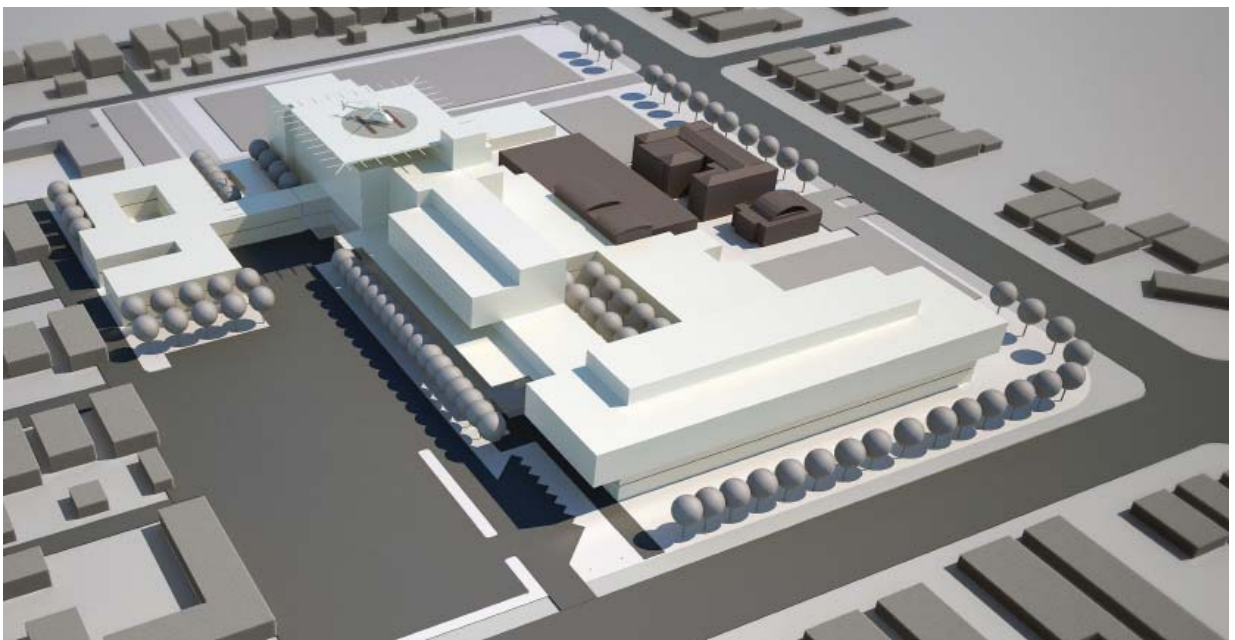


# VOLUME 1 APPENDICES A - I

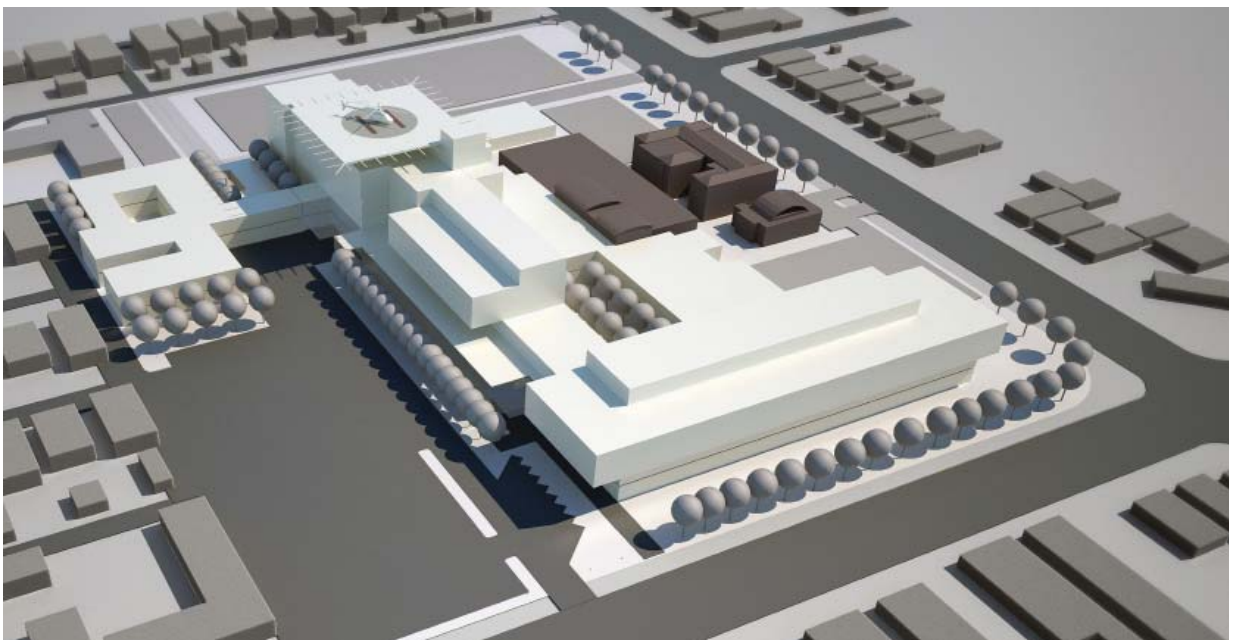
(excluding Appendices C and D)

- A.** Part 3A Application Letter and Application Form **B.** Director General's Requirements  
**C.** (Please refer to separate document) **D.** (Please refer to separate document)  
**E.** Flood Impact Assessment **F.** Civil, Traffic and Building Services Concept Report  
**G.** Overland Flow Options Report **H.** Geotechnical Report **I.** Heritage Report



# APPENDIX A

## Part 3A Application Letter and Application Form







Mr Sam Haddad  
Director-General  
Department of Planning  
GPO Box 39  
SYDNEY NSW 2001

Dear Mr Haddad,

**Request for Opinion under Clause 6 of State Environmental Planning Policy (Major Development) 2005, Authorisation to Submit a Concept Plan and issue of Director-General's Environmental Assessment Requirements - Wagga Wagga Hospital Redevelopment**

In accordance with Section 75B of the *Environmental Planning and Assessment Act 1979* (EP&A Act 1979) and Clause 6 of State Environmental Planning Policy (Major Development) 2005 (Major Development SEPP), Health Infrastructure seek your opinion that the redevelopment of Wagga Wagga Hospital, is a project to which Part 3A of the Act applies. In addition, and in accordance with Section 75M of the EP&A Act 1979 we seek the Ministers authorisation that a Concept Plan be submitted for the Wagga Wagga Hospital Redevelopment.

Further, we request that the Director-General identifies the Director-General's Environmental Assessment Requirements (DGRs) for a Concept Plan for the site. The purpose of this letter is to provide a Preliminary Environmental Assessment for the proposed Concept Plan that:

- outlines the proposed development;
- briefly reviews relevant environmental planning instruments;
- reviews relevant planning controls; and
- identifies the key issues that will need to be addressed in the Concept Plan

**Background**

On 10<sup>th</sup> March 2009, Health Infrastructure wrote to the Director-General seeking an opinion that Part 3A of the EP&A Act apply to the redevelopment of the Wagga Wagga Hospital in accordance with Section 75B of the EP&A Act and Clause 6 of the Major Development SEPP. In that letter it was also identified that a Concept Plan for the site would be prepared and that Director-General's Environmental Assessment Requirements (DGRs) are be sought for a Concept Plan. A copy of the letter is attached.

The Ministers Opinion, under Clause 6(1) of the Major Development SEPP that the proposal for the redevelopment of Wagga Wagga Base Hospital was a project to which Part 3A applied, was received on 26<sup>th</sup> March 2009 however as that letter referenced the description of the project outlined in a letter dated 10<sup>th</sup> March 2009, that Opinion is no longer valid. Since the original Clause 6 Opinion was issued the nature of the redevelopment has also changed from one where the whole hospital would be developed into one where the hospital will be redeveloped in stages in accordance with a Concept Plan.

Wagga Wagga Base Hospital (WWBH) is a major Rural Referral hospital, located in southern central New South Wales within the Greater Southern Area Health Service (GSAHS) catchment. This catchment is expected to align with the area to be serviced by the Murrumbidgee Local Health Network (LHN).

WWBH is one the largest and busiest Rural Referral Hospitals in NSW providing approximately 24,000 admissions, 73,000 bed-days, 700-750 births and 7,000 operations each year with an average National CWT of 21,400 separations. WWBH currently offers a broad range of medical and surgical specialties as well as maternity and paediatric services, critical care, mental health and aged care and rehabilitation services. It is the hub for medical and surgical subspecialties in the catchment. The WWBH medical and clinical teams provide outreach services to several District and Community Acute Hospitals and Multipurpose Services (MPS) and enact a regional role in relation to Ambulatory and Community Health Services which includes support for renal patients dialysing at home, mental health, drug and alcohol, sexual assault, and consultancy support for chronic and complex disease management.

Planning processes for the WWBH redevelopment have recognised the importance of developing and strengthening strategic partnerships with other services, local GPs and education institutions. The service configuration and priorities for this project have been developed in consideration of service gaps identified in consultations with local clinicians and other stakeholders, including private and public agencies and confirmed through research in relation to comparative health indicators.

The redevelopment of WWBH represents a strategic capital investment in the health infrastructure of the GSAHS, the soon-to-be-constituted Murrumbidgee Local Health Network and NSW Health. The overall objective is to provide a contemporary healthcare facility suited to the current and future needs of the catchment population. Importantly, this proposal strongly aligns with Commonwealth, NSW Government, NSW Health and GSAHS strategic objectives for the provision of improved health services to regional, rural and remote communities. Improved service integration and strengthened referral networks will provide significantly more accessible services and improved health outcomes to many thousands of residents across rural communities within the WWBH catchment.

## **The site**

The Hospital site is located approximately 1km from the CBD with good access via bus or taxis adjacent to the railway station. Walking time from the CBD is approximately 20-25 minutes. The main vehicular access from the CBD is via Edward Street.

The site has an area of approximately 4.2 hectares on the main campus. The topography of the site is predominantly flat with a fall towards the Edward and Docker Streets corner of around 3.6 metres. There are scattered trees and grassed areas on site.

The property is legally described as DP 659184.





Figure 1 Locality Map

The Wagga Wagga Base Hospital is part of an existing health facility precinct which includes private health facilities, Calvary Hospital and Specialist Practices and Clinics. Almost all of the Specialist Practices and Clinics are housed in Docker Street and Sturt Highway/Edwards Street whilst Calvary Hospital is set south west of Docker Street.

The precinct is loosely bordered by Sturt Highway/Edwards Street to the north, Murray Street to the east, Brooking and Meurant Avenues to the south and Emblen Street to the west. Almost all of the Specialist Practices and Clinics are housed in Docker Street and Sturt Highway/Edwards Street.

The WWBH site itself is bordered by Sturt Highway/Edwards Street to the north, Lewis Drive to the east, Rawson Lane to the south and Docker Street to the west. The main public vehicular access route to car parking and the Main Hospital and Emergency Department is directly off Sturt Highway/Edwards Street down Lewis Drive. Public also have vehicular access to the existing Hydrotherapy facility directly off Docker Street but parking is limited and shared with the UNSW Rural Clinical School.

Public access can be gained around the back of the site via Rawson Lane to the Dental Unit, Community Health and the ARBC Donor Centre and down Yathong Street & Lewis Drive to the Renal Unit and Yathong Lodge. Vehicular access for staff is the same as for public down Lewis Drive to the main car park and in addition a staff car park can be accessed via Yathong Street. Service Vehicles enter the site down Lewis Drive, Yathong Street and Rawson Lane.

## Existing Buildings

There are many diverse, old and ad-hoc buildings on the site which have numerous extensions. Dysfunctional spaces within these buildings do not allow development of integrated service delivery models. These spaces result from the number of different buildings, the poor functionality of existing work areas and the limitations imposed by the configuration of the existing buildings.

Inadequacies of the facilities include:

- Inadequate space for ambulatory care services
- Insufficient inpatient beds to meet population growth
- Room sizes are inconsistent with current guidelines
- There is generalised crowding in the emergency and outpatient areas
- Theatres are not well located to promote efficient functional relationships
- Lift services are in need of replacement



- Some buildings have multiple access points without access control systems. This presents a security concern
- Ward configurations are inflexible; there are small numbers of single or double rooms
- There is insufficient storage throughout the facility. This can be an Occupational Health & Safety risk, particularly for services where large pieces of equipment are in regular use
- Lack of meeting and staff training facilities.

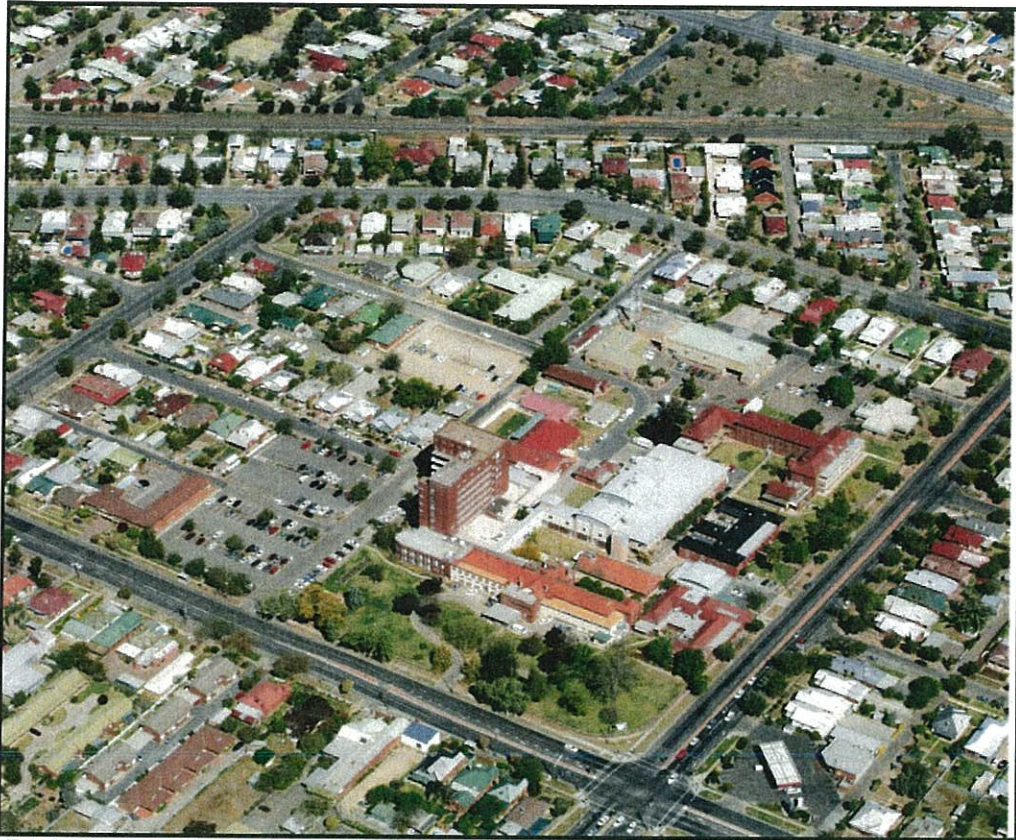


Figure 1 Existing Hospital

## The Concept Plan

The Concept Plan seeks approval for the redevelopment of the Wagga Wagga Base Hospital generally in accordance with the master plan attached in Appendix A.

Specifically, the Concept Plan seeks approval for:

- 41,500m<sup>2</sup> of floor space for a new hospital built on the site of the existing hospital in stages to allow for demolition and decanting of services;
- The footprint of the buildings shown on Plans at Appendix B;
- The maximum heights of the buildings;
- Access and car parking
- Siting of the helipad.

The existing hospital has a floor area of approximately 27,000sqm and a maximum height of eight (8) storeys. The proposed Concept Plan has a maximum height of 6 storeys plus the helipad on the 7<sup>th</sup> level.

## Planning Issues

### State Environmental Planning Policies

The following table identifies the State Environmental Planning Policies (SEPPs) that apply to the land or type of development that is subject to this proposal, and the proposals compliance with those Policies.

SEPP #	Name	Applies	Compliant
1	Development standards	✓	✓
4	Development without consent		
6	Number of storeys in building		
14	Coastal wetlands		
21	Caravan parks		
22	Shops and commercial premises		
26	Littoral rainforests		
30	Intensive agriculture		
33	Hazardous and offensive development	NK*	
36	Manufactured home estates		
44	Koala habitat protection		
45	Permissibility of mining		
50	Canal estate Development		
55	Remediation of land	✓	✓
62	Sustainable aquaculture		
64	Advertising and signage		
65	Design quality of residential flat development		
71	Coastal protection		
	Housing for Seniors or People with a Disability		
	Major Development 2005	✓	Refer below
	Mining, Petroleum Production and Extractive Industries 2007		
	Temporary Structures and Places of Public Entertainment 2007		
	Infrastructure 2007		
	Rural Lands 2008		
	Exempt & Complying Development Codes 2008		
	Affordable Rental Housing 2009		

\* Not Known at this stage

### Local Environmental Plan

The site is zoned SP2 Infrastructure (Hospital) under Wagga Wagga Local Environmental Plan 2010 (WWLEP). The objectives of this zone are to:

- provide for infrastructure and related uses; and
- prevent development that is not compatible with or that may detract from the provision of infrastructure.

Apart from Roads, which do not require consent, development for the purposes listed on the Land Zoning Map and any development ordinarily incidental or ancillary to that use requires consent. All other development is prohibited.

On that basis the use of the site as a hospital is **permissible**.



## **Other issues:**

### **Flooding**

A Flood Impact Assessment has been conducted for the site which found that the site is likely to flood on in the situation that the Murrumbidgee River overtops the Main City Levee which is constructed to stop the 1:100 year flood event. All buildings will be designed to take into account the potential of flood with critical services designed to be located at the high point of the site.

### **Contamination**

Laboratory tests of soil samples have confirmed a generally alkaline pH soil which suggests the soil will not be aggressive on steel structures. However the soil was also found to contain high levels of sulphate which is mild to moderately aggressive to concrete. There is no evidence of salinity or groundwater contamination.

### **Helipad**

The Hospital currently uses the Duke of Kent Oval to the north west of the site for helicopter services. Flight paths are currently from south east to north west travelling over the hospital and within sight distance of residences. Transfer is then provided by ambulance. The Concept Plan will seek to locate a helipad on top of the hospital building to reduce patient transfer times and noise and visual impacts for residents.

## **Application of Part 3A of the Environmental Planning and Assessment Act 1979**

Schedule 1 of the Major Projects SEPP sets out those classes of development that qualify as major projects. Specifically, Group 7 'Health and public service facilities', Part 18 'Hospitals' notes the following:

*(1) Development that has a capital investment value of more than \$15 million for the purpose of providing professional health care services to people admitted as inpatients (whether or not out-patients are also cared for or treated there), including ancillary facilities for:*

- (a) day surgery, day procedures or health consulting rooms, or*
- (b) accommodation for nurses or other health care workers, or*
- (c) accommodation for persons receiving health care or for their visitors, or*
- (d) shops or refreshment rooms, or*
- (e) transport of patients, including helipads and ambulance facilities, or*
- (f) educational purposes, or*
- (g) research purposes, whether or not they are used only by hospital staff or health care workers and whether or not any such use is a commercial use, or*
- (h) any other health-related use.*

*(2) For the purposes of this clause, professional health care services include preventative or convalescent care, diagnosis, medical or surgical treatment, psychiatric care or care for people with disabilities, care or counselling services provided by health care professionals.*

The proposed Wagga Wagga Hospital Redevelopment Concept Plan is consistent with the above non-discretionary criteria with regards to the services it will deliver. The Concept Plan has a CIV of approximately \$320 million and therefore meets the SEPP criteria as a major project.

## Request for Director Generals Requirements

If the Minister is of the opinion that the redevelopment of the Wagga Wagga Base Hospital is a Major Project to which Part 3A of the EP&A Act 1979 applies, Health Infrastructure formally request that the Department of Planning issue the Director General Requirements (DGRs) to facilitate the preparation of the Environmental Assessment under section 75H of the EP&A Act 1979.

I trust that the above information is sufficient to enable you to declare this project as a Major Project under Part 3A of the EP&A Act 1979. However if you require any additional information please contact Jeremy Oakes on 0435 868 912 or Leoné McEntee on 96618019. We would be happy to meet with your Department to discuss the proposal at any time.

Yours sincerely

A handwritten signature in black ink, appearing to be 'RR', written over the text 'Yours sincerely'.

Robert Rust  
**Chief Executive**

# Major project application



NSW GOVERNMENT  
Department of Planning

Date duly made: \_\_\_/\_\_\_/\_\_\_

Project application no. \_\_\_\_\_

## 1. Before you lodge

This form is required to apply for the approval of the Minister to carry out a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* (the Act) applies.

Before lodging this application, it is recommended that you first consult with the Department of Planning (the Department) concerning your project.

A Planning Focus Meeting may need to be held for this project involving the Department, relevant agencies, council or other groups identified by the Department. If a Planning Focus Meeting is held, the Department will issue the Director-General's requirements for the Environmental Assessment following the meeting.

### Disclosure statement

Persons lodging applications are required to declare reportable political donations (including donations of or more than \$1,000) made in the previous two years.

For more details, including a disclosure form, go to [www.planning.nsw.gov.au/donations](http://www.planning.nsw.gov.au/donations).

### Lodgement

All applications must be lodged with the Director-General of the Department of Planning, by courier or mail. An electronic copy should also be emailed to the assessment contact officer assigned to the project.

NSW Department of Planning  
Ground floor, 23-33 Bridge Street, Sydney NSW 2000  
GPO Box 39 Sydney NSW 2001  
Phone 1300 305 695.

## 2. Details of the proponent

Company/organisation/agency

Health Infrastructure

ABN

89 600 377 397

Mr  Ms  Mrs  Dr  Other

First name

Robert

Family name

Rust

Position

Chief Executive

STREET ADDRESS

Unit/street no.

Level 8, 77

Street name

Pacific Highway

Suburb or town

North Sydney

State

NSW

Postcode

2060

POSTAL ADDRESS (or mark 'as above')

PO Box 1060

Suburb or town

North Sydney

State

NSW

Postcode

2059

Daytime telephone

9661 8019 (consultant)

Fax

9661 5919 (consultant)

Mobile

0410432505 (cons)

Email

(consultant) leone@upoutcomes.com.au

## 3. Identify the land you propose to develop

STREET ADDRESS (where relevant)

Unit/street no.

Street or property name

Suburb, town or locality

Postcode

Local government area(s)

State electorate(s)

REAL PROPERTY DESCRIPTION

DP 659184

Note: The real property description is found on a map of the land or on the title documents for the land. If you are unsure of the real property description, you should contact the Department of Lands.

Please ensure that you place a slash (/) to distinguish between the lot, section, DP and strata numbers. If the project applies to more than one piece of land, please use a comma to distinguish between each real property description.

OR detailed description of land attached.

MAP: A map of the site and locality should also be submitted with this application.

#### 4. Major project description and other requirements

Provide a brief title for your project.

A Concept Plan for the Redevelopment of Wagga Wagga Base Hospital

##### PROJECT APPROVAL

If you are applying for approval of a project, include in the project title, all significant components for which approval is being sought. If the application relates to part only of a project, the project title should reflect this.

Is the application for approval of a project?

Yes  No

Is the application related to part only of a project?

Yes  No

##### CONCEPT PLAN APPROVAL

If you are applying for approval of a concept plan, include in the project title, all components for which approval 'in concept' is being sought. If the application also relates to approval of a project, a description of this should also be included in the project title.

Is the application for approval of a Concept Plan?

Yes  No

Is a project application being made concurrently for all or part of the project?

Yes  No

**You are also required to provide a Project Description and address any matters required by the Director-General in accordance with section 75E or section 75M of the Act. Failure to do so may lead to your application being rejected.**

Is a Project Description attached?

Yes  No

Does the Project Description include any additional matters required by the Director-General under section 75E or section 75M of the Act?

Yes  No

Note: An electronic copy of the project description is also required as all applications must be provided on the Department's website. You should contact the Department on the correct electronic format.



### ESTIMATED CAPITAL INVESTMENT VALUE

Please indicate the estimated capital investment value (CIV) of the project. The CIV includes all costs necessary to establish and operate the project, including the design and construction of buildings, structures, associated infrastructure and fixed or mobile plant and equipment (but excluding GST and land costs).

\$320 million

### EQUIVALENT FULL-TIME JOBS

Please indicate the number of jobs created by the project. This should be expressed as a proportion of full time jobs over a full year.

Construction jobs (full-time equivalent)

Operational jobs (full-time equivalent)

## 5. Approvals from State agencies

Does the project require any of the following: (tick all that are appropriate)

- an aquaculture permit under section 144 of the *Fisheries Management Act 1994*
- an approval under section 15 of the *Mine Subsidence Compensation Act 1961*
- a mining lease under the *Mining Act 1992*
- a production lease under the *Petroleum (Onshore) Act 1991*
- an environment protection licence under Chapter 3 of the *Protection of the Environment Operations Act 1997* (for any of the purposes referred to in section 43 of that Act)
- a consent under section 138 of the *Roads Act 1993*
- a licence under the *Pipelines Act 1967*

## 6. Landowner's consent or notification

As the owner(s) of the above property, I/we consent to this application being made on our behalf by the proponent:

Land

Signature

Name

Date

Land

Signature

Name

Date

Note: Under clause 8F of the *Environmental Planning and Assessment Regulation 2000* (the Regulation), certain applications for approval under Part 3A of the Act do not require the consent of the landowner, however, the proponent is required to give notice of the application:

- in the case of linear infrastructure projects, by notice in a newspaper circulating in the locality prior to the commencement of the public consultation period,
- in the case of mining or petroleum production projects, by notice in a newspaper circulating in the locality within 14 days of this application being made,
- in the case of critical infrastructure projects, to the owner of the land within 14 days of this application being made, and
- in other cases, to the owner of the land at any time before the application is made.



## 7. Political donation disclosure statement

Persons lodging applications are required to declare reportable political donations (including donations of or more than \$1,000) made in the previous two years. Disclosure statements are to be submitted with your application or request.

Have you attached a disclosure statement to this application?

- Yes  
 No

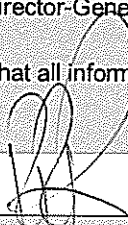
Note: For more details about political donation disclosure requirements, including a disclosure form, go to [www.planning.nsw.gov.au/donations](http://www.planning.nsw.gov.au/donations).

## 8. Proponent's signature

As the proponent(s) of the project and in signing below, I/we hereby:

- provide a description of the project and address all matters required by the Director-General pursuant to section 75E and/or section 75M of the Act, and
- apply, subject to satisfying clause 8D of the Environmental Planning and Assessment Regulation, for the Director-General's environmental assessment requirements pursuant to Part 3A of the Act, and
- declare that all information contained within this application is accurate at the time of signing.

Signature

Name

Robert Rust

Date

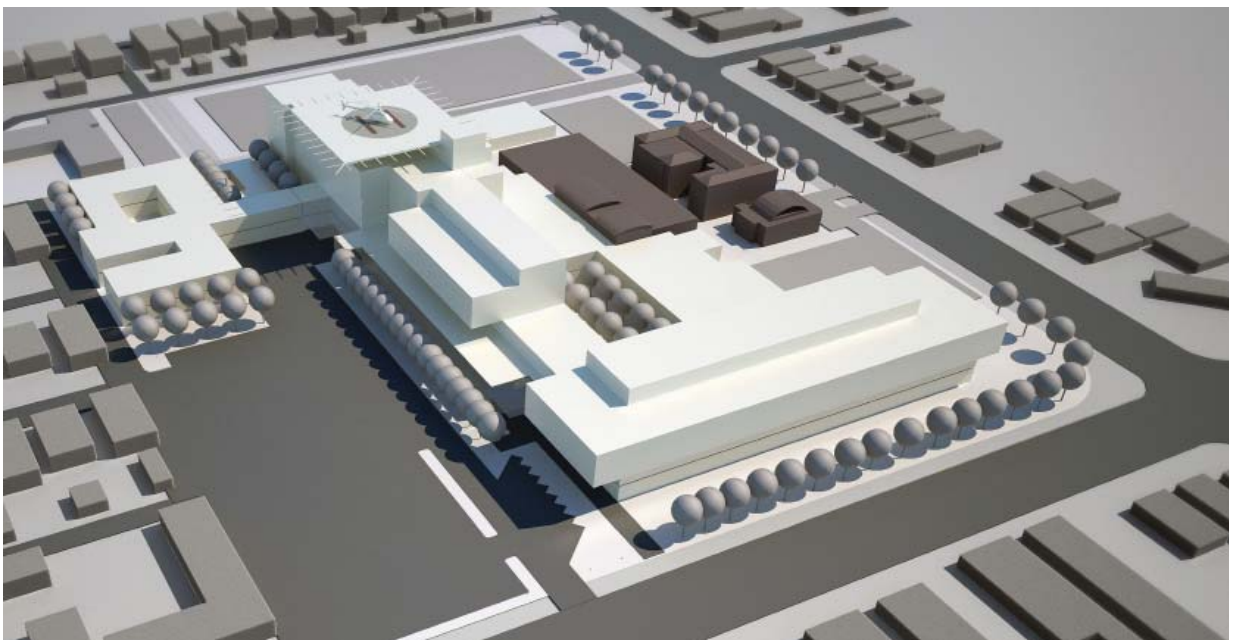
6.12.2010

In what capacity are you signing if you are not the proponent

Name, if you are not the proponent

## APPENDIX B

### Director General's Requirements





# Planning

16 February 2011

Contact: Ben Eveleigh  
Phone: (02) 9228 6391  
Fax: (02) 9228 6455  
Email: [ben.eveleigh@planning.nsw.gov.au](mailto:ben.eveleigh@planning.nsw.gov.au)

Robert Rust  
Chief Executive  
NSW Health Infrastructure  
Level 8, 77 Pacific Hwy  
NORTH SYDNEY NSW 2060

Our ref.: MP 10\_0226

Dear Mr Rust

**Subject: Director-General's Requirements for Wagga Wagga Base Hospital Redevelopment, Wagga Wagga (MP 10\_0226)**

The Department has received your application for the above project.

I have attached a copy of the Director-General's Requirements (DGRs) for the preparation of an Environmental Assessment for the project. These requirements have been prepared in consultation with relevant government authorities. I have also attached a copy of the government authorities' comments for your information.

The DGRs have been prepared based on the information you have provided to date. Please note that under section 75F(3) of the *Environmental Planning and Assessment Act 1979*, the Director-General may alter these requirements at any time. If you do not submit an Environmental Assessment for the project within 2 years, the DGRs will expire.

Prior to exhibiting the Environmental Assessment that you submit for the project, the Department will review the document to determine if it adequately addresses the DGRs. The Department may consult with other relevant government authorities in making this decision. Please provide 2 hard copies and 2 electronic copies<sup>1</sup> of the Environmental Assessment to assist this review.

If the Director-General considers that the Environmental Assessment does not adequately address the DGRs, the Director-General may require you to revise the Environmental Assessment. Once the Director-General is satisfied that the DGRs have been adequately addressed, the Environmental Assessment will be made publicly available for at least 30 days.

If your project is likely to have a significant impact on matters of National Environmental Significance, it will require an approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is your responsibility to contact the Department of Sustainability, Environment, Water, Population and Communities to determine if an approval under the EPBC Act is required for your project (<http://www.environment.gov.au> or 6274 1111).

Your contact officer for this proposal, Ben Eveleigh, can be contacted on (02) 9228 6391 or via email at [ben.eveleigh@planning.nsw.gov.au](mailto:ben.eveleigh@planning.nsw.gov.au). Please mark all correspondence regarding the proposal to the attention of the contact officer.

Yours sincerely,

Daniel Cavallo  
**A/Director  
Metropolitan and Regional Projects North**

<sup>1</sup> File parts must be no greater than 5Mb each. File parts should be logically named and divided.

## Director-General's Requirements

### Section 75F of the *Environmental Planning and Assessment Act 1979*

<b>Application number</b>	MP10_0226
<b>Project</b>	Concept Plan for the redevelopment of Wagga Wagga Base Hospital
<b>Location</b>	Edward Street, Wagga Wagga
<b>Proponent</b>	NSW Health Infrastructure
<b>Date issued</b>	16 February 2011
<b>Expiry Date</b>	2 years from the date of issue (above). If the Environmental Assessment is not exhibited within this time, the Proponent must consult further with the Director-General in relation to the preparation of the environmental assessment.
<b>Key issues</b>	<p>The Environmental Assessment (EA) must address the following key issues:</p> <ol style="list-style-type: none"> <li><b>1. Relevant EPI's policies and Guidelines to be Addressed</b>            Planning provisions applying to the site, including permissibility and the provisions of all plans and policies including:           <ul style="list-style-type: none"> <li>• Objects of the EP&amp;A Act;</li> <li>• State Environmental Planning Policy (Major Development) 2005;</li> <li>• State Environmental Planning Policy No.55 – Remediation of Land;</li> <li>• State Environmental Planning Policy No.33 – Hazardous and Offensive Development;</li> <li>• State Environmental Planning Policy (Infrastructure) 2007;</li> <li>• NSW State Plan;</li> <li>• Wagga Wagga Local Environmental Plan 2010;</li> <li>• Wagga Wagga Development Control Plan 2010; and</li> <li>• Nature and extent of any non-compliance with relevant environmental planning instruments, plans and guidelines and justification for any non-compliance.</li> </ul> </li> <li><b>2. Built Form and Urban Design</b> <ul style="list-style-type: none"> <li>• Height, bulk and scale of the proposed development within the context of the locality, adjoining hospital buildings, and surrounding residential development; and</li> <li>• Details of proposed open space and landscaped areas.</li> </ul> </li> <li><b>3. Environmental and Residential Amenity</b> <ul style="list-style-type: none"> <li>• Impacts of the proposal on solar access, acoustic privacy, visual privacy and wind impacts (within the site and on surrounding development); and</li> <li>• Details of the measures to be implemented to achieve a high level of environmental and residential amenity.</li> </ul> </li> <li><b>4. Staging</b> <ul style="list-style-type: none"> <li>• Details regarding the staging of the proposed development, including information regarding the future Project Applications and the extent of works proposed for each application.</li> </ul> </li> </ol>

### **5. Transport and Accessibility Impacts (Construction and Operational)**

- Provide a Transport & Accessibility Study prepared with reference to the NSW State Plan, the NSW Planning Guidelines for Walking and Cycling, the Integrated Land Use and Transport policy package, the NSW Bike Plan, Premier's Council for Active Living (PCAL) - Development & Active Living, the RTA's Guide to Traffic Generating Development, and the Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development (where relevant), considering the following:
  - Detail traffic impacts associated with the staged demolition and construction phases of development, including the impact on the surrounding road network;
  - Daily and peak operational traffic movements likely to be generated by the proposed development, including the impact on nearby intersections and the need / associated funding for upgrading or road improvement works (if required). The traffic impact assessment should consider base models with future traffic generated by the proposal;
  - Detail the existing pedestrian and cycle movements within the vicinity of the site and determine the adequacy of the proposal to meet the likely future demand for increased public transport and pedestrian and cycle access;
  - Describe the measures to be implemented to promote sustainable means of transport to support and achieve relevant State Plan targets including public transport usage and pedestrian and bicycle linkages in addition to addressing the potential for implementing a Workplace Travel Plan;
  - Detail the current and projected future pedestrian movements between the hospital and the surrounding medical specialists;
  - Details of the proposed access, parking provisions, loading facilities, taxi and community pickup / drop off, service vehicle movements and emergency vehicle access associated with the proposed development; and
  - Provision of appropriate levels of on site car parking for the proposed development having regard to the public transport accessibility of the site, opportunities for car sharing, local planning controls and RTA guidelines (note: The Department supports reduced parking provisions, if adequate public transport is available to access the site).

