TEMORA HOSPITAL, NSW

Murrumbidgee Local Health District
Schematic Design Report
March 2024

SCHEMATIC DESIGN REPORT
Version: V4.0
Date: 10/03/2025
Prepared by: HDR
Approved by: Jacqui Straesser
File name: 130908-HDR-AR-RPT-003A

Nominated Architect
Catriona Jane Cowlishaw
NSW 10786 / VIC 15211
hdrinc.com.au
HDR Pty. Limited ABN 76 158 075 220 trading as HDR.

Sydney
Level 24, 25 Martin Place
Sydney, NSW 2000
T +61 2 9956 2666

Document history, status and distribution

Version	Date	Status	Prepared by	Reviewed By	Approved By	Issued to	Comments
0	29/01/2024	Draft	HDR	Alan Boswell	Jacqui Straesser	CI	DRAFT
1.0	23/02/2024	Final	HDR	Alan Boswell	Jacqui Straesser	CI	
2.0	07/03/2024	Final	HDR	Alan Boswell	Jacqui Straesser	CI	
3.0	03/12/2024	Final	HDR	Jason Roberts	Jacqui Straesser	CI	
4.0	10/03/2025	Final	HDR	Jason Roberts	Jacqui Straesser	CI	

Acknowledgment of Country
Wiradjuri

We acknowledge that Temora Hospital sits on the land of the Wiradjuri people whose culture and customs have nurtured, and continue to nurture this land. We pay our respects to elders past, present and emerging.

TABLE OF CONTENTS

01 Executive Summary

02 Terms of Reference
- 2.1 Project Team
- 2.2 Methodology & User Engagement
- 2.3 Documentation Review

03 Site Review
- 3.1 Site Location
- 3.2 Site Summary
- 3.3 Site Investigations

04 Development Proposal
- 4.1 Clinical Service Planning/Service Statement
- 4.2 Design Principles
- 4.3 Functional Planning
- 4.4 Master Plan
- 4.5 Site Infrastructure Master Plan
- 4.6 Schedule of Accommodation (Design Vs Brief)
- 4.7 Variances From CD/AusHFG
- 4.8 Schematic Design
- 4.9 Infection Control
- 4.10 Staging Plans

05 Architectural Design
- 5.1 BIM Management Plan
- 5.2 Architectural Intent
- 5.3 Site Setting
- 5.4 Site Access
- 5.5 Car Parking
- 5.6 Building Levels
- 5.7 Building Access
- 5.8 Security and Access Control Zones
- 5.9 Fire Compartments
- 5.10 Modularisation/Standardisation
- 5.11 Materials
- 5.12 Impacts On Existing Departments/Services
- 5.13 Future Proofing and Expansion
- 5.14 Facade
- 5.15 Landscaping
- 5.16 Way Finding
- 5.17 Furniture, Fixtures, and Equipment Transfer Strategy
- 5.18 Safety In Design

06 Infrastructure Review
- 6.1 Structural
- 6.2 Civil
- 6.3 Building Code of Australia/Disability Discrimination Act
- 6.4 Environmentally Sustainable Design
- 6.5 Mechanical and Medical Gases
- 6.6 Electrical ICT and Security
- 6.7 Hydraulic and Fire
- 6.8 Acoustics
- 6.9 Traffic and Parking

07 Design Quality
- 7.1 Response to Design Guide for Health
- 7.2 Response to NSW Government Architect, SDRP Third Review

08 Appendices
- 8.1 Architectural Plans, Room Layout & Data Sheets
- 8.2 Schedule of Accommodation
- 8.3 Preliminary Furniture, Fittings & Equipment Schedule
- 8.4 User Consultation Sign-Offs
- 8.5 Safety in Design Register
- 8.6 Landscape Report
- 8.7 Wayfinding Report
- 8.8 Connecting with Country Report
- 8.9 BCA Report
- 8.10 Services, ESD, Acoustic & Traffic Report
- 8.11 Structure & Civil Report
- 8.12 Survey
- 8.13 Geotech Report
- 8.14 Detailed Site Investigation Report
- 8.15 Hazardous Materials Report

01

Executive Summary

01_ EXECUTIVE SUMMARY

This schematic design report has been prepared by HDR on behalf of NSW Health Infrastructure (HI). It documents the outcome of schematic design studies and records the outputs of various meetings, workshops and consultations for the Temora Hospital Redevelopment. Key inputs have been received from HI, Murrumbidgee Local Health District (MLHD), community representatives, NSW Government Architect State Design Review Panel (SDRP) and indigenous consultants Yerrabingin. The schematic planning has been informed by the Temora Health Service Plan version 2.5, Temora Hospital Functional Briefs v3 (various) and design team service and infrastructure coordination. Feasibility of the schematic design has been tested against current market rates and value management undertaken to align with budget expectations.

Temora is a town of approximately 4700 people located in the north-east of the Riverina of NSW. It is 420km south-west from Sydney, 210km north-west from Canberra and 90km north of Wagga Wagga. Prior to European settlement, the area would have consisted of woodland vegetation that provided habitat for numerous fauna. The first pastoral station was established in 1847, which saw the population quickly reach approximately 15,000. Temora became an important wheat and wool growing centre largely due to the construction of the railway line that connected it to other towns in the region. Today, the local area is still used for agricultural and pastoral uses, primarily growing winter cereal and fodder crops.

Temora Hospital is of local heritage significance. While the main hospital building, dating from 1939, is a moderate example of an inter-war building in the International Style, it is the gardens and arboretum, planted by the board of directors in the 1940s, that is of high significance. The proposed schematic design builds on key design principles established during the master planning and concept phases. These include embracing the existing gardens and arboretum, drawing them into the heart of the hospital and utilizing the green outlook for staff and patient wellbeing.

After extensive due diligence and inspection of the existing main building, the design team concluded that even with extensive essential service upgrades, it could not deliver contemporary models of care. The same was concluded for the existing staff accommodation building. For this reason, a key decision of the master planning process was to replace the existing buildings on site with a new, fit-for-purpose, contemporary hospital that would provide the maximum benefit for the community now and into the future.

The schematic design phase saw an extensive user group consultation process undertaken to workshop the planning of each department. Over a series of 3 rounds of workshops the planning for each department was developed with key stakeholders. This report presents the schematic design outcomes resulting from user consultation and technical / design inputs by the design team.

Outcomes of the schematic design process include:

- Confirmation of the functional and clinical flows including those relating to public, clinical (staff and escorted patients) and logistics.
- Development of layouts that depict the relationships of rooms within the individual departments.
- Confirmation of room sizes and internal department room names, walls, doors and an indicative layout of key items of equipment.
- Development of a way finding strategy for internal and external areas of the new hospital.

General Arrangement Drawings at 1:200 scale have been endorsed by the MLHD.

Hospitals are significant public buildings where life changing events take place. The existing Temora Hospital is a key public building and its replacement must also provide a significant building that is clearly identified as a building of local civic pride. During schematic design, the project team has engaged with community members including local Council, landscape working group, arts working group, heritage committee, and the Aboriginal Community. During subsequent phases, the project team will continue to engage with the local community to ensure collective ownership of what will be a significant public building.

01_ EXECUTIVE SUMMARY

Project Background

The NSW Government has committed $80 million to the Temora Hospital (TH) redevelopment as part of the $500 million rural health boost. This will enhance the current service and facilities, ensuring healthcare services meet the needs of the community, including outlying areas, now and into the future.

Temora is a small community hospital with a Role Delineation Level 2-3 (RDL) and provides healthcare services to Temora Local Government Area (LGA) and surrounds.

The existing hospital dates from 1939 and is aged and in poor condition with compliance and functionality issues. The infrastructure is at the end of its useful economic life and requires substantial upgrade or replacement to support the delivery of contemporary healthcare services.

A Health Services Plan was endorsed in February 2023. It identifies a proposed service profile to meet the local community's healthcare needs to 2036 and beyond for the effective, efficient and sustainable delivery of appropriate healthcare services. The proposed approach for the future Temora Hospital envisages:

- Maintaining Temora Health Service as part of the Cootamundra Health Service, Gundagai Multipurpose Service (MPS) and Coolamon MPS cluster.
- Expanding the capacity of Temora to reduce reliance on Wagga Wagga Base Hospital for higher level services that are clinically appropriate to be managed in a Role Delineation Level of 3 facility, including a broader range of surgical procedures, and enhanced maternity and rehabilitation services (increasing from RDL 2 to 3).
- Ensuring that models of care and configuration of facilities support clinical safety and workforce efficiency.
- Clinical support, non-clinical support and digital health solutions that align with MLHD-wide strategies for high quality care.

Clinical Services Scope

Temora Hospital is currently a 28-bed facility. It provides emergency medicine (RDL2), general medical, surgical, obstetric, pathology and radiology services. Community health services include community nursing, domestic violence counseling, physiotherapy, mental health, drug and alcohol, transitional aged care and Child & Family Health. Additional services provided by visiting staff include speech pathology, dietetics, Aboriginal health services and occupational therapy.

The Health Service Plan (HSP), developed by MLHD Planning Unit and informed by extensive stakeholder consultation, provides an outline of current and proposed future clinical services and non-clinical support services to be delivered at Temora Hospital.

Service recommendations to meet projected demand and models of care include:

- RDL 3 Emergency Department
- 24 inpatient beds accommodating acute and sub-acute services including general medical and surgical beds, a 4-bed rehabilitation pod (RLD3), close observation beds (RDL3) and maternity beds.
- A RDL 3 Maternity service supported by a RDL2 Neonatal service.
- RDL 3 Perioperative services with a fully functioning operating theatre with general anaesthetic capabilities.
- Hospital avoidance / out of hospital services (e.g. outpatient clinics / outreach / HiTH)
- Enhanced and collocated community health services
- RDL 3 Radiology Service
- RDL 2 Pharmacy
- RDL 2 Pathology collection service.

The Site

Temora Hospital occupies 31,770m2 (3.177ha) on the corner of Gloucester and Loftus Street, Temora. The site contains staff accommodation, main hospital and associated buildings including a community health, maintenance shed and boiler house within Lot 2, DP572392. The existing 3 storey hospital was built in 1939 in the Inter-war International style. There is local speculation that the building was designed for Manly and when constructed, was built back-to-front as arrival at the hospital feels like arriving at the back door, creating an unwelcoming approach. The building has been updated and modernised over the years however currently does not meet the requirements for contemporary health care.

The staff accommodation was relocated and converted for a new use as a separate ancillary building to the main hospital. The site benefits from extensive well-maintained gardens and arboretum. Located between the hospital and Gloucester Street is the Temora Residential Aged Care operated by Whiddon. Their land is leased from NSW Health. The lease is understood to be close to expiry. Parking at the hospital is on-grade.

Heritage

The main hospital building, staff accommodation block and arboretum are listed on the local heritage register as item 108 of the Temora Shire Council LEP 2010. While the hospital is considered a good representative example of a 1930-1940s era regional hospital with some aesthetic significance, it is considered of moderate value. The staff accommodation is considered of little value. The landscape setting of the arboretum has a high significance rating. Continuing the use of the site as the primary hospital for Temora, providing for a range of healthcare facilities on a hill-top location and within a garden setting, and considering the entire site as a heritage proposition was proposed and supported in master planning.

01_ EXECUTIVE SUMMARY

Project Vision and Objective

A project visioning workshop was held on Monday 13 February 2023. The group assembled determined that the project vision for Temora Hospital is:

"A hospital that provides a welcoming and safe environment, delivering innovative, sustainable and contemporary health services in our region."

The objectives determined for the redevelopment are:

- Deliver the current and future service capacity requirements defined within the Temora Hospital Clinical Services Plan, fulfilling its role within the LHD.
- Improve access for Temora residents and surrounds to patient-centered health services that are effectively integrated with LHD networks and service delivery partners.
- Support the delivery of safe, high-quality clinical services and contemporary models of care that are designed around the needs and experience of consumers, carers and providers and address the social determinants of health.
- Achieve a safe, adaptable and welcoming environment to deliver and receive care.
- Deliver a facility that is a focal point for and is valued by the community, acknowledging the history of service delivery and heritage associated with the site.
- Provide a pleasant workplace that shows the workforce is valued, promotes a collaborative and efficient working environment and contributes to recruitment, attraction and retention of skilled staff.

Project Scope

At the conclusion of concept design, substantial value management was undertaken with the aim of aligning proposed scope with budget, however the project remained $4.5 million over budget. MLHD were not supportive of further reductions to the project scope as the outcome would have compromised the required health service offering. Notwithstanding the over budget position, the Executive Steering Committee (ESC) supported the continuation of Schematic Design as per the agreed scope. The ESC undertook to develop a strategy to address the project budget. Given this context, value engineering has been a key discipline in the development of the schematic design to ensure that it represents value for money and efficient design.

Connection with Country Design Principles

At the master planning phase of the project, the project team met with the local community to discuss how we can authentically embed the hospital within it spiritual, ecological, geological and knowledge systems. During the Walk on Country, we considered how native flora and fauna such as she-oaks (used for weaving), saltbush (soft and delicate), curved bark (protective), feathers (comfort) and seeds (renewal) can inspire us to connect with Country in new ways and weave First Nations knowledge and biophilia into our design outcomes more thoughtfully. At Temora High School, the students have played a role in the design and delivery of their Yarning Circle. This has further inspired us to consider how we can integrate non-hierarchical healing spaces into Temora Hospital and collaborate with students to deliver an intergenerational, restorative, and equitable hospital for everyone.

Throughout concept and schematic design, Yerrabingin have been engaged for Connection with Country (CwC) consultation on Temora Hospital, coordinating the process with the local Aboriginal Community and the Design Team.

Yerrabingin conducted an internal Design Jam with HDR and Site Image on 27 September. The purpose of the workshop sought to investigate the CwC opportunities the Temora site holds. The design team were presented Yerrabingin's Contextual Research Report base on its design narratives and the resulting design principles are a marriage of this research and the Design Team's knowledge of the site. These principles seek to provide a basis of cultural care and wellbeing for Temora and the region the hospital services.

Two feedback sessions were conducted to capture both community and youth perspectives. The feedback sessions were facilitated by Yerrabingin and included the attendance by Health infrastructure, First Nations community members and Temora High School. Community members were presented with a project update and Yerrabingin's connecting with country concepts report and were invited to discuss the design, provide comments, ask questions, and suggest additional ideas. The feedback sessions drew out several key themes that emerged from the discussions held between community and Yerrabingin. These themes have been used to guide the design through schematic design process.

Terms of Reference

02_ TERMS OF REFERENCE

2.1 Project Team

Project Director
Health Infrastructure NSW

Local Health District
Murrumbidgee LHD

Project Manager
Capital Insight

Architect
HDR

Cost Planner
MBM

Services and ESD Engineer
GHD

Landscape Architect
Site Image

Urbis
Planner

Civil and Structure Engineers
Tonkin

Geotechnical and Contamination
JK Group

BCA
Blackett Maguire + Goldsmith

YERRABINGIN
Connecting with Country

Fire Engineering
Arup

02_ TERMS OF REFERENCE

2.1 Project Team

Project Director - NSW Health Infrastructure (HI)

Catherine Taylor	Director Rural Regional
Chris Horton	Senior Project Director
Katrina Walsh	Project Director

Project Manager - Capital Insight

Robert Hickson	Director in Charge
Caitlin Coote	Lead Project Manager-Facility Planning
Firas Al-Timimi	Facility Planning
Louise Coote	Senior Project Manager
Eric Han	Project Manager

Cost Manager - MBM

James Larkin	Director
Charmaine Resos	Quantity Surveyor
Neville Pan	Quantity Surveyor

Architect - HDR

Jacqui Straesser	Project Director
Alan Boswell	Design Director
Jason Roberts	Associate / Project Lead
Rowena Sequeira	Associate / Health Planning Lead
Nick Metcalf	Site Image - Landscape
Jane Dumbleton	Site Image - Landscape

Town Planner – Urbis

Rosie Sutcliffe	Project Manager Town Planning
Georgia McKenzie	Project Planner

Structural & Civil Consultant, Tonkin

Andrew Tan	Structural Lead
Benson Ou	Civil Lead

Electrical & ICT Consultant - GHD

Tony Little	Project Director / Electrical
Ashmita Upadhyay	Electrical and Comms Consultant

Hydraulic & Fire Consultant, GHD

Stan Tudio	Hydraulic and Fire Consultant

Mechanical Consultant – GHD

Gerry Hackett	Mechanical Services
Matt Klump	Mechanical Services

Traffic Consultant - GHD

Mark Leigh-Lucas	Transport Engineer

ESD Consultant - GHD

Sylvie Mathian	ESD Consultant

Heritage Consultant - NGH Pty Ltd

Marcus Hoslin	
Tessa McInnes	Project Manager

BCA + DDA - Blackett Maguire + Goldsmith

Adam Durnford	Associate Director
Antonio Canuto	Senior Building Surveyor

Connecting with Country - Yerrabingin

Christian Hampson	CEO, Lead Design
Fehin Coffey	Project Officer

Fire Engineering - Arup

Alistair Morrison	Fire Engineer

Stakeholder Engagement

Murrumbidgee Local Health District (MLHD)

Carla Bailey	Executive Director Operations
Tegan Reid	General Manager Rural Operations
Fiona Simmons	Cluster Manager
Wendy Skidmore	Facility Manager
Darren Green	Manager Assets and Clinical Technology
David Hardiman	Change Manager
Kate Roberts	Communications and Engagement Lead
Steve Dewar	Capital Works Manager
Ivan Saric	ICT Project Manager
Sonya Bull	Project Manager

Schematic Design Project User Group Members

Wendy Skidmore	Paige Frater	Jayla Nix
Michelle Cottrell-Smith	Daryl Mitchell	Peta McIntyre
Brendon Aicken	Cheree Swanston	Steve Dewar
Reema Shah	Michael Payne	Rodney Kurtzer
Terry Doyle	Ivan Saric	Sandra Forde
Rebecca Stimson	Narelle Heckendorf	Kristy Oliver
Jim Neiberding	Wayne Rose	Peter McGregor
Donna Pellow	Sonia Brandon	Alison Frater
Anna McNarn	Auriol Carruthers	Amy Bison
Paula Brock	Amanda Kuerschner	Cath Doon
Luke Nichols	Justin Curren	Reema Shah
Mary-Clare Smith	Helen Narayan	Timothy Ryan
Jane McNamara	Alison Davy	Darren Green
Tara O'Sullivan	Roanna O'Hara	Zachary Oliver
Brianna Chown	Sarah Macauley	Kathryn Weckert
Belinda Downey	Rebecca Knight	Carolyn Frith
Rodney Scott	Tegan Reid	Darren Green

Health Infrastructure Subject Matter Experts

Wade Sutton	HI Design Champion
Craig Allchin	Ethos Urban

Design Assurance Panel Members

Phillip Parker	Ian Jackson

02_ TERMS OF REFERENCE

2.2 Methodology & User Engagement

A thorough consultation process has been undertaken with MLHD users through schematic design. An overview of key engagement activities is provided below. Project User Groups comprised of local and MLHD participants who contribute to the schematic planning of departments, through an iterative design process held across 3 user group session for each department.

Departmental PUGs Round #1	*Held on 31 Oct & 01 Nov 2023. Zonal departmental plans workshopped with users to confirm zonal arrangement, adjacencies and key flows.*
Departmental PUGs Round #2	*Held on 21 & 22 Nov 2023. Developed departmental planning of individual room layouts workshopped with users.*
ICT PUG	*Held on 22 Nov 2023. The purpose of the meeting was to present to and receive feedback from the project user group on the ICT services.*
Design Assurance Review	*Held on 28 Nov 2023. Review of the project undertaken by HI to align project design with principals of the Design Guide for Health.*
WHS & Security PUG	*Held on 28 Nov 2023. The purpose of the meeting was to present to and receive feedback from the project user group on WHS & Security considerations.*
Facades & Finishes PUG	*Held on 11 Dec 2023. The purpose of the meeting was to present to and receive feedback from the project user group on the proposed facade and finishes.*
Departmental PUGs Round #3	*Held on 12 & 13 Dec 2023. Further developed departmental planning workshopped with users incorporating feedback received from previous workshops.*
Engineering PUG	*Held on 13 Dec 2023. The purpose of the meeting was to present to and receive feedback from the project user group on the proposed engineering services.*
SDRP Review	*To be held on 14 Feb 2024. HDR, Yerrabingin and Site Image will present schematic design progress to date incorporating the supported elements listed adjacent on this page.*

The NSW Government Architect's State Design Review Panel (SDRP) supported the following elements presented and provided comments that HDR will address at the next panel workshop.

- The process of working with Yerrabingin, including:
  - + Connecting with Country principles
  - + Intent for an authentic approach to communication and engagement with the Aboriginal community
  - + Consideration of how Country is conceived relative to ecological and social systems.
- The community consultation session to inform the design, noting the general positive support for the preferred option
- Locating the building on a hill to minimise the impact on the arboretum.
- Provision of new key worker accommodation, including the intent to,
  - + Create a building with a distinct identity
  - + Use the arboretum for amenity and respite for workers.
- The aspiration for a place of health care in lieu of an institutional hospital, including the intent for:
  - + Buildings that engage the landscape the landscape from within
  - + Outdoor space at Emergency Department waiting areas
  - + Breakout spaces and spaces for people coming with their support network.
- Maintaining and developing the tree canopy coverage of the arboretum, including an increase in biodiversity.
- The four rationalised design principles.
- Robust materials which reflect the rural vernacular.
- Intent for a clear, strong entry to the hospital building as part of the arrival experience.

02_ TERMS OF REFERENCE

2.3 Documentation Review

State Government

- The Riverina Murray Regional Plan 2041 (2023)
- NSW State Design Review Panel
- Government Architect - Connecting with County Framework
- Government Architect - Design Guide for Health

NSW Health

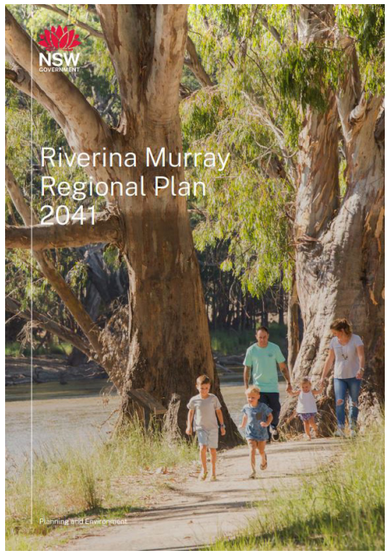
- 20 Year Health Infrastructure Strategy, Realising our Vision for the Future Health System (2020)
- Future Health - Guiding the Next Decade of Care in NSW 2022-2032 (2022)

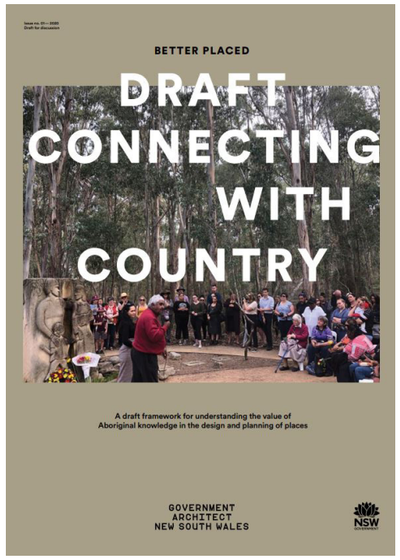
Murrumbidgee Local Health District

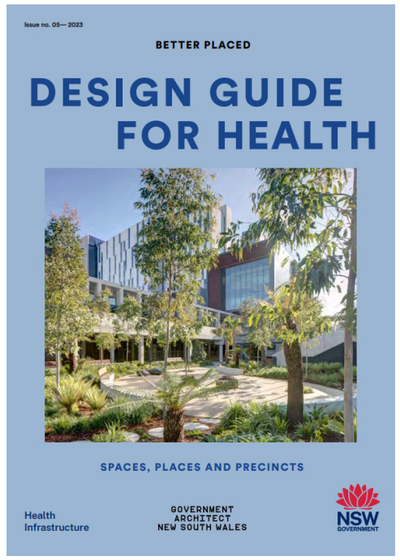
- Exceptional rural healthcare: Healthier together. Care tailored to people's needs, Strategic Plan 2021-2026
- Strategic Asset Management Plan (2022)
- MLHD Asset Management Technical Report (2023), based on the MLHD Strategic Asset Management Plan & Asset Management Plan
- Temora Health Service Plan v2.5 (Oct 2022)

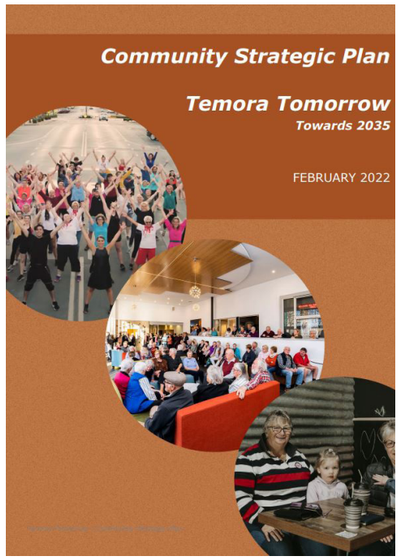
Temora Shire Council

- Temora Shire Council's Community Strategic Plan, Temora Tomorrow Towards 2035 (Feb 2022)





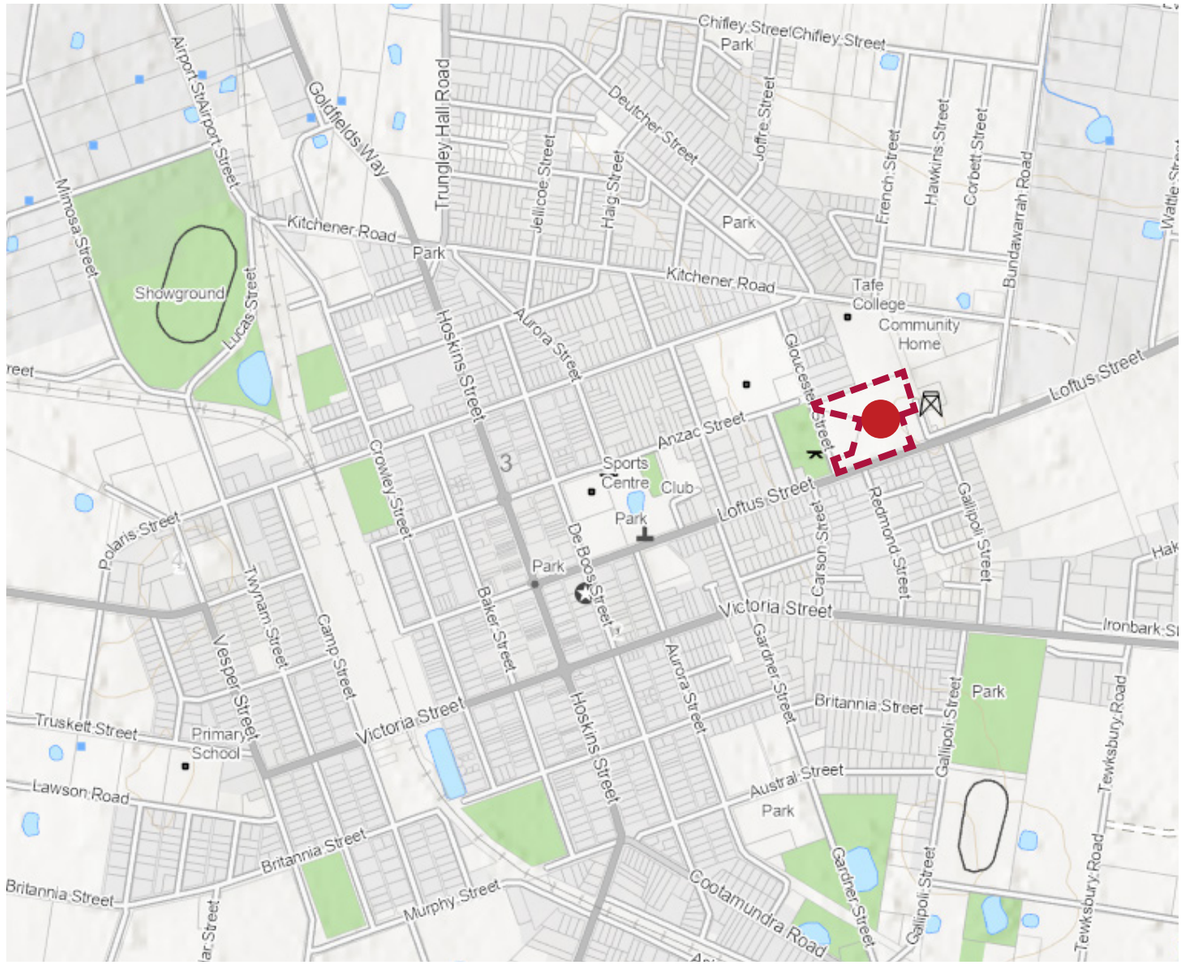




Site Review

03_ SITE REVIEW

3.1 Site Location



Temora is located in the north eastern end of the Riverina region of NSW and is also part of the South West Slopes. It is located approximately 90 kilometres north of Wagga Wagga which has a regional airport giving access to most major cities. It is situated on the Burley Griffin Way linking Canberra and Griffith and the Goldfields Way which link Albury and Wagga Wagga to the Newell Highway.

The Temora Hospital is located at the corner of Gloucester Street and Loftus Street. Located on the eastern edge of the township, the site is bounded by a mix of uses. Established residential lots form the southern context, a public park and Whiddon aged care facility are to the west, whilst Temora TAFE and vacant open fields form the north and eastern context.

03_ SITE REVIEW

3.2 Site Summary

The existing buildings on the site consist of the 3 storey main hospital building located prominently on the top of the hill accompanied by a 2 storey staff accommodation building. A single storey community building and a workshop building both sit to the north of the hospital.

