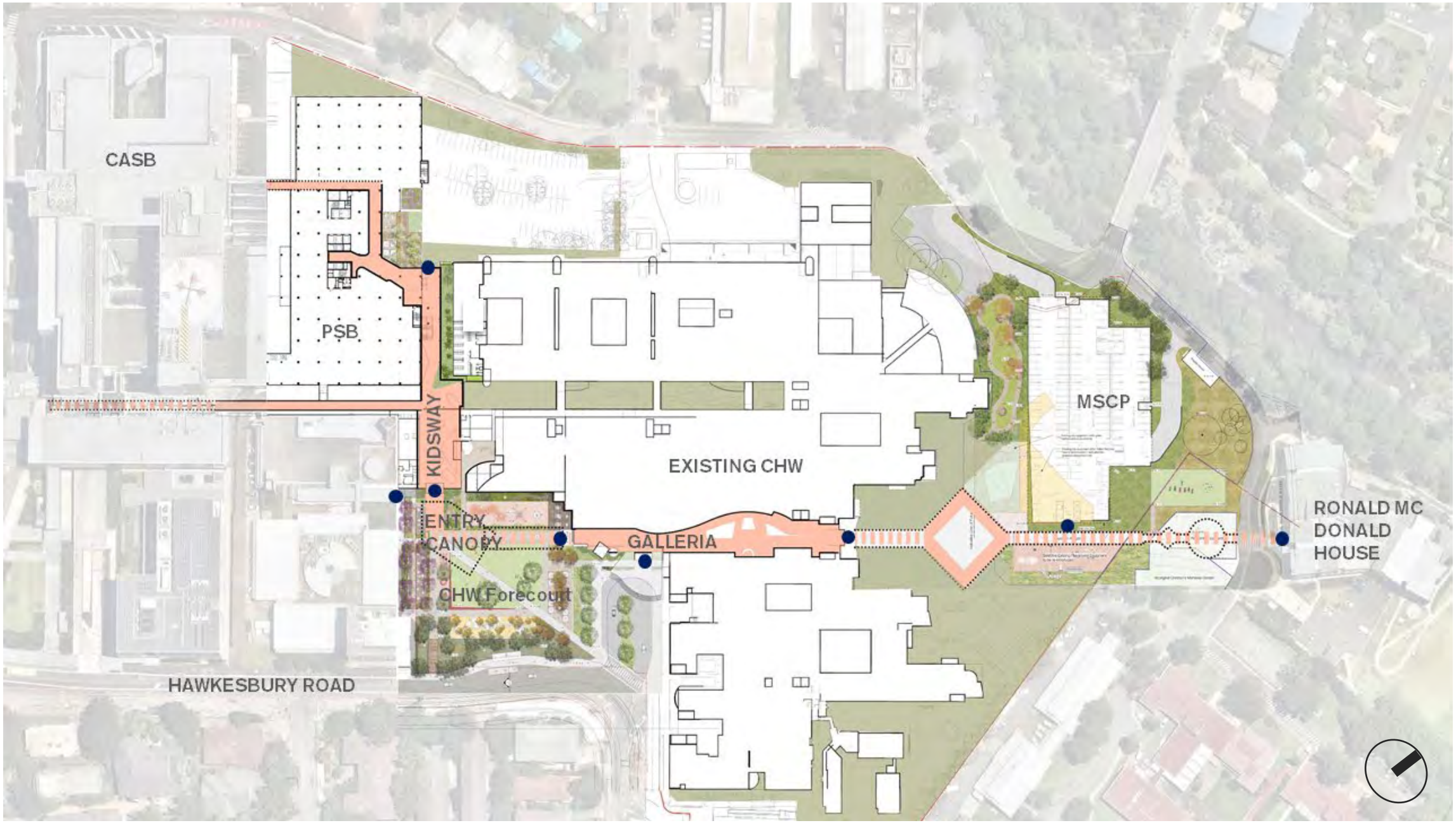


Key External Spaces & Ground Plane

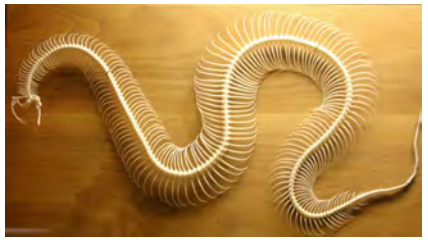


Forecourt

Emerging Non- Clinical Experiences Strategy

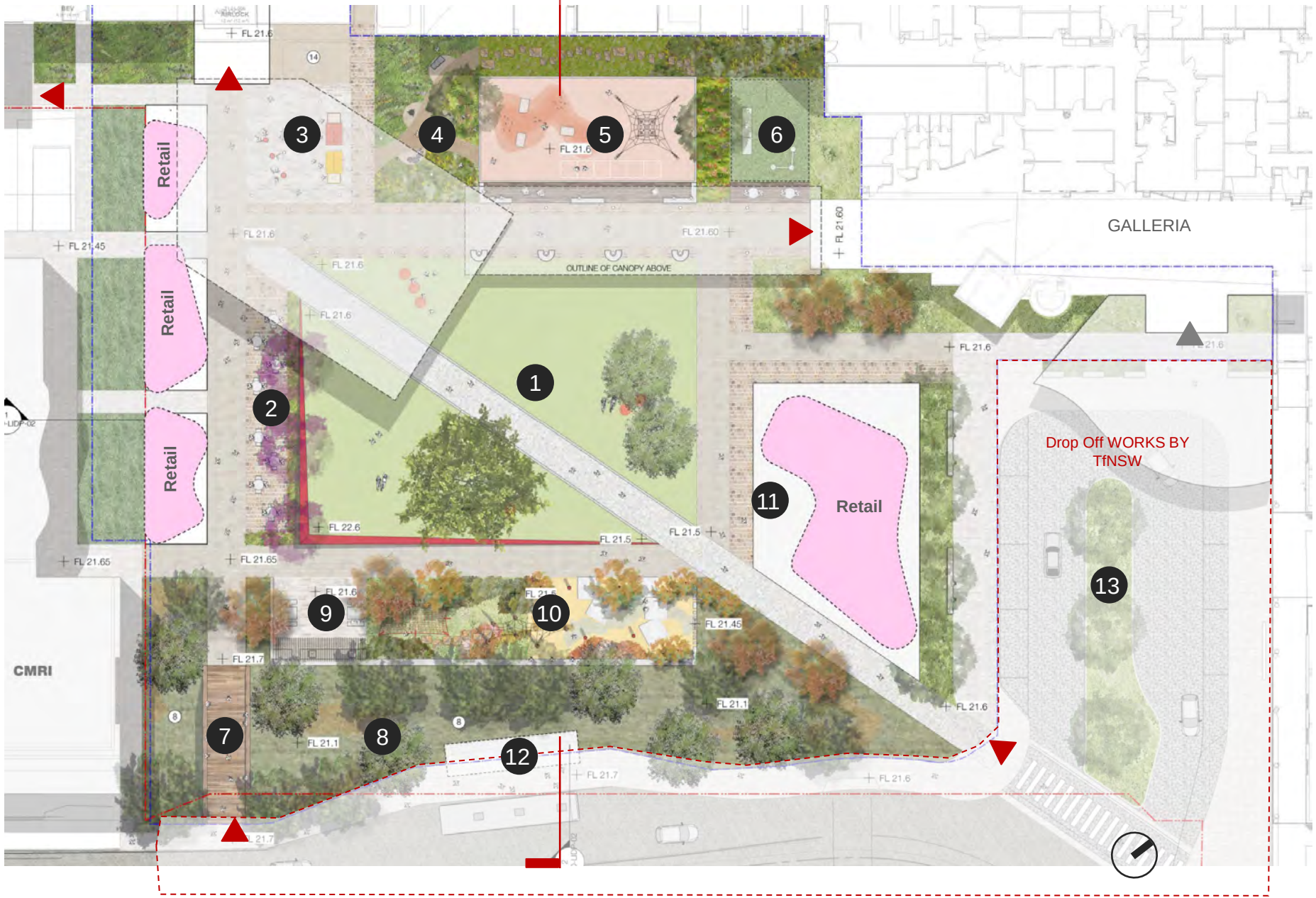
Village Green

An inclusive, flexible and interactive experience, that caters for a diverse community and their needs.



Key External Spaces & Ground Plane

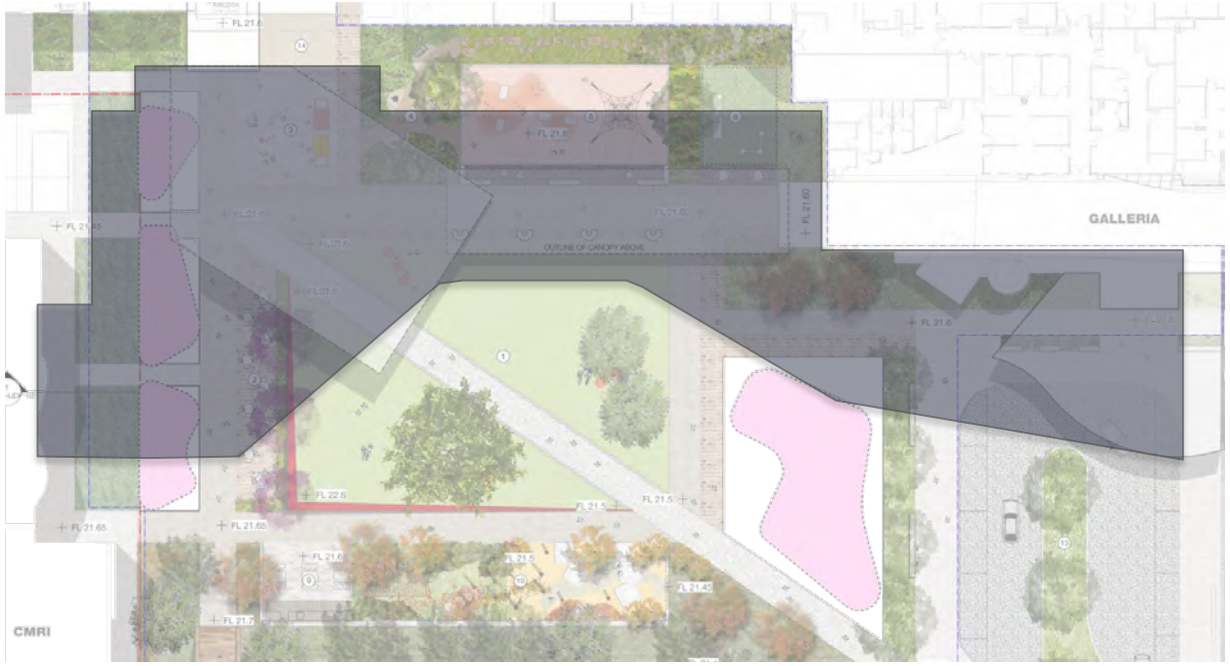
Landscape Plan



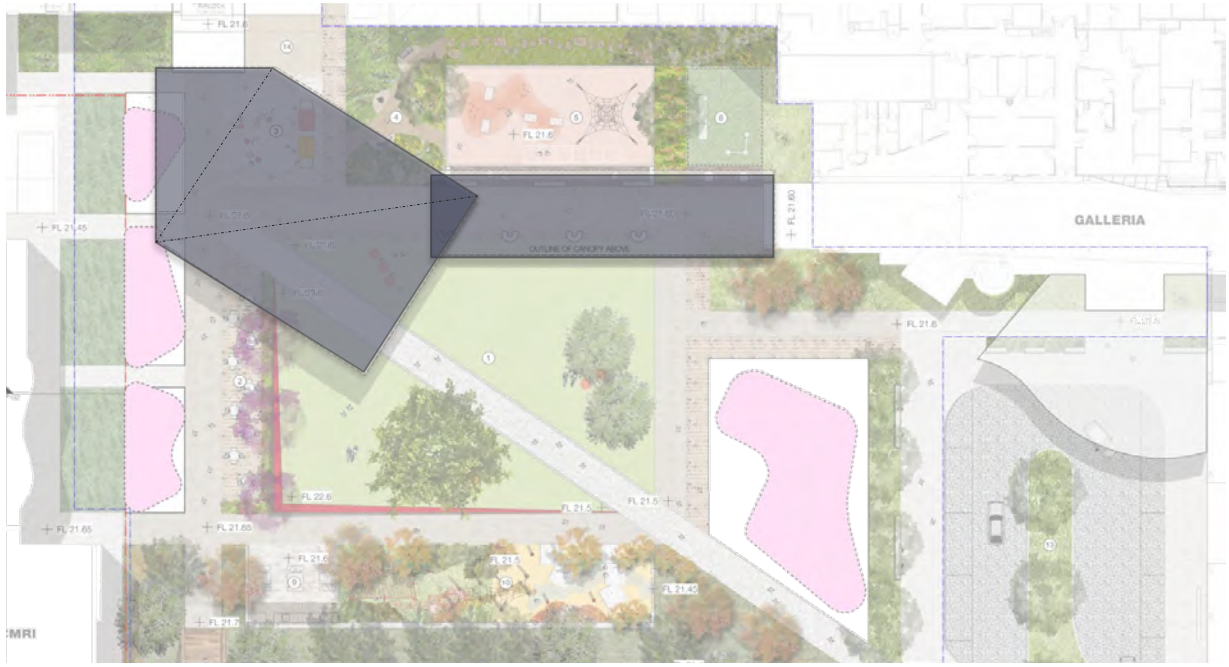
1. Forecourt Lawn
2. Jacaranda Garden
3. Multi Use Space
4. Sensory/ Herb Garden
5. Kids Play Area
6. Pet Visiting Area
7. Pedestrian Bridge
8. WSUD Sunken Rain Garden
9. Community BBQ & Seating Area
10. Nature Play
11. Retail Forecourt
12. Bus Stop
13. Re-configured Drop-off