### **6. Ecologically Sustainable Development (ESD)**

- Detail how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development.

### **7. Contributions**

- Address Council's Section 94 Contribution Plan and / or details of any Voluntary Planning Agreement.

### **8. Contamination**

- Demonstrate compliance that the site is suitable for the proposed use in accordance with SEPP 55.

### **9. Heritage**

- A statement of significance and an assessment of the impact on the heritage significance of any heritage items and / or conservation areas should be undertaken in accordance with the guidelines in the NSW Heritage Manual.



## Planning

	<p><b>10. Aboriginal Heritage</b></p> <ul style="list-style-type: none"> <li>The EA shall address Aboriginal Heritage in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005.</li> </ul> <p><b>11. Drainage and Stormwater</b></p> <ul style="list-style-type: none"> <li>Drainage issues associated with the proposal including stormwater and drainage infrastructure.</li> </ul> <p><b>12. Flooding</b></p> <ul style="list-style-type: none"> <li>An assessment of any flood risk on site in consideration of any relevant provisions of the NSW Floodplain Development Manual (2005) including the potential effects of climate change, sea level rise and an increase in rainfall intensity.</li> </ul> <p><b>13. Utilities</b></p> <ul style="list-style-type: none"> <li>In consultation with relevant agencies, the EA shall address the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure works.</li> </ul> <p><b>14. Flora and Fauna</b></p> <ul style="list-style-type: none"> <li>Address impacts on flora and fauna, including threatened species, populations and endangered ecological communities and their habitats and steps taken to mitigate any identified impacts to protect the environment.</li> </ul> <p><b>15. Noise and Vibration</b></p> <ul style="list-style-type: none"> <li>Provide a quantitative assessment of the potential demolition, construction, operation and traffic noise impacts of the project.</li> </ul> <p><b>16. Waste</b></p> <ul style="list-style-type: none"> <li>Identify, quantify and classify the likely waste streams to be generated during construction and operation;</li> <li>Describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste;</li> <li>Describe the measures to be implemented to manage the disposal of nuclear waste, if required; and</li> <li>Describe the measures to be implemented to manage the disposal of contaminated and potentially contaminated biological and sewage waste, if required.</li> </ul> <p><b>17. Hazards</b></p> <ul style="list-style-type: none"> <li>An assessment against State Environmental Planning Policy No 33 – Hazardous and offensive Development; and</li> <li>A description of the proposed storage, use and management of any hazardous material and measures to be implemented to manage hazards and risks associated with the storage.</li> </ul> <p><b>18. Consultation</b></p> <ul style="list-style-type: none"> <li>Undertake an appropriate and justified level of consultation in accordance with the Department's Major Project Community Consultation Guidelines October 2007, in particular surrounding residences and Wagga Wagga City Council.</li> </ul>
Deemed refusal period	60 days

# Planning

## Plans and Documents to accompany the Application

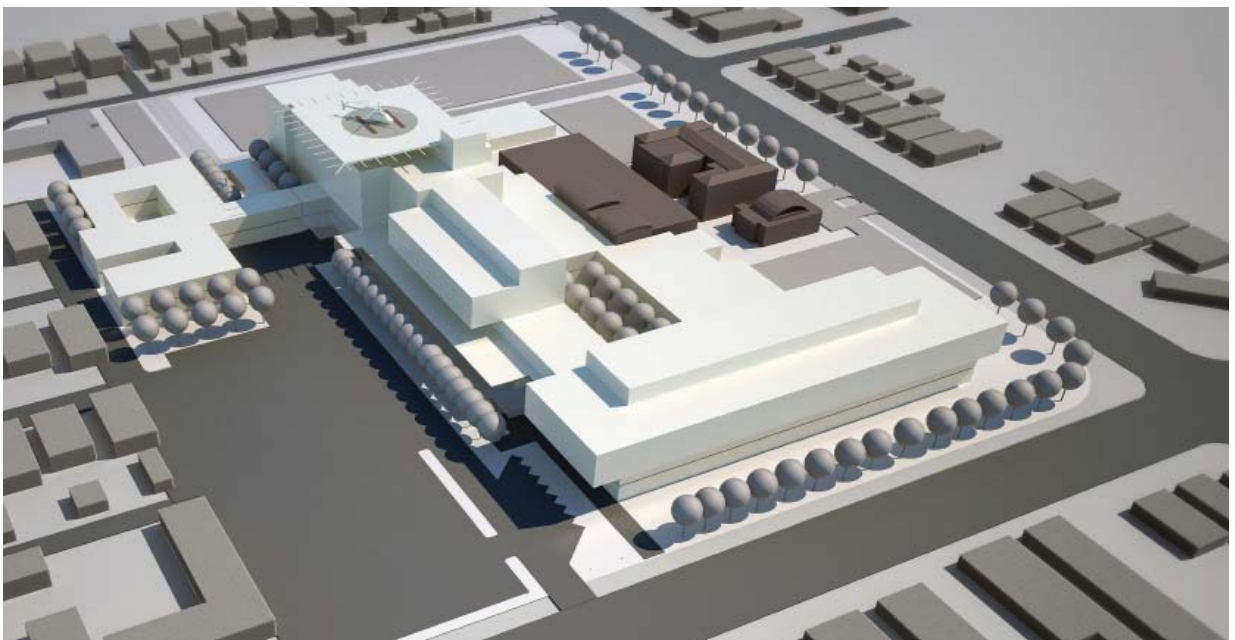
<p><b>General</b></p>	<p>The Environmental Assessment (EA) must include:</p> <ol style="list-style-type: none"> <li>1. An executive summary;</li> <li>2. A thorough site analysis including site plans, areal photographs and a description of the existing and surrounding environment;</li> <li>3. A thorough description of the proposed development;</li> <li>4. An assessment of the key issues specified above and a table outlining how these key issues have been addressed;</li> <li>5. An assessment of the potential impacts of the project and a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures to be implemented to minimise any potential impacts of the project;</li> <li>6. The plans and documents outlined below;</li> <li>7. A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading;</li> <li>8. A Quantity Surveyor's Certificate of Cost to verify the capital investment value of the project (in accordance with the definition contained in the Major Development SEPP; and</li> <li>9. A conclusion justifying the project, taking into consideration the environmental impacts of the proposal, the suitability of the site, and whether or not the project is in the public interest.</li> </ol>
<p><b>Plans and Documents</b></p>	<p>The following plans, architectural drawings, diagrams and relevant documentation shall be submitted;</p> <ol style="list-style-type: none"> <li>1. An <b>existing site survey plan</b> drawn at an appropriate scale illustrating; <ul style="list-style-type: none"> <li>• the location of the land, boundary measurements, area (sq.m) and north point;</li> <li>• the existing levels of the land in relation to buildings and roads;</li> <li>• location and height of existing structures on the site; and</li> <li>• Location and height of adjacent buildings and private open space.</li> <li>• All levels to be to Australian Height Datum.</li> </ul> </li> <li>2. A <b>Site Analysis Plan</b> must be provided which identifies existing natural elements of the site (including all hazards and constraints), existing vegetation, footpath crossing levels and alignments, existing pedestrian and vehicular access points and other facilities, slope and topography, utility services, boundaries, orientation, view corridors and all structures on neighbouring properties where relevant to the application (including windows, driveways, private open space etc).</li> <li>3. A <b>locality/context plan</b> drawn at an appropriate scale should be submitted indicating: <ul style="list-style-type: none"> <li>• significant local features such as parks, community facilities and open space and heritage items;</li> <li>• the location and uses of existing buildings, shopping and employment areas;</li> <li>• Traffic and road patterns, pedestrian routes and public transport nodes.</li> </ul> </li> <li>4. <b>Architectural drawings</b> at an appropriate scale illustrating: <ul style="list-style-type: none"> <li>• the location of any existing building envelopes or structures on the land in relation to the boundaries of the land and any development on adjoining land;</li> </ul> </li> </ol>

## Planning

	<ul style="list-style-type: none"> <li>• location of the proposed building envelopes;</li> <li>• indicative elevation plans;</li> <li>• the height (AHD) of the proposed development in relation to the land; and</li> <li>• indicative changes to the level of the land by excavation, filling or otherwise.</li> </ul> <p>5. <b>Other plans</b> (to be required where relevant):</p> <ul style="list-style-type: none"> <li>• <b>Stormwater Concept Plan</b> - illustrating the concept for stormwater management;</li> <li>• <b>Geotechnical Report</b> – prepared by a recognised professional which assesses the risk of Geotechnical failure on the site and identifies design solutions and works to be carried out to ensure the stability of the land and structures and safety of persons;</li> <li>• <b>View Analysis</b> - Visual aids such as a photomontage must be used to demonstrate visual impacts of the proposed building envelopes in particular having regard to the siting, bulk and scale relationships from key areas;</li> <li>• <b>Landscape plan</b> - illustrating treatment of open space areas on the site, screen planting along common boundaries and tree protection measures both on and off the site;</li> <li>• <b>Shadow diagrams</b> showing solar access to the site and adjacent properties at summer solstice (Dec 21), winter solstice (June 21) and the equinox (March 21 and September 21) at 9.00 am, 12.00 midday and 3.00 pm; and</li> </ul>
<p><b>Documents to be submitted</b></p>	<ul style="list-style-type: none"> <li>• 1 copy of the EA, plans and documentation for the Test of Adequacy;</li> <li>• 5 hard copies of the EA (once the EA has been determined adequate) and sets of architectural and landscape plans to scale, including one (1) set at A3 size (to scale); and</li> <li>• 5 copy of the Environmental Assessment and plans on CD-ROM (PDF format), not exceeding 5Mb in size.</li> </ul>

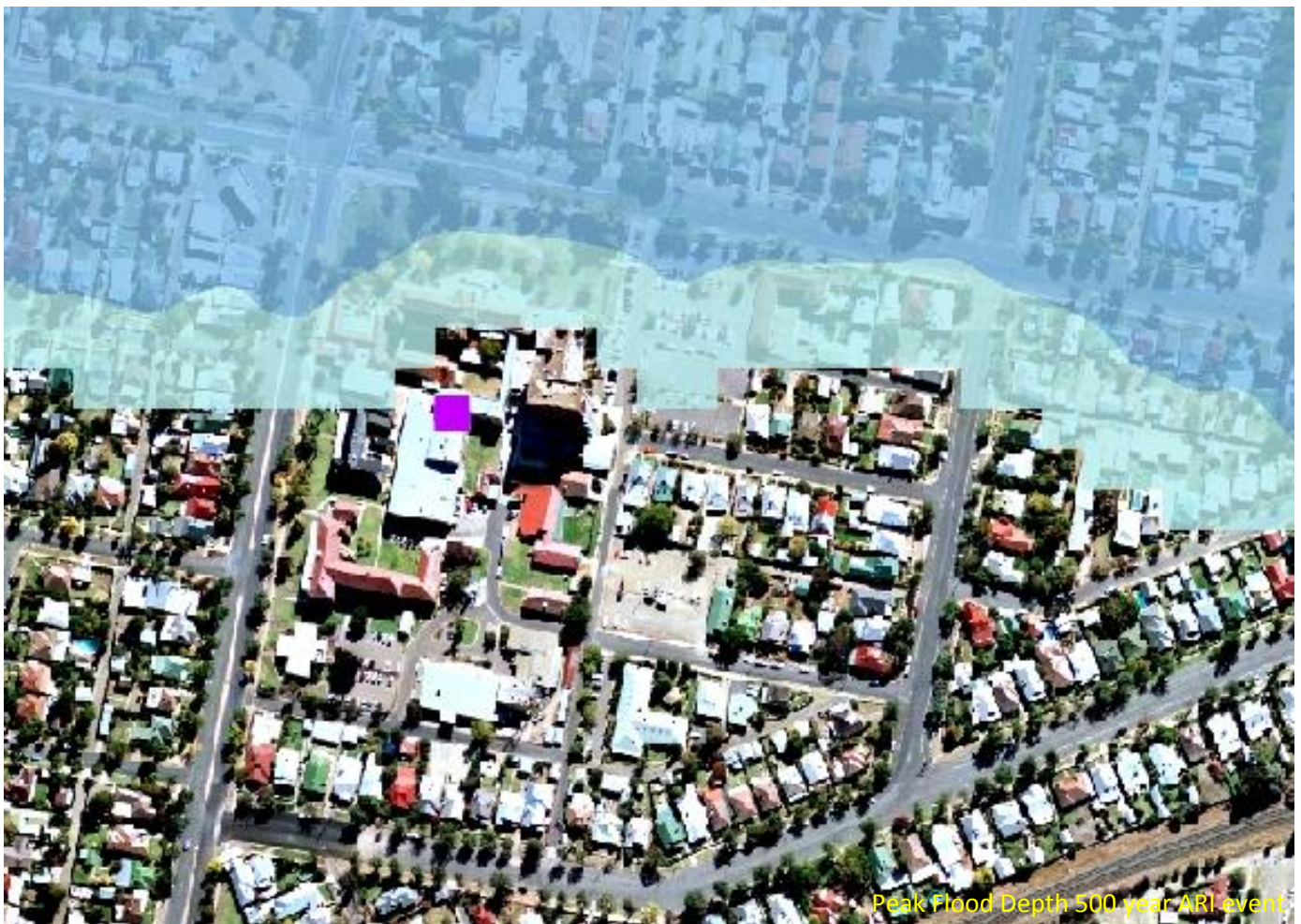
# APPENDIX E

## Flood Impact Assessment



# WAGGA WAGGA BASE HOSPITAL REVIEW OF FLOODING ASPECTS

FINAL REPORT









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## WAGGA WAGGA BASE HOSPITAL REVIEW OF FLOODING ASPECTS

**FINAL**

MARCH 2011

<b>Project</b> Wagga Wagga Base Hospital Review of Flooding Aspects	<b>Project Number</b> 110071	
<b>Client</b> Health Infrastructure	<b>Client's Representative</b> Frank Tong	
<b>Authors</b> B Hicks, E Askew	<b>Prepared by</b> 	
<b>Date</b> 8 March 2011	<b>Verified by</b> 	
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3		
2	Final	MAR 10
1	Draft for Client Review	DEC 10

# WAGGA WAGGA BASE HOSPITAL FLOOD IMPACT ASSESSMENT

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## EXECUTIVE SUMMARY

The Greater Southern Area Health Service are currently evaluating redevelopment of the Wagga Wagga Base Hospital located at a site bounded by Docker and Edward Streets.

WMAwater (formerly trading as Webb, McKeown and Associates) have been engaged to provide information relating to flood levels, time of inundation and potential impacts. The information will provide advice on the potential design and risk management measures that may exist to reduce the impact of flooding.

Results indicate that immediate access to the site is first inhibited at the northern entrance by the 500 year ARI event. The 1000 year ARI inundates approximately 50% of the site severely affecting site access.

A development such as a hospital would ideally be located above the PMF, southern portions of the site remain flood free during this event allowing flood free evacuation. Site constraints associated with the redevelopment of the existing hospital, set the proposed flood level at 182.58 mAHD. Flood risk varies slightly across the site with some areas becoming inundated in slightly more frequent events. The proposed floor level at the existing clinical services building is 182.58 mAHD which provides that location with flood protection up to approximately the 750 year ARI event with a 0.5m allowance for freeboard.

Climate Change scenario modelling indicates that flood levels may reasonably increase by between 0.2 to 0.3 m. Assumptions regarding levee failure result in flood level increases of up to 0.2 m. A 0.5m freeboard should be adopted to incorporate model uncertainty and climate change impacts.

Further, the implications of flood inundation should be documented in a flood response and evacuation plan and strategies developed to minimise impacts to essential patient care.

## 1. INTRODUCTION

The city of Wagga Wagga is located on the Murrumbidgee River and has been subjected to significant flooding in the past. The CBD area is protected by the main City Levee (Figure 1), which at present protects the town in most locations up to approximately the 1974 flood event (approximately 60 year ARI including an allowance for freeboard). Overtopping or failure of the levee, however, may result in flooding in the main CBD area, including in the vicinity of Wagga Wagga Base Hospital (WWBH).

The Greater Southern Area Health Service are currently evaluating redevelopment of the WWBH, located at a site bounded by Docker and Edward Streets. WWBH is an important regional health centre, servicing much of south-western New South Wales.

WMAwater (formerly trading as Webb, McKeown and Associates) have been engaged to provide sufficient information relating to flood levels, time of inundation and potential impacts to enable a clear picture of the overall risks to the proposed hospital redevelopment, and to provide advice on the potential design and risk minimisation measures that may assist in reducing the impact of flooding.

This report will form part of the submission for a Part 3A Concept Application for the WWBH Masterplan.

## 2. HISTORY OF FLOODING

The Murrumbidgee River is a major tributary of the Murray River system and drains some 100,000 km<sup>2</sup> in the southern inland area of New South Wales. Rising on the western slopes of the Snowy Mountains the Murrumbidgee River has a catchment area of some 26,400 km<sup>2</sup> at the city of Wagga Wagga.

Since early European settlement in the 1840's, the city of Wagga Wagga has experienced flooding on numerous occasions causing considerable damage and inconvenience. These events have shaped the past and will continue to shape the future development of the city and the region. The original settlement of North Wagga Wagga is situated on the northern floodplain but the majority of the city and recent developments are now located on the high ground of the southern bank. Industrial development has also occurred on the southern floodplain spreading east from Wagga Wagga along the Sturt Highway towards the township of Gumly Gumly and the airport. This is known as the Eastern Industrial Area.

Official records of river levels are available at Hampden Bridge from 1886 onwards, with estimated river levels available since 1838. Floods over 10 metres at the Hampden Bridge Gauge were recorded in 1891, 1925, 1950 and 1974. Flood events in 1844, 1852, 1853 and 1870 also probably exceeded this height. The flood record is extremely variable with five floods occurring in 1974 and frequent flooding experienced in the period from 1950 to 1956. There have also been long periods of no flooding, such as from 1939 to 1949, 1960 to 1970 and 1992 to 2005. More recently the town experienced flooding during December 2010 when the river peaked at 9.8m.

It is also important to identify that the Wagga and North Wagga levees, as well as other infrastructure that has been built over the past 50 years, have raised flood levels on the surrounding floodplain. As a results, the floods that occurred in the 1800's and the early 1900's would be potentially higher if they occurred under current conditions.

### **3. BACKGROUND**

#### **3.1 Survey**

Spot height levels were collected around the perimeter of the Hospital as well as in key areas within the property, including essential services, ambulance and emergency areas and floor levels of major buildings.

#### **3.2 Light Detection and Ranging (LIDAR) Data**

LIDAR data was collected along the Murrumbidgee River and Floodplain in 2008. This data once processed was provided to Council. WMAwater have utilised this data to update various aspects of Councils hydraulic modelling. The data has an accuracy of +/- 0.15m at 67% confidence (1 standard deviation) and covers the site of WWBH.

#### **3.3 Murrumbidgee River Wagga Wagga Flood Study (September 2004)**

The Murrumbidgee River Wagga Wagga Flood Study was completed by Webb, McKeown and Associates in September 2004. The Flood Study reviewed the previous work undertaken, updated topographical information and expanded upon the flood modelling results using updated techniques. A rigorous flood frequency analysis of all past flood records was undertaken to determine the magnitude of the design events. A 1D RUBICON hydraulic (computer) model was established, calibrated to historical data and used to determine design flood levels. The modelling and results incorporated many significant changes to the floodplain which have occurred since the previous 1988 Flood Study was undertaken.

The Flood Study also included an examination of the location and extent of overtopping of the Main City Levee. Following a detailed analysis of the historic flood record, it was determined that the August 1974 flood is now considered to be a 60 year ARI event and not a 90 year ARI event as previously thought. The Main City Levee was designed to the 1974 event plus freeboard. That is, the Main City levee currently provides protection to Wagga Wagga up to approximately 60 year ARI event.



### 3.3.1 Flood Study Update - April 2005 and October 2006

Following the completion of Wagga Wagga Flood Study in September 2004, a discrepancy in the levels of a section of the Main City Levee, upstream of the Hampden Bridge, were identified. A new survey was commissioned for this area and the update levee heights incorporated into the RUBICON hydraulic model. The updated model results had minimal impact across the floodplain except in the vicinity of the updated survey. The primary impact of the updated levels on the levee performance is that the levee provides greater protection at this location than previously identified.

Following a review of the Flood Study and Floodplain Risk Management Study (FRMS), two guidelines were prepared for the assessment of flood levels and impacts associated with leveed towns and assumed levee failure mechanisms. The previous modelling assumed the unrealistic case that the levee would not fail if overtopped. The design flood levels were subsequently reviewed inline with an assumed levee failure mechanism.

Design flood behaviour was established for the 10, 20, 50, 100, 200, 500 year ARI events and the Probable Maximum Flood (PMF) event. The Flood Study and FRMS provide detailed peak height profiles, design flood contours and flow and velocity information (based on the October 2006 update). Selected peak design levels in the river and in the vicinity of the hospital are shown in Table 1.

**Table 1:** Selected Design Flood Levels <sup>(1)</sup> (mAHD) - RUBICON

Location	Flood (ARI)	10y <sup>(2)</sup>	20y <sup>(2)</sup>	50y <sup>(2)</sup>	100y	200y	500y	PMF
Cnr Edward & Docker St (approx)		(3)	(3)	(3)	177.4	181.3	182.2	186.0
Gobbagombalin Bridge		177.8	178.5	179.3	179.9	180.9	181.8	185.7
Hampden Bridge		179.3	180.0	180.8	181.2	181.8	182.5	186.0
Railway Bridge		179.9	180.5	181.3	181.8	182.4	183.2	186.3

(1) Estimate of the order of accuracy of the design flood levels is  $\pm 0.5$  m.

(2) Levee not overtopped

(3) Not flooded

### 3.4 Murrumbidgee River Model Conversion Project - January 2010

Prior to the completion of this study all hydraulic modelling of the Murrumbidgee River in the Wagga Wagga area had been completed with 1D or pseudo 2D (RUBICON) modelling packages. As computation methods improve, best practice dictates that 2D modelling packages should be used to determine flood behaviour for areas such as Wagga Wagga.

The primary aim of this study was to generate a fully 2D (TUFLOW) hydraulic model of riverine flood behaviour of the Murrumbidgee River for Wagga Wagga City Council. This included validating model performance against the historic events of 1974, 1975, and 1976.

The model was then used to develop design flood information for the 10, 20, 50, and 100 year ARI events as well as the PMF. Note that hydrology was consistent with that used for the original RUBICON Flood Study (with minor scaling to match Flood Frequency Analysis expected levels at Hampden bridge gauge).

Table 2 shows the results of the 2D modelling (at the same locations as Table 1). As shown the 100 year ARI flood levels are very similar. The 1D RUBICON model indicated that the hospital site would be inundated during the 100 year ARI event while the 2D TUFLOW model shows the hospital as flood free during the same event. This discrepancy is due to the broadscale representation of the CBD in the RUBICON model by one result node applied to an area over 10km<sup>2</sup> while the 2D TUFLOW model uses a more detailed representation of the ground topography within the CBD.

Floods smaller than the 100 year ARI event are typically higher for the revised modelling. The PMF event produces much lower flood levels in the revised TUFLOW modelling. The lower PMF values are due to the greater representation of floodplain storage in the 2D model. The values shown below in Table 2 represent the best available design flood levels and have been adopted by Council. The assessment at the hospital site is based on these results.

**Table 2:** Selected Design Flood Levels (mAHD) - TUFLOW

Location	Flood (ARI)	10yr	20yr	50yr	100yr	PMF
Cnr Edward & Docker St		(1)	(1)	(1)	(1)	183.5
Gobbagombalin Bridge		178.3	178.7	179.3	179.8	183.0
Hampden Bridge		179.5	180.0	180.7	181.3	184.5
Railway Bridge		180.2	180.5	181.2	181.8	185.3

(1) Not flooded

Modelling for this project assumed that if river levels rose to the 1974 flood level, the levee would fail over a 5 minute period to half its original height. The modelled assumed failure points are near Tarcutta Street and Flowerdale Lagoon as shown in Figure 1. This is a potential failure mechanism though it is possible that during a real event the levee may fail at other locations.

### **3.5 Wagga Wagga Major Overland Flow Flood Study (Draft) - October 2010**

Flooding mechanisms in the local government area of Wagga Wagga can be from riverine flooding in the Murrumbidgee River which has been extensively modelled but also local rainfall initiated overland flooding. WMAwater have been commissioned by Wagga Wagga City Council to conduct a Major Overland Flow Study for North and South Wagga Wagga.

The study has shown flood levels in the vicinity of the Hospital are not overly sensitive to ARI. Only a minor flow path along the roads adjacent to the hospital exists.

This indicates that floor level planning should be primarily concerned with riverine flooding which is the dominate flood mechanism for the hospital. Standard design philosophy for local flooding should however be adopted such as setting floor levels a minimum level above surrounding ground levels (irrespective of whether the flood planning level for overland flooding is below ground level).

### **3.6 Wagga Wagga Floodplain Risk Management Study - April 2009**

The FRMS was completed in April 2009. The FRMS examines flooding issues relating to the floodplain area associated with the Murrumbidgee River in the vicinity of the city of Wagga Wagga and surrounds. The FRMS was initiated by Wagga Wagga City Council to address the management of the flood problems of the Murrumbidgee River floodplain area around Wagga Wagga. The primary objectives were to define the nature and extent of the hazard, to identify, assess and optimise measures aimed at reducing the impact of flooding on both existing and future development and to make recommendations for the future management of the study area.

This Floodplain Risk Management Study builds on the Wagga Wagga Flood Study and has been formalised into an overall Floodplain Risk Management Plan. The Floodplain Management Plan contains many controls relating to appropriate development and flood planning levels within flood prone land.

### **3.7 Main City Levee**

Flooding of the CBD will occur when the Murrumbidgee River overtops the Main City Levee. The most recent TUFLOW hydraulic modelling assumes levee failure mechanisms at Tarcutta Street and Flowerdale Lagoon. Based on prior modelling other potential locations for levee overtopping include Copeland Street, Hammond Avenue, sections downstream of Hampden bridge and some sections of Narrung Street. The location where the levee first overtops will depend on the actual flood gradient in the Murrumbidgee River. Not all floods are the same and the gradient for a historical event can vary significantly from that of the design events.

## **4. FLOOD BEHAVIOUR**

### **4.1 Overtopping of Main City Levee**

The CBD of Wagga Wagga will be inundated from riverine flooding when the Murrumbidgee River overtops the levee. The overtopping behaviour of the levee and subsequent flooding is considerably variable and will depend on a number of factors including levee failure locations and the gradient of the event. For example, a 100 year ARI event without levee failure although unlikely would result in generally minor inflows to the CBD area, ponding mostly in low lying areas. While the same event with levee failure would result in large amounts of water rushing into the CBD, causing serious damage and devastation. The maximum rate of water entering the CBD could be over 1000 m<sup>3</sup>/s which is well over a hundred times greater than the maximum combined pumping rate available from the pumps inside the levee. The pumps would therefore be quickly overwhelmed resulting in flooding of the CBD. Even during events with less overtopping the rate of water overtopping the levee would still be greater than the maximum pumping capacity.

Any flood waters overtopping the levee would quickly fill up the lowest lying areas of town such as the western areas near Olympic Highway and Flowerdale Lagoon. To reach these areas the flood waters would generally take the most convenient flowpaths such as (but not necessarily) along the roads. Slightly larger events would result in considerable increases in depth and extent of inundation. The approximate extent of inundation for the 100 and 200 year ARI design events based on current 2D modelling are shown on Figures 2 and 3.

### **4.2 Flood Impacts at Wagga Wagga Base Hospital**

#### **4.2.1 Flood Depths**

The flood risk varies across the hospital site. Levels taken from the latest 2D TUFLOW hydraulic model results across key locations on the present Hospital site are detailed graphically on Figure 4.

The results indicate that once the Main City Levee overtops, inundation of the Hospital will occur to varying extents across the property. The northern part of the property will flood first, blocking access to the existing main entrances. Access is first inhibited at the 500 year ARI event. During the 1000 year ARI event approximately 50% of the property and buildings would be inundated. During the PMF event the entire site bar the south east corner (near Yathong Street) would be inundated.

The new development is proposed to tie into the existing Clinical Services floor level of 182.58mAHD. The flood level at this location in the 1000 year ARI event is 182.2mAHD. Assuming a 0.5m freeboard to account for model uncertainty and climate change impacts, the proposed floor level would provide the hospital with protection from inundation in events up to approximately the 750 year ARI event. Adopting the PMF level for setting floor levels would reasonably mean the hospital would remain flood free and could continue to function in large events. The consequences of adopting the 750 year ARI level implies that at some point the hospital would become inundated and would likely not be able to function albeit the frequency of this is quite rare.

It should be noted that the TUFLOW model utilised a 10m grid cell to represent ground topography. Modelled flood extents are useful as a guide. Flood extents should be confirmed by reviewing the closest flood level and comparing it to ground level and proposed floor level.

The flood levels presented in Figure 4 are based on the assumption that the main city levee would fail at Tarcutta Street and Flowerdale Lagoon. The location of the hospital means that this failure mechanism is beneficial to flood levels at the site. In reality the levee may fail at other locations. Hydraulic modelling has shown that alternative overtopping scenarios could increase flood levels at the site by up to 0.2m. It is therefore essential that an appropriate freeboard is adopted for setting floor levels.

#### **4.2.2 Duration of Inundation**

Once the Main City Levee is overtopped, the amount of water within the CBD is contained by the levee systems and will take some time to drain away. Hydraulic modelling of design events suggests that the CBD area would be inundated at peak levels for up to 48 hours, with inundation remaining and slowly decreasing over some days.

It is likely that the Hospital site will drain relatively quickly, since it is located on the fringe of the flood extent. The long inundation period of the CBD itself, however, will have significant impact on the hospital, with high ground areas isolated for days.



### 4.2.3 Climate Change

Research into the potential impacts of climate change has been rapidly evolving over recent years. Current reports indicate that climate change is likely to result in more frequent and intense storms as well as sea level rises. Changes in flood behaviour due to climate change have the potential to increase the risk of inundation for the redevelopment of the Wagga Wagga Base Hospital.

The study area is prone to inundation from riverine flooding in rare events (greater than 500 year ARI). The impacts of climate change and associated ramifications on development decisions can be significant and an assessment of the potential impacts on flood behaviour is therefore essential.

Studies undertaken by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO) in conjunction with the Bureau of Meteorology (BOM) in 2007 investigated past and likely future changes to climate in NSW. The outcomes estimate that extreme rainfall (defined as a 1 in 40 year 1 day total rainfall event) would be likely to increase by up to 7% for the Murrumbidgee River catchments by 2030.

The Former NSW Department of Environment and Climate Change now Department of Environment, Climate Change and Water (DECCW) Draft Floodplain Risk Management Guideline – Practical Consideration of Climate Change recommends a sensitivity analysis for increases in rainfall of between 10% and 30% based on consideration of the 100 year ARI event. However, given the research undertaken by CSIRO/BOM and the frequency of inundation of the site (in events greater than 500 year ARI), it is considered that a rainfall increase of 10% based on consideration of the 1000 year ARI event would provide a reasonable upper bound for assessment of the effects of increases in rainfall due to climate change within the study area.

Results show flood levels as a result of climate change could potentially increase by between 0.2 and 0.3 m. The most significant potential increase occurs at the corner of Lewis Drive and Yabtree Street (0.3 m). A potential increase in rainfall of 10% also increases the extent of inundation, resulting in a small portion of the site now being inundated during the 1000 year ARI, that was previous flood free during that event.

The outcomes of these sensitivity analyses are presented on Figure 5.

#### **4.2.4 Essential Services**

There are a number of key infrastructure locations within the Wagga Wagga CBD area, including the Hospital, that will be seriously impacted by a major flood, particularly if the Main City Levee fails.

A number of essential services, including water supply pumping stations, electricity substations and sewage treatment would be affected in floods which overtop the levee. During extended inundation periods, the isolation of these services could also lead to further evacuations due to public health concerns. It is unlikely that these services to key infrastructure (including the hospital) would be restored in less than a week following a major flood event and it is possible that it would take several weeks before services are restored.

