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# Cowra Hospital Redevelopment

REF Submission:  
Architectural Statement

64 Liverpool Street  
Cowra NSW 2794

February 2023

djrd

GWPM



Health  
Infrastructure



Health  
Western NSW  
Local Health District

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## 1.0 Executive Summary

### 1.1 Introduction

#### Overview

Cowra Hospital is being redeveloped by Western New South Wales Local Health District (WNSWLHD) and NSW Health Infrastructure (HI) to provide a contemporary regional health facility on the existing hospital site. The new Hospital will meet clinical services requirements, and the growing needs of the community.

This Architectural Design Statement supports the REF application for the main works, including:

- Construction of the New Hospital
- Demolition of the Existing Hospital
- Construction of the Southern Carpark & Landscaping

This REF Architectural Design Statement is to be read in conjunction with drawings and other consultant reports as part of the REF Submission.

#### Background

The current Cowra Hospital facility is a small regional hospital with an emergency service approximately 60 years old and located on the same site as earlier hospital buildings. The existing buildings are aged and have significant functional and compliance issues.

The NSW Government has announced a total of \$110.2 million towards the redevelopment of Cowra Hospital. The Cowra Hospital Clinical Services Plan (CSP) 2020-2030 was prepared by the WNSWLHD in November 2020 and was endorsed by NSW Health in May 2021. This has been the key reference document used to inform the design.

Master planning was completed in early 2022 and established that the preferred master planning option was to develop a new hospital on the existing hospital site. This REF submission has been prepared following the completion of Concept Design in mid 2022.

#### Project Scope

This REF proposal is to provide a new hospital to replace facilities that do not permit the delivery of contemporary health services. The proposed facility will deliver all clinical services under one roof in a new, purpose designed building with logical zoning that incorporates contemporary models of care. Specifically, this REF application seeks approval for the following works at the hospital site:

- Construction of a new two-storey hospital building
- Demolition of remaining buildings vacated after commissioning of the new hospital, including the existing Main Services Building
- Construction of new site works including roads, car parking and landscape elements
- Signage

The project has been designed to meet the needs towards 2030 of the Cowra Health Service Clinical Services Plan V1.5, and the new building will include:

- Upgraded inpatient beds with Tresillian Care
- Emergency Department
- A general medical and surgery inpatient ward
- A peri-operative theatre (a range of surgical procedures)
- A maternity unit with a dedicated nursery
- Ambulatory care services for outpatients, including Community Health and Mental Health, Drug and Alcohol services.
- Renal dialysis (dialysis treatment for outpatients)
- Oncology (chemotherapy treatments)
- Oral health (dental clinic)

#### Key Principles

The key principles of the proposed design are;

- Provide new infrastructure to replace existing outdated facility
- Consistency and efficiency for provision of new models of care
- Consistency for provision of safe and reliable services
- Maintain C2 hospital status
- Build partnerships, provide better value and improve sustainability of health services
- Be located in close proximity to population and to other services, and build on existing precinct for health services
- A sustainable facility to attract staff, stabilising workforce and provision of services
- Have sustainable treatment spaces to ensure return visitation by consumers
- Be culturally accessible and welcoming.

#### Acknowledgement of Country

Cowra Hospital is located on Wiradjuri Country. The project team acknowledges the traditional owners of Country, and their continuing connection to Country and community. We pay our respects to Elders past and present.

## 1.0 Executive Summary

### 1.2 Design Statement

#### Site

Redeveloping the existing hospital site was identified as the preferred approach by HI, WNSWLHD and project stakeholders following a master planning phase that considered various options for locating the new hospital.

The existing hospital site is close to the civic centre of Cowra, a rectangular block entirely occupied by the hospital.

Residential development surrounds the site to the north, east, south and west.

The land features the following unique characteristics:

- The site slopes approximately 15m from north to south & around 3m from east to west
- Notable views to the south and west as the landscape falls away from the building
- Surrounding residential development
- Rectangular proportions of the site boundary enable the development to maximise landscaping around the building and site perimeter.

#### Architectural

##### Built Form & Urban Design

The proposal seeks to respond to the surrounding residential context, sloping topography, and the town's architectural heritage.

The new building is located north of the existing hospital, accommodating car parking and landscape to the south while increasing solar access to the street and establishing public entry through the landscape.

The new two-storey building is an appropriate scale for the surrounding area, surrounded by primarily single-storey freestanding houses.

Following the sloping terrain, the building is single-storey to the northern end of the site. However, two-storeys are seen when viewed from the south.

The architecture references common elements of Cowra's built heritage, including hipped pitched roofs and masonry construction. Two hipped pitched roofs create 'wings' that are connected and envelop a central light well. The building mass can be understood as a singular form, broken up vertically and horizontally through glazing and material differences.

##### Access

The plan accommodates functional relationships between the hospital's departments and provides clear access and intuitive wayfinding for staff and visitors.

The two main public entry points have been separated to minimise clinical, services and public circulation overlaps.

Clinical and service access are located on the first floor via the car park from Brisbane Street. The public entry is located on the ground floor and is accessed from the car park and the pedestrian paths from Liverpool and Brisbane Streets. After-hours public access to the emergency department is via the first-floor entry from the car park.

Pedestrian access from Liverpool and Brisbane Streets is adjacent to landscaped space. Locations for path entries have been considered to tie into existing street infrastructure and street parking.

##### Environmental Amenity

Creating a pleasant environment for both building users and the neighbours has been considered in the overall building massing, considering how the building's position can enhance solar access to the building and landscape. Provision of various outdoor spaces and framing district views has also been considered.

## 2.0 Site Analysis

### 2.1 Urban Context

#### Location

The Cowra Hospital site is centrally located within the town. It is approximately 400m north of the town centre, and most facilities are only a few minutes drive from the Hospital. There are healthcare, education, clubs and recreation and other facilities in the town. The existing hospital can be accessed by private vehicles, buses and pedestrians from the main town centre. Current visitor and pedestrian entry is from Liverpool Street and Staff carparking is accessed from Ina Drive.

#### Health care

- ① COWRA HOSPITAL
- ② COWRA MEDICAL ASSOCIATES
- ③ MEDISPRING FAMILY MEDICAL CENTRE

#### Education

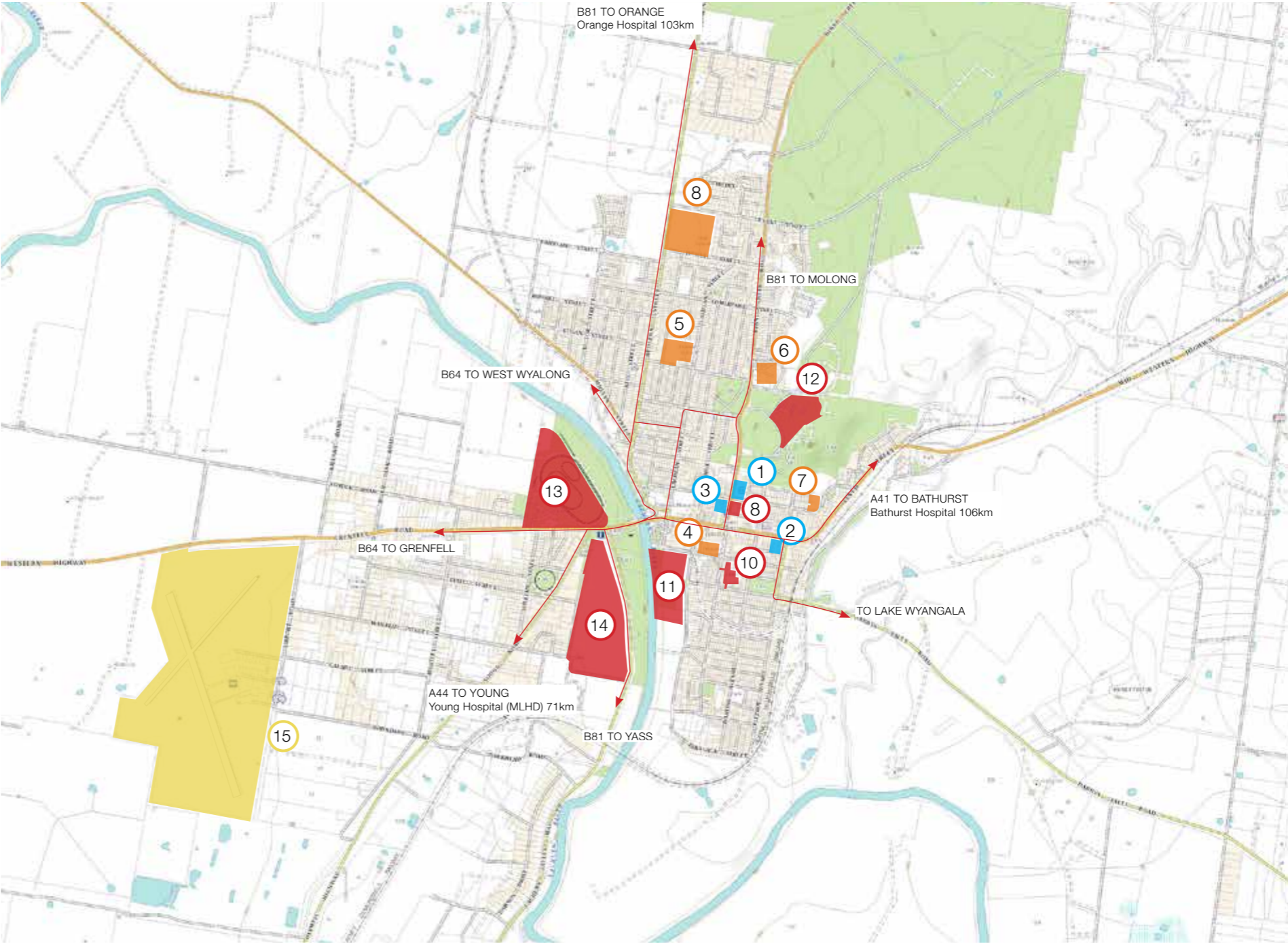
- ④ COWRA PUBLIC SCHOOL
- ⑤ MULYAN PUBLIC SCHOOL
- ⑥ HOLMAN PLACE PUBLIC SCHOOL
- ⑦ TAFE WESTERN COLLEGE
- ⑧ COWRA HIGH SCHOOL

#### Clubs/recreation

- ⑨ COWRA SERVICES CLUB
- ⑩ COWRA BOWLING AND RECREATION CLUB
- ⑪ COWRA AQUATIC CENTRE & SPORTS FIELDS
- ⑫ JAPANESE GARDEN & CULTURAL CENTRE
- ⑬ COWRA SHOWGROUND
- ⑭ COWRA GOLF COURSE

#### Other

- ⑮ COWRA AIRPORT
- CALARE / LACHLAN RIVER



## 2.0 Site Analysis

### 2.1 Urban Context

The existing hospital site is a corner site with an elevated aspect at the intersection of Liverpool Street & Brisbane Street. The site is also bound by Ina Drive to the East. It is located two blocks north of Kendal Street which is the main street of Cowra.

To the north of the hospital is a water supply and treatment facility. There is also a large public recreation area which includes the Cowra Japanese Garden and Cultural Centre located north of the site. Photos illustrating street views of the site shown in section 6.10 illustrate the extent of wide ranging district views. The site is approximately 1.4 hectares in size and the main address is to Liverpool Street. The Cowra Services Club is directly opposite.

Cowra Hospital currently has no onsite public parking. Patients and Visitors park on the street alongside Liverpool Street and Carlton Street or commonly in the Services Club carpark.

#### Cowra CBD

- ① MEDISPRING FAMILY MEDICAL CENTRE
- ② COWRA SERVICES CLUB
- ③ OPTIMAL PHARMACY
- ④ COLES
- ⑤ SERVICE NSW
- ⑥ WOOLWORTHS
- ⑦ COWRA MEDICAL ASSOCIATES
- ⑧ ALDI



2.0 Site Analysis  
2.2 Existing Site Plan

The existing Hospital site contains a number of buildings of varying ages and conditions.

The Main Services Building opened in 1958. The building is a four storey high blonde brick building that is distinctive via its size and character.

There have been a number of relatively unsympathetic additions to both the front and rear faces of the building.

There are a number of other existing buildings on the site, built at different times. A building asset condition assessment was undertaken during the master planning phase; it concluded that many of the buildings on the site are in poor condition or to be decommissioned. Of the buildings in operational condition, many have portions that do not comply with current safety and accessibility standards, as well as security requirements.

The Main Services Building condition is summarised in 6.11

Existing Assets

- (A) MAIN HOSPITAL BUILDING
- (B) STAFF ACCOMMODATION
- (C) PHARMACY
- (D) STORES
- (E) LINEN
- (F) OLD BOILER HOUSE
- (G) BACK UP GENERATOR
- (H) OLD NURSES QUARTER (VACANT)
- (I) MAINTENANCE SHEDS
- (J) LIFE SKILLS (OLD DAY CARE CENTRE)
- (K) COVERED PARKING
- (L) COVERED FLEET/ STAFF PARKING
- (M) AMBULANCE BAY



## 2.0 Site Analysis

### 2.3 Title

The registered Proprietor of the land is HAC.

It is located at 64 Liverpool Street Cowra and is described at Lot 2, DP 1169527

The northern boundary is shared with two other lots (Lots 10 & 11, DP 1253220).