Forecourt Canopy

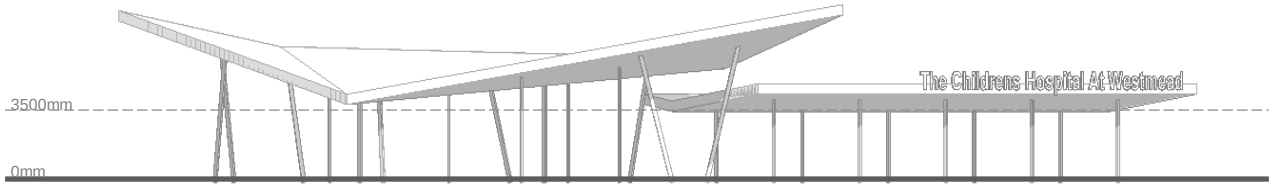
Design Progression



Previous Canopy Extent
1750m2



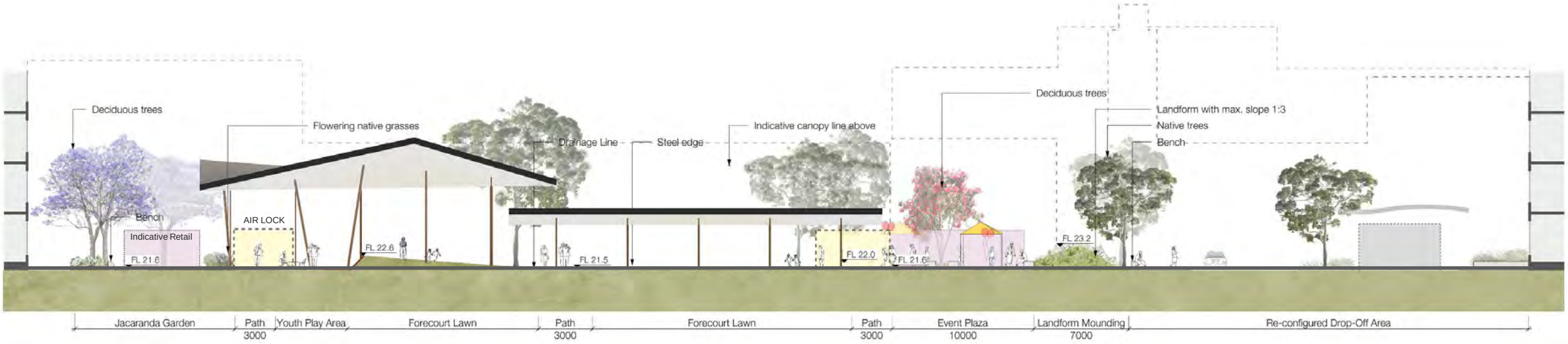
New Canopy Extent
850m2

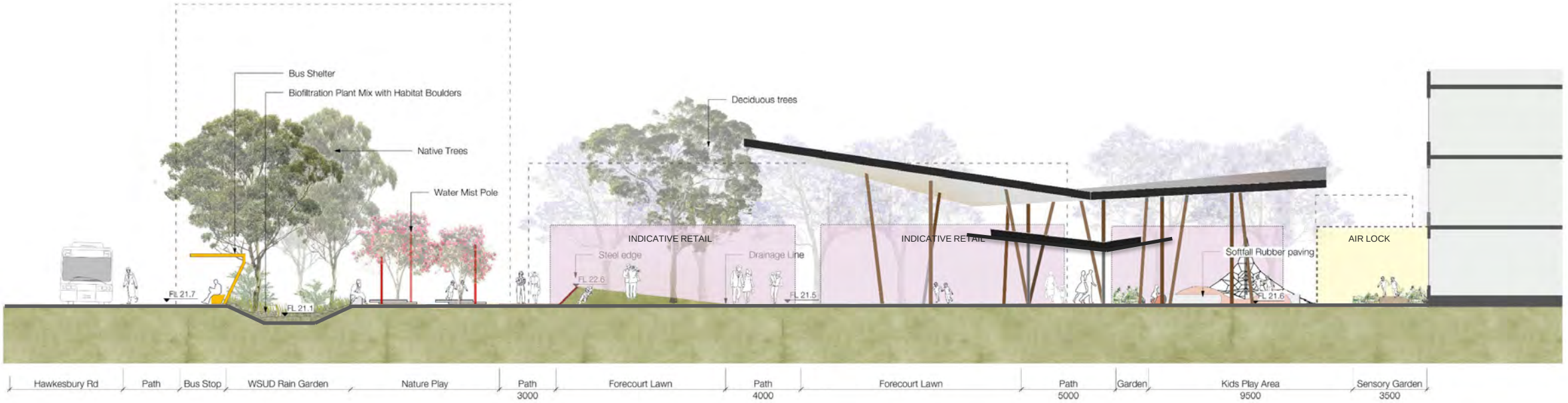


Preliminary Canopy Elevation

Forecourt

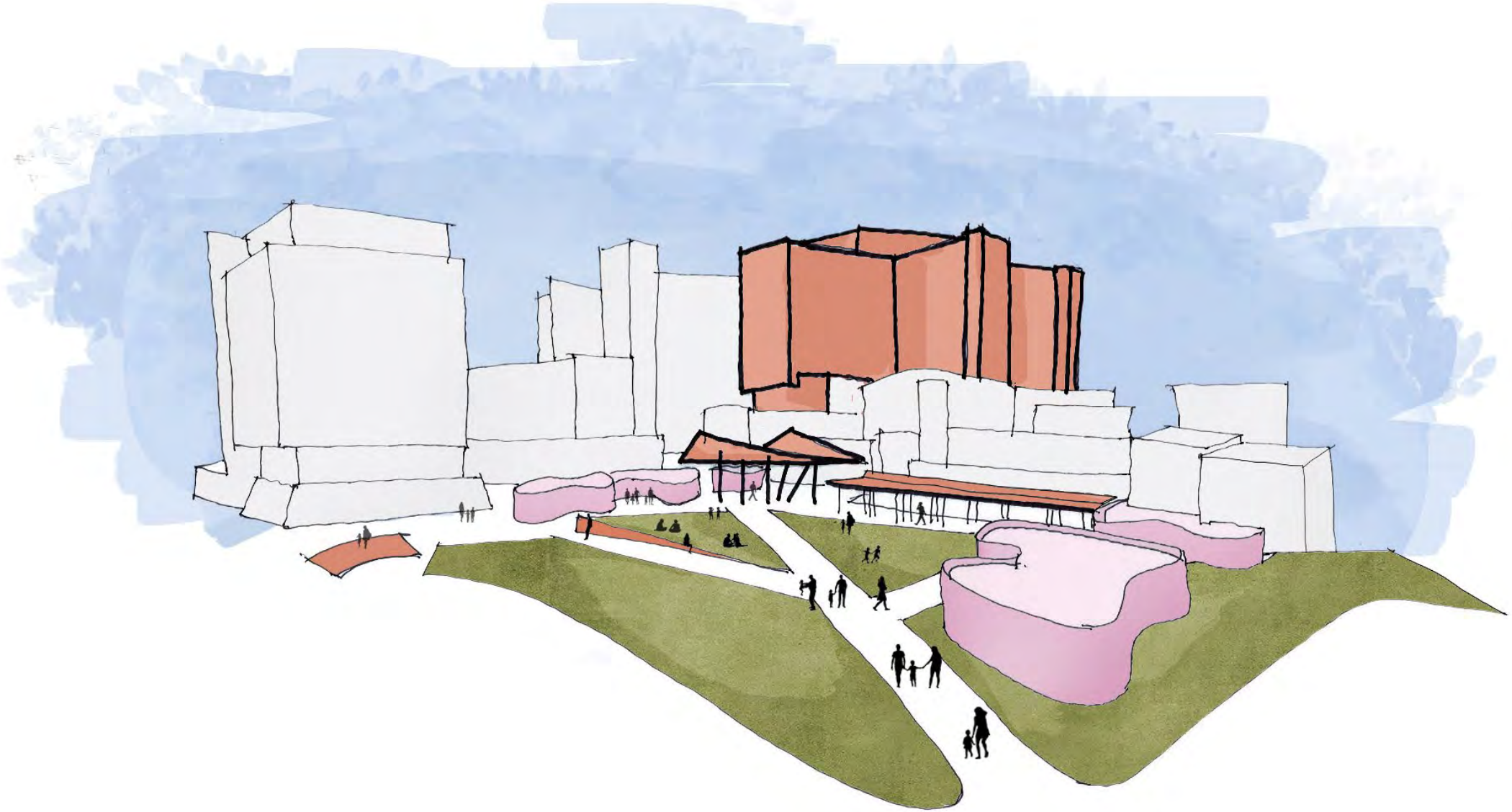
Site Sections





Forecourt

Design Studies



Forecourt

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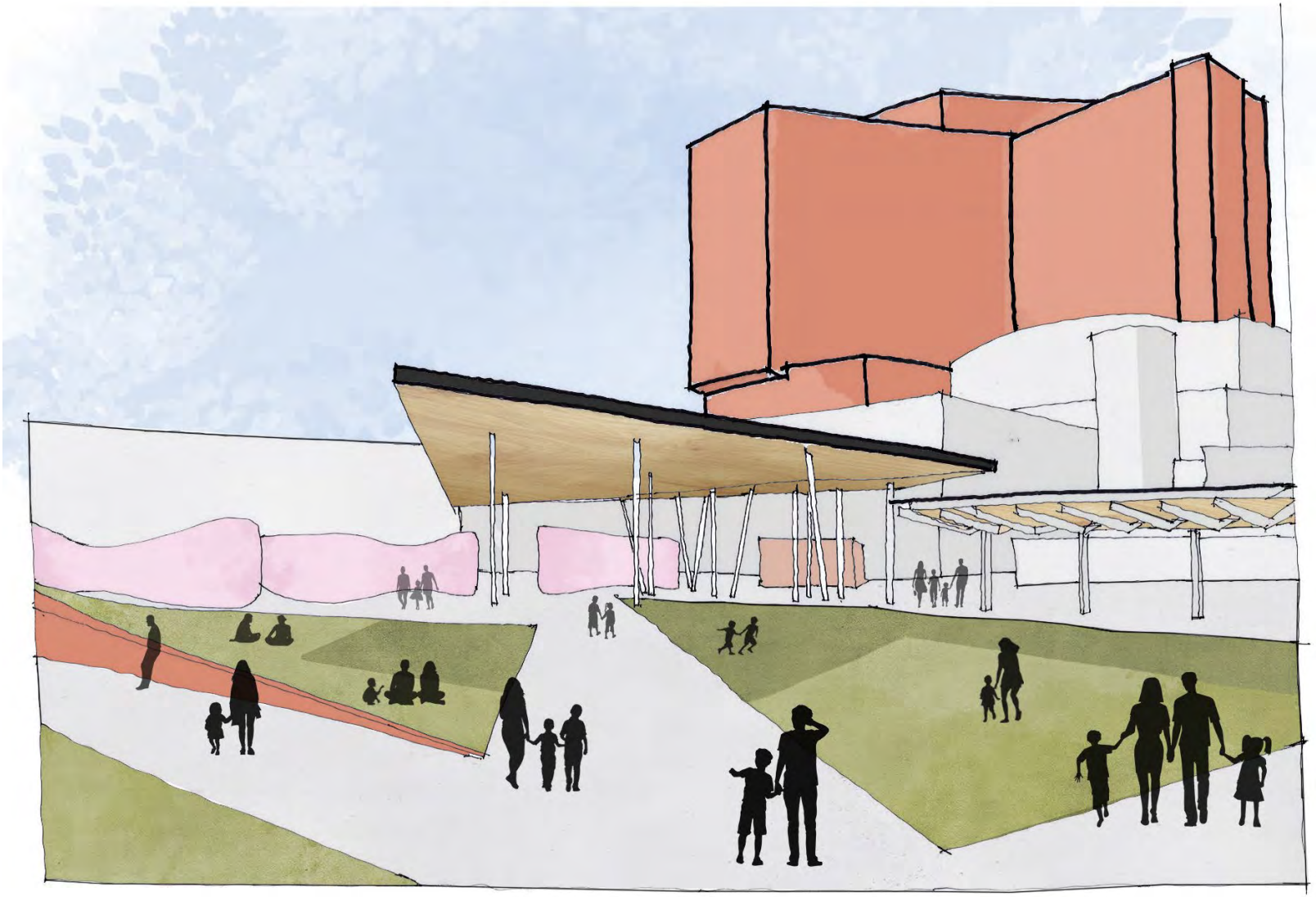
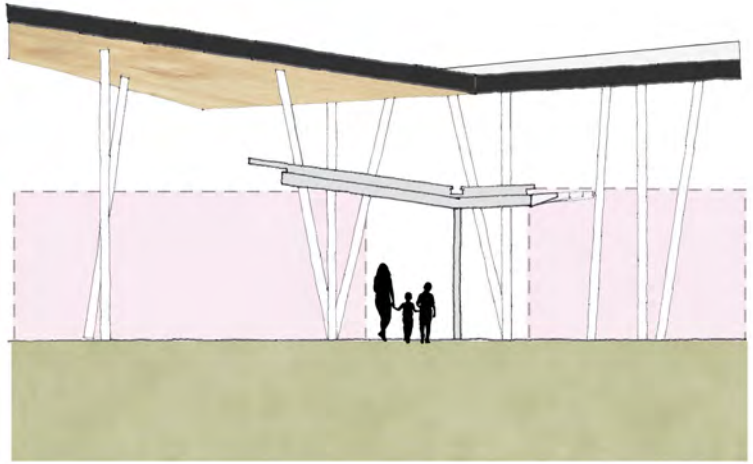
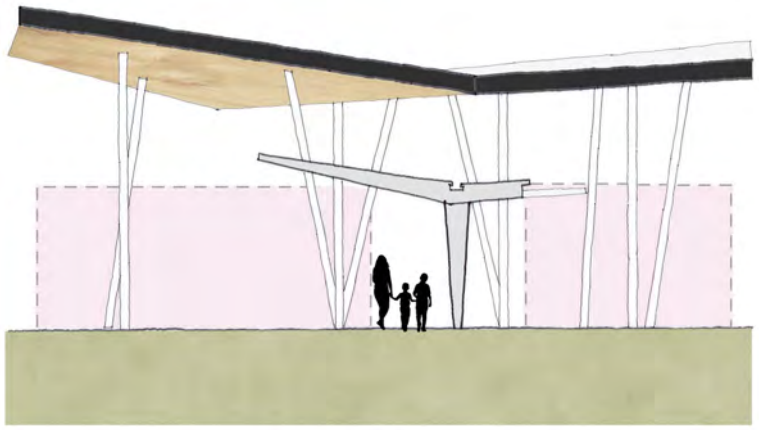