Staff Accommodation

Age	1939
Heritage	Locally Listed
Construction	Brick / Tiled roof
Condition	Poor

Hospital

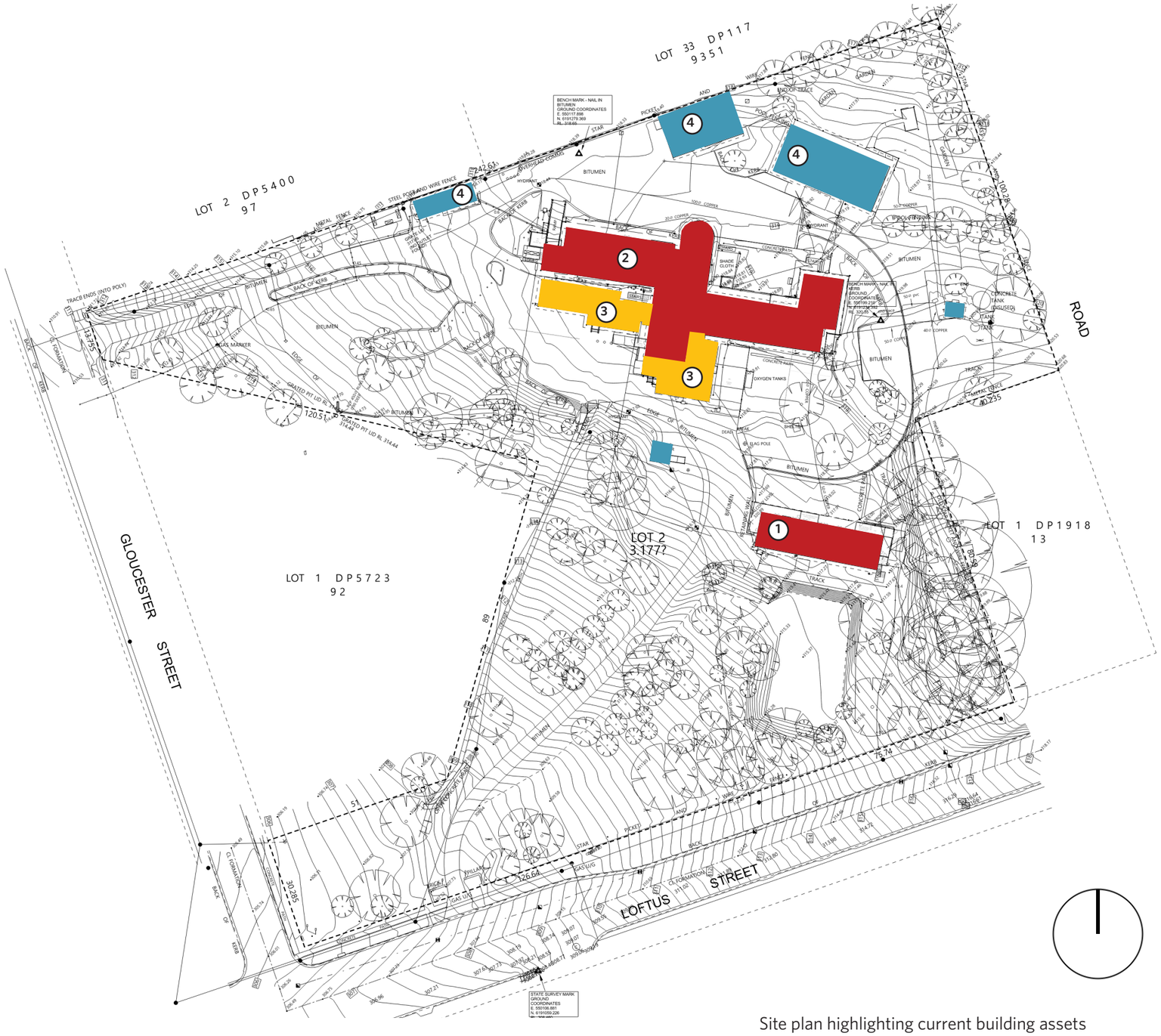
Age	1939
Heritage	Locally Listed
Construction	Brick / Metal roof
Condition	Adequate

Hospital Additions

Age	c1950
Heritage	not listed
Construction	Brick / Metal roof
Condition	Poor

Outbuildings

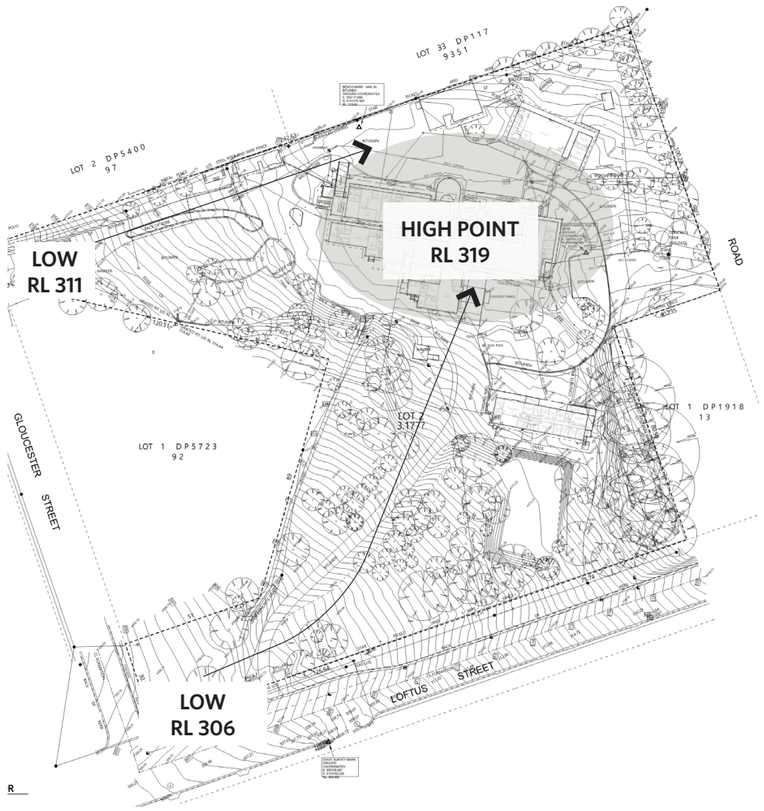
Age	c1980
Heritage	not listed
Construction	Brick / Metal roof
Condition	Adequate



Site plan highlighting current building assets

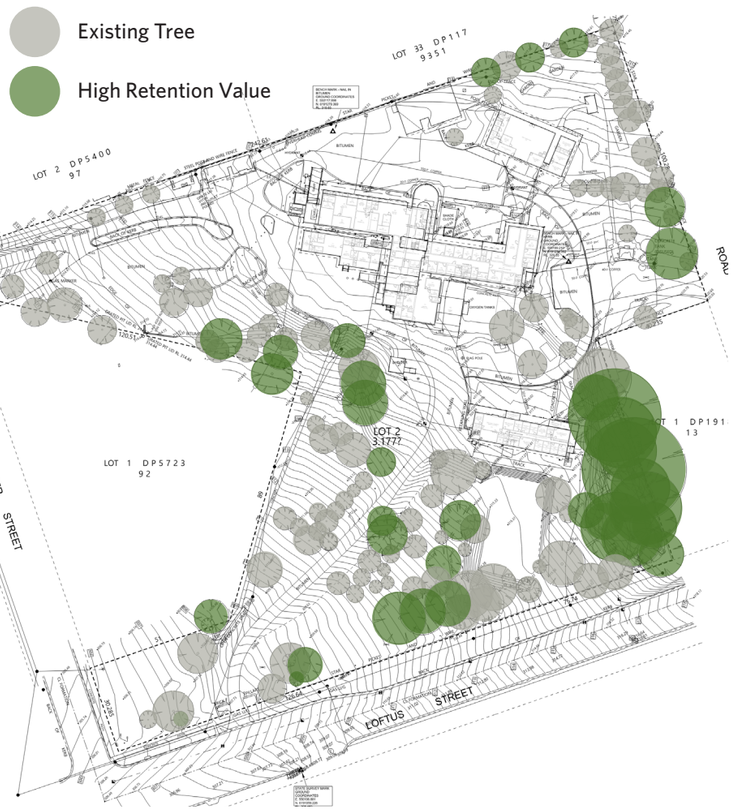
03_ SITE REVIEW

3.2 Site Summary



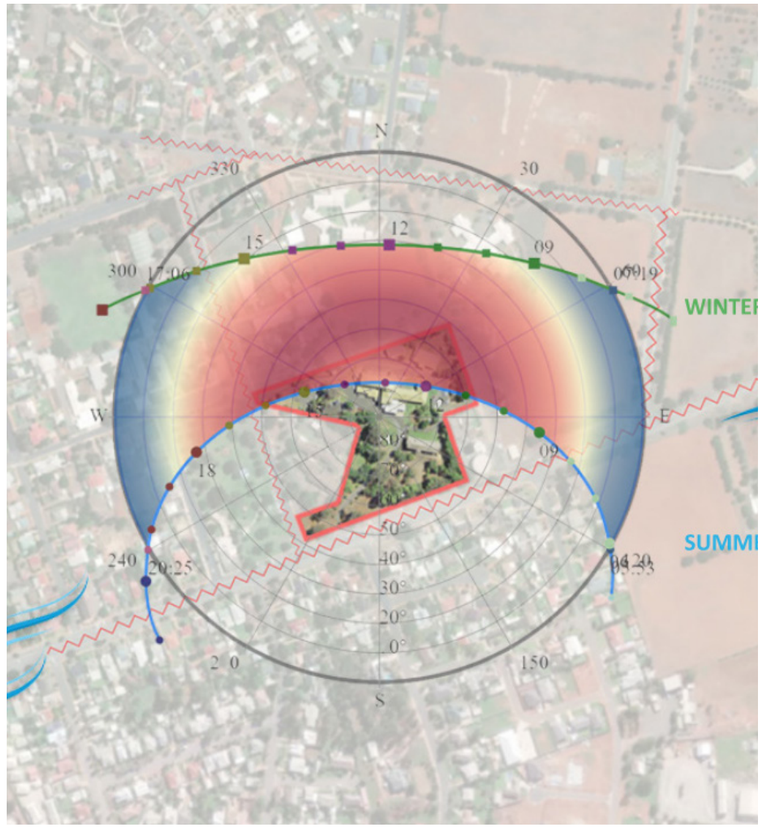
Topography

The existing hospital lies on the highest point of the site at an RL 319. From this high point the site falls towards the boundary ranging from RL317 in the north eastern corner to a site low point of RL 306 on the corner of Loftus Street and Gloucester Street.



Vegetation

“Only a few remnant trees were identified on site; however there has been considerable plantings of Australian native trees and exotic trees. The general tree population is considered quite mature, and it is obvious that quite a number of trees have been removed in recent decades, assumed due to poor condition. There are quite a number of large and imposing trees across the site, and the trees and grounds can be considered as currently providing quality amenity values.” - Arboricultural Report.



Climate

Temora has a warm temperate climate; with cool, damp winters and hot, dry summers.

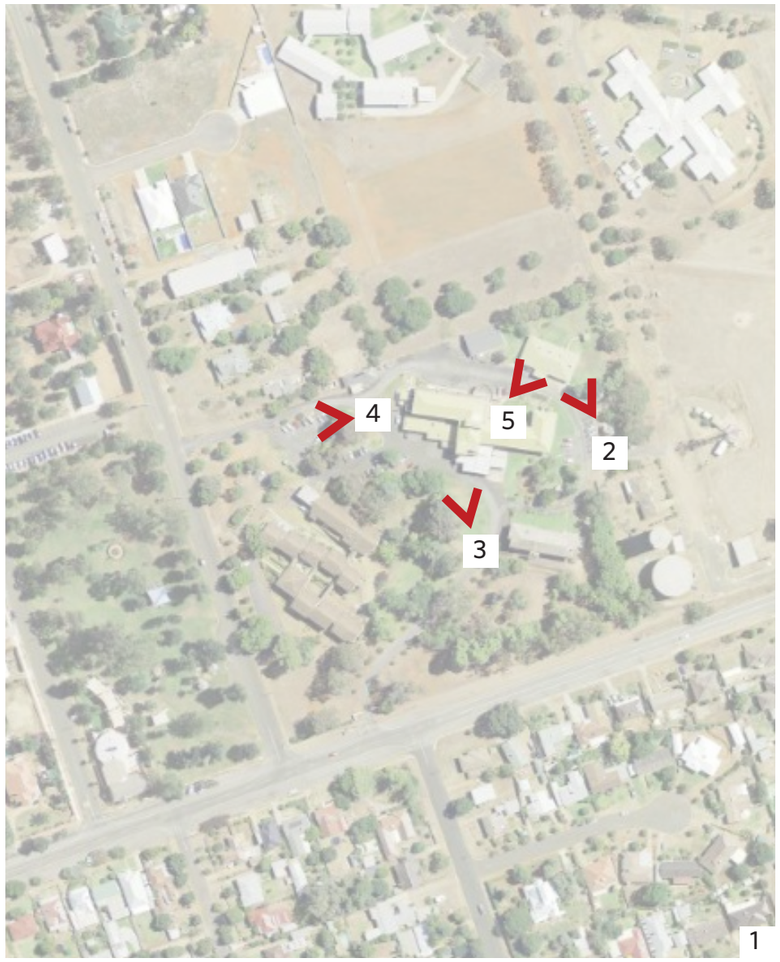
Winters are cool to cold, with the mean maximum temperature falling to 13.0 °C in July, with a mean minimum of 2.1 °C, and modest overcast periods on account of being exposed to the prevailing westerly winds.

By contrast, summers in Temora are hot and dry with a low relative humidity. Mean maximum temperatures range between 29.6 and 31.5 °C and minimums ranging between 13.8 and 16.2 °C.

03_ SITE REVIEW

3.2 Site Summary

Site Character



1


2


3


4


5

The character of the site is defined by the placement of the hospital building at the top of the hill. It is evident that the building has suffered from unsympathetic additions and is showing its age. The grounds of the hospital are characterised by the established trees of the arboretum which have a high heritage value.

1. Key Plan
2. High point of Site looking south
3. Arboretum
4. Rear of Hospital
5. Rear of Hospital

03_ SITE REVIEW

3.2 Site Summary

Heritage Context

The existing Temora Hospital is locally heritage listed with the following summary of its significance provided by NGH.

"The Temora & District Hospital site is a good representative example of an Interwar era International-style regional hospital building and has historical significance as the central location for health services in Temora since the early 20th century, represented primarily by the 1930s hospital building, by extant memorial and other plantings/landscaping, and by extant ancillary buildings, including the nurses' quarters. The Temora & District Hospital has aesthetic & technical significance as a 1930's Interwar, International-style purpose built regional hospital, including design features that are both functional for hospital services and have some aesthetic significance."

Hospital Building - *Moderate Value*

The main hospital building is a example of an interwar International Style regional hospital building. The building has been altered in the second half of the 20th century, with some alterations (such as the pathology building and air condition units) being intrusive changes to the original 1939 building.

Nurses' Quarters - *Little Value*

The Nurses' Quarters is an example of an earlier residence that has been relocated and converted for a new use as a separate ancillary building to the main hospital.

Gardens - *High Value*

The hospital grounds and gardens are associated with the early development and landscaping of the hospital grounds in the early to mid-20th century, with later additions.

The significance of the gardens and the relationship of the hospital sitting on the high point of the site overlooking the arboretum form the basis for the site response to the heritage significance.

03_ SITE REVIEW

3.3 Site Investigations

A series of site investigations has occurred to inform the schematic design. The following scope extracts are taken from the respective reports which are attached as appendices to be read in full.

Preliminary Site Investigation Report JK Environments

The primary aims of the investigation were to identify any past or present potentially contaminating activities at the site, identify the potential for site contamination, and make a preliminary assessment of the soil conditions. The scope of the investigation included a desktop review of historical information, a site walkover inspection and soil sampling from 12 locations.

Hazardous Building Materials Survey JK Environments

The survey was undertaken with the scope of work including the following:

- Review and summary of existing reports and registers;
- A detailed visual inspection of the existing building and structures;
- Documentation of inspection finds including the material type, condition, friability, photographic evidence and site location; and
- Preparation of a report presenting the results of the hazardous building materials survey.

Geotechnical Investigation JK Geotechnics

The purpose of the investigation was to obtain geotechnical information on the subsurface conditions at the borehole locations. Based on this JK Geotechnics provided comments and recommendations on site preparation and earthworks, excavation conditions and support, site classifications, footings, earthquake design, soil aggression, mine subsidence and pavement parameters.

Arboricultural Assessment

All trees were individually assessed and graded for their value, condition, life expectancy, significance within the environment and landscape; stem diameter, canopy coverage and other salient data was gathered and compiled. A conclusion on their individual retention value was made. A Preliminary Arboricultural Report was prepared to assist the planning of the development and which specific trees have the highest significance and retention value.

Statement of Heritage Impact

The SoHI report outlined the significance of each of the structures, other heritage features or values impacted or potentially impacted by the project, analysed any heritage impact(s) from the proposed works, and provided mitigation measures where appropriate to minimise the overall impact of the proposal on the heritage values of the locally heritage listed Temora Hospital.

Aboriginal Cultural Heritage Assessment Report

This report aims to:

- identify, assess and report on Aboriginal heritage values within the study area;
- involve the Aboriginal community in decisions with respect to its heritage;
- determine how the Temora Hospital redevelopment project may harm these values; and
- establish the mechanism for conservation and mitigation of harm to these values.

This report has identified intangible heritage values connected with the Temora hospital site, and designated areas with Aboriginal archaeological potential. These areas may contain Aboriginal objects within a buried subsurface context. An archaeological zoning plan has been developed which describes the areas with archaeological potential and other social and aesthetic values.

Detailed Site Investigation Report JK Environments

The DSI aims to further characterise the site and make an assessment of the soil contamination conditions, and inform the preparation of a Remediation Action Plan (RAP). The objectives of the DSI are to:

- Supplement the PSI data by completing the DSI, including investigation of the soils in accessible areas;
- Assess the potential risks posed by contamination to the receptors identified in the Conceptual Site Model (CSM);
- Provide a preliminary waste classification for off-site disposal of soil;
- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

Development Proposal

04_DEVELOPMENT PROPOSAL

4.1 Clinical Service Planning/Service Statement

Existing Health Service

The Temora Health Service is situated in the township of Temora which is the largest town in the Temora Local Government Area (LGA), approximately 80 kilometers north of Wagga Wagga. It is classified as a Small Community Hospital with Surgery, with most services operating at Role Delineation Level 1-3. The hospital is currently a 28-bed facility. It provides emergency medicine (RDL2), general medical, surgical, obstetric, pathology and radiology services. Community health services include community nursing, domestic violence counselling, physiotherapy, mental health, drug and alcohol, transitional aged care and Child & Family Health. Additional services provided by visiting staff include speech pathology, oral health, dietetics, Aboriginal health services and occupational therapy. It also provides staff accommodation.

The health service works in close partnership with the Murrumbidgee Primary Health Network (MPHN), Non-Government Organisations (NGOs) and other human service providers, to provide linked up services. The Integrated Care Strategy is an important component of this work.

Residents of the Shire access nearly half their services at Temora Health Service followed by Wagga Wagga Base Hospital, private hospitals/day procedure facilities, Young Health Service (80 kilometers north east) and Cootamundra Health Service (57 kilometers southeast). Most of the demand for services provided elsewhere was for overnight acute services.

The existing hospital was built in 1939, with various unsympathetic additions built in the 1970s and 1980s. It was originally built as a 76 bed hospital which over time grew to 110 beds at its peak. As treatments and models of care have changed there has been a significant change in Temora Hospital's service offering. Modification of the hospital asset to support modern healthcare delivery has, in contrast, been relatively modest. Recent due diligence investigations have confirmed that the 85-year-old building has reached the end of its useful life and asset renewal is required.

Community health services include community nursing, domestic violence counselling, physiotherapy, mental health, drug and alcohol, transitional aged care and Child & Family Health. Additional services provided by visiting staff include speech pathology, oral health, dietetics, Aboriginal health services and occupational therapy.

Existing Schedule of Accommodation

The Temora hospital has a gross floor area of nearly 3,400m2 which accommodates the following departments.

Department	Capacity	Floor Area (m^2)
Emergency	3	187
Inpatient Beds (2 Wards)	28	799
Neonatal Nursery	1	Included above
Delivery Suite	1	73
Theatre	1	173
Imaging (Gen X-ray)	1	87
Ambulatory Care	3	485
Oral Health	1	Included above
Pathology		148
Entry and Administration		550
Back of House		371
Travel and Engineering		488

Additional outbuildings provide approximately 1,300m^2 for the Mortuary, workshops, community health activities and staff accommodation.

In total, the hospital and outbuildings have a combined Floor Area of ~4,700m^2.

04_DEVELOPMENT PROPOSAL

4.1 Clinical Service Planning/Service Statement

Health Service Plan

The Temora Health Service Plan v2.5 (October 2022), developed by MLHD Planning Unit and informed by extensive stakeholder consultation, provides an outline of current and proposed future clinical services and non-clinical support services to be delivered at Temora Hospital to 2031 and beyond.

Service recommendations to meet projected demand and models of care include:

- Overnight inpatient care (RDL 3) for medical, surgical, rehabilitation and palliative care patients;
- A maternity service (RDL 3, increasing from RDL 2) supported by neonatal service (RDL 2);
- Surgical services (RDL 3) with emphasis on day surgery and procedures. There will be enhancements in some specialties (e.g. orthopaedics, ophthalmology, urology , gynaecology);
- Emergency care (RDL 3, increasing from RDL 2);
- A range of ambulatory, community health and mental health and drug and alcohol services (RDL 1-3);
- General X-ray, ultrasound and a new CT service (RDL 3);
- Pharmacy (RDL 2)
- Pathology (RDL 2).

The HSP analysis indicates that activity will remain relatively stable for inpatient services and emergency care to 2036. Proposed uplifts in surgical and maternity services, together with new models of care, will have a modest impact on occupied bed days and consequent inpatient infrastructure requirements. In contrast, a significant increase in ambulatory care and community health activity is projected which is reflected in the enhanced ambulatory care capacity that is required. The HSP also identifies the need to provide key worker accommodation for up to 10 personnel.

The Temora Hospital infrastructure requirements to support the projected activity are outlined in the following table.

Department	Existing Points of Care	HSP Proposed Points of Care 2036 Projection
Emergency	3 patient bays	1 Resus 2 Enclosed Acute (Iso + Paed) 1 Open Acute 1 ED Treatment 1 Low Stimulus
Inpatient Unit	28 beds	20 Acute Beds (inclusive of maternity beds) 4 Rehab Beds
Maternity / Birthing	1 birthing 1 assessment 1 cot	1 Birthing 1 Assessment 2 Cots (+1 Resuscitaire)
Perioperative Unit	1 operating theatre	1 Operating Theatre 1 Procedure Room 4 Stage 1 6/4 Stage 2/3
Medical Imaging	1 Xray 1 Mobile Xray	1 X-ray 1 OPG 1 Ultrasound 1 CT 2 Mobile X-ray
Ambulatory Care	3 consult 1 dental chair	14 Consult/Interv./Treatment/ Virtual 1 Phlebotomy/ Specimen Collection 1 Dental Chair
KWA		8 - 10 Studios

04_DEVELOPMENT PROPOSAL

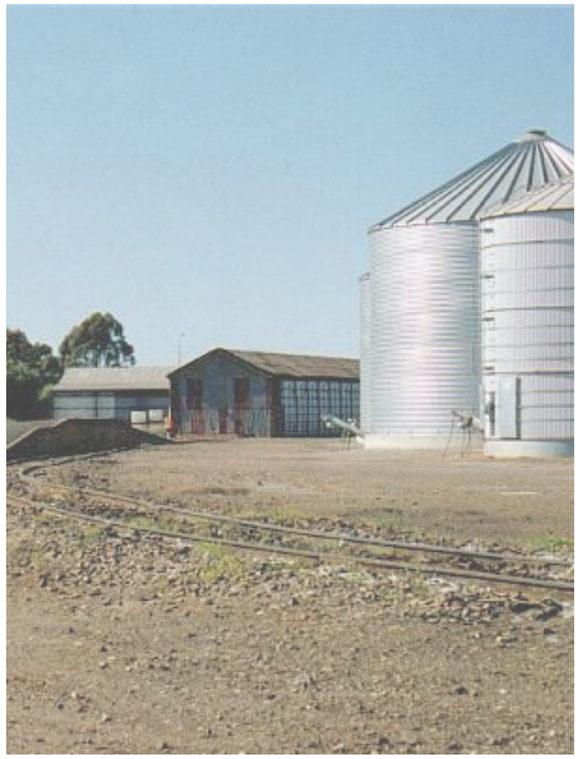
4.2 Design Principles - Site

Arrival Experience

The arrival at Temora Hospital has been defined for generations by the experience of entering through the main gates with the 'TEMORA HOSPITAL' signage and the meandering driveway through the trees to be greeted by the hospital building sitting proudly at the top of the hill. This sequence has been engrained into the site through the mature trees which line each side of the driveway. This experience is to be continued and enhanced with the new hospital building.

Engage with Landscape

The site affords great opportunity to enhance the user experience by engaging the building with the landscape. Opportunities will be sought to integrate landscape with the building by narrowing the building form and providing cut-outs or courtyards to the plan to ensure connection to landscape is provided to all key aspects of the building.



Of Place

Temora Hospital is a regional facility within a predominantly grain growing region within Wiradjuri country. The architectural response will be shaped by the characteristics of the region.

Welcoming and Comforting

Hospitals and health facilities can be a place of anxiety and emotional distress for many people so a key driver of the design is to de-institutionalise the design response to provide a sense of comfort and familiarity to the users.

04_DEVELOPMENT PROPOSAL

4.2 Design Principles - Connection with Country

ARRIVAL EXPERIENCE

ARBORETUM WALK

REFLECTIVE JOURNEY

Journey within Country

Layers of different experiences can welcome people to site. The longer your visit the more there is to learn and explore.

- Linkages connecting to existing Arboretum. Trails can be made from looser gravels (resin bonded etc) to provide challenges for people doing rehabilitation exercises.
- Rugged bush aesthetic to match surrounds and provide habitat. Mass planting along road edge gives animals points of refuge.

NATURE ACCESSIBLE TO PATIENTS

BREAK OUT SPACES FOR SMALLER AND LARGER GROUPS

PUBLIC MEDICINAL AND SENSORY GARDENS

Familiarity and Reflection

Country can aid interaction and recovery. Spaces can provide gentle activities to aid in recovery and mental stimulation.

- Gardens can be themed and have a specific focus: sensory, edible, craft production, medicine etc
- Bed bound patients can have access to the outdoors to aid mental well-being and recovery
- Smaller covered breakout spaces. Places to accommodate larger and smaller events (i.e. sorry business and community days).

COMMUNITY PLANTING DAYS - PLANTS FROM THE REGION

ROTATING ARTS PROGRAM AND WORKS ON EXHIBIT

INDIGENOUS ARTS INCORPORATED INTO DESIGNED SPACES

Working Gently Together

Community Programs - To assist in the community being receptive to CwC aspects, public workshops can incorporate a focus on indigenous perspectives. This can aid in people developing a personal connection and a sense of belonging to Temora Hospital.

Wiradjuri Seasons - The design can weave the 7 seasons into its landscape approach. Each season has flowering, fruiting and edible plants.

04_DEVELOPMENT PROPOSAL

4.3 Functional Planning

Response to Model of Care

The schematic design planning for each department worked from first principles, commencing with a clear zoning diagram then proceeding to more detailed planning that responded to the Model of Care, design principles and internal functional relationships set out in the Functional Brief. This response includes:

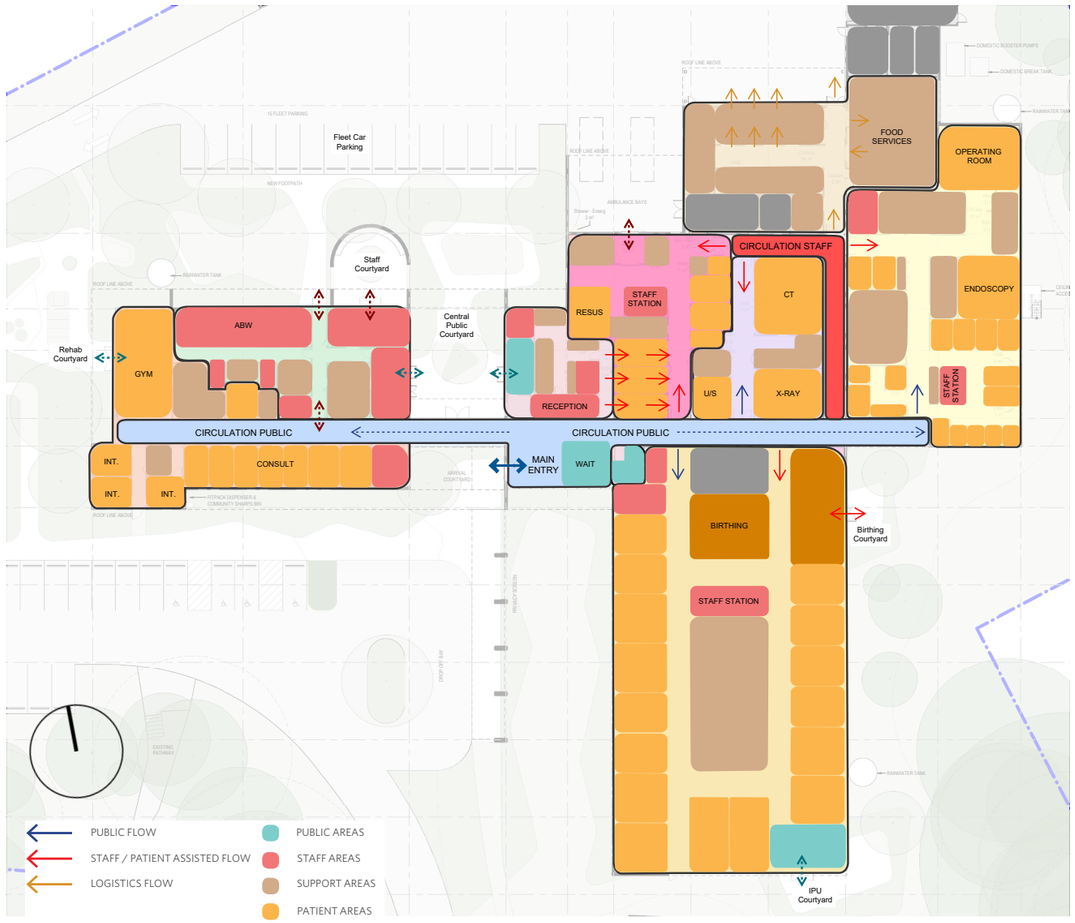
- Clearly defined 12 and 24 hour zones;
- Implementation of a patient-centred model of care by focusing on the needs of patients and bringing skilled staff together around the needs of the patient wherever possible, in a supportive and inclusive patient care environment;
- Creation of a welcoming and patient-focused environment through planning and sensitive interior design of patient care units e.g. by taking advantage of opportunities to create appropriate high-quality interior spaces including age-appropriate graphics and artworks;
- Careful separation of public and clinical areas, promoting security and patient privacy;
- Focus on patient care pathways and clinical flows in planning for each unit or department;
- Providing an environment that supports culturally appropriate service delivery that is responsive to the cultural backgrounds of the public, patients and staff who access the facility;
- Ensuring that the physical environment offers opportunities to encourage and integrate patients, family, carers and volunteers as active participants in the care process;
- Promoting a less stressful patient experience by use of intuitive way finding from entry through public spaces, reception and waiting areas;
- Clustering of staff office areas and workstations to enhance collaboration and flexible team structures, with contemporary workplace principles (referred to as Activity Based Working or ABW) pursued in order to encourage a collegiate environment;
- Ensuring that meeting and staff support areas are accessible to other services; and
- Maximizing opportunities for natural light and views for the benefit of patients, visitors and staff.

Following are three examples of how the schematic design was developed with the PUGs in response to the Model of Care.

Example 1: Public / Staff Circulation

Schematic design commenced by reviewing the clinical adjacencies and connections between departments as agreed during the concept design phase and reassessed this in terms of key functional relationships and circulation flows for public, clinical (i.e. staff and escorted patients) and logistics. Internal and intra-departmental flows and relationships were carefully considered in close and detailed consultation with the PUGs.

Blue (public) and red (clinical) as well as logistics corridors have been implemented to provide the required separation of flows within the building. Ready access from Emergency to Medical Imaging and Perioperative has been achieved through the provision of a staff (red) corridor separated from the public (blue) corridor to support patient dignity while maintaining critical clinical functionality.