② LOT 2  
DP 1169527

⑩ LOT 10  
DP 1253220

⑪ LOT 11  
DP 1253220

— SITE BOUNDARY  
OVERALL AREA: 14,010M<sup>2</sup>

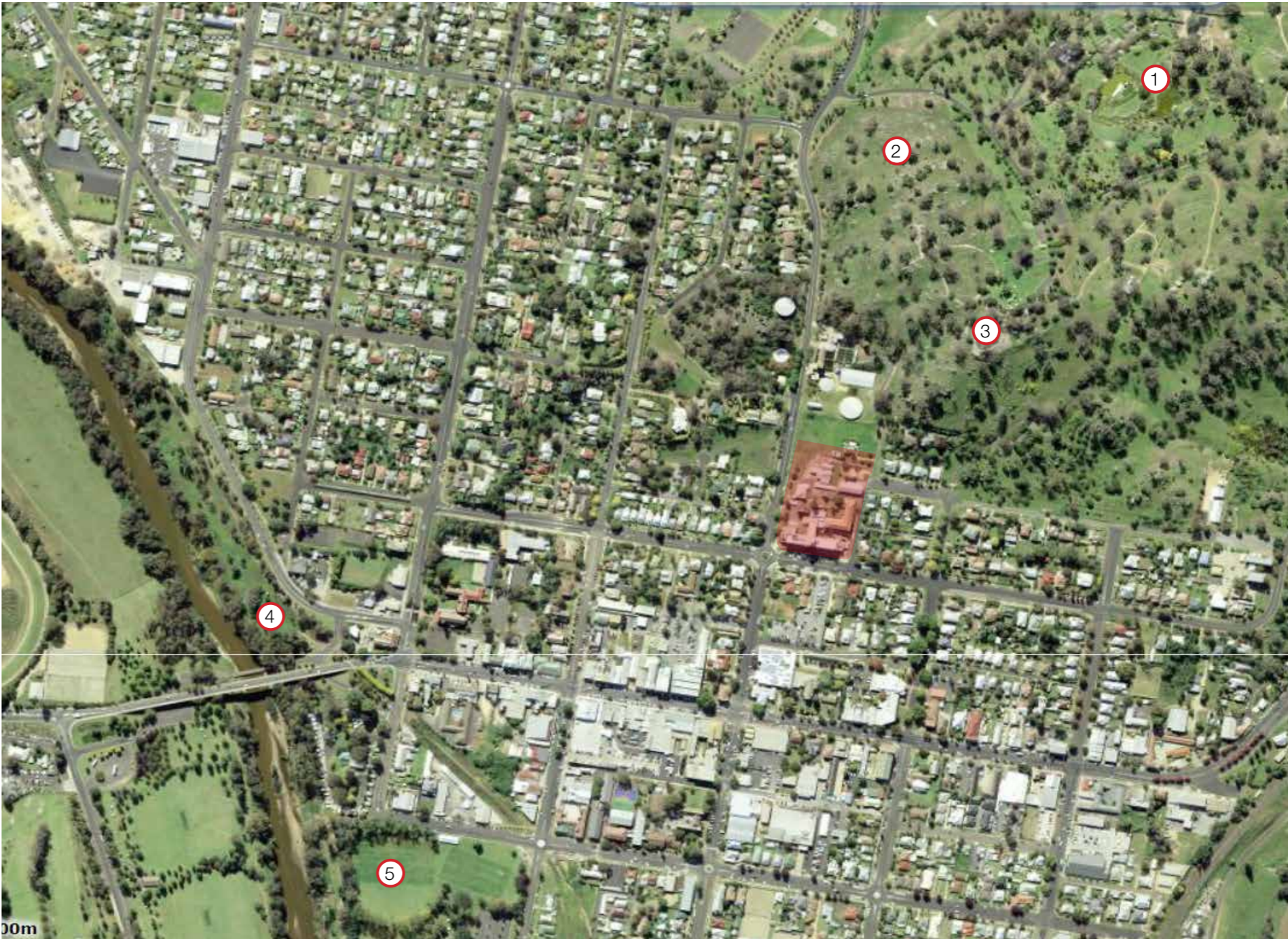
--- LOT BOUNDARY



2.0 Site Analysis

2.4 Green Spaces

Currently there are few Green Spaces within Cowra town centre. Public parkland is located further away from the town centre as illustrated.



COWRA CBD

- ① COWRA JAPANESE GARDEN AND CULTURAL CENTRE
- ② ADVENTURE PLAYGROUND
- ③ BELLEVUE HILL LOOKOUT POINT
- ④ COWRA DOG PARK
- ⑤ COWRA OVAL

## 2.0 Site Analysis

### 2.5 Heritage

The current Cowra Health Service Main Services Building opened in 1958. The building is a four storey high blonde brick building that is distinctive via its size and character.

The Planning Pathway report, confirms via reference to the Section 10.7 Certificate, that the existing Hospital Site does not contain a Local Heritage Item or a State Heritage Item.

Cowra has a number of heritage buildings developed over the course of the town's history.



①  
Memorial Avenue



③  
Australian Hotel



④  
St Raphael's Catholic Church



⑤  
Great Western Hotel



⑦  
Old Stone Flour Mill



⑧  
Cowra Public School



Historical photos: Cowra Tourism, n.d., Cowra Heritage Walk



⑩  
Logan Court



⑪  
St Peter's Presbyterian Church



⑭  
Cowra Court House



⑮  
Uniting Church

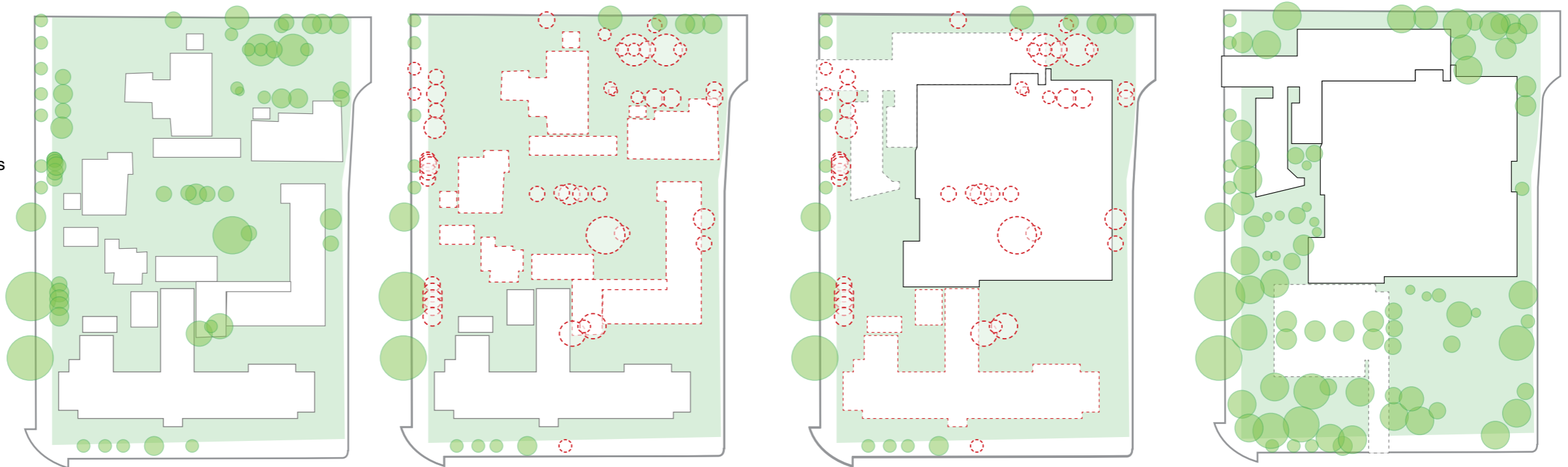
2.0 Site Analysis  
2.6 Developable Area

The area of the site is approximately 1.4 hectares. The existing Main Services Building is located to the south of the site, along Liverpool Street.

The outcome of the master planning phase resolved to build a new hospital on the existing site whilst maintaining the key operations of the existing hospital. This limits the developable area of the site.

As such, the north of the site was identified as the site for the development.

Consequently several constraints have been identified related to maintaining the service during construction, staging of the works and existing critical infrastructure. These include buildings and plant required to remain until occupation of the new hospital.



- EXISTING TREES
- TREES TO BE REMOVED
- EXISTING BUILDING
- TO BE DEMOLISHED
- NEW CONSTRUCTION TO START
- NEW CONSTRUCTION

**Existing**  
Overview of existing hospital on site.

**Construction**  
Existing buildings that sit on the north end of the site will be demolished. Existing hospital to remain operational during construction of redevelopment.

**Construction**  
Starting construction of new hospital.  
Existing hospital still to remain operational.

**Construction**  
Once redeveloped hospital begins operation, demolition of existing hospital can begin to allow construction of new visitor parking.

## 2.0 Site Analysis

### 2.7 Site Topography

The existing hospital site has a significant amount of fall from north to south and some cross fall east to west and this is illustrated on the site survey as well as slope analysis & spot elevation study. The site slopes approximately 15m from north to south & approximately 3m from east to west.

Whilst both Brisbane Street & Ina Drive are steeply sloping the site has been terraced into a series of platforms where the existing buildings are located through the course of its development.

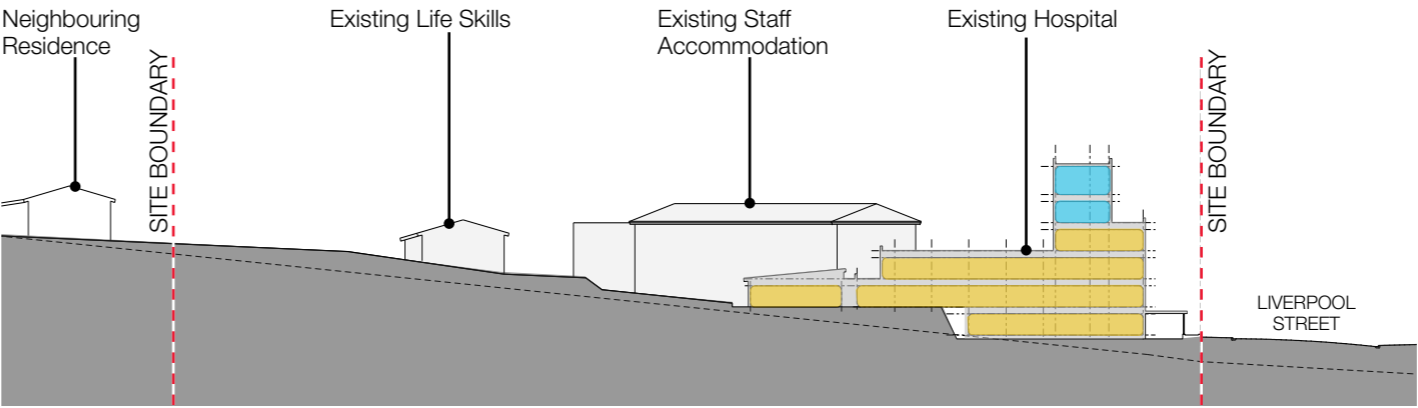
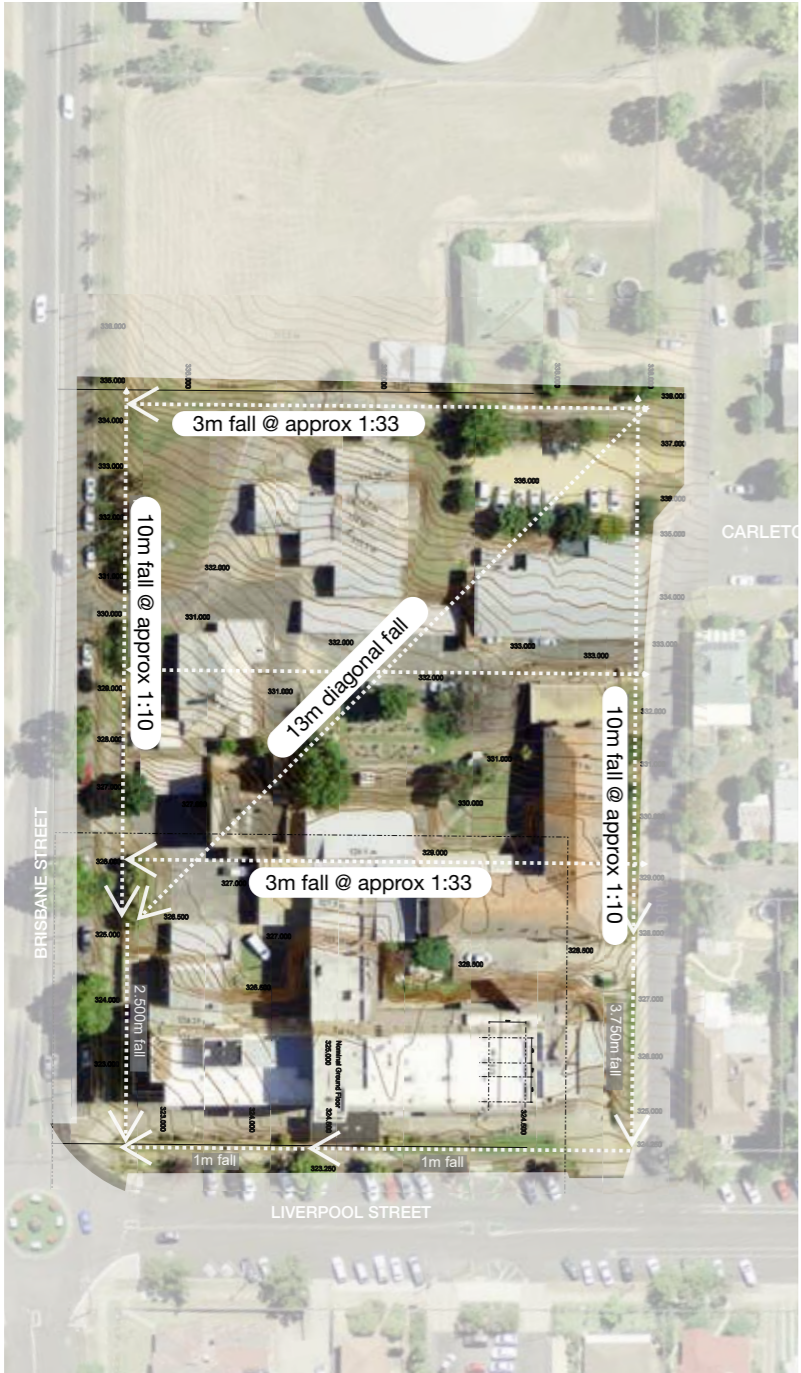
The rose garden courtyard in the centre of the site is approximately 1.5 metres above the first floor level of the existing hospital.

The elevated aspect of the existing site provides opportunity for district wide views.

- EXISTING TREES
- EXISTING BUILDING PADS
- RL



2.0 Site Analysis  
2.8 Site Topography



## 2.0 Site Analysis


### 2.9 Climate Conditions


Cowra is located in the Central West of NSW within NCC Climate Zone 4.

Cowra experiences hot dry summers and cool winters. Summer and winter temperatures vary significantly as well as throughout the day, and both heating and cooling are required. Afternoon breezes are from the south east in summer, while westerlies are common through the year in the afternoon.

The existing site is aligned in a north south orientation. The existing main hospital building is aligned in an east west orientation that faces south towards the town centre with wide ranging district views. Due to this aspect the existing rooms typically look north or south. Rooms to the north are affected by sun, heat-gain and glare.