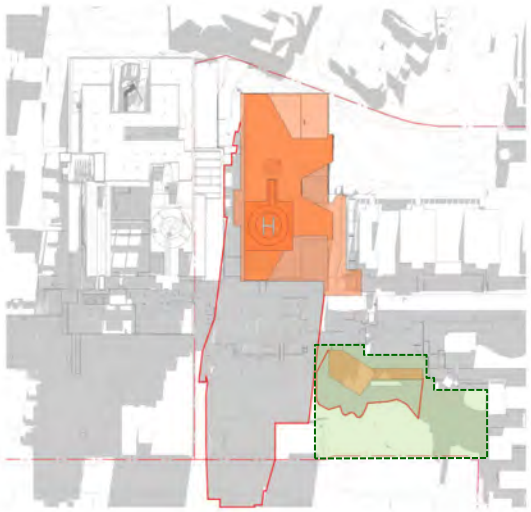




Solar Studies

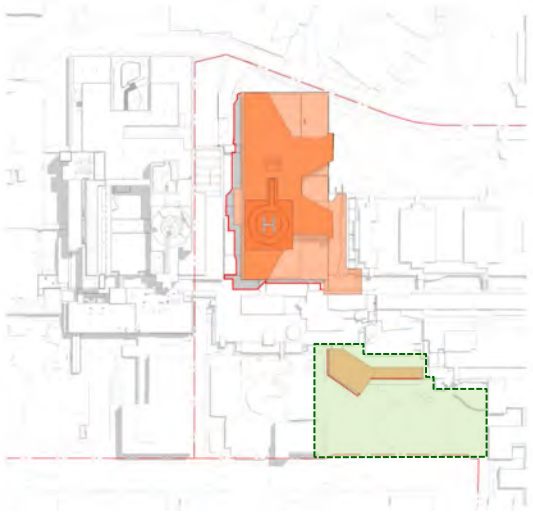
PROPOSED WINTER – JUNE 21st
9AM

12PM



3PM

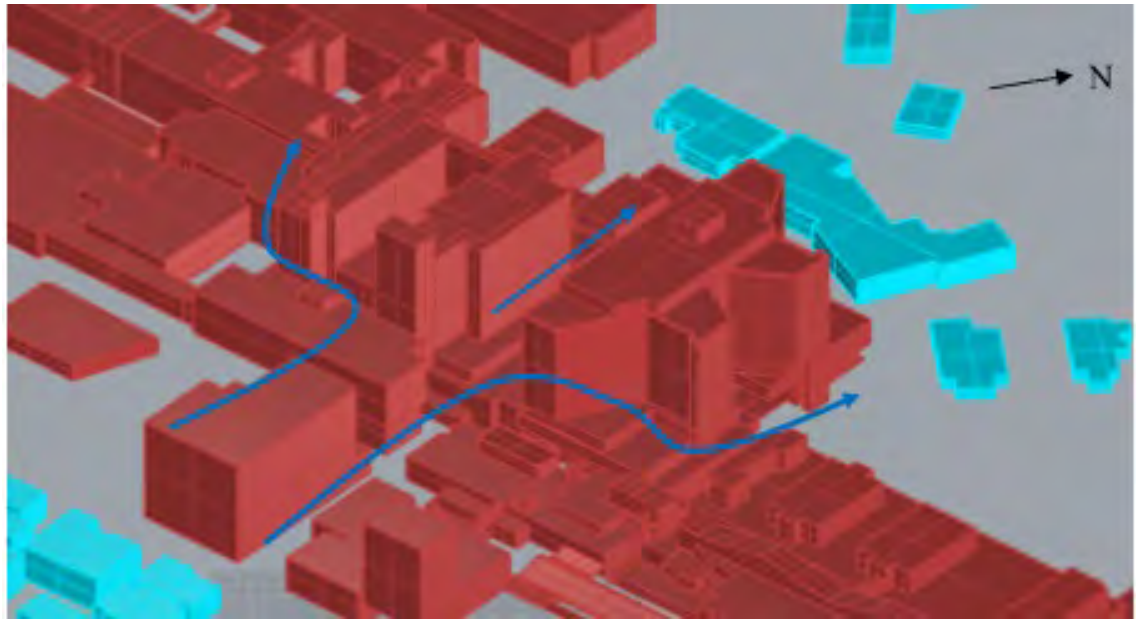
PROPOSED SUMMER – DEC 21st
9AM



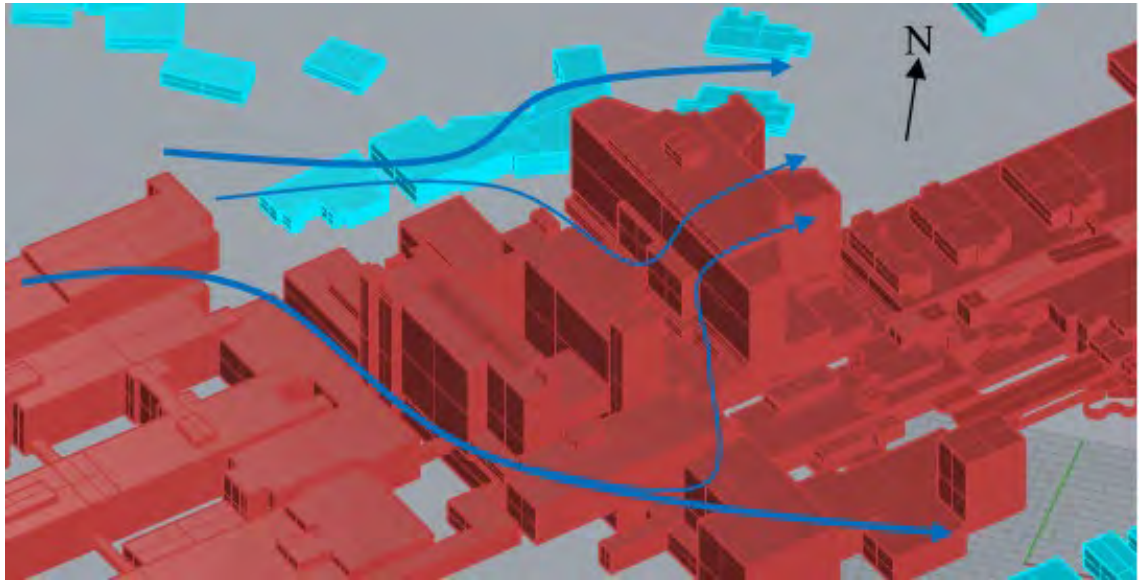
12PM

3PM

Solar Studies and Wind Analysis



Indicative flow pattern for winds - south-east



Indicative flow pattern for winds - west

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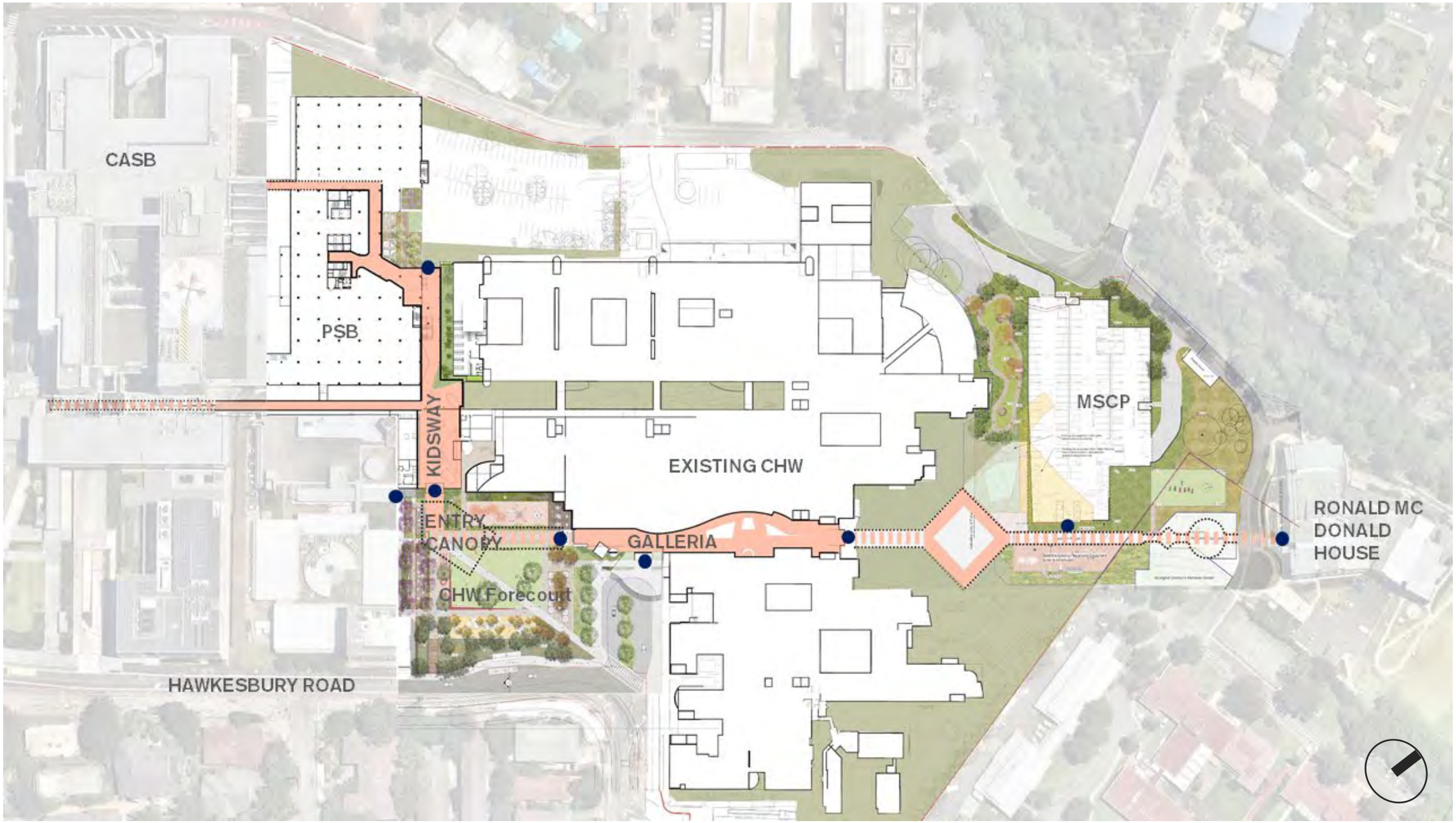


Paediatric Services Building

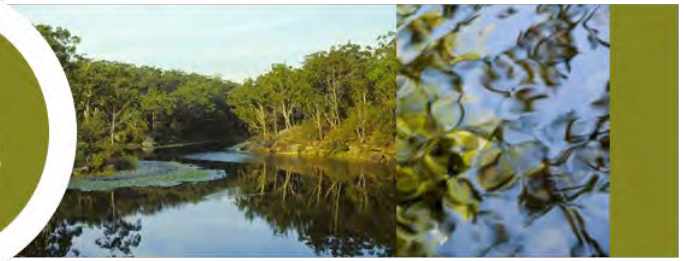
Design Concept

BRINGING TOGETHER OF IDEAS

RIVER LIFE

SHAPES OF THE RIVER

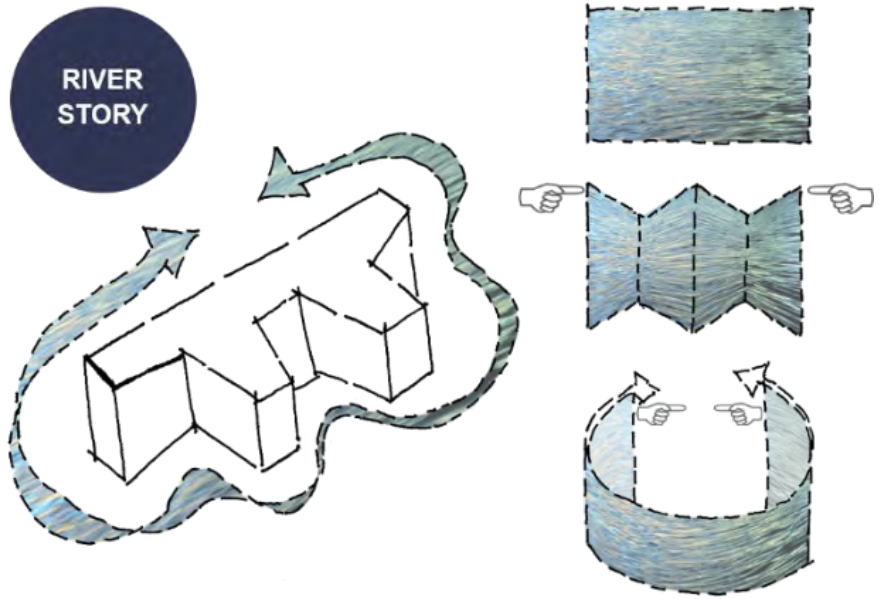
RIVER PLACES



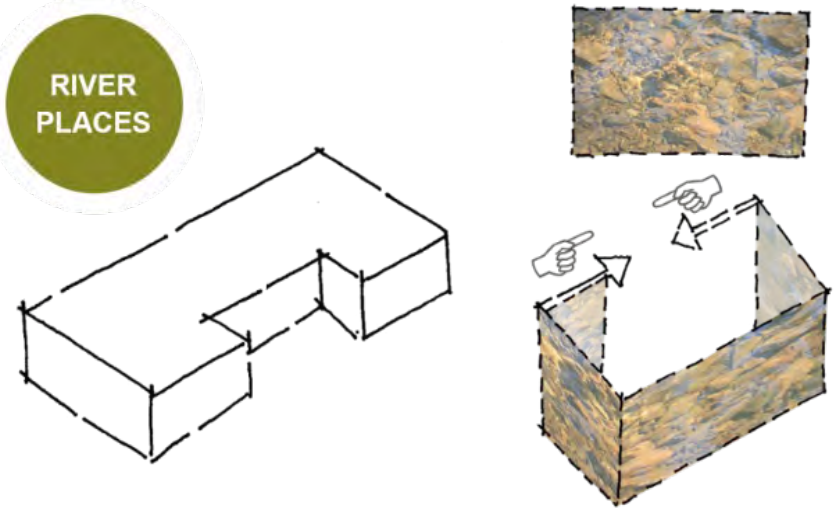
IMAGINATION OF A CHILD

RIVER STORY

RIVER STORY



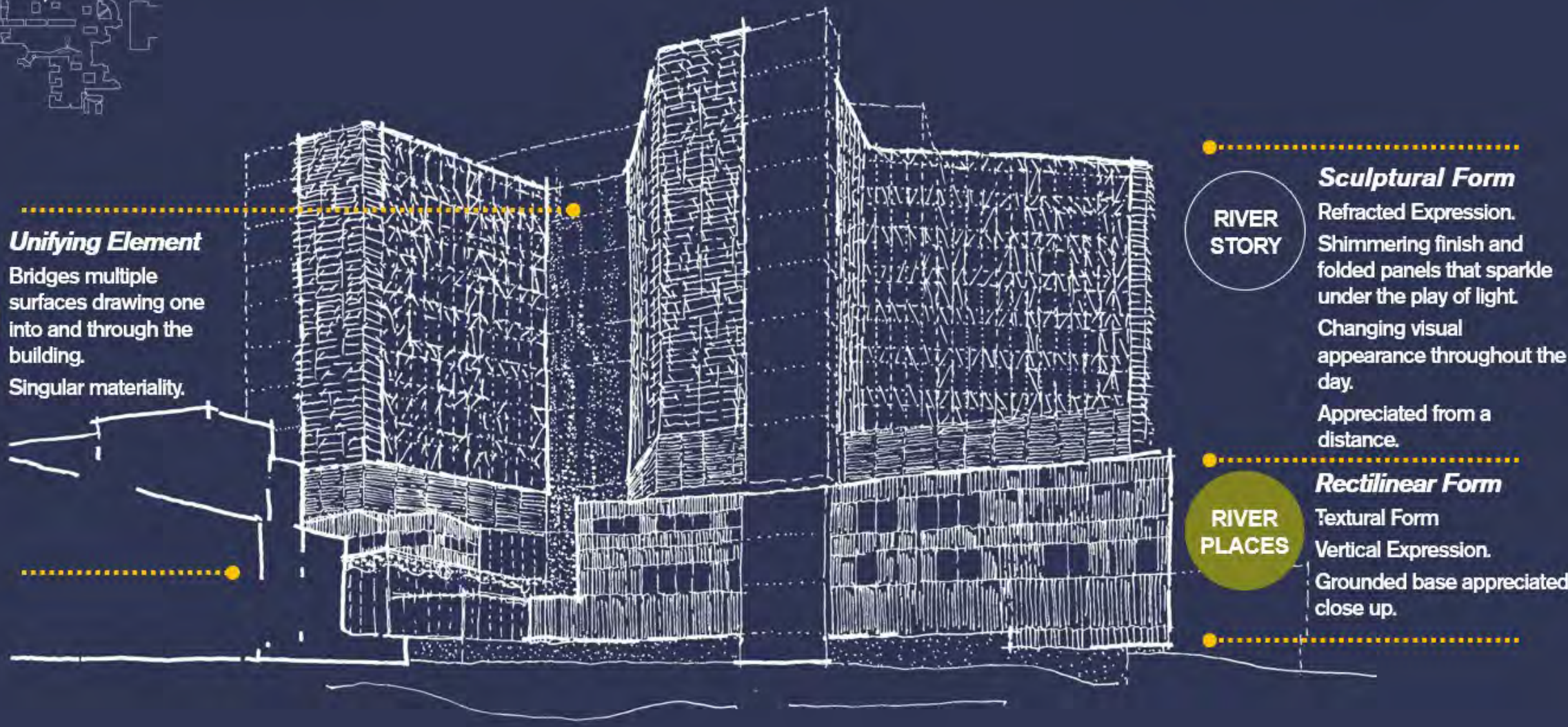
RIVER PLACES



Design Intent

Built Form– View from Redbank Road

Built Form and Material Hierarchy



RIVER LIFE

Unifying Element

Bridges multiple surfaces drawing one into and through the building.

Singular materiality.

RIVER STORY

Sculptural Form

Refracted Expression.

Shimmering finish and folded panels that sparkle under the play of light.

Changing visual appearance throughout the day.

Appreciated from a distance.

RIVER PLACES

Rectilinear Form

Textural Form

Vertical Expression.

Grounded base appreciated close up.