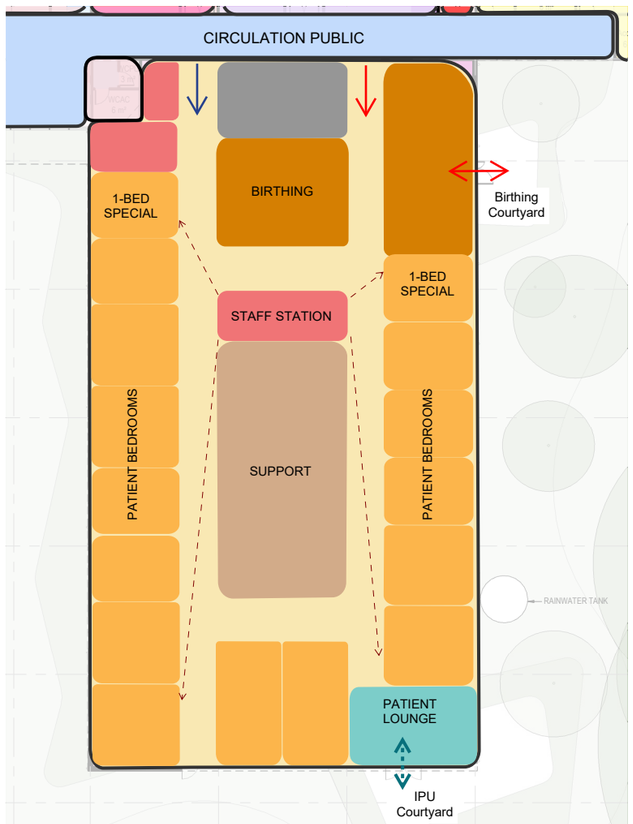
Zonal plan of Hospital showing separation of Public (blue) and Clinical/Logistics (Red) flows

4.3 Functional Planning

Example 2: Bedroom Configuration - Inpatient Unit

The configuration of patient bedrooms in the IPU is based on the following:

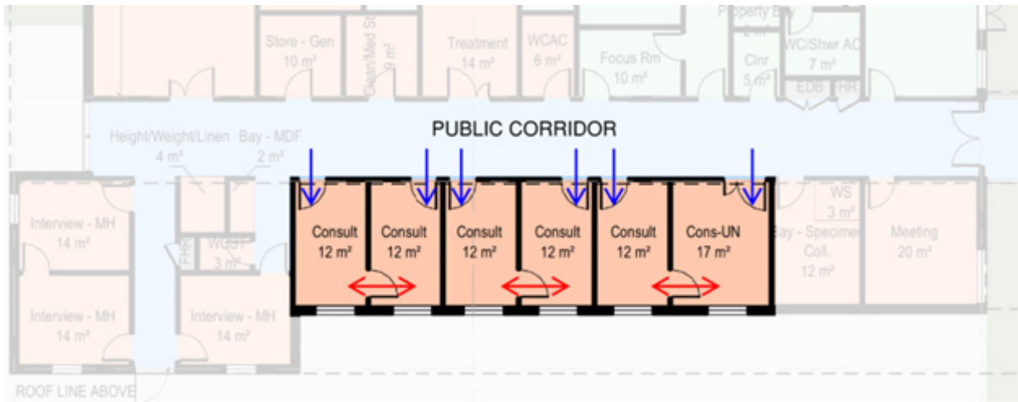
- All patient rooms are placed on the perimeter of the unit with access to natural light to provide a therapeutic environment;
- 1-Bed Special rooms are close to the entry and the main Staff Station, minimising the travel distance for transferring and nursing this patient cohort.



Zonal plan showing Staff Zone & Bedroom configuration

Example 3: Consult Room Configuration in Ambulatory Care

The consult rooms in Ambulatory Care are arranged along the southern facade, with patient/visitor access via the main public corridor. Each consult room has access to natural light, with a second door opening into a neighbouring room. This second door serves as a staff egress point, satisfying the principles of Protecting People & Property (PPP).



Configuration of consult rooms in Ambulatory Care

Room Numbering System

For the purpose of documentation on the Temora Hospital Redevelopment Project, the following room numbering system has been adopted in the architectural drawings, RDS and SOA:

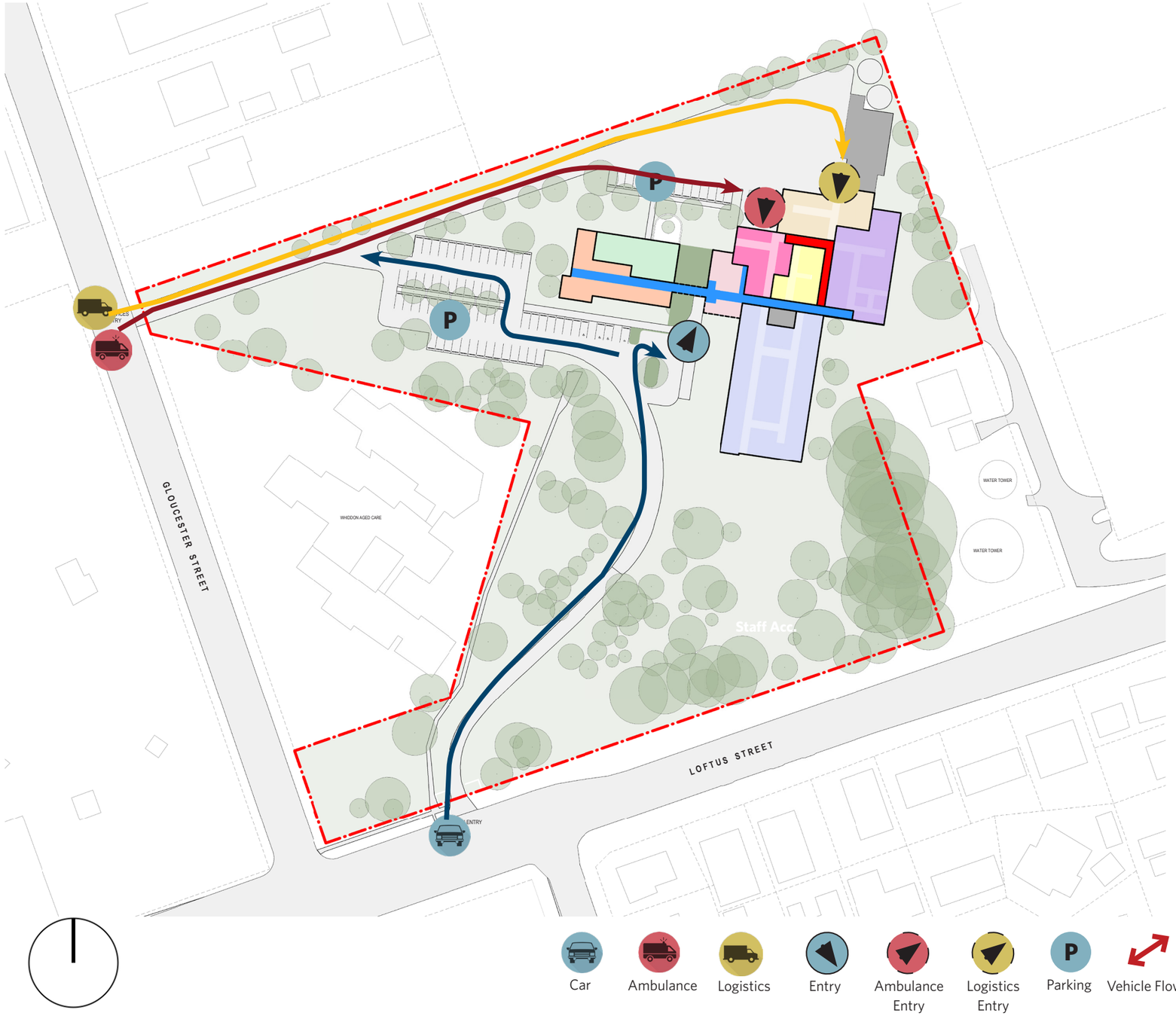
Department	Room Numbering System	Example
Inpatient Unit	Typically the room numbers include the project, department, and a four digit room identification number.	**THSU.IPU.3001** (Temora Hospital Redevelopment, Inpatient Unit, Room 3001)

04_DEVELOPMENT PROPOSAL

4.4 Master Plan

Schematic design for Temora Hospital follows the key masterplan principles defined in previous phases.

- Occupies the top of the hill to continue the legacy of the 'hospital on the hill'.
- Sited appropriately to enhance the value of the arboretum.
- Occupying the levelled part of the site allows for a larger footprint and therefore a single storey building.
- A single storey building maximises planning and construction efficiencies.
- Allows for clear separation of flows with dedicated visitor entrance and ambulance / service roadways.
- Allows for efficient future expansion of ambulatory care to the west and IPU to the south.
- Requires a staged construction to support business continuity within the existing building whilst construction is underway.
- Staff accommodation is no longer part of the project scope however future provision is masterplanned for KWA to be added to the south of the site within the arboretum setting.



Key

- Emergency
- Imaging
- IPU
- Maternity
- Ambulatory Care
- Peri Op Suite
- Admin
- FOH
- Support Service

04_DEVELOPMENT PROPOSAL

4.5 Infrastructure Master Plan

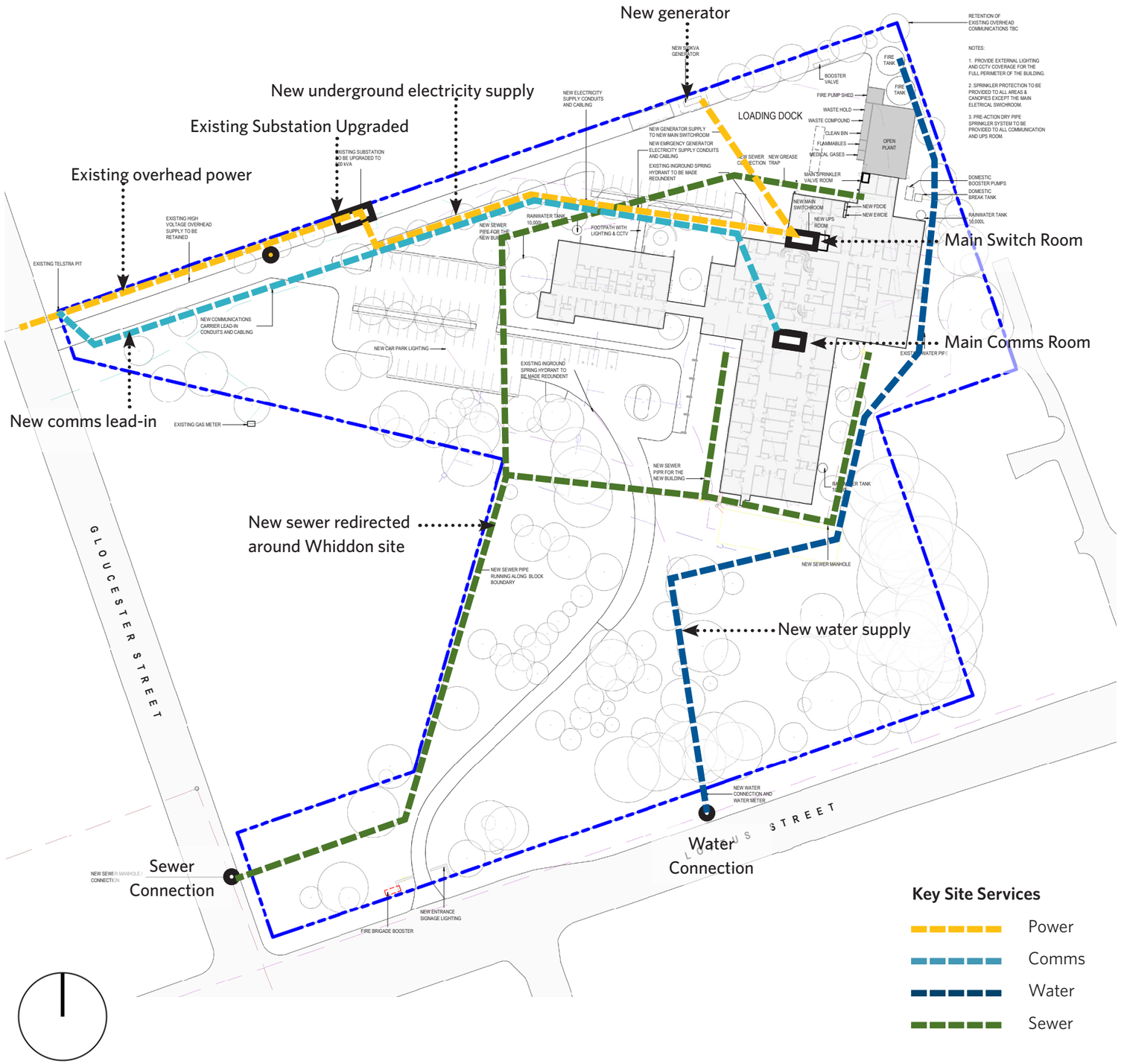
Key infrastructure mains servicing the existing facility have been identified on the plan adjacent.

The electricity supply authority for Temora is Essential Energy. The overhead high voltage (HV) supply cabling enters the site from Gloucester Street along the northern boundary of the site and transitions to HV underground cabling to supply two pad mount substations. In consultation with essential energy these substations will be upgraded to 500kVA.

There is a Telstra fibre service and an NBN copper lead-in servicing the site from separate pits on Gloucester Street. The existing NBN conduits appear to be under the access road from Gloucester Street and only buried to a depth of 0.2m. It is proposed that new lead-in conduits are installed due to the shallow depth of existing lead-in conduits. The new conduits will be extended to a new lead-in facility in a new Main Equipment Room.

Temora Hospital is surrounded by an authority water supply on all three sides of the site making up a ring main system to provide water to the hospital site. The hospital has three water supply connections providing both domestic and fire water supply however investigations identified that only the 100 diametre service from Loftus St is in use. Water and hydrant mains are located under the site of the stage 1 construction which will require relocating for the new build and to maintain operations of the existing hospital and nurses accommodation during stage 1 demolition works.

The existing sewer main servicing the hospital runs under the Whiddon aged care site. A new connection will be established within the hospital site with the new connection running adjacent to the Whiddon boundary to a new connection on Gloucester St.



04_DEVELOPMENT PROPOSAL

4.6 Schedule of Accommodation (Design vs. Brief)

The Summary Schedule of Accommodation (SoA) below is based on the latest revisions of the SoA V3.4 issued by Capital Insight (CI) as Excel files, and includes changes and departures made during the schematic design consultation process.

SCHEMATIC DESIGN – SUMMARY OF AREAS							
No	Department Name	Net Briefed Area (m^2) Excluding circulation	Briefed Circulation	Gross Briefed Area (m^2) Including circulation	SD Designed Area including circulation	Diff.	Comments
1	Front of House	115	29	144	154	+10	Assembly area relocated to Front of House during Schematic Design
2	Emergency Department	185	71	256	284	+28	Additional area provided to Clean Utility as well as rooms requiring dual egress.
3	Inpatient Unit	597	226	823	922	+99	Additional area required for racetrack configuration and engineering spaces. Second staff room added for 24-hour zone.
4	Maternity	110	38	148	167	+19	Additional storage area provided off neonatal bays. Added circulation to provide access to main corridor through to Perioperative.
5	Medical Imaging	152	55	207	207	0	N/A
6	Perioperative	392	151	543	579	+36	Additional area provided for circulation to achieve a functional layout.
7	Non-Clinical Services	255	41	296	320	+24	Additional area provided for circulation to achieve a functional layout.
8	Ambulatory Care	269	86	355	282	+27	Additional corridor area to provide required access to consult and interview rooms.
9	Staff & Office Area	21	52	262	275	+13	Additional area provided for circulation to achieve separation of flows to staff room and workspaces

Department	Travel/ CircuLation	Engineering	Total	SoA Circulation area	Difference	Comments
Front of House	15		15	28.8	-13.8	
Emergency Department	93	3	96	71.1	25.0	Increased circulation space to achieve desired functionality and flows within department
Inpatient Unit	271	10	281	226.3	54.7	Increased circulation space to achieve racetrack design and functionality
Maternity	30	3	33	38.3	-5.3	
Medical Imaging	51	3	54	55.0	-1.0	
Procedural	98	20	118	150.9	-32.9	
Back of House	64	95	159	41.4	117.6	Increased circulation space to achieve desired connections and dual entry and exit for rooms fronting the loading dock
Administration	21	3	24	51.5	-27.5	
Ambulatory Care	24	3	27	86.0	-59.0	
Hospital Public (Blue) Corridor	279	43	322	0.0	322.0	This the main hospital spine from which the departments within the 12 and 24-hour zone branch out. Access to open spaces has also been considered from this corridor for patient, visitor and staff amenity and to allow for natural light and views.
Staff (Red) Corridor	86		86	0.0	86.0	Main staff corridor allowing functional connectivity between the NCS and the various departments in the hospital as well as ready access for transfer of patients between ED, MI, Maternity and Perioperative departments.
Total SD T&E	**1032**	**183**	**1215**	**749.2**	**465.9**	

Schematic Design Plan Travel & Engineering

04_DEVELOPMENT PROPOSAL

4.7 Variances From CD / AusHFGs

Following the completion of the concept design phase in late 2023, a series of Project User Group (PUG) meetings were held during schematic design during which the following key planning changes occurred:

- It was determined that direct access between the Maternity and Perioperative Units was not required. As a result, the east-west corridor was extended allowing for the flow of natural light into the western end of the corridor, thus the lightwell was deleted; and
- An endoscopy procedure room with associated support spaces was added to the Perioperative Unit leading to an increase in the department floor area.

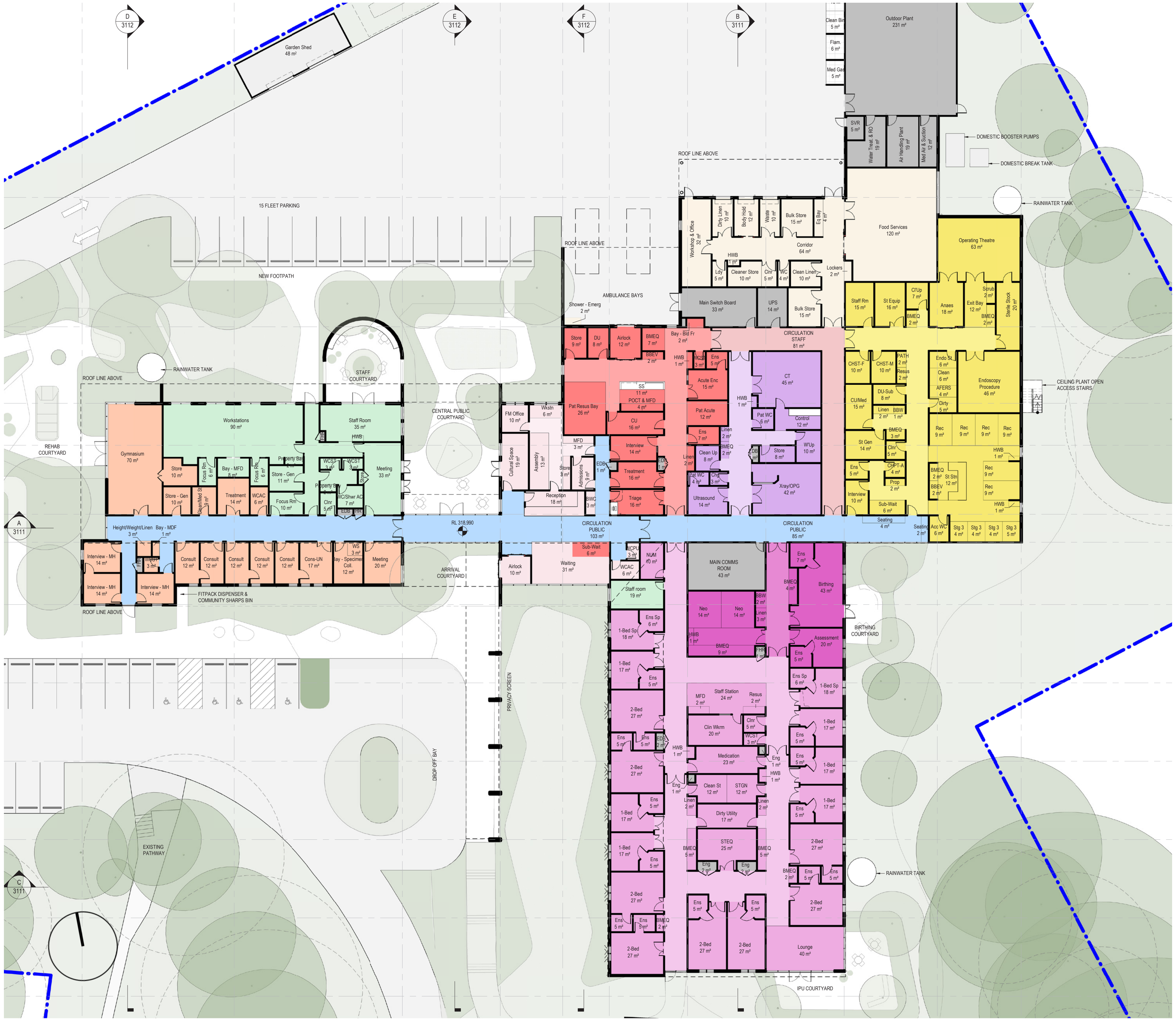
The Temora Hospital Redevelopment project utilizes the Health Infrastructure (HI) dRofus database system to manage the inputs of the functional design requirements for building fabric, fixture, equipment and services. The database has been established using the Australasian Health Facility Guideleines (AusHFG) standard Components as templates for room content. Where a relevant standard component does not exist within the AusHFG, appropriate benchmark projects have been referenced to inform the design.

During the schematic design process, the Project User Groups requested changes and additions to FFE as well as services provisions which vary from the standard AusHFGs. This information has been recorded in dRofus as design changes/ departures and will be further discussed and confirmed in the Detailed Design (DD) phase.

4.8 Schematic Design

Schematic design commenced by reviewing the clinical adjacencies agreed during the concept design phase and reassessed this in terms of key functional relationships and circulation flows for public, clinical (i.e. staff and escorted patients) and logistics. This phase was undertaken in close and detailed consultation with the Project User Group (PUG) over three rounds of meetings for each department. The MLHD Project Redevelopment Team, Health Infrastructure's Project Director, the Project Manager and the Architects participated in the user group process. The planning for each department was benchmarked against the Australasian Health Facility Guidelines, the lessons learnt from the clinical operations and functionality of the existing Temora Hospital as well as the findings from other new regional hospitals around New South Wales.

Following is a summary of the schematic design phase for each department within the Temora Health Services Upgrade.

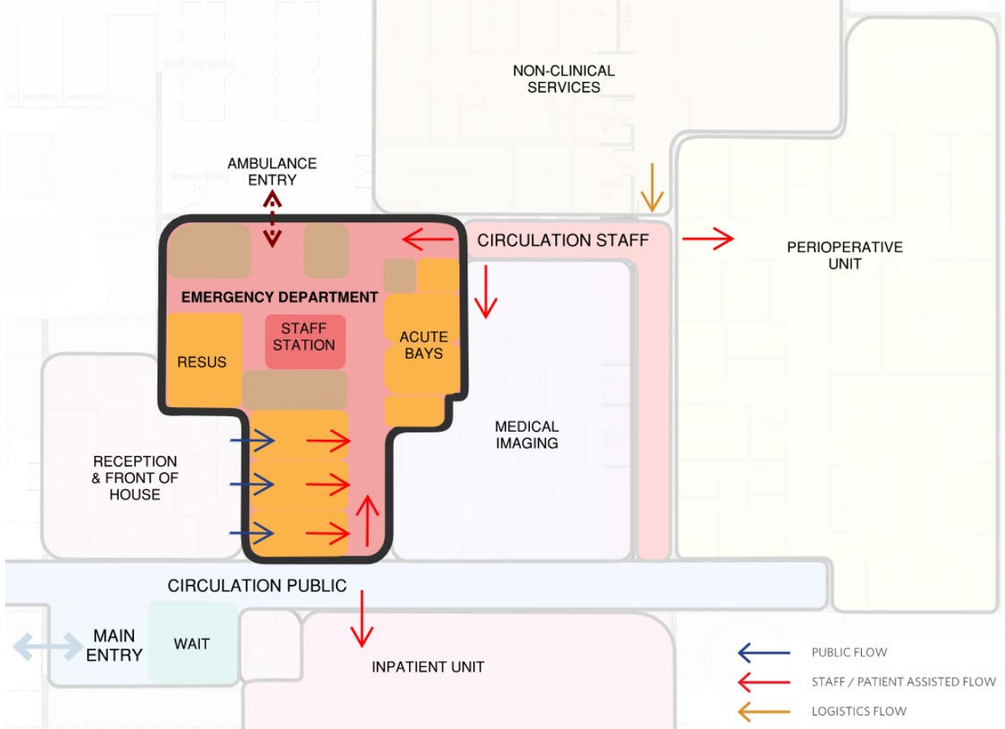


4.8 Schematic Design

Emergency Department

Summary of Schematic Design Stage

- Walk-in patients to the Emergency Department (ED) will arrive at the Reception/Triage which is visible from the hospital main entry airlock. The Triage function consists of: patient acuity assessment, level of urgency assessment, provision of basic first aid if required, and referral to the appropriate area for treatment. The Triage has direct view of the Main Entry airlock, Reception as well as the Main Waiting area in the Front of House;
- All weather Ambulance Bays and short term parking for other Emergency vehicles, including Police, are provided to the north of the ED. The Ambulance route has been comprehensively considered and ambulance flow has been separated from public traffic flow when entering the facility. Patients transported to the ED via ambulance will enter via the Ambulance Airlock;
- The Resuscitation Bay has been designed with immediate access from the Ambulance Entry Airlock. There is a clear separation from the Acute Treatment Area and the rest of the patients and visitors in ED to allow for privacy of patients and relatives;
- The Acute Zone is within an open plan patient area with a centralised staff base to allow for close observation and monitoring;
- A multifunctional Treatment Room has been provided for minor procedures with dual direct access from Front of House as well as from within the ED;
- A separate staff-only corridor enables direct and discreet access from ED to CT, X-Ray and Ultrasound within the adjacent Medical Imaging department. This corridor also provides separate and ready access from ED to the Perioperative Unit;
- Non-clinical services will access the ED via the staff only corridor;
- A decontamination shower and eye wash station has been provided in the ambulance bays outside the ED.



Zonal Plan - Emergency Department

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	31/10/2023	Staff station was requested to be rotated to allow for maximum visibility of patient bays. The Ensuite off the corridor was increased in size from 5sqm to a 7sqm accessible ensuite.	Increase in size of patient Ensuite from 5sqm to 7sqm for accessibility (staff-assisted).
SD PUG#2	21/11/2023	Two options were presented during the meeting. The PUG confirmed the preferred option for the ED. Blood Fridge was requested to be located in the staff (red) corridor for access from ED, Medical Imaging and Perioperative Departments as well as the IPU and Maternity.	It was advised post-meeting to increase the area of the Clean Utility from 9sqm to 12sqm. It was also requested post-meeting to add a bay close to the staff station to accommodate a multi-function device for the ED.
SD PUG#3	15/01/2024	The Layout of the ED was confirmed. The Treatment and Interview Rooms were requested to be swapped. A second door was added to the Treatment Room for direct access from the Front of House. The Blood Fridge Bay was relocated to within the ED with ready access from Medical Imaging, Periop as well as IPU and Maternity.	Nil

Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

04_DEVELOPMENT PROPOSAL

4.8 Schematic Design

Emergency Department

Summary of unresolved issues to be addressed in the next phase

- Extent of wall between Patient Resus Bay and Staff Station to be reviewed further allowing for all wall-mounted equipment in the Patient Resus Bay.
- Equipment storage within unit to be developed further in Detailed Design (DD) phase.
- The location of a Write-up space for NSW Ambulance officers to be determined during DD.

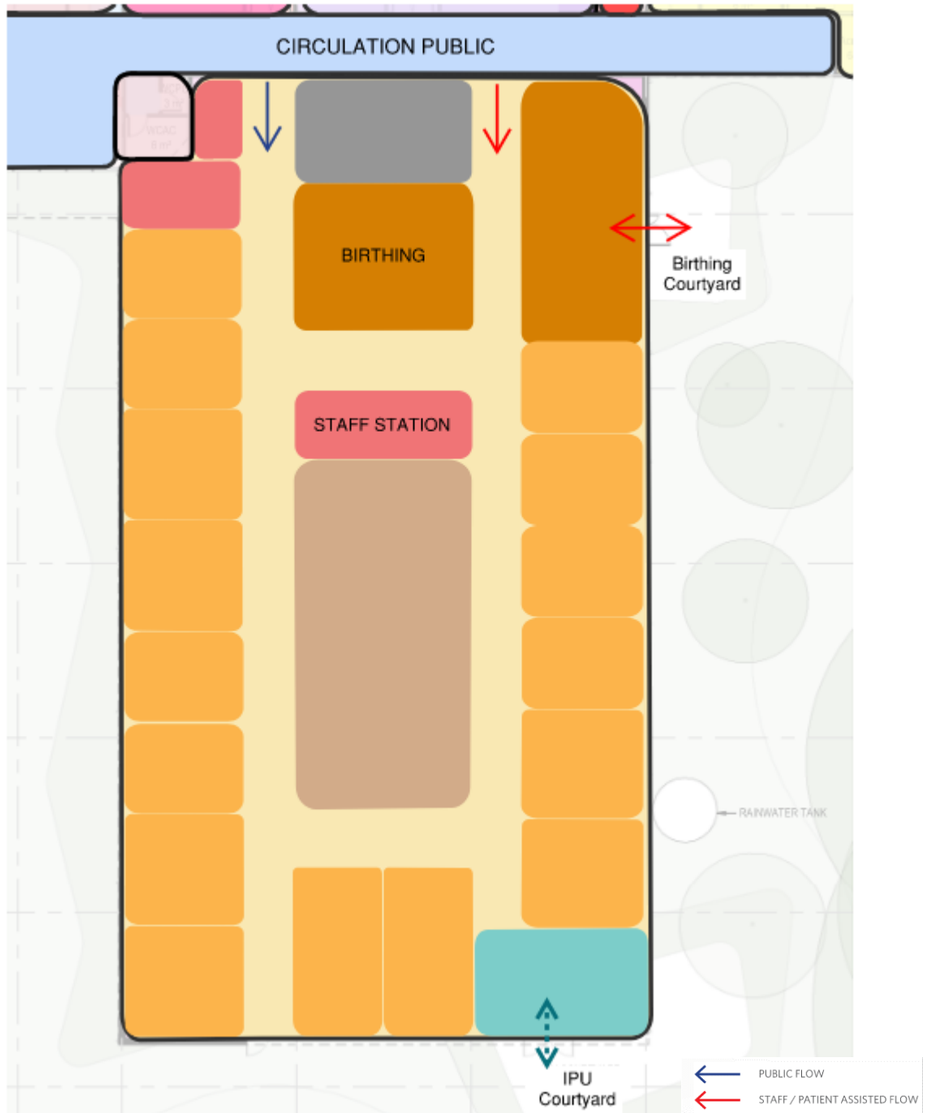
Schematic Design Endorsed layout

4.8 Schematic Design

Inpatient Unit

Summary of Schematic Design Stage

- The IPU will provide 24 Beds in total, consisting of 6 x Standard 1-Bedrooms, 2 x Special 1-Bedrooms and 8 x 2-Bedrooms. The majority of the rooms will be generic in design, in line with the AusHFG, with a consistent design approach and orientation in each unit;
- The Principle of 'See and Be Seen' for patients and staff is reflected in the relationship between patient rooms and staff work areas. Patient observation will be supported by direct sight lines, optimised siting of the patient bed, appropriate location of ensuites, and use of internal glazing;
- A general strategy for placing storage bays in available spaces between patient rooms has been adopted. This strategy allows for staff and equipment to be in close proximity to the area of use to ensure safe and efficient work practice;
- Travel distances around the unit are noted to be 42m from end to end;
- General zoning of patient care, clinical support and staff areas was agreed with patient areas located along the external perimeter to maximise access to light and view, with the clinical and staff support zones located in the centre. Critical spaces such as the medication room, clean store and dirty utility will have dual access from both the eastern and western corridors of the department;
- The location of the dirty utility, being a shared room, was agreed upon following considerable discussions with the Maternity Unit PUG;
- A second staff room has been located near the entry into the IPU which will cater to the 24-hour zone staff, particularly after hours; (noting that the facility's main staff room is located in the 12 hour zone)
- A large patient lounge is located at the south-east corner of the unit, taking advantage of natural light as well as outlook to the established arboretum on site, while maintaining a degree of privacy and quietness for patients. Access to an external secure courtyard has been provided serving as an area of respite for patients and their families;
- Direct access has been provided for transfer of patients between Emergency Department (ED) and IPU across a minimal section of the main public (blue) corridor.
- An emergency egress is located at the southern end of the IPU, with a paved area that leads back to the car park level.