 SIGNIFICANT VIEWS

 PREVAILING WINDS


 SUMMER/WINTER SUN

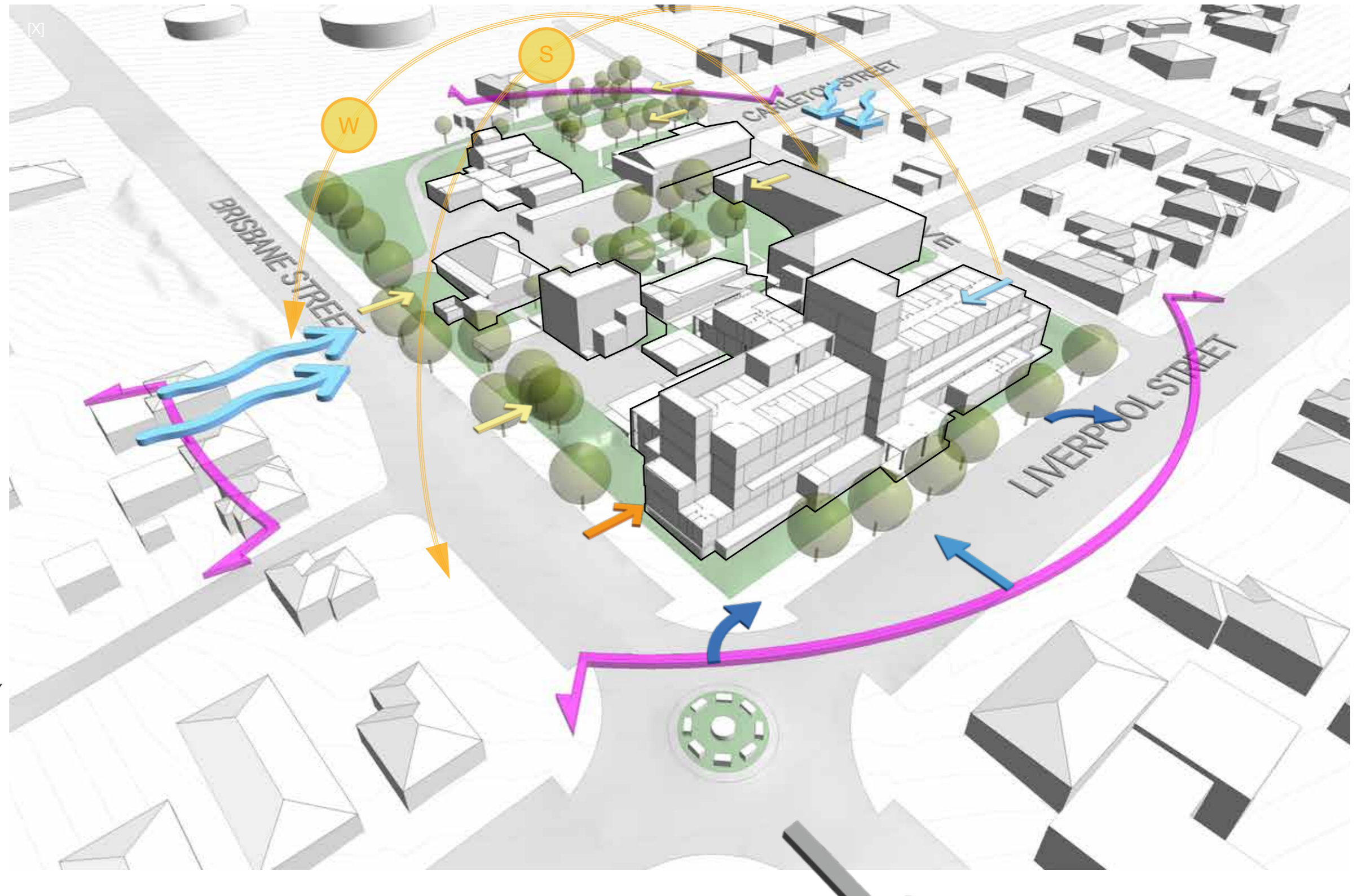
 STAFF/ LOGISTICS ENTRY

 AMBULANCE ENTRY

 PUBLIC ENTRY

 PEDESTRIAN ENTRY

 MORTUARY ENTRY



## 2.0 Site Analysis

### 2.10 Traffic and Access

The overall transport strategy for the proposed hospital is as follows:

#### Pedestrians

- Provide pedestrian access points on Brisbane St and Liverpool St
- Retain existing pedestrian infrastructure within the local network

#### Cyclists

- Provide 5 bicycle parking spaces

#### Public transport

- Existing bus infrastructure and services to be retained

#### Service and loading

- Provide a service and loading area with access from Brisbane Street

#### Ambulance

- Provide an ambulance bay with access from Brisbane Street

#### Public drop off

- Provide 5 public drop off spaces with access from Liverpool Street

#### Car parking

- Provide a total of 42 car parking spaces including 3 accessible spaces and 2 electric vehicle charging spaces

..... BICYCLE LANE

- - - - BUS ROUTE

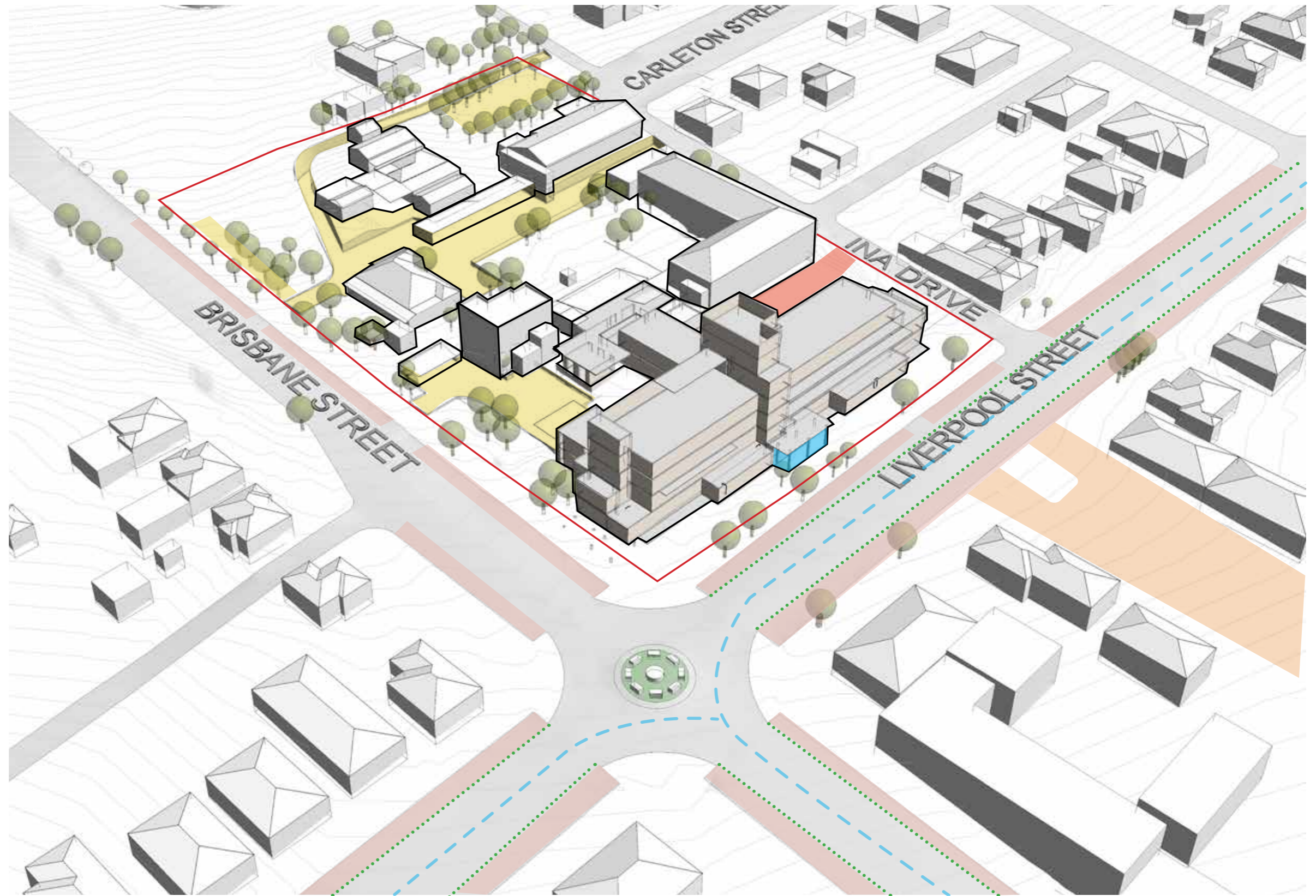
ROADSITE PARKING

AMBULANCE BAY

COWRA SERVICES CLUB  
CARPARK

DROP OFF

STAFF PARKING



## 2.0 Site Analysis

### 2.11 Planning Constraints

The Cowra Local Environment Plan 2012 and Cowra Shire Council Development Control Plan 2021 applies to land in the Cowra Local Government Area and is made up of a number of different Parts which address different categories of development and planning issues. There is no specific DCP chapter that applies to the development of a Hospital in the Cowra region on the sites that are being considered.

The existing Cowra Hospital site is located in a residential area zoned R1 General.

The Master Plan report identifies that a Health Facility is permitted within the R1 Zone.

Section 5 of the Planning Pathway report also identifies that in relation to designing a new building on the existing site, the works proposed in relation to the redevelopment of the existing hospital site which generally includes demolition, erection of a new building and associated carpark works would be able to be determined as 'development without consent' under Clause 58 of State Environmental Planning Policy (Infrastructure).

This would be facilitated through the preparation of a Review of Environmental Factors which would require that;

- New buildings are permitted to a maximum height of 15 metres
- Buildings to be setback a minimum of 5 metres from property boundaries.

### 2.12 Biodiversity, Vegetation & Arborist

An Arborist report and survey of existing trees has been carried out. The report assesses 75 trees on site and in the adjacent surrounding area.

The Arborist report recommendations during the development are as follows;

- retain forty-two trees;
- remove thirty-three trees;
- tree protection fencing and mulch around the TPZ of twelve trees;
- three trees require trunk protection;
- seven trees need an exclusion zone to prevent works or litter/hoarding within the TPZ;
- replenishment planting of eighteen trees with a mature canopy greater than eight metres

Trees within excavation and demolition zones will be removed. The final landscape design introduces more trees to the site than previously there.

The rose garden courtyard in the centre of the site has some commemorative significance to the community and staff. The users have asked if the rose plantings can be transplanted and incorporated into the new facility's design. Any commemorative plaques should also be preserved.

## 2.0 Site Analysis

### 2.13 Existing Site Photos - Street View



1  
Brisbane Street



2



3



4



5  
Liverpool Street



6



7



8



9  
Ina Drive



10



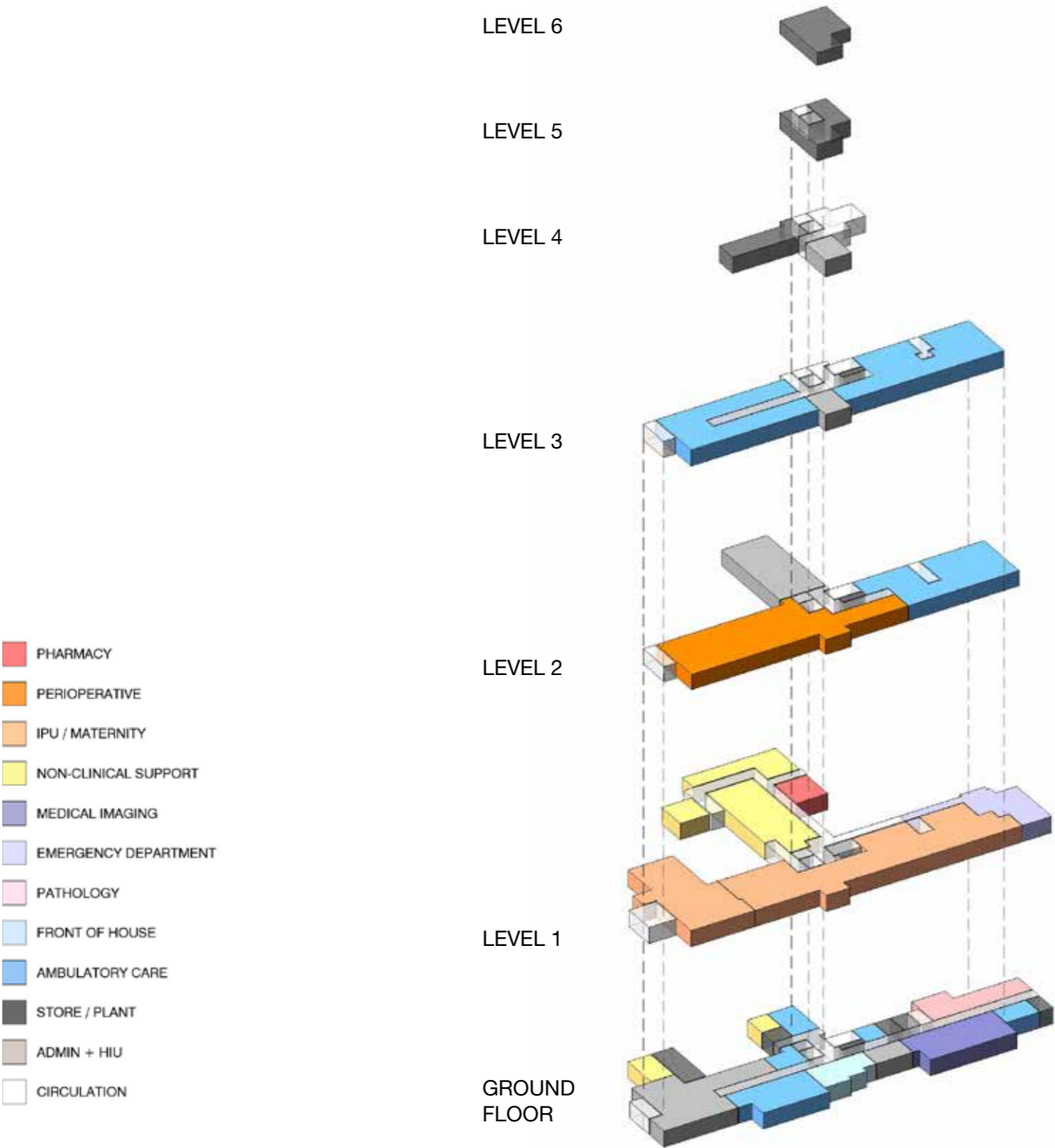
11



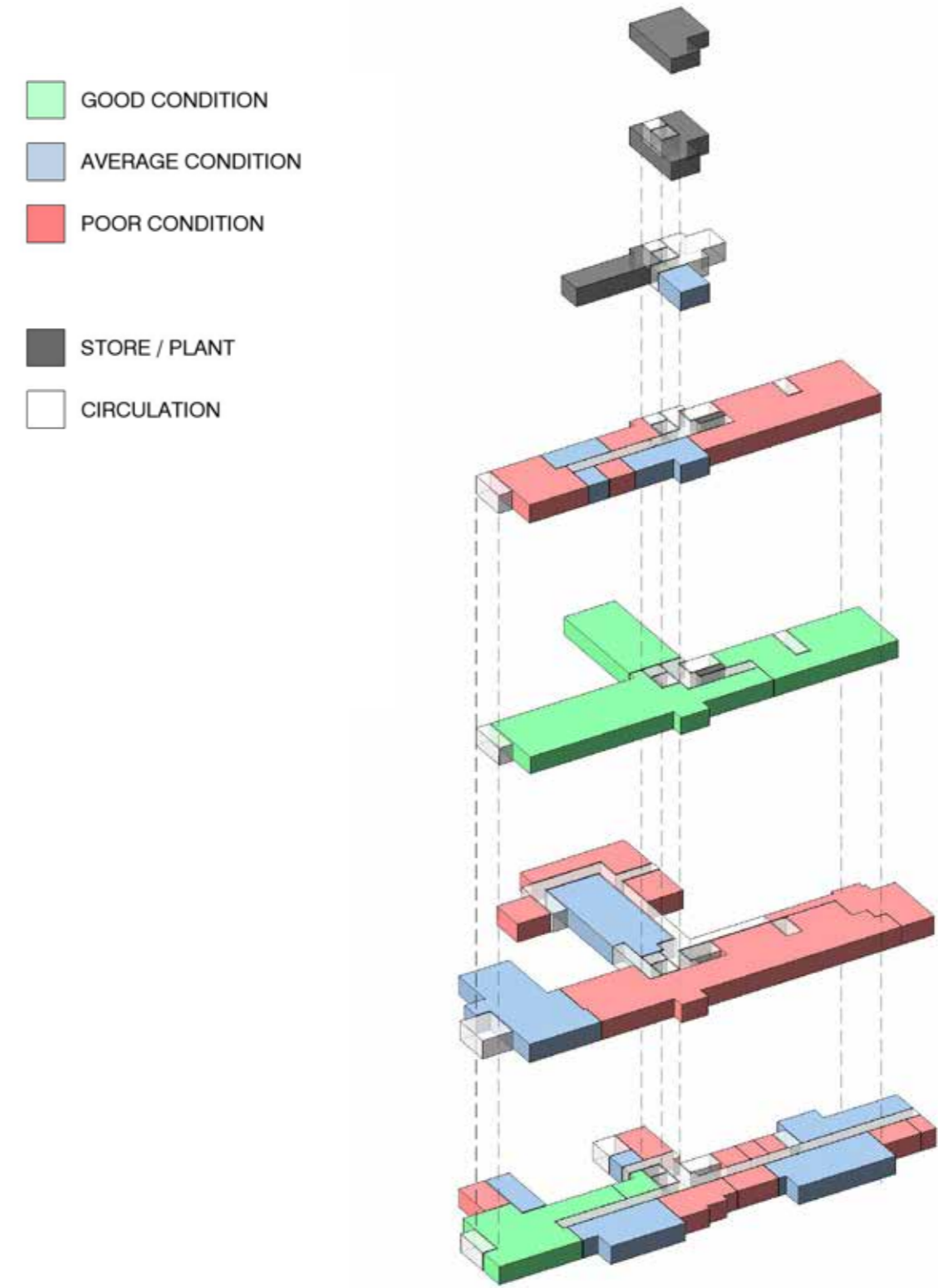
12

2.0 Site Analysis

2.14 Existing Building Asset Assessment



EXISTING HOSPITAL ASSET CONDITION



## 3.0 Design Concept

### 3.1 Design Principles

Design principles provide fundamental touchstones to guide the long and complex process of developing and delivering a health facility. They should be embedded in the project from the beginning and checked against regularly.