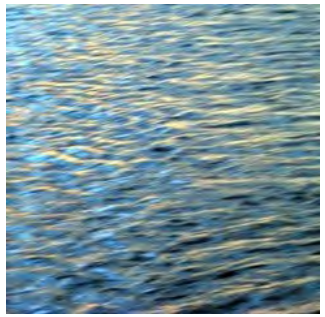
Paediatric Services Building

Exterior Design Materiality

RIVER STORY

Upper Storeys

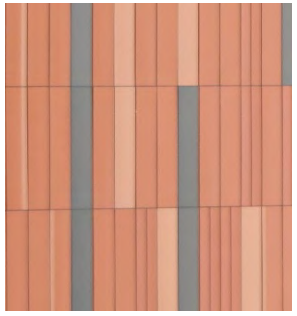
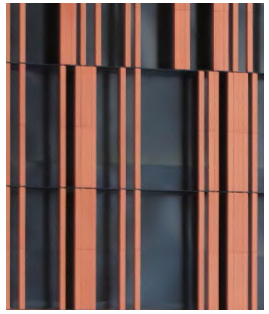


Shimmering texture or finishes that sparkles under the play of light
Folded panels –changing visual appearance throughout the day
Lightweight materials
Appreciated from a distance

RIVER PLACES

Podium

Highly textured
Grounded base appreciated close up
Natural Finishes

Paediatric Services Building

Massing and Context

Westmead Hospital

Westmead Hospital

Westmead Institute for Medical Research

Childrens Medical Research Institute

The Children's Hospital at Westmead

Paediatric Services Building

Elevations

01 - North-western Elevation (Redbank Road)