Zonal Plan - Inpatient Unit

04_DEVELOPMENT PROPOSAL

4.8 Schematic Design

Inpatient Unit

Summary of unresolved issues to be addressed in the next phase

- Staff safety measures have been reviewed, with feedback from MOH to be advised.
- Rationale for equipment storage within unit to be developed further

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	31/10/2023	The lightwell off the public (blue) corridor was requested to be reviewed and deleted if possible to provide greater functionality for the IPU. The order of the central support spaces was reviewed. Clean and General Stores were requested to be collocated in one space. 2 x 1-Bedrooms were requested to be located adjacent to the Maternity Unit for maternity patients.	Ensuites to the Special Bedrooms were increased in area from 5sqm to 6sqm.
SD PUG#2	21/11/2023	Staff station was requested to extend across both eastern and western corridors. Patient Lounge moved to central location along the eastern façade.	Areas of central support spaces including Clean Store, Medication Room, Dirty Utility and Equipment Store increased due to dual access from both eastern and western corridors.
SD PUG#3	12/12/2023	Three options for the location of the Dirty Utility were presented. Final location was confirmed following review with Maternity PUG.	Nil

Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

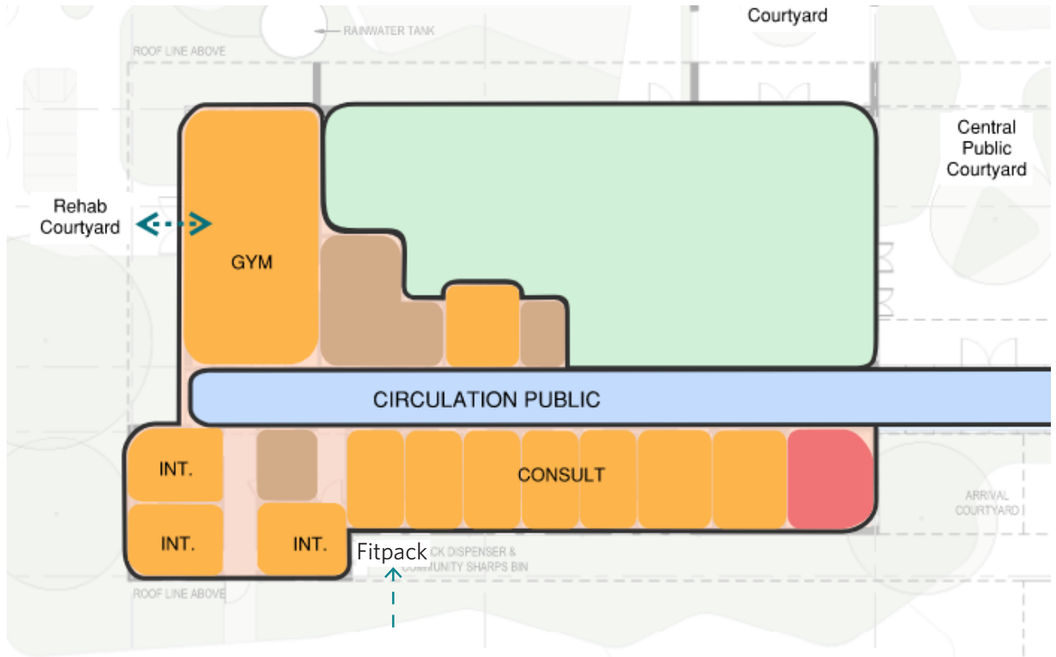
Schematic Design Endorsed layout

4.8 Schematic Design

Ambulatory Care

Summary of Schematic Design Stage

- The Ambulatory Care Centre (ACC) sits at the western end of the hospital within the 12-hour zone. The Ambulatory Care Centre will open between 8am and 5pm, Monday to Friday excluding public holidays. Some clinics may operate after hours or on Saturdays. Access to therapy spaces including the rehab gym will be available outside of these hours to hospital staff and admitted patients. Out of hours access will be regulated by staff only using electronic access control (swipe card);
- The main public corridor of the Hospital runs through the ACC allowing for ease of way finding for patients and visitors;
- The ACC comprises 6 x Consult Rooms including 1 x larger universal consult room to accommodate a range of patients. Importantly, each Consult Room has been provided with dual egress points, in line with Ministry of Health (MOH) Protecting People & Property (PPP) Principles;
- The ACC also includes 3 x Interview Rooms which will cater for Mental Health services who will use these rooms for scheduled appointments with a MHDA professional or for a virtual consultation. These rooms will be non-clinical in feel and provide dual egress to optimise staff and patient safety;
- All consult and interview rooms are located along the façade allowing natural light and views of the landscape for patient and staff amenity and well-being;
- The Treatment Room is located close to the entry of the unit while maintaining a central location in relation to the Consult Rooms allowing for ready access;
- The large Gymnasium is located at the north-west facade of the department, bringing in natural light and views for patient and staff amenity, as well as providing access to private external Rehab Courtyard out of sight from the rest of the Hospital including the car park;
- Support spaces including storage areas and patient toilets are located central to the Consult, Interview and Rehab spaces for greater patient accessibility.
- Fitpack dispenser is located outside of ambulatory car with access from the main carpark.



Zonal Plan - Ambulatory Care

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	31/10/2023	Equipment Store was to be collocated with the Gymnasium. It was confirmed that the Resus Bay was not required and is to be deleted. Accessible WC was requested to be located close to Specimen Collection. The Treatment and Medication Rooms were requested to be located adjacent to each other.	The following rooms were confirmed to be deleted: • Handwash Bay • Resus Trolley Bay • Clean-Up room • Equipment Store (to be combined with Gymnasium)
SD PUG#2	21/11/2023	Two options for the configuration of the Consult Rooms was presented. The preference was to locate the Consult Rooms off the public (blue) corridor along the southern façade. Size of Gymnasium to be reviewed outside of meeting with HI.	Nil
SD PUG#3	12/12/2023	The Treatment and Medication Rooms were requested to be located adjacent to each other. Provision of Staff WC was to be reviewed due to proximity with Admin space which includes WC for Staff. Wait space for Pathology confirmed not to be provided as patients cannot to be monitored when Pathology staff are occupied. Main Wait in FoH to be utilised as it allows for consistent oversight from FoH & Triage Staff.	Nil

Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

4.8 Schematic Design

Ambulatory Care

Summary of unresolved issues to be addressed in the next phase

- Pathology/MLHD to provide team with required equipment list to assist with planning of room.
- MLHD and NSWH Pathology to document an agreed Operating Procedure for management of pathology patients undertaking a Glucose Tolerance Test, in order to address concerns regarding patient supervision.

Schematic Design Endorsed layout

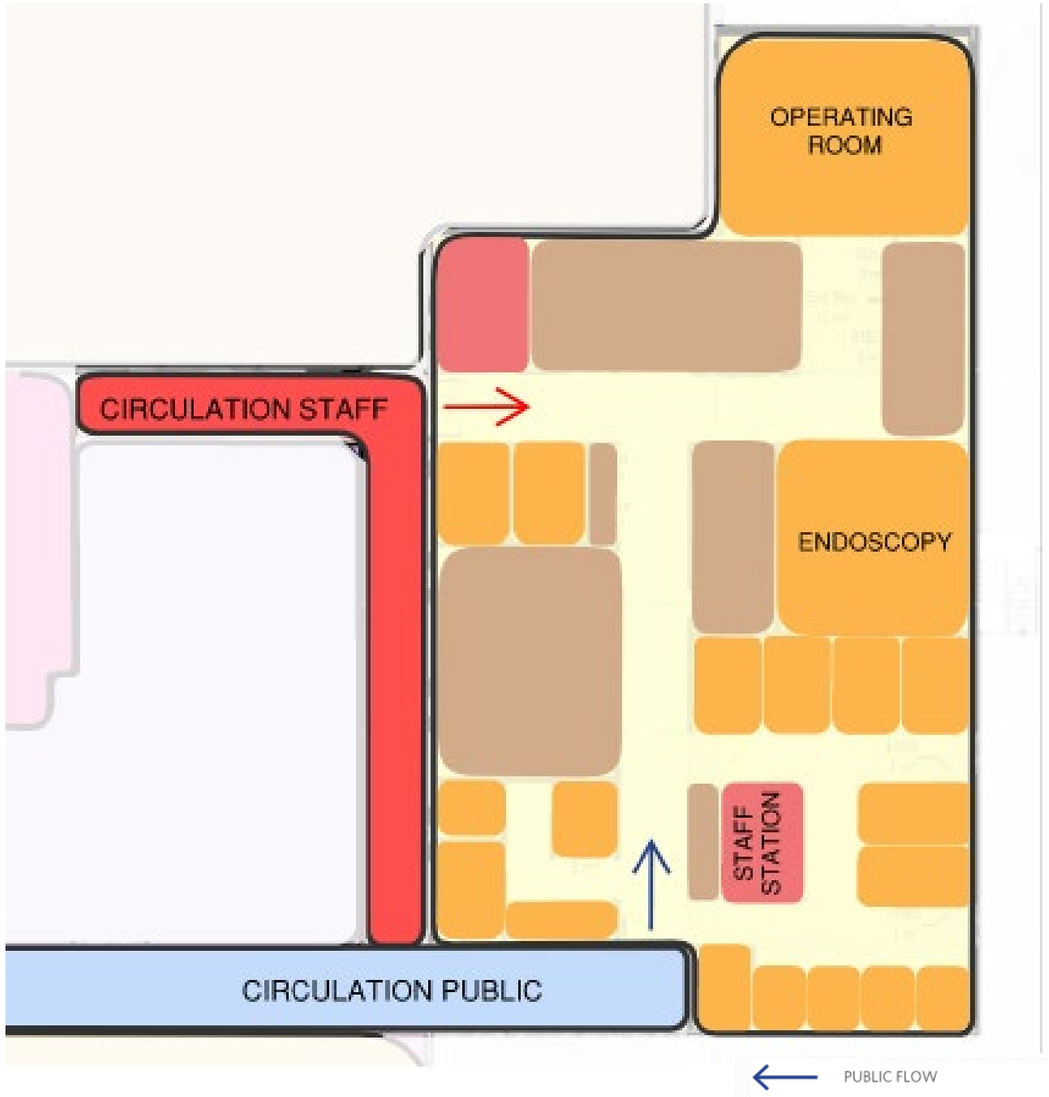
04_DEVELOPMENT PROPOSAL

4.8 Schematic Design

Perioperative Unit

Summary of Schematic Design Stage

- The Perioperative Unit (Periop) houses two procedure rooms – 1 x 55sqm General Operating Theatre and 1 x 45sqm Endoscopy Procedure Room. These procedure rooms are located towards the northern back end of the unit, in close proximity to the staff (red) corridor, allowing separate bed access from the Emergency, Medical Imaging and Maternity Units as well as to back of house functions in the Non-Clinical Services zone;
- Patients will be directed from the Front of House waiting area along the public corridor into Periop, and via a separate door with intercom to enter into the unit. The change rooms and sub-wait area are located at the entry and includes a patient locker space which will be accessed as patients enter and exit the department;
- The interview room has dual access, with an entry point directly off the main public (blue) corridor and a second door leading into the periop unit and change rooms;
- The patient Holding/Recovery zone is located at the south-eastern façade of the building with access to natural light and views for patient amenity to aid in their recovery as well as for staff well-being. The staff base in this area is centrally located for maximum visibility of all patient bays;
- The support spaces specific to the procedure rooms are located in close proximity to these rooms for immediate and ready access. The sterile stock room is located centrally to both procedure rooms with a second direct access into the Operating Theatre;
- The rooms supporting the procedure rooms as well as the holding/recovery area are located central to both zones;
- The periop staff room and change rooms are located off the staff red corridor to maximise separation of flows and maintain staff privacy;
- The separation of “clean” and “dirty” flows has been reviewed in detail during the schematic design phase and has been optimised.



Zonal Plan - Perioperative Unit

04_DEVELOPMENT PROPOSAL

4.8 Schematic Design

Perioperative Unit

Summary of unresolved issues to be addressed in the next phase

- Concern was noted about the area available for sterile stock storage. Noting that the proposed 20 sqm. room complies with AusHFG sterile stock requirements. This is to be further discussed.

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	21/11/2023	Staff Room to be located away from Recovery Area. Staff Change room location to be reviewed to separate clean and dirty flows within the unit. Location of support spaces to be reviewed with a view to having key clinical rooms such as Clean Utility and Medication Rooms central to Procedure and Recovery areas.	Nil
SD PUG#2	12/12/2023	Visual separation of Stage 1/3 and 3 recovery bays was to be reviewed and achieved. The anaesthetic and exit/scrub bays to the Operating Theatre are to be swapped to facilitate smoother bed movement into and out of the operating theatre.	Nil
SD PUG#3	19/12/2023	Recovery and entry area to be further reviewed to maximise staff observation from the Staff Station.	Nil

Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

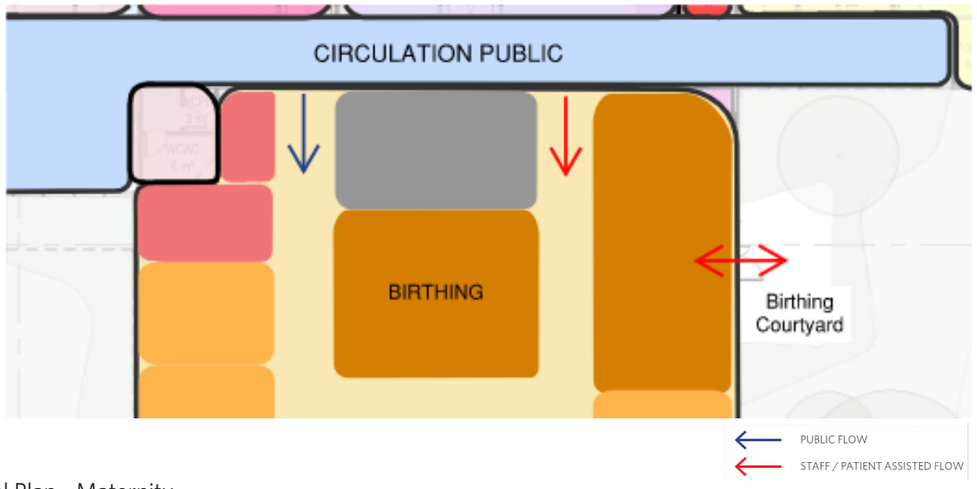
Schematic Design Endorsed layout

4.8 Schematic Design

Maternity Unit

Summary of Schematic Design Stage

- The Maternity Unit has been planned keeping in mind maximum privacy for the patient in the birthing and assessment rooms, immediate access to the Perioperative Unit in cases of emergency while maintaining staff oversight from the IPU staff station.
- The Birthing room has been located at the north-eastern end of the unit with ready access to the staff (red) corridor leading to the operating theatre. A key decision was made during the schematic design phase that direct access from the birthing room into the Periop unit was not required, and that the transfer of patients from Maternity to Periop would be managed by staff across the public (blue) corridor, where the doors will be managed operationally and closed during transfer.
- The Birthing and Assessment Rooms have access to natural light, with the birthing room opening into a private courtyard for the well-being of the patient and their families;
- Support spaces for this unit have been located in close proximity to the Birthing and Assessment Rooms;
- The Neonatal bays have direct access from within the Maternity Unit with oversight and observation from the IPU staff station;
- There were extensive discussions around the location of the dirty utility which is within the IPU and is shared between the two departments. The final location of the dirty utility was decided based on the acceptable distance from the Maternity Unit and convenient access to the room.



Zonal Plan - Maternity

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	01/11/2023	A key outcome from the meeting was confirmation that direct access from Maternity to Periop was not required and it was acceptable to transfer patients across the public (blue) corridor to the staff (red) corridor. The assessment room would also be utilized for birthing cases when required. As a result, the assessment room would benefit from being along the façade.	Nil
SD PUG#2	22/11/2023	Location of Dirty Utility in the IPU to be further reviewed as it is shared with Maternity. PUG noted that the current AusHFG standard component for the Birthing Room is not ideal for Temora Hospital Maternity. To be further reviewed in Detailed Design (DD) phase.	Nil
SD PUG#3	13/12/2023	Location of Dirty Utility shared with IPU confirmed as acceptable.	Nil

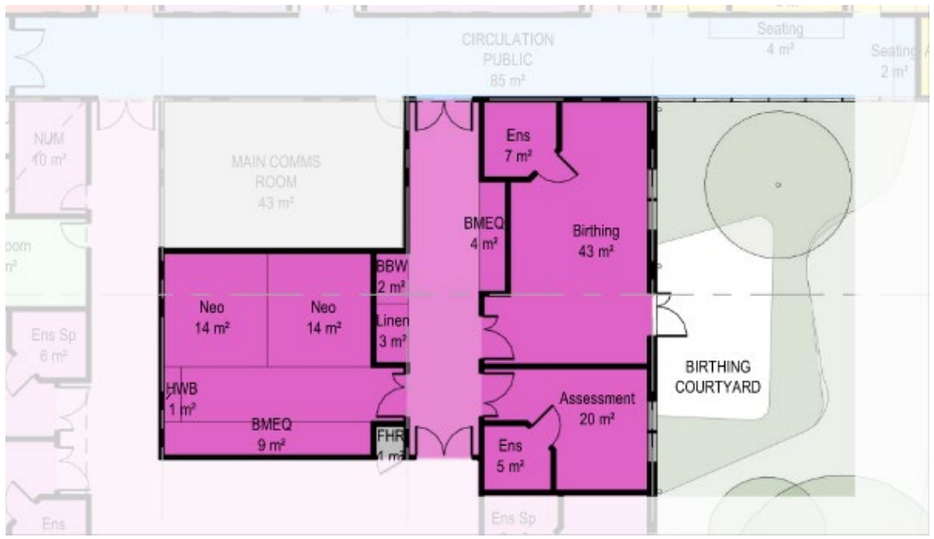
Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

4.8 Schematic Design

Maternity Unit

Summary of unresolved issues to be addressed in the next phase

- MLHD to advise the type/brand of the bath for the birthing suite
- Rationale for equipment storage within unit to be developed further
- Room layout for Birthing Room to be reviewed in detailed Design (DD) phase, noting that there are accepted precedents within MLHD.



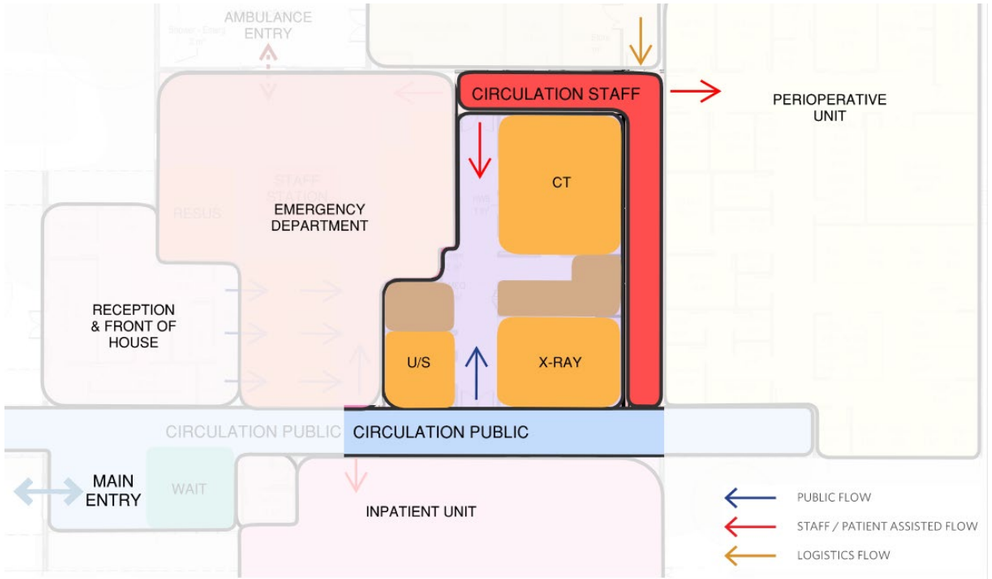
Schematic Design Endorsed layout

4.8 Schematic Design

Medical Imaging

Summary of Schematic Design Stage

- The Medical Imaging (MI) unit includes Ultrasound, General Xray and CT rooms. Scheduled patients will be escorted to the department from the main waiting area in Front of House (FOH);
- A single internal corridor runs from entry into the unit through to the staff (red) corridor allowing for oversight of both doors as well as reducing the number of turns for beds accessing the imaging rooms;
- A staff zone comprising the CT control room, workstations and storage area has been centrally located within the department;
- Care has been taken to ensure that patients and visitors into the unit have no visual access to private information on staff computers within the control rooms and workstations;
- Direct access from Emergency and Perioperative departments has been provided into MI via the staff (red) corridor.



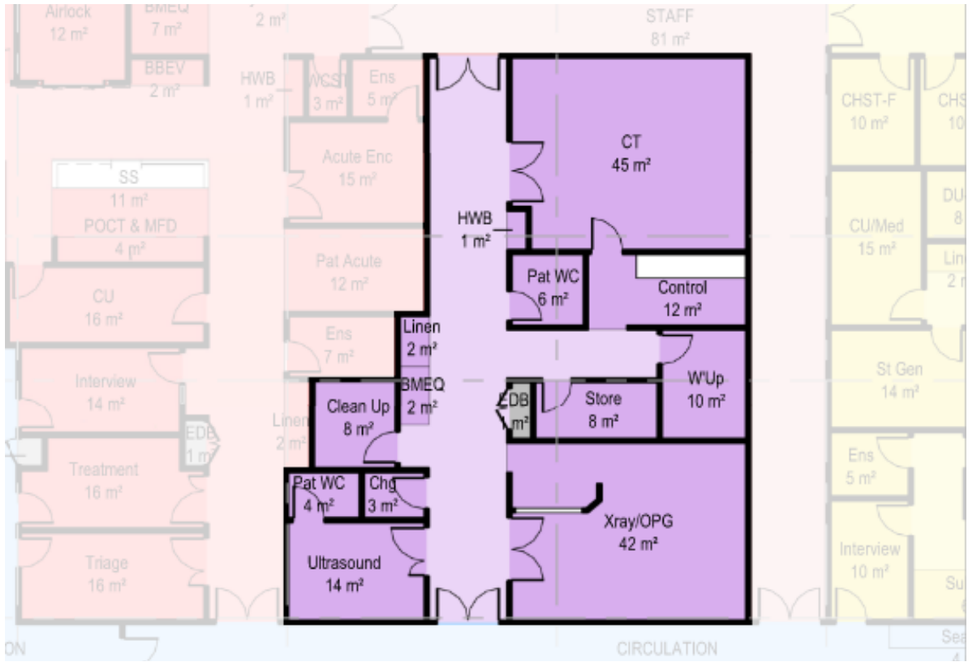
Zonal Plan - Medical Imaging

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	22/11/2023	Patient WC is to be relocated from within Xray unit to be accessed from corridor. Workstation area is to be enclosed to facilitate private conversations. It was confirmed that the doors to the control rooms are to be deleted and replace with open doorways.	Patient WC increased from 4sqm to a 6sqm accessible WC.
SD PUG#2	13/12/2023	Linen and Mobile Equipment Bays were requested to be collocated and kept as open spaces to facilitate movement of the Xray machine in and out of the bay. The 4sqm accessible Change Room was confirmed to be deleted and the Store Room increased to 9sqm.	4sqm Accessible Change Room deleted. Store Room increased from 4sqm to 9sqm.

Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

Summary of unresolved issues to be addressed in the next phase

- Rationale for equipment storage within unit to be developed further.



Schematic Design Endorsed layout

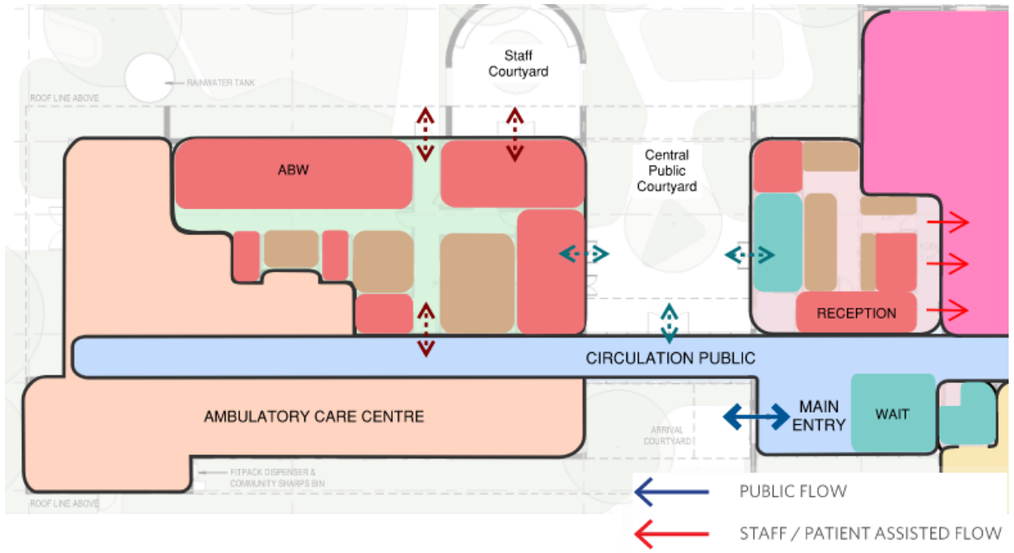
04_DEVELOPMENT PROPOSAL

4.8 Schematic Design

Front of House & Administration Area

Summary of Schematic Design Stage

- The Front of House (FOH) area has been designed to provide a welcoming space for patients and visitors with direct line of sight to the Reception from the Main Entry to the Hospital. The interior design and finishes in this area to achieve a welcoming environment will be further explored in the Detailed Design (DD) phase;
- The Main Waiting area sits along the façade bringing in natural light and also providing views out to the landscape. Care has been taken to ensure that patients and visitors in the waiting area have no visual access to patient bedrooms in the IPU;
- The Reception has been located in direct view from the Main Entry while also providing maximum oversight of the Waiting area;
- The Cultural Space serves as a multi-functional area of respite for patients and visitors with access to natural light and an external courtyard. This space sits in close proximity to the Main Waiting area with oversight from staff at Reception;
- The public amenities are located close to the Main Waiting area while maintaining privacy for patients and visitors;
- To the rear of the Reception sits some staff and admin spaces including the Facility Manager's (FM) office, space for storage and multi-function device as well as a medical record /file Assembly area relocated from the Admin Department;
- The Admin area is located within the 12-hour zone of the Hospital and primarily houses an open plan workstation space as well as staff amenities including the main Staff Room for the hospital and staff WCs;
- A large Meeting as well as a smaller Focus Room cater for whole Hospital and are accessed from the main public (blue) corridor;
- Within the Admin zone, storage space has been maximised with ready access from the workstation area.



Zonal Plan - FoH & Admin

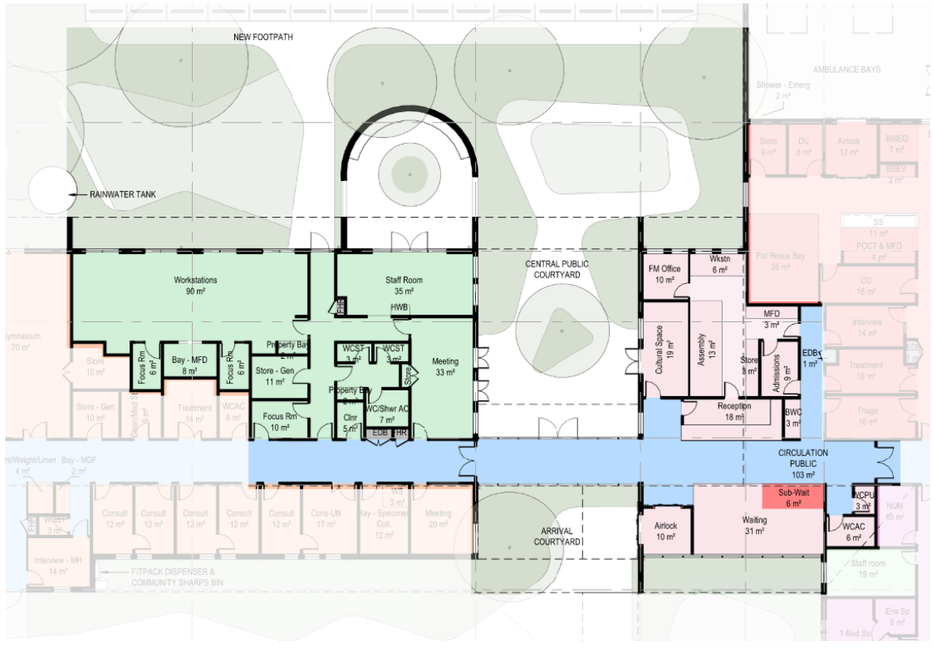
04_DEVELOPMENT PROPOSAL

4.8 Schematic Design

Front of House & Administration

Summary of unresolved issues to be addressed in the next phase

- Identify the type of equipment in the ABW Store and method of storage.
- Room name “Cultural Space” is to be reviewed.