In line with NSW Government standards and policies, HI have developed a set of guiding design principles specific to health. Even though this project may not be approved through the SSDA process, the Cowra Hospital Redevelopment will align with these principles because:

- they provide a framework to ensure we are capturing all the requirements that produce good design at the early stages of the project;
- by returning to the principles during design and delivery of the project, the project team will ensure that the original vision continues to be considered;
- they provide assessment criteria when reviewing the project at all stages.

#### Design with Country



The hospital design will incorporate and develop cultural awareness through engagement and consultations with the local Aboriginal community. On March 24th 2022 the design team walked Country with local Wiradjuri elders. The principles and ideas from that workshop will form part of the architectural and landscape design process in the following phases.

Refer to Connecting with Country Strategy

#### Design for efficient and flexible delivery of care

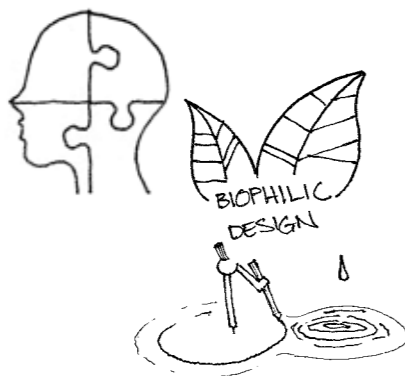


The planning of the new facility will deliver efficient clinical care and embed flexibility to accommodate models of care.

It will provide spaces and technical requirements for telehealth and enhance visitor and family support.

The planning and design will prioritise efficient circulation routes and effective orientation.

#### Design for wellbeing



The new facility will adopt principles of biophilic design (our intrinsic connection with the natural world). The architecture, landscape and art will support patient, staff and visitor wellbeing in healthcare by providing connections to environmental features, establish place based relationships, incorporate restorative patterns and processes and provide differentiation of light and space through natural light and views.

#### Design for connection



Good existing connectivity will be maintained between the hospital and the central business district of the town. Clear and coherent wayfinding signage will be provided throughout the precinct and internally in the hospital building. Functions will be collocated to facilitate transfer of knowledge.

#### Design for the neighbourhood and surrounding environment



The new facility will create value and economic investment in the community.

It will help contribute to the quality of the surrounding built and the natural environment through the prescribed design principles.

It will explore opportunities where available to incorporate mixed use spaces

#### Design for longevity and resilience



The new facility will be resilient and designed to conform to latest building standards, clinical adjacencies and cater for flexibility in providing contemporary models of care thereby increasing the functionality and longevity.

The services will allow for designing for whole of life of the building

#### Design for sustainability



The new facility will be designed to conform to the DGN-058 and meet the whole-of-life analysis at all stages & scales. The design will reduce energy consumption & enhance green energy generation where possible through compliance with building regulations.

The new facility will integrate water sensitive design systems and integrate the facility into green infrastructure systems. The new facility will comply will all regulatory and NSW health ESD requirements

#### Design for dignity



The new facility will be designed to create welcoming, cared-for environments and will support cultural safety through balance privacy & connection.

It will provide spaces for respite & reflection and enable individuals to have some control over their environment above all it will provide access for all through ramps and careful consideration of designed spaces.

#### Design for safety and security



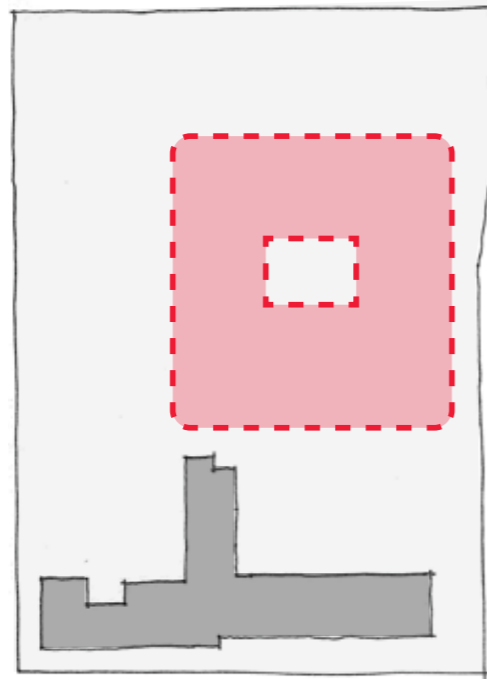
The new facility will provide safe environment for staff and patients by creating discreet staff and public corridors.

Enhanced and contemporary surveillance will provide for afterhours safety for the staff.

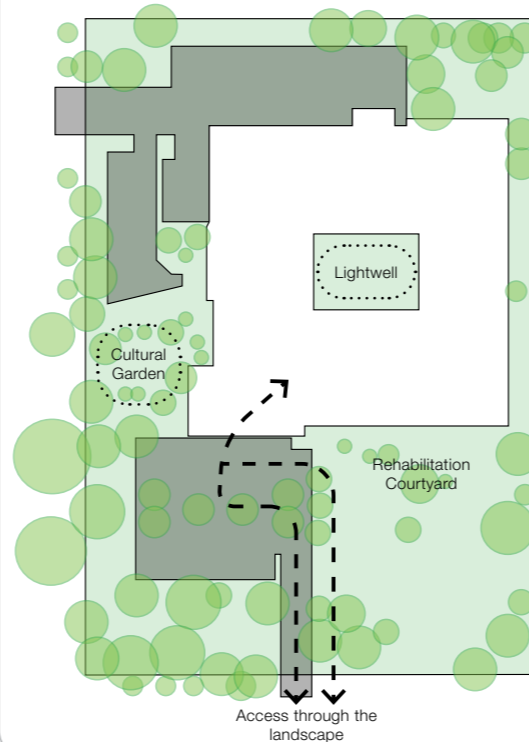
## 3.0 Design Concept

### 3.2 Design Strategy

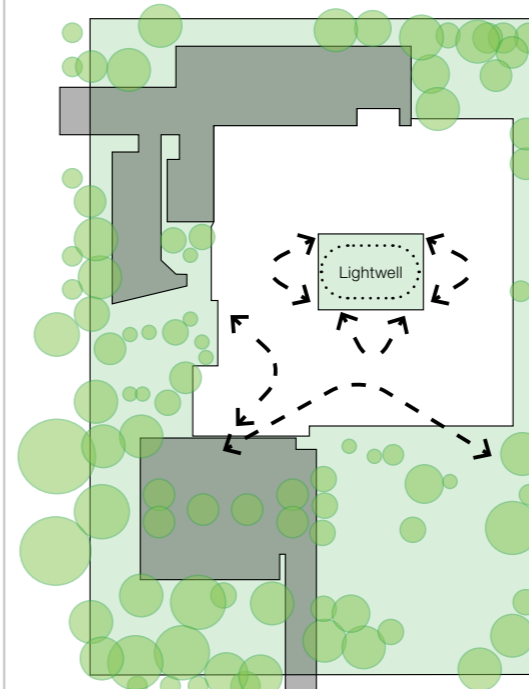
- 1. Maintain operation of the existing hospital through construction**  
Development area to be located at the north of the site to enable operation of the existing hospital.



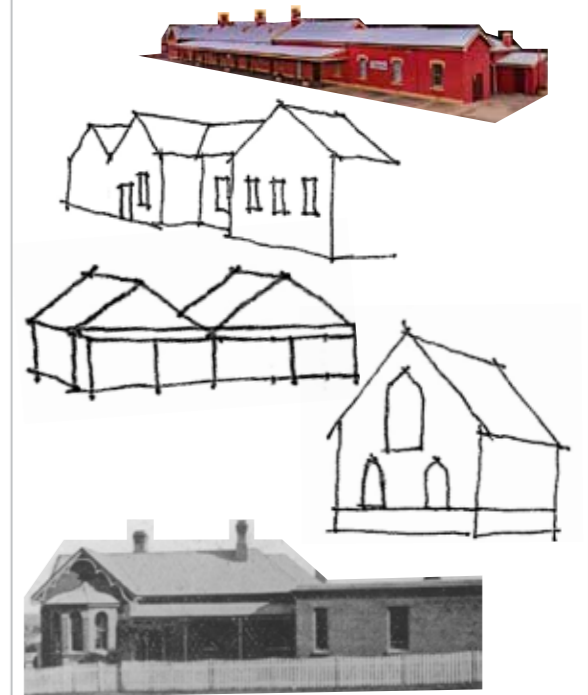
- 2. Connection to outdoor spaces**
- Integrate landscape and building
  - Different landscape experiences; pedestrians and vehicles enter through the landscape; outdoor access to gardens; lightwell, etc



- 3. Connection to views**
- Where possible, maximise views and daylight for workspaces, bedrooms and outpatient areas
  - Consider how stacking floors creates opportunities to increase natural light access - e.g. provision of lightwells



- 4. Local Identity**
- A welcoming health facility that responds to the surrounding built context

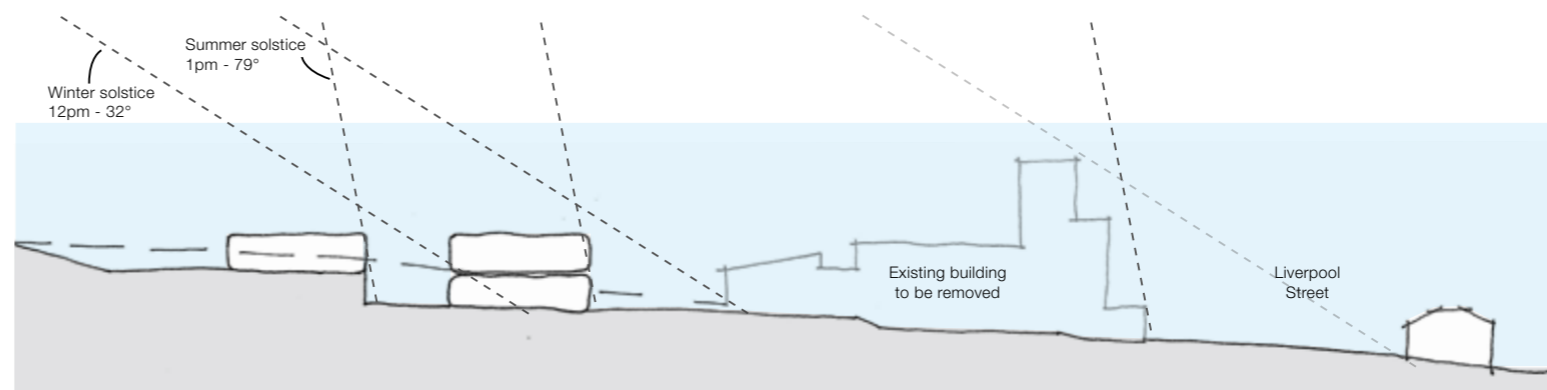


- 5. Respond to the topography and scale of the urban context**

The character and scale of the building should be appropriate for its use as a community hospital within its context.