#### **4.2.5 Emergency Access**

Local access roads and evacuation routes are likely to be cut off for some time in a major flood event.

In a major flood event, such as a 100 year ARI, it is also likely that major inundation will occur in floodplain areas along the length of the Murrumbidgee River. Other villages and major towns in the area, such as Hay, Gundagai and Narrandera, would also be experiencing similar flooding, further limiting access to other emergency centres. Access to alternative facilities would have to be by air, placing significant stress on helicopter services.

## 5. RECOMMENDATIONS

### 5.1 Floodplain Management

The Floodplain Management Plan prepared by WMAwater for Wagga Wagga City Council in accordance with the NSW Floodplain Development Manual 2005 has new guidelines relating to the development of essential services in the floodplain.

The Plan states that existing essential community facilities (such as a Hospital) should be moved to a location above the PMF design flood level. The PMF extent is shown on Figures 2 and 3. It would be expected that the new development would be elevated above the design PMF flood level. While this guideline is considered to be good floodplain management practice, it is also appreciated that economic and practical considerations need to be factored into the decision making process.

If it is impractical and cost prohibitive to elevate the Hospital above the PMF design flood level, it is important that every opportunity is taken to incorporate in the design, mitigation measures that will reduce the flood risk to the Hospital. Such mitigation measures are briefly included below.

### 5.2 Conclusions & Recommendations

- Critical electrical infrastructure such as the electrical switchboard and backup generators, should be relocated to above the 500y ARI design flood level (preferably the PMF). Backup generators should also be designed to operate for up to several weeks (ie sufficient fuel etc).
- The Wagga Wagga Base Hospital Emergency Management (Response and Evacuation) Plan needs to be reviewed to ensure that it accounts for several possible scenarios during a flood, including restricted or cut-off access due to flood waters, inundation of low lying parts of the site and extended periods of isolation. It will also need to consider the transfer of equipment and patients to other hospitals. It should also consider the flood free access to the south east corner of the hospital.
- The minimum floor level of any new building on the present site must be evaluated taking into account the floor level of any surrounding existing buildings and the intended use of the building. For example, essential services (eg generator housing) should be raised to the PMF, and non-essential services/areas, such as carparks and recreation areas, should be located in the lower lying areas of the property.
- Ideally the PMF should be adopted as the flood planning level for the site. Economic and practical considerations prohibit this in some locations. The proposed floor level (182.58 mAHD) provides the site with approximately 750 year ARI protection including an allowance for 0.5m frerboard.

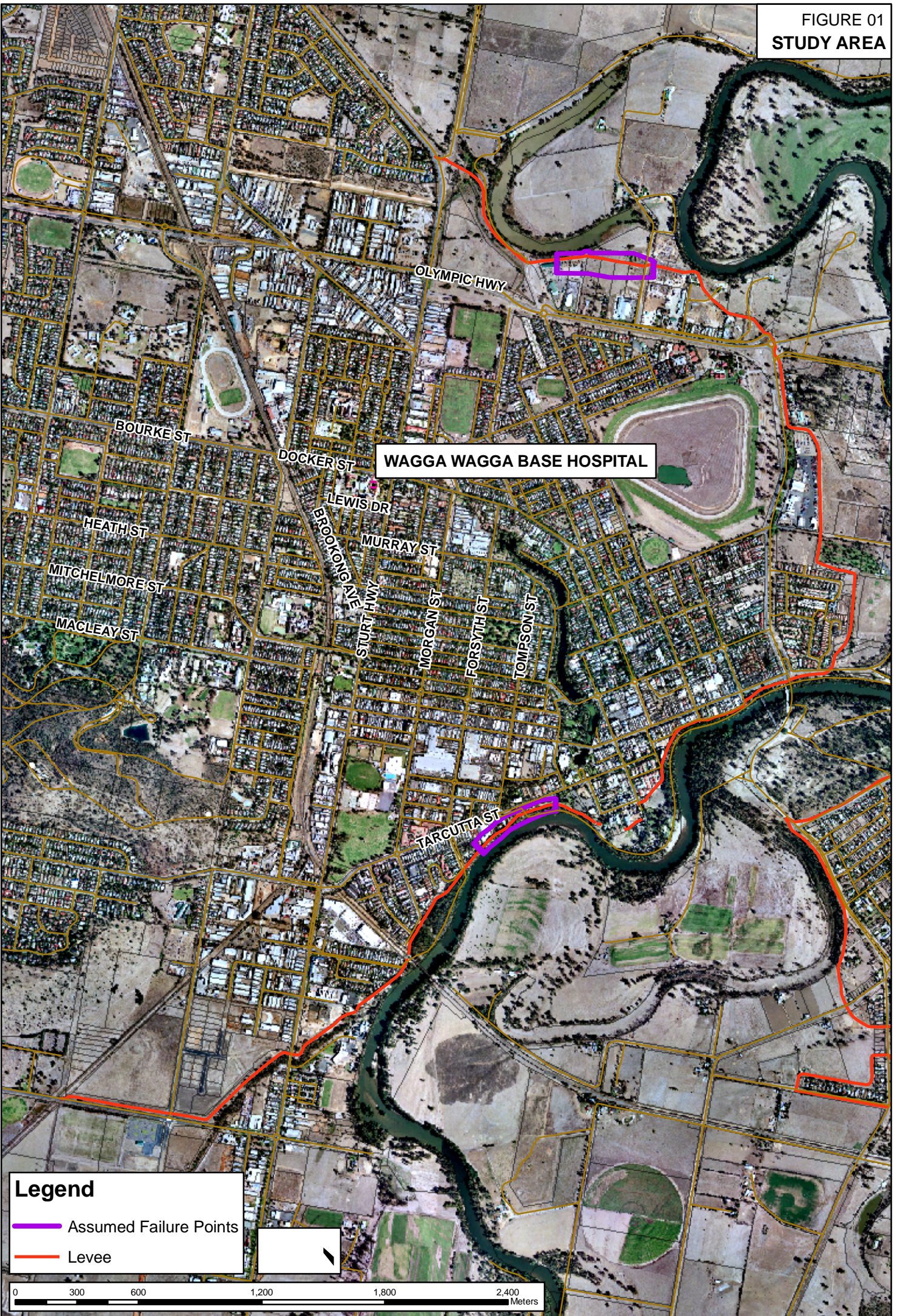
- The adoption of any event bar the PMF level for setting floor levels should include a freeboard of 0.5m to account for model uncertainty and climate change.



Figures



FIGURE 01  
STUDY AREA



**Legend**

- Assumed Failure Points
- Levee

0 300 600 1,200 1,800 2,400 Meters



**RIVERINE FLOODING EXTENT  
100 YEAR ARI EVENT**

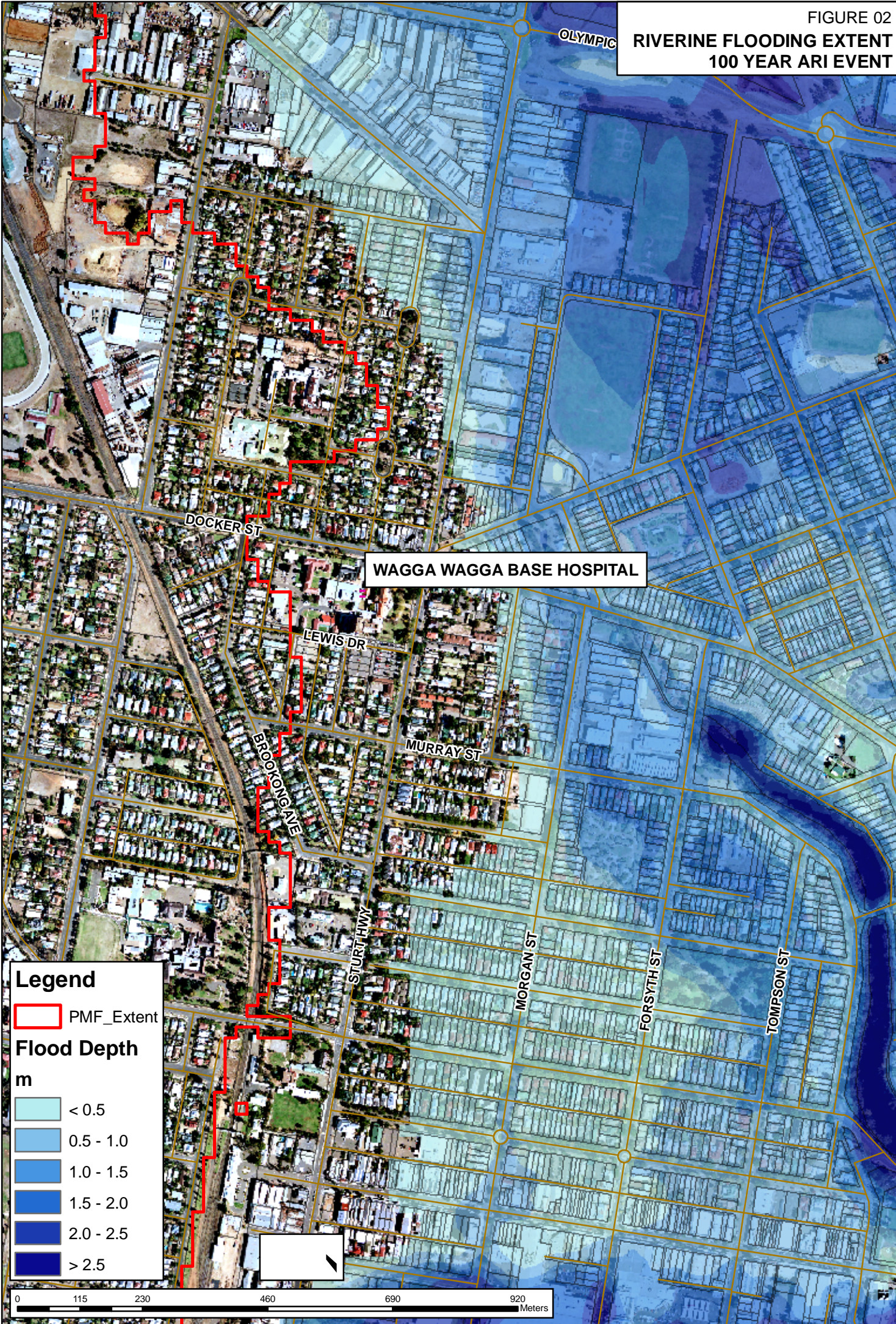
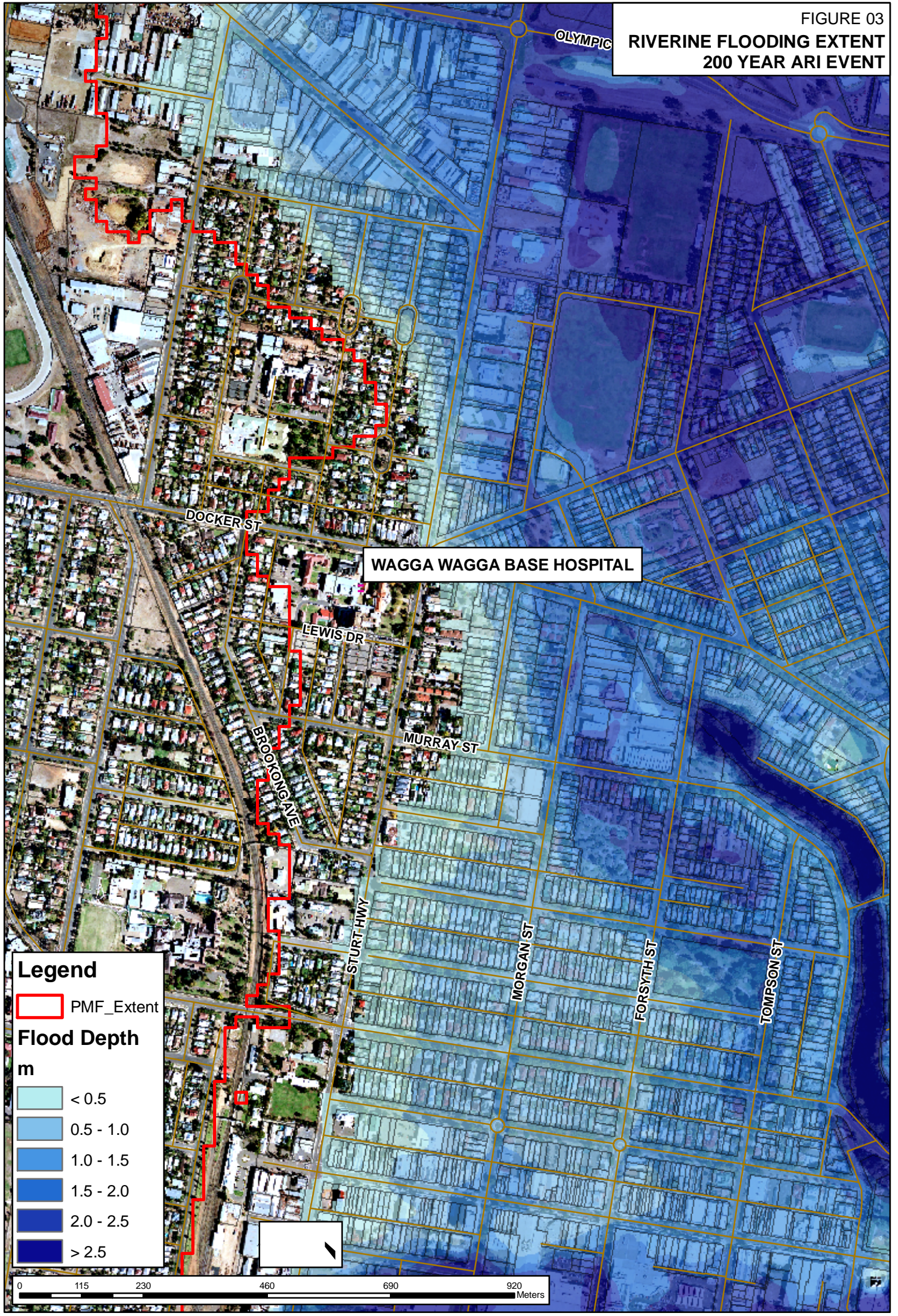




FIGURE 03  
**RIVERINE FLOODING EXTENT**  
**200 YEAR ARI EVENT**



**WAGGA WAGGA BASE HOSPITAL**

**Legend**

PMF\_Extent

**Flood Depth**  
m

	< 0.5
	0.5 - 1.0
	1.0 - 1.5
	1.5 - 2.0
	2.0 - 2.5
	> 2.5

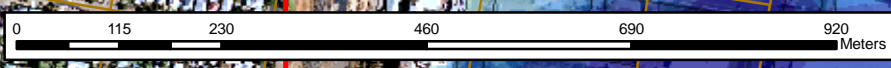


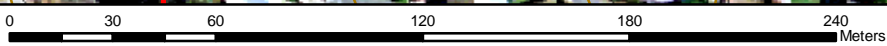


FIGURE 04  
RIVERINE FLOOD LEVELS  
AT KEY LOCATIONS



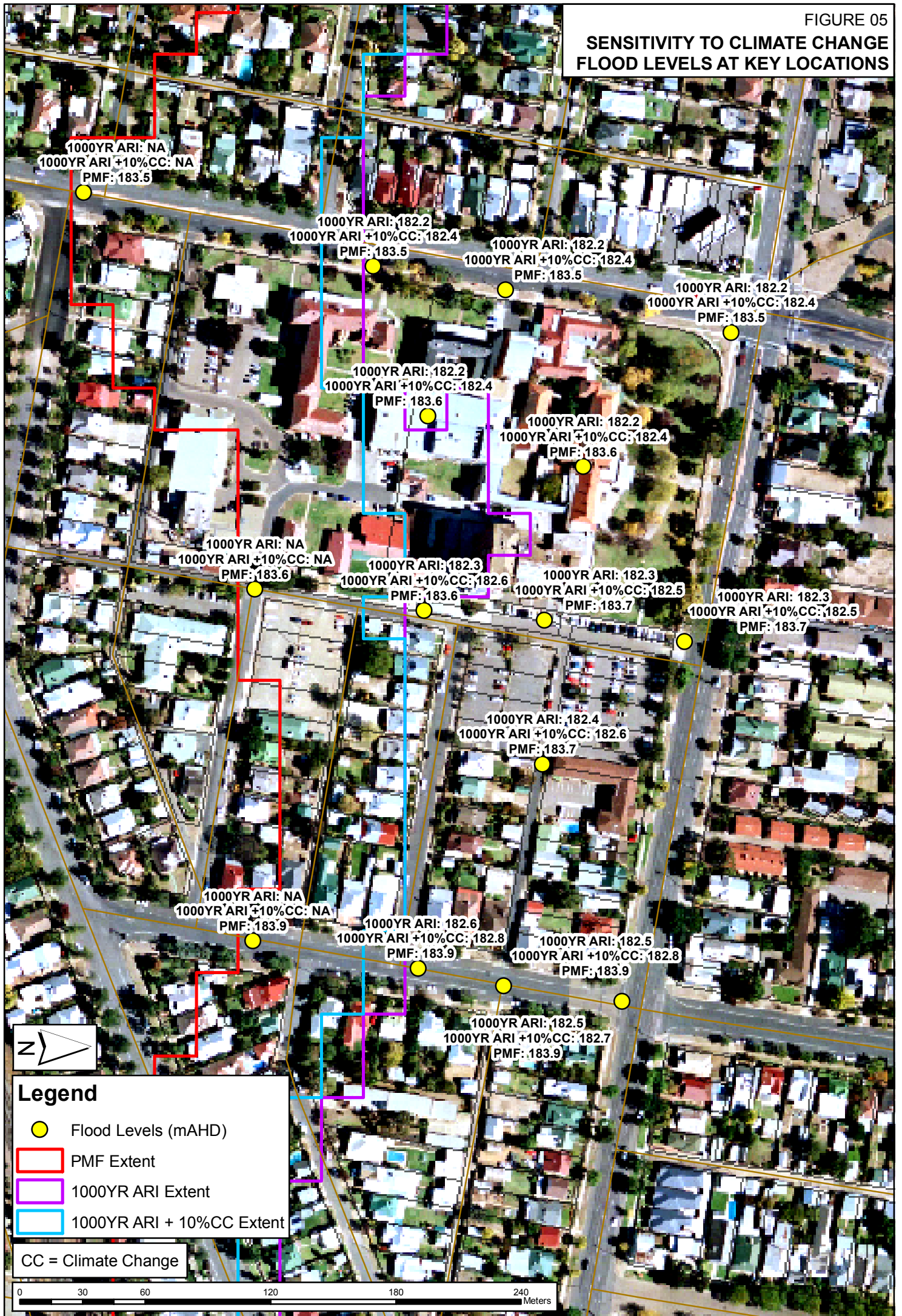
**Legend**

- Flood Levels (mAHd)
- PMF\_Extent



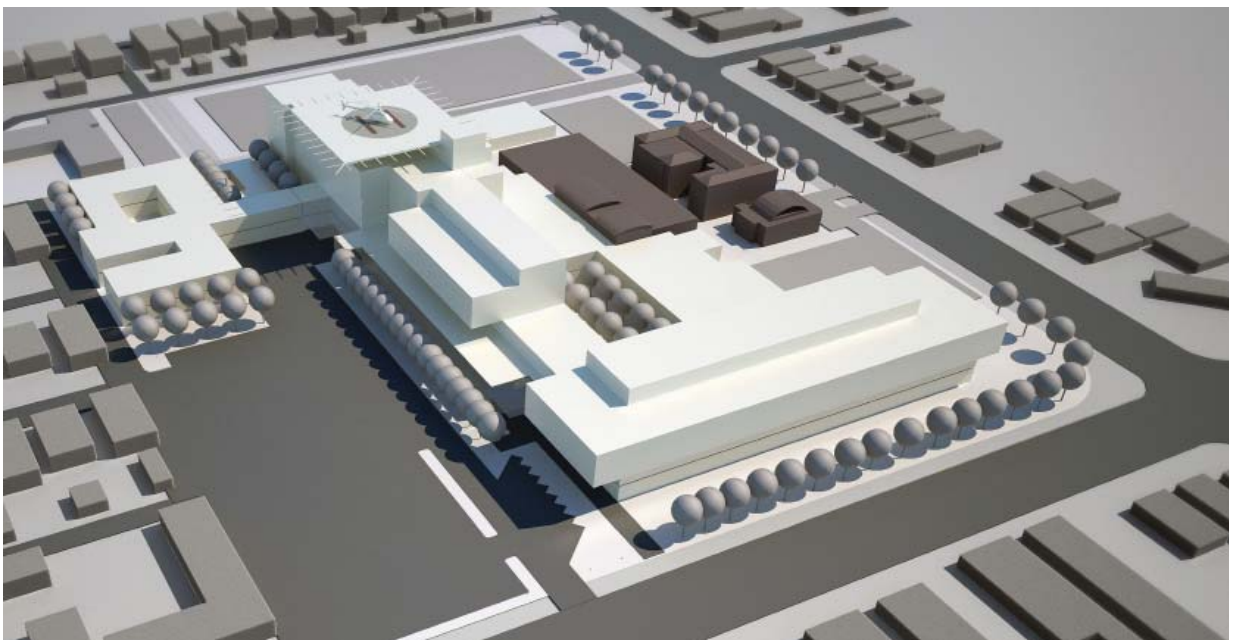


**SENSITIVITY TO CLIMATE CHANGE  
FLOOD LEVELS AT KEY LOCATIONS**



## APPENDIX F

### Civil, Traffic and Building Services Concept Report





# Wagga Wagga Base Hospital Redevelopment

CIVIL, TRAFFIC & BUILDING SERVICES CONCEPT  
REPORT

- Rev 02
- 16 March 2011



# Wagga Wagga Base Hospital Redevelopment

## CIVIL, TRAFFIC & BUILDING SERVICES CONCEPT REPORT

- Rev 02
- 16 March 2011

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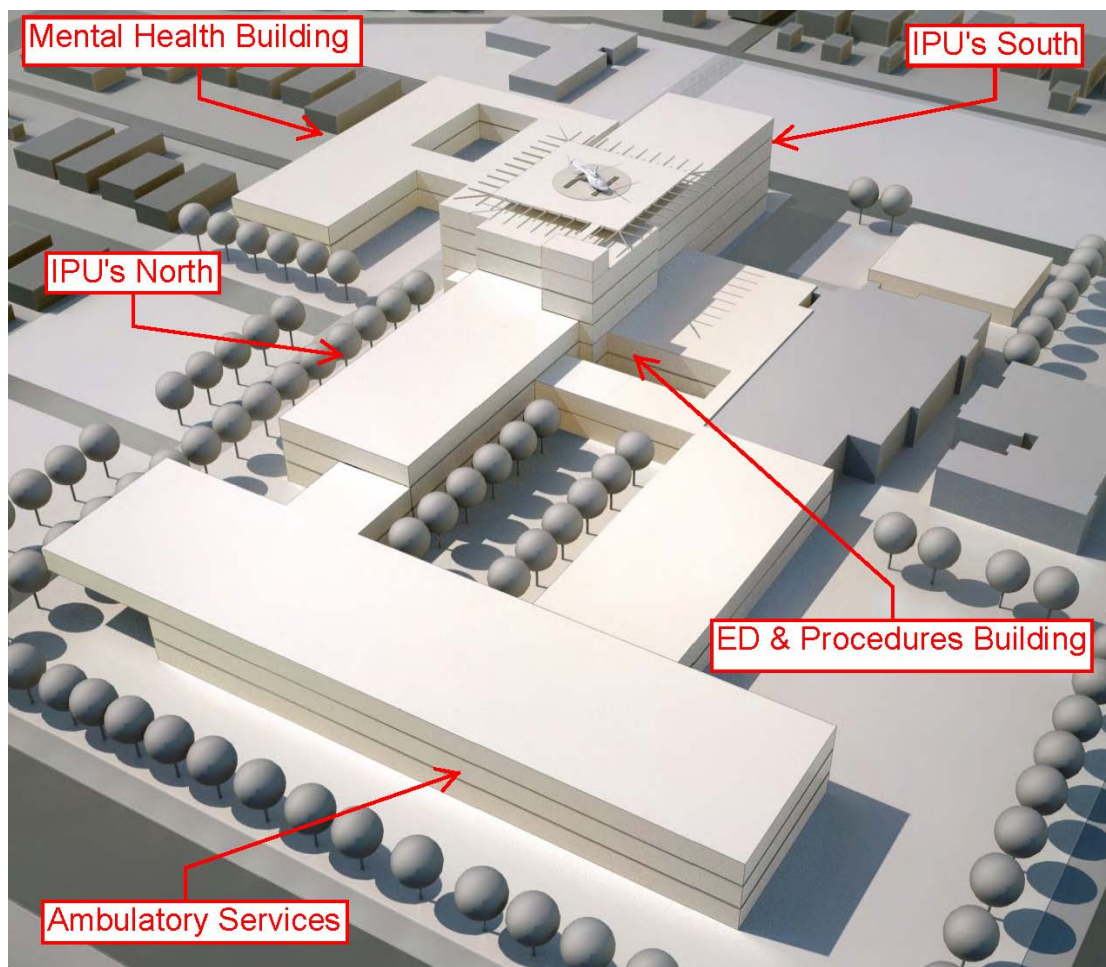
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## Executive Summary

The concept plan for the Wagga Wagga Base Hospital (WWBH) sets out a long term development strategy for the site. The concept report is based on the 41,500m<sup>2</sup> gross floor area. This report focuses on the overall services achieved for the development as outlined below in figure 1-1.

### ■ Figure 1-1 Wagga Wagga Base Hospital Staging



### Flooding

The existing hospital is located within the flood prone land. The Wagga Wagga Base Hospital review of Flooding Aspects report prepared by WMAwater dated March 2011 states that essential community facilities (such as Hospital) should be position above the Probable Maximum Flood (PMF) design flood level as the basis for the Flood Planning Level (FPL). On this basis, the proposed Mental Health Building ground Finished Floor Level (FFL) will be below the PMF level.

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However, the ground FFL is above the 500 year Annual Recurrence Interval (ARI) flood and ground FFL is acceptable as recommended in the WMA water report.

### **Stormwater Drainage**

The management of the stormwater runoff from the adjacent catchments to south and east of the site and the maintenance of the existing overland flow path regimes will be one of the key issues for the redevelopment of the Wagga Wagga Base Hospital (WWBH).

In order to address these issues, SKM have undertaken an assessment of four main conceptual options, these include:

- Option 1 – provide a minor drainage pipe system within the new road proposed east of the Mental Health building and linking this drainage up with Council's existing stormwater network in Edward Street;
- Option 2 – the diversion of upstream catchment to Docker Street firstly via the continuation of Yathong Street and then via grassed swale north of Lewis House;
- Option 3 – diverting of Over Land Flow (OLF) from upstream catchment away from main hospital entrance through doctor's car park requiring the a section of kerb to be removed and the re-grading of the car park to convey the flow.
- Option 4 – providing an underground OSD system at the corner of proposed new Road 1 and Yathong Street in the landscaped open space area south east of the Mental Health building, with an associated inlet structure in Yathong Street to capture the surface flows, as well as the connection of the OSD tank to existing drainage in Edward Street some 250m away.

Following completion of the assessment SKM would recommend that Options 2, 3 & 4 be further developed during the detailed design phase of the WWBH redevelopment.

The development of these options will benefit from the detail survey and services locating activities that are currently being undertaken and from further consultation with City of Wagga Wagga Council and the operators of the site.

It is likely that the final drainage solution that addresses OLF, will incorporate elements of all three main options discussed within this report to achieve the best value permanent solution that will benefit the operators of the site, the users of the site and the community at large.



## Traffic

The primary purpose of this application is to obtain planning consent for the concept plan for the site.

The proposed redevelopment of the WWBH achieves a number of health service issues that can have traffic and transport opportunities and constraints. While the masterplan concept for the hospital includes a 34% increase in beds (to 293 beds) and a 41% increase in staffing (to 1049 day staff), much of the development is modernising health facilities resulting in an increase in gross floor area (GFA) of 54% (to 41,500m<sup>2</sup>).

Peak inbound traffic generation for the hospital site corresponds with the morning shift, but peak traffic activity will be associated with the shift changes from day to evening shift at ~3:00pm.

Predominant access to the site will be via Edward Street for emergency vehicles and some private vehicles, with emergency access to the Emergency Department via Lewis Drive.

At present, the RTA is contemplating a continuous median along the front of the Hospital, which SKM understand is proposed to address concerns of Sturt Highway efficiency in Wagga Wagga. SKM understand the study and associated survey is incomplete and will be concluded April 2011. It is proposed that while general site access off Edward St be restricted to left-in/left-out, a break in the continuous median be provided for emergency vehicles (ambulance and other services), as alternatives would require a total realignment of the Hospital and the associated clinical services.

Access will also be available via a new Hospital road extending Yathong St connecting with Docker St, aligned with Hardy Avenue, and direct access to a small parking area off Docker St aligned with Gormley Ave.

Traffic control at Yathong/Docker/Hardy would be by traffic signals. This would provide regional benefits in creating a safe controlled pedestrian crossing of Docker St between the Base Hospital, and the medical specialist precinct to the west of Docker St, and thence towards Calvary Private Hospital.

Site access is largely unchanged but with a more proposed one way circulation. Site circulation will be provided by

- continued but limited access to the east off Lewis Drive through to Murray St;
- continuation of a diverted Lewis Drive around the proposed Mental Health Building and to the south onto Brookong Rd;
- and predominantly along the Yathong St extension.

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Operational traffic generation for the redevelopment has been estimated and assigned on the basis of known distribution patterns for WWBH staff. As is typical of a rural regional hospital, staff trips are from throughout the region. Intersection analyses indicate that the key regional intersection adjacent to the site (Edward St (Sturt Hwy) with Docker St) will continue to enjoy an excellent Level of Service.

To cater for the increase traffic, two approaches have been adopted:

- Increase onsite parking facilities (by 63% to 496 spaces); and
- Develop a suite of work place travel alternatives that will provide staff with viable alternative to the private travel that typifies regional hospital access.

### **Parking**

Increase in onsite parking facilities by 63% to 496 spaces is proposed. Detailed analysis of the parking requirements will be undertaken as part of the project application.

These are all at grade, with time restrictions during the day to discourage day-staff from private travel, while ensuring that evening and night staff are provided with safe onsite parking.

### **Work Place Travel Plans**

The emergence of Work Place Travel Plans recognises that employers (such as NSW Health) have a responsibility to their community and staff and environmental sustainability to provide alternatives to private travel. Initiatives must be in place at the beginning of the development process to ensure that staff are able to embrace the opportunities and not simply be excluded from existing travel choices, such as reduced car-parking. Initiatives that are recommended for WWBH include:

- Arrangements and appropriate seed funding for increased bus services through and adjacent to the WWBH site, recognising that the existing bus service and bus stop along Edward St will be too distant and infrequent from most new onsite places of work to be a meaningful encouragement to staff towards public transport;
- Integration of site cycle access with the Wagga Wagga bicycle network, and provision of onsite end-of-journey cycle facilities including secure cycle storage, and showering and locker facilities;
- Enhanced pedestrian access to the site and integration with Wagga Wagga pedestrian paths to encourage increased pedestrian travel. In addition to the traffic benefits of reduced car travel associated with cycling and walking, these have key health benefits consistent with the NSW Health charter;

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- Provision of priority parking in highly accessible locations for car-share vehicles. This scheme would encourage day staff to share journeys to work, but would need NSW Health support to under-write private costs associated with staff being delayed by the Hospital for service-related requirements, and thus otherwise compromising their return-to-home journeys.
- Provision of a site transport co-ordinator to ensure that bus timetables, personal travel plans, car-share co-ordination, cycle and walking facilities are readily available to staff.

### **Electrical**

The electrical service will require additional sub-stations and communications facilities for the new development. The power for the new development will be provided by an indoor Central Energy Sub-station and associated Main Switch room. HV feeders will be available to provide firm supplies to the new development. New emergency diesel generators and a Tri-Generator will form part of the central energy services with automatic synchronisation and control.

Power Factor correction, uninterruptible power supplies, surge protection equipment and lightning protection would be incorporated.

Lighting and power supplies would be provided in accordance with all relevant standards.

A new campus distributor room will be provided to contain cross-connect equipment to link with Carriers' equipment and other buildings within the new development including the existing parts of WWBH. A fibre optic based structured cabling system would be implemented, with Category 6a minimum floor distribution.

A floor distributor (FD) serving an area of approximately 1400 square metres will be provided. Where multiple levels are involved, these floor distributors (approx. 7 metres x 4 metres) would be stacked on an identical footprint for security of infrastructure.

### **Mechanical**

The mechanical services will have a natural gas tri-generation plant, water cooled chillers, natural gas fired boilers and cooling towers. Heating for domestic hot water will be provided via a plate to plate heat exchanger from the main heating system primarily fed from the waste heat from the tri-generation system. Any heat that cannot be used for heating will be directed to an absorption chiller to provide base load chilled water.

The hospital will be air conditioned via central air handling units with activated carbon filters on all minimum outside air intakes. When a helicopter approach is detected by the Building Management System, all outside air dampers with exception of the minimum requirements will be closed to prevent Aviation fuel smells from infiltrating the hospital through the air conditioning

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system, this will be dependent from helicopter consultant advice. All air handling plant will be located in dedicated plant rooms accessible from corridors. Plant rooms will be designed such that no louvres will face west where the dust storms generally blow from.

The hospital will be provided with various exhaust systems, including toilet exhaust, plaster room exhaust, endoscopy exhaust, body holding exhaust, isolation room exhaust etc. All obnoxious exhausts will be exhausted at roof level.

A Steam Sterilising Department (SSD) with a local gas fired steam generator plant room will provide steam for the facility.

A deemed to satisfy zone smoke control system will be provided with all fire stairs to have stair pressurisation systems.