Schematic Design Endorsed Layout

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	01/11/2023	**Front of House:** Location of Cultural Space to be reviewed. Preference was to relocate the room closer to the Waiting Area. Door to Reception from Front of House was confirmed not required due to second access point to the rear of Reception. Facility Manager’s (FM) office to be located within secure admin space behind Reception. Secluded access to Public WCs was noted as a concern. **Admin Zone:** It was requested to change Office x 2 & Store File x 1 to Focus Room x 3 It was raised that the Staff WCs could be swapped to the 24-hour zone which was to be confirmed prior to SD PUG#2.	1 x 9sqm office relocated from Admin to FOH for Facility Manager 1 x 9sqm office in Admin for Focus Room. Bay – MFD reduced by 1m2 to align with AusHFG.
SD PUG#2	22/11/2023	**Front of House:** Workstation to be added within Assembly Area. **Admin Zone:** Focus Room and Store locations to be swapped. Review whether it would be best to split the focus room into 2 x Rooms at 4.5m2 each.	Nil
SD PUG#3	13/12/2023	**Front of House:** It was noted that the room name “Cultural Space” is to be reviewed. 2 x workstations to be added to the admin space behind Reception. Concern noted regarding single access to the staff area if an incident occurs at triage. **Admin Zone:** Provision of storage cupboard opening into Meeting Room at the end of the corridor in the amenities area was to be reviewed. It was requested to review the location of the Staff Property Bay.	Nil

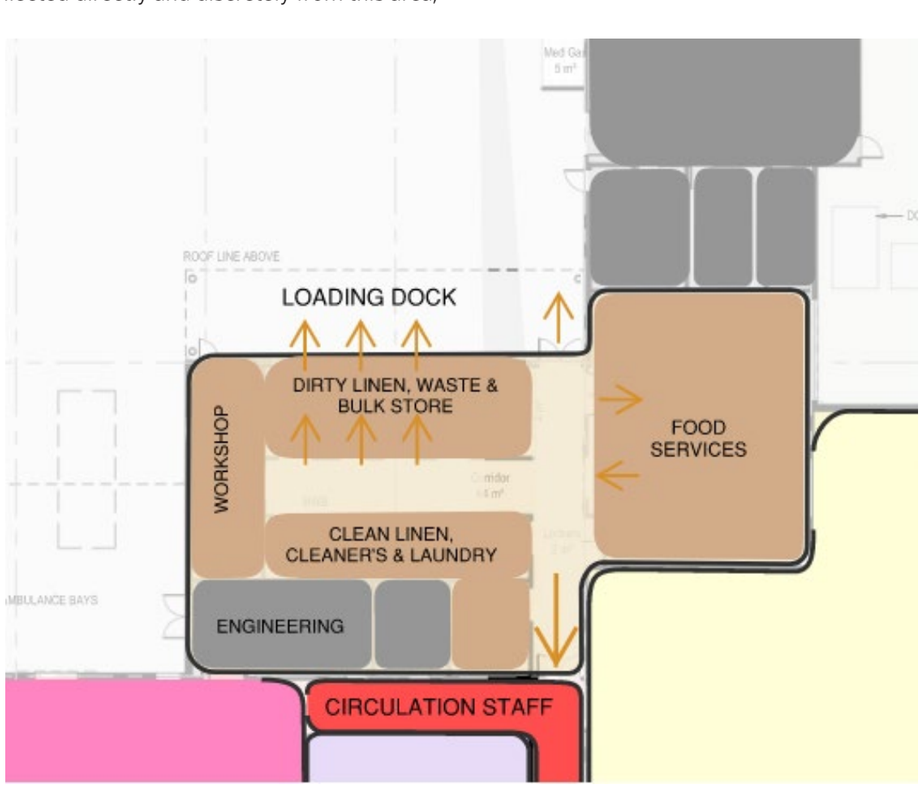
Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

4.8 Schematic Design

Non-Clinical Services

Summary of Schematic Design Stage

- The Non-Clinical Services area is located at the northern end of the hospital with direct and separate access from the loading dock. This area will be a staff only zone with electronic access control restricting entry to authorised personnel only;
- The separation of clean and dirty flows in this area has been carefully considered during the schematic design Phase. There will be a separation of clean and dirty linen movement and storage on the dock, and separation of flows in other areas of the hospital by covering clean and dirty transport trolleys. Access to other departments in the hospital has been provided in a straightforward manner;
- The Temora Hospital Body Hold will provide temporary cool room capacity. The Body Hold will have access restrictions and electronic access control will be used to ensure security. Bodies will be received, stored, and collected directly and discretely from this area;
- Food Services is provided with a direct, clean access route from the loading dock and separate access to clinical departments via the staff (red) corridor. For staff well-being, Food Services is located along the façade with a degree of natural light entering the area;
- The equipment repair Workshop will be co-located with a workstation for administrative functions. The Workshop has access to natural light along the façade and provides for dust extraction. This area will be a staff only zone with electronic access control restricting entry to authorised personnel only.
- The Loading Dock will also store portable medical gas cylinders and provide a secure store for flammable items and chemicals.



Zonal Plan - Non-Clinical Services

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	01/11/2023	Traffic movement study findings to be used to inform best location for skip bins/waste collection. Relocation of Clean Bin Hold /Waste Compound/Med Gas across along northern wall of Open Plant area was to be reviewed. Location of Food Services was to be reviewed. Size of Bulk Store to be reviewed to match SoA. It was confirmed that Dirty Linen requires direct access to Loading Dock.	Nil
SD PUG#2	22/11/2023	Two options were presented for the layout of Non-Clinical Services. The flows in the second option presented were preferred. Outdoor Garden Shed Storage was noted as undersized at the briefed area of 15sqm for equipment required. MLHD were to advise requirements. It was advised that Food Services would be more functional if rotated so that the long side is adjacent to the corridor which allows two entries, one in and one out. It was recommended to move internal Waste Hold to be adjacent to Dirty Linen.	Nil
SD PUG#3	13/12/2023	One of the Food Service double doors was replaced with an electronic sliding door. The roller door to the Bulk Store off the Loading Dock was removed. It was requested to combine the Cleaners Store with the Cleaner's Room to make more efficient use of space.	Nil

Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

4.8 Schematic Design

Non-Clinical Services

Summary of unresolved issues to be addressed in the next phase

- HealthShare to review requirements for Equipment Bay and advise opportunity to reduce its size.

Schematic Design Endorsed Layout

04_DEVELOPMENT PROPOSAL

4.9 Infection Control Measures

The overarching infection control principles for the Temora Hospital Redevelopment will provide a physical environment appropriate for the delivery of safe, high quality, patient-centred care. This will support service performance in accordance with the highest standards of safety and quality.

Infection prevention and control is a guiding principle behind all design decisions, especially those related to key clinical workflows, the size, collocations and detailed layout of patient care environments, including treatment areas, patient accommodation units and staff work areas. It is also embedded in the choice of materials and finishes, throughout the redevelopment.

Within the context of the built environment, the following components contribute to effective infection prevention and control, and are addressed in the schematic design solution:

- Correct number and locations of hand hygiene facilities – in accordance with the Functional Brief and the AusHFG;
- Adequate facilities for the isolation of infectious patients – Isolation Rooms and Personal Protection Equipment (PPE) Bays as required by the Schedule of Accommodation;
- Effective air handling, ventilation and water systems – see Services reports in relevant Appendix;
- Support for linen handling protocols;
- Separation of 'clean' and 'dirty' workflows;
- Storage of supplies, equipment and other items in appropriate locations and facilities;
- Waste management processes e.g. clinical waste will be bagged and contained in colour coded containers/bins and held in a secure area (Disposal Rooms) awaiting collection;
- Cleaner's Rooms will be conveniently located to minimise travel;
- Careful selection, detailing and associated facility maintenance regimes for all internal surface finishes.

The design responds to the requirements of the AusHFG Part D Infection Prevention and Control. These requirements have been monitored within all PUG meetings, in the design of standard rooms, and as part of the design for all clinical spaces in the Temora Hospital Redevelopment, throughout the schematic design phase. This will continue to be monitored during the upcoming Detailed Design (DD) phase.

04_DEVELOPMENT PROPOSAL

4.10 Staging Plans

The new Temora Hospital is being constructed on the site occupied by the existing hospital. Complex staging and decanting are therefore required to ensure that clinical services can be safely maintained on-site, and the building / engineering services facilitate service continuity throughout the construction period.

This decant strategy utilises the existing staff accommodation building to temporarily house ambulatory care functions during the period that they are displaced from the existing hospital to facilitate the construction of the new.

Stage 1

- Refurbishment of staff accommodation building for temporary use as ambulatory care.
- Decant works to western end of existing hospital building.
- Establish construction compound on adjacent site and site access via laneway.

Stage 2

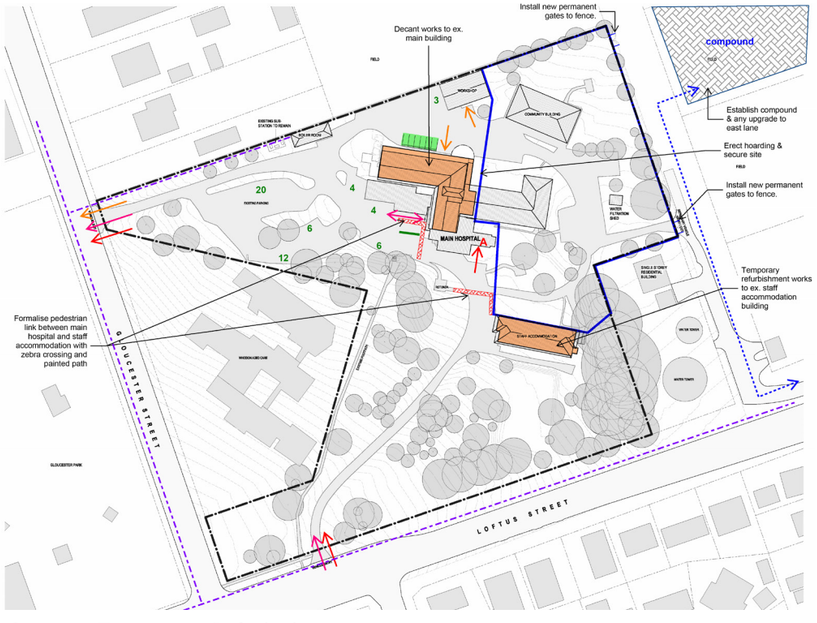
- Ambulatory services operating from old staff accommodation building.
- Remaining hospital services operating from western wing.
- Demolition of eastern wing and community building.

Stage 3

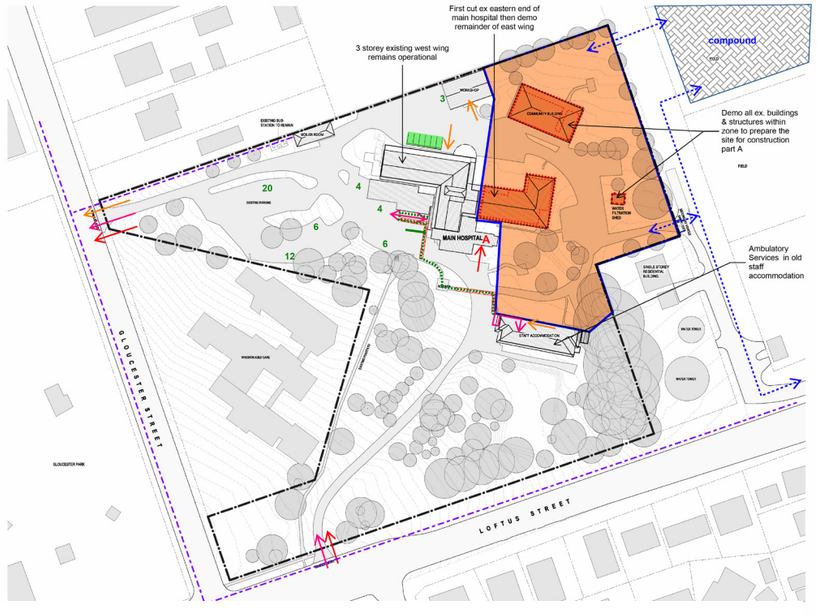
- Construction of eastern wing of new hospital building.

Stage 4

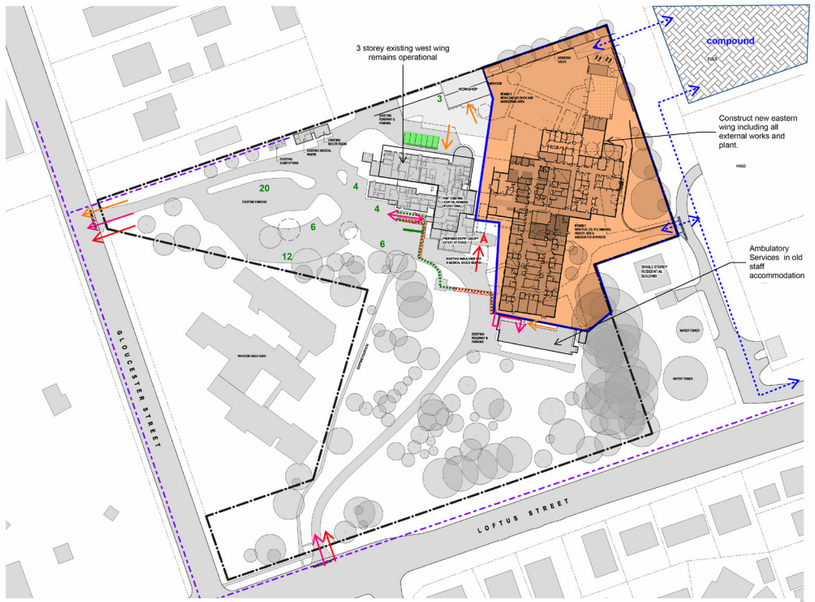
- Commence decant into new eastern wing of new hospital.
- Demolition of existing maintenance shed and construction of new garden shed.
- Upgrade new access roadway to Gloucester St.



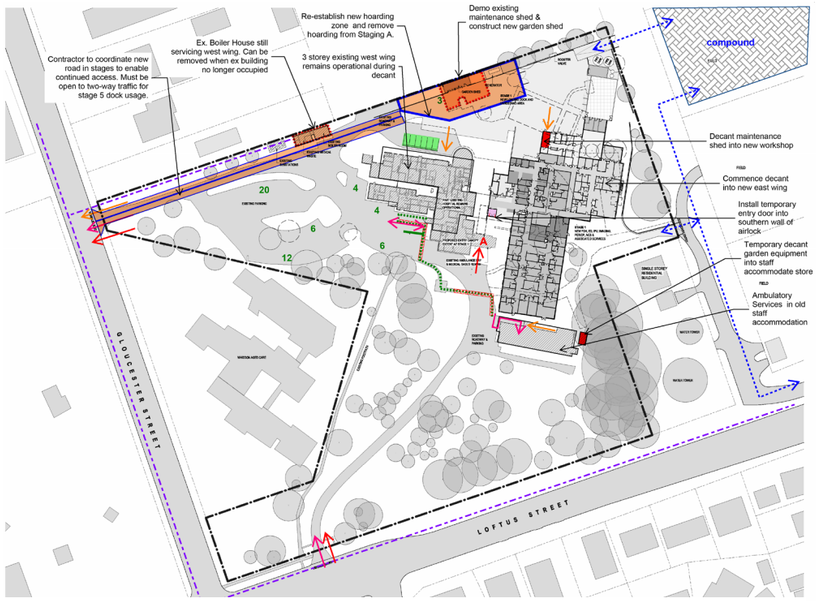
Stage 1 - Temporary Refurbishment



Stage 2 - Decant & Demolition



Stage 3 - Construction



Stage 4 - Construction

04_DEVELOPMENT PROPOSAL

4.10 Staging Plans

Stage 5

- New east wing becomes operational with temporary access path to main entrance.
- Ambulatory services continue from old staff accommodation building.
- Remainder of old hospital building demolished

Stage 6

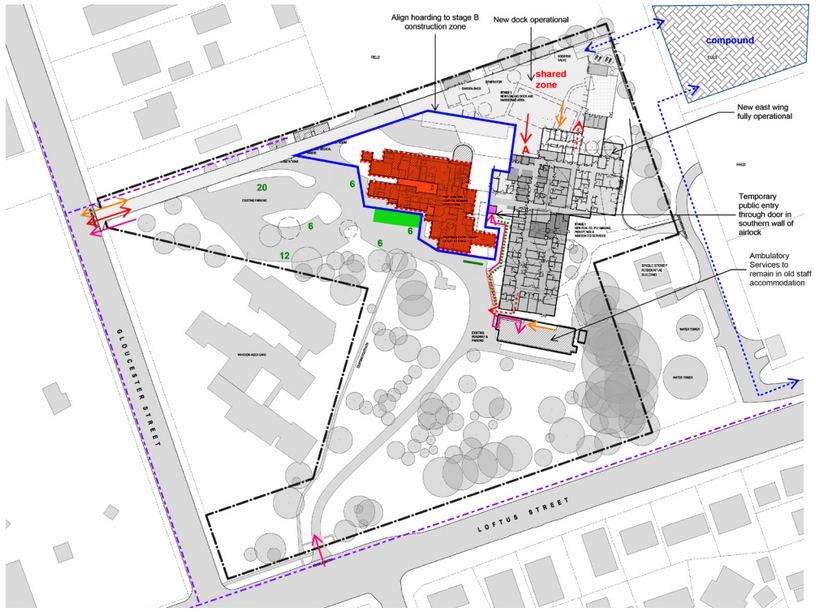
- Construction of west wing of new hospital.
- Construction of part of new carpark.

Stage 7

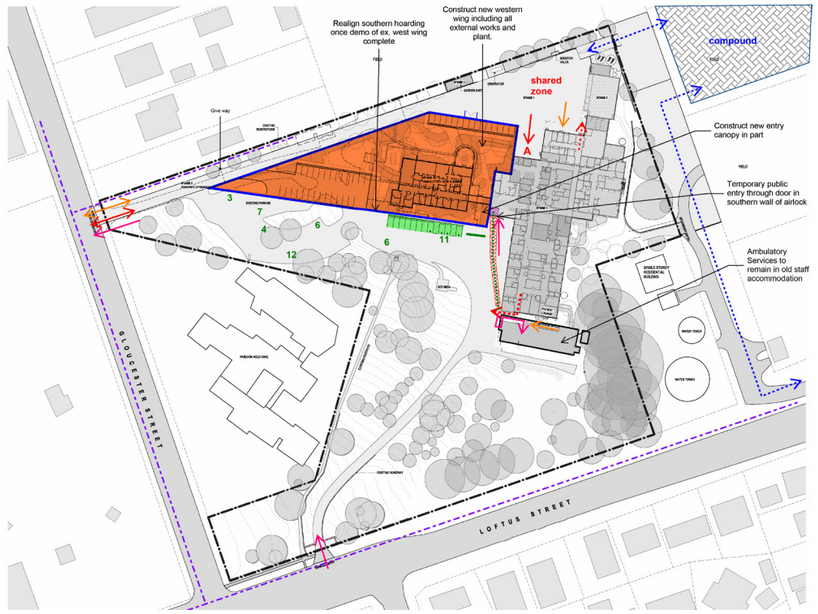
- Ambulatory services decant into new western wing and become operational.
- New hospital fully occupied and operational.
- Construction of remainder of carpark and dropoff area and canopy.
- Temporary main entrance access from part new carpark.
- All hospital traffic enter and exists from Gloucester St temporarily.

Stage 8

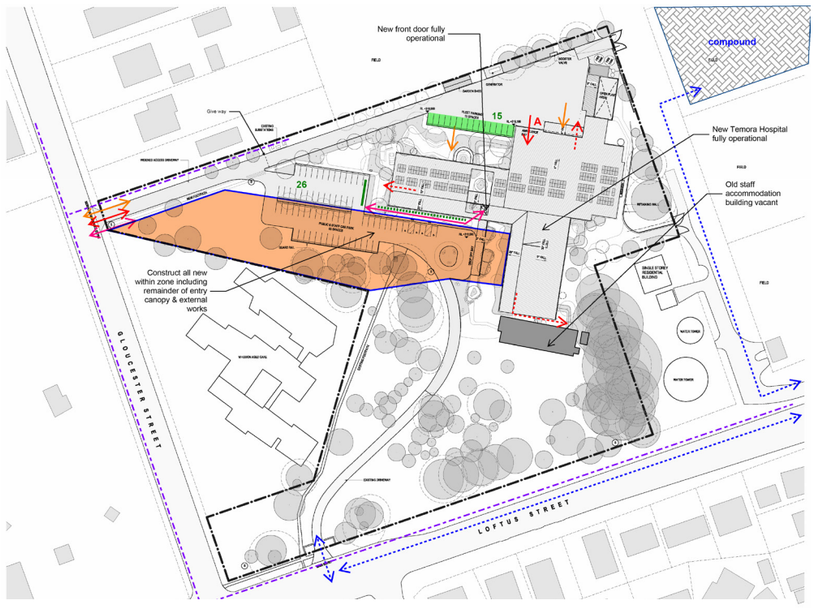
- Old staff accommodation building demolished.
- Carpark and dropoff area complete.
- All hospital traffic continues to enter and exist from Gloucester St temporarily.
- Construction of remaining site works and landscaping to southern portion of site.



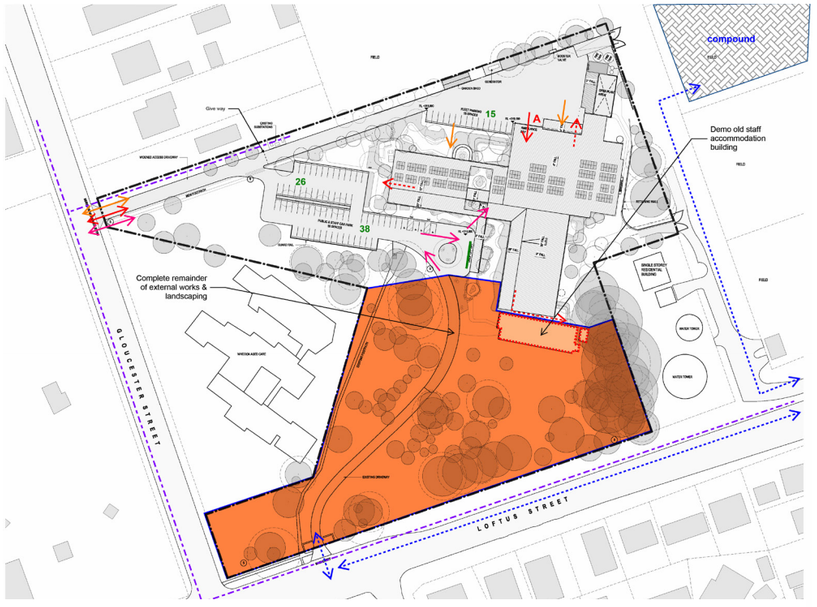
Stage 5 - Decant & Demolition



Stage 6 - Construction



Stage 7 - Decant & External Works



Stage 8 - Demolition & External Works

Architectural Design

05_ ARCHITECTURAL DESIGN

5.1 BIM Management Plan

The BIM Management section highlights the Design BIM Execution Plan, compliance with project requirements, and collaboration procedures. Collaboration involves regular BIM coordination meetings, resolving clashes, and maintaining model quality. Modelling requirements include establishing a model geo-reference point, discipline modelling standards, and quality control.

Specific uses of BIM aligned with HI Project Parts are detailed, and coordination procedures emphasize automated conflict checking, clash detection, and setting tolerances for clash tests during different project stages. The document also emphasizes the importance of regularly updating models and adhering to sharing protocols.

Roles and responsibilities for producing BIM documentation are outlined based on the NATSPEC National BIM Guide. This includes roles like Project Manager, BIM Manager, Lead BIM Coordinator, and various team roles responsible for modelling, reviewing, and coordinating BIM activities.

Overall, the document outlines the comprehensive approach to BIM implementation, roles and responsibilities, procurement, and coordination procedures for Health Infrastructure Projects. The collaborative information management strategy is summarized in Figure 1 below.

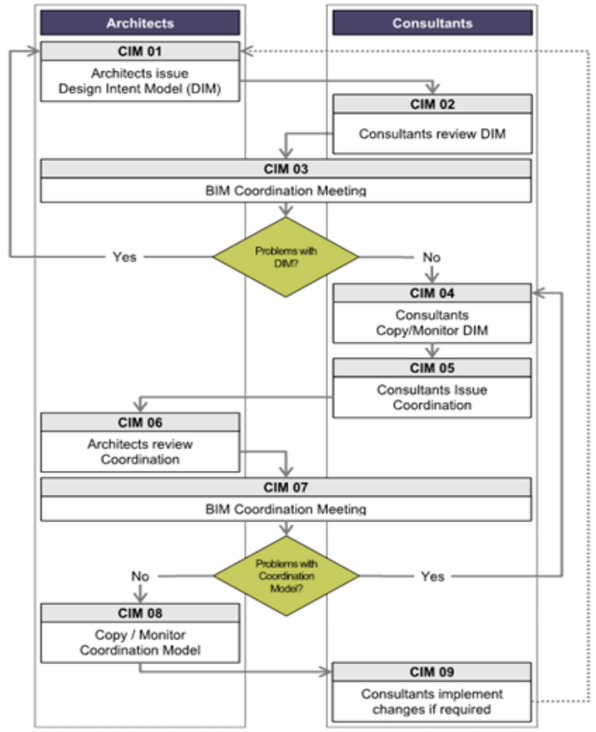


Figure 1 - Workflow for Communication and Collaboration

To facilitate Collaborative Information Management and Resources approach to sharing information, a Common Data Environment (CDE) will be implemented for the project and shall be used by all disciplines engaged on the project. The objective of the CDE is to provide a central repository (single data source) for all base CAD and BIM data to provide security and version control of that base data.

All team members will sign up for "BIM 360" (B360D) to be able to gain access to the CDE. Once an account has been created and access to the project has been granted, models have to be uploaded to B360D (WIP) to provide access to all team members for the purposes of communication and collaboration (Shared).

The online document management system "Aconex" will be used by all disciplines engaged on the project. When uploading documents onto Aconex, Consultants are to ensure all files are uploaded in accordance with the naming conventions.

It is required that formal and informal files be transferred utilizing Aconex. Models are being hosted on B360D, Navisworks and IFC file types must be transmitted through the Aconex platform. All file types, including Revit are to be uploaded to Aconex at the end of each package delivery milestones (Published; Archived).

The administration for Aconex will be managed by the Project Manager (PM). Likewise, general correspondence relating to actions or project information will be made within Aconex.

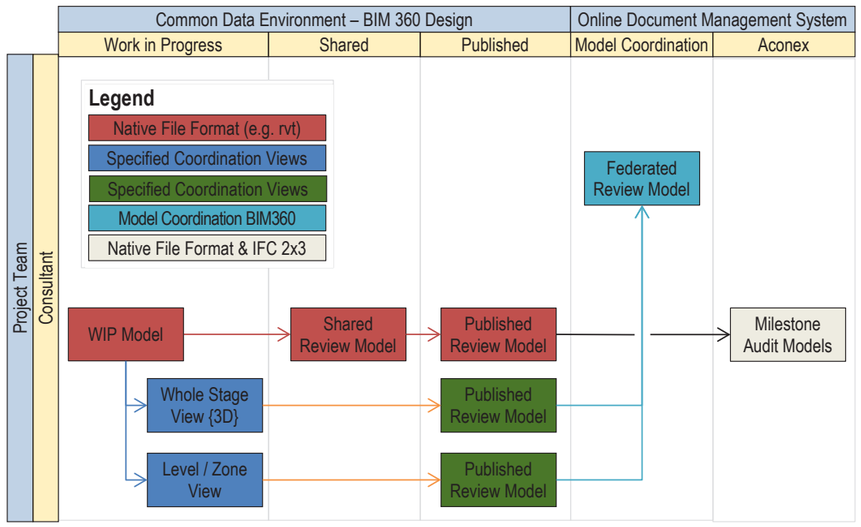


Figure 2 - Collaborative Information Management & Resources

05_ ARCHITECTURAL DESIGN

5.2 Architectural Intent

The concept design phase for the Temora Hospital Redevelopment was completed in Oct 2023. During this phase, a number of 'test of fits' were reviewed, and key relationships, as well as the locations of scheduled departments were established. It also proposed travel and circulation patterns for the site in terms of access by various types of users including the public, patients, staff and logistics type functions.

The schematic design phase began in November 2023 and a process of Project User Group (PUG) consultation, together with feedback from formal design review processes (Government Architect, HI Design Assurance Review, HI SME) resulted in an architectural design response.

The architectural intent of the new hospital is driven by the opportunities and constraints of the site and the required building functionality. Hence the building function guides the building form to a large extent. The architectural expression of the new hospital responds to the HI design principles as well as the local Temora geography. As a single-storey building, it respectfully engages with the topography of the site as well as the surrounding areas. It achieves a contemporary and welcoming presence appropriate to a modern healthcare facility.

Circulation within the building is facilitated by the use of a simple east-west public spine corridor with FoH located at the heart and separating the key 12 hour and 24 hour zones. The main corridor is easily accessed from the main entry, with the western public access zone leading towards the Ambulatory Care and Admin and the east to the Emergency Department (ED), Inpatient Unit (IPU), Medical Imaging and Perioperative Units. Key functional relationships include:

- The link between the ED Triage and the main entry door;
- After-hours servicing of Front of House and the ED from the IPU;
- Quick access into the Perioperative Suite from Maternity;
- A direct link between ED and Medical Imaging; and
- A secure clinical corridor linking ED, and IPU to Non-Clinical Services.

The concept design plan considered that any future site development occurred in a structured manner that will facilitate key clinical expansions, in particular Ambulatory Care.

The Main Entry and front of house facilities are located such that they are immediately recognisable on entry into the site from the main road, an important wayfinding strategy.

The façade has been developed with durability, maintenance, ease of construction and sustainability in mind while keeping in line with the project budget. Access to natural light has informed the locations of a majority of clinical rooms for both patient and staff well-being. The window fenestrations have been developed with internal functionality driving the sill heights that will range from 150mm to 2100mm above finished floor level in clinical spaces with full height glazing to key FoH spaces.

The proposed roof form takes inspiration from the recognisable building silhouettes of the agricultural grain stores in the Temora region with contextual reference to the architectural vernacular of verandahs and semi indoor / outdoor environments. Materiality consists of expressed verticality of metal sheet making reference to the agricultural context with a contrasting green facade making reference to the local Temora greenstone.

Temora Greenstone

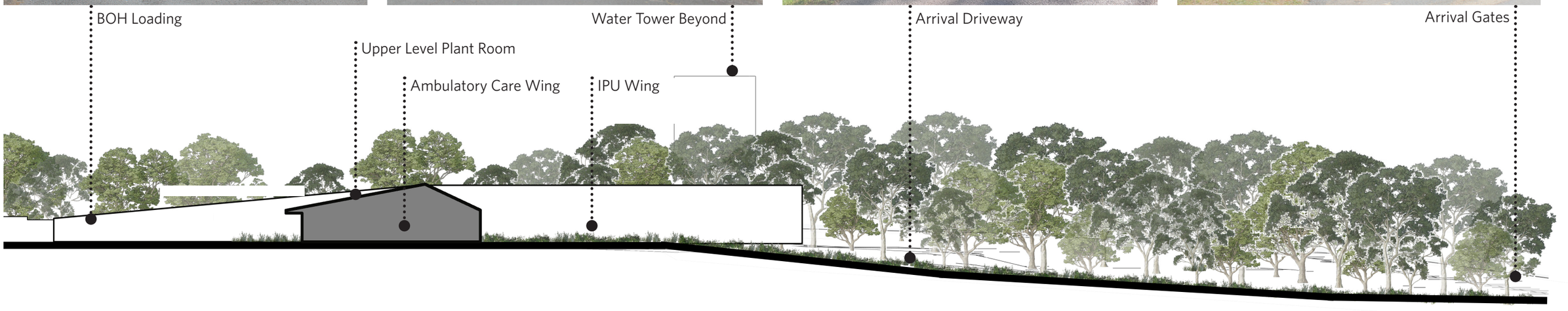
05_ ARCHITECTURAL DESIGN

5.3 Site Setting

The setting of the new hospital building occupies the location of the existing hospital building. By being sited in this location, the new building respects the established landscape and makes efficient use of the most level part of the site with its already established site access points.