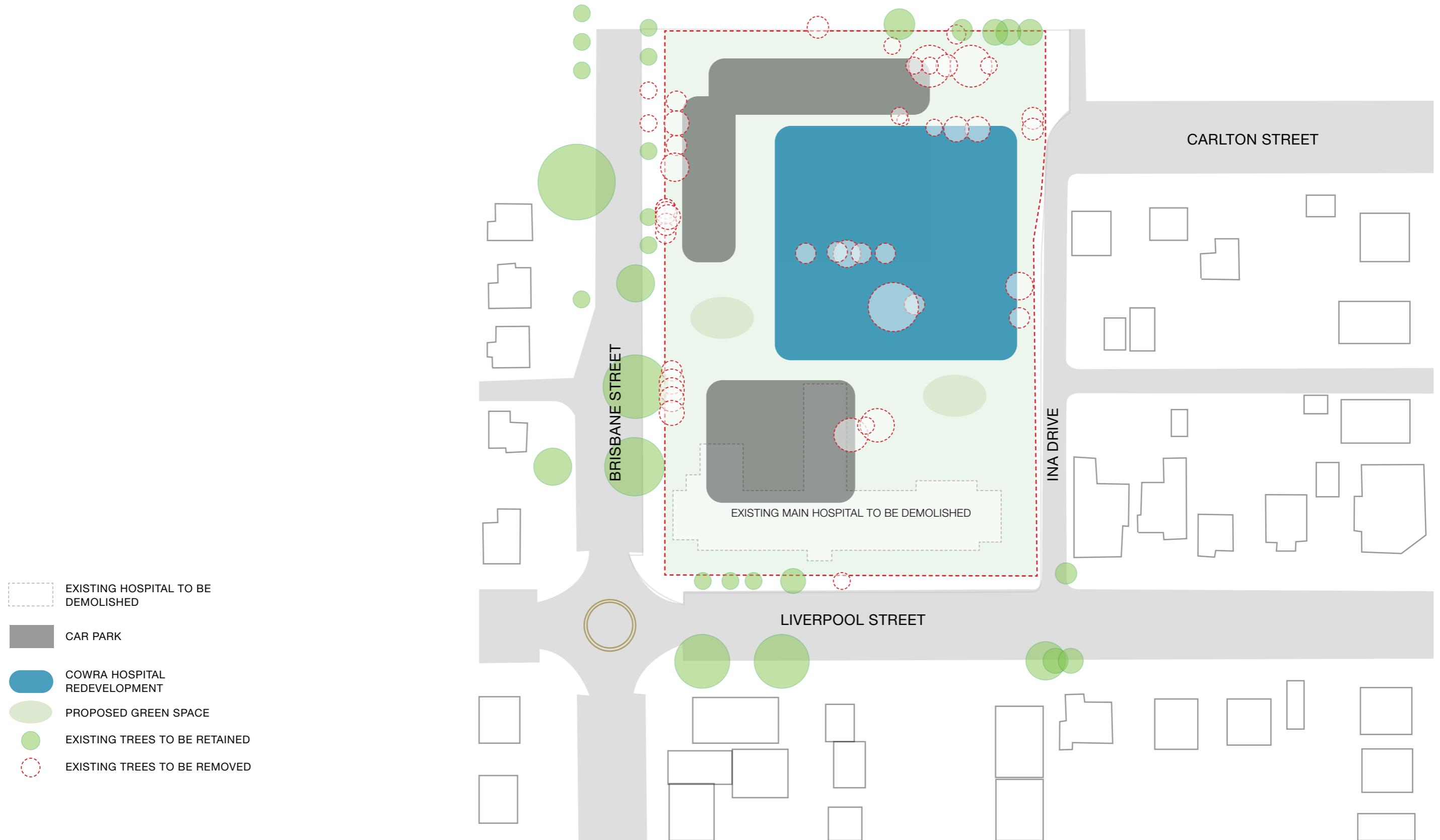
Consider the building mass within the wider environment and topography

Provide amenity to the community



### 3.0 Design Concept

#### 3.3 Zonal Master Plan - Strategic Land Use



### 3.0 Design Concept


#### 3.4 Site Setting


The new building will be located on the elevated northern portion of the site, bounded by Liverpool Street to the south, Brisbane Street to the west, and Ina Drive to the east.

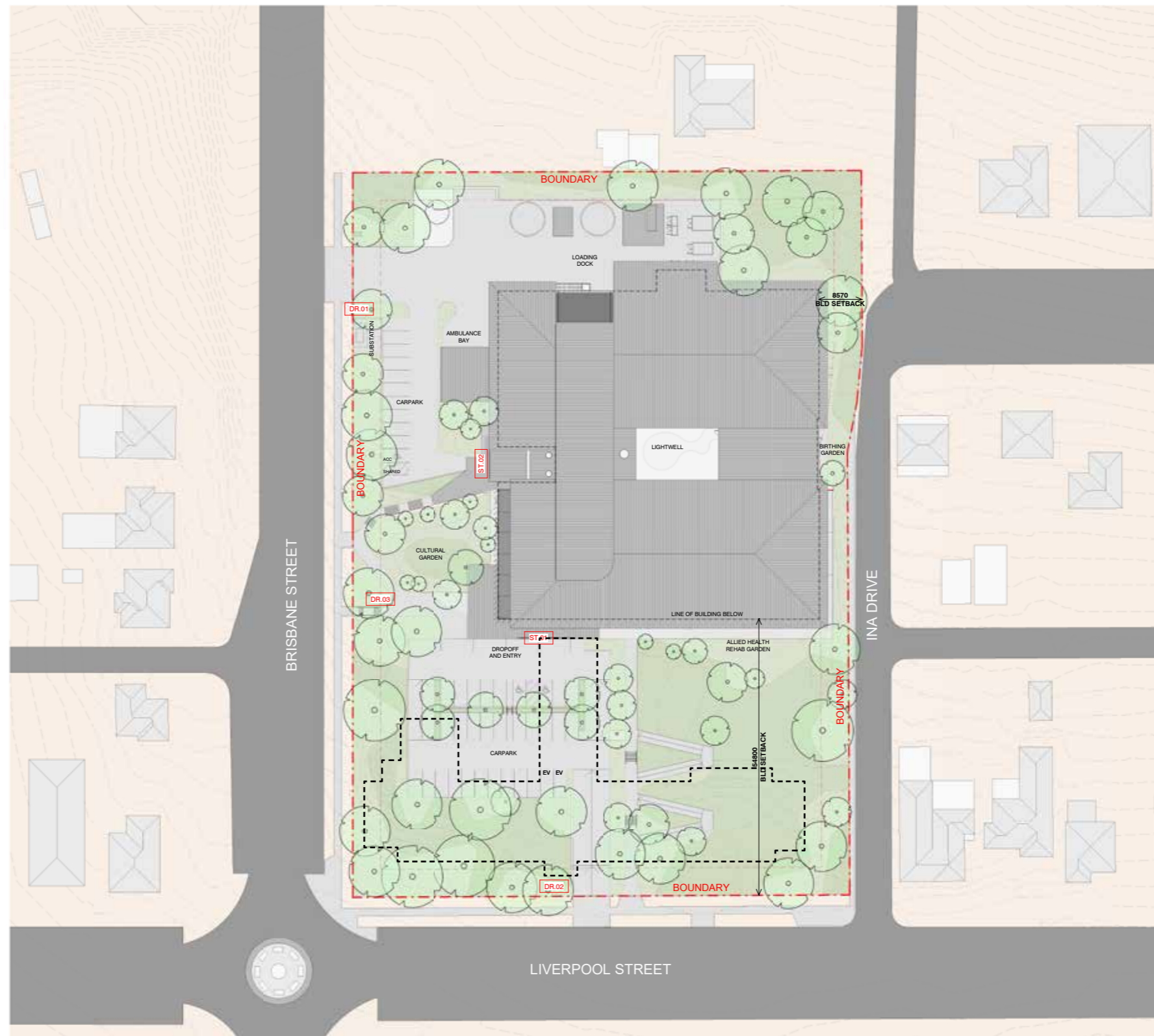
A key parameter in locating the new hospital to the rear of the site is to maintain the existing health service in the existing building through construction.

This location allows for services and clinical/paramedic access off Brisbane Street to the Emergency Department, separated from visitor and patient access off Liverpool Street. The ground floor makes use of the sloping land and occupies a smaller footprint than the first floor. The double storey facade enhances access to views, particularly to southern Cowra as the topography falls to the south.

From the ground floor, external views towards the landscape are amplified by locating the carpark further away from Ambulatory Care to accommodate more

 PROPERTY BOUNDARY

 OUTLINE OF EXISTING HOSPITAL BUILDING



SITE PLAN - NTS

### 3.0 Design Concept

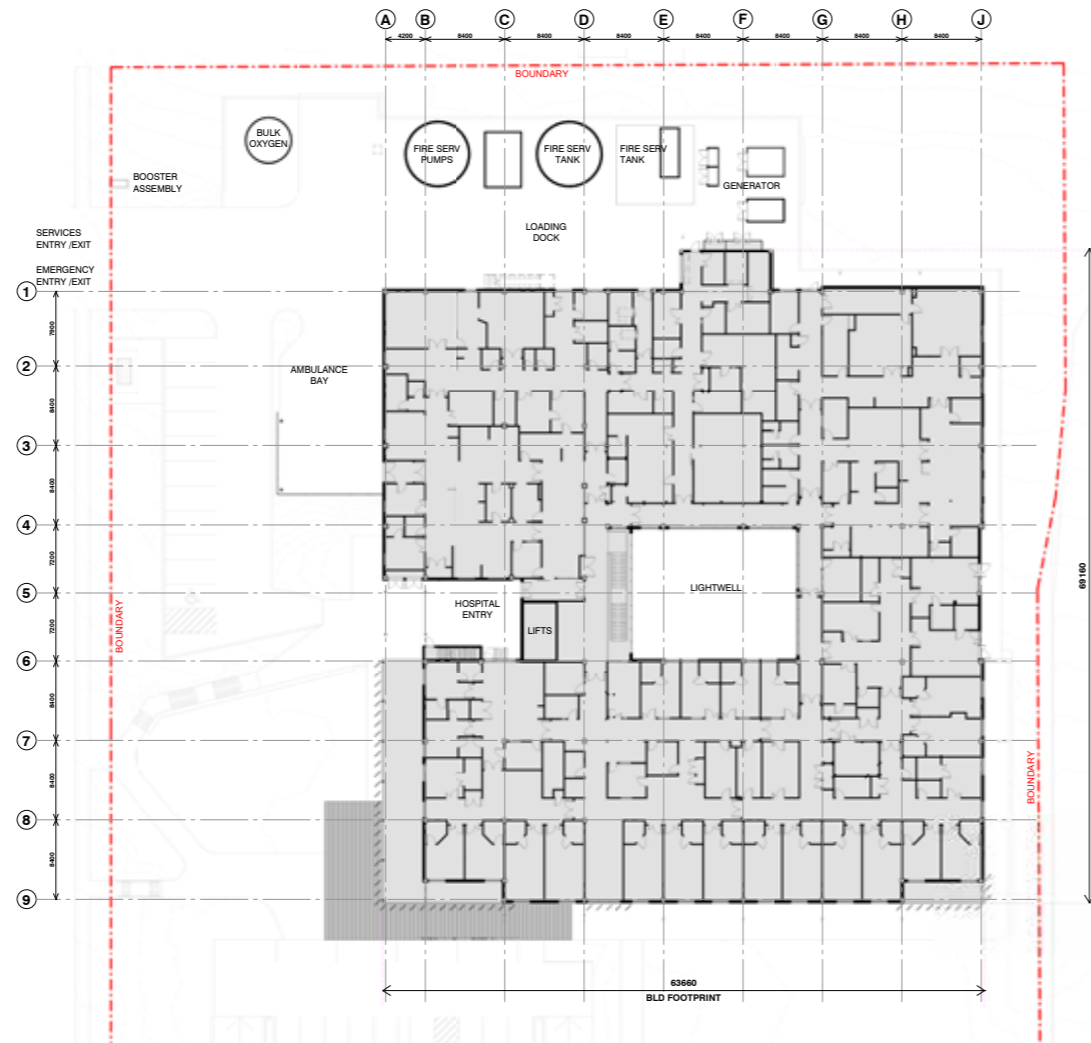
#### 3.6 Architectural Drawings

The design locates clinical services and back-of-house services on the first floor, and non-clinical services and main entry on the ground floor, along with the main entry.

The design maximises the fall of the terrain, while consideration towards levels has resulted in the building being raised a metre on the upper floor to minimise excavation.

Separate car parks serve the two levels reducing conflicts between the public and staff, ambulances and services.

A central lightwell increases natural daylight access to the centre of the first floor and ground floor.