02 - North-Eastern Elevation

Paediatric Services Building

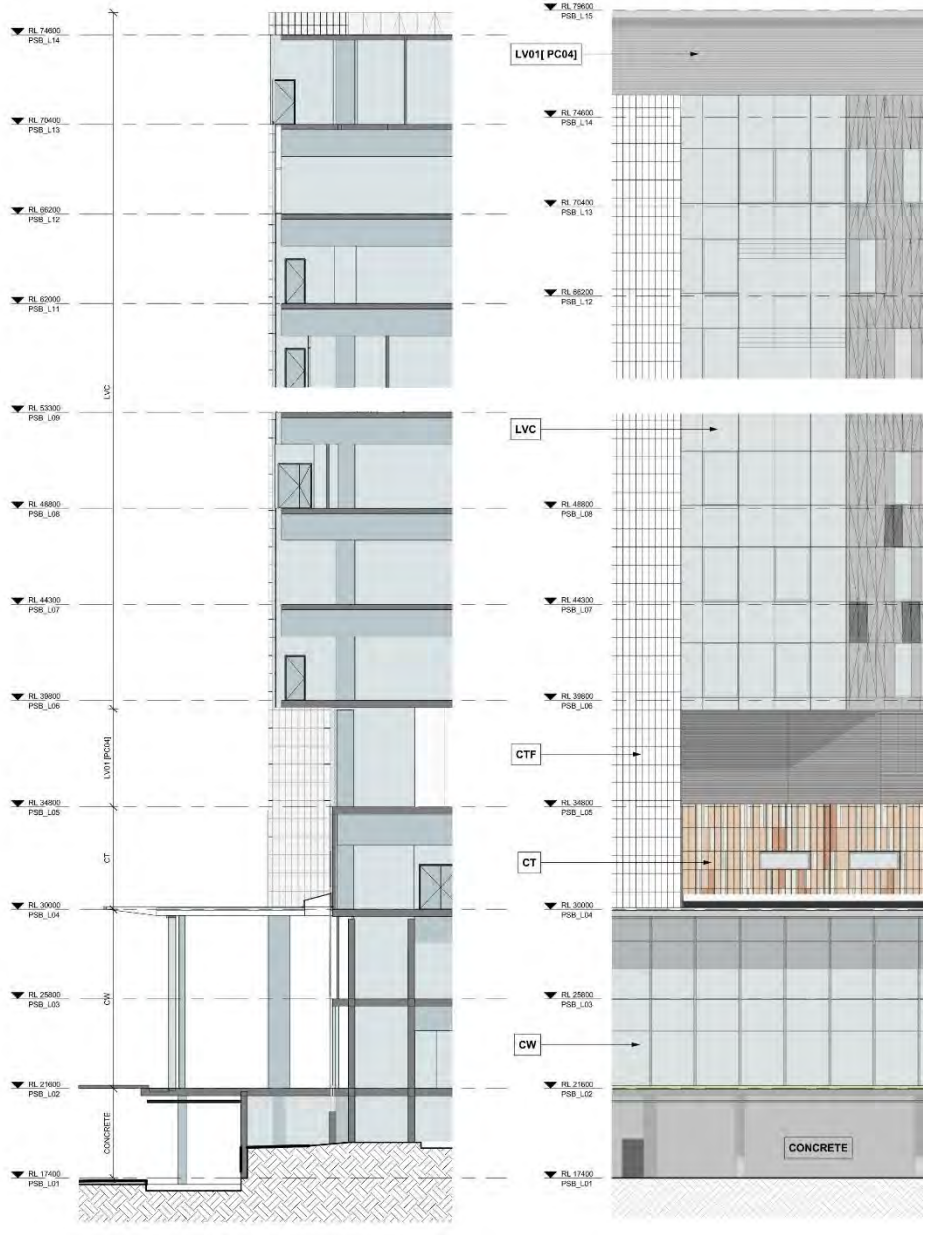
Elevations

01 – South-Eastern Elevation

02 – South-Western Elevation

Paedíatric Services Building

Façade Details and Materials

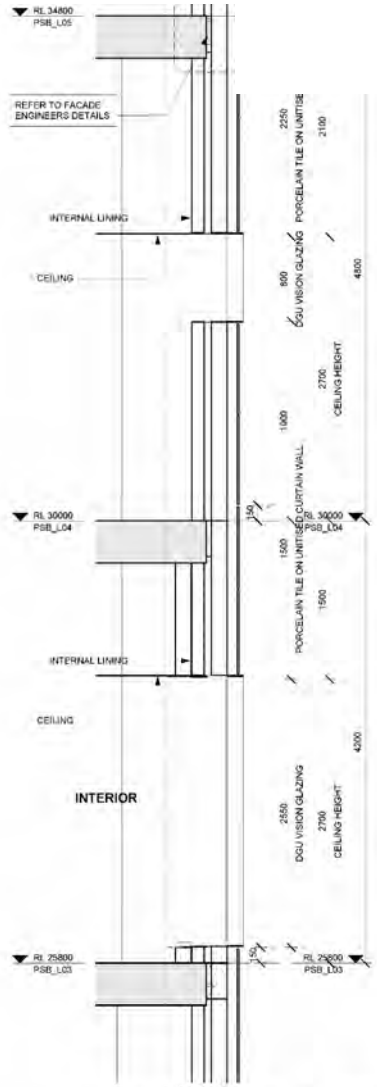


Paediatric Services Building

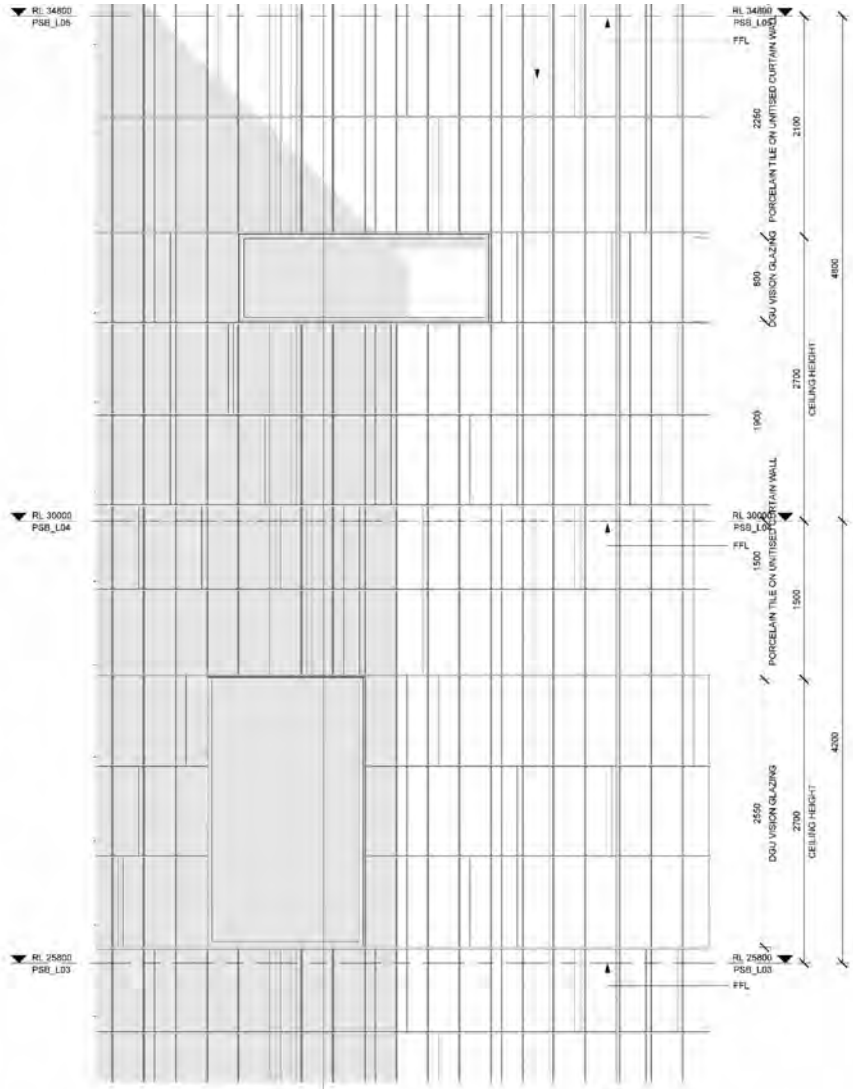
Façade Details and Materials

Paediatric Services Building

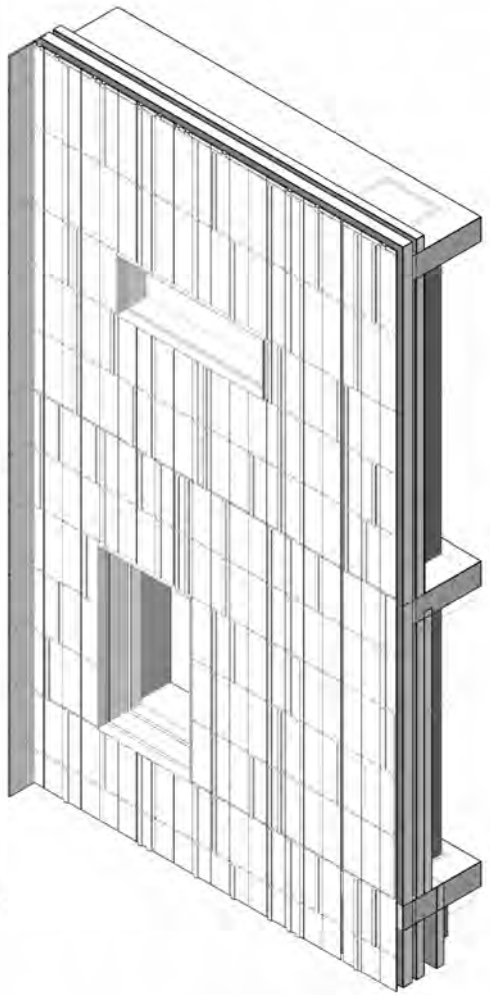
Façade Details and Materials



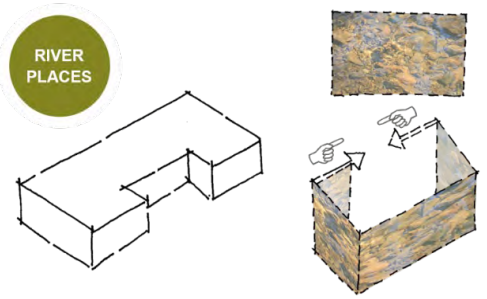
1 FACADE TYPE - CT - SECTION