The new Central Energy Plant room will be in a centralised area to accommodate future stages and expansion.

### **Medical Gas**

Medical breathing air is to be provided by new medical air compressors located in roof plant rooms in each building.

Suction and scavenging are to be provided by new suction pumps located in roof plant rooms in each building.

The existing bulk oxygen VIE tank (15,000L) and backup manifold (2 off MAN 15 packs) will be retained. Emergency backup for critical systems will be installed. The existing emergency connection point for an oxygen tanker to directly connect at the entrance to the emergency department will be retained. The existing underground pipe work reticulation will also be retained where possible.

Nitrous oxide will be provided by the existing duty-standby manifold system, located adjacent to the bulk oxygen VIE tank. The existing underground pipe work reticulation will be retained where possible.

A dedicated tool air compressor system will be provided for the hospital with the existing tool air duty-standby manifold as back-up.

### **Hydraulic**

The hydraulic services include potable water, fire water supply, non-potable water, sanitary and trade waste drainage and natural gas supply will be provided to the hospital. Where existing connections are found to be suitable for reuse this will be maintained, otherwise new connections to Authorities services will be required.

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The new development will reuse the existing sanitary drainage connections with new PVC pipe work extending to all areas requiring sanitary drainage. This will include on-site treatment of grease and trade waste to local Authorities requirements.

A new upsized connection to the exiting Authorities main in Edward Street will be provided and reticulated to all new fixture, plant and equipment requiring potable cold water. In addition to the new connection; storage of water, pumps and on-site treatment of water may also be conducted at a single point, downstream of the upsized connection. Once connected the redundant water service connections will be capped off to Authorities requirements.

A new non-potable water service will supply the sanitary fixtures requiring flushing (water closets and urinals) and in addition assist in the supply of irrigation demand. This system would harvest roof water from selected roofs and stored and treated on site.

Hot and warm water systems for the development would include a centralized hot water plant co-existing with the mechanical plant. Warm water can either be a centralized system incorporating a flow and return system to all fixtures plant and equipment or be controlled by thermostatic mixing valves (TMV's) that would be installed adjacent single or groups of fixtures.

The development will have a new mains connection in Edward Street to supply fire water for both fire hydrants and fire sprinklers. This may also include tanks and pumps to provide the required flows and pressures.

Fire hose reels are to be connected to the new potable cold water service.

The existing 50mm mains connection and meter assembly will be retained to supply the demands of the new development. The natural gas service downstream of the main meter assembly will require upsizing of pipe work to suite the new demands of the development.

## **Fire**

The fire services includes the installation and / or upgrade of essential services to suit the new development

A new smoke detection system will be provided throughout the building. The system will be controlled from a Fire Indicator Panel (FIP) located in a new Fire Control Centre situated at the Ground Floor main entry.

A fibre optic network cable will connect all FIPs on site.

Smoke detectors will be provided to suit the mechanical services. A new Fire Fan Control Panel (FFCP) will be located in the Fire Control Centre.

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A fire sprinkler system will be provided. A new sprinkler valve / pump room will be located at the southern end of the building with direct egress to open space.

A new Sound System and Intercom System for Emergency Purposes (SSISEP) will be provided throughout the building. The system will be controlled from a new Master Emergency Control Panel (MECP) located in the Fire Control Centre.

Portable fire extinguishers will be provided throughout the building.

### **Security**

Security services will provide a new integrated security management system. The security sub-systems include Electronic Access Control, Intruder Alarm, CCTV, Duress Alarm and Video Intercom.

The new Security Management System will have administration and monitoring capabilities from the new proposed Security Control Room. In addition, other facilities such as ID Access Card procurement will also be administered from the new Security Control Room.

A new fibre optic security communications backbone shall be provided around the site to allow security communications from each building communication's node to be reported and monitored to the new Security Control Room.

A new Electronic Access Control System will be provided to facilitate access for authorised personnel through restricted areas of the Hospital. The system shall comprise, proximity based access cards, card readers and electronic locks and be administered/managed from Operator Workstations within the new Security Control Room. As part of the Electronic Access Control System, an Intruder Alarm system shall also be provided to high risk areas of the Hospital and be comprised of volumetric detectors and remote arming stations to permit arming/disarming of the system.

A new IP CCTV system will allow video surveillance of key areas around the Hospital for the purposes of staff and patient safety.

Hard wired duress alarm points will be provided as part of the redevelopment works to areas of the Hospital where staff are generally alone with patients or the public.

A video intercom system is provided for the Redevelopment works to allow audio and visual communication for visitors/contractors to gain access to restricted areas. The video intercom system shall consist of door stations and master stations. A master intercom station shall also be provided within the new security control room for answering of afterhour's calls.

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### **Vertical Transportation**

The vertical transportation services are to be two (2) Public Lifts serving G, 1 to 5 to cater for visitors and clinic day patients.

Adjacent the public lift there will be two (3) Bed Passenger Lifts serving G, 1 to 6 to cater for bed transport and hospital staff. 2 of the lifts will serve Level 7 (helipad).

The Mental Health building will have two (2) lifts serving G to 1 to cater for bed transport and hospital staff in the Major and Minor Mental Health area.

An Imaging lift serving G, 1 to 5 to transport imaging staff and equipment will be provided.

One clean and one dirty hoist serving G to 1 to cater the movement of 'Cabrinis' carts between the SSU and operating theatres will be provided. The clean hoist will be upgraded to a 1 person lift (1 person plus 2 carts) with single opening.

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## 1. Introduction

SKM have been engaged by Health Infrastructure to provide technical input into the development of the Part 3A Concept Application report for the Wagga Wagga Base Hospital Redevelopment. SKM has been engaged to provide technical advice on the following services:

- Civil services;
- Traffic;
- Structural services;
- Electrical services (including communications);
- Mechanical services;
- Medical Gas services
- Hydraulic services;
- Fire services;
- Security services;
- Vertical Transportation

The new building services and infrastructure will be able to have capacity for all future stages. The new Central Energy Plant room will be in a centralised area to accommodate future stages and expansion.

This concept application report outlines the overall services for Wagga Wagga Base Hospital Redevelopment. The concept application report will focus on the Director General Requirements for civil, traffic and building services.



## 2. Civil Services

### 2.1. Introduction:

This assessment identifies the issues and requirements for drainage and storm water management associated with the redevelopment of the Wagga Wagga Base Hospital. The assessment includes the reviews concerning flood management as the site is subject to flooding both from the Murrumbidgee River (to the north-west of the hospital) and the storm water flows from the adjacent catchments (south-east of the hospital) bounded by Rawson Lane and Murray Street. It also addresses concerns relating to the management of the storm water generated within the site that connects to the existing drainage infrastructure of Wagga Wagga Council.

#### Key Issues

The following key issues will form part of the main aspect of the hospital redevelopment:

- Improved storm water drainage system to manage the runoff generated within the proposed development, which incorporates the principles in Water Sensitive Urban design (WSUD).
- Installation of On-Site-Detention tanks as part of the storm water drainage system to mitigate the discharges into the existing Wagga Wagga drainage infrastructure.
- Management of the storm water runoff from the contributing adjacent catchments between the hospital site, Murray Street and Rawson Lane.
- Adjustment of the existing adjoining minor roads (east of the hospital site) to redirect the existing overland flow regime in order to keep the storm water runoff away from the hospital.

### 2.2. Storm water Drainage and Flooding Assessment

Based on the Wagga Wagga Base Hospital Review of Flooding Aspects by WMAwater dated March 2011 the proposed hospital is above the 1 in 100 year flood yet, the overall site is within the 1 in 500 year and PMF flood levels. The assessment, mitigation strategies and information related to drainage and storm water discussed in this report have been performed by Sinclair Knight Merz of which at this stage undertaken through desktop study with reference to the 2m contour, layout of the existing and proposed hospital and council's existing infrastructure. Detailed hydrologic study and hydraulics modelling is to be undertaken.

Preliminary assessment indicates that runoff from the adjacent local catchments is draining northwest through the existing internal minor roads within the vicinity of the hospital. The proposed redevelopment will require provision for a storm water passage between the new hospital and the existing buildings located northeast of the hospital site.

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### **2.3. Aspects of Drainage Design**

There are a number of aspects to be considered for the design of drainage systems including, site drainage (pits, pipes and provision for overland flow), discharging water quality, flood management and control measures, onsite detention, serviceability requirements for vehicles and pedestrians in the design event, larger storms and water sensitive urban design. Comments on these aspects related to the proposed upgrade to the Wagga Wagga Hospital are given in the following sections which draw on requirements of the Wagga Wagga Council's design standards, plans and specifications.

### **2.4. Existing Catchment and Drainage Systems**

The existing site condition is predominantly impervious in nature. It consists of roadways, car parks, buildings and other paved areas. Based on the 2 metre contour obtained from the Wagga Wagga council, the site indicates that the existing south-eastern catchment bounded by the Rawson Lane and Murray Street generally flows towards the river through the existing internal minor roads in the hospital site and the intersection of Edward and Docker Streets.

Following the preliminary discussion with Council, preliminary survey and a site inspection it is identified that the existing drainage networks surrounding the site including the adjacent roads are likely inadequate to cater for the proposed full development of the base hospital. More detailed information of the existing storm water drainage system will be obtained for detailed storm water design to determine the most appropriate drainage strategy for the site. This is to consider the current Wagga Wagga Council Engineering Guidelines for Subdivisions and Development Standards Part 3 (Storm water Drainage Design – Draft December 2008) which indicates that a design storm of 1 in 20 years ARI has to be considered and a check for the 1 in 100yr ARI be performed to ensure that the minimum freeboard of 500mm is attained.

As per the Review of Flooding Aspects by WMAwater dated March 2011, the site will be impacted by the flooding of Murrumbidgee River. The study indicates that the hospital site will have flood levels as follows:



Table 1: Selected Design Flood Levels at Wagga Wagga Base Hospital (Reference: Review of Flooding Aspects by WMAwater , 2011)

Flood Recurrence Interval	Design Flood Level (m AHD)
100y ARI	177.4
200y ARI	181.3
500Y ARI	182.2
PMF	186.0

The above table which indicates the flood levels for the respective storms would likely dictate as the tail water levels for consideration in the design. The Wagga Wagga Council requirements of a 500mm freeboard for the 100yr ARI will be addressed in the design of overland and trunk drainage.

SKM notes the existing finished floor levels at various locations within the hospital are:

- RL 182.58 – Emergency department ground floor
- RL 182.38 - Ambulance bay
- RL 182.46 - Loading dock in front of Mortuary

## 2.5. Storm water Flows from Adjacent Local Catchments

As discussed in section 2.4 the storm water runoff from the south-eastern catchment bounded by Rawson Lane and Murray Street is currently flowing north-west towards the vicinity of the hospital. The runoff concentrations are currently conveyed overland through the existing Lewis Lane, Yathong Street, Yathong Lane, Yabtree Street and Doris Roy Lane which all fall towards the hospital site. With the proposed Wagga Wagga Base Redevelopment an appropriately sized storm water overland flow path along the eastern boundary of the hospital site is to be provided to direct the major flows from the south-eastern catchment towards Edward Street.

For additional discussion regarding the management of the stormwater runoff from the adjacent catchments to south and east of the site and the maintenance of the existing overland flow path regimes refer to SKM – Overland Flow Options Report (rev 2).

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In brief, the report discusses four main options for reducing the amount of overland flow arriving at the WWBH main entrance at the corner of Yabtree Street and Lewis Drive. These options include:

- Option 1 – provide a minor drainage pipe system within the new road proposed east of the Mental Health building and linking this drainage up with Council’s existing stormwater network in Edward Street;
- Option 2 – the diversion of upstream catchment to Docker Street firstly via the continuation of Yathong Street and then via grassed swale north of Lewis House;
- Option 3 – diverting of Over Land Flow (OLF) from upstream catchment away from main hospital entrance through doctor's car park requiring the a section of kerb to be removed and the re-grading of the car park to convey the flow.
- Option 4 – providing an underground OSD system at the corner of proposed new Road 1 and Yathong Street in the landscaped open space area south east of the Mental Health building, with an associated inlet structure in Yathong Street to capture the surface flows, as well as the connection of the OSD tank to existing drainage in Edward Street some 250m away.

These options will be further developed during the detailed design phase of the project as it is likely that the final drainage solution that addresses overland flow will incorporate elements of the three main options discussed within the Overland Flow Options Report (Options 2, 3 & 4) to achieve the best value permanent solution that will benefit the operators of the site, the users of the site and the community at large.

## **2.6. Hospital Site Storm water Drainage System**

The storm water drainage of the proposed Base Hospital redevelopment will be managed through the installation of pit and pipe drainage systems in accordance with the Wagga Wagga Council Engineering Guidelines (Part 3 - Storm water Drainage Design, Draft December 2008). The proposed drainage system will be connected to the existing drainage infrastructure of Wagga Wagga council located along the Edward Street and Docker Street. The capacity of the piped drainage system for the hospital is to be designed for the 1 in 20 year ARI storm event. It is envisaged that existing drainage infrastructures will be utilised where possible and that redundant storm water infrastructures within the site will be removed.

The storm water runoff for minor events up to the design storm will be handled by the pit and pipe drainage systems. Excess flows due to storms higher than the design ARI will be conveyed through the site as overland flows along roadways and foot paths.

## **2.7. On-Site Detention System**

On-Site Detention (OSD) is to be incorporated as part of the storm water drainage systems, to ensure that the peak discharge from the proposed hospital is less than or equal to that from the

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existing development. This may include underground devices and possibly some parts of the car park areas which could also be utilised to achieve similar result to form part of the overall OSD system. It is expected that the OSD requirements can be accommodated within the site considering that the impervious areas of the proposed hospital redevelopment are only slightly greater than that of the existing condition. OSD is to be designed for the 1 in 20 and 1 in 100 year events. The approximate locations of the proposed OSD are shown in the concept drainage plan.

## **2.8. Water Sensitive Urban Design**

Wagga Wagga Council Engineering Guidelines, Part 3 requires the principles of Water Sensitive Urban Design to form part of the development. The guideline draws a requirement that the WSUD be in accordance with the general principles outlined in the references listed (i.e. WSUD – Melbourne Water 2005, Australian Runoff Quality – A guide to water sensitive urban design, etc). The guideline which encourages protection of the receiving waters and possible retention of the storm water on site will be considered in the detailed storm water design.

The incorporation of the WSUD in the detailed design will be coordinated with the landscaping design of the overall Base Hospital redevelopment to allow possible reduction or removal of pollutants at the first instance in a storm event. Other water quality devices (i.e. GPT's or other suitable type of treatment) may also be considered as alternative or additional options to address the requirements. This is because the storm water drainage systems for the proposed Wagga Wagga Base Hospital Redevelopment will be connected to the existing underground drainage infrastructure of Wagga Wagga Council.

## **2.9. Subsequent Stage Design Requirements**

The scope of work required for further design development includes:

Compilation of all available drainage information for the site and adjacent areas from Council and the Wagga Wagga Hospital.

- Detailed survey of the site.
- Thorough site investigations to determine the existing situation including all existing drainage structures.
- Ongoing consultation with Council and relevant State Government Departments.
- Carry out a Storm water Management Plan for the site, which will include:
  - 1) Hydrological Assessment – Determine catchment boundaries and design rainfall for input to the hydraulic model
  - 2) Hydraulic Assessment – Use a suitable hydraulic analysis for the existing and proposed drainage networks within the Hospital. Assessment to include overland flow paths for

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events up to the 1 in 100year ARI event and special consideration of tail water levels and the possible incoming flows from the upstream catchment of the hospital site.

- WSUD requirements relating to storm water management in accordance with the requirements of Wagga Wagga Council.

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## 3. Traffic

### 3.1. Introduction

This Transport and Accessibility Report has been prepared by Sinclair Knight Merz to accompany a Concept Plan Application in relation to the Wagga Wagga Base Hospital (WWBH) Redevelopment. The primary purpose of this application is to obtain planning consent for the concept plan for the site. This Report is an addendum to a Traffic Report drafted by TEF<sup>1</sup> in support of the previous Part 3A project application under the assumptions that WWBH Redevelopment will result in a further increase in hospital population compared to the previous WWIRHS project.

The site is located south west of the Central Business District of Wagga Wagga. The site itself is part of a health precinct bounded by Edward Street and Rawson Lane to the north and south and by Murray Street and Docker Street to the east and west. The redevelopment of WWBH will remain in compliance of key current NSW Health initiatives and will provide a modern healthcare facility suited to the current and future needs of the local community.

The new WWBH Redevelopment Concept Plan (2010) provides for a 41,500 (square metres) facility, with the possibility of further future expansion potential beyond the current planning horizon of 2021.

### 3.2. Planning Context

The following plans will be referred to at the Project Application stage:

- NSW State Plan;
- NSW Planning Guideline for Walking and Cycling;
- Integrated Land Use and Transport Policy Package;
- NSW Bike Plan;
- Premier's Council for Active Living – Development and Active Living;
- RTA Guide to Traffic Generating Development 2002;
- Part 12: Traffic Impacts of Developments;
- Wagga Wagga City Development Control Plans;

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<sup>1</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting  
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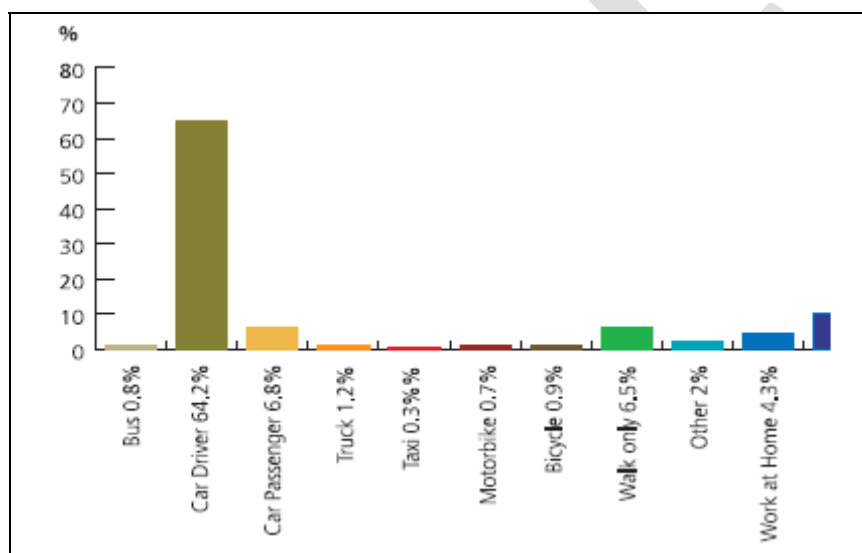
### 3.3. Existing Transport Context

#### 3.3.1. Existing travel patterns within Wagga Wagga LGA

Travel characteristics for Wagga Wagga residents travelling to work are sourced from the journey-to-work data extracted from Australian Bureau of Statistics (ABS) 2006 data<sup>5</sup>. The journey-to-work data set includes details of the origin and destination zones of trips, as well as characteristics of the journey such as mode of travel.

The data suggests () that 6.5% of Wagga Wagga Population walk to work as their mode of travel; only 1.1% of population use public transport as their method of travel; more than 70% of population use car as model of travel to work and less than 1% of population go to work by bike.

■ **Figure 3-1: Travel patterns within Wagga Wagga**



Source: *Integrated Movement Study for City of Wagga Wagga, URaP, December 2008*

The data indicates a high dependency on car travel within the LGA and very low levels of active and public transport in Wagga Wagga.

<sup>5</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting SINCLAIR KNIGHT MERZ

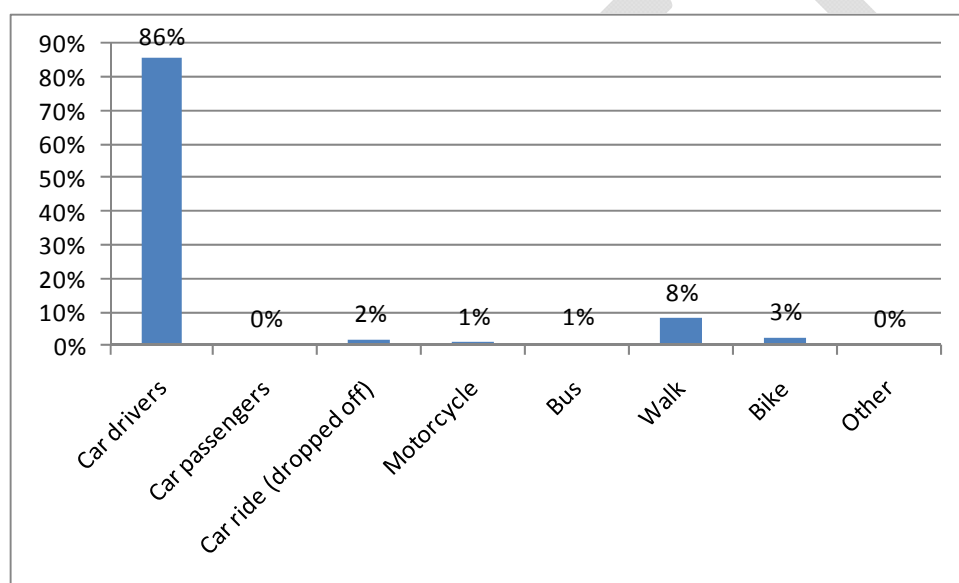


### 3.3.2. Existing travel patterns within WWBH

A WWBH staff mode-of-travel survey was conducted in 2007 by TFE<sup>7</sup>. The data () suggests that more than 85% of WWBH staff travel to work by car, 11% travel to walk and cycle and only 1% by bus.

Again, the data indicates that there is a high dependency on car travel and very low levels of active and public transport to WWBH. Importantly, car-sharing as measured by travelling as a car passenger is not currently a meaningful alternative.

■ **Figure 3-2: Travel patterns within WWBH**



Source: TFE 2007

Initiatives will need to be developed during Part 3A Project Application to reduce car dependency and encourage more use of public and active transport (walk and cycle) to and from the Hospital.

### 3.3.3. Existing public transport provision

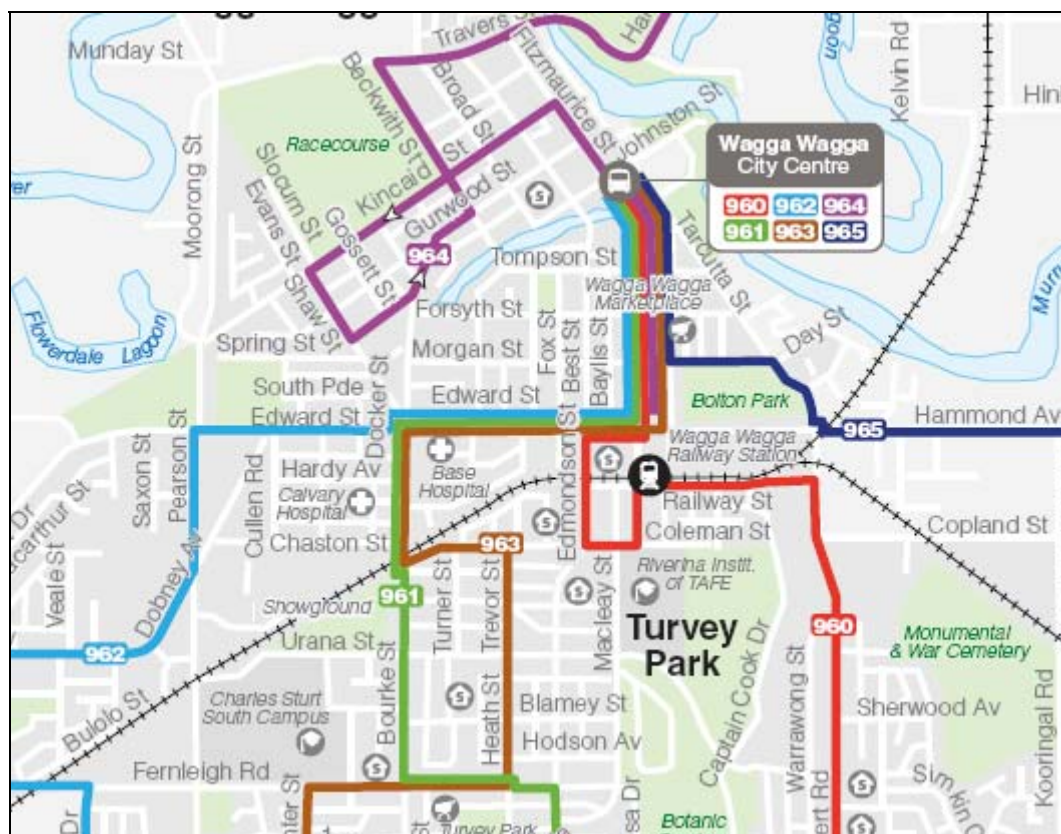
The hospital is currently serviced by three bus routes, operated by Busabout Wagga Wagga:

- Route 961 – Wagga Wagga City Centre to Bourkelands via Malaya Drive and Mount Austin;
- Route 962 – Wagga Wagga City Centre to Glenfield Park via Ashmont; and
- Route 963 – Wagga Wagga City Centre to Glenfield Park via Turvey Park and Bruce Street.

<sup>7</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting SINCLAIR KNIGHT MERZ



- Bus route map is shown in **Figure 3-3: Bus routes servicing WWBH**, and service frequencies are provided in Table 3-1 below.
- Figure 3-3: Bus routes servicing WWBH**



Source: [http://www.fearnes.com.au/pdf/wagga\\_wagga\\_network\\_map\\_OCT10.pdf](http://www.fearnes.com.au/pdf/wagga_wagga_network_map_OCT10.pdf)

**Table 3-1: Bus service provision**

Route number	Direction	Number of weekday services	Number of Saturday services	Number of Sunday services
961	To Wagga Wagga City Centre	12	9	No service
	From Wagga Wagga City Centre	9	9	No service
962	To Wagga Wagga City Centre	13	11	No service
	From Wagga Wagga City Centre	11	10	No service
963	To Wagga Wagga City Centre	12	9	No service

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	From Wagga Wagga City Centre	11	10	No service
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Bus stops in the vicinity of the hospital are located at:

- Northern side of Edward Street (Sturt Highway), 45m east of Docker Street; and
- Southern side of Edward Street (Sturt Highway), 25m east of Lewis Drive.

The frequencies provided reflect the low bus patronage levels. The underutilisation of this mode of transport is confirmed in journey to work data (less than 1% travel to work by bus) for Wagga Wagga LGA as well as WWBH.

Wagga Wagga railway station is located approximately 1.1km east of the hospital. A total of four services are provided by CountryLink:

- To Sydney (two services daily); and
- To Melbourne (two services daily).

### 3.3.4. Existing active transport provision

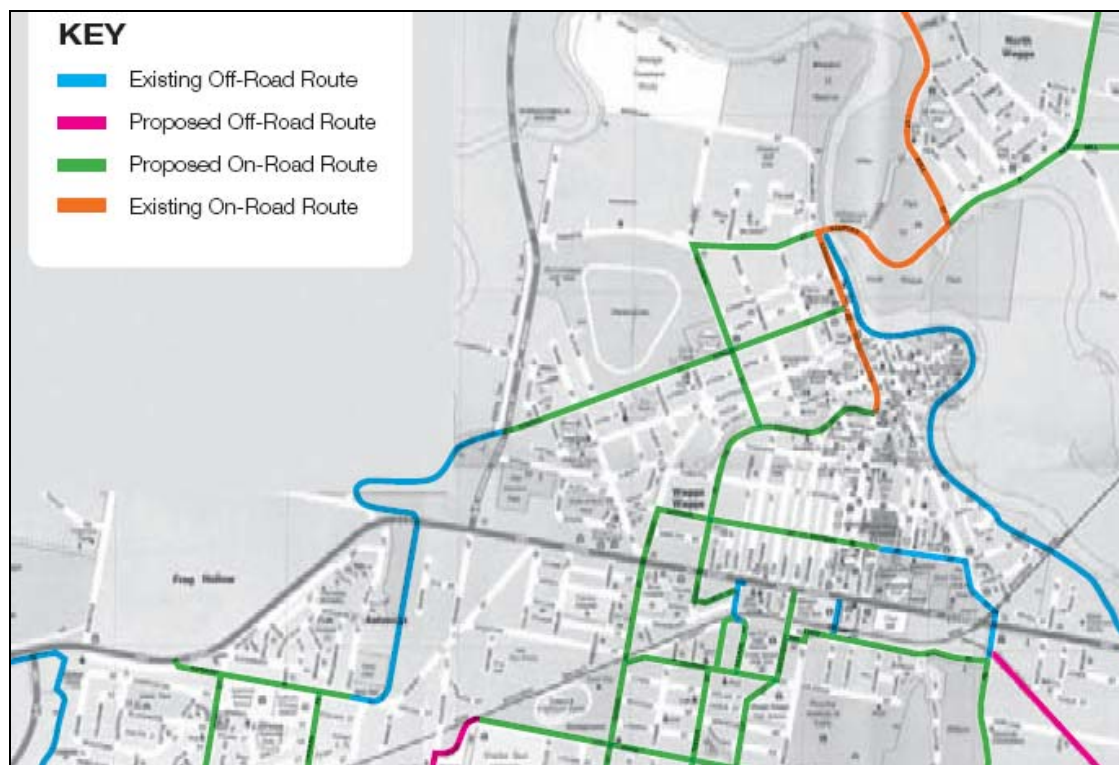
Paved pedestrian footpaths are provided on all road approaches to the hospital, including Edward Street (Sturt Highway), Docker Street, Gormly Avenue, Hardy Avenue, Murray Street, Yabtree Street, Yathong Street and Brookong Avenue. Signalised pedestrian crossings are provided on all approaches at the intersection of Edward Street (Sturt Highway) and Docker Street.

There are currently no formal on-road or off-road cycle paths / routes in close proximity to the hospital. The nearest off-road cycle path to the hospital is located at the railway overpass linking Brookong Avenue and Cassidy Parade / Kildare Street, approximately 520m south-east of the hospital. The *Integrated Movement Study for City of Wagga Wagga*, prepared by URaP – TTW Pty Ltd in December 2008, proposes formal on-road cycle routes on the following roads in the vicinity of the hospital:

- Docker Street;
- Murray Street;
- Salmon Street; and
- Morgan Street.



■ **Figure 3-4: Wagga Wagga City Bike Plan**



Source: *Integrated Movement Study for City of Wagga Wagga, URaP – TTW Pty Ltd, December 2008*

Currently, there are no facilities available within the Hospital Campus for bike storage and it is recommended that bike facilities should be provided for WWBH to encourage more people travel to and from the Hospital by active transport in the future.

### 3.3.5. Existing road infrastructure

It is usual to classify roads according to a hierarchy in order to determine their functional role within the road network. Roads are classified according to the role they fulfil and the volume of traffic they can appropriately convey. Changes to traffic flows on roads can then be assessed within the context of the road hierarchy. The guidelines for the functional classification of roads were developed by the New South Wales Roads and Traffic Authority (RTA), and are described below:

- **Arterial Road:** typically a main road carrying over 15,000 vehicles per day and fulfilling a role as a major inter-regional link (over 1,500 vehicles per hour);
- **Sub-Arterial Road:** defined as secondary inter-regional links, typically carrying volumes between 5,000 and 20,000 vehicles per day (500 to 2,000 vehicles per hour). These roads supplement arterial roads in providing for through movement, to an individually determined limit that is sensitive to both roadway characteristics and abutting land uses;
- **Collector Road:** provides a link between local roads and regional roads, typically carrying between 2,000 and 10,000 vehicles per day (250 to 1,000 vehicles per hour). At volumes

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greater than 5,000 vehicles per day, residential amenity deigns to decline noticeably. Trunk collector and spine roads with limited property access can reasonably carry traffic flows greater than 5,000 vehicles per day; and

- **Local Road:** provides access to individual allotments, carrying low volumes, typically less than 2,000 vehicles per day (250 vehicles per hour).

Key roads in the vicinity of the hospital are described below:

- Edward Street (Sturt Highway) – is an arterial road running east-west along the northern boundary of the hospital. It is part of the Auslink national network and forms part of the main highway route between Sydney and Adelaide. It has two lanes in each direction and has a posted speed limit of 60kmh.
- Docker Street – is a collector road running north-south along the western boundary of the hospital. It has three lanes in each direction (including one parking lane in each direction) and has a posted speed limit of 50kmh.
- Lewis Drive – is a local road running north-south along the eastern boundary of the hospital. It provides access to the hospital’s parking facilities and internal road system.
- Brookong Avenue – is a local road running north-south and east-west to the east and south of the hospital. It has four lanes in each direction (including one parking lane in each direction) and has a posted speed limit of 50kmh.

The intersection of Edward Street (Sturt Highway) and Docker Street is signalised with pedestrian crossings on all approaches. In most circumstances the signals operate using four phases (Edward Street westbound, Edward Street eastbound, diamond right turn from Docker Street, and Docker Street northbound and southbound).

*WWIRHS Traffic and Parking Report*<sup>9</sup> analysis revealed that the street system as well as intersections around the hospital site are all operating at a very good or good level of service during the morning and afternoon peak hours on a weekday.

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<sup>9</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting  
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### **3.4. Existing Hospital Characteristics**

#### **3.4.1. Staff, bed and outpatient numbers**

There are currently some 220 beds provided in WWBH and there are some 648 outpatients per day and 732 people employed<sup>11</sup> comprising:

- Medical – 96;
- Nursing – 367;
- Allied Health – 65;
- Technical – 73;
- Admin -21;
- Hotel- 68;
- GSAHS Area – 42.

#### **3.4.2. Existing car parking**

Based on the 2007 survey (conducted by TFE)<sup>13</sup>, there are a total of 304 car spaces provided in the Hospital Campus and 275 on-street parking spaces being used in adjacent streets ().