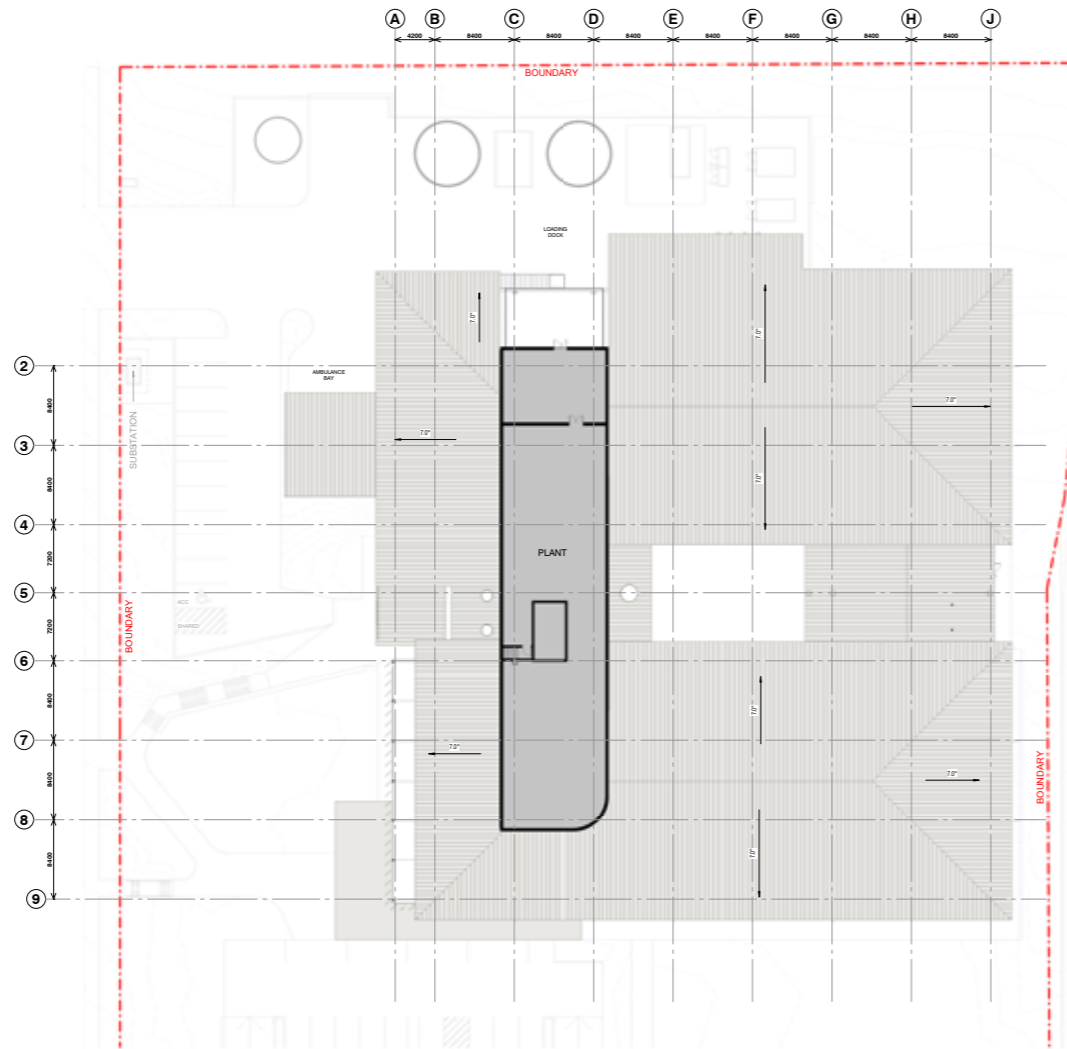


FIRST FLOOR PLAN  
NTS

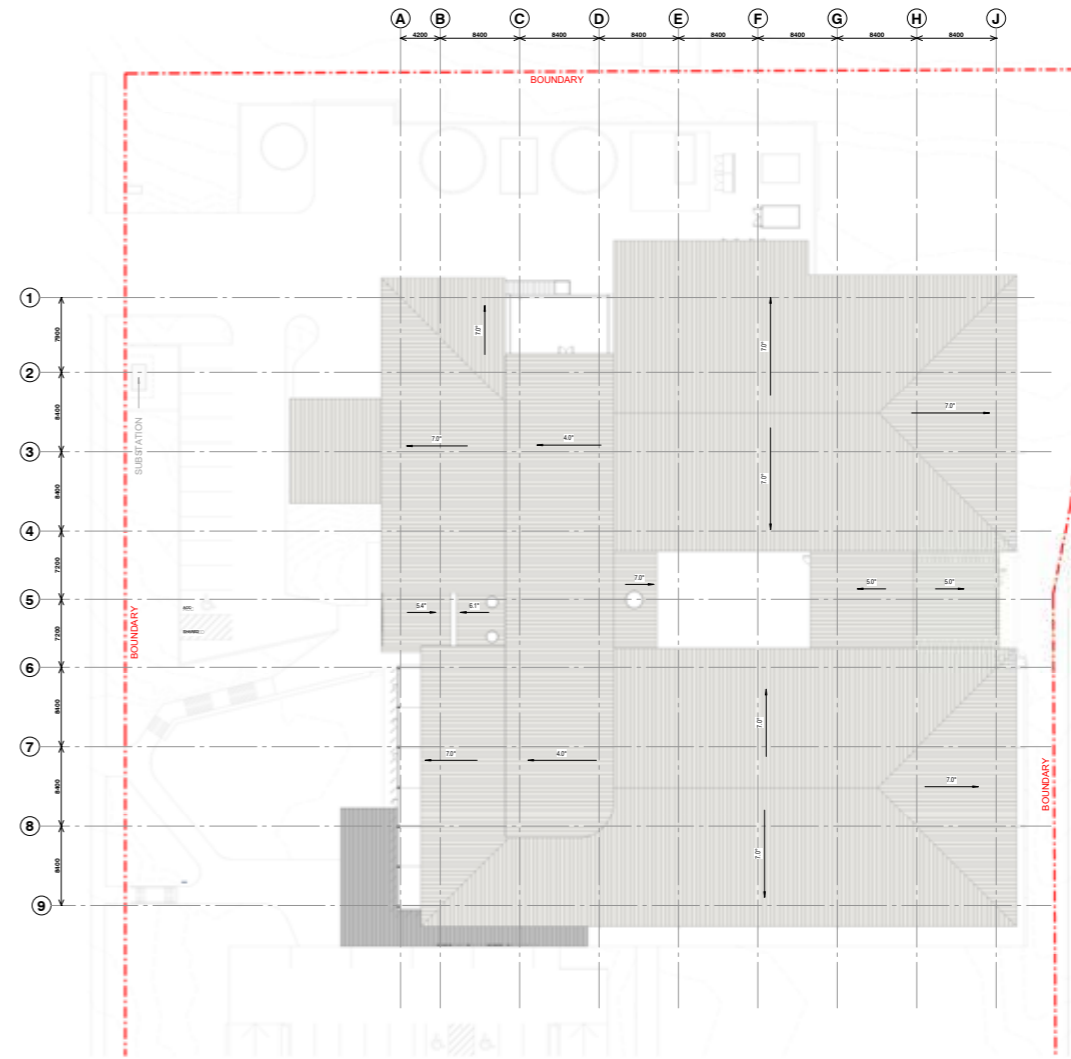


GROUND FLOOR PLAN  
NTS

3.0 Design Concept  
3.6 Architectural Drawings



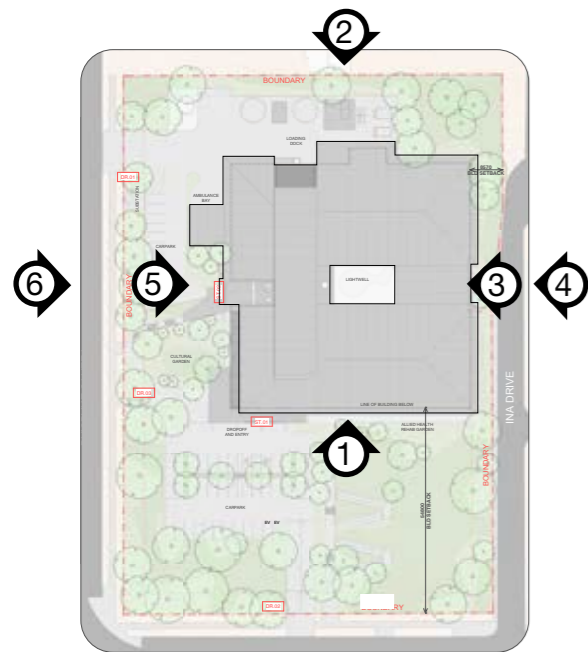
PLANT FLOOR PLAN  
NTS



ROOF PLAN  
NTS

### 3.0 Design Concept

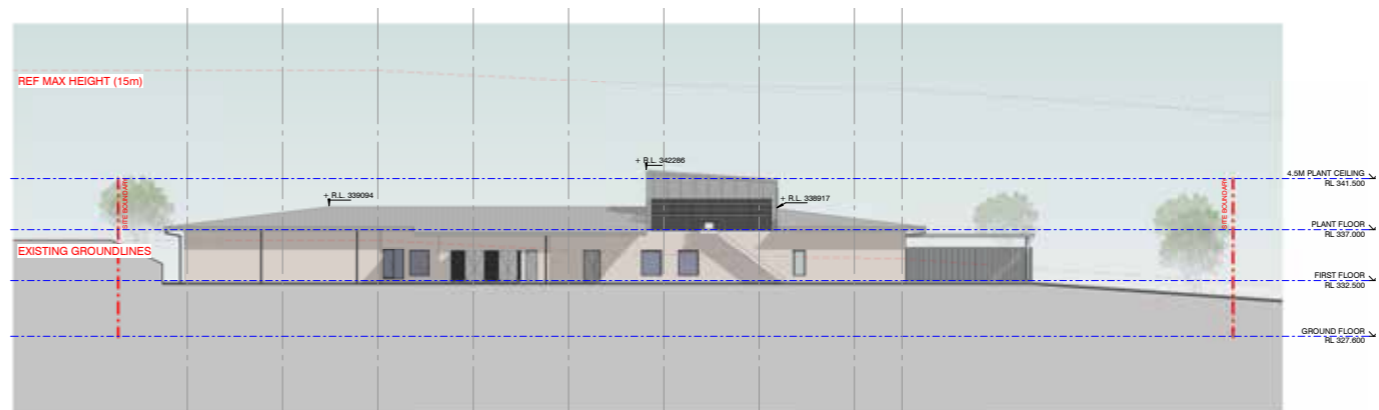
#### 3.8 Architectural Drawings



PROPOSED SITE PLAN



1. ELEVATION | SOUTH



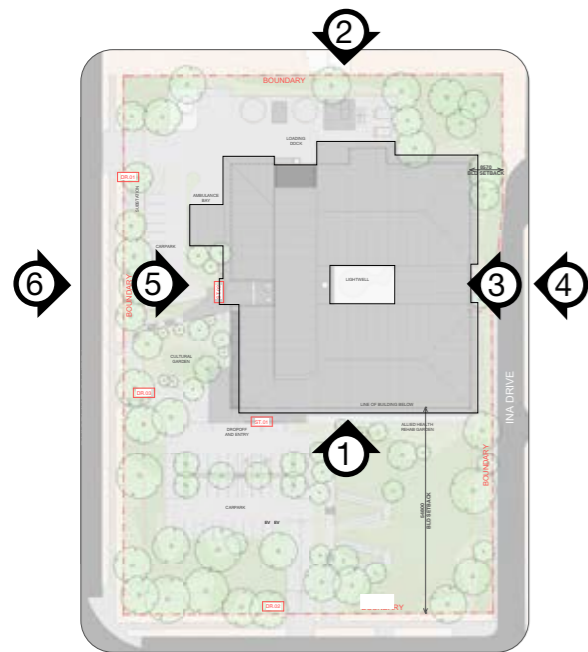
2. ELEVATION | NORTH



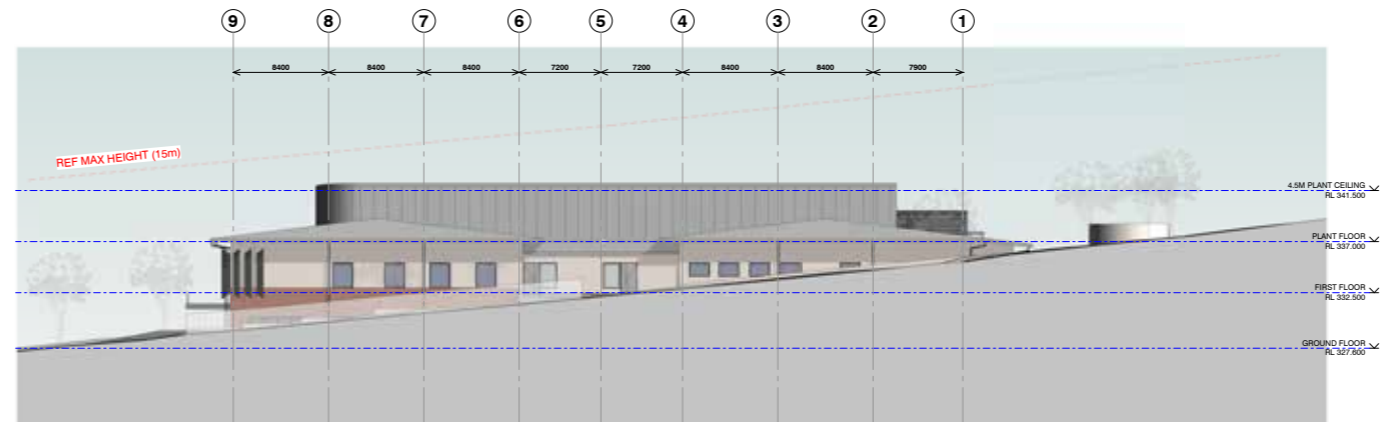
3. ELEVATION | EAST

### 3.0 Design Concept

#### 3.9 Architectural Drawings



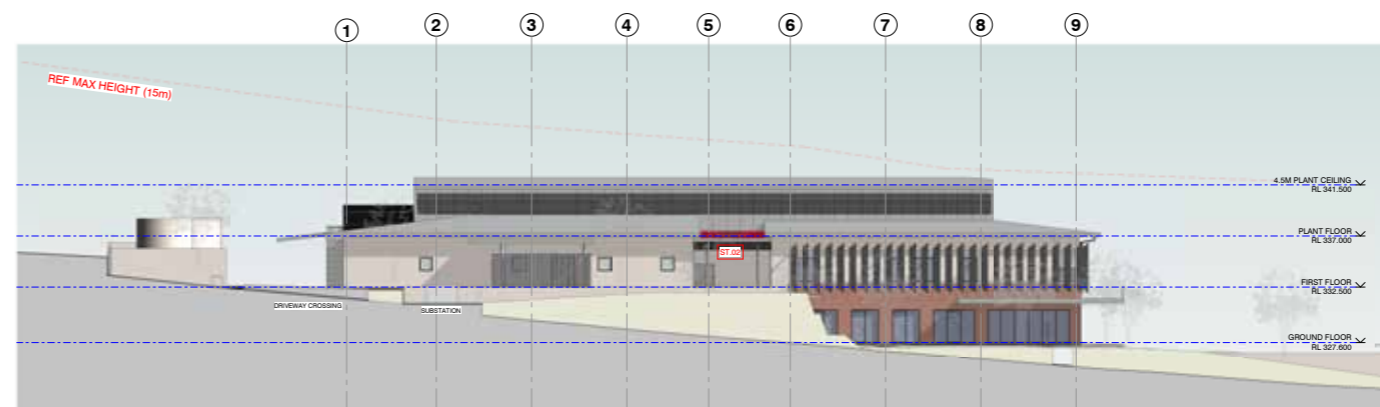
PROPOSED SITE PLAN



4. ELEVATION | INA DRIVE

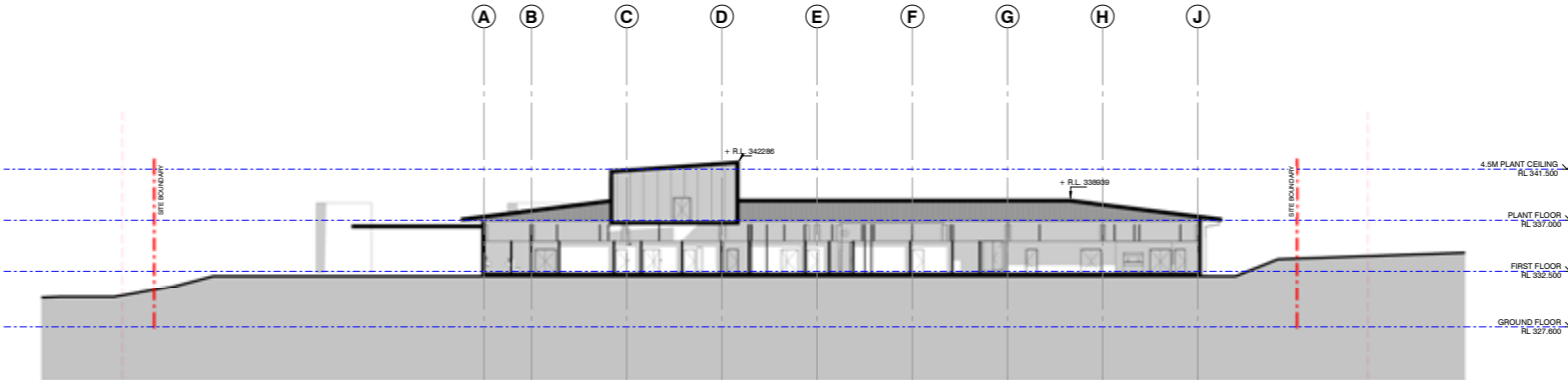


5. ELEVATION | WEST

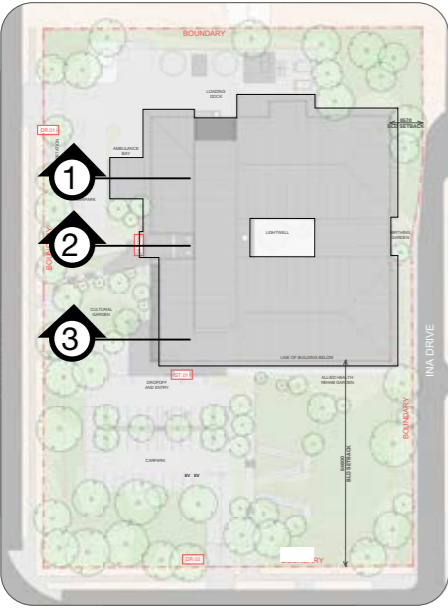


6. ELEVATION | BRISBANE STREET

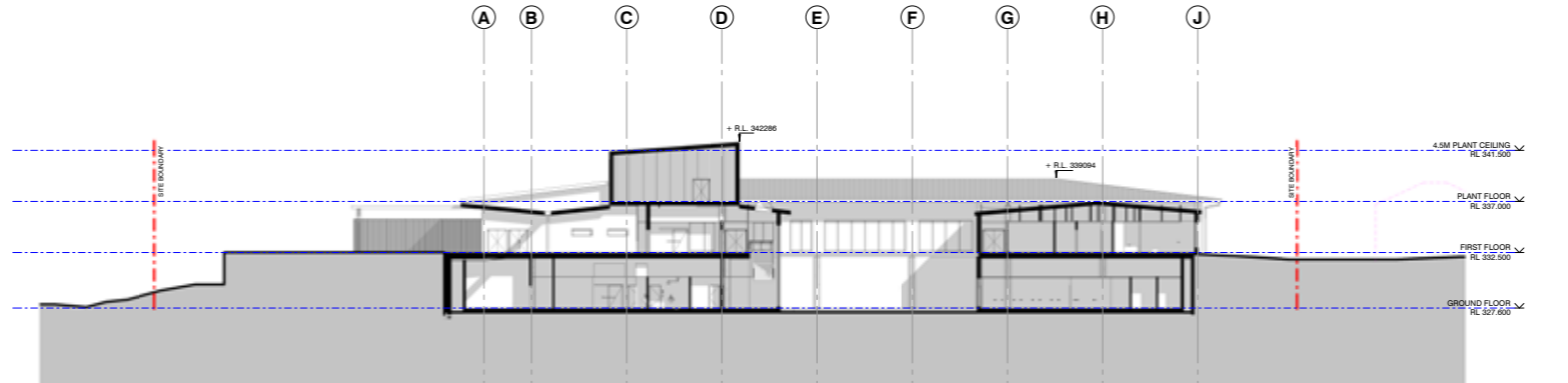
3.0 Design Concept  
3.9 Architectural Drawings