2 FACADE TYPE - CT - ELEVATION

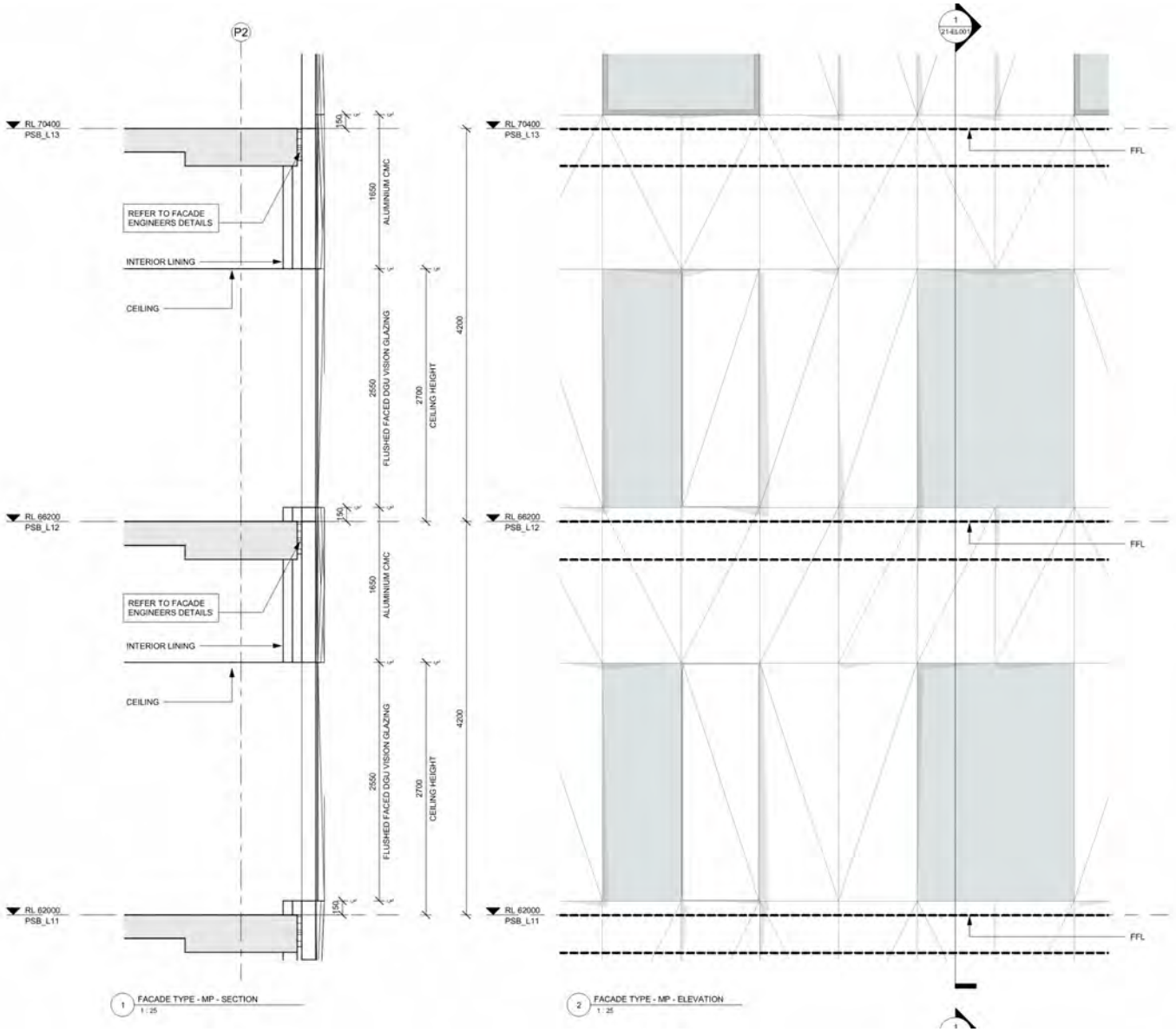


4 FACADE TYPE - CT - 3D VIEW



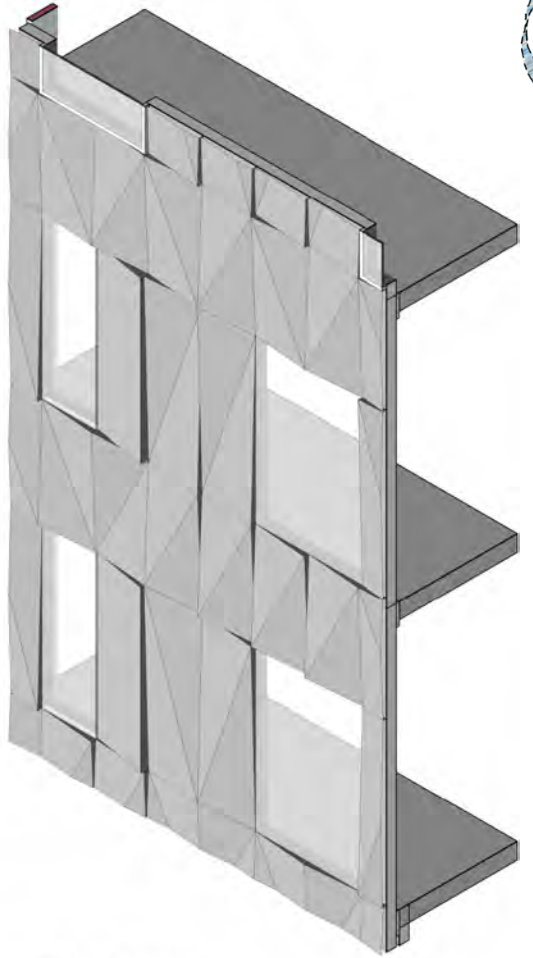
Paediatric Services Building

Façade Details and Materials

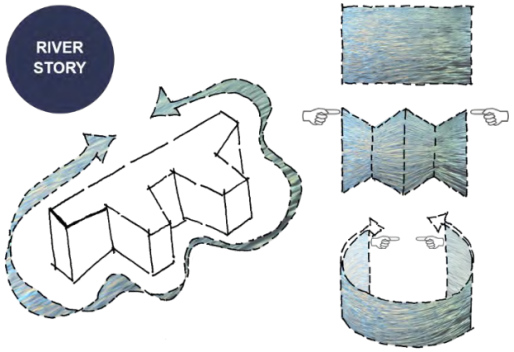


1 FACADE TYPE - MP - SECTION
1 : 25

2 FACADE TYPE - MP - ELEVATION
1 : 25



4 FACADE TYPE - MP - 3D VIEW



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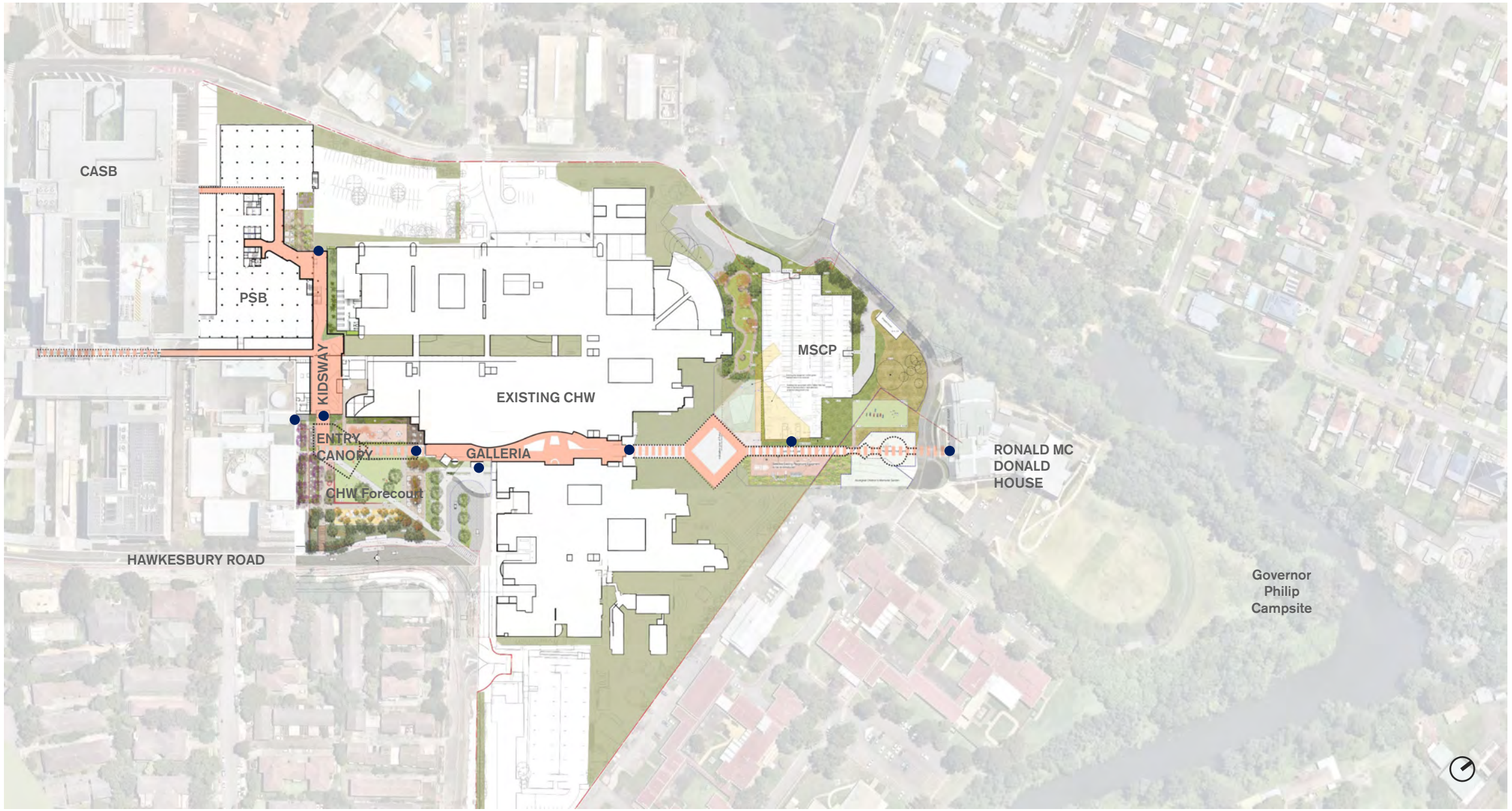
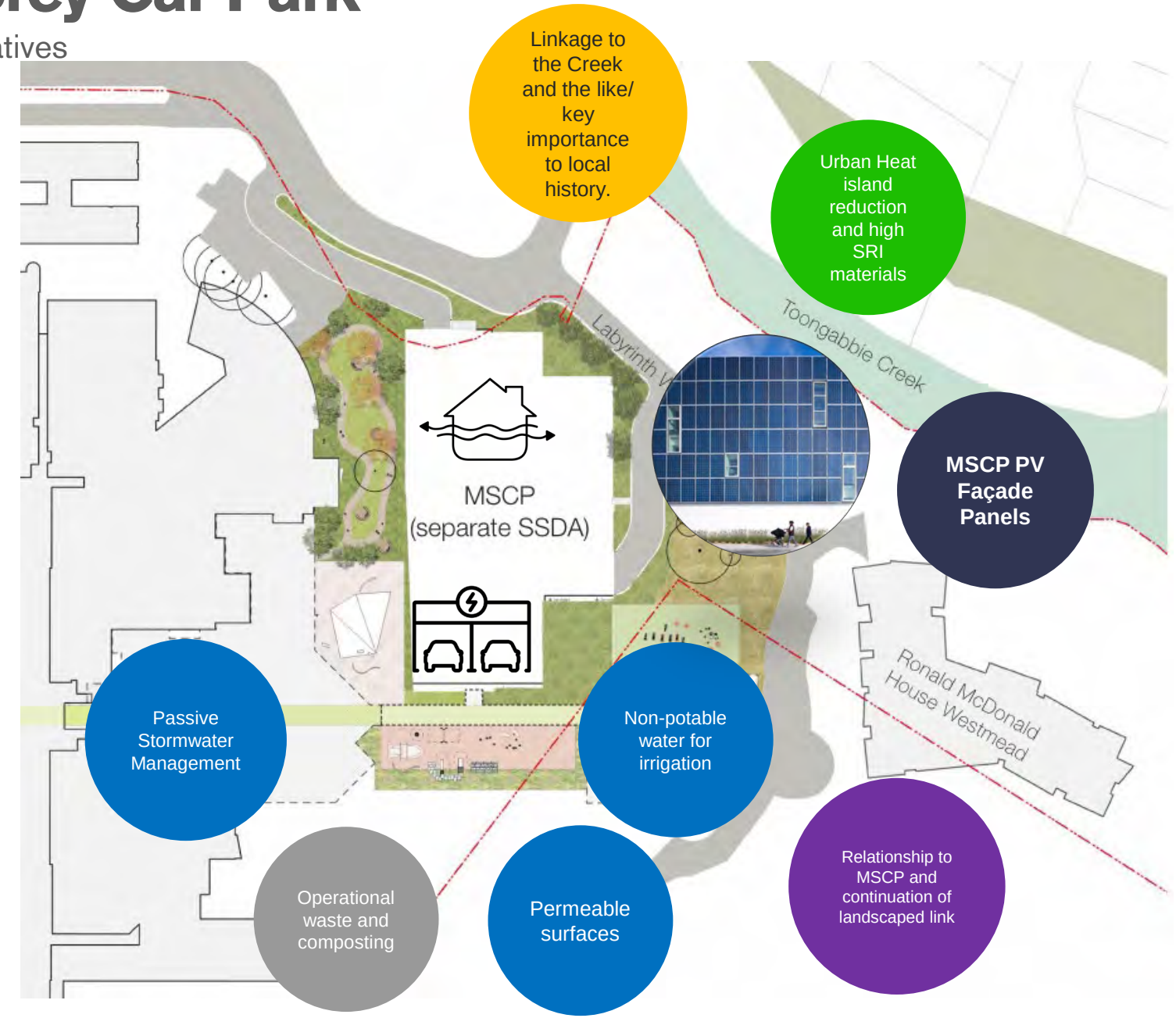
Precinct Public Domain Overview