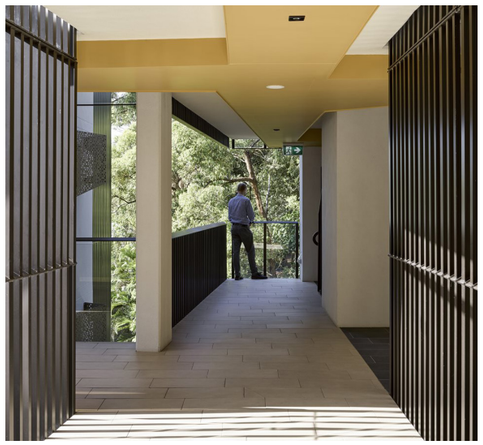
As identified in the site section below, the level area to the north of the hospital is utilised by the BOH loading area. The main entrance to the hospital and the IPU wing will be located in the view of the second image below and this space has adjacency and outlook to the established arboretum. Located on the neighbouring site is the water tower which will form part of the backdrop of the hospital when viewed from a distance.

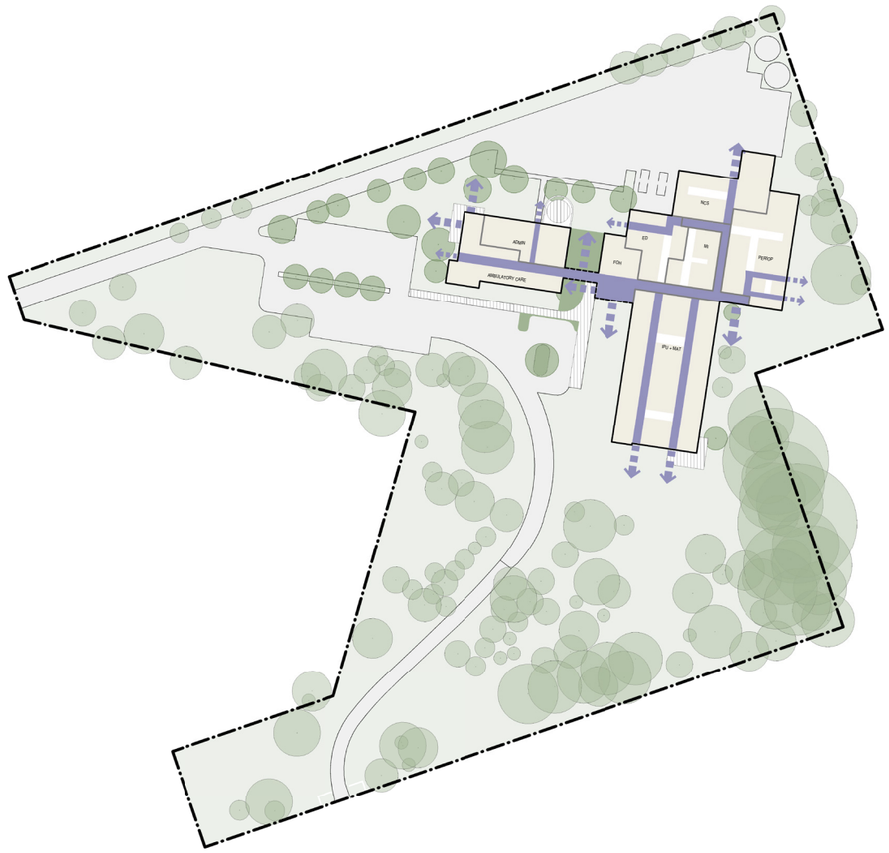
To the south of the hospital is the main driveway and entrance gates located within the most heavily vegetated area of the site adjacent to Loftus Street.



05_ ARCHITECTURAL DESIGN

5.3 Site Setting





Connection to Landscape

Given the great opportunity that the site setting provides to enhance the user experience by engaging the building with the landscape, opportunities have been sought to integrate landscape with the building. This is being achieved by narrowing the building form and providing cut-outs or courtyards to the plan to ensure connection to landscape and natural light is provided to all key aspects of the building. A key driver of the planning is to ensure that the main circulation spaces are adjacent to and terminate with an external outlook. This not only provides amenity but also provides a natural and intuitive wayfinding technique.

Planning Response to Site Setting

Internal planning of the hospital will follow a strategy where key spaces are located with adjacency to external façades to maximise outlook and natural light. The diagram above identifies how all the occupied spaces are located with external outlook whilst only service, store or imaging spaces are located internally.

05_ ARCHITECTURAL DESIGN

5.4 Site Access

Vehicular access to the hospital site will utilise existing crossings from Loftus and Gloucester Streets. These currently provide a 1-way direction of flow with entry from Loftus and egress to Gloucester. The Gloucester St access will be upgraded to provide a 2-way crossing enabling access and egress for ambulance and logistics vehicles and egress only from the public carpark. Entry to the carpark and drop off continues to be from Loftus Street with egress in a 1-way direction to Gloucester Street.

The hospital users have requested that the egress from the public carpark be separated from the emergency and logistic vehicles however this has not been achieved within the project parameters. The obstacle to separating the flow of traffic is the need to widen the existing road from Loftus to enable 2-way traffic, which requires unwanted tree removal and presents a cost that is not supported in the cost-plan.

The project is exploring the use of the secondary access laneway at the east for construction traffic to enable a separation from the hospital operations during building works.

Pedestrian access is facilitated with an existing pathway from Loftus St to the carpark. The grade of the existing pathway is non compliant. It has been noted that pedestrian access to the site is negligible and no public transport infrastructure services the site. An upgrade of the existing footpath to be DDA compliant will be complex and costly due to the steep topography of the site. Due to the pathway being existing and the minimal usage of the path it is proposed that this will not be upgraded but will be addressed with a performance solution.

05_ ARCHITECTURAL DESIGN

5.5 Car Parking

Car parking will be provided to accommodate the staff, fleet, site servicing and visitor requirements. A total of 80 spaces are provided on site, which aligns with estimated current provision and usage.

The on-site parking is allocated in 2 zones, with 65 spaces provided in the main carpark and an additional 15 spaces adjacent to the loading area for fleet and vehicles. The 15 fleet spaces will be provided with EV charging to align with MLHD target of 100% fleet EVs by 2023.

The final operational management of these zones will be determined by the MLHD. Consideration for after-hours staff allocation is required to ensure safe 24-hour access. Lighting and CCTV will be provided to both the main carpark and the dock.

Four accessible parking spaces located in the main carpark will provide access to the front door via a compliant gradient. 2 x drop off bays are provided with a covered walkway back to the main entrance. The drop off bay is designed as a roundabout arrangement to facilitate the passenger side for the vehicle addressing the kerbside. A flush kerb threshold will be provided from the drop off to the pathway to aid accessible access.

The proposed parking design removes the existing vehicle access to the rear of Whiddon Aged Care which is currently used for their service vehicles. Negotiations between MLHD and Whiddon are ongoing to facilitate this changed arrangement. Whiddon service vehicles will no longer utilise the hospital site for vehicle access to their facility.

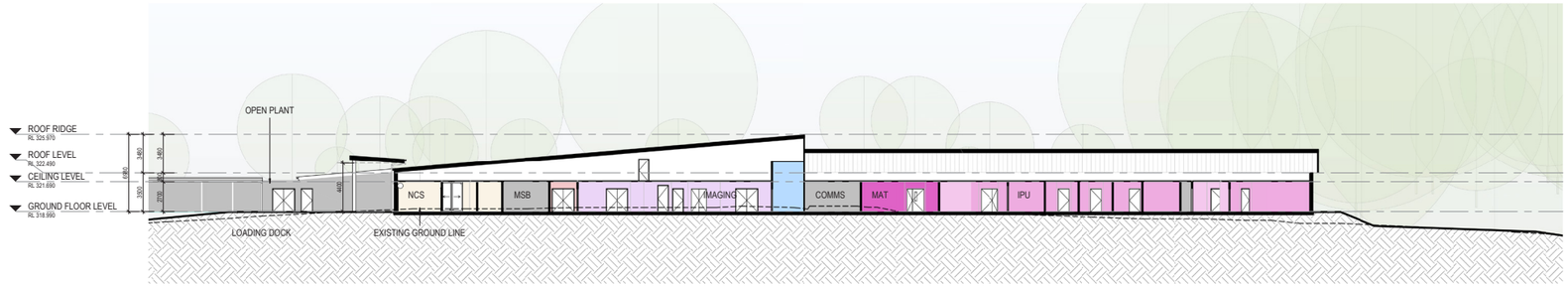
05_ ARCHITECTURAL DESIGN

5.6 Building Levels

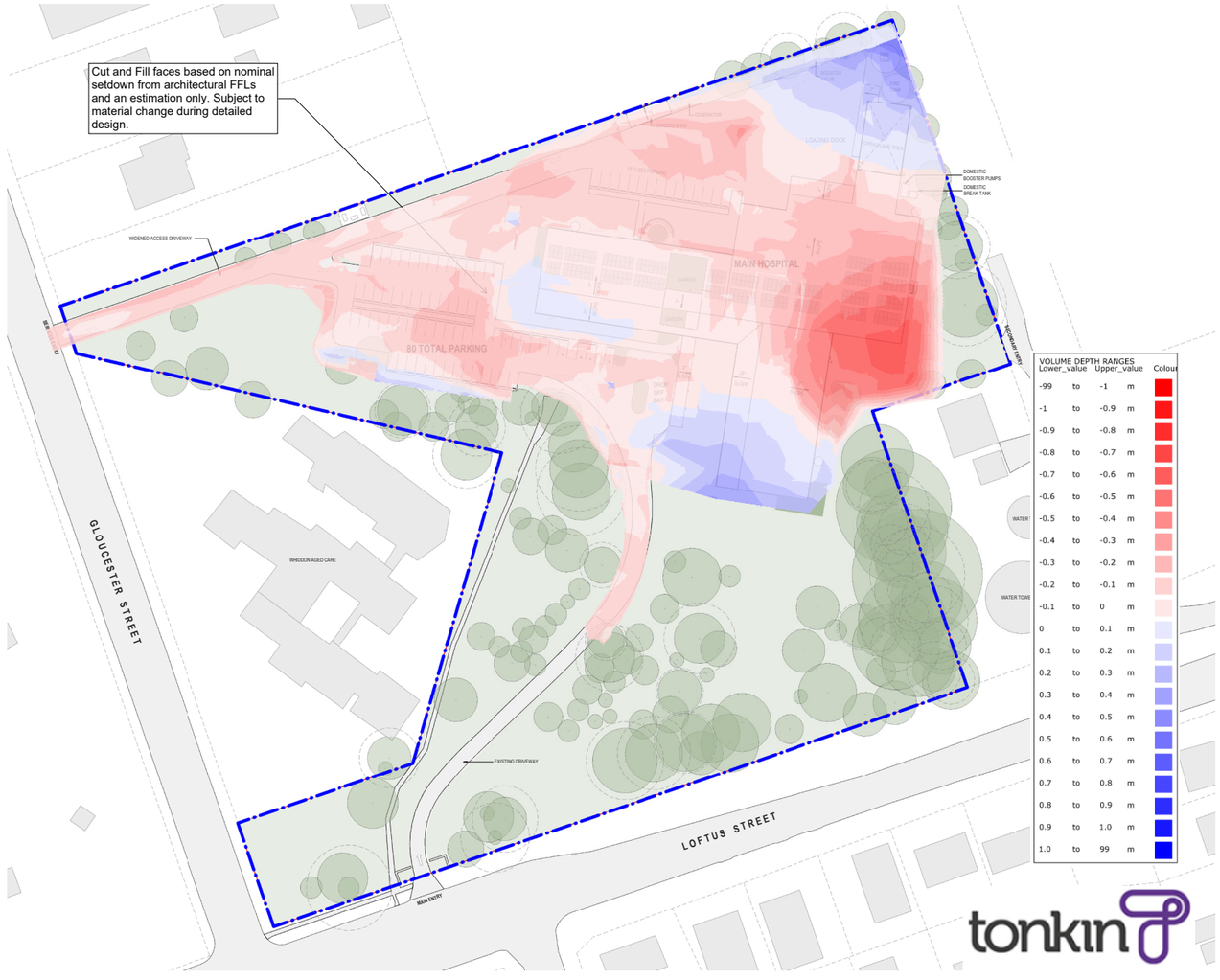
The relative level (RL) of the ground floor has been determined to match the existing hospital floor level at RL318.990. The hospital is a single storey to facilitate patient, sterile stock and food service flows.

The building is located on the largest flat portion of the site to provide for optimal horizontal functional relationships and minimise excavation and retention. This allows for the most efficient DDA access, ambulance access and services access.

Site ground level cut and fill is minimised by using the proposed site. Approximately 1m of cut is required to the eastern side of the development and approximately 0.5m of fill are required to facilitate compliant grades to the carpark and loading area hardstand.



B **SECTION B-B**
1 : 200



05_ ARCHITECTURAL DESIGN

5.7 Building Access

Main Entry

The hospital has a single main public entry. This is accessed via the landscaped, south facing courtyard space containing an all-weather cover connecting the vehicle drop off. The central courtyard provides daylight and landscape connection and enables intuitive wayfinding.

Secure Entrances

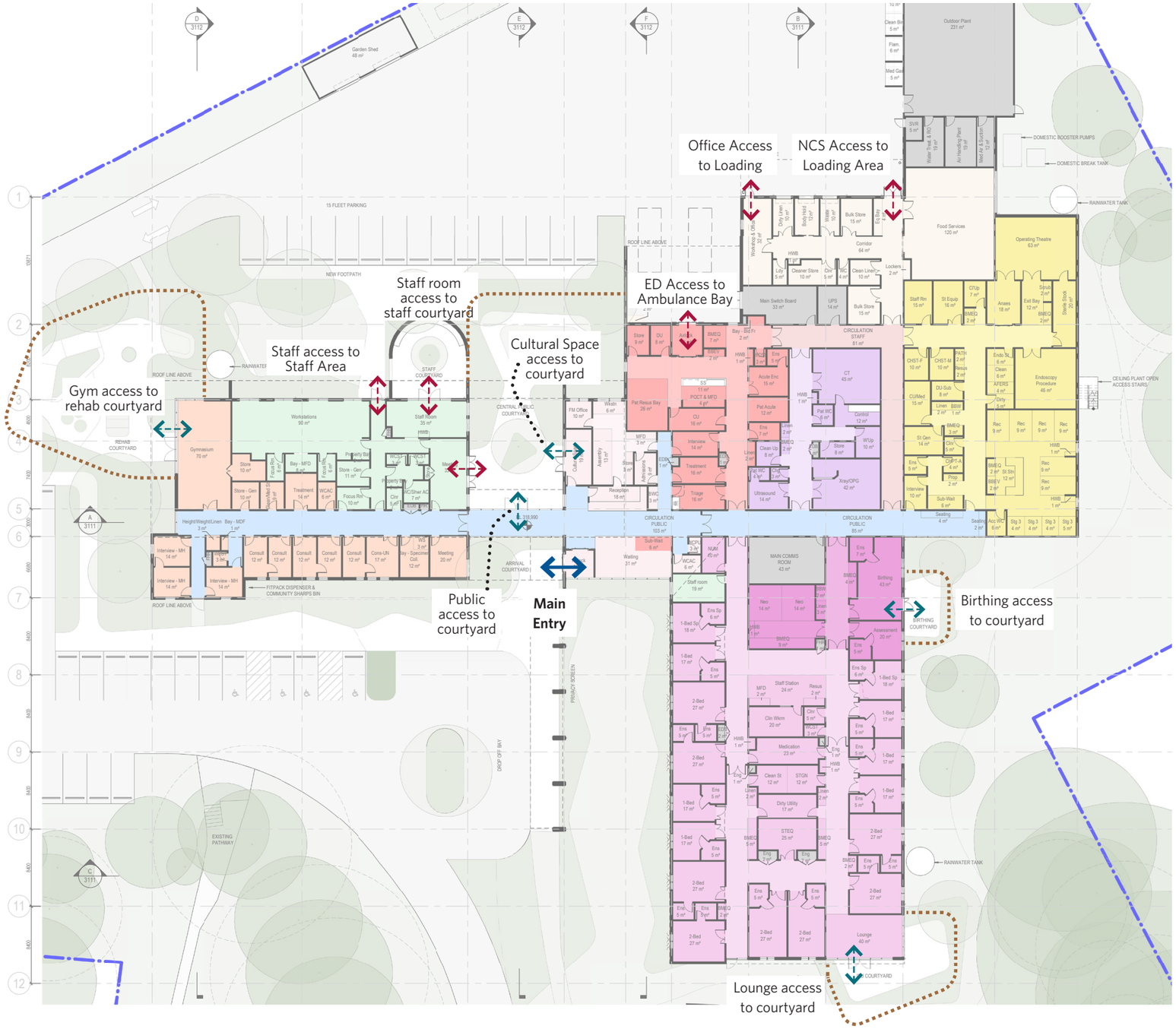
A secure airlock entrance from the ambulance bay to ED is provided at the north of the site accessed off the service area.

A service access into NCS is provided from the loading dock giving access for deliveries and servicing. Supporting the loading dock is a secure door access between the Maintenance Office and the loading dock.

Dedicated secure staff access is provided into the Admin area from the fleet vehicle parking with an additional access point from the staff courtyard into the staff room.

Fenced Secure Outdoor Access

There are 4 fenced secure outdoor spaces in the facility that provide the public with access to outdoor spaces within a secured fenced space. These spaces are the central courtyard with access from the main circulation corridor and an additional access from the cultural room, a fenced rehab courtyard is provided to the Gym, a courtyard provided to Birthing and a courtyard provided to IPU Lounge.



05_ ARCHITECTURAL DESIGN

5.7 Building Access

Arrival and Drop-off

Transport to the hospital is overwhelmingly by private vehicle meaning the public carpark is the first destination for the majority of users. Accompanying the carpark is a covered awning and walkway providing direct access to the main entrance from the vehicle drop-off bays. This covered walkway contains a series of blade wall columns which act as a guiding element directing visitors to the main entrance as they approach from the parking area.

To access the main entrance itself, users pass through a small landscaped arrival courtyard. This courtyard provides a calming arrival experience as the users enter the building whilst also creating informal waiting spaces outside of the building for users to pause as they come and go from the facility. The main entrance itself is articulated to face towards this courtyard and in the direction to be easily visible for users arriving from the carpark.

Entry Arrival Courtyard

Approach from Carpark

Covered Drop-off

05_ ARCHITECTURAL DESIGN

5.8 Security and Access Control Zones

Access to public entry points is clearly defined and signposted, while restricted access areas use security hardware to ensure unauthorised personal are deterred from entering the building.

The main entrance will be open from 7am to 7pm. After this time, visitors will use an after-hours intercom at the Main Entry to access services within the 24-hour zone. The 12-hour zone comprising Ambulatory Care and Staff Admin areas will be locked and inaccessible to public and visitors after hours. The security presence will include:

- Coverage of Front of House areas with remote CCTV monitoring;
- CCTV is only monitored on-site (IPU and ED);
- Provision of Security services on a 24-hour, seven day a week basis, carried out off-site;
- Advanced Life Support (ALS) response;
- The ability to send and respond to security duress calls;
- Provision of solutions that responds to the access and egress requirements.
- Access and security for relatives and visitors to each department within the hospital will be controlled via the Triage/IPU Staff station.
- Fencing of external courtyards to prevent access via secondary entries.

05_ ARCHITECTURAL DESIGN

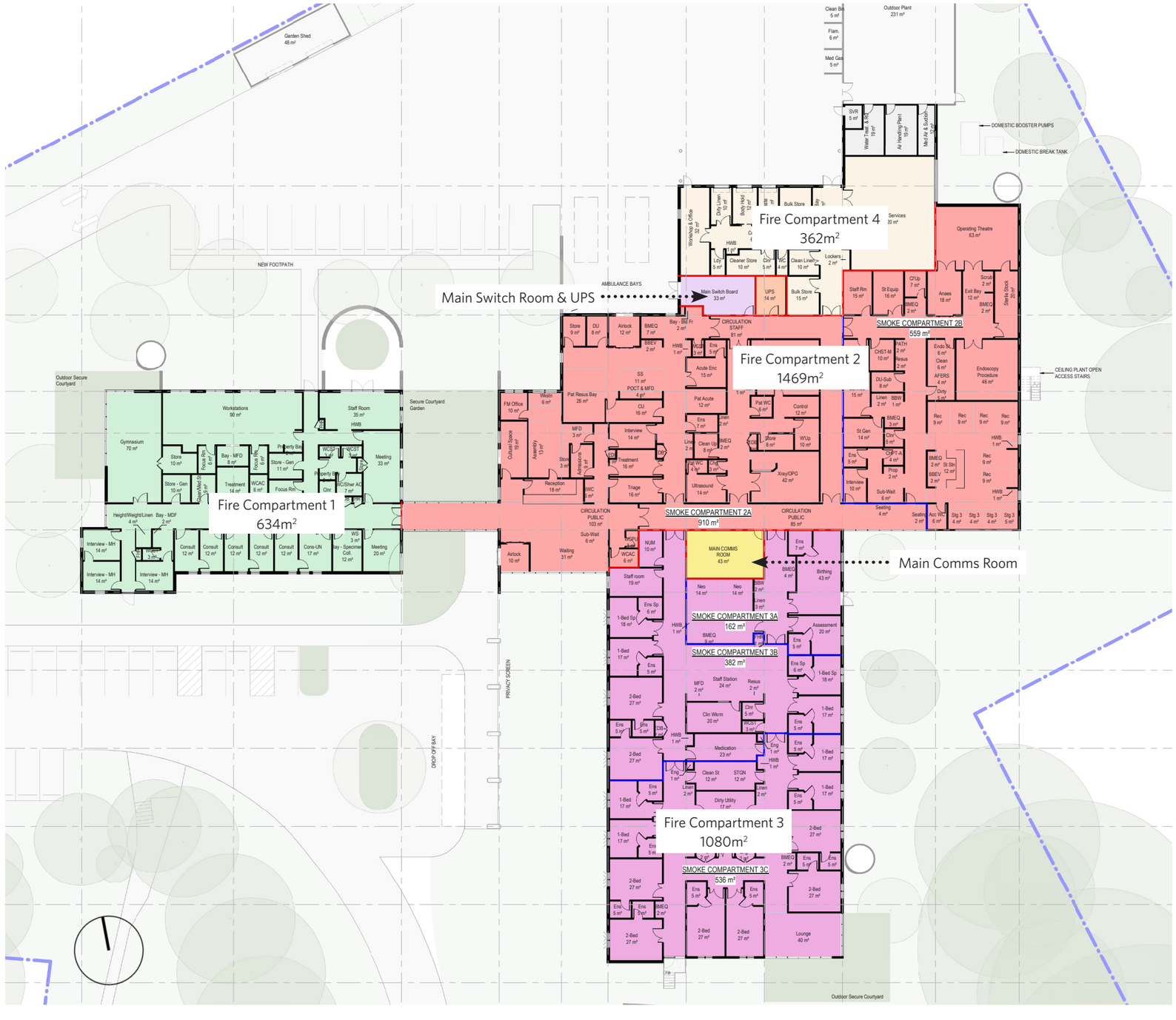
5.9 Fire Compartments

The hospital will contain 4 separated fire compartments with FRL of 90/90/90 sized to comply with DTS areas nominated in the table below.

Compartment 1 is a non-patient care area incorporating the Ambulatory Care and Administration. Compartment 2 contains patient care areas with ED, Imaging, Perioperative & FoH. Compartment 3 is a ward area containing IPU and Maternity. Compartment 4 contains NCS including separating the kitchen space from treatment areas.

An alternative solution will be pursued to permit a smoke compartment in excess of 500m² in the IPU. This is pursued as the compartment only exceeds 500m² by a small amount and provides a more efficient compartment strategy.

In addition to the main fire compartments, there will be fire separation provided to the individual rooms of: Main Comms Room, Main Switchroom & UPS.



Maximum DtS compartment areas

Use	Compartment area	Separation
Non-patient areas	> 2000m²	Separated from adjacent compartments by walls with a fire resistance level (FRL) not less than 90/90/90
General patient areas (except ward and treatment areas as described below)	> 2,000m²	Separated from adjacent compartments by walls with an FRL not less than 90/90/90
Ward areas	> 1000m²	Divided into floor areas not more than 1000m² by walls with an FRL not less than 60/60/60
	501m² – 1000m²	Divided into floor areas not more than 500m² by smoke-proof walls which achieve an FRL not less than 60/60/60
	≤ 500m²	Separated from the other patient care areas with smoke-proof walls which achieve an FRL not less than 60/60/60
Treatment areas	> 1000m²	Divided into floor areas not more than 1000m² by smoke-proof walls
	≤ 1000m²	Separate from the other patient care areas by smoke-proof walls

05_ ARCHITECTURAL DESIGN

5.10 Modularisation/Standardisation

During concept design, a key driver identified by the Executive was the horizontal functional relationship of clinical services within the new Temora Hospital Redevelopment. This determined the requirement for a single-storey hospital. As a result, it was not essential to conform to the standard 8.4m structural grid adopted in HI multi-storey projects. This provided greater flexibility in achieving a functional clinical design that, at the same time, met the requirements of the Australasian Health Facility Guidelines (AusHFG). However, a project-specific modular grid has been assumed for the Inpatient Unit, driven by the width of AusHFG standard bedrooms, providing a consistent approach that is efficient in cost, operation, staffing and buildability.

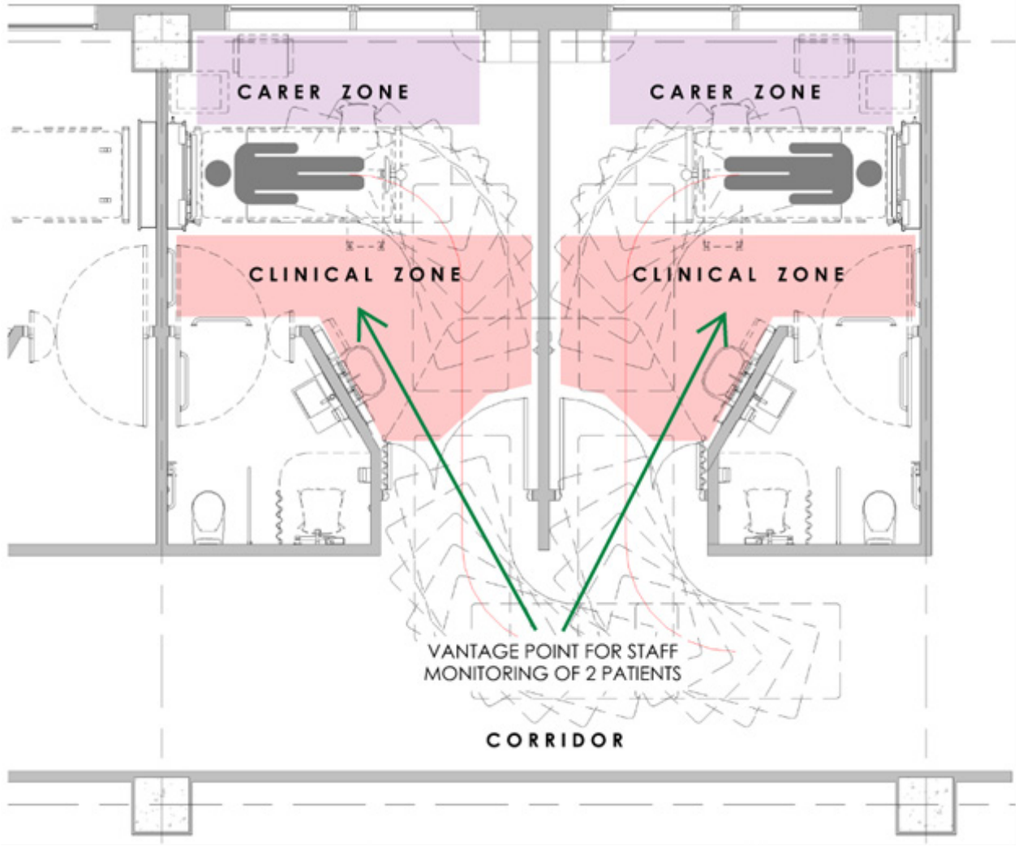
A Standardised Room approach has been developed throughout the various clinical departments of the new hospital in keeping with the AusHFG. Although the IPU will have some service-specific requirements, there are significant benefits arising from providing a generic planning platform, including:

- Flexibility to enable a future change in service type;
- Ready familiarisation for clinical staff across the bedrooms; and
- Promotion of efficient design from a building and engineering services perspective.

The preliminary room layouts reflect the AusHFG and best practice experience garnered from recent, and other concurrent projects throughout NSW. Health Infrastructure (HI) standardised bedhead and medical service panels (MSP) are proposed, not only in IPU bedrooms but within other patient-centred clinical spaces such as consult rooms and acute patient bays.

A standardised approach to the ensuite layouts to 1-Bed and 2-Bed rooms has been implemented. All bedrooms have inboard Ensuites and are back-to-back (mirrored) which can provide efficiencies in cost and planning, e.g. apportioning of hydraulic and MSP services in the common walls between bedrooms. Mirrored rooms also allow staff to observe two patients from one vantage point in the corridor.

The setup of each patient bedroom will be standardized and designed in zones. The nursing/staff zone will be closest to the entry of the room allowing ready access to the patient's bedside as well as critical services like gases on the MSP. The patient bed space is centralized within the room, while the carer / family zone is located near the external window.