1. SECTION



PROPOSED SITE PLAN

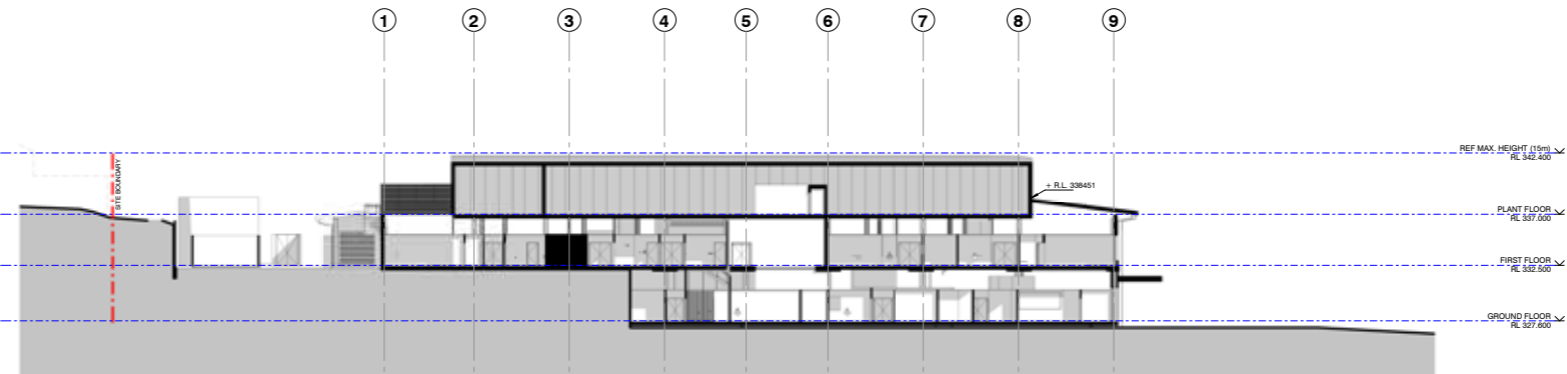


2. SECTION



3. SECTION

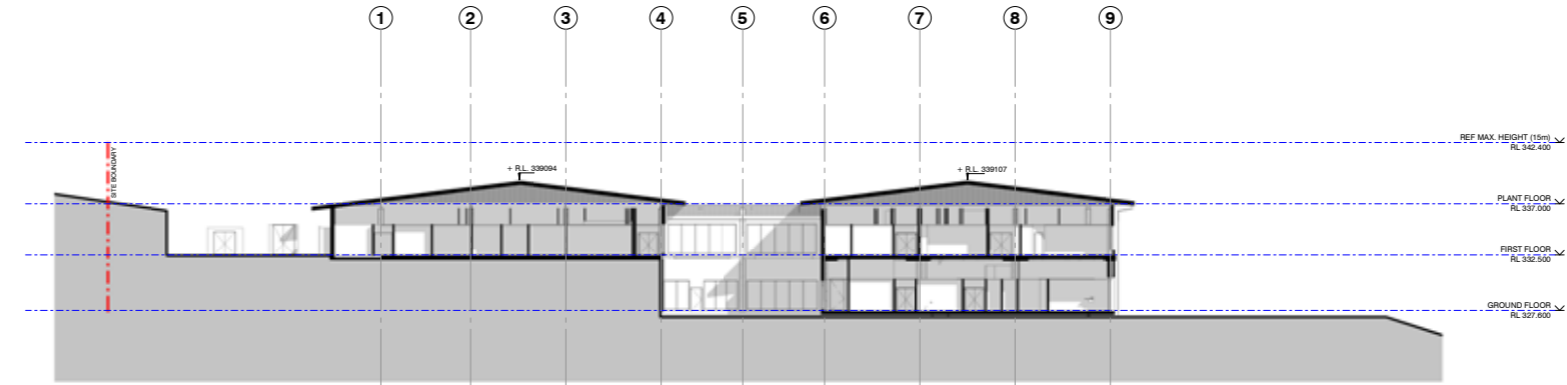
3.0 Design Concept  
3.9 Architectural Drawings



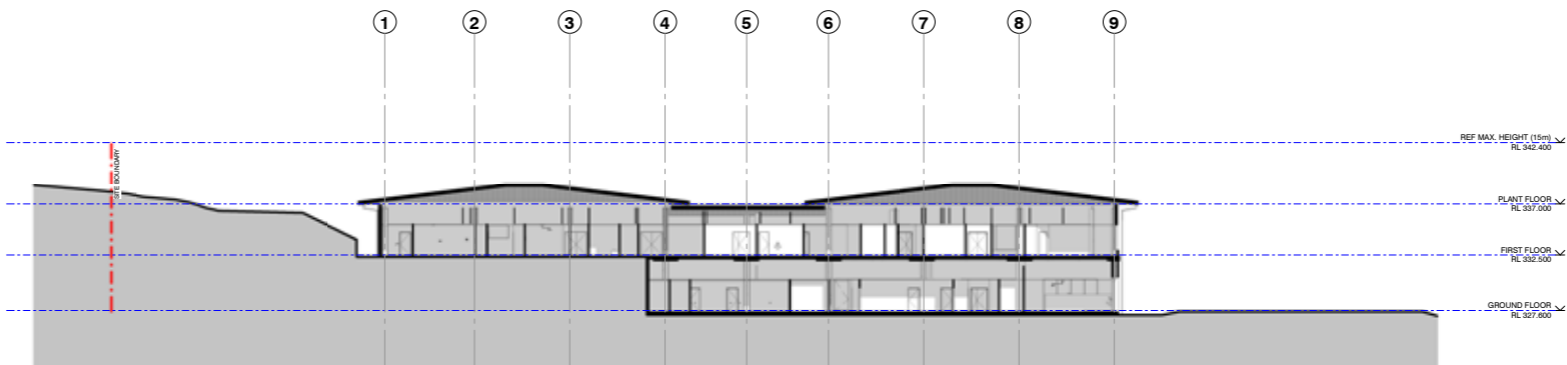
4. SECTION



PROPOSED SITE PLAN



5. SECTION



6. SECTION

## 4.0 Built Form & Urban Design

### 4.1 Site Access & Building Access

Hospital access is separated into distinct entries for staff & logistics, emergency (ambulance, public), and the main public building entry.

The upper car park to level one (accessed from Brisbane Street) provides vehicle access for ambulances, services, while the public can access the waiting area to the Emergency Department on the first floor. Ambulance entry to the building is via the ambulance drop off area. The staff and logistics entry is via the Non-Clinical Services entry.

The ground level public carpark is accessed off Liverpool Street and is adjacent to the main building entry. A public path provides pedestrian access to the main entry.

The security associated with the above entry points, along with connections to external courtyards and seating areas throughout the building will be refined during Schematic Design including exits required by the BCA/NCC.

-  STAFF & LOGISTICS ENTRY
-  AMBULANCE ENTRY
-  PUBLIC ENTRY
-  DROP OFF DRIVEWAY
-  PEDESTRIAN ENTRY



SITE PLAN - FIRST FLOOR PLAN  
NTS



SITE PLAN - GROUND FLOOR PLAN  
NTS

4.0 Built Form & Urban Design

4.2 Car Parking

Car parking is separated into staff & logistics, emergency (ambulance, public), and the main public car park.

Parking adjacent to the Emergency Department is provided for ambulance drop off, and staff parking.

A public parking zone will be provided to the south of the main building, providing on grade access to the main entry.

CAR PARKING

FIRST FLOOR

- 9 car parking space
- 1 Accessible space

GROUND FLOOR

- 3 Accessible spaces
- 5 Drop off spaces
- 2 Electric vehicle charging spaces



SITE PLAN - FIRST FLOOR PLAN  
NTS



SITE PLAN - GROUND FLOOR PLAN  
NTS

## 4.0 Built Form & Urban Design

### 4.3 Building Levels

The relative level (RL) of both the first floor and ground floor levels of the hospital building have been influenced by the location of driveways for vehicle access and the required changes in levels from existing topography at the boundary.

The first floor is located on the higher portion of the site to minimise excavation. The location of the driveway to access the first floor allows for ambulance access and service access from Brisbane Street, distanced from the roundabout.

The location of the ground floor (under part of the first floor) takes advantage of the sloping groundline. Public/visitor access and DDA access is provided via a driveway and path from Liverpool Street.

Adverse issues resulting from the overland flow of stormwater are also minimised because of the high position of the building.

The undercroft ground level will be at a relative level that minimises excavation of existing rock. A floor to floor height of 5.1m is used to achieve recommended ceiling heights for clinical services and adequate ceiling space for building services reticulation.

### 4.4 Building Fabric

Building fabric elements will be selected to meet NCC 2022 requirements in terms of fire resistance; combustibility levels and thermal capacity. Building systems will also have to meet the structural requirements appropriate to Building Importance Level 4.

Building fabric options will also have to achieve optimum value in terms of durability, maintenance and buildability in this regional location. The building will comprise of a concrete structure with concrete floor slabs. Gable and skillion roofs will be Colorbond sheet steel at a shallow gradient, with exposed eaves gutters.

The design intent is to articulate a contemporary interpretation of the strongly coloured masonry construction & other architectural elements, such as the prominence of traditional pitched roof profiles, common in the architectural heritage of Cowra.

Internal walls will be generally plasterboard lined steel stud walls with appropriate fire, thermal and acoustic ratings. Detailed building fabric proposals will be developed in the Schematic Design phase.

### 4.5 Building Articulation

The massing of the building will feature articulated elevations, with a split level elevation along Brisbane Street and Ina Drive, and a two-storey elevation along Liverpool Street. Given the length, the building facade will require consideration regarding material differentiation and layering/indentation, as well as windows and glazing to break up the apparent mass/scale of the building. The main entry points are intended to be setback as indents in the building, to indicate arrival points.



## 4.0 Built Form & Urban Design

### 4.6 Wayfinding

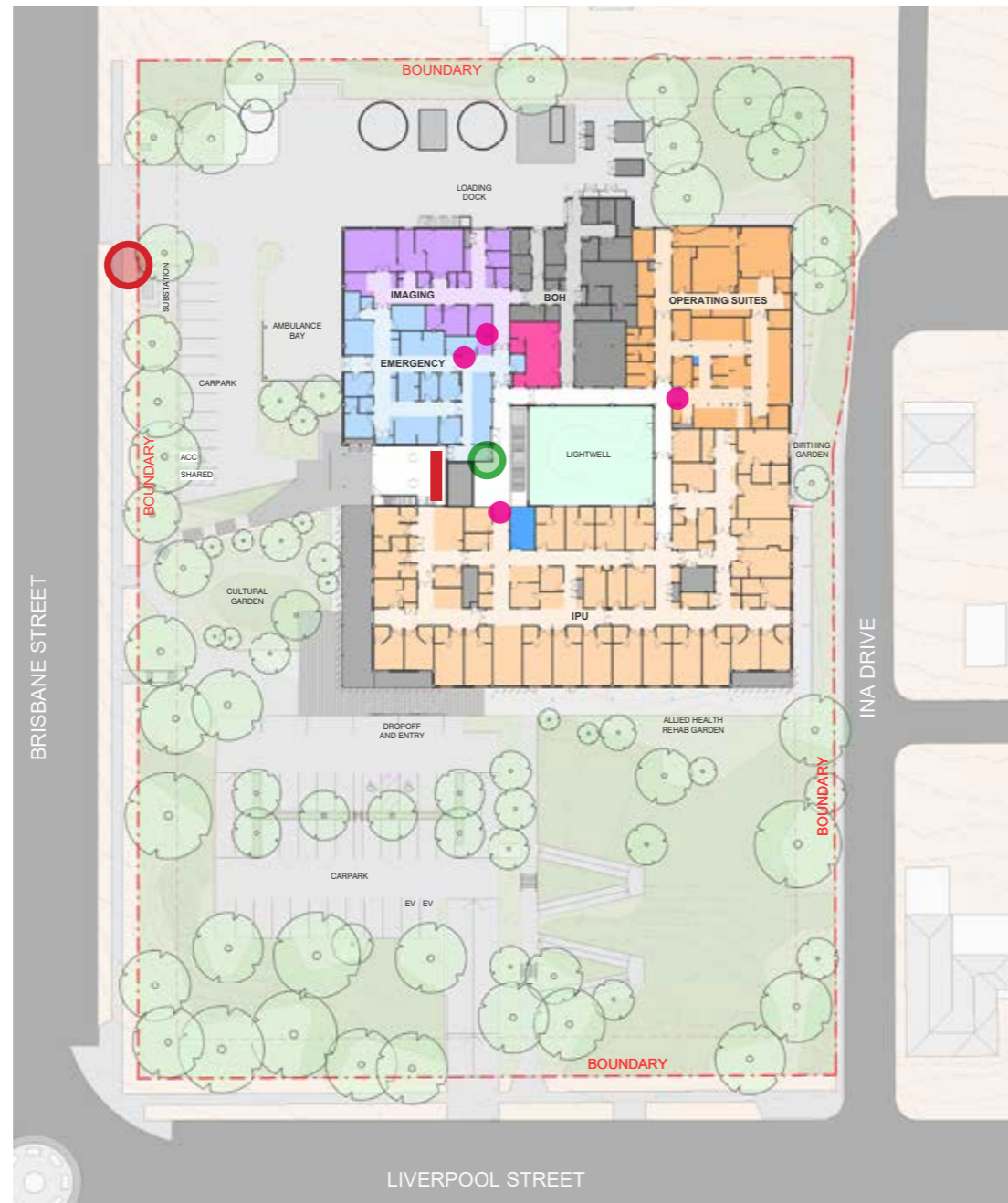
Given the reconfiguration of the site and building access, new signage will be required within the public domain to indicate relevant access.