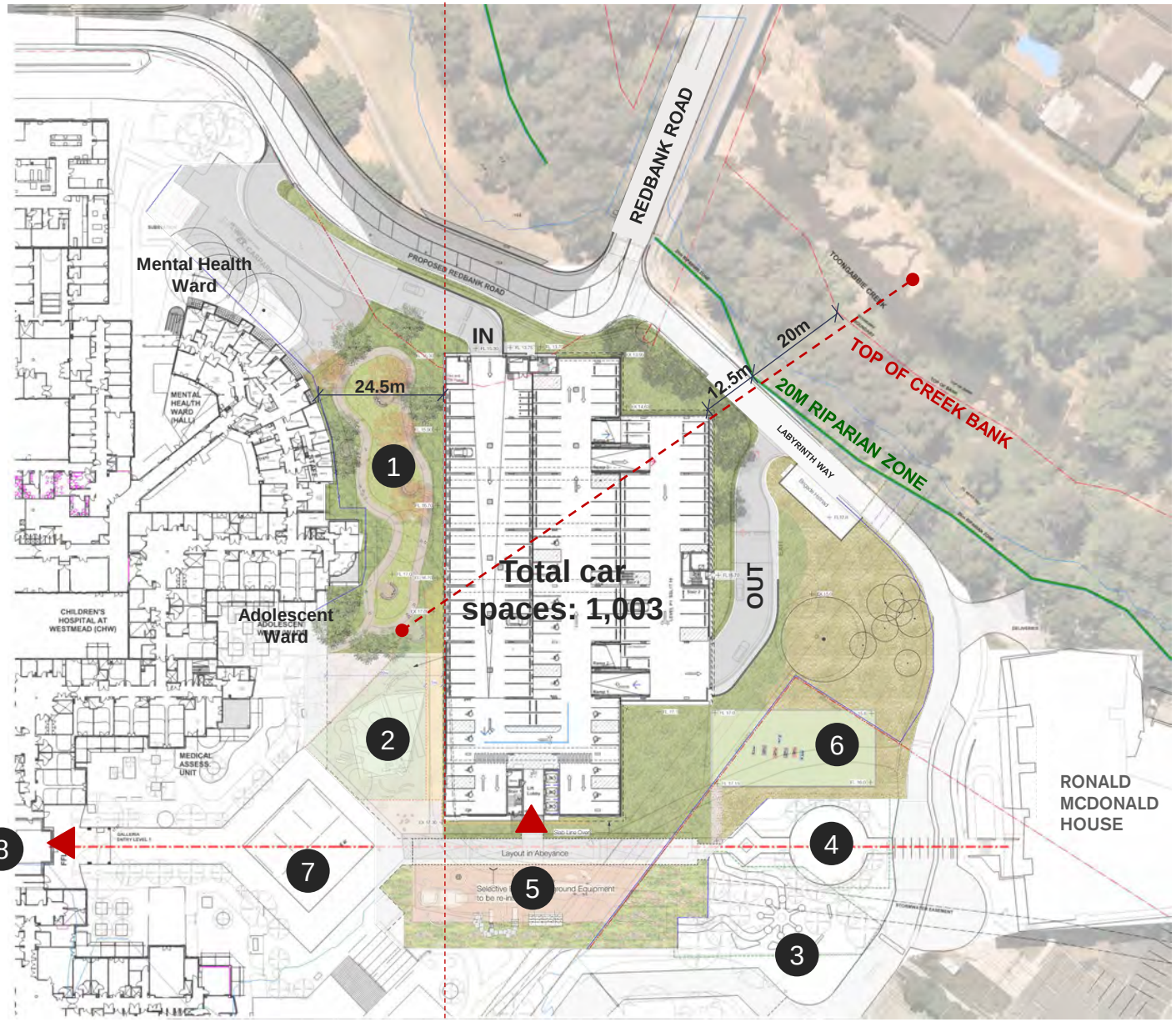
Multi Storey Car Park

Sustainability Initiatives



Multi Storey Car Park

Ground Plane



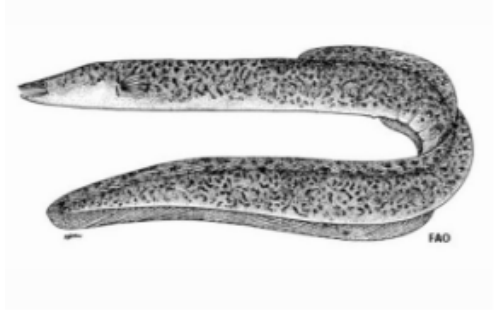
1. New Landscape Healing Garden
2. Existing Playground
3. Existing Aboriginal memorial garden
4. Remembrance garden
5. Relocated Playground
6. Lawn
7. Existing CHW Landscaping