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<sup>11</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting

<sup>13</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting  
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■ **Figure 3-5: Parking Areas within the Hospital Site and Surrounding Streets**



Source: TFE 2007

The analysis of the data from the parking survey (TFE 2007) suggests that the Hospital campus parking demand reaches its peak by 11:00am and maintains such demand till 3:30pm. There is a peak parking demand of 466 spaces consisting of parking usage of 300 spaces within the Hospital ground and 166 spaces along streets in the vicinity of the Hospital.

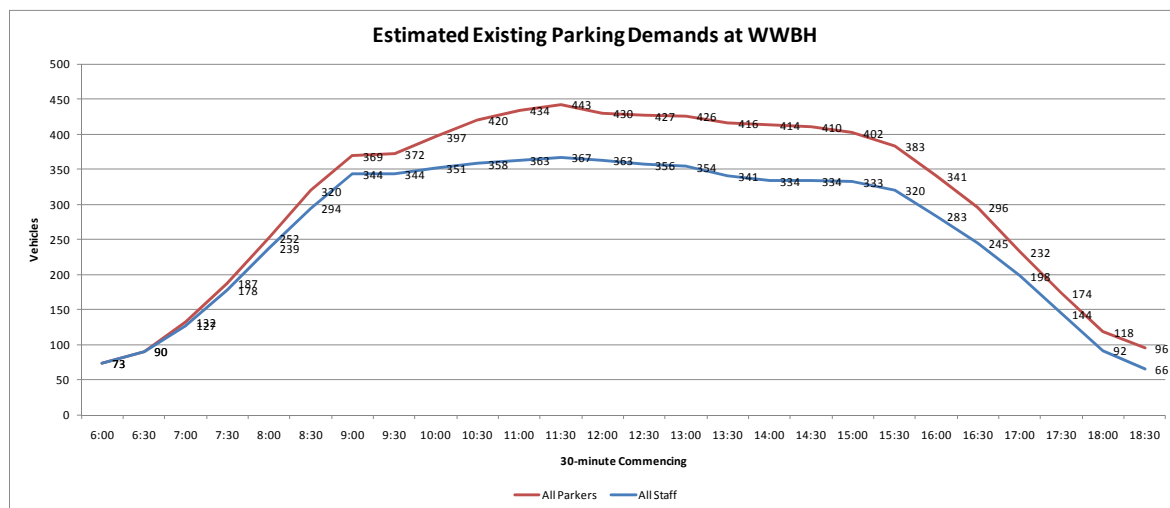
These estimates were revised in 2009<sup>14</sup> indicating a peak parking demand generated by the existing WWBH totals approximately 443 vehicles based on the number of persons on the site at about 11:30am on a weekday. This is shown in :

<sup>14</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting SINCLAIR KNIGHT MERZ





■ **Figure 3-6: Estimated Existing Parking Demands at WWBH**



Source: WWIRHS Traffic and Parking Report, URaP, September 2009

Considering there are currently 304 on site car spaces, some 139 cars park outside of WWBH campus using the existing on-street parking during the peak period.

### 3.5. Traffic Impact Assessment

#### 3.5.1. Proposed WWBH Redevelopment Concept Plan

The principle features of the concept plan for WWBH Redevelopment relating to car parking are:

- Provide additional car park (36 spaces) at the corner of Lewis Drive and Yathong Street;
- Provide additional car park (60 spaces) northeast of Hardy Avenue and Docker Street intersection;
- Relocate the existing central car park (74 spaces) at the corner of Lewis Drive and Yathong Street;
- Expand the existing car parks east of Lewis Drive and North of Yabtree Street from approximately 129 spaces to 165 spaces; and
- Provide additional 189 spaces southeast of Hardy Avenue and Docker Street intersection.
- Provide additional car park to the north of hydrotherapy (60 spaces).

The concept plan would allow up to 496 car spaces (an increase of 192 car spaces) being provided by 2021.

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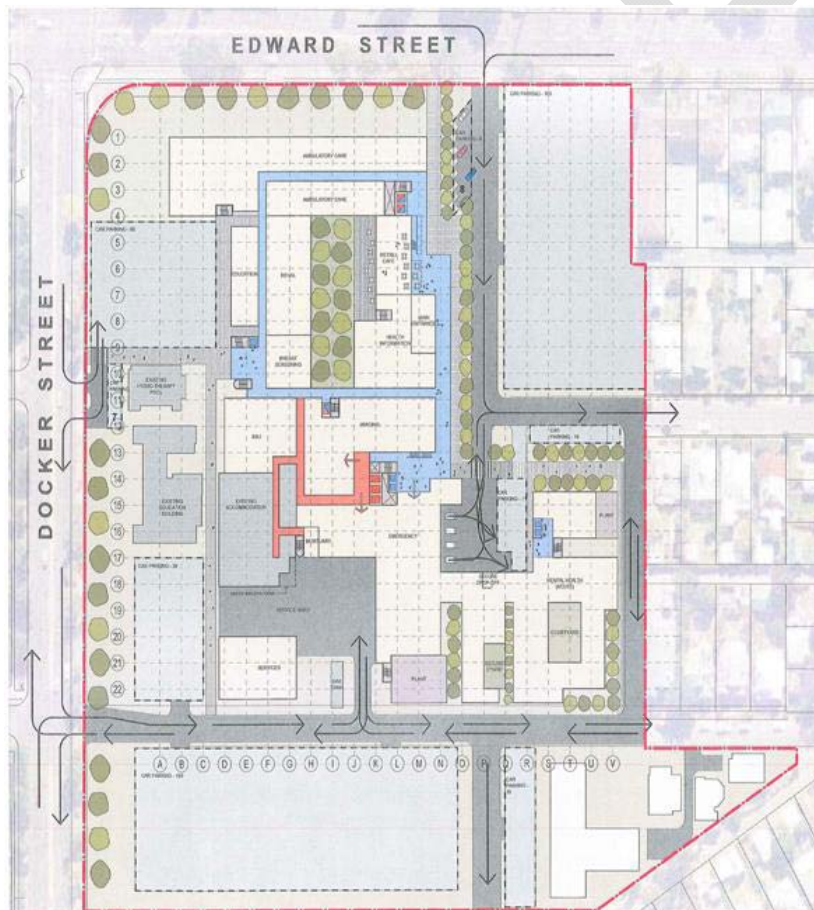


Other key features of the scheme include:

- Improved access and permeability with additional entry points on Docker Street;
- The Docker Street intersection is planned to be aligned with Hardy Street to avoid two intersections in close proximity along Docker Street;
- A new road is planned to provide a link between Lewis Drive and Docker Street;
- To facilitate passenger pick up from the various hospital departments the existing bus stop and taxi rank will be retained on the south side of Edward Street;
- Service vehicles and funeral director access will access the loading dock via Yathong Street, which will be separated from the public access.

The concept plan for WWBH Redevelopment is shown in .

- **Figure 3-7: WWBH Redevelopment Concept Plan**



Source: RICE DAUBNEY

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### 3.5.2. WWBH future population

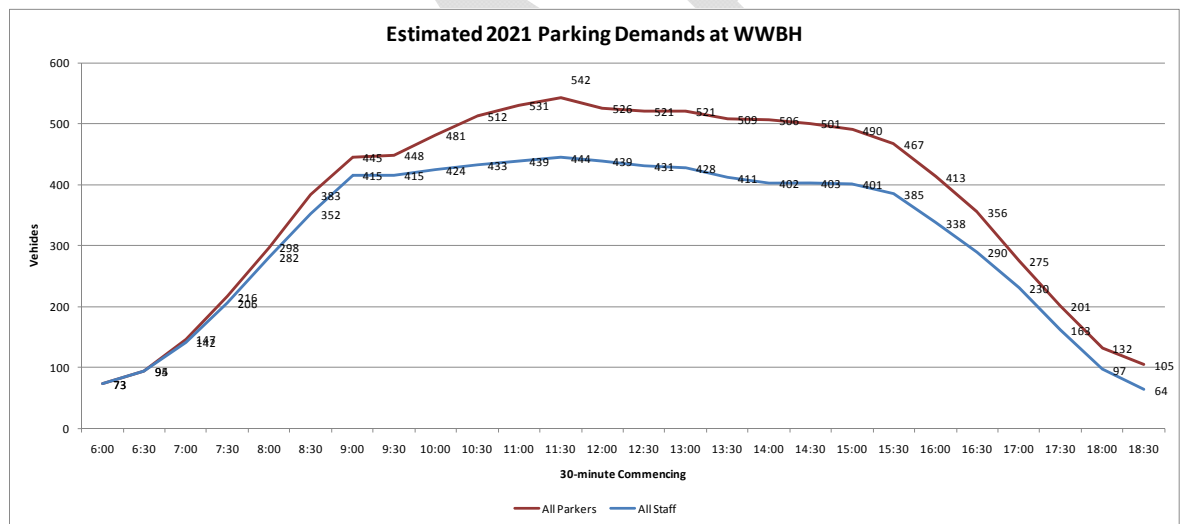
It is anticipated that by the year 2021, WWBH will experiences a relatively higher level of activity as a result of redevelopment program. Capital Insight has advised of the following projections:

- Acute Separation increase from around 14,000 to 23,000 per year;
  - Bed facilities will increase from 220 to 293;
  - An increase in annual outpatient activity from some 161,000 to 193,000;
- The number of staff will increase from 732 to 899.

### 3.5.3. WWBH parking demand

By applying the existing parking demand profile and staff /non staff ratio (refer to Section 4.2) to the predicted future hospital population (refer to Section 3.5.2), future parking requirements for WWBH is estimated at 542 spaces. This is shown in below:

- **Figure 3-8: Estimated 2021 parking demands at WWBH**



It should be noted that following assumptions were made whilst estimating future parking demands:

- The number of in/out cars and parking demand for the carpark at 6:00am is unchanged;
- The vehicles/person ratios remain the same for in and out vehicles in the future;
- The in and out persons and cars profiles remain the same in the future; and
- The ratio between the in and out cars remains the same in the future.

The proposed concept plan provides 496 parking spaces within WWBH campus. This will accommodate 90% of the future WWBH parking demand and significantly improve the current on



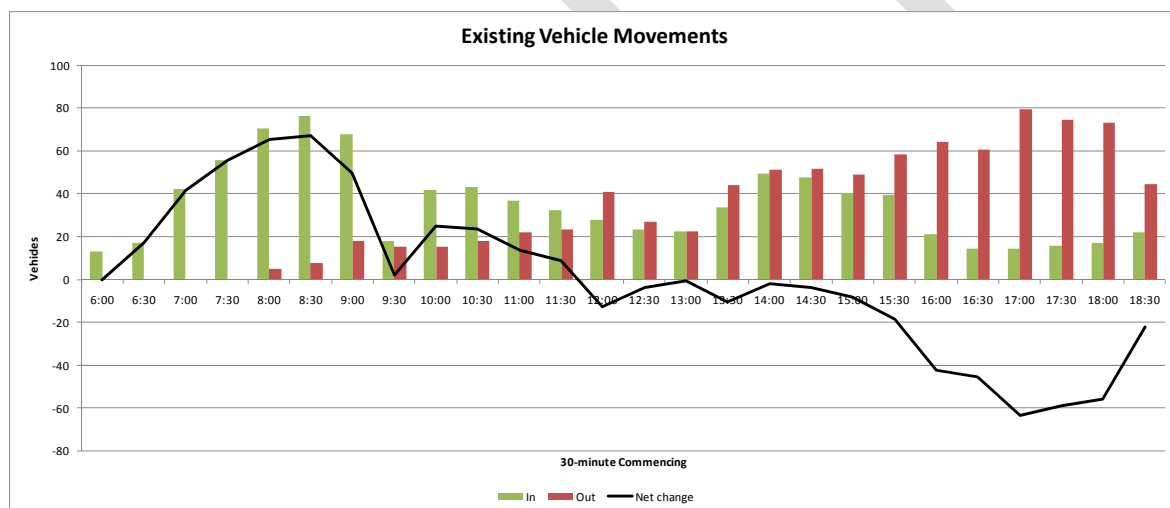
street parking conditions in vicinity of the Hospital (demand for on-street parking would reduce from 166 to 56).

It should also be noted that by implementing sustainable travel measures (see Section 3.6), vehicle/person ratios could be reduced in the future and therefore parking demands could be below 542 by 2021. This would result in further reduction in on-street parking demand in the future.

### 3.5.4. WWBH traffic generation

The estimated current peak traffic generation ( ) for WWBH is 170 vehicles in and out in the morning peak hour (8:00am to 9:00am) and 184 vehicles in and out in the afternoon peak hour (4:30pm to 5:30pm).

■ **Figure 3-9: Existing vehicle movements**

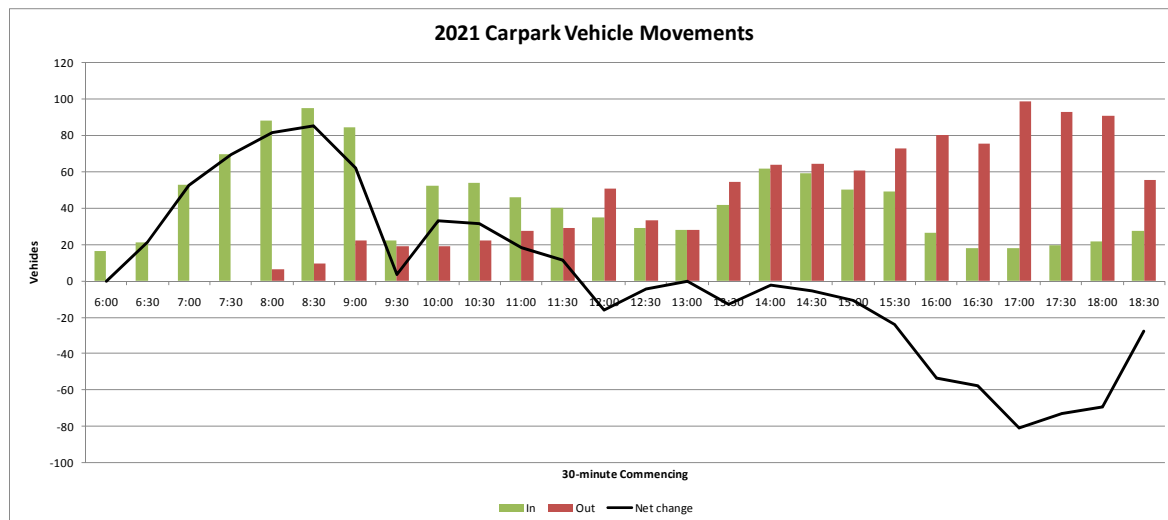


Source: WWIRHS Traffic and Parking Report, URaP, September 2009

By applying the existing vehicle movement profile to the predicted future parking demand (refer to Section 5.3, it is estimated that the future total traffic generation of WWBH will be about 211 (additional 41 vehicles) and 229 vehicles (additional 45 vehicles) to and from the Hospital during AM and PM peak periods, respectively ( ).



■ **Figure 3-10: 2021 vehicle movements**



WWIRHS Traffic and Parking Report<sup>17</sup> analysis revealed that the street system as well as intersections around the hospital site are all operating at a very good or good level of service during the morning and afternoon peak hours on a weekday.

### 3.5.5. Access to WWBH

Additional staff and visitor numbers are likely to increase the traffic demand on roads towards and around the hospital. It needs to be ensured that the existing road infrastructure, intersections in particular, can accommodate the additional demand without a significant deterioration of Level of Service and without requiring large road infrastructure changes.

As intersections and streets around the hospital site are all currently operating at a very good or good level of service during the morning and afternoon peak hours<sup>19</sup> on a weekday, it is considered that additional 40 vehicles (compared to existing) in and out of WWBH during peak one hour won't make significant impacts on surrounding road networks and intersections.

However, it is noted that the proposed layout for WWBH redevelopment may require redesign of the surrounding intersections, such as Hardy Avenue and Docker Street Intersection, and detailed assessment of the traffic movement (using traffic modelling tools) will be required during the Part 3A Project Application Stage.

<sup>17</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting

<sup>19</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting  
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Under the concept plan proposal, public vehicles and staff vehicles will be able to access the hospital via Edward and Docker Streets. Service vehicles and funeral director access will access the loading dock via Yathong Street, which will be separated from the public access.

Current plans show three new access points, one on Edward Street and two on Docker Street. The Edward Street intersection is planned to be a T intersection, providing the main ambulance entry point. The Docker Street intersection is planned to be aligned with Hardy Street to avoid two intersections in close proximity along Docker Street.

It should be noted that the additional hospital entry at Docker Street would require redesign of Docker Street and Hardy Avenue Intersection, which is different from the previous concept design. Therefore, a detailed traffic analysis would be required at this location. The intersection of Gormly Avenue and Docker Street would also require more detailed analysis due to the relocation and increase of parking spaces to the north of hydrotherapy.

It should be noted that the files for the intersection analysis conducted during the previous study were not provided in the previous traffic report<sup>20</sup> and it is recommended that the traffic modelling at the intersections will need to be conducted during the Part 3A application using newly collected traffic survey data.

#### **3.5.6. Vehicle and Pedestrian Circulation**

Under the concept plan proposal, public vehicles and staff vehicles will be able to access the hospital via Edward and Docker Streets. A new road is planned to provide a link between Lewis Drive and Docker Street. Service vehicles and funeral director access will access the loading dock via Yathong Street, which will be separated from the public access.

To facilitate passenger pick up from the various hospital departments the existing bus stop and taxi rank should be retained on the south side of Edward Street. Bus access within the hospital grounds has not been provided.

#### **3.5.7. Emergency Vehicle Circulation**

Predominant access to the site will be via Edward Street for emergency vehicles and some private vehicles, with emergency access to the Emergency Department via Lewis Drive.

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<sup>20</sup> Traffic Management & Car Parking Study for the proposed development of WWBH – TEF Consulting  
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### **3.6. Sustainable Travel Measures to Reduce Car Dependency**

#### **3.6.1. Introduction**

Reduced dependence of private car travel and development of Travel Demand Management initiatives will be an issue for the Part 3A Project Application. This can best be developed through preparation of a Work Place Travel Plan, also known as a Green Travel Plan. For the purpose of WWBH Concept Plan Application, sustainable travel measures that address these issues are only discussed on a high level basis.

Sustainable travel measures should be designed to encourage the use of public transport, walking and cycling wherever possible for all journeys to and from WWBH. The benefits of similar strategies are widely understood and include:

- Reducing car and noise pollution and other types of negative environmental impact;
- Improving fitness, health and wellbeing due to increased physical activity, particularly in the context of the health facilities at the Base Hospital. It needs to be recognised that the key focus is on staff, rather than patients and their visitors;
- Reducing traffic congestion and associated road network delays and costs;
- Improving travel options, particularly for non-drivers or non-car owners; and
- Reducing the need for parking provision and maximising land opportunity for other uses.

This should be facilitated through the design of WWBH Redevelopment to accommodate public transport access and provide good quality, highly permeable pedestrian and bicycle networks to and from the Hospital.

#### **3.6.2. Proposed sustainable travel measures**

The measures include a range of different types of initiatives which together reinforce the objectives and principles of the sustainable travel strategy. These measures could include:

##### **3.6.2.1. Travel demand measures**

A Work Place Travel Plan for WWBH should be developed to achieve travel demand management practices relevant to the specific needs of the site and its employees. The Work Place Travel Plan will create specific travel behaviour programs aimed at supporting travel modes other than private cars. The Work Place Travel Plan should include initiatives such as:

- Provide public transport information (maps and timetables) to encourage public transport use;
- Improve pedestrian facilities which make it easier and safer to walk to and from WWBH;



- Promote the use and awareness of secure bicycle parking, lockers, showers and change facilities within the hospital to encourage cycling; and
- Restrain on-street parking to encourage other travel options.

### **3.6.2.2. Public transport measures**

It is apparent from previous studies that hospital journey-to-work trips originate from throughout Wagga Wagga. This creates a challenge for the enhancement of public transport servicing the Hospital. The shift patterns of hospital staff also impose constraints on commercially viable services. Development of appropriate services with local bus operators should be adopted within the Work Place Travel Plan.

### **3.6.2.3. Infrastructure measures**

Infrastructure that should be considered includes:

- Provide good quality bus stops in close proximity to various buildings with the WWBH;
- Provide dedicated, high quality, safe cycle routes to and from WWBH;
- Provide sufficient end of trip bicycle facilities, such as bicycle parking, lockers, showers and change facilities, to maximise cycle usage to and from the Hospital;
- Provide highly permeable and safe pedestrian network to and from WWBH;

### **3.6.3. Recommendations**

The elements of the Work Place Travel Planning will depend on circumstances of the buildings on site, reflecting their unique client profile, staffing ratios, shift patterns and beds/outpatient numbers.

It is appropriate for these individual Plans to be prepared in association with each Project Application, rather than as part of this Concept Plan application.



## 4. Building Services

### 4.1. Electrical Services

The expansion of the existing Base Hospital would see an increase in staff, patients and facilities. Accordingly, the electrical load and the communications traffic would be increased significantly.

The existing High Voltage (HV) feeders, transformers and switchgear including communications facilities and space are such that very little expansion is possible. Therefore, additional sub-stations and communications facilities are proposed for the new developments.

It is proposed that a new indoor Central Energy Sub-station and associated Main Switch room would provide power to the development. Indications from Country Energy (CE) is that recent upgrades to CE Zone sub-stations would show that separate HV feeders would be available to provide firm supplies to the new development. CE has expressed concern that the area is prone to flooding and recent events in Wagga Wagga have endorsed this high flood risk. Particular care would have to be taken in the final design with regard to the location of the sub-station and associated switch rooms/equipment rooms, with regard to protection/isolation from flood risk.

Power supplies would be distributed from the Main Switchboard via moulded case circuit breakers protecting sub-mains cabling to sub boards and distribution boards, fire-rated for essential services.

New emergency diesel generators would form part of the central energy services with automatic synchronisation and control. Where Tri-generation forms part of the central energy plant, the need for conventional diesel generators would prevail to support times of Tri-Gen failure, down-time for maintenance or during a quiescent state.

Power Factor correction, uninterruptible power supplies, surge protection equipment and lightning protection would be incorporated.

Lighting and power supplies would be provided in accordance with all relevant standards, including AS 3000, 3003, 1680 and the recommendations of TS11 and BCA, Section J.

With regard to Communications, a new campus distributor room would be provided in the early stage construction to contain cross-connect equipment to link with Carriers' equipment and other buildings within the new development including the existing parts of WWBH.

A fibre optic based structured cabling system would be implemented, with Category 6a minimum floor distribution.

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In strategic areas of the new development, a floor distributor (FD) serving an area of approximately 1400 square metres would be provided. A sufficient number of FDs would be provided to ensure that no communications outlet is more than 90 metres from the nearest FD. Where multiple levels are involved, these floor distributors (approx. 7 metres x 4 metres) would be stacked on an identical footprint for security of infrastructure.

VoIP telephony, Wi-Fi with integration to nurse call and security systems would be considered.

#### **4.2. Mechanical Services**

The objective of this report provides an overview of the existing mechanical services as well as the proposed services for the new development.

It is proposed that a new central energy plant containing a natural gas tri-generation plant, water cooled chillers, natural gas fired boilers and cooling towers located on the Wagga Wagga Base Hospital campus in the vicinity of Yathong Street. Heating for domestic hot water will be provided via a plate to plate heat exchanger from the main heating system primarily fed from the waste heat from the tri-generation system. Any heat that cannot be used for heating will be directed to an absorption chiller to provide base load chilled water. This plant would be co-located with a new sub-station, main switch room and emergency generators. This location ensures that exhaust flues will not affect the proposed helicopter flight path, separates heavy maintenance activities from clinical areas and locates the cooling towers at the maximum possible distance from any existing or new outside air louvres.

Chilled water and hot water will be reticulated underground to the clinical building where it will then be reticulated through the ceiling spaces to the relevant plant rooms.

Generally, the hospital will be air conditioned via central air handling units appropriately zoned to comply with BCA Section J energy efficiency requirements and AS1668.2. It is proposed to provide activated carbon filters on all minimum outside air intakes. When a helicopter approach is detected by the Building Management System, all outside air dampers with exception of the minimum requirements will be closed to prevent Aviation fuel smells from infiltrating the hospital through the air conditioning system. All air handling plant will be located in dedicated plant rooms accessible from corridors. Plant rooms will be designed such that no louvres will face west where the dust storms generally blow from.

The hospital will be provided with various exhaust systems, including toilet exhaust, plaster room exhaust, endoscopy exhaust, body holding exhaust, isolation room exhaust etc. All obnoxious exhausts will be exhausted at roof level in accordance with AS1668.2-1991.

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It is proposed to provide the Steam Sterilising Department (SSD) with a local gas fired steam generator plant room to provide steam for the facility.

As the main inpatient unit tower block will exceed 25m, a fully compliant zone smoke control system will be provided. All fire stairs will be provided with stair pressurisation systems in accordance with AS1668.1-1998 requirements.

### **4.3. Medical Gas Services**

The objective of this section provides an overview of the medical gas supply (Oxygen, Medical Air, Suction, Scavenge, Nitrous Oxide and Tool Air) for the new development.

#### General

Medical Air and Suction systems are suited to local decentralised systems specific to each building as required. Centralisation of all other medical gases would be ideal from an operational perspective. Cylinders and manifolds are proposed to be located near the loading dock area for truck access. An area for other separate gas cylinders will also be provided near the loading dock.

#### Medical Air

Medical breathing air is to be provided by new medical air compressors located in roof plant rooms in each building.

#### Suction

Suction and scavenging are to be provided by new suction pumps located in roof plant rooms in each building.

#### Central Oxygen

The existing bulk oxygen VIE tank (15,000L) and backup manifold (2 off MAN 15 packs) will be retained. Emergency backup for critical systems will be installed as required by AS2896. The existing emergency connection point for an oxygen tanker to directly connect at the entrance to the emergency department will be retained. Existing underground pipe work reticulation will also be retained where possible.

#### Nitrous Oxide

Nitrous oxide is to be provided by the existing duty-standby manifold system, located adjacent to the bulk oxygen VIE tank. Existing underground pipe work reticulation will be retained where possible.

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#### Tool Air

A dedicated tool air compressor system will be provided for the hospital. Currently the tool air is provided by a duty-standby manifold. This arrangement can be retained and used as a back-up to the new system. A dedicated tool air system is recommended over bottle supply due to operational cost savings.

#### **4.4. Hydraulic Services**

Wagga Wagga Base Hospital services nominated as 'Hydraulic services', include; potable water, fire water supply, non-potable water, sanitary and trade waste drainage and natural gas supply are to be provided to the proposed development. Where existing connections are found to be suitable for reuse this will be maintained, otherwise new connections to Authorities services will be required.

Wagga Wagga hospital campus is provided with existing sanitary and trade waste drainage, domestic water, fire water and gas infrastructure reticulation. All services are supplied from Authority mains from the site's surrounding streets.

##### **Sanitary/trade waste Drainage:**

The sanitary drainage for Wagga Wagga Base Hospital has four (4) main connections to the Councils sewer system. The connections are listed below;

- 150mm connection in Lewis Street
- 150mm connection in Lewis Street
- 150mm connection in Lewis Street
- 150mm connection in Edward Street

The existing sanitary drainage is a gravity system which collects sanitary waste from fixtures, plant and equipment requiring sanitary drainage. The gravity drainage generally follows the natural fall of the ground and traverses the site from west to east and south west to north east. The drainage pipe materials are predominantly vitrified clay pipe (VCP) with the newer sections being installed in Polyvinylchloride (PVC). There are a number of onsite pre-treatment pits. These pits are located around the clinical services building and include – cooling pits, grease arrestors, and dilution pits for the decontamination showers.

The new development will reuse the existing sanitary drainage connections with new PVC pipe work extending to all areas requiring sanitary drainage. This will include on-site treatment of grease and trade waste to local Authorities requirements. All works to be in accordance the requirements of NSW Health guidelines, Australian Standards and associated codes and practices.

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### **Potable Cold Water:**

Wagga Wagga Base Hospital (WWBH) existing potable cold water system includes five (5) metered water supplies with pipe work reticulating through the facility to the various buildings to serve the fixtures plant and equipment requiring potable water.

The potable water connections are listed below;

- 150mm connection to Councils water main in Docker Street – main supply
- 100mm connection to Councils water main in Edward Street – serving the Multi-story building.
- 80mm connection to Councils water main in Docker Street – serving Lewis House/Community Health, Stores and engineering
- 20mm connection to Councils water main in Docker Street - serving the Dental Clinic
- 20mm connection to Councils water main in Lewis Street – serving Gissing house

Backflow prevention devices are installed on all connections providing containment protection in accordance with the Councils requirements and the devices appear to be maintained in a working condition. The 100mm connection on Edward Street supplies potable water to a roof top tank located in the plant room of the existing multi-storey building.

The development will view the site holistically with provision for an upsized connection to the exiting Authorities main in Edward Street and reticulate to all new fixture, plant and equipment requiring potable cold water. In addition to the new connection; storage of water, pumps and on-site treatment of water may also be conducted at a single point, downstream of the upsized connection. Once connected the redundant water service connections will be capped off to Authorities requirements.

It is proposed to design a new non-potable water service to supply the sanitary fixtures requiring flushing (water closets and urinals) and in addition assist in the supply of irrigation demand. This system would harvest roof water from selected roofs and stored, treated on site. The treatment of harvested rainwater may include filtration and sterilization to the requirements of NSW Health guidelines, Australian Standards and associated codes and practices.

### **Potable Hot/Warm Water:**

Hot and warm water systems for the development would include a centralized hot water plant co-existing with the mechanical plant. This would be reticulated as a flow and return system to all fixtures, plant and equipment requiring hot water. Warm water may be a centralized system incorporating a flow and return system to all fixtures plant and equipment requiring tempered water to either 50<sup>0</sup>C or be controlled by thermostatic mixing valves (TMV's) that would be installed

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adjacent single or groups of fixtures. Early confirmation on the preferred system is required to ascertain plant space requirements for either system.

#### **Fire Hydrant/Fire Hose Reel Service:**

The existing fire hydrants for the site are supplied from an existing connection to the Authorities water main in Docker Street incorporating a backflow containment device and mains model booster valve assembly located adjacent the main building. Internal and external fire hydrants are located throughout the site.

It is noted that the existing installations are non-compliant with current standards and as such the development will view the site holistically with provision made for a new mains connection in Edward Street to supply fire water for both fire hydrants and fire sprinklers. This may also include tanks for water flows and pumps to provide the required flows and pressures to obtain BCA compliance.

Fire hose reels are to be connected to the new potable cold water service to the requirements of AS2441.

#### **Natural Gas:**

The existing Natural gas system for Wagga Wagga Base Hospital extends from the main gas meter assembly located adjacent to Rawson Lane. Incoming pressure is reported to be 1050kPa with reticulation pressure at 110kPa. The system reticulates through the facility to all buildings requiring natural gas energy to supply mechanical services hot water demands and kitchen services. The existing 50mm mains connection and meter assembly is considered adequate to supply the demands of the proposed development. This will also take into consideration the redundant demand of demolished buildings.

The natural gas service downstream of the main meter assembly will require upsizing of pipe work to suite the new demands of the development.

#### **Existing External Authorities Services Mains**

External hydraulic service mains exist on/near the vicinity of the re-development site that currently serves the existing hospital facilities.

Subject to detailed design of the proposed development and consultation with the Authorities, existing connections to the Authorities mains may be reused. Amplification of Authorities mains may be required.





Furthermore, consultation must be undertaken where the proposed development encroaches on existing Authorities mains to detail any proposed diversions, capping off or other proposed works to service the needs of the development.

These existing service mains surrounding the site;

- Council's sewer in Rawson Lane
- Council's sewer in Edward Street
- Council's sewer in Lewis Drive (requires diversion/relocation to clear future buildings/super structure)
- Council's water main in Docker Street
- Council's water main in Edwards Street
- Council's water main in Lewis Drive (requires diversion/relocation to clear future buildings)
- Council's medium gas main in Edward Street
- Council's high pressure gas main in Docker Street

#### **4.5. Fire Services**

The concept plan for the fire services includes the installation and / or upgrade of essential services to suit the new and redeveloped buildings.

A new smoke detection system complying with BCA Part E2.2 and AS 1670.1 – 2004 will be provided throughout the building. The system will be controlled from a Fire Indicator Panel (FIP) located in a new Fire Control Centre situated at the Ground Floor main entry.

A fibre optic network cable will connect all FIPs on site.

As the main inpatient unit tower block will exceed 25 m effective height, a fully compliant zone smoke control system will be provided. Smoke detectors will be provided to suit the mechanical services in accordance with AS 1668.1 - 1998 requirements. The Fire Fan Control Panel (FFCP) will also be located in the Fire Control Centre. The FFCP will allow the Fire Brigade manual control of the mechanical services under fire mode if required.

As indicated above. Main inpatient unit tower block will exceed 25 m effective height, therefore a fire sprinkler system complying with BCA Part E1.5 and AS 2118.1 – 1999 will be provided. The system will be supplied with water from the town main in Edward Street together with a water storage tank at roof level. The sprinkler valve / pump room will be located at the southern end of the building with direct egress to open space.

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A new Sound System and Intercom System for Emergency Purposes (SSISEP) complying with BCA Part E4.9 and AS 1670.4 – 2004 will be provided throughout the building. The system will be controlled from a Master Emergency Control Panel (MECP) located in the Fire Control Centre.

Portable fire extinguishers will be provided throughout the building in accordance with BCA Part E1.6, AS 2444 – 2001 and NSW Health guidelines.

#### **4.6. Security Services**

This section shall present the proposed Security Services Master planning for the WWBH site based on the redevelopment plans indicated in Figure 1-1.

A new integrated security management system is proposed to be provided for Wagga Wagga Hospital as part of the redevelopment works. The Security Management System will allow all electronic security systems to be totally integrated so that it can function as a complete and seamless system. The security sub-systems include Electronic Access Control, Intruder Alarm, CCTV, Duress Alarm and Video Intercom. Generally, the new security management system shall be provided in accordance with AS4485 parts 1-2 requirements.