Approaching from Liverpool Street, visitor arrival through the landscape for vehicles and pedestrians will emphasise the importance and approach to the main entry. The reception, waiting and lifts to the emergency entry (on first floor), will be evident from the main front of house façade.

Preliminary building signage, directional signage locations, and department signage locations are as indicated in the adjoining diagrams.

Signage drawings have been included in the architectural drawing pack as part of the REF submission.

- 'Cowra Hospital' sign
- 'Emergency' sign
- Directional Road Signage near roundabout (indicating directions to ED)
- Building Signage Entry for: ESV, Logistics, ED Car park
- Building Signage Main Entry
- Directional Signage
- Department Signage



SITE PLAN - FIRST FLOOR PLAN  
NTS



SITE PLAN - GROUND FLOOR PLAN  
NTS

## 5.0 Environmental Response

### 5.1 Visual Impact Statement

A number of views have been reviewed from major intersections towards the new Clinical Services Building. The governing design principal for siting orientates the building towards the Griffith CBD to the south maintaining the current address. The massing of the 3-4 storey plus plant building is split into two main components through the inclusion of the front entry court and central courtyard. The parkland setting and landscape solutions will reduce the impact of the scale of the building from surrounding streets.

In the following visual impact studies, landscape has not been illustrated so that visual impacts can be annotated.

#### Key Plan



- (A) View from Brisbane Street
- (B) View from Liverpool Street
- (C) View from Liverpool Street

#### View A from Brisbane Street



Viewed from Brisbane Street, the hospital sits on the elevated portion of the site. The hospital's lower overall height and setbacks enable greater district views than there are currently.

## 5.0 Environmental Response

### 5.1 Visual Impact Statement

View 2 from Liverpool Street



View 3 from Liverpool Street



Driving north through Brisbane Street from Cowra town centre, the two-storey southern elevation is visible. The building's position at the back of the elevated site provides more landscaped space and solar access along Liverpool Street. The lower height of the new building also shows more of the Billy Goat Hill landscape behind.



Driving north through Brisbane Street from Cowra town centre, the two-storey southern elevation is visible. The building's position at the back of the elevated site provides more landscaped space and solar access along Liverpool Street. The lower height of the new building also shows more of the Billy Goat Hill landscape behind.

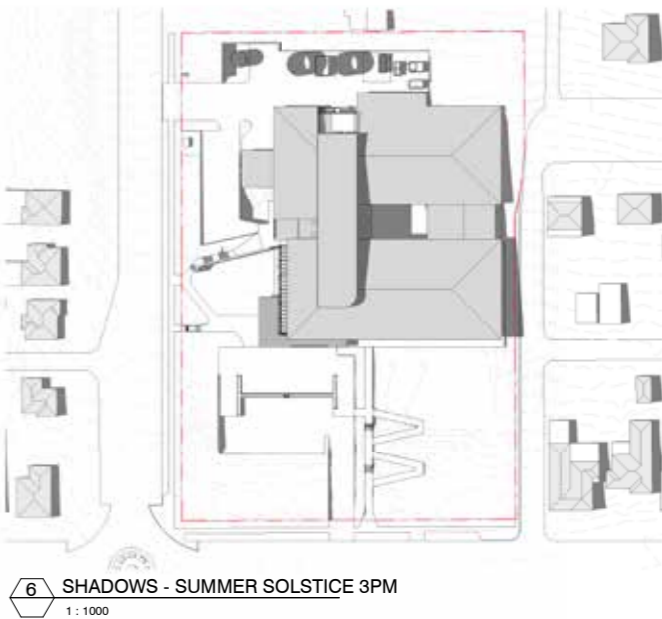
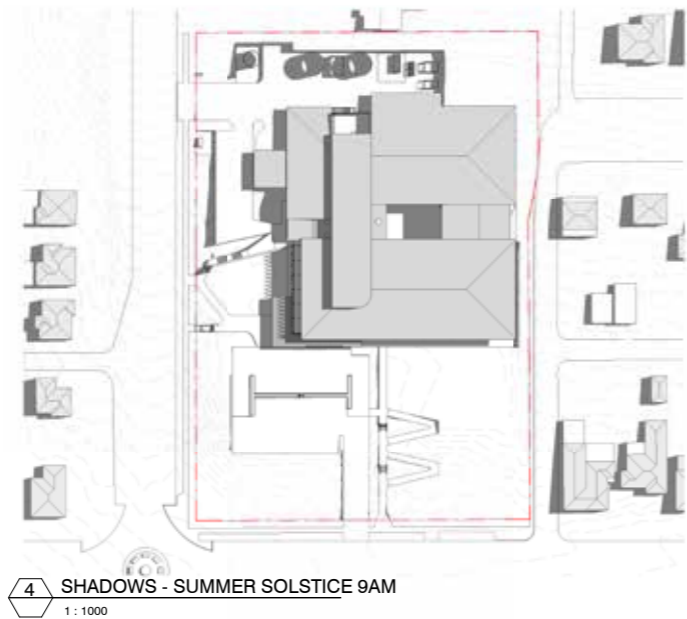
5.0 Environmental Response

5.2 Shadow Diagrams

Shadow Diagram Analysis

The shadow diagrams prepared for the development provide an analysis of the proposal's shadow impacts. For the most part, winter shadows from the building do not impact neighbouring properties, except for some afternoon shadows to residential properties at the east. The shadows generated by the proposed building actually represent a reduction in shadows cast compared to the existing hospital and former Nurses' Home buildings.

The development provides greater winter solar access to Liverpool Street and the public landscaped space.



## 5.0 Environmental Response

### 5.3 Sustainability

#### Sustainability

HI is committed to improving the environmental sustainability performance of the projects it delivers and the ESD strategy aligns with the objectives of the Department of Planning, Industry and Environment (DPIE).

The minimum ESD performance requirements for the development overall are as followed:

- Compliance with NCC2022 Section J Energy Efficiency Requirements;
- 10% Improvement from the minimum NCC2022 Section J Energy Efficiency Requirements; and
- 4-Star Green Star Design & As Built v1.2 equivalent design

#### Part J1 Building Fabric

The Part J1 of Section J for Building Fabric has been demonstrated to be compliant with the JV3 performance requirements, with the Contractor to uphold.

#### Part J3 to Part J8

The Contractor shall comply with all DTS performance requirements of Part J3 to Part J8 as shown in the following list:

- Part J3 – Building Sealing
- Part J5 – Air Conditioning and Ventilation Systems
- Part J6 – Artificial Lighting and Power
- Part J7 – Hot Water Supply and Swimming Pool and Spa Pool Plant
- Part J8 –Facilities for Energy Monitoring

Compliance with BCA Section J Part J3 to Part J8 as listed above are the responsibility of the relevant consultants & contractors

#### Green Star

The proposed development will achieve an equivalent design that meets Best Practice 4 Star Green Star Design & As Built v1.2.

## 6.0 Consultation

### 6.1 Community Consultation

Consultant and User engagement is fundamental to the success of all projects. The Design of the Redevelopment of Cowra Hospital has been developed in tandem with feedback provided through several rounds of meetings with various project stakeholder groups. These have included:

- Community Forums and Focus Groups
- Aboriginal Consultation Group
- Consumer Representatives
- Medical Staff Council
- Government Architect / State Design Review Panel (SDRP)
- Executive User Group (EUG) consultation meetings
- Health Infrastructure Expert Reference Group meetings (ERG)
- Departmental Project User Group (PUG) consultation meetings

Consultation with both Aboriginal Staff and Patrons has occurred through a dedicated focus group in addition to a Consumer Consultation Group that provides the opportunity for Community Feedback through the design period to ensure that the needs of these community groups are catered for.

The Project User Groups provide expert clinical and operational planning input to guide design. A number of meetings have been convened with special interest groups to consider broader campus wide and community issues.

#### Connecting with Country Workshops

Consultation with the local Aboriginal community has occurred throughout the design process with the intent of incorporating and developing cultural awareness into the design.

Consultation has incorporated:

- Walking Country - 24.03.22
- Aboriginal Design Reference Group Session 1 - 21.07.22
- Aboriginal Design Reference Group Session 2 - 13.09.22

A Connecting with Country Strategy has been prepared to respond to the lessons heard throughout consultation, identify overarching design principles and clear conceptual approaches for interior and landscaped spaces.

The Connecting with Country Strategy has been appended to this document.

## 6.0 Consultation

### 6.2 Design Response

The building has developed in response to feedback from Health Infrastructure's Design Review - ERG and Internal Review from Wade Sutton. A summary of the key input and design responses has been outlined below;

#### Health Infrastructure Internal Design Review (Wade Sutton) 14th June 2022

This internal Health Infrastructure design review was based on feedback provided by Wade Sutton and assessed an early iteration of the design in transition from concept design to early schematic design. At this point, the building articulation was still being developed, and the project scope and budget increase had yet to be announced.

A key part of this review was to assess the entry sequence to the Hospital. In regional hospitals, it has been identified that a single entry is desirable as during overnight operations, the Emergency Department is often the only reception point available. Due to the limited site footprint and steeply sloping site at Cowra, a two-storey design solution with the Emergency Department on the First Floor and Ambulatory Care on the Ground Floor required the project to have two entries, one on Ground Floor and the other on the First floor.

Several Design Options were presented that explored various entrance options to the Hospital and the locations of lifts and stairs between the levels. This design review identified that the single-entry option would not work and that the site solution would require separate entrances on each level. It also determined that there was a need to optimise both physical and visual connectivity between these entrance spaces. The review recommended that design studies further explore the location of lifts and stairs between the levels to improve wayfinding opportunities to maximise patron convenience.

The design review noted that it was very early in the design process and that the design principles presented regarding building massing, roof form, and façade articulation could be made to work. The design review recommended that the design options be prepared further and be presented in a more holistic context of the site, including landscape design focussing on the proposed entry boulevard, landscaped spaces & parking areas.

Following this review, the project team continued to develop the schematic design response taking into consideration the feedback received. Concurrent with the design evolution, the design team incorporated into the design response the additional scope (that was added as a result of the increase in the project budget announced in the NSW Budget).

#### HI Executive Reference Group Review (ERG) 10th August 2022

This HI Executive Reference Group meeting reviewed and assessed an early iteration of the Architectural Schematic Design. At this point, the increased project budget had been announced, and the design team had preliminarily modified the design to incorporate the increased project scope. The design solution had evolved to include two east-west pavilions linked together at the first-floor level around a central double-height courtyard space. The plant space was located at an upper level of the northern pavilion in the northwest corner of the site.

The project team presented an overview of the initial Department Planning and circulation systems to the ERG, which was generally well accepted. As with the earlier Internal HI Review, the ERG identified the need to resolve the vertical circulation between the ground floor and first floor and provide differentiation between the two entries.

The ERG identified that the project occupied a relatively large building footprint and had a large expanse of roof. They acknowledged that whilst the gable forms of the east-west pavilion forms did provide strong articulation of the building volume, they felt that the strong gable forms implied a domestic type use. The ERG felt that whilst expressing building volumes was important, their view was it could be achieved more subtly and recommended that the project team consider breaking up the roof forms differently. The ERG also felt that the main entrance needed to be expressed more strongly in the building form and recommended that the project team consider modifying the elevations to apply a more civic approach. The ERG also suggested the project team explore how the plant room volume should be dealt with, whether through a third floor for the southern pavilion or to incorporate the plant space within the gable roof volumes.

Following this review, the project team continued to develop the schematic design taking into consideration the feedback received. The project team focussed on refining the departmental planning taking into account Project User Group feedback that was being received concurrently with the ERG Feedback. During this period, the project team developed a series of building form studies that addressed many aspects of the ERG feedback.

#### HI Executive Reference Group Review (ERG) 21st September 2022

This HI Executive Reference Group meeting reviewed and assessed an overview of the proposed Landscape Response and a series of Building Form Studies.

The Form Studies included the previous gable form option, developed to improve the appearance of the façade articulation, along with four other options that explored different roof forms with the plant room volume in differing locations.

The project team had identified two of these options as more preferred solutions, which had been developed further. These solutions had relocated the plant room volume as a north-south spine along the western side of the building and expressed its presence in the primary (southern) façade facing Liverpool Street. These design solutions identified brick/masonry and unitised panels as the primary proposed cladding systems. The project team also presented an overview of more resolved Department Planning and circulation systems to the ERG, which was generally well accepted. The ERG expressed the view that the entry to the Emergency Department on the First floor would be more welcoming if the lifts were rotated 90 degrees to achieve an expansive view of the courtyard from the entry.

The ERG acknowledged that the articulation of the preferred schemes was much improved and that lowering the roof pitch had taken the focus away from the roof form, and the design presented a more civic presence. The ERG noted that it was necessary from a wayfinding perspective for the entries to be strongly articulated. However, using the plant room volume to accentuate the ground floor entry was unnecessary, and this could be achieved more subtly. They also noted that the plant room in the form presented was slightly oversized and would need to be reduced in size to suit the project budget.

Following this review, the project team could concentrate on simplifying the preferred solutions considering the feedback received. The project team further resolved the departmental planning whilst continuing to respond to Project User Group and ERG Feedback. During this period, the project team developed the preferred design solution by maintaining the north-south plant room form along the western side in a slightly reduced area aligned with the technical requirements of the space.

## 6.0 Consultation

### 6.2 Design Response

#### HI Executive Reference Group Review (ERG) 16th November 2022

This meeting of the HI Executive Reference Group reviewed and assessed the developed preferred Architectural solution and reviewed the departmental planning in greater detail. A separate Engineering Review was organised for the following week.

Given that the review was more focused on one design solution, the ERG members' feedback was more specific. The ERG acknowledged that the Architectural Design had come a long way and felt that views of the lightwell had improved, and they expected that this would enhance wayfinding opportunities.

The ERG also provided feedback on materiality (the project was not large enough for precast, that care has to be applied regarding the use of fibre cement cladding as there have been previous issues, etc.). Other feedback related to potential budget and maintenance issues (minimise & standardise glazing systems, ensure maintenance is considered regarding the centralised courtyard space etc.).

The design team resolved to consider the feedback and develop the design as required.

#### HI Executive Reference Group Review (ERG) 23rd November 2022

This HI Executive Reference Group meeting reviewed and assessed the Engineering Consultants' Schematic Design response, including Civil, Traffic, Structural, Mechanical, Electrical & Hydraulic Disciplines.

The ERG review sought responses and asked the Project Team to consider the following key issues;

- Civil - implications of staging, opportunities for stockpiling of soil on site given the extent of excavation and limited site areas, detailing of retaining walls,
- Traffic - operational issues relating to car park use,
- Structure – Lightweight framing systems to be documented as this is likely to be the contractors' preferred solution in regional areas
- Mechanical – suitability of different AC systems and duct reticulation, including supply and return systems to perip spaces, operation of systems to suit ventilation requirements and the need to consider mechanical maintenance requirements in plant room design
- Electrical – to review opportunities to use electric heating rather than gas
- Hydraulic – to check opportunities to use electric hot water heating rather than gas and review water reuse opportunities and quality  
The design team resolved to consider the feedback and develop the design as required.

The design team resolved to consider the feedback and develop the design as required.