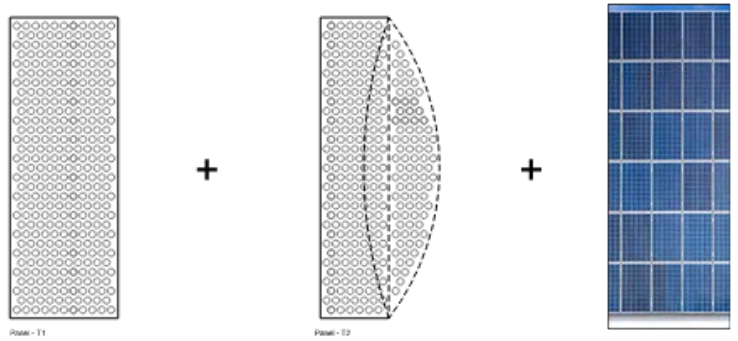
Multi Storey Car Park

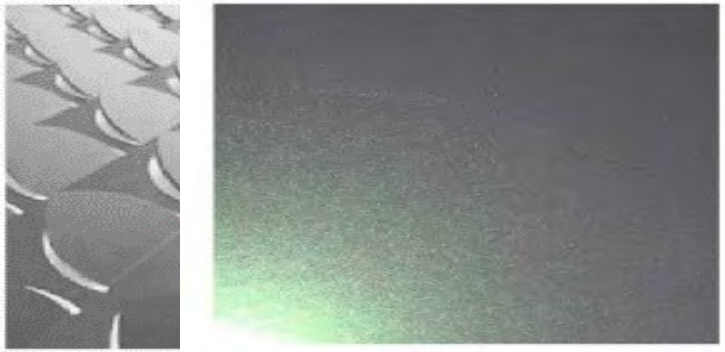
Form and Massing

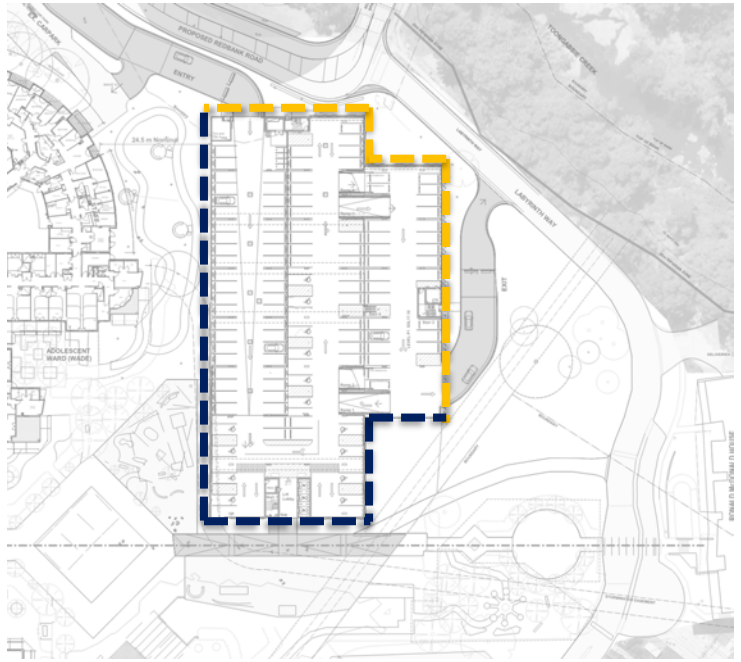
Multi Storey Car Park

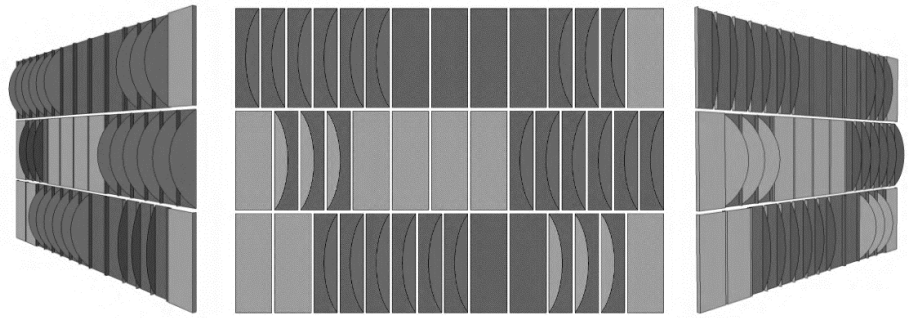
Façade Design Concept and Panel System











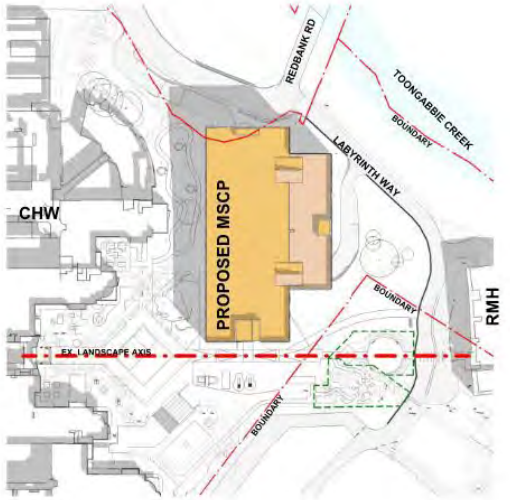
Multi Storey Car Park

Form and Massing

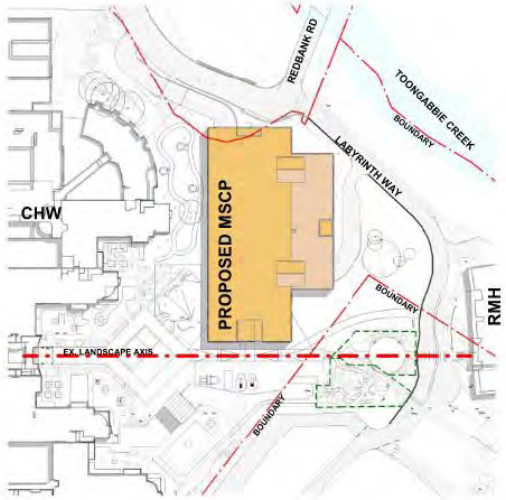
MSCP PV Façade Panels

Multi Storey Car Park

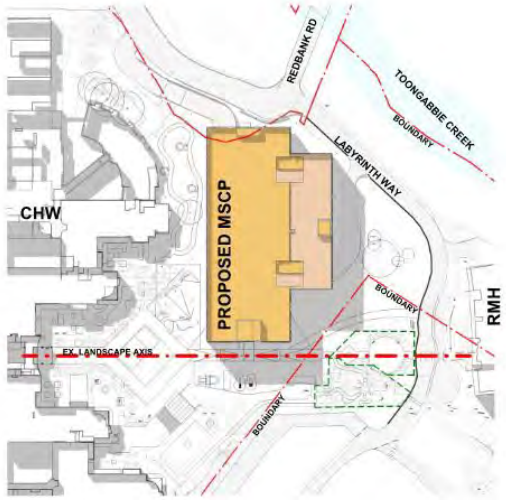
Solar Studies



PROPOSED SUMMER - DEC 21st
9AM



12PM



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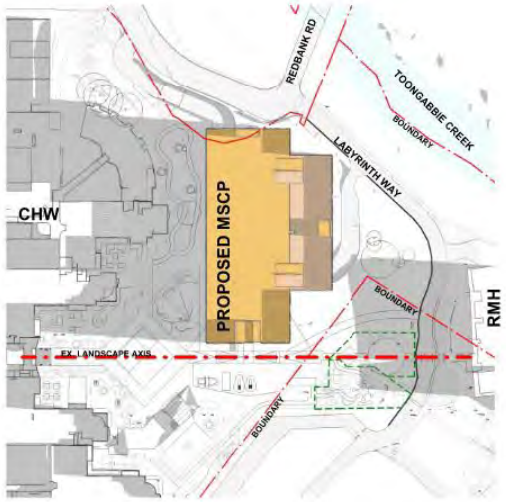
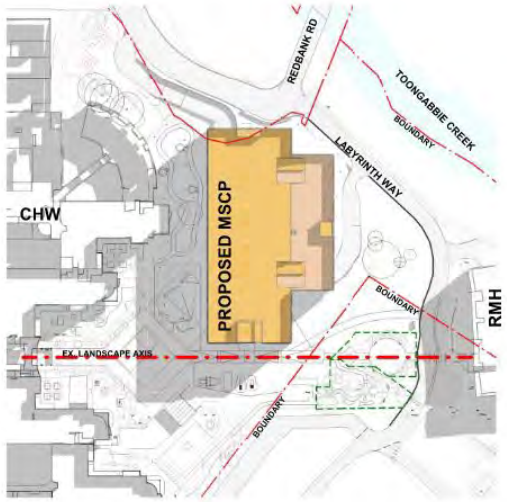


PROPOSED WINTER – JUNE 21st
9AM



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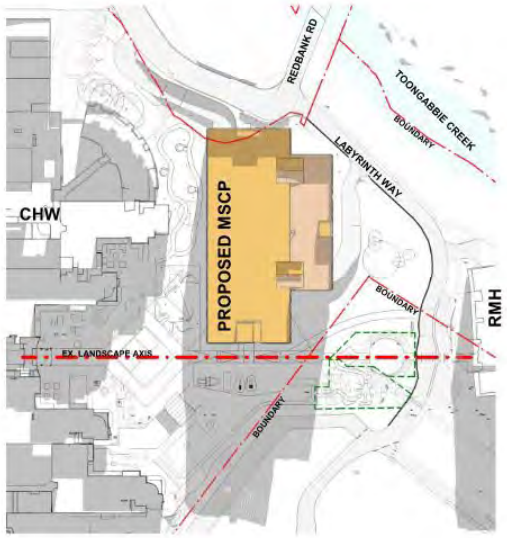
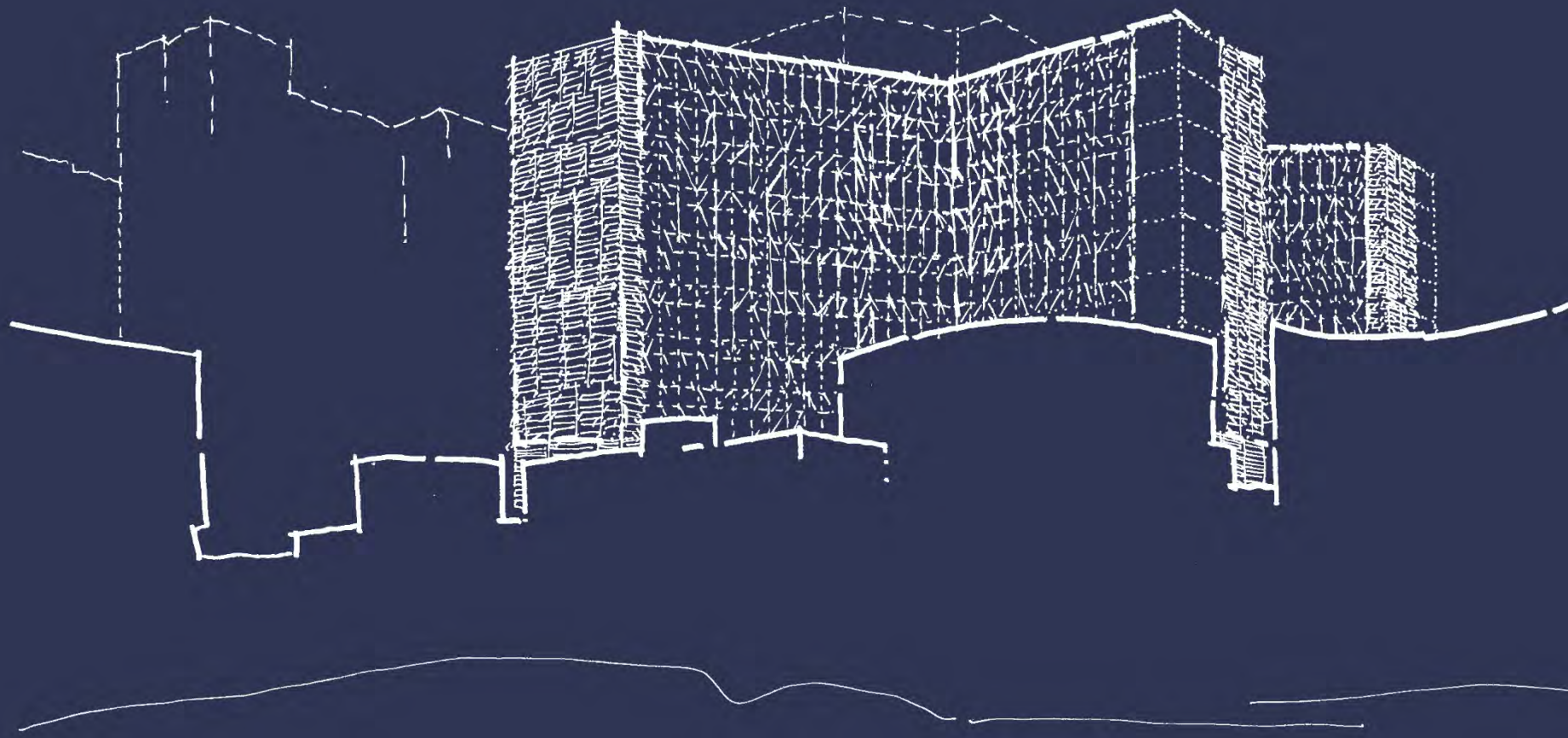


3PM

Thank You



GOVERNMENT
ARCHITECT
NEW SOUTH WALES

22 February 2021

Claire Muir
Senior Planning Advisor
Health Infrastructure

claire.muir@health.nsw.gov.au

PROJECT: **The Children's Hospital at Westmead Stage 2 Redevelopment**
RE: **HI SDRP SESSION 01 – 10.02.21 (third SDRP review)**

Dear Claire,

Thank you for the opportunity to review this project at the SDRP session held on 10.02.21.

The material presented focused on the landscape and masterplan of the newly named Kidspark. This paediatric core to the Westmead campus includes the proposed Paedeatric Services Building, CHW Forecourt and Multi Storey Carpark.

The panel were pleased the design development of the following:

- The increase in circulation across this section of the campus and the reduction in the size of the covered walkways over these paths.
- The reduction of the canopy size over the CHW forecourt.
- The thematic link between the 3 rivers and the campus.
- The overall development of the linked landscape strategy for the campus
- The inclusion of select green terrace spaces and winter gardens in the PSB

The following commentary provides advice and the issues/matters raised should be included in further design development of this project.

MASTERPLAN

Aspects of the masterplan concept are supported, in particular the key open spaces linked via walkways and the covered entry space which may be used as a multi-function platform for outdoor activity and performances.
The location of the carpark, however, is still problematic and its resolution requires further careful consideration. The carpark occupies a prominent location on the campus with favourable aspect and views to the creek and the treatment of its façade, its scale, the building volume and its relationship to other buildings on the site require thoughtful design development.

The location of the Paedeatric Services Building (PSB) and its relationship to the neighbouring buildings was difficult to understand without clear plans or sections at a suitable scale. The relationship of open green space to the PSB and internal courtyards, balconies and amenity was also not clearly communicated in the presentation. We strongly recommend this project returns to the SDRP with detailed plans and sections, 3 dimensional sketches and perspectives explaining the key spatial moves.

CIRCULATION

The strategy to link the carpark, forecourt and PSB entry along an experiential pathway is supported.

The connection of this axis to adjacent green open areas could not be fully understood with the material presented at SDRP 03. The experience along the pedestrian axis of light, space, volume, sound, materiality, outlook, topography all need to be developed and clearly explained in terms of the user experience; particular reference should be made to the projected experiences of children, young adults and families, requiring ease of access and often experiencing the spaces while in distress.

BUILT FORM AND ARCHITECTURAL EXPRESSION

The core design moves of the PSB are only partially evident at this stage making it difficult to provide comprehensive comments on the building and its relationship to adjacent built from and open spaces.

The size and scale of the canopy over the CHW Forecourt was questioned with the panel recommending a further reduction in height and overall scale to in response to its role in shaping a place for children.

Concerns were raised regarding the material density, visual heaviness and overall hospitableness of the podium. Further examination of its materiality and connection to nearby landscape is recommended during the next phase of design development with key opportunities expected to emerge from engagement with the project Indigenous Culture and Heritage consultant.

The expression of the façade offers an opportunity to reflect the unique physical and climatic character of the site and also to respond to the challenge of creating a place for children; opportunities for views out, connection to Country and landscape should be developed and integrated. Further development and consideration of these opportunities will imbue the campus with its own identity and help strengthen its place in the community.

LANDSCAPE AND OPEN SPACE

The landscape concept, while generally supported, did not include sufficient detail for the Panel to comprehensively comment. Detail treatment of landscape spaces including planting types and densities, retained mature trees with

canopies, materiality of surfaces, hard and soft, furnishings and proposed overall amenity should be developed and presented at the next SDRP.

The design and amenity within the landscape of Kidspark is key to the success this project. The journey between buildings, along the Kidsway, through the CHW Forecourt, to the carpark through a sequence of distinct green links has strong potential.
The overall strategy for retail and food and beverage should consider the activation of all green spaces including those adjacent to the proposed carpark; this will ensure the masterplan delivers active and engaging spaces for the use of visitors, patients and staff while taking advantage of the site's natural quality and amenity.

The project is at a critical stage for integrating an Art Strategy and responding, in collaboration with your ICH consultant, to the Draft Connecting with Country Framework. It is recommended this process be accelerated and evidence of this be presented at the next SDRP.

It is recommended this project returns for another meeting with SDRP and that the following be included in that presentation:

- Plans, sections and 3d sketches of key areas to explain the relationship of the built forms to each other and the adjacent spaces
- Internal plans and layouts
- 3D views explaining the overall volumes of buildings across the campus, and their relationship to landscape and to the ground plane
- Light and spatial quality studies for the campus circulation areas: sequential sketches / basic 3D views/sketches of key external spaces experienced as one moves along the circulation journey
- Explanation of how these spaces are linked to the broader campus environment and beyond – views, outlooks, light quality, sound, volume, space, landscape, materiality, uses and activation.
- Concept strategy for retail and food and beverage across the whole Kidspark quarter
- Details of consultation with Indigenous consultants and design collaborators
- Public art strategy for internal and external spaces
- Detailed design development of landscape concepts

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We look forward to seeing the proposal as it develops.

Please contact GANSW Design Advisor, George Savoulis (George.Savoulis@planning.nsw.gov.au), if you have any queries regarding this advice.

Sincerely

Rory Toomey
Principal Design Excellence

CC

NSW SDRP Panel members	Diane Jones, Kate Luckraft, Rory Toomey (Chair)
GANSW Design Advisor	George Savoulis
DPIE	Ingrid Berzins
Billard Leece Partnership	Tara Velman, Alessandro Filippi
Health Infrastructure	Clair Muir, Caleb Teh, Peter Lawless
PwC	James Wright
McGregor Coxall	Matt Ritson

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