The new Security Management System will have administration and monitoring capabilities from the new proposed Security Control Room. In addition, other facilities such as ID Access Card procurement will also be administered from the new Security Control Room. There shall be space provision for at least 2 security personnel to perform security monitoring functions from this location.

A new fibre optic security communications backbone shall be provided around the site to allow security communications from each building communication's node to be reported and monitored to the new Security Control Room. Generally, the new security communications network shall follow the proposed communications infrastructure layout.

A new Electronic Access Control System will be provided to facilitate access for authorised personnel through restricted areas of the Hospital. The system shall comprise, proximity based access cards, card readers and electronic locks and be administered/managed from Operator Workstations within the new Security Control Room. As part of the Electronic Access Control System, an Intruder Alarm system shall also be provided to high risk areas of the Hospital and be comprised of volumetric detectors and remote arming stations to permit arming/disarming of the system. The system will be provided in accordance with AS2201 parts 1-5 requirements.

A new IP CCTV system will allow video surveillance of key areas around the Hospital for the purposes of staff and patient safety. The system will be comprised of a combination of fixed and

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pan, tilt and zoom cameras and be monitored from the new Security Control Room for post-incident analysis. The system shall be provided in accordance with AS4806 parts 1-4 requirements.

Hard wired duress alarm points will be provided as part of the redevelopment works to areas of the Hospital where staff are generally alone with patients or the public. Duress alarms shall be provided in accordance with TS11 2007 guidelines.

A video intercom system is provided for the Redevelopment works to allow audio and visual communication for visitors/contractors to gain access to restricted areas. The video intercom system shall consist of door stations and master stations. A master intercom station shall also be provided within the new security control room for answering of afterhour's calls. Video intercom door stations shall be provided to all nominated afterhours access points as per TS11 2007 guidelines.

#### **4.7. Vertical Transportation**

The proposed vertical transportations services are as follows:

##### **Main Public Lifts**

There are proposed to be two (2) Public Lifts serving G, 1 to 5 to cater for visitors and clinic day patients.

It is proposed each lift will be geared or gearless AC drive machineroomless lifts having a minimum 1275kg load or 17 persons capacity operating at a speed of 1.6 metres per second.

##### **Main Bed Passenger Lifts**

Adjacent the public lifts there is proposed to be two (3) Bed Passenger Lifts serving G, 1 to 6 to cater for bed transport and hospital staff. 2 of the lifts will serve Level 7 (helipad).

The lifts will be specified as per TS11 guidelines.

It is proposed each lift will be geared or gearless AC drive machineroomless lifts having a minimum of 2500 kg load or 33 persons capacity operating at a speed of 1.6 metres per second.

##### **Mental Health Building Lifts**

Near the proposed open courtyard area, there are proposed to be two (2) lifts serving G to 1 to cater for bed transport and hospital staff in the Major and Minor Mental Health area. These lifts will be sized as Bed/Passenger Lifts unless advised otherwise.

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The lifts will be specified as per TS11 guidelines.

It is proposed each lift will be geared or gearless AC drive machineroomless lifts having a minimum of 1800 kg load or 24 persons capacity operating at a speed of 1.0 metres per second.

### **Imaging Lift**

There is proposed to be one (1) Lifts serving G, 1 to 5 to transport imaging staff and equipment as required.

The loading requirements of this lift will be subject to the weight and size of the imaging equipment. However, initially we are proposing a geared or gearless AC drive machineroomless lift having a minimum of 1500 kg load or 20 persons capacity operating at a speed of 1.6 metres per second.

The actual size of lift and doors will be determined when the size and weight of imaging equipment is known.

### **Clean & Dirty Hoists**

There is proposed to be one clean and one dirty hoist serving G to 1 to cater the movement of 'Cabrini' carts between the SSU and operating theatres.

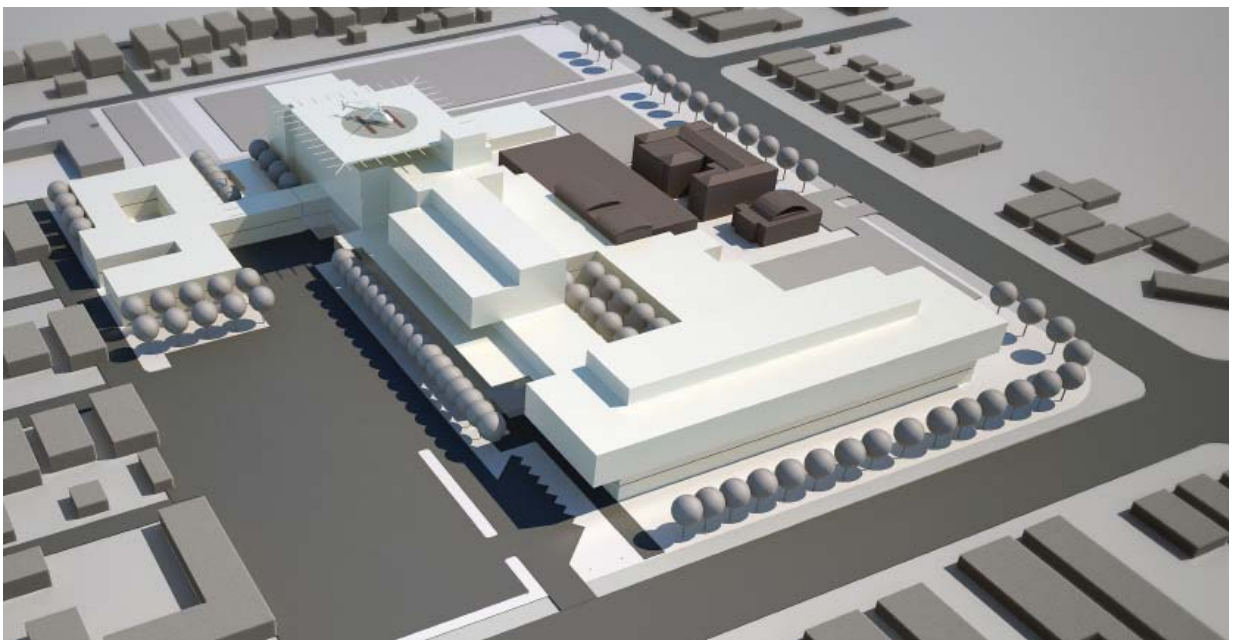
At this stage it is proposed the clean hoist will be geared or gearless AC drive machineroomless lift and having a minimum 1275kg load or 20 persons capacity (plus 2 cart capacity) operating at a speed of 1.0 metres per second.

At this stage it is proposed dirty hoist will be hydraulic, of 'Southwell' manufacture and having a minimum 1500kg load (2 cart capacity) operating at a speed of 0.15 metres per second.

The load and size of the hoists will be determined by the type and number of carts to be transported.

## APPENDIX G

### Overland Flow Options Report





# Wagga Wagga Base Hospital Redevelopment

## OVERLAND FLOW OPTIONS REPORT

- Final
- 14<sup>th</sup> March 2011



# Wagga Wagga Base Hospital Redevelopment

## OVERLAND FLOW OPTIONS REPORT

- Rev 2
- 14<sup>th</sup> March 2011

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## 1. Executive Summary

The management of the stormwater runoff from the adjacent catchments to south and east of the site and the maintenance of the existing overland flow path regimes will be one of the greatest challenges for the redevelopment of the Wagga Wagga Base Hospital (WWBH).

In order to address these issues, SKM have undertaken an assessment of four main conceptual options, these include:

- Option 1 – provide a minor drainage pipe system within the new road proposed east of the Mental Health building and linking this drainage up with Council’s existing stormwater network in Edward Street;
- Option 2 – the diversion of upstream catchment to Docker Street firstly via the continuation of Yathong Street and then via grassed swale north of Lewis House;
- Option 3 – diverting of Over Land Flow (OLF) from upstream catchment away from main hospital entrance through doctor's car park requiring a section of the existing kerb to be removed and the re-grading of the car park to convey the flow; and
- Option 4 – providing an underground On Site Detention (OSD) system at the corner of the proposed new Link Road and Yathong Street. The OSD to be located in the landscaped area south east of the Mental Health building, with an associated inlet structure at Yathong Street to capture the surface flows, as well as the connection of the OSD tank to existing drainage in Edward Street.

Following the completion of the assessment, SKM would recommend that Options 2, 3 & 4 be further developed during the detailed design phase of the WWBH redevelopment.

The development of these options will benefit from the detail survey and services locating activities that are currently being undertaken and from further consultation with City of Wagga Wagga Council and the operators of the site.

It is likely that the final drainage solution that addresses the OLF, will incorporate elements of all three main options discussed in this report to achieve the best permanent solution that will benefit the operators, users of the site and the community at large.





## 2. Introduction

SKM have been engaged by Health Infrastructure to provide technical input into the development of the Wagga Wagga Base Hospital Redevelopment.

In terms of civil engineering requirements for the proposed development, two of the key stormwater issues identified in the Stormwater Drainage and Flooding Assessment report (SKM, 2010), which relate to overland flow will be addressed within this report. These key issues are as follows:

- Management of the stormwater runoff from the contributing adjacent catchments between the hospital site, Murray Street and Rawson Lane;
- Adjustment of the existing adjoining minor roads (east of the hospital site) to redirect the existing overland flow regime in order to keep the stormwater runoff away from the hospital.

In order to address the issues identified above, SKM have undertaken an assessment of four main conceptual options, these include:

- Option 1 – provide a minor drainage pipe system within the new road proposed east of the Mental Health building and linking this drainage up with Council’s existing stormwater network in Edward Street;
- Option 2 – the diversion of upstream catchment to Docker Street firstly via the continuation of Yathong Street and then via grassed swale north of Lewis House;
- Option 3 – diverting of OLF from upstream catchment away from main hospital entrance through doctor's car park requiring the a section of kerb to be removed and the re-grading of the carpark to convey the flow.
- Option 4 – providing an underground OSD system at the corner of proposed new Road 1 and Yathong Street in the landscaped open space area south east of the Mental Health building, with an associated inlet structure in Yathong Street to capture the surface flows, as well as the connection of the OSD tank to existing drainage in Edward Street some 250m away.

SKM have also provided an order of magnitude costing of the viable options to assist the project stakeholders to make decisions regarding the implementation of these options.



## 3. Background

### 3.1. Topography

In its existing state, the site is predominately impervious consisting of roadways, building and other paved areas.

The initial site survey indicates that the existing ground fall is in a northwesterly direction from Brookong Avenue and Murray Street in the southeast towards the intersection of Edward and Docker Street in the northwest.

### 3.2. Drainage Infrastructure

#### Drainage

The Wagga Wagga Base Hospital is impacted by stormwater inundation. The hospital is subject to stormwater flows from adjacent local catchments and is also subject to flooding from the Murrumbidgee River. Based on the Council's services plan and site investigations, the existing stormwater drainage system is located along Docker Street, Edward Street, Murray Street and Brookong Avenue.

Site investigations indicate a single pipe system along the eastern side of Lewis Drive, however it would appear Doris Roy Lane, Yabtree Street and Yathong Streets are not serviced by stormwater drainage system and rely on the road reserve to convey catchment flows.

#### Flooding from the Murrumbidgee River

The flooding of the Murrumbidgee River and the impact on the hospital has been addressed in the Flood Impact Assessment prepared by Webb, McKeown & Associates dated September 2005 and Council's Floodplain Management Plan adopted in April 2009. WMA water has also completed a Draft Flood Impact Assessment dated December 2010. Table 1 below is a summary of the Murrumbidgee river flood levels at the hospital:

**Table 1**

Flood Recurrence Interval	2005 Design Flood Level	2010 Reverine Flood Level
	(m AHD)	(m AHD)
100 Year ARI	177.4	177.4
200 Year ARI	181.0	181.6
500 Year ARI	182.2	181.8
1000Y ARI	183.1	182.3
Probable Maximum Flood (PMF)	186.0	183.6



### Existing Overland Flow Path

Under existing conditions, Lewis Drive acts as the major OLF for the eastern part of the Hospitalsite a conveys the catchments draining to Yathong Street, Yathong Lane, Yabtree Street and Doris Roy Lane (all of which have no in-ground drainage).

As such, without the presence of a minor drainage system (in-ground drainage network as defined by Australian Rainfall and Runoff) during relatively minor storm events runoff accumulates quickly within in Lewis Drive and leads to considerable gutter flows.

This gutter flow situation is particularly undesirable given the main entrance to the Hospital is at the corner Yabtree Street and Lewis Drive. Refer Figure 1 below for an example of the gutter flow experienced in Lewis Drive following a minor rainfall event.



*Figure 2.2 – Lewis Drive Gutter Flow*



## **4. Proposed Development**

### **4.1. General**

Stage 1 of the hospital redevelopment consists of a new Mental Health building to be located over the existing Lewis Drive road reserve and adjacent gravel carpark between Yathong Lane and Yathong Street, which has the effect of blocking the existing OLF path for the southeast portion of the hospital site.

As such, a new means of dealing with this OLF will have to be incorporated within the development during Stage 1 and subsequent stages.



## 5. Over Land Flow (OLF) Options

In order to deal with blocking of the existing OLF path (being Lewis Drive) and improve the flooding situation at the Hospital's main entrance at the corner of Yabtree Street and Lewis Drive during the 1 in 100 year Average Recurrence Interval (ARI) storm event, four main options have been identified in dealing with these key issues:

- Option 1 – provide a minor drainage pipe system within the new road proposed east of the Mental Health building and linking this drainage up with Council's existing stormwater network in Edward Street;
- Option 2 – the diversion of upstream catchment to Docker Street firstly via the continuation of Yathong Street and then via grassed swale north of Lewis House;
- Option 3 – diverting of Over Land Flow (OLF) from upstream catchment away from main hospital entrance through doctor's car park requiring the a section of kerb to be removed and the re-grading of the carpark to convey the flow.
- Option 4 – providing an underground OSD system at the corner of proposed new Road 1 and Yathong Street in the landscaped open space area south east of the Mental Health building, with an associated inlet structure in Yathong Street to capture the surface flows, as well as the connection of the OSD tank to existing drainage in Edward Street some 250m away.

These options are discussed in detail below.

### 5.1. Option 1

Option 1 involves a minor drainage pipe system within the new proposed road east of the Mental Health building and linking the drainage system to existing Council's stormwater network at Edward Street.

In accordance with the major/ minor system as described within the Australian Rainfall and Runoff guidelines (AR&R) a minor pipe system is usually designed to cater for 1 in 20-year ARI storm event and further is influenced by the capacity of the receiving downstream stormwater network.

Based on simple Rational Method calculations (assuming a 5min Time of Concentration ( $t_c$ )) the 1 in 20-year and 1 in 100-year ARI flow arriving at the Hospital's main entrance (which will now be referred to as Point X as shown in Appendix D) is approximately 1.3 m<sup>3</sup>/s and 1.83 m<sup>3</sup>/s respectively.

However, according to the site survey and available Council records, the existing stormwater network in Edward Street adjacent to Lewis Drive consists of a single Ø 375mm Reinforced Concrete Pipe (RCP). On the basis that the receiving pipe system is a Ø 375mm RCP, it is common

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practise within the stormwater industry to not provide a larger pipe size upstream of the connection point even though it may be warranted to convey the 1 in 20-year ARI flows.

Based on the Colebrook-White equation, a  $\varnothing$  375mm RCP has an approximate capacity of 0.2 m<sup>3</sup>/s at a 1.0% grade which represents only a 15% and 11% reduction in the 1 in 20-year and 1 in 100-year ARI upstream catchment flows respectively.

To adequately drain the 1 in 20-year ARI a  $\varnothing$  750mm RCP (1.24 m<sup>3</sup>/s @ 1.0% grade) would be required downstream of Point X.

SKM note however the construction of a  $\varnothing$  375mm RCP minor system to Edward Street would assist controlling surface flows during the majority of rainfall events up to the 1 in-1 year ARI storm event.

### **Option 1 Cost Estimate**

In order to determine an order of magnitude cost for the construction of a  $\varnothing$  375mm RCP minor system to Edward Street SKM have used an average rate of \$200/m of pipe multiplied by an approximate distance of 300m. As such, the cost to construct the pipe system would be in the order of \$60,000.

However, as a result of developing the site Council may require the installation of a pipe system within the new road. It could therefore be argued this cost is not additional to the project and should be included within the construction budget and should not be considered an extra over cost to deal with overland flow.

## **5.2. Option 2**

Option 2 involves the diversion of upstream catchment to Docker Street firstly via the continuation of Yathong Street and then via grassed swale north of Lewis House (Refer Appendix A).

### **Road Re-grading and Bunding**

To facilitate this diversion a section the existing bitumen road west of the existing Schofield Centre will need to be altered and regraded to achieve 0.5% longitudinal fall towards the grassed area south of the existing Lewis House. The road works will involve re-configuration of the road falls and levels to direct OLF west rather than its current route north towards the loading dock.

Associated with the road re-grading is the raising of the section of road past the bend adjacent to the Oxygen Store by approximately 300mm (including any necessary bunding around the Oxygen Store and landscaping area). It is necessary to raise the road and provide the bund to ensure OLF travels west towards Docker Street rather than north through loading dock.

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SKM note that any modifications to the entrance road to the loading dock can be achieved using longitudinal road grades below 5%, which will not affect the use of this entrance for delivery trucks etc.

SKM also note that the feasibility of this option is based on the existing site survey, which is by no means definitive in terms of the existing road levels and services in this area. A new detail survey and services locating is currently being undertaken and this option will need to be confirmed once this information is received.

### Grassed Swale

Following the re-grading of the roadway and modification to the loading dock entrance, a grassed swale will need to be constructed south of Lewis House to convey OLF from the road towards Docker Street.

This swale will be approximately 5m wide at the top, 2m wide at the base, 200-250mm deep with side batter slopes of 1 in 7.5 and a longitudinal grade of 0.5%. Refer Figure 4.2.1 below.

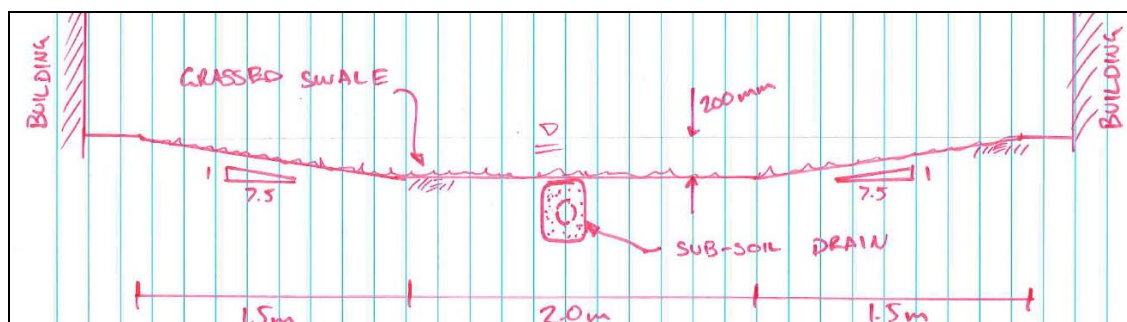


Figure 4.2.1 – Swale Section

The swale may necessitate the relocation of the demountable building between the carpark and Lewis House and will need to be co-ordinated with the landscaping and pedestrian pathways and linkages adjacent to Lewis House.

The design of the grassed swale will also need to consider the existing pedestrian linkages between Lewis House and the car park to the south of this building. These linkages will need to be maintained at minimum grades in accordance with AS 2890.1 as Lewis House is currently utilised for maternity patients.

At the western edge of the swale west of Lewis House the swale will terminate with a Surface Inlet Pit consists of a raised grate, concrete apron and a level spreader prior to connecting to the existing drainage network in Docker Street

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### **Reduction in OLF**

As a result of the implementation of Option 2 this should divert 1.53ha of the upstream catchment area that previously drained down Lewis Drive to Docker Street. Refer Appendix D for a Catchment Plan.

Based on similar Rational Method calculations described previously, this should result in a 44% reduction in the amount of OLF arriving at Point X (1.83 m<sup>3</sup>/s reduced to 1.02 m<sup>3</sup>/s).

### **Safety of OLF**

SKM note that the diverted OLF from the upstream catchment can be contained within a typical 6.0m wide road section and the proposed swale section at a safe velocity depth of less than 0.4 m<sup>2</sup>/s.

### **Option 2 Cost Estimate**

In order to determine an order of magnitude cost for the construction of Option 2 SKM have developed a preliminary Bill of Quantities (BOQ) that can be found at Appendix E.

Based on this preliminary BOQ SKM has estimated the cost to complete Option 2 is in the order of \$77,000.

SKM note the pavement thickness quantities are rough estimates only as survey cannot be entirely relied upon and we have also assumed some of the road base materials sourced from the excavations could be recycled as the sub-base material when re-constructing the roadway pavements (hence the 150mm pavement thickness assumption in the BOQ).

## **5.3. Option 3**

Option 3 involves the diversion of OLF from upstream catchment away from the main hospital entrance through existing doctor's car park to Lewis Drive downstream of the hospital's main entrance (Refer Appendix B).

Following construction of the new road proposed east of Mental Health building during Stage 1a (which we shall now refer to as Road 1) the existing residential allotments draining to Yathong Lane and Yabtree Street will drain to Point X via Road 1.

Option 3 involves breaking the existing kerb and footpath area (refer Figure 4.3.1 overleaf) to create a 6.0m wide OLF path depression on the northern side of Yabtree Street at the location of the proposed intersection between Road 1 and Yabtree Street.

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*Figure 4.3.1 – Broken Kerb/ Footpath on Northern Side of Yabtree Street*

As shown in Figure 4.3.1 a pram ramp could be provided either side OLF path depression to maintain pedestrian connectivity to the Hospital.

By providing an OLF path through the kerb and constructing a raised ramped pedestrian threshold (or wombat crossing) just west the proposed intersection, we can divert the upstream runoff through the doctor's car parking area thereby by-passing the Hospital's main entrance (Point X).

### **Street and Car Park Adjustments**

Associated with these works will be some modifications to the Yabtree Street levels at the intersection of the two roads and alterations to the carpark to direct the OLF to the desired location.

Based on the existing survey information we have, it appears that the northern section of the car park can be reconfigured with a central depression to convey the OLF to Edward Street via the bottom end of Lewis Drive.

Or as an alternative to the above, with some minor kerb adjustments and car park regarding, the OLF could be directed across Doris Roy Lane to travel along the eastern edge of carpark to Edward Street.

The car park adjustments described above could all be designed to comply with the maximum grades and cross falls as required by AS2890.1.

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SKM note that the feasibility of this option is based on the existing site survey, which is by no means definitive in terms of the existing road levels and services in this area. A new detail survey and services locating is currently being undertaken and this option will need to be confirmed once this information is received.

### **Reduction in OLF**

As a result of the implementation of Option 3 this should divert 1.14ha of the upstream catchment area flow that contributes to Yabtree Street and Lewis Drive. Thereby reducing the depth of flow at the hospitals main entrance, refer Appendix D for a Catchment Plan.

Assuming Option 2 is constructed during Stage 1A of the project and based on similar Rational Method calculations described in previous sections, the construction of Option 3 should result in a further 33% reduction in the amount of OLF arriving at Point X (1.02 m<sup>3</sup>/s reduced to 0.42 m<sup>3</sup>/s), give a total reduction in the amount of OLF arriving at point X of 77% (1.83 m<sup>3</sup>/s reduced to 0.42 m<sup>3</sup>/s).

Should Option 3 be completed in isolation, this should result in a 33% reduction in the amount of OLF arriving at Point X (1.83 m<sup>3</sup>/s reduced to 1.23 m<sup>3</sup>/s).

### **Safety of OLF**

SKM note that the diverted OLF from the upstream catchment can be contained within the 6.0m wide OLF path depression through the northern kerb and footpath area in Yabtree Street as well as the modified car park section at a safe velocity depth of less than 0.4 m<sup>2</sup>/s.

### **Option 3 Cost Estimate**

In order to determine an order of magnitude cost for the construction of Option 3 SKM have developed a preliminary BOQ that can be found at Appendix D.

Based on this preliminary BOQ SKM have estimated the cost to complete Option 3 is in the order of \$93,000.

SKM note the pavement thickness quantities are rough estimates only as survey cannot be entirely relied upon and SKM have also assumed some of the road base materials sourced from the excavations could be recycled as the sub-base material when re-constructing the intersection and car park pavements (hence the 150 & 200mm pavement thickness assumption in the BOQ).

### **Option 3B**

It should be noted that should Option 2 not be constructed and Option 3 was preferred, Option 3 as described above could be extend to form Option 3B.

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In essence Option 3B is the same as Option 3 only with an additional section of the upstream catchment diverted down the proposed Road 1 (Refer Catchment Plan at Appendix E). However, to achieve the additional diversion, the proposed new intersection at Road 1 and Yathong Street would need to be configured to direct OLF down Road 1.

This could be achieved by depressing the intersection by up to 400mm to intercept the upstream catchment flows, however it is understood the concentration of underground utility and hospital services within this section of Yathong Road could be prohibitive to the lowering of the road by 400mm.

The diversion could also be achieved in a similar fashion to what is proposed under Option 3 through the use of a raised ramped threshold (wombat crossing) just west of the new intersection in Yathong Street.

Should Option 3B be adopted, this should result in a 56% reduction in the amount of OLF arriving at Point X (1.83 m<sup>3</sup>/s reduced to 0.79 m<sup>3</sup>/s).

#### **OLF From Murray Street**

Based on DRAFT 1 in 100 year ARI flood depth information recently received from WMA (Appendix F), it would appear that Doris Roy Lane, Yabtree Street and Yathong Street act as the OLF path for surface flows in excess of Murray Street's capacity between Murray Street and Edward Street. Refer Appendix E for DRAFT WMA flow depth map.

On this basis, given that this area is already an OLF for flows in-excess of Murray Street's capacity the implementation of Option 3 would be less effective as an OLF path for the site catchment than previously thought.

#### **5.4. Option 4**

Option 4 involves providing an underground OSD system at the corner of proposed new Road 1 and Yathong Street in the landscaped open space area south east of the Mental Health building.

Option 4 is not to be confused with the decentralised OSD systems that have previously been proposed at the various stages of construction for the Hospital's redevelopment, for the purpose of ensuring that the post development site stormwater discharges are the same or less than the existing situation.

Option 4 is aimed at attenuating and over-detaining surface runoff intercepted from the upstream catchment (and Mental Health Building) so that the surface flows arriving at the hospital's main entrance are reduced.

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Associated with the below ground storage would be an inlet structure in Yathong Street to capture the surface flows, as well as the connection of the OSD system to existing drainage in Edward Street some 250m away.

The surface area of the landscaped open space between the Mental Health building and the surround roads is approximately 8,000m<sup>2</sup>.

Based on some preliminary DRAINS modelling and using an assumed Permissible Site Discharge (PSD) of 0.1 m<sup>3</sup>/s, SKM have determined that the required OSD volume in this location is approximately 800 m<sup>3</sup>.

The below ground OSD volume could be achieved using variety of technologies and would have basic dimensions of 40m long x 20m wide by 1.0m deep. Depending on construction cost and maintenance considerations, technologies that could be considered to provide the required storage include:

- Modular plastic system such as Atlantis Cells or Invisible Structures
- Cast in-situ or blockwork reinforced concrete tank
- Modular precast concrete units such as Humes StormTrap
- Precast underground storage tanks or Reinforced Concrete Box Culverts (RCBC) units

Associated with the OSD tank would be a 12m wide x 0.15m deep inlet structure in Yathong Street to intercept the upstream flows. Any roof water downpipes from the Mental Health and adjacent buildings could be piped directly to the OSD tank.

In accordance with the Environmental Sustainable Development (ESD) initiatives to be incorporated into the hospital's redevelopment, an underground rainwater tank could also be provided below or adjacent to the OSD storage to minimise excavation costs.

### **Connection to Council's System**

In a similar fashion to the Minor pipe system discussed in Section 4.1 (Option 1) the construction of an underground OSD tank will require a pipe connection to Council's existing stormwater drainage network in Edward Street.

The Edward Street receiving drainage systems is approximately 250m away and would involve a similar cost to that proposed under Option 1.



### **Reduction in OLF**

As a result of the implementation of Option 4 this should capture the runoff from 1.23ha of the upstream catchment area that would otherwise drain to the Hospital's main entrance (Point X) and discharge this flow to Council's Edward Street drainage network at a rate of approximately 0.1 m<sup>3</sup>/s. Refer Appendix D for Catchment Plan.

The construction of the OSD tank would result in a 67% reduction in the amount of OLF arriving at Point X (1.83 m<sup>3</sup>/s reduced to 0.6 m<sup>3</sup>/s).

### **Option 4 Cost Estimate**

In order to determine an order of magnitude cost for the construction of Option 3 SKM have developed a preliminary Bill of Quantities (BOQ) that can be found at Appendix E.

Based on this preliminary BOQ SKM have estimated the cost to complete Option 4 (including the inlet structure and pipe connection) is in the order of \$260,000.

## **5.5. Loading Dock**

It should be noted that without the implementation of any of the major flood mitigation strategies (Options 2, 3, 3B or 4) there is a risk that the majority of catchment considered under Option 2 will be directed down the loading dock/ service yard entrance road once the upper end of Lewis Street is closed to make way for the Mental Health building.

This will have the effect of forcing the OLF that previously drained down Lewis Drive into the loading dock/ service yard area.

Based on the current construction staging arrangement the loading dock/ service yard area will remain a trapped low point until the latter stages of the project when the Lewis House building is demolished and Yathong Street is extended to Docker Street



## 6. Analysis of Options

Refer to Table 5.1 below for a tabulation of results for the various options and combinations discussed within this report, as well as the cost estimate associated with each option.

Option	0	1	2	3	3B	2 & 3	4
Flow Rate at Point X (m <sup>3</sup> /s)	1.83	1.63	1.02	1.23	0.80	0.42	0.60
% Reduction in Flow at Point X (%)	0	11	44	33	57	77	67
Cost to Implement (\$K)	0	60	88	110	132	198	306

*Table 5.1 – Results Matrix*

SKM note Option 0 represents the do nothing scenario.

SKM also note that Option 1 (in some form) may be required as condition of development approval, as such will not be further discussed within this report.

From inspection of the above table it is clear that the implementation of Options 2 & 3 or Option 4 would result in the greatest reduction in surface runoff arriving at the hospital's main entrance (Point x).

However, it is worthwhile examining the means by which the various options achieve this reduction in flow rate.

### 6.1. Option 2

Option 2 involves the diversion of upstream catchment to Docker Street firstly via the continuation of Yathong Street and then via grassed swale north of Lewis House.

This option involves diverting surface runoff around the hospital's main entrance in westerly direction to Docker Street, which in effect increases the amount of stormwater that Docker Street must convey in the 1 in 100 year ARI storm that it would otherwise.

This may be considered an undesirable result when SKM consider according to the DRAFT WMA flood depth mapping (Refer Appendix F) Docker Street is already inundated in a 1 in 100 year ARI storm.

However, SKM note that Wagga Wagga Council raised no objections to Option 3 the recent WWBH presentation held at Council's offices (3 March 2011).

Option 2 does not achieve a net reduction in the rate of stormwater leaving the Hospital site.

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## **6.2. Option 3**

Option 3 involves the diversion of OLF from upstream catchment away from main hospital entrance through existing doctor's car park to Lewis Drive downstream of the hospital's main entrance.

However, based on DRAFT 1 in 100 year ARI flood depth mapping recently received from WMA it would appear that Doris Roy Lane, Yabtree Street and Yathong Street act as the OLF path for surface flows in excess of Murray Street's capacity between Murray Street and Edward Street. Refer Appendix E for DRAFT WMA flow depth map.

On this basis, given that this area is already an OLF for flows in-excess of Murray Street's capacity, the implementation of Option 3 would less effective as a OLF path for the Hospital site catchment than previously thought, as the OLF path may already be inundated during the 1 in 100 year ARI storm event.

However, SKM note that Wagga Wagga Council raised no objections to Option 3 during the recent WWBH presentation held at Council's offices (3 March 2011).

Option 3 does not achieve a net reduction in the rate of stormwater leaving the Hospital site.

## **6.3. Option 4**

Option 4 involves providing an underground OSD system at the corner of proposed new Road 1 and Yathong Street in the landscaped open space area south east of the Mental Health building.

Of the three main options considered, Option 4 is the only option that will achieve a catchment based outcome by reducing the rate of stormwater leaving the hospital site by means of attenuating the rate of site discharge within the tank.

SKM noted that Wagga Wagga Council raised no objections to Option 4 during the recent WWBH presentation held at Council's offices (3 March 2011).





## 7. Consultation with Council

At the recent WWBH presentation held at City of Wagga Wagga Council's offices (3 March 2011) the Overland Flow Options discussed within this report (Options 2, 3 & 4) were tabled as ways managing the stormwater runoff from the contributing adjacent catchments between the hospital site, Murray Street and Rawson Lane.

Council were generally supportive of the tabled options and raised no objects to their implementation.

Council did however highlight the importance of maintaining an overland flow path along the eastern side of the hospital site. This situation has been addressed from early on in the planning of the redevelopment of the WWBH site, with the proposal to provide a new road along the eastern side of the hospital site (this road has been referred to as Road 1 within this report).

The inclusion of Road 1 will serve to maintain the existing overland flow regime previously performed by Lewis Drive (between Yathong and Tabtree Streets). Road 1 will also provide a space to facilitate the diversion of the existing sewer carrier main currently located in Lewis Drive.

Wagga Wagga Council also mentioned the need to maintain the current status quo by limiting post development site stormwater discharges to that of existing levels. This will be achieved by incorporating On-site Stormwater Detention (OSD) facilities within the various stages of the hospital redevelopment.

For further information on OSD refer SKM - Civil, Traffic & Building Services Concept Report Rev 2.