Analysis of Mirrored layout form IPU Patient Bedrooms

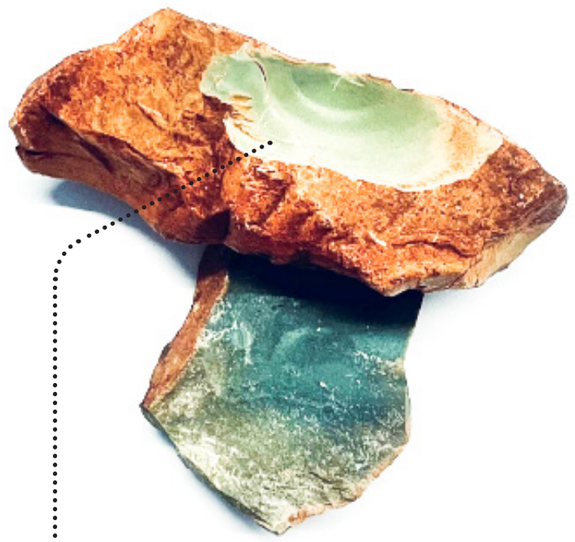
05_ ARCHITECTURAL DESIGN

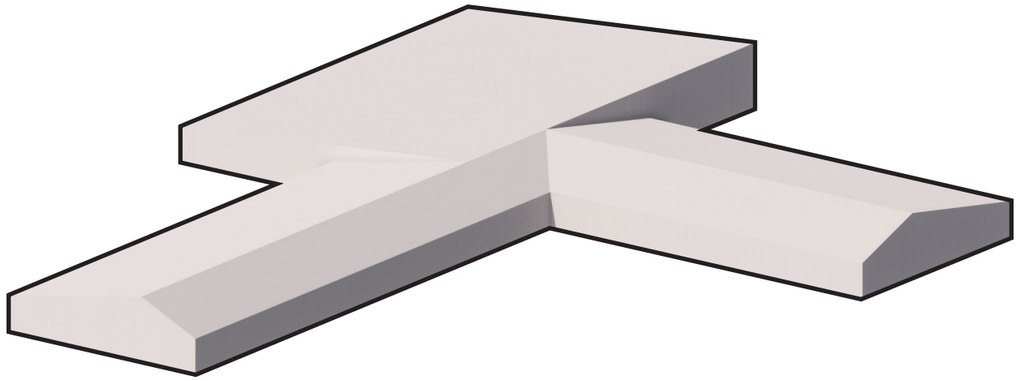
5.11 Materials - Exterior

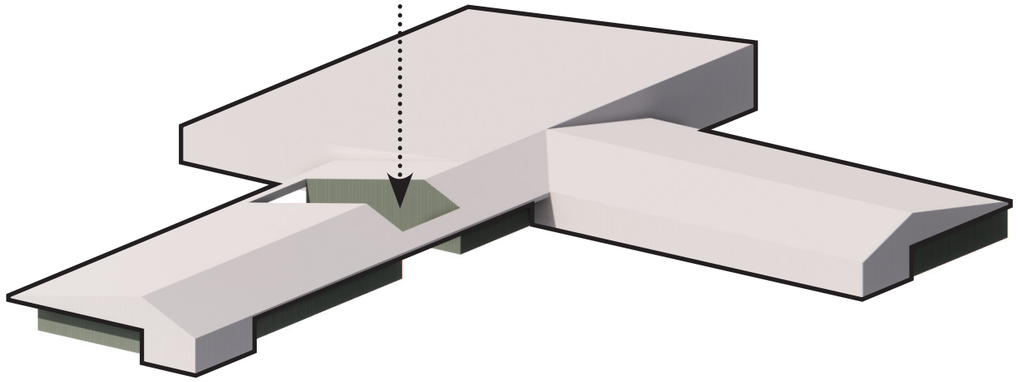
The material selection concept takes reference from the architectural vernacular of the Temora region. As a grain producing region, grain silos and storage sheds are a common sight in the surrounding landscapes and it is the simplicity of form and authenticity of the materials to which we make reference.

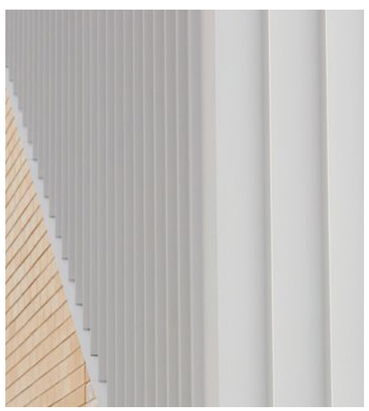
The 2 wings of the hospital express their gable form and pitched roofs by wrapping a standing seam metal cladding continuously from the roof and down the facades to express a very simple silhouette.

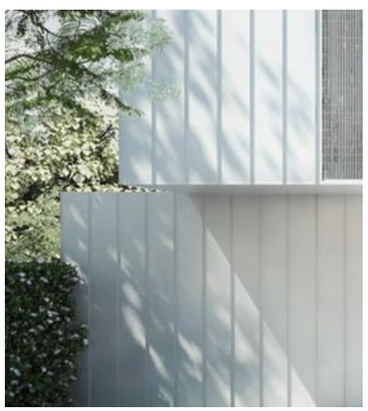
To contrast the crisp outer form, a green facade is expressed in the areas where the building form is cut away to reveal this rich yet calm colour which makes reference to the local Temora Greenstone. Temora Greenstone is a naturally occurring jade-like rock which is found specifically in the Temora area. The bulk of this green facade material will be a pre-finished fibre cement cladding, however to emphasise the jewel like nature of Greenstone, in select touchpoints around the entrance and courtyard, a glazed brick or tile cladding is proposed.

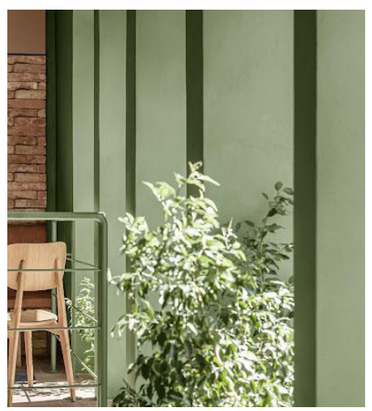






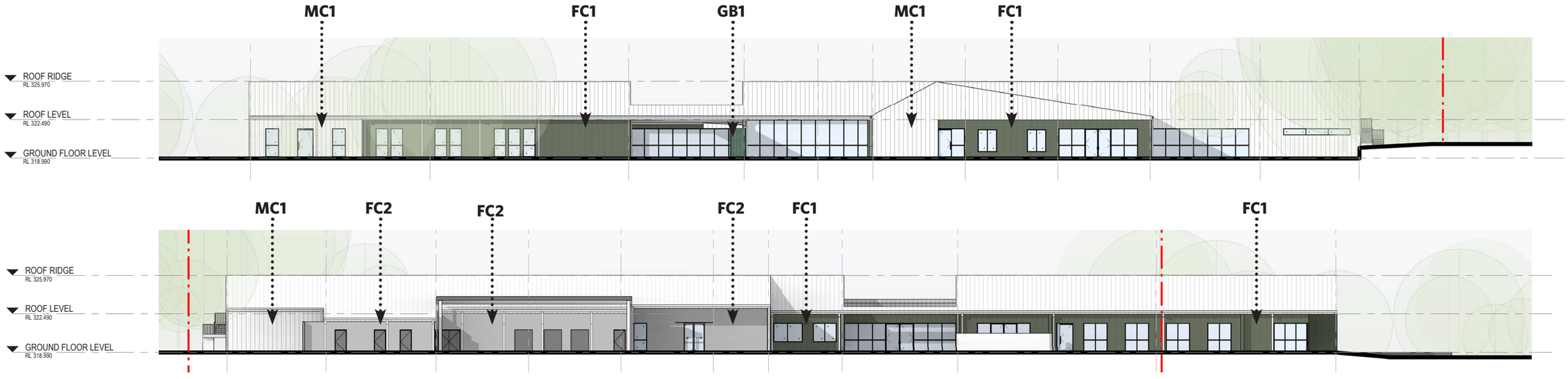






05_ ARCHITECTURAL DESIGN

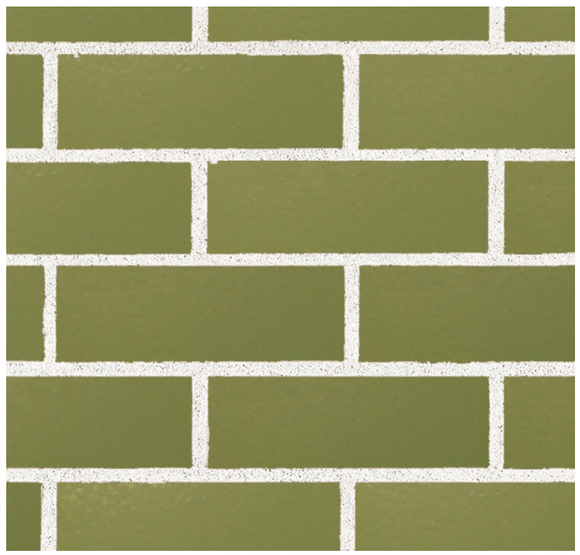
5.11 Materials - Exterior



MC1 - Standing Seam Metal Roof and Facade

FC1 - Pre-Finished Fibre Cement Facade

GB1 - Glazed Brick Cladding



FC2 - Prefinished Natural Fibre Cement Facade

05_ ARCHITECTURAL DESIGN

5.11 Materials - Interior

Patient Journey

A SERIES OF UNIQUE JOURNEYS

The journey will always begin with Country. All traversings, through a range of curated experiences will lead to a focus on well-being.

Familiar textures and structures will accompany all paths to encourage a feeling of being safe and secure.

These paths reveal openings to landscapes and artwork programs, built by community - to inspire a sense of connectedness and reflection.

FAMILIARITY: COMFORT & PROTECTION

Temora has a rich history of use of the veranda and colonnades. Each main corridor journey leads towards a view of country, under familiar textures and rhythm of structures.

This aims to create a welcoming and comforting space in a domestic scale, to de-institutionalise the space, accompanied with open views to country.

WORKING TOGETHER & REFLECTING

A curation of spaces provide paths for well-being, unique for an individual and group. Enabling moments to reflect and/or work together, whilst being accompanied by landscapes built by community.

A serene weave or surface by the art program can help instil a sense of place across the public spaces. Whether it be a textural wall or a surface for mounting art.

REFLECTION: CLOSE CONNECTION TO LANDSCAPE

Windows at path ends, draw in the landscape into the spaces. Within, users will be able to have a moment of respite and reflection, more than observing landscapes from afar.

05_ ARCHITECTURAL DESIGN

5.11 Materials - Interior

The internal material selections for Temora Hospital are driven by the principal of comfort and familiarity to create a calming and welcoming environment. The front of house and waiting area are formed with reference to a veranda with extensive outlook to landscape and with a continuity of the green external facade colours flowing into the reception area. An overlay of timber finish materials and warm colour tones create a warmth to the space.

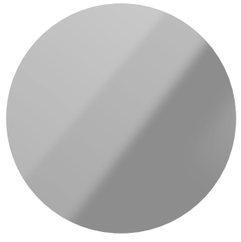
Opportunity for art installations has been identified on the higher wall surfaces of the FoH, shown in these concepts as a weave texture panel, to be developed as part of a community engagement with the art program. Acoustic perforated timber finish laminate panels are proposed for the high ceiling of the waiting area. Vinyl floor finishes are proposed with timber look vinyl used to identify key waiting areas.

PAINTED PLASTERBOARD

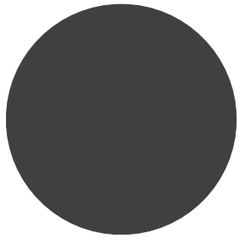
VINYL & LAMINATE
Timber

VINYL
Mipolam Affinity, Yuki by Gerflor

TRIM & SERVICES
White

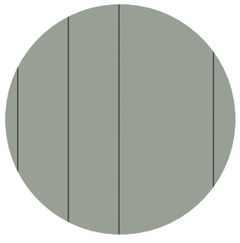


GLASS
Clear



MULLION
Black

WEAVE TEXTURE PANEL
Art program opportunity



FEATURE CLADDING
Frefinished FC

05_ ARCHITECTURAL DESIGN

5.12 Impacts on Existing Departments/Services

The new Temora Hospital is being built to replace the existing facility. No existing services will remain in their original facility. Complex staging and decanting are required to ensure that clinical services can be safely maintained on-site, and the building / engineering services facilitate service continuity throughout the construction period.

The new hospital will be built in two parts, requiring demolition of the eastern portion of the existing hospital and the day centre to create the footprint for the first stage of construction, during which time the western portion of the building must remain operational. During this time, both IPU and maternity services will co-locate, impacting both services and reducing bed numbers to 12. Perioperative services will continue to operate from the existing theatre during Part 1 construction, however, the recovery room will be reduced in capacity. Mental health, ambulatory care and allied health will be impacted as they will all be relocated withing the remaining level 2 spaces and to the repurposed staff accommodation building.

From the start of construction, the following will not be available on site:

- KWA. Alternative accommodation will be arranged by MLHD.
- Dental services. MLHD will consider alternate arrangements for provision of public dental services.

5.13 Future-Proofing and Expansion

A driver in the development of the schematic design plan was to enable non-disruptive and logical future expansion opportunities for the inpatient, Ambulatory Care and Admin units. Some key principles promoting future flexibility of the hospital were considered while maintaining important overall relationships, flows, and intent of the planning and design. These opportunities have been categorised as follows:

- The use of open-ended corridors extending to the edge of the building will enable the potential to mirror key components such as additional inpatient bedrooms in the IPU;
- Standardization of IPU bedrooms allows flexibility to enable a future change in service type, e.g. conversion of a number of inpatient bedrooms into maternity bedrooms in the future;
- Inclusion of services provisions and/or larger spatial provision within specific clinical rooms e.g. Medications Room allows for possible future placement of Automated Medication Dispensing Cabinets;
- Provision of equitable access to the hospital for all by ensuring that the planning for future site utilisation supports the addition of parking spaces;
- Wherever possible, services risers and engineering spaces are located outside of clinical areas so as not to inhibit future flexibility and adaptability;
- Provision of engineering services redundancy to accommodate future integration of technology; and
- Spatial allowance in the roof space for installation and upgrade of services to cater for expansion of clinical areas.

The location for a new KWA building was identified during master planning.

Future Expansion Strategy of Key Clinical Areas of the Hospital

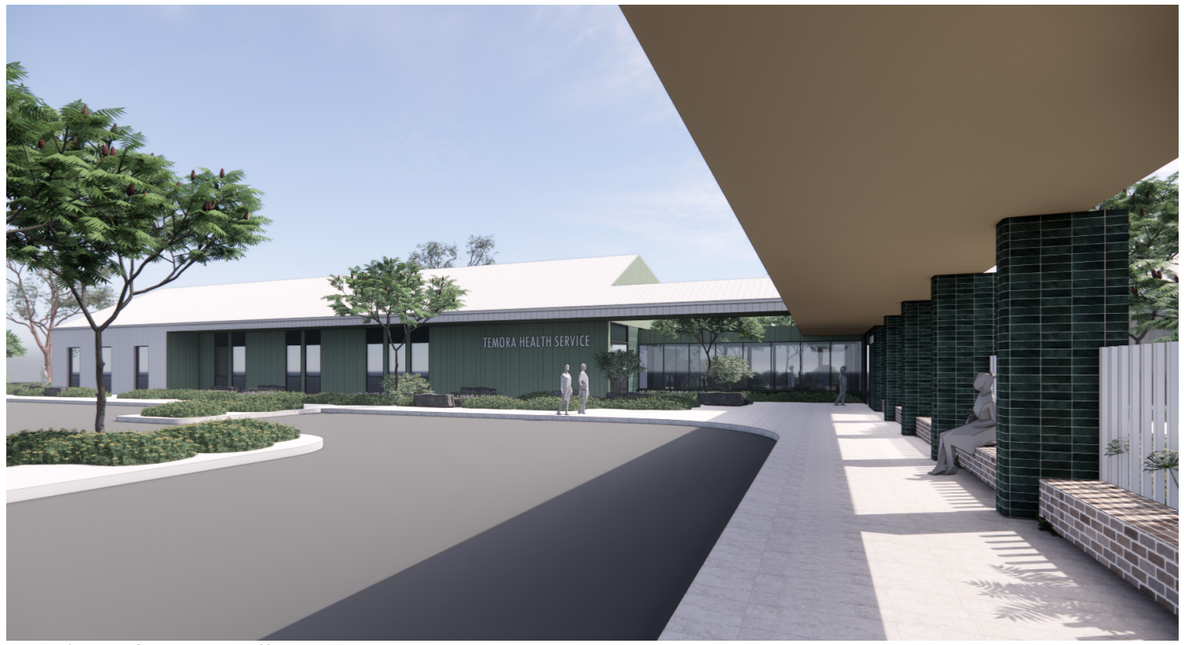
05_ ARCHITECTURAL DESIGN

5.14 Facade

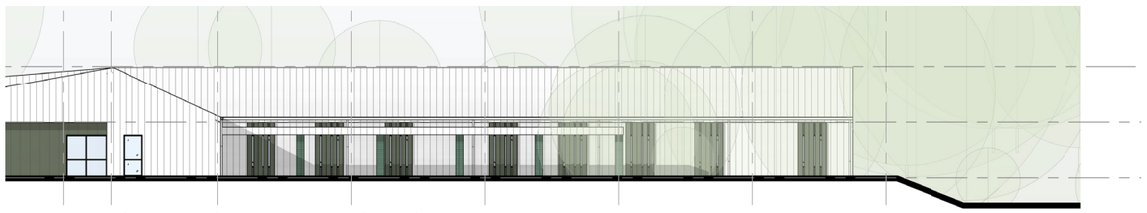
The facade systems for Temora Hospital are proposed to be a rain screen system with a weathertight barrier placed beneath the outer finish cladding. Two primary cladding systems proposed will be:

1. a standing seam metal cladding which will form the white facade areas. It is proposed that this standing seam system will continue to form the roof finish also.
2. a prefinished fibre cement cladding panel. This system will be used in two colours - a green finish which faces all public spaces and a natural concrete finish facing the loading back of house areas.

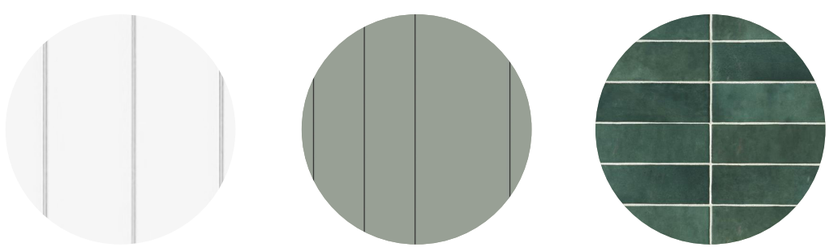
Shading of the northern facade and glazing is provided through the extended roof overhang providing 2m of shaded coverage to this facade reducing heat gain. The western aspect of the building contains IPU patient bedrooms. This glazing is shaded from summer western sun through provision of full height vertical fins. These fins are angled in part to the north to allow winter sunlight to enter the room and angled in part to the south to allow views south toward the arboretum.



Arrival View from Drop-off



West Elevation - Vertical blades to IPU Windows



ROOF & WALLS
White Metal
Standing Seam

SOFFIT & WALLS
Green FC Panels

KEY LOCATIONS
Glazed Brick / Tile

Ambulatory Care West Elevation

05_ ARCHITECTURAL DESIGN

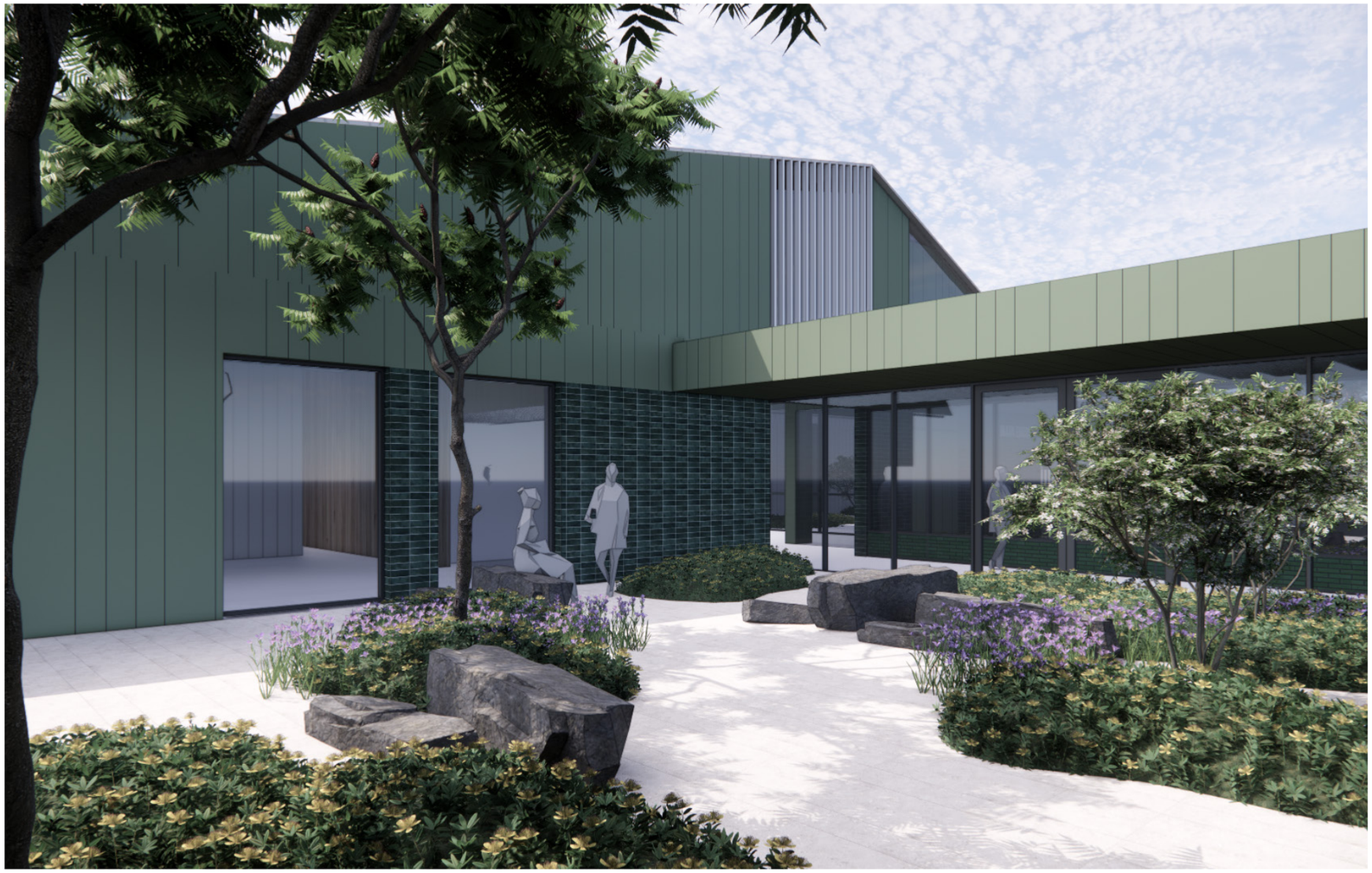
5.14 Facade

Central Courtyard

The central courtyard creates a breakout space for the users with access directly from the main corridor and waiting area. Access is also provided from the cultural room and staff meeting room. This space will form the focal point of the hospital and will be an area which provides for an open outlook to landscape from the main circulation corridor.

Being a space which is carved away from the main building mass, this courtyard reveals the green facade finishes on all sides representing the Temora greenstone. This finish provides a calming and welcoming backdrop to the landscaped area. The panel sizes of the FC sheet will be narrow and tall emphasising the verticallity of the space and making reference to the established trees of the site.

Small portions of the glazed brick / tile cladding will be used adjacent to the glazed main corridor. This material is utilised in locations that are key touchpoints where the users will engage closely with the material.



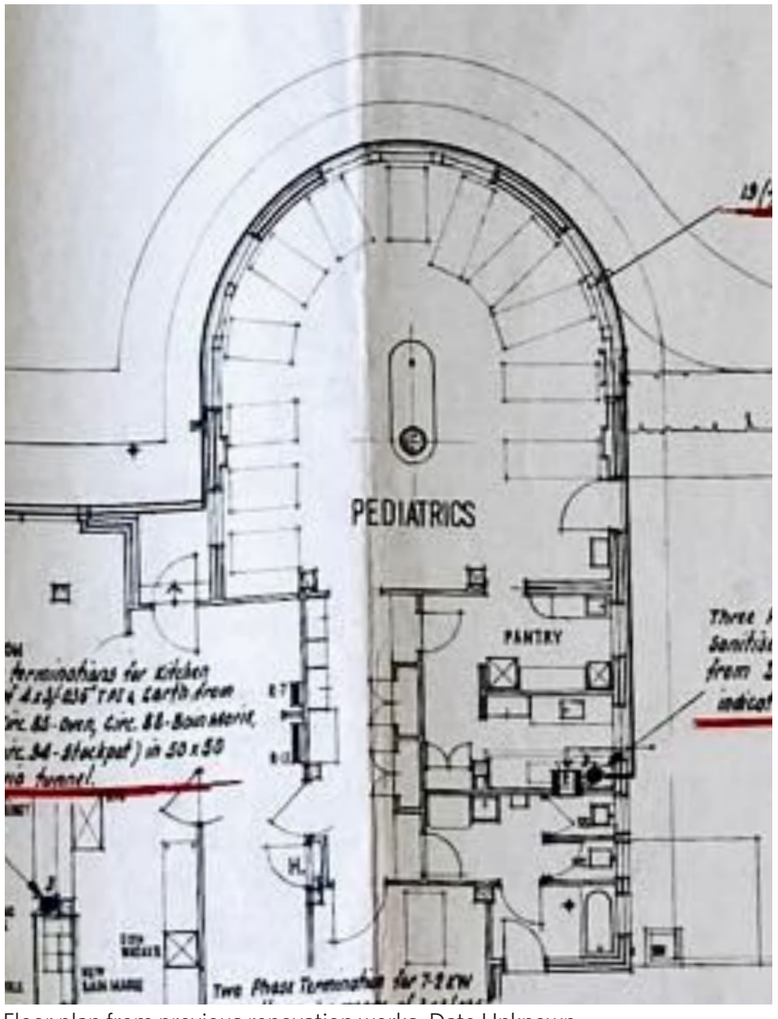
05_ ARCHITECTURAL DESIGN

5.14 Facade

Heritage Integration

Consultation with Temora Council Heritage Advisor and Heritage Committee was undertaken to present the proposed redevelopment in consideration of the site's heritage values. The strategy of continuing the social history via a new hospital on the hill in place of the existing was presented. A key outcome of this consultation was the committee's desire for physical retention a portion of the existing hospital. Investigations during masterplanning determined that significant reuse of the existing hospital was not feasible, however the design team has identified that the facade of the original paediatrics wing, with its identifiable rounded form, can be re-purposed within the redevelopment.

It is proposed that the double brick outer wall of this rounded wing be retained and used as the outer wall of a dedicated staff outdoor courtyard. The remaining wall would be physically detached from the new building structure and integrated with landscaping and seating elements. This outdoor space would retain the existing openings in the outer wall to continue to frame the views out from this space.



Floor plan from previous renovation works. Date Unknown.


Paediatrics wing in foreground.


Staff courtyard concept.

05_ ARCHITECTURAL DESIGN

5.15 Landscaping

The landscape strategy looks to build upon the significant landscape amenity of the existing site. Acknowledging the high amenity that exists currently, the proposed new landscape design will seek to extend and embed landscape closely with the new hospital and its key spaces.

Key landscape spaces proposed include the arrival and main entrance where planting and built-in seating elements will welcome users to the building, softening the space and providing a calming arrival. Once users have entered the hospital a large landscaped central courtyard is immediately evident and engages with users to access this space.

A rehab courtyard will be provided adjacent to the ambulatory care gym containing built-in rehab stairs, ramps, varied surfaces, and seating.

The staff will have 2 dedicated landscape areas. The retained rounded walls of the existing building are located outside of the staff room and will be landscaped with built-in seating and planting for a private breakout space. The second zone is an open grassed space outside of the admin ABW space and linked with the fleet vehicle parking.

Private courtyards will be provided to both the IPU lounge and the birthing room.

To the north of the carpark is proposed to be a grassed area set amongst planting which is a publicly accessible space usable for group gatherings which will also contain the relocated existing gazebo structure.

The planting strategy has been developed from Connecting with Country principles. With the key principles being informed though ecological outcomes as well as cultural and clinical outcomes. Additional indigenous tree species are proposed to complement the existing arboretum on site. Species generally are to be low maintenance non-toxic and low allergenic-particularly in areas close to the main building and clinical spaces.

The proposal looks to build upon the concept of journey within country to promote the use of the arboretum spaces to the south. An informal pathway providing a journey within the arboretum to the south of the hospital has been designed. This walkway is outside the scope of the project however has been designed to be undertaken as a community initiative.

05_ ARCHITECTURAL DESIGN

5.16 Way Finding

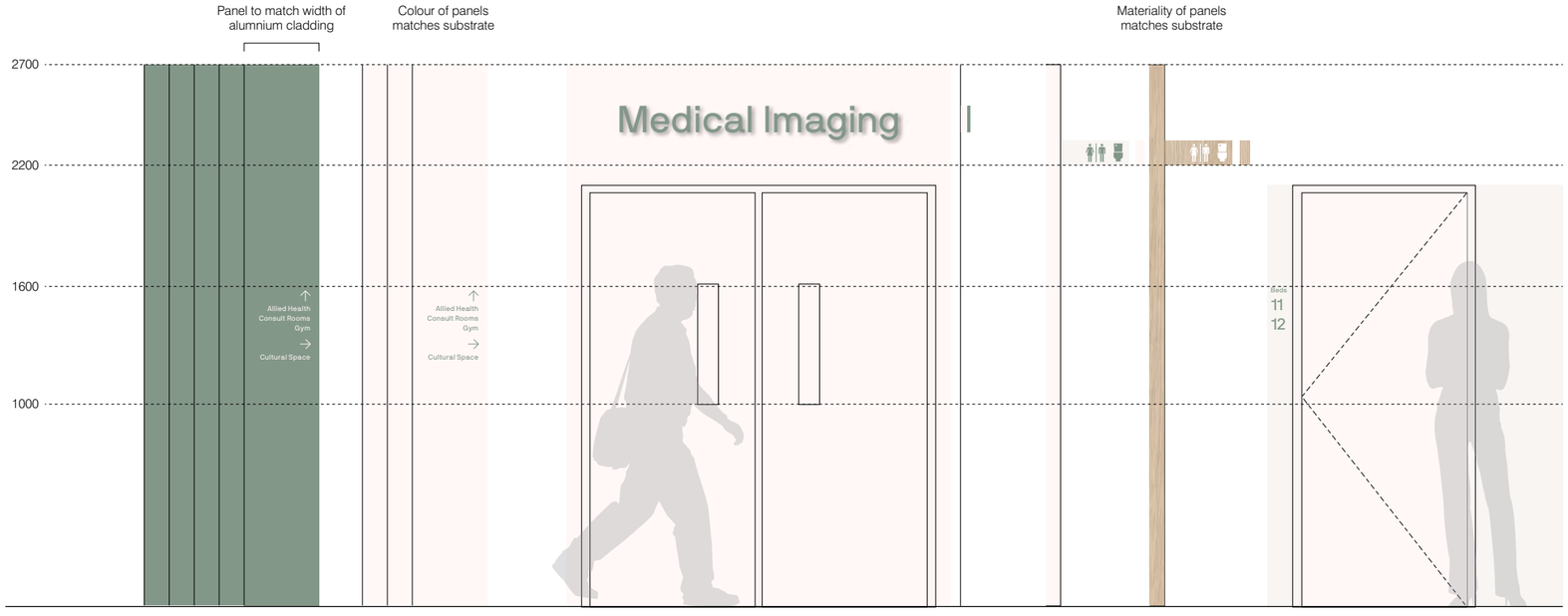
Studio Semaphore have developed a Wayfinding and Signage Strategy for Temora Health Service Redevelopment which will ensure effective wayfinding to support the hospital, operational efficiency and contribute to a positive experience for consumers, staff and visitors.