## 8. Recommendations

Following completion of the assessment SKM would recommend that three main options for dealing with OLF from the adjacent catchment (Options 2, 3 & 4) be further developed during the detailed design phases of the WWBH redevelopment.

The development of these options will benefit from the detail survey and services locating activities that are currently being undertaken and from further consultation with City of Wagga Wagga Council and the operators of the site.

It is likely that the final drainage solution that addresses OLF will incorporate elements of all three main options discussed herein to achieve the best value permanent solution that will benefit the operators of the site, the users of the site and the community at large.

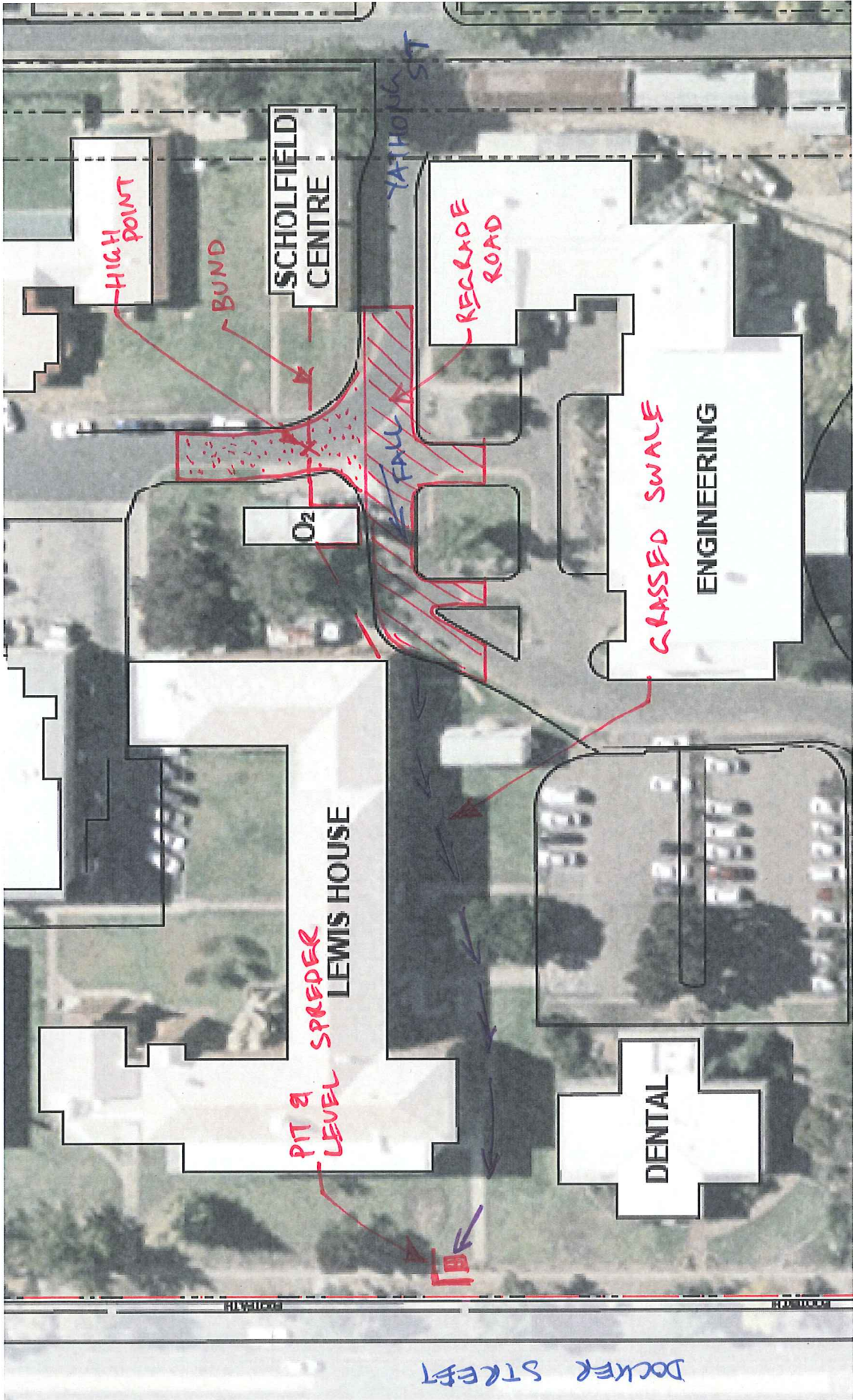
Although being the most expensive option, SKM note that Option 4 will provide a reduction in the amount of surface runoff arriving at the hospital's main entrance as well as a reduction in the rate of stormwater leaving the site; benefiting both the users of the site and the community as a whole.

However, for a 35% reduction in cost when compared to Option 4, Option's 2 & 3 will achieve a similar reduction in the amount of surface runoff arriving at the hospital's main entrance, albeit without the reduction in the rate of stormwater leaving the site.

SKM note the calculations, discussion of options and cost estimates presented herein are preliminary in nature and should not be interpreted as being definitive. Each of the options will require further development during detailed design and will be subject to Council approval and the receipt of a more detailed site survey and services investigation.



## 9. Appendix A – Option 2 Plan



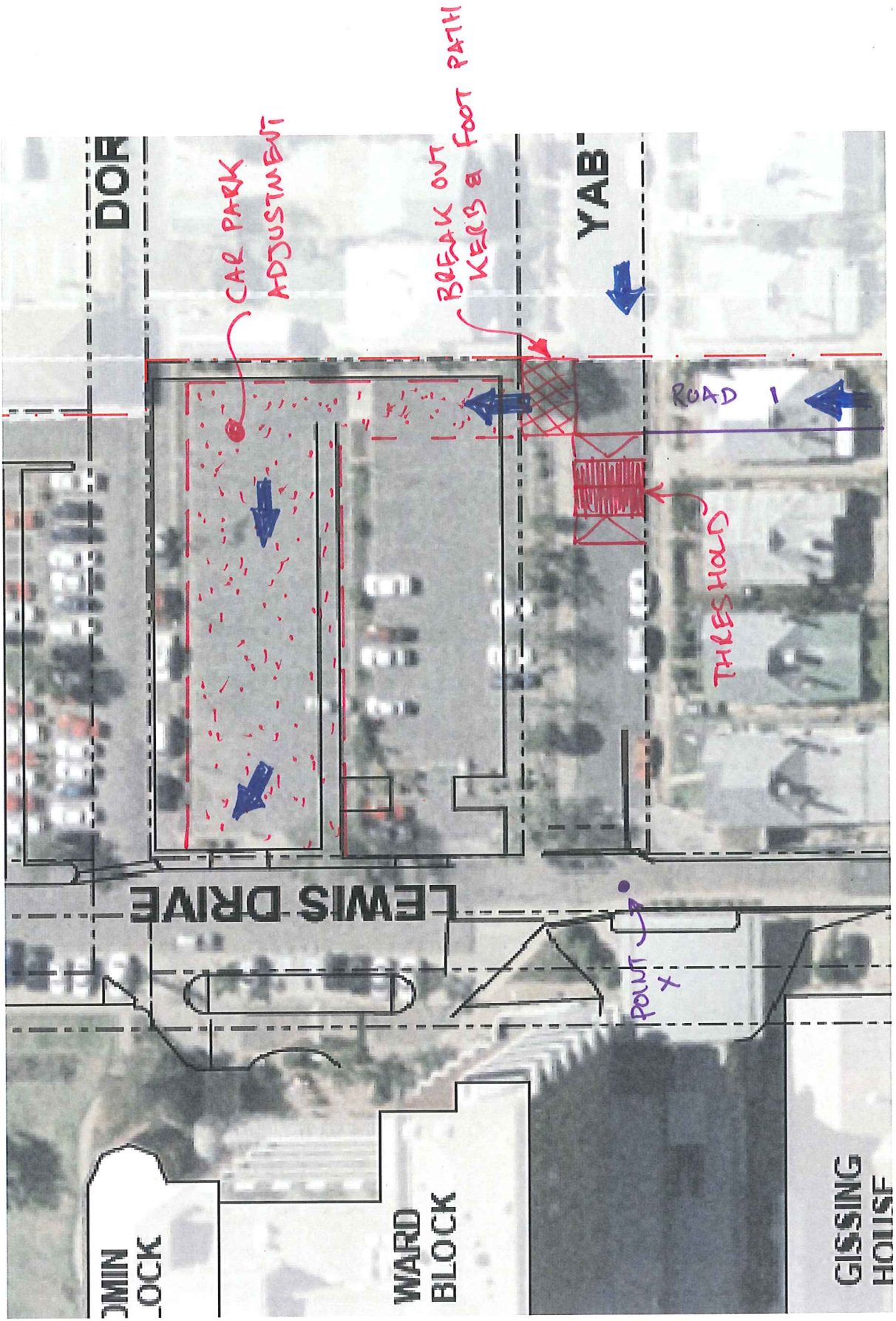
OPTION 2 - PLAN

N.T.S.



## 10. Appendix B – Option 3 Plan





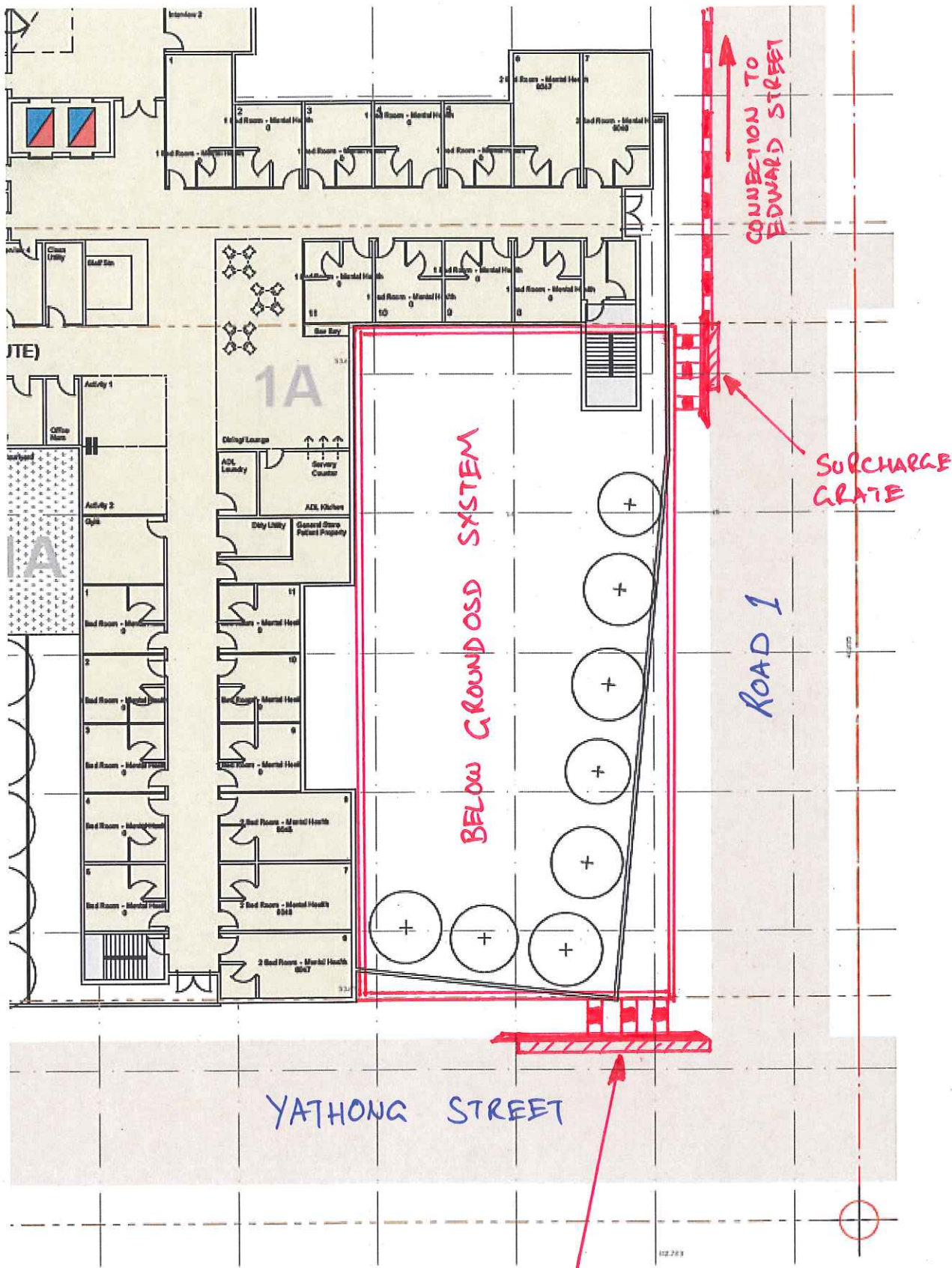
OPTION 3 - PLAN

N.T.S.



## 11. Appendix C – Option A Plan





BELOW GROUND OSD SYSTEM

ROAD 1

YATHONG STREET

CONNECTION TO EDWARD STREET

SURCHARGE GRATE

12m WIDE x 0.15m DEEP INLET STRUCTURE

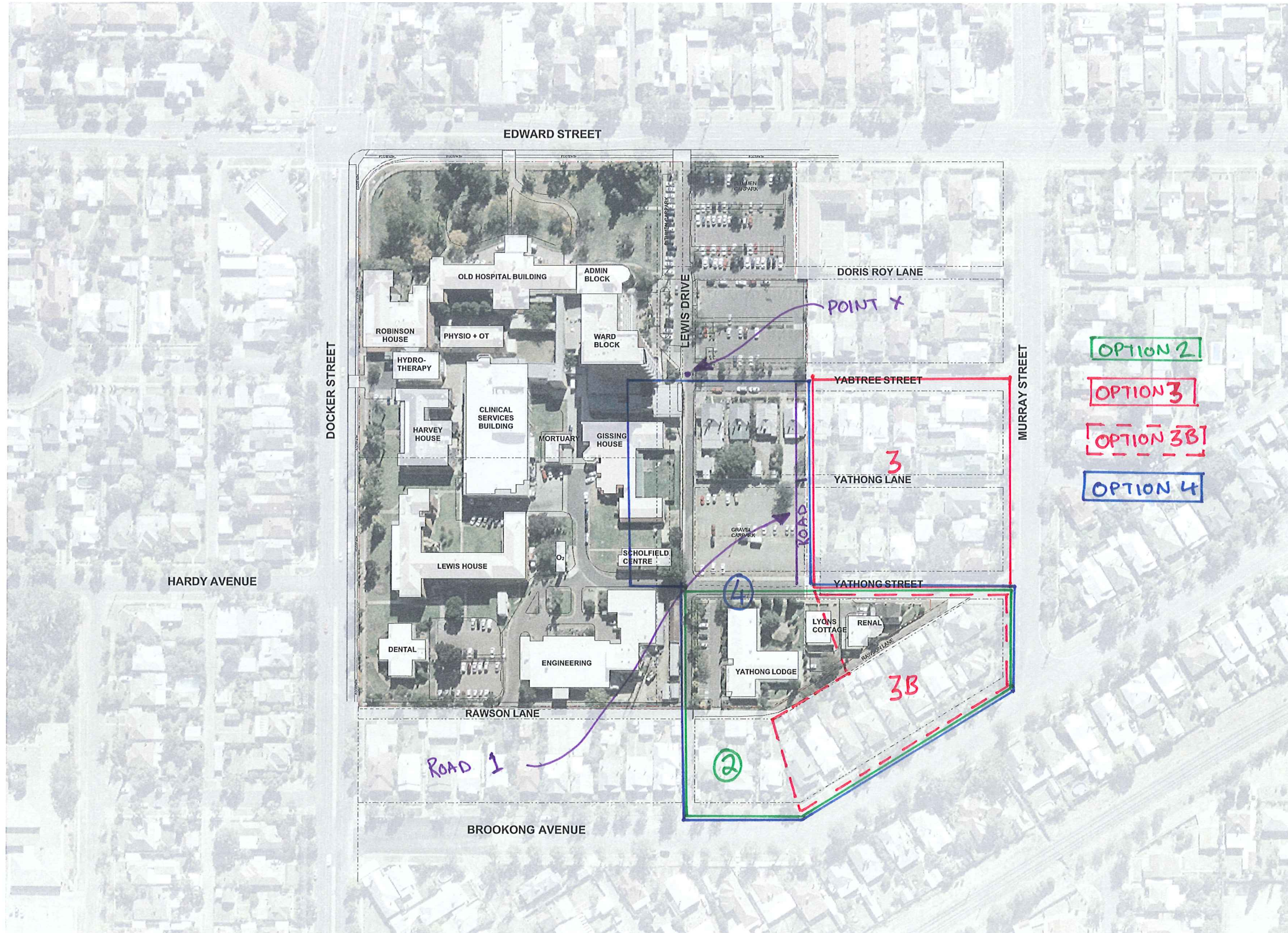
OPTION 4 - PLAN

N.T.S.

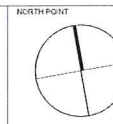


## 12. Appendix D – Catchment Plan





CATCHMENT PLAN



KEY PLAN

REV	DESCRIPTION OF CHANGE	DRAWN	CHECK	DATE

- OPTION 2
- OPTION 3
- OPTION 3B
- OPTION 4

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 Rice Daubney Group Pty Ltd - ACN 10 503 314 913

PROJECT  
**WAGGA WAGGA BASE HOSPITAL**  
 Edward Street  
 Wagga Wagga, NSW, 2650

DRAWING TITLE  
**Existing Site Plan**  
 SCALE: 1:1000 @ A3  
 PROJECT NUMBER: 10509  
 DRAWING NUMBER: DA 01  
 CHECKED: \_\_\_\_\_  
 ISSUE: \_\_\_\_\_





## 13. Appendix E – BOQ Cost Estimate

**SCHEDULE OF QUANTITIES FOR:**

<b>PROJECT TITLE :</b>	<b>NB11292 - Wagga Base Hospital - OLF Path Additional Costs</b>
<b>CONTRACT NO. :</b>	
<b>CONTRACT TITLE :</b>	

# = Items with a Quantity Calculation Sheet

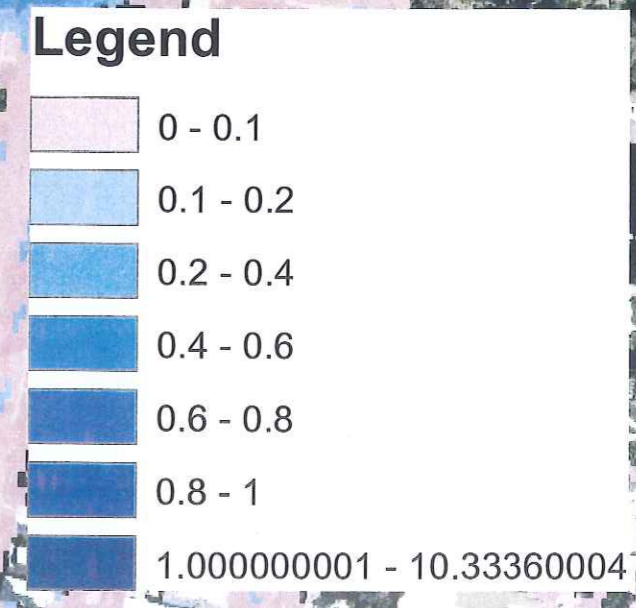
PAY ITEM	DESCRIPTION OF WORK	UNIT	QTY	BUDGET RATE	BUDGET AMOUNT	CONTINGENCY	FINAL AMOUNT
<b>1</b>	<b>CAR PARK ADJUSTMENT FOR OLF</b>						
1.1	Demolition of existing road pavement	m2	1200	15.00	18,000.00		
1.2	General Earthworks (Cut/Fill) (1200sq.m x average 200mm thick)	m3	240	55.00	13,200.00		
1.3	Supply and Place Base (1200sq.m x average 150mm thick)	m3	200	110.00	22,000.00		
1.4	10 mm Nominal Size AC, 30 mm thick	m2	1200	25.00	30,000.00		
	<b>CAR PARK ADJUSTMENT FOR OLF</b>			<b>Sub-Total:</b>	<b>83,200.00</b>	<b>5%</b>	<b>87,360.00</b>
<b>2</b>	<b>INTERSECTION RE-GRADING</b>						
2.1	Demolition of existing road pavement	m2	60	15.00	900.00		
2.2	Demolition of existing footpath and kerb for opening	m2	40	55.00	2,200.00		
2.3	General Earthworks (Cut/Fill) (100sq.m x average 150mm thick)	m3	15	55.00	825.00		
2.4	Supply and Place Base (100sq.m x average 150mm thick)	m3	15	110.00	1,650.00		
2.5	10 mm Nominal Size AC, 30 mm thick	m2	100	25.00	2,500.00		
	<b>INTERSECTION RE-GRADING</b>			<b>Sub-Total:</b>	<b>8,075.00</b>	<b>5%</b>	<b>8,478.75</b>
<b>3</b>	<b>CONCRETE THRESHOLD (FOR DIVERSION OF OLF)</b>						
3.1	Demolition of existing road pavement	m2	90	25.00	2,250.00		
3.2	Concrete Paving						
3.2a	200mm Thick - 25MPa Concrete (15m Long x 6m wide)	m2	90	120.00	10,800.00		
	<b>CONCRETE THRESHOLD (FOR DIVERSION OF OLF)</b>			<b>Sub-Total:</b>	<b>13,050.00</b>	<b>5%</b>	<b>13,702.50</b>
							<b>109,541.25</b> Option 3 Sub total
<b>4</b>	<b>ROAD RE-GRADING FOR OLF PATH</b>						
4.1	Demolition of existing road pavement	m2	340	15.00	5,100.00		
4.2	General Earthworks (Cut/Fill) (340sq.m x average 150mm thick)	m3	50	55.00	2,750.00		
4.3	Supply and Place Base (340sq.m x average 150mm thick)	m3	50	110.00	5,500.00		
4.4	10 mm Nominal Size AC, 30 mm thick	m2	340	25.00	8,500.00		
4.5	Kerb & Gutter	m	100	70.00	7,000.00		
	<b>ROAD RE-GRADING FOR OLF PATH</b>			<b>Sub-Total:</b>	<b>28,850.00</b>	<b>5%</b>	<b>30,292.50</b>
<b>5</b>	<b>RAISE ROAD TO PROTECT LOADING DOCK</b>						
5.1	Demolition of existing road pavement	m2	200	15.00	3,000.00		
5.2	General Earthworks (Cut/Fill) (200sq.m x average 150mm thick)	m3	30	55.00	1,650.00		
5.3	Supply and Place Base (200sq.m x average 150mm thick)	m3	30	110.00	3,300.00		
5.4	10 mm Nominal Size AC, 30 mm thick	m2	200	25.00	5,000.00		
5.5	Kerb & Gutter	m	50	70.00	3,500.00		
5.6	Bund & Associated Works	item	1	10,000.00	10,000.00		
	<b>RAISE ROAD TO PROTECT LOADING DOCK</b>			<b>Sub-Total:</b>	<b>26,450.00</b>	<b>5%</b>	<b>27,772.50</b>
<b>6</b>	<b>DRAINAGE SWALE - 90m</b>						
6.1	Clearing and Grubbing	m2	500	10.00	5,000.00		
6.2	General Earthworks (Cut/Fill) (90m long x 4m wide x 200mm deep)	m3	72	55.00	3,960.00		
6.3	Supply and lay turf (90m long x 5.5m wide)	m2	500	20.00	10,000.00		
6.4	Sub-soil Drain in Swale Invert						
6.4a	100m dia agg. Drain	m	90	20.00	1,800.00		
6.4b	Trench Excavation (90m Long x 300mm wide x 500mm deep)	m3	13.5	80.00	1,080.00		
6.4c	Granular Backfill (90m Long x 300mm wide x 500mm deep)	m3	13.5	120.00	1,620.00		
6.5	Construct SIP and Level spreader over existing Ccl. System	item	1	5,000.00	5,000.00		
	<b>DRAINAGE SWALE - 90m</b>			<b>Sub-Total:</b>	<b>28,460.00</b>	<b>5%</b>	<b>29,883.00</b>
							<b>87,948.00</b> Option 2 Sub total
<b>7</b>	<b>OSD TANK - 40m Long x 20m Wide x 1.0m Deep</b>						
7.1	OSD Tank below building (800 cu.m)	m3	800	250.00	200,000.00		
7.2	Inlet Structure - 12m Long x 150mm high with grate in street	item	1	30,000.00	30,000.00		
7.3	375mm RCP Pipe connection to Edward Street	m	250	200.00	50,000.00		
7.4	Locally Re-grade Road to direct OLF to Inlet Structure						
7.4a	Demolition of existing road pavement	m2	150	25.00	3,750.00		
7.4b	General Earthworks (Cut/Fill) (200sq.m x average 150mm thick)	m3	22.5	55.00	1,237.50		
7.4c	Supply and Place Base (200sq.m x average 150mm thick)	m3	22.5	110.00	2,475.00		
7.4d	10 mm Nominal Size AC, 30 mm thick	m2	150	25.00	3,750.00		
	<b>OSD Tank</b>			<b>Sub-Total:</b>	<b>291,212.50</b>	<b>5%</b>	<b>305,773.13</b>
							<b>305,773.13</b> Option 4 Sub total
<b>TOTAL</b>				<b>\$</b>	<b>479,297.50</b>		<b>700,751.63</b>



## **14. Appendix F – DRAFT WMA 1 in 100 Year ARI Flood Depth Mapping**



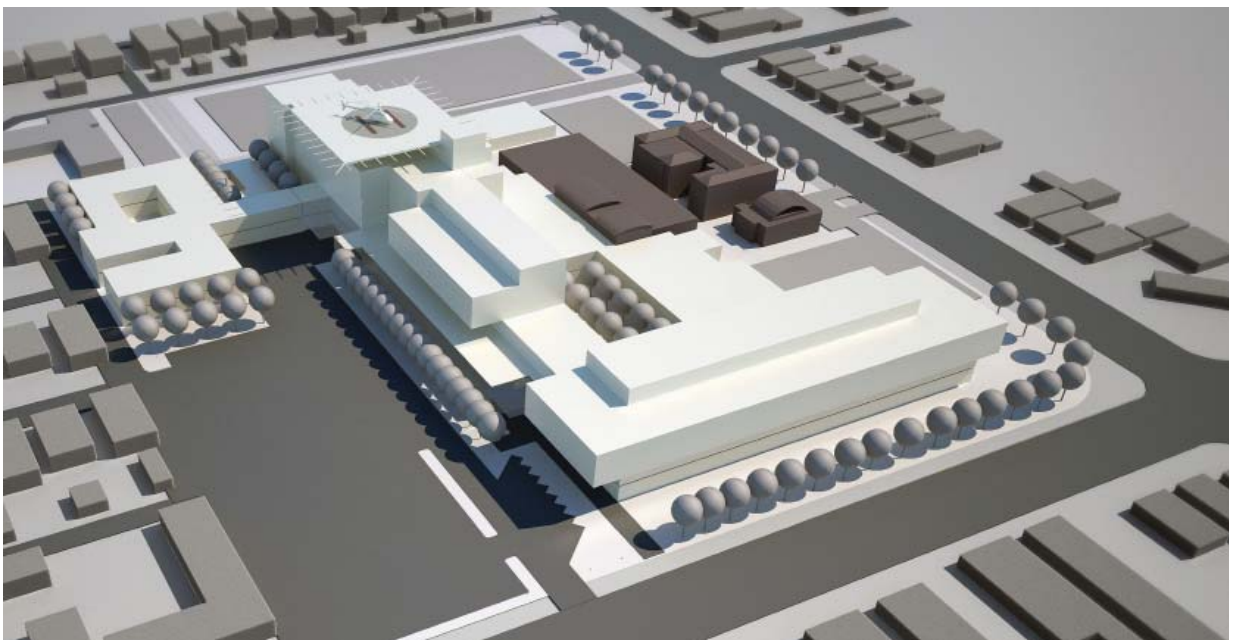
DRAFT





# APPENDIX H

## Geotechnical Report







**AITKEN ROWE TESTING LABORATORIES PTY LTD**

**PROPOSED WAGGA WAGGA BASE HOSPITAL**

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**GREATER SOUTHERN AREA HEALTH SERVICE**

**EDWARD STREET  
WAGGA WAGGA  
NEW SOUTH WALES**

**S07-37  
MARCH 2007**

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## **1. Introduction**

Further to your commissioning to undertake the geotechnical investigation in response to our quotation, Q07-10 dated 22 January 2007, we drilled six boreholes using our utility mounted drill rig & hired trailer mounted drill rig to the depths ranging from 5.0 to 12.0m with Dynamic Cone Penetrometer (DCP) & Standard Penetration Testing (SPT) at six locations at the proposed site for the hospital as shown in the attached plan between 13 February and 19 February 2007.

## **2. Site and Project Description**

The site for the proposed development is located at the existing hospital complex at Edward Street in Wagga Wagga. The site proposed development is generally flat and currently occupied by car parks and hospital buildings.

It is noted that the proposed development involves three stages of construction activities including demolishing the existing buildings and construction of new buildings.

## **3. Site General Topography and Geology**

The general topography of the area is generally flat. The 1:250,000 scale Metallogenic Series Sheet (SI 55-15) for Wagga Wagga indicates that the proposed site area is underlain by Quaternary sediments, comprising gravel, sand, silt and clay, which appeared to be underlain by Wagga Marginal Basin Formation comprising shale, subgreywacke, sandstone and siltstone of Early to Late Ordovician Age. The borehole investigation revealed that the site is mainly underlain by alluvium clay material extending to the borehole termination depth at 12.0m.

## **4. Laboratory Testing**

To confirm and evaluate the results of the fieldwork, laboratory tests were carried out on the representative samples of the subsoil obtained from the boreholes. Laboratory tests including moisture content, linear shrinkage, particle size distribution, pH, Electrical Conductivity (EC), sulphate and chloride content test were carried out on disturbed samples recovered from the boreholes. All the laboratory tests were undertaken at our NATA accredited testing laboratory in Wagga Wagga except sulphate and chloride content test, which were undertaken at Sydney Environmental and Soil Laboratory in Sydney. The laboratory test reports are herewith attached.

## **5. Subsurface Condition**

The borehole investigation revealed that the site for the proposed development is generally underlain by fill materials comprising topsoil, fine to medium grained clayey sandy gravel, low plasticity sandy silty clay & silty clay and fine to medium grained gravelly sand extending to 0.1 to 0.5m overlying natural alluvium deposit comprising low to medium plasticity silty clay and medium to high plasticity silty clays extending to the

borehole termination depths ranging from 5.0 to 12.0m. It should be noted that a 0.3m thick low plasticity gravelly sandy clay material was encountered at 4.5m in BH4. The moisture condition of the underlying natural soil materials was generally greater than plastic limit in the upper profile, equal to and less than plastic limit in the mid profile and greater than plastic limit in the lower profile in BH1 & BH, less than and equal to plastic limit in the upper profile and greater than plastic limit in the lower profile in BH3, BH4, BH5 & BH6 at the time of the investigation. No groundwater or seepage was encountered during the drilling within the investigated depth of 12m. However, it should be noted that variations to the water table level could fluctuate with changes to the season, temperature and rainfall.

The SPT & DCP tests carried out on the underlying materials indicated the natural clay materials to be stiff to very stiff in the upper profile and increases to very stiff to hard consistency with depth.

The borehole logs incorporating SPT results with explanatory note and DCP test reports are herewith attached.

## **6. Groundwater**

The Wagga Wagga area has annual average rainfall of about 550mm. The underlying soil is generally moderately moist to very moist during winter and spring but dry in summer and early autumn. The clay materials encountered on site are considered generally to have low to moderately drainage characteristics which may cause localised water-logging problems if land is used without proper drainage measures incorporated.

The closest bore record located at Gormly Avenue, Hardy Avenue and Meurant Avenue (bore records shown in the booklet of “Urban Salinity Wagga Wagga” by Wagga Wagga City Council (June 2001)) indicated an average watertable depth at 1.1 to 2.1m as recorded in June 1999/2000. However, some bores located in Gormly and Hardy Avenue indicated dry to watertable depth at 5.1m measured at the same time as above. It should be noted that Wagga Wagga City Council installed de-watering bores in the area in 1999 to assist lower the watertable and reduce the damaging affects of salty, waterlogged soil in the area.

Groundwater (and seepage) was not detected in all boreholes within the investigated depth of 12.0m in the recent borehole investigation at the subject site and the boreholes were found dry on completion of drilling investigation. However, it should be noted that variations to the water table level could fluctuate with changes to the season, temperature and rainfall.

## **7. Site Preparation and Earthworks**

It is noted that some of the existing buildings and trees need to be demolished and removed for the new development. The topsoil and fill materials encountered on site where the boreholes were drilled are considered not suitable for use as subgrade or



foundation of any structure and therefore needs to be removed. Stripping of topsoil and fill depth is varied across the site being from 0.1 to 0.5m.

We recommend complete removal of tree root system if located in the development area and old footing system of the demolished building and allow the ground to achieve equilibrium moisture condition throughout after the removal of existing buildings and tree root system. The areas where trees and old footing system were removed shall be backfilled with appropriate approved material and compacted as specified below. The excavated fill excluding topsoil and natural clays can be used for backfilling if they are not allowed to become too wet or dry in spoiled heaps. The general objective of the backfilling procedure is to restore the ground surface with a minimum risk of future settlement. Therefore, the moisture content and density of the backfill after compaction, should be as near as possible to that of the undisturbed natural clay materials. Compaction of the backfill should be performed in layers not exceeding 150mm in compacted thickness to no less than 98% of Standard Maximum Dry Density.

In general, the following site preparation is recommended once the topsoil and existing buildings and trees are removed and cuts if required are undertaken.