The strategy and concept design was presented to key MLHD stakeholders during schematic design to ensure the strategy aligns with their local needs, spatial terminology and management whilst also aligning with the Health Infrastructure Wayfinding Guidelines for Healthcare Facilities.

The wayfinding strategy covers the following areas and is included in appendices for reference.

- Users
- Site Analysis
- Design Considerations
- Strategic Recommendations
- Proposed Addressing
- Proposed Touchpoints
- Proposed Signage Family
- Bill of Quantities
- Concept Design
- Design Themes
- Design Directions
- Design Elements
- Best Practice Design Principles

Strategic Recommendations	Summary	
1. Create a clear and welcoming arrival experience to the site and building entrances for all users.	2. Provide clear directions to key destinations externally and internally. Apply best-practice progressive disclosure principles to give users the right information at the right point in their journey.	3. Provide clear identification of key destinations including departments, rooms and amenities.
4. Use clear, simple and accessible naming and numbering for key destinations (addressing). Naming should be plain English terminology. Numbering should be logical and easy to infer.	5. Use design to celebrate the local and historical context of the facility.	



Typical Graphic Setout
Scale 1:20

Directional - Wall Mounted | **Department Identification** | **Amenity Sign - Projected** | **Room Identification**

SEMAPHORE

05_ ARCHITECTURAL DESIGN

5.17 Fixtures Fittings and Equipment Transfer Strategy

The MLHD have conducted a review of the existing Fixtures, Fittings and Equipment (FF&E) to be transferred to the new Temora Hospital. The review includes:

- The current condition of the existing item nominated for transfer, e.g. "As New", "Fair", Poor", etc. Items that are deemed to be in "Poor" condition, and not fit for transfer, have been noted by the MLHD. The SD cost plan for the Temora Hospital Redevelopment is based on 100% transfer of BME/ ICT elements, and as per the transfer audit report for other furniture and fittings (refer to Appendix 7.5a of this report).
- The current location of the item in the existing building as well as a proposal for the final room where the item will be placed in the new hospital.
- Dimensions of the item nominated for transfer: LxWxH. Not all items will require dimensional information (e.g. lead aprons, syringes, brackets); however, dimensional information for several furniture and equipment items, including but not limited to: drug fridges, gym equipment, filing cabinets, computer monitors, ice dispensers etc, is vital to ensure that the spatial allowances made in the design are sufficient for the transfer items in the new hospital.

A Summary of the FFE Strategy across the Temora Hospital Redevelopment is outlined in the table adjacent.

Please refer to following appendices in volume 2 of this report for further information regarding FFE grouping, numbers and transfer location.

- Preliminary Furniture, Fit out & Equipment Schedule
- FFE Transfer Items Audit Report

FFE Type	Description
New FFE Items	• All FFE are identified in the FFE Schedule issued by HDR. • MLHD have confirmed that some Group 3 items, are new items. This will be further reviewed and confirmed in the Detailed Design (DD) phase. • Services – Upgraded as per Services Engineers' documentation. • All services items which appear in AUSHFG RDS are also included in the FFE schedule as it assumes all services are to be new. E.g. medical services panels.
Transfer Items	• All BME are 100% Transfer items • All other FFE & ICT transfer items are as per the transfer audit report (as outlined in Appendix 7.5a of this report).

05_ ARCHITECTURAL DESIGN

5.18 Safety In Design

Introduction

As part of our commitment to managing work health and safety risks associated with design, HDR conduct risk workshops at various stages throughout the design process. This report provides a summary of the design safety risk assessment conducted for the project and the hazards that have been identified.

HDR have made all reasonable attempts to incorporate controls within the design for foreseeable risks identified by these workshops. As with any risk assessment, the risks may change and additional risks may be identified by others. Hence this risk assessment should be used as an input into additional risk assessments for construction, maintenance, occupation and demolition of the structure.

Risk Assessment Methodology

HDR safety in design risk assessments are carried out in accordance with the HDR Safety In Design Procedure (Document Number WHS 014). The process involves conducting reviews of the design using a set of guidewords to prompt the identification of hazards associated with construction, maintenance, use and demolition.

Each hazard identified is assessed using the risk assessment matrix shown below. Where possible, the hazards that are identified are eliminated from the design through design change. If the hazards cannot be eliminated, they are reduced as far as is reasonably practicable using the hierarchy of control as an order of preference.

Safety in Design Workshops

A schematic design safety in design workshop was held for this project on 11.01.24 and was attended by HDR, Capital Insight, GHD, Tonkin, Health Infrastructure and MLHD. At this workshop, the hazard register was reviewed and updated with hazards identified for the project. See appendices for final hazard register.

Risk Assessment Matrix

Likelihood	Consequence			
	Major Death or permanent disability	**Significant** Serious injury, lost time	**Minor** Medical treatment required	**Insignificant** Minor scratch, bruise
Very Likely Expected in most circumstances	Extreme	High	High	Medium
Likely Could occur	High	High	Medium	Medium
Unlikely Could occur but low probability	High	Medium	Medium	Low
Very Unlikely Not expected to occur	Medium	Medium	Low	Low

Risk Rating	Control priority required
Extreme	Stop work immediately until adequate controls are implemented
High	Implement risk controls within the same day
Medium	Implement risk controls within 1 week
Low	Continue to monitor

Hierarchy of controls	
1. Elimination	Do we really need to do the activity or include it in the design?
2. Substitution	Can we substitute with a less hazardous activity or design element e.g. different chemical
3. Isolation	Can we separate the person from the hazard such as operating a machine remotely.
3. Engineering	Can we specify guards, barriers etc.
4. Administration	Can we document procedures, safe work instructions, use signage etc.
5. PPE	Can we use PPE

Infrastructure Review

06_ INFRASTRUCTURE REVIEW

6.1 Structural

The new main hospital building as proposed will replace the existing hospital area. As such, a 2-stage construction and decanting strategy has been developed to ensure continuity of services to be maintained during construction. Stage 1 being the entire Eastern wing with external hardstand and Stage 2 being the remainder of the redevelopment on the Western wing.

For the structural system of the building, the new hospital building consists of concrete slab on ground floors and structural steel framing as the main structural members for the external walls and roof, maximizing internal spatial and providing flexibility to future renovation works. Foundation piers may be required to some parts of the building subject to further design development and requirements for specialist medical equipment and external landscaping works. Generally, the slab on ground slabs is directly bearing on rock and therefore require the piers to be bearing on similar materials. The southern and western ends of the building have been designed as suspended floors on piers to rock as the natural ground falls away in respective directions.

Currently, the existing Temora Hospital is located towards the crest of a gently undulating slope, which grades towards the south-west at approximately 5°. Subject to final site levels and considering that the proposed new building will be located on this sloping site, retaining walls may be required. The retaining walls will either be constructed of blockwork or conventionally formed concrete walls. However, the requirements of these walls will depend on the transition between the internal floor levels and external landscaping areas.

Consistent with previous concept designs, the existing staff accommodation building to the south will be demolished and the existing piered foundation of the building is to be adopted as the foundation of a temporary demountable structure during construction. Suitability of the existing piered foundation to support the new demountable structure is subject to further site investigation. Options for these are still being considered by the wider design team and stakeholders.

6.2 Civil

The civil engineering concept design coordinates a combination of requirements including preliminary site grading, site access/egress, internal road and driveway design, parking arrangements, pedestrian access, and drainage requirements to support the proposed redevelopment of the hospital.

A preliminary bulk earthworks assessment has been undertaken based on a nominal set down from finished floor levels and a nominal boxing depth from the preliminary road layout. The estimated balance of cut and fill is; Cut -5200m^3 and fill + 900m^3.

The access driveway road running along the northern boundary will be widened to 6 metre minimum width for 2-way traffic as per Temora Shire Council DCP requirements. Existing vehicular driveways at Loftus and Gloucester Street will be refurbished to Temora Shire Council standards with suitable layback, footpath continuation and splay/widths to suit the design traffic movements.

DDA accessible carparking spaces and pathways will be suitably graded to ensure compliance in coordination with the traffic consultant and architectural intent. The 80 space carpark at the front will be refurbished to complaint grades. As the existing levels fall away in the south-western direction, a retaining wall along the south-western end of the carpark of approximately 60m length is required to both meet the 1m level difference to natural, and to prevent encroachment into existing trees on location.

Detailed survey (Walpole Surveying, July 2023) and concept architectural plans by (HDR, January 2024) were used as the basis for the schematic stormwater management plan, bulk earthworks assessment, sediment erosion control management and external works plan.

The proposed management of stormwater in the re-development aims to resemble the existing catchment split and re-use the existing discharge locations. A preliminary stormwater assessment was undertaken to inform the capacity of the existing system, which determined that existing drainage network and infrastructure can cater for the re-development flows, as the proposed on-site detention is able to attenuate the increased proportion of site catchment flow discharging to this location

Early design coordination has been undertaken with the hydraulic consultant with respect to roof water connections and proposed external stormwater pit locations.

6.3 BCA/DDA

An assessment had been undertaken of the proposed schematic design architectural development against the deemed-to-satisfy provisions of the BCA. Matters that require plan amendments are identified in order to achieve compliance with the BCA. Any potential matters are identified to be addressed by Performance Solutions.

There are 15 items that are identified requiring fire engineering Performance Solutions and 3 items identified requiring general Performance Solutions.

Refer to appendix for BCA Report

The hospital is classified as follows:

Item	Classification
BCA Classification	Class 9a
Rise in Storeys	one (1)
Storeys Contained	one (1)
Type of Construction	Type C construction
Importance Level (Structural)	Importance level 4
Sprinkler Protected Throughout	Yes
Effective Height	<12 m
Floor Area	3384 sq.m
Climate Zone	Zone 4
Largest Fire Compartment	1644 sq.m
Maximum size of a fire compartment	2,000m2 / 21,000m3

6.4 ESD

The relevant regulations (incl. state planning requirements) and other drivers which will collectively inform the sustainability response for the proposed development at Temora hospital are as follows:

- National Construction Code 2022 – Section J
- Design Guidance Note 058 (DGN 58 - 18/03/2021)
- DGN 058 / ESD Evaluation Tool
- Environmental Sustainability Strategy 2022-2024 from Murrumbidgee Local Health District
- Secretary Environment Assessment Requirements (SEARS) when issued
- Other drivers e.g., decarbonisation of the built environment
- Local Health District Environmental Sustainability strategy
- NSW Government Resource Efficiency Policy
- NSW Climate Change Policy

In addition to the above drivers, the following circular economy principles will be adopted within the project to design out waste, keep products and materials in use and contribute to the regeneration of natural systems:

- Maximise re-use of materials from demolition
- Maximise building utilization
- Design for longevity, adaptability, and disassembly
- Avoid unnecessary use of materials and components.
- Maximise material efficiency
- Reduce use of virgin materials
- Reduce use of carbon intensive materials
- Design out use of hazardous and polluting materials

The schematic design intends to achieve 45 points against the ESD performance targets. The project team promote that the design has been developed towards achieving net zero in the future and will undertake detailed climate change risk assessment and embodied carbon assessment as part of next phase of planning

6.5 Mechanical and Medical Gases

A HVAC system selection analysis was carried out for Temora Hospital during the schematic design stage. Based on this assessment, GHD recommended 4-pipe Hydronic Air-Source Heat Pumps system.

This concept consists of installing 4-pipe reverse-cycle hydronic heat pumps that provide chilled and heating water, either independently of each other or simultaneously via heat recovery. The chilled and heating water systems are centralised to serve the entire new hospital, with the heat pumps and associated circulating pumps, buffer tanks, expansion tanks, chemical dosing located in an external plant enclosure. The heat pumps will provide chilled and heating water to air handling and fan coil units distributed throughout the hospital, typically in trafficable roof spaces, although there are some ground level plant rooms. Outdoor air ventilation is proposed to be preconditioned via sensible-only energy recovery ventilators (i.e. pre-conditioning the incoming outdoor air via energy recovered from the outgoing relief air). These systems are all proposed to be interfaced to a new Building Management System (BMS) for control and monitoring purposes.

Ventilation covers the requirements of Engineering Services Guidelines (ESG) and AS 1668.2 for the supply of outdoor air to occupied areas and exhaust requirements from areas such as toilets, kitchen, laundry, and certain clinical areas. Supply air and exhaust air systems shall be interlinked to prevent one system over or under pressurising in the event of a failure on the other system.

It is not anticipated that the new building will be of a nature that a smoke management system will be required but will need to be confirmed as architectural design is developed.

A new BMS will be provided to control, monitor and remote alarm functions for all mechanical services on-site. The system will operate on open-protocol BACnet and will interface to the LHD preferred network to provide the required functionality with remote access.

Medical Gases

The new hospital will have piped medical gases and suction to each area of the hospital as required by the AusHFG standard.

6.6 Electrical & ICT

Electricity supply substation to be upgraded in accordance with Essential Energy (EE) requirements. There is no formal existing easement agreement for the EE infrastructure. The project will proceed on the basis that there are deemed easements in place and the associated clearances to EE assets are to be maintained.

A new back-up generator will be required. It is proposed to provide full facility back-up which has been justified with a cost benefit analysis. Full site back-up is also the MLHD preference. Two central UPSs will be provided in accordance with HI's ESG. One UPS for clinical services and the other for ICT services.

All new electrical infrastructure will be provided.

A lightning protection system will be required in accordance with AS/NZS 1768 consisting of roof-mounted air terminals and down conductors. Primary and secondary surge protection is also required.

The project will be delivered over 2 stages with temporary electrical connections provided to maintain operational continuity through the redevelopment.

ICT

New carrier lead-in conduits and cabling will be provided from Gloucester Street to the new main equipment room. The new main equipment room will be established in the new facility in accordance with NSW HI Cabling and Equipment Room Standard.

All new ICT, Security and Nurse Call infrastructure will be provided.

The project will be delivered over 2 stages with temporary communications connections provided to maintain operational continuity through the redevelopment.

06_ INFRASTRUCTURE REVIEW

6.7 Hydraulic & Fire

Hydraulic impacts on the existing services includes:

- Authority sewer augmentation works will be required as part of the hospital redevelopment as advised by Council.
- The hospital redevelopment will construct a new internal sewer line around the Whiddon residential aged care facility to a new sewer connection point on the Gloucester Street footpath. Refer to hydraulics early works drawing.
- The existing sewer network and manholes will need to be replaced to address the issue of blockages due to tree roots and to accommodate the proposed development.
- Existing water supply main to be upgraded from Loftus Street to the hospital redevelopment to accommodate new building water demand and fire services requirements.
- Domestic water pressure boosting pumps and break tanks will need to be installed based on available authority water supply pressure.
- Water treatment plant to be installed based on Council water supply quality and hospital requirements.
- New combined fire hydrant/sprinkler brigade booster assembly, and pump-set will be required to meet current standards.
- Combined on site storage water tank and pump-set will be required due to insufficient capacity in the Council's water main and to support both the hydrant and sprinkler systems for the redevelopment.

Hydraulic services and systems proposed as part of the redevelopment are as per the following:

Domestic water

- Upgrade of existing Ø100mm to Ø150mm from the existing Loftus Street mains water supply connection.
- New RPZD water supply backflow valves to be installed in parallel at the block boundary to provide site containment protection.
- New water supply reticulation from the new water meter assembly to the new building.
- Decommissioned of the existing water supply as part of the proposed works.

Filtration

- Two (2) automatic point-rotation backwash filters complete with 100 micron stainless steel screens.
- Two (2) automatic point-rotation backwash filters complete with 30 micron stainless steel screens.
- Water softening treatment system
- Reverse osmosis treatment system

Hot water

- Provide air to water heat pump system consisting of 16 kW heat pumps, stainless steel storage tanks, 2 x recirculating pumps and 30 kW heating element installed in bottom port of the tank.
- Units to include BMS connection.

Warm water

- Provide thermostatic mixing valve arrangement for the delivery of warm water to sanitary fixtures.
- Provide a thermostatic mixing valve monitoring system.

Drainage

- New sanitary drainage will be provided to accommodate new building layout.

Rainwater tanks and Downpipes

- New 3 x 10,000L rainwater tanks will be provided to comply with ESD requirements. The tank will provide supply to landscape for irrigation system. The tank overflow will be connected to the Civil stormwater network.
- New downpipes will be provided to accommodate new roof configurations and be connected to the Civil stormwater network.

Fire Hydrant system

- Provide new fire brigade booster assembly, tanks and pump-set at the building back of house. This will be supported by an FEBQ in a Fire engineering report.
- Provide internal hydrants to achieve coverage of internal building areas and located as required.
- Provide internal fire hose reels to achieve coverage of internal building areas and located in line with consultation with the building certifier, fire engineer and FRNSW.

Wet Fire

- Provide a fire sprinkler system throughout the proposed hospital building in accordance with AS 2118 Part 1- 2017.
- Provide fire sprinkler on site storage water and pressure boosting pump.
- Provide a fire brigade booster assembly with a suction line connected to the storage water supply located at the back of house adjacent to the fire hydrant booster assembly.
- Provide the main sprinkler system isolation and alarm valve assemblies at the back of house of the building.
- Storage water quantity based on the maximum water supply flow required for an exposure hazard application.

Dry Fire

All new detection and emergency warning systems will be provided. The following infrastructure and associated spatial allocations will be required:

- FDCIE – Appropriate cupboard or wall space in the building entrance to accommodate FDCIE and EWCIE. Temora will require 2 panels 600 mm wide with a minimum clearance of 1 m in front and 0.5 m to each side.

6.8 Acoustics

All aspects of the Temora Hospital redevelopment acoustic design will be completed in accordance with the NSW Health Engineering Services Guide (NSW Health 2022) which includes:

- Environmental noise.
    - Environmental noise emission.
    - Environmental noise intrusion.
- Building services noise and vibration.
- Architectural acoustics.
    - Internal design noise and vibration levels.
    - Internal acoustic isolation.
    - Room acoustics.
    - Vibration and structure borne noise.

6.9 Traffic & Parking

Site access and car parking will be provided to accommodate the staff, fleet, site servicing and visitors' requirements.

Current preferences are for one-way traffic flow from Loftus Street for staff and visitors, egressing onto Gloucester Street, and two-way ambulance and service vehicle access and egress of Gloucester Street. Eighty on-site car parks will be provided for staff, public and fleet vehicles.

The project is exploring the use of the lane that connects Bundawarrah Road to the back of the site for construction traffic.

Design Quality

Good design is fundamental to delivering effective, engaging and sustainable health facilities that provide outstanding care, create supportive working environments, and meet their potential as public places that shape our suburbs, towns, cities and regions.

Design principles provide a framework for analysis, understanding and decision-making. They are fundamental touchstones, guiding the long and complex process of scoping, developing and delivering a health facility.

- *Design for dignity*
- *Design for wellbeing*
- *Design for efficient and flexible delivery of care*
- *Design with Country*
- *Design for the neighbourhood and surrounding environment*
- *Design for connection*
- *Design for sustainability*

Design for Dignity

A fundamental design principal of the Temora Hospital redevelopment was to create a welcoming and comforting environment. This experience begins with the site entrance with the meandering driveway leading visitors through the established landscape providing a sense of familiarity and a calming arrival experience.

The single storey scale of the new hospital combined with a close engagement with landscape welcomes visitors to the facility. The landscape and building form provide intuitive wayfinding to guide visitors to the main entrance. The connection to landscape continues as users enter the reception area which provides a large outlook back across the arboretum providing a sense of calm. The planning of the front of house and central corridor provides clear and intuitive wayfinding defined by a large landscaped courtyard which is crossed by the central circulation corridor which terminates with outlook to landscape at each end allowing users to intuitively navigate the hospital and de-institutionalise the experience.

The landscaped courtyard is located centrally with easy access from the waiting area. This space provides opportunity for respite and privacy within the calming landscape.

Design for Wellbeing

The amenity provided by the building is maximised through daylight provision into key public, clinical, functional and inpatient spaces with views out into the garden setting and access to external gardens and recreation spaces. Human health and wellbeing is maximised through the incorporation of outdoor spaces with landscaped shading and networked path connections.

Staff and patients have access to the external landscape, which supports recovery and rehabilitation, through several courtyards: the main central courtyard, the IPU lounge courtyard, the birthing courtyard, and the rehabilitation courtyard.

Staff wellbeing is further supported by a dedicated landscaped staff courtyard, an administration area with expansive views, and a meeting space that opens onto the central courtyard.

An integrated arts strategy provides for a welcoming environment and provides positive distraction to support the wellbeing of patients, visitors and staff.

Design for Efficient and Flexible Delivery of Care

Establishing efficient clinical adjacencies, functional relationships and circulation flows is key to efficient delivery of care. A detailed consultation process was undertaken with the Project User Group, The MLHD Project Redevelopment Team, Health Infrastructure's Project Director, the Project Manager and the Architects. The planning for each department was benchmarked against the Australasian Health Facility Guidelines, the lessons learnt from the clinical operations and functionality of the existing Temora Hospital as well as the findings from other new regional hospitals around New South Wales.

Logical future expansion opportunities for the inpatient, ambulatory care and admin units have been considered. Key principles promoting future flexibility of the hospital were considered while maintaining important overall relationships, flows, and intent of the planning and design. Future flexibility considerations include; The use of open-ended corridors extending to the edge of the building to enable efficient future extension; Standardisation of IPU bedrooms allowing flexibility to enable a change in service type, e.g. conversion of a number of inpatient bedrooms into maternity rooms; Inclusion of services provisions and/or larger spatial provision within specific clinical rooms.

07_Design Quality

7.1 Response to Design Guide for Health

Design with Country

For the redevelopment of Temora Health Service, ideation was explored through the lens of design thinking and using collaborative events such as a Walk on Country, Design Jam and Community Feedback Session.

Although not all discussion could occur on site, the cultural landscape and context of Wiradjuri Country was maintained at the front mind during community engagement. The empathetic design approach ensured that First Nations cultures remain at the core and foundation of the project. The collaboration with the First Nations community members and multidisciplinary design team brought a diversity of ideas and knowledges to the design thinking process. The community engagement identified key insights, recommendations and areas of opportunity for the project.

Three key themes emerged from this collaborative approach. These themes seek to provide a basis for cultural care, celebration and well-being in Temora.

- Journeys within Country
- Familiarity and Reflection
- Working Gently Together

Design for the Neighbourhood and Surrounding Environment

The new Temora Hospital is informed by its contextual setting from a macro to a micro scale and embraces the existing character and social heritage established by the long-term association of the site as a place that delivers healthcare to the wider Temora community.

While the existing 1930's building can no longer support the delivery of contemporary models of care, it is the arboretum and siting of the hospital on its hilltop location that creates the unique character that is valued by locals. The new hospital acknowledges this value and provides opportunity for the community to embrace and utilise this space as a community asset.

On a micro scale, the new building embraces the garden views and the siting on the existing footprint continues the tradition of the hospital on the hill. On a macro scale, the architecture takes inspiration from the vernacular of the Temora region, characterized by monumental nineteenth-century masonry public buildings and simple, authentic grain silos and storage sheds. The material palette is inspired by Temora Greenstone, a jade-like rock endemic to the region.

Design for Connection

Transport to the hospital is primarily by private vehicle, as the facility is located on the outskirts of town and there are no public transport options or cycling infrastructure available. As arrival by car is the primary transportation method, a clear separation of vehicle flow has been provided with the public carpark and dropoff having having a dedicated entrance driveway to arrive at the front of the building.

The landscape design and building form provide intuitive wayfinding connecting the carpark to the main entrance. A covered walkway from the dropoff area contains a series of blade wall columns acting as a guiding element directing visitors to the main entrance as they approach from the parking area.

The landscaped areas around the carpark, front entry, reception and central courtyard area provide both formal and informal space for people to pause and foster community interactions.

Design for Sustainability

The design incorporates strategies to reduce energy consumption and generate renewable energy including all electric AC using heat recovery pump systems, LED lighting with controls and roof mounted onsite renewables. It follows circular economy principles to design out waste, keep products and materials in use and contribute to the regeneration of natural systems. The project targets 60 points against HI ESD targets and the design has been developed towards achieving net zero in the future. During the next phase, the project will undertake climate change risk assessment and embodied carbon assessment.

The building includes passive design features including large eaves to the north to minimise direct summer sun and associated heat gains and targets 10% reduction in water use with initiatives to reduce potable water demand including rainwater tanks used for irrigation. Landscaping adopts water sensitive urban design principles, responses to Connection with Country, ecological, cultural and clinical outcomes with new native vegetation to support biodiversity and regeneration.

7.2 Response to NSW Government Architect, State Design Review Panel feedback, Third Review

This table address the feedback received from the NSW Govenment Architect in response to State Design Review Panel presentation on 14 February 2024. In general, the panel supported the extent of consultation undertaken with the community, the Country principals, the size and amenity of the central courtyard, improvements to the east-west circulation spine, variety of outdoor spaces, range of sustainability iniatives and use of Temora greenstone as a precedent for material selection.

Item	SDRP Comment	Response
	Connection with Country	
1	During engagement be clear on project scope and budget constraints in the delivery of Country initiatives. This will assist relationships and enable a shared understanding of what is achievable.	HDR, Yerraningin and Site Image will only present design solutions and strategies that have been tested against the cost plan.
2	Continue to engage with community for the remaining design and delivery process, to ensure the response to Country is well-integrated into the final design.	Yerrbingin is returning to the community at the end of May to report back the project outcomes for Connection with Country. The timing aligns with the project comms program.
3	Continue to refer to the recently finalized Connecting with Country framework 2023 and associated case studies available on the GANSW website.	Noted.
	Site planning, open space and landscape design	
4	The size and quality of the landscape spaces is impacted by the proximity of car parking and the extent of road and hardstand. Demonstrate improvements by addressing the following:	
	a. reduce the extent of hardstand generally to increase the size of the outdoor spaces and minimise the heat island effect - e.g. reconsider vehicle travel paths and explore efficiences at the main entry drop-off.	HDR confirm that hardstand is kept to a minimum. Required turning circles particularly for the articulated vehicles to the loading dock and front entry drop-off, have determined the extent of the paving verses neighbouring landscape elements.
	b. significantly reduce vehicle impacts, including privacy, headlights and noise at the north interface of the central and staff courtyards by relocating or reconfiguring the fleet car parking (in favour of using screening for mitigation).	The western, ambulatory wing of the hospital will accommodate 12-hour services. The fleet parking will operate during business hours only. It is not anticipated that headlights will be an issue to the central courtyard and Admin department. The landscaping is an important design feature providing privacy and views out.
	c. explore ways to address vehicle impacts from the access driveway on public open space and the rehabilitation courtyard to the north west.	Rehab space has been reduced in area and more space provided to the lawn which acts as a landscaped buffer between the access driveway and the rehab courtyard.
5	Provide a landscaped breakout space close to the IPU to give easy access to staff in favour of extended travel distances to the staff courtyard.	There is an option to include a door from the eastern end of the main corridor pending User approval of proposed changes to periop.
6	Increase the quantum of publically accessible open space adjacent to the entry to better balance the allocation of open space between the main entry and the western side of the IPU.	This has been achieved in the current design. Vegetative screening is maintained to the IPU windows but the public have access to utilise the garden space at the drop-off.
7	At the eastern end of the east-west circulation spine, balance the intent for daylighting and views with the need for privacy at the Birthing Garden.	The birthing garden is screened to the north for privacy.
8	Explore an option of ramp and walkway access from the IPU to lower levels of garden in lieu of the proposed built-up earthworks.	This is not considered desirable as the intention is to achieve a seamless indoor / outdoor relationship between the patient lounge and garden. The elevation / embankment also uses cut and fill rather than needing to remove it from site.
9	Future-proof the public and patient landscape spaces under an Ambulatory Care and IPU expansion scenario.	The expansion of the hospital is not expected to be required in the near future and remodelling of the garden and carparking is expected should it occur.
	Built form	
10	Articulate the facade at building corners and ends, entrances, corridor terminations, fenestration zones and the like, by adopting the architectural language of the southern and western forms - e.g. generous recesses at entrances and expressed ends of buildings.	The detail of the building will be expressed in layers from the primary massing, to the elevation layer of veranda's and overhangs to the detail that you see close up. This will be developed during design development phase.

7.2 Response to NSW Government Architect, State Design Review Panel feedback, Third Review

Item	SDRP Comment	Response
	Built form continued;	
11	Articulate the roof by breaking up the large mass through devices such as roof lights and perimeter awnings. Refer below for expanded commentary.	
12	Provide skylights to deliver daylighting and visual access to the sky, to imrove the amenity and user wellbeing of the long corridors at clinical areas with remote or no access to windows.	The majority of rooms in the centre of the building that do no have daylight access, do not require windows ie: medical imaging and store rooms. The long staff corridor that connects the back of house to the main public corridor has not been identified as an area for staff to linger and coordination of skylights with in-ceilings services would be difficult. A clerestory roof is proposed over the IPU staff station to enable daylight and a view on the sky. Through internal windows it will also provide daylight into the neo-natal unit.
13	Continue to explore opportunities for corridors to terminate with windows - e.g. test the eastern end of the east-west circulation spine to achieve this outcome without a net increase in clinical floor area.	HDR have provided a solution to achieve this and we do consider it a high-priority. Endorsement of the revised plan is being delayed by Users non-acceptance of the required changes to the perioperative unit.
14	Continue to test the locations of white metal cladding to ensure glare in minimised or eliminated.	This will be explore during phases 4 and 5.
	Sustainability	
15	Ensure the initiatives are designed to be robust and impactful with regard to rigorous value-managment and the requirements of delivery and long term maintenance.	The project has a robust ESD strategy that includes lifecycle and material longevity. This is accommodated in the cost plan.
16	Continue to refer to 'NSW, DPIE, Net Zero Plan, Stage 1: 2020-2030' for further information.	Noted.
	Staging and expansion	
17	Acknowledging that the primary function of the future Annex Building is for decanting and that its long term use is a decision for the LHD, the following advice is provided:	
	a. consider the long term use and preferred location of the Annex Building in site planning decisions as early as possible to increase the effectiveness of the master plan, assist future proofing and to minimise redundant work.	The future inclusion of the proposed annex building is still to be determined. The current preference is for a light refurb to the existing staff accommodation building to aid in decant with a future expansion zone for the key worker accommodation.
	b. Option 1(Loftus St), may be preferable as long term Key Worker Accommodation (KWA) due to the amenity and liveability benefits of the Arboretum. It can also benefit from a direct address to Loftus Street.	Agreed. In the current strategy the tennis court will remain the future expansion location for KWA.
	c. Option 2 (Gloucester St), offers significantly less amenity for KWA (due to the proximity of road and car park), may be better suited to complementary hospital or community uses, and reduces impacts to the Arboretum.	Aknowledged however there is no desire from the MLHD or hospital to retain ambulatory services in this location permanently.
18	Consider the impacts of future expansion on landscape spaces (that may require removal) and how to safeguard alternative areas for their relocation.	Refer to response to item 9.
	Design process	
19	Continue to refer to the recently released Design Guide for Health (2023) to inform the remainder of the design process.	Noted

08

Appendices

Nominated Architect
Catriona Jane Cowlishaw
NSW 10786 / VIC 15211
hdrinc.com/au

Sydney
Level 24, 25 Martin Place
Sydney, NSW 2000
T +61 2 9956 2666