- Proof roll the exposed subgrade using a minimum of 10 passes of an 8 tonne dead weight roller to detect any soft or heaving areas.
- Any soft or heave areas should be excavated down at least 0.5m and backfilled with appropriate approved materials, compacted in 150mm thick layers to the equivalent density of minimum 98% of Standard Maximum Dry Density.
- Any area of exposed subgrade, which exhibits shrinkage cracking and does not require re-compaction, should be watered and rolled until the shrinkage cracks do not reappear. During this undertaking, care should be exercised to ensure the surface does not become soft.

Subsequent to the above subgrade preparation, clean approved fill preferably granular materials can be placed as required and compacted to the compaction requirements as given above. The degree of compaction of any fill placement should be verified by a NATA accredited testing authority to ensure that it achieves specified density. As the fill is to be laid on the silty clay formation if required, the compaction shall be carried out with minimum amount of water required to achieve the required density. The boundaries of the fill areas should be sloped to a maximum batter of 1 Vertical to 2.0 Horizontal.

The structural fill supporting any structural element of the structures shall be prepared in such a way that it achieves a minimum of 100% of Standard Maximum Dry Density in every 150mm thick compacted layers and certified by a relevant NATA accredited testing laboratory for which a safe allowable bearing pressure of 100kPa may be adopted, provided proper drainage measures are incorporated in the design, during and after the construction.

## 8. Excavation and Support

It is not known whether the excavation is involved for the construction of new development. However, based upon the subsurface conditions encountered in the boreholes, it is expected that the materials to be excavated will comprise layers of topsoil, fill and natural clay materials depending on the extent of the proposed cut if it is required. It is therefore anticipated that all the required earthworks within soil material should be capable of being performed by conventional earthmoving plant such as scrapers, dozers, rollers and backhoes or excavator.

It would be essential to maintain drainage of the site area during any earthworks to prevent rainfall from adversely affecting the materials such that they become unsuitable for direct re-use. It should be noted that trafficability in the silty clay materials for wheeled vehicles can be expected to be slightly difficult during and following rainfall.

The temporary batter slopes of 1(V): 1(H) is recommended for unsupported cuts of up to 3.0m depth within natural clay materials.

The followings are recommended for permanent batter slopes for unsupported cuts of up to 3.0m depth in the various materials:

- Alluvium clay soils 1(V):2(H)

The permanent batter slope of the unsupported structural fill of up to 3.0m height should not exceed 1(V):2(H).

If vertical cut with equivalent retaining wall design option is to be adopted, the following characteristic earth pressure coefficients and subsoil parameters may be adopted for the design of the wall.

	<b>Bulk Unit Weight (kN/m<sup>3</sup>)</b>	<b><u>Earth Pressure Coefficients</u></b>		
		<b><u>Active (K<sub>a</sub>)</u></b>	<b><u>At rest (K<sub>o</sub>)</u></b>	<b><u>Passive (K<sub>p</sub>)</u></b>
Natural Clays	19.5	0.3	0.5	3.0

Appropriate factor of safety should be applied in the design of the walls. The walls should be designed to withstand full hydrostatic pressure unless special measures are taken to introduce complete and permanent drainage of the ground behind the wall.

It should be noted that surcharge loadings should not be placed within a distance equivalent to the excavation depth from the crest of a batter cut or fill.

Care would be required to ensure excavation bases are cleaned of loosened and remoulded debris as most would be exposed to clay subgrade. The exposed clay subgrade base should be proof rolled to detect any soft or heaving areas. Any soft or heave areas should be removed. The excavation base should not be left exposed for prolonged periods

as deterioration of bases may occur when subjected to wetting and drying processes. Care should be exercised during construction to ensure water ponding does not occur in the excavations since this may lead to subsequent softening of the founding materials.

Although no groundwater seepage was observed within the investigated depth in the boreholes during the site investigation, it would be prudent to expect some seepage, even at shallower depth, particularly if excavation is carried out after periods of extreme rainfall. Any such seepage should be readily controllable by conventional sump and pump dewatering systems installed at the base of the excavation.

The excavated clay materials can be used as common fill provided moisture is conditioned accordingly.

It should be noted that, no matter what method of excavation support is used, some ground displacement will occur within and immediately surrounding the excavation. We recommend that the risk of structural damage to nearby buried services as a result of such excavation-induced movements, be carefully evaluated. We believe it is unlikely that excavation induced movements will significantly affect structures situated back from the excavation perimeter a distance greater than the excavation depth.

## 9. Footing Design and Foundation

Based on the field and laboratory investigation, the site shall be classified as “**M-D – Moderately reactive deep drying**” in accordance with the Australian Standard AS 2870. The footings may be designed similar to those recommended for “Class M-D” in the Standard and shall be founded below topsoil and fill into natural ground or prepared subgrade as specified above. The shallow footings such as deep edge beam or pad and strip footings may be adopted and they may be proportioned for a maximum allowable bearing pressure of 150kPa and a subgrade reaction modulus (k) of 50kPa/mm founded on natural stiff to very stiff clays at or below 0.3 to 0.5m depth from the existing ground surface (Refer Borehole logs) provided proper drainage measures are incorporated during and after the construction.

The bored and cast-in-place pile footing system, if adopted, should be taken into the very stiff to hard silty clay and the design parameters given in Table A below may be adopted.

**Table A: Geotechnical Design Parameters**

BH Location	Depth (m)	Undrained Shear Strength (kPa) - $C_u$	Drained Shear Strength (kPa) - $C'$	Angle of Friction (Degree) - $\phi$	Allowable Base Capacity, $Q_b$ (kPa)	Allowable Skin Friction, $Q_s$ (kPa)
BH1	0.3 – 1.0	50*	20*	24°*	150	15
	Below 1.0m	150*	60*	21°*	450	50
BH2	0.3-1.2	50*	20*	24°*	150	15
	Below 1.2m	150*	60*	21°*	450	50
BH3	0.4 – 0.9	50*	20*	24°*	150	15
	Below 0.9m	150*	60*	21°*	450	50
BH4	0.5 – 1.0	50*	20*	24°*	150	15
	Below 1.0m	150*	60*	21°*	450	50
BH5	0.3 – 1.0	50*	20*	24°*	150	15
	Below 1.0m	150*	60*	21°*	450	50
BH6	0.5 – 0.9	50*	20*	24°*	150	15
	Below 0.9m	150*	60*	21°*	450	50

Note: \* - These values are estimated from the field SPT & DCP test results and laboratory tests completed.

The adhesion in the first 1.5m within clay material should be ignored. If fill material is to be placed below footing level, it may affect the consideration of negative skin friction depending on how the fill is placed. If it is placed initially and the piles placed following after redistribution of stresses due to its placement, then there may not have any problem. However, if the fill is placed and the piles installed before the redistribution of stresses in the lower natural materials has occurred, then there may have the problem of additional stresses on the pile and hence negative skin friction considerations.

The bases of the pile shafts and footings must be clean and free of soft and loose material and the sides of bored pile holes where side adhesion is adopted must be free of smear prior to concreting. To achieve this, bases of bored pile holes should be cleaned using a cleaning bucket and the sides of the pile holes should be roughed to remove the smear zone associated with drilling, or the side adhesion values given above Table A should be reduced by 50%.

With respect to skin friction, the short-term is generally based on the undrained shear strength condition, that is, the  $\Phi = 0$  condition and  $c = c_u$ . The adhesion value is obtained



by applying the appropriate reduction factor to  $c_u$ . These reductions are related to outside influences, such as construction procedures and environmental considerations, which necessitate a reduction in adopted short-term values. The affects of smearing on the shaft have to be considered for bored piles in clays. Smearing may lead to a reduction in side shear, the degree of which may be dependent on the degree of smearing during construction, despite the fact that some of the remoulded strength may be regained over time. Dusting may also be a problem where dry or drier clays are encountered in that it may prevent full contact between the pile shaft and side wall such that full adhesion is not mobilised, and, it may become a smear interface at a future time if groundwater or surface runoff permeates into the zone between the shaft and shaft wall. It may be necessary to include specific construction conditions into the construction procedures depending on the levels of side shear that are required. These conditions may include the cleaning and removal of dust and/or smear from the pile excavations prior to placement; supervision, inspection and certification of the pile excavations prior to placement by experienced geotechnical engineering staff; and, drainage measures designed to maintain a satisfactory moisture regime in the clays.

The footing excavations should not be left exposed for prolonged periods as deterioration of footing bases may occur when subjected to wetting and drying processes. Care should be exercised during construction to ensure water ponding does not occur since this may lead to subsequent softening of the founding materials. Care shall be required to ensure footing excavation bases are cleaned of loosened and remoulded debris in the clay subgrade. Groundwater seepage may be encountered during the footing construction if construction is carried out after prolonged period of continuous rainfall. Any such seepage should be readily controllable by conventional sump and pump dewatering systems installed at the base of the footing excavation.

If water ponds in the base of footings or the base founding material is affected by moisture ingress, then this material should be excavated to expose clay subgrade, which has not been exposed to moisture, and pour the concrete immediately. If a delay in pouring concrete is anticipated, then a blinding layer should be placed over the base of the footing to prevent softening of the footing base.

## **10. Settlement**

We envisage that the total settlements should be minimal provided the design is made within the allowable design parameters recommended and the maintenance of the structures and proper drainage measures are adopted around the structures.

Shallow footings proportioned in accordance with design parameters recommended in Table A are estimated to have load induced settlements of no greater than 0.75% of the width of the footing.

Pile foundation designed in accordance with design parameters recommended in Table A are estimated to have load induced settlements of no greater than 0.75% of the diameter of the piles. It is anticipated that differential settlement is likely to be less than 50% of the

total settlement provided the footings are designed in accordance with the design parameters given in Table A.

It should be noted that although the aforementioned design parameters given in Table A are in terms of allowable limit, their use must be checked against differential settlement, using deformation characteristics values of the underlying clay material given in Table B, which should not exceed 50% of the total settlement.

**Table B Deformation Characteristics**

BH Location	Depth (m)	Bulk Density (kN/m <sup>3</sup> )	Elastic Modulus (Undrained) (MPa) - $E_u$	Elastic Modulus (drained) (Mpa) - $E'$	Coefficient of Volume Compressibility (m <sup>2</sup> /MN) - $m_v$
BH1	0.3 – 1.0	19.5*	2.5*	2.0*	0.07*
	Below 1.0m	19.5*	7.5*	6.5*	0.07*
BH2	0.3-1.2	19.5*	2.5*	2.0*	0.07*
	Below 1.2m	19.5*	7.5*	6.5*	0.07*
BH3	0.4 – 0.9	19.5*	2.5*	2.0*	0.07*
	Below 0.9m	19.5*	7.5*	6.5*	0.07*
BH4	0.5 – 1.0	19.5*	2.5*	2.0*	0.07*
	Below 1.0m	19.5*	7.5*	6.5*	0.07*
BH5	0.3 – 1.0	19.5*	2.5*	2.0*	0.07*
	Below 1.0m	19.5*	7.5*	6.5*	0.07*
BH6	0.5 – 0.9	19.5*	2.5*	2.0*	0.07*
	Below 0.9m	19.5*	7.5*	6.5*	0.07*

Note: \* - These values are estimated from the field SPT & DCP test results and Geotechnical textbooks.

## 11. Soil Aggression, Salinity & Acidity

The pH values on the underlying clay material were recorded above 6.9 and Electrical Conductivity (EC) of the material noted to be ranging from 29 to 41 $\mu$ S/cm. The sulphate content of the tested clay material noted to be ranging from 7210 to 10370 mg/kg and chloride content noted to be ranging from 370 to 550 mg/kg.

The booklet “Urban Salinity Wagga Wagga” by Wagga Wagga City Council (June 2001) does not show any indication in respect to salinity in its “Potentially Saline Land Map”

for the proposed development site area but it indicates “potentially saline” to “saline outbreak” in the surrounding southwest, south and southeast areas.

To assess salinity concentrations and their likely influence on common crops, the EC units are multiplied by an appropriate factor to convert to  $EC_e$  (electricity conductivity by saturation extract) in accordance with the findings of Slavich & Petterson of (former) Department of Land and Water Conservation (1997). The  $EC_e$  values of the soil encountered at the site are considered “non-saline” in aspect of the plant or vegetation tolerance of salinity.

The  $EC_e$  values recorded are considered low risk for the corrosiveness of the concrete footings and structures. It should however be noted that there is no specific EC level at which urban salinity is designated a problem. The severity will vary depending on a complex range of parameters such as the amount of water available to mobilize the salt, salt tolerance of the vegetation, type of building materials used, and time factor. The impact of salt on building materials is also dependent on the continued wetting and drying process, so the rate of evaporation is a vital factor. It should be noted that no visible sign of salinity indicators such as white staining, or efflorescence, where salt crystal have accumulated, “tide markings”, destruction of mortar of the brickwork and, metal corrossions were noted in the existing buildings at the development area.

It should also be noted that a combination of highly acidic pH, high chloride and sulphate levels could contribute to a soil being highly corrosive. The test results confirm a generally alkaline pH soil and therefore the soil are unlikely to be aggressive to steel structures. The sulphate levels in the soil indicated high which would be moderately to mildly aggressive towards concrete.

It is therefore may affect the long-term durability of concrete and steel in contact with these soils. The designer is referred to the Cement and Concrete Association of Australia Technical Note 57 for any special precautionary measures required for buried concrete and steel into the clay materials.

It should be noted that the salinity is caused by rising watertable and one of the factors contributes to a rising watertable is excessive garden watering. It is therefore recommended to grow native salinity tolerant plants, which require less consumption of water and use the water wisely with a sprinkler and, proper drainage channels are maintained for the surface run-off once the development is completed.

## **12. Seismic Site Factor**

The site factor in accordance with Section 2.4 of AS1170.4-1993 “Minimum Design Loads on Structures, Part 4: Earthquake Loads”, is assessed to be 1.0.

### 13. General Comment

Occasionally, the subsurface soil conditions in the completed boreholes may be found different (or may be interpreted to be different) from those expected. This can also occur with groundwater conditions, especially after climatic changes. If such differences appear to exist, we recommend that you immediately contact us.

Should you have any queries, please do contact us.

Yours truly,



**Tin Maung**  
**Senior Geotechnical Engineer**

Attachments:

- Addendum
- Plan showing Borehole locations
- Borehole log with explanatory note
- Dynamic Cone Penetrometer test report
- Laboratory test reports

## ADDENDUM

### **LIMITS OF INVESTIGATION**

The recommendations made in this report are based on the assumption that the test results are representative of the overall subsurface conditions. However, it should be noted that even under optimum circumstances, actual conditions in some parts of the building site may differ from those said to exist, because no geotechnical engineer, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal all that is hidden by earth, rock and time.

The client should also be aware that our recommendations refer only to our test site locations and the ground level at the time of testing.

The recommendations in this report are based on the following: -

- a) The information gained from our investigation.
- b) The present "state of the art" in testing and design.
- c) The building type and site treatment conveyed to us by the client.
- d) Historical Information

Should the client or his agent have omitted to supply us with the correct relevant information, or make significant changes to the building type and/or building envelope, our report may not take responsibility for any consequences and we reserve the right to make an additional charge if more testing is necessary.

Notwithstanding the recommendations made in this report, we also recommend that whenever footings are close to any excavations or easements, that consideration should be given to deepening the footings.

Unless otherwise stated in our commission, any dimensions or slope direction and magnitude should not be used for any building costing calculations and/or positioning. Any sketch supplied should be considered as only an approximate pictorial evidence of our work.



## AITKEN ROWE TESTING LABORATORIES PTY LTD

Borehole No.: **BH1**

Sheet No.: 1 of 1

Ground Level: Existing  
Method: Auger Drilling with TC Bit

Date: 13/02/2007

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/ Rel. Density	Sample		Lab. Test	Remarks & Field Records
					Type	No.		
	FILL: TOPSOIL: Sandy SILT; dark brown		M	F-St.				FILL: Appears to be poorly to moderately compacted
GP	FILL: Clayey Sandy GRAVEL; fine to medium grained, yellow brown			MD	D	1A		
CI	Silty CLAY; medium plasticity, orange brown, trace sand	0.5	MC>PL	St.	D	1B		NATURAL - Alluvium
CL-CI	Silty CLAY; low to medium plasticity, brown, trace sand				D	1C		
CI	Silty CLAY; medium plasticity, orange, trace sand	1.0		VSt.-H				
					D	1D		
CL-CI	Silty CLAY; low to medium plasticity, orange brown, trace sand	1.5	MC <sub>≤</sub> PL		D	1E		
CL	Silty CLAY; low plasticity, orange trace sand	2.0	MC<PL		D	1F		
CI-CH	Silty CLAY; medium to high plasticity, mottled yellow brown, trace sand	2.5	MC <sub>≥</sub> PL		D	1G		
		3.0						
CI	Silty CLAY; medium plasticity, brown, trace sand, trace medium to coarse gravel	3.5	MC>PL		D	1H		
		4.0						
CI-CH	Silty CLAY; medium to high plasticity, light brown, trace sand	4.5			D	1I	19.3	
		5.0						
	End of Borehole (BH1) @ 5.0m							
Registration No.: S07-37 Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga Client: Greater Southern Area Health								Logged By: J.G.
								Scale: As shown
								Groundwater: Dry on completion

# AITKEN ROWE TESTING LABORATORIES PTY LTD

Borehole No.: **BH2**

Sheet No.: 1 of 1

Ground Level: Existing

Date: 13/02/2007

Method: Auger Drilling with TC Bit

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/Rel. Density	Sample		Lab. Test	Remarks & Field Records
					Type	No.		
	FILL: TOPSOIL: Silty SAND; brown		M	L				FILL: Appears to be poorly to moderately compacted
CL	FILL: Sandy Silty CLAY; low plasticity, brown		MC<PL	St.	D	2A		
CP	FILL: Clayey Sandy GRAVEL; fine to medium grained, yellow brown		M	MD	D	2B		
CI	Silty CLAY; medium plasticity, orange brown, trace sand	0.5	MC>PL	St.-VSt.	D	2C		NATURAL - Alluvium
		1.0						
CI	Silty CLAY; medium plasticity, red brown, trace sand	1.5		VSt.- H				
CI-CH	Silty CLAY; medium to high plasticity, orange trace sand	2.0	MC<PL		D	2D		
		2.5						
CI	Silty CLAY; medium plasticity, red brown, trace sand	3.0	MC<PL		D	2E		
		3.5						
CI-CH	Silty CLAY; medium to high plasticity, brown, trace sand trace coarse grained gravel	4.0	MC>PL		D	2F		
		4.5						
CI-CH	Silty CLAY; medium to high plasticity, light brown, trace sand	5.0			D	2G		
	End of Borehole (BH2) @ 5.0m							
Registration No.: S07-37 Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga Client: Greater Southern Area Health								Logged By: J.G. Scale: As shown Groundwater: Dry on completion

**AITKEN ROWE TESTING LABORATORIES PTY LTD**

Borehole No.: **BH3**

Sheet No.: 1 of 3

Ground Level: Existing  
Method: Auger Drilling with TC Bit

Date: 13/02/2007

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/ Rel. Density	Sample		Lab. Test	Remarks & Field Records
					Type	No.		
GC	Clay Sandy GRAVEL; fine to medium grained, light brown, trace sand/gravel		D	MD	D	3A	M.C. %	FILL: Appears to be moderately compacted
CL	Silty CLAY; low plasticity, brown, trace sand and gravel		MC<PL	St.		3B		
CI	Silty CLAY; medium plasticity, brown red, trace sand, trace gravel	0.5		VSt.-H	D	3C		NATURAL - Alluvium
CI	Silty CLAY; medium plasticity, red brown, trace sand, trace gravel	1.0			D	3D		
CI	Silty CLAY; medium plasticity, red brown, trace sand, with gravel	1.5	MC≥PL		D	3E		
CL-CI	Silty CLAY; low to medium plasticity, mottled yellow brown, trace sand and gravel	2.0	MC=PL		D	3F		
CI	Silty CLAY; medium plasticity, red brown, trace sand	3.0	MC≥PL					
CI	Silty CLAY; medium plasticity, red brown, trace sand	3.5			D	3G		
CI	Silty CLAY; medium plasticity, red brown, trace sand	4.0						
CI	Silty CLAY; medium plasticity, red brown, trace sand	4.5						
CL-CI	Silty CLAY; low to medium plasticity, redish brown, trace coarse sand, trace gravel	5.0	MC>PL		D	3H		
CI-CH	Silty CLAY; medium to high plasticity, brown red with sand trace gravel	5.5			D	3I		

Registration No: SD/37  
 Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga  
 Client: Greater Southern Area Health

Logged By: J.G.  
 Scale: As shown  
 Groundwater: Dry on completion

**AITKEN ROWE TESTING LABORATORIES PTY LTD**

Borehole No.: **BH3**

Sheet No.: 2 of 3

Ground Level: Existing  
Method: Auger Drilling with TC Bit

Date: 13/02/2007

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/ Rel. Density	Sample		Lab. Test	Remarks & Field Records
					Type	No.		
CI-CH	Silty CLAY; medium to high plasticity, brown red, with sand, trace gravel	6.0	MC>PL	VSt.-H				
CI-CH	Silty CLAY; medium to high plasticity, brown red with sand with medium coarse gravel				D	3J		
CI-CH	Silty CLAY; medium to high plasticity, brown red with sand trace gravel	6.5						
		7.0						
		7.5						
		8.0						
CI-CH	Silty CLAY; medium to high plasticity, yellow brown, trace sand and gravel	8.5			D	3K		
		9.0						
		9.5						
		10.0						
		10.5						
		11.0						

Registration No.: S07-37

Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga

Client: Greater Southern Area Health

Logged By: J.G.

Scale: As shown

Groundwater: Dry on completion

**AITKEN ROWE TESTING LABORATORIES PTY LTD**

Borehole No.: **BH3**

Sheet No.: 3 of 3

Ground Level: Existing  
Method: Auger Drilling with TC Bit

Date: 13/02/2007

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/ Rel. Density	Sample		Lab. Test	Remarks & Field Records
					Type	No.		
CI-CH	Silty CLAY; medium to high plasticity, yellow brown, trace sand and gravel		MC<PL	VSt.-H				
CH	Silty CLAY; high plasticity, trace sand, red brown	11.5			D	3L		
		12.0						
	End of Borehole (BH3) @ 12.0m	12.5						
		13.0						
		13.5						
		14.0						
		14.5						
		15.0						
		15.5						
		16.0						
Registration No.: S07-37 Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga Client: Greater Southern Area Health								Logged By: J.G. Scale: As shown Groundwater: Dry on completion



## AITKEN ROWE TESTING LABORATORIES PTY LTD

Borehole No.: **BH4**

Sheet No.: 1 of 1

Ground Level: Existing  
Method: Auger Drilling with TC Bit

Date: 13/02/2007

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/Rel. Density	Sample		Lab. Test	Remarks & Field Records
					Type	No.		
	FILL: TOPSOIL: Silty SAND; fine yellow		D	L				FILL: Appears to be poorly compacted
SW	FILL: Gravelly SAND; fine to medium grained, yellow brown	0.5		M-D	D	4A		FILL: Appears to be moderately compacted
CL	Silty CLAY; low plasticity, orange trace sand		MC<PL	VSt.-H	D	4B		NATURAL - Alluvium
CI	Silty CLAY; medium plasticity, yellow orange, trace sand	1.0			D	4C		
CI	Silty CLAY; medium plasticity, yellow, trace sand	1.5						
		2.0						
		2.5						
CI-CH	Silty CLAY; medium to high plasticity, brown, trace sand	3.0			D	4D		
CI-CH	Silty CLAY; medium to high plasticity, yellow, trace sand	3.5						
		4.0						
CI-CH	Silty CLAY; medium to high plasticity, yellow trace sand with fine gravel	4.5			D	4E		
CL	Gravelly Sandy CLAY; low plasticity, yellow brown							
					D	3F		
CI	Silty CLAY; medium plasticity, red brown with sand	5.0	MC≥PL		D	3G		
	End of Borehole (BH4) @ 5.0m							
Registration No.: S07-37 Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga Client: Greater Southern Area Health								Logged By: J.G.
								Scale: As shown
								Groundwater: Dry on completion

## AITKEN ROWE TESTING LABORATORIES PTY LTD

Borehole No.: BH5

Sheet No.: 1 of 3

Ground Level: Existing  
Method: Auger Drilling with TC Bit

Date: 13/02/2007

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/Rel. Density	Sample		Field Test	Remarks & Field Records
					Type	No.		
	FILL: TOPSOIL: Sandy SILT; brown		D	L-MD				FILL: Appears to be poorly to moderately compacted
SM	FILL: Clayey Silty SAND; fine to medium grained, brown							
CL-CI	Silty CLAY; low to medium plasticity, brown, trace sand	0.5	MC<PL	VSt.-H				NATURAL - Alluvium
CL-CI	Silty CLAY; low to medium plasticity, orange brown, trace fine sand	1.0		H			1.0	
		1.5			D	5A	SPT 15,32,10/30 mm N>42	
		2.0					1.33	
		2.5					2.5	
CL-CI	Silty CLAY; low to medium plasticity, mottled yellow brown / red brown with fine sand	3.0			D	5B	SPT 35/150mm	
		3.5					2.65	
CL-CI	Silty CLAY; low to medium plasticity, mottled yellow brown / red brown with fine sand	4.0	MC>PL		D	5C		
		4.5					4.0	
CI	Silty CLAY; medium plasticity, orange brown, with sand trace gravel	5.0	MC≤PL		D	5D	SPT 14,25 26/115mm N>51	
		5.5					4.415	
Registration No.: S07-37 Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga Client: Greater Southern Area Health								Logged By: J.G.
								Scale: As shown
								Groundwater: Dry on completion

**AITKEN ROWE TESTING LABORATORIES PTY LTD**

Borehole No.: **BH5**

Sheet No.: **2 of 3**

Ground Level: Existing  
Method: Auger Drilling with TC Bit

Date: 13/02/2007

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/Rel. Density	Sample		Field Test	Remarks & Field Records
					Type	No.		
CI	Silty CLAY; medium plasticity, mottled orange yellow with sand trace gravel	6.0	MC<PL	H	D	5E	5.5 SPT 18,27/150	
							5.80	
							7.0	
CI-CH	Silty CLAY; medium to high plasticity, orange brown, trace sand trace gravel	7.5	MC<PL		D	5F	SPT 18,18/100	
							7.25	
							8.5	
CL	Silty CLAY; low plasticity, orange trace gravel , trace sand	9.0	MC>PL		D	5G	SPT 7,13,18 N=31	
							8.95	
							10.0	
CI	Silty CLAY; medium plasticity, red orange with sand with gravel	10.5		VSt.	D	5H	SPT 6,11,12 N=23	
							10.45	

Registration No.: S07-37  
Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga  
Client: Greater Southern Area Health

Logged By: J.G.  
Scale: As shown  
Groundwater: Dry on completion

**AITKEN ROWE TESTING LABORATORIES PTY LTD**

Borehole No.: **BH5**

Sheet No.: 3 of 3

Ground Level: Existing  
Method: Auger Drilling with TC Bit

Date: 13/02/2007

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/Rel. Density	Sample		Field Test	Remarks & Field Records
					Type	No.		
CI	Silty CLAY; medium plasticity, red orange, with sand and gravel	11.5	MC>PL	VSt.			11.5	
CI-CH	Silty CLAY; medium to high plasticity, mottled redd grey with sand, trace fine gravel		MC<PL	H	D	5I	SPT 11,23 23/100mm N>46	
	End of Borehole (BH5) @ 11.9m	12.0					11.90	
		12.5						
		13.0						
		13.5						
		14.0						
		14.5						
		15.0						
		15.5						
		16.0						
		16.5						

Registration No.: S07-37  
Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga  
Client: Greater Southern Area Health

Logged By: J.G.  
Scale: As shown  
Groundwater: Dry on completion

# AITKEN ROWE TESTING LABORATORIES PTY LTD

Borehole No.: **BH6**

Sheet No.: 1 of 1

Ground Level: Existing

Date: 13/02/2007

Method: Auger Drilling with TC Bit

USCS Symbol	Description	Depth (m)	Moisture Condition	Consistency/ Rel. Density	Sample		Lab. Test	Remarks & Field Records	
					Type	No.			
	TOPSOIL: Clayey SILT; dark brown		MC<PL	F-St.				NATURAL - Alluvium	
ML	Clayey SILT; low plasticity, dark brown				D	6A			
CL	Silty CLAY; low plasticity, light brown	0.5			St.				
					VSt.-H	D			6B
CI	Silty CLAY; medium plasticity, orange brown	1.0				D			6C
		1.5							
CI	Silty CLAY; medium plasticity, red brown	2.0				D			6D
		2.5							
CI	Silty CLAY; medium plasticity, mottled brown orange, trace sand	3.0		D	6E				
		3.5	MC>PL						
CI-CH	Silty CLAY; medium to high plasticity, mottled orange brown, trace sand	4.0		D	6F				
		4.5							
CI	Silty CLAY; medium plasticity, brown with sand	5.0		D	6G				
	End of Borehole (BH6) @ 5.0m								
Registration No.: S07-37 Project/Location: Proposed Wagga Wagga Base Hospital, Edward Street, Wagga Wagga Client: Greater Southern Area Health								Logged By: J.G.	
								Scale: As shown	
								Groundwater: Dry on completion	

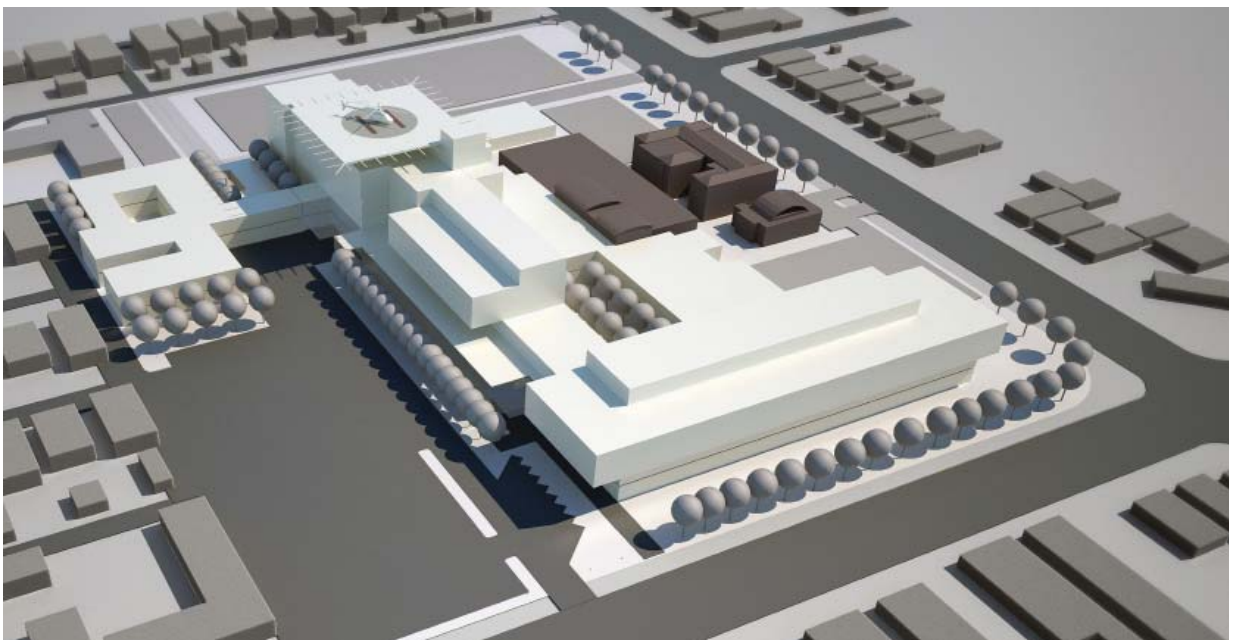


**AITKEN ROWE TESTING LABORATORIES PTY LTD**  
**LOG SYMBOLS**

LOG COLUMN	SYMBOLS	DEFINITION
<b>Groundwater Record</b>	▼	Standing water level. Time delay following completion of drilling may be shown.
	▶	Groundwater seepage into borehole or excavation noted during drilling or excavation.
<b>Samples</b>	<b>D</b>	Small disturbed bag sample taken between the depths indicated by lines.
	<b>B</b>	Bulk disturbed sample taken between the depths indicated by lines.
	<b>U</b>	Undisturbed 50mm diameter tube sample taken between the depths indicated by lines
<b>Field tests</b>	<b>N=17</b> <b>4, 7, 10</b>	Standard Penetration Test (S.P.T.) performed between depths indicated by lines. Individual figures show blows per 150mm penetration driven by SPT hammer.
	<b>N<sub>c</sub></b>	Dynamic Cone Penetration Test performed between depths indicated by lines. Individual figures show blows per 100mm penetration for 60 degree solid cone driven by 9 Kg hammer.
	<b>5</b>	
	<b>7</b>	
	<b>3</b>	
<b>Moisture Condition (Cohesive Soils) (Cohesionless Soils)</b>	<b>MC &gt;PL</b>	Moisture content estimated to be greater than plastic limit.
	<b>MC=PL</b>	Moisture content estimated to be approx. equal to plastic limit.
	<b>MC&lt;PL</b>	Moisture content estimated to be less than plastic limit.
	<b>D</b>	DRY – runs freely through fingers.
	<b>M</b>	MOIST – does not run freely but no free water visible on soil surface.
	<b>W</b>	WET – free water visible on soil surface.
<b>Consistency (Cohesive Soils)</b>	<b>VS</b>	VERY SOFT – unconfined compressive strength less than 25kPa.
	<b>S</b>	SOFT – unconfined compressive strength 25-50 kPa.
	<b>F</b>	FIRM – unconfined compressive strength 50-100kPa.
	<b>St.</b>	STIFF – unconfined compressive strength 100-200kPa.
	<b>V.St.</b>	VERY STIFF – unconfined compressive strength 200 – 400kPa.
	<b>H</b>	HARD – unconfined compressive strength greater than 400kPa.
<b>Relative Density (Cohesionless Soils)</b>	<b>VL</b>	ID – Density index Range % S.P.T. 'N' Value Range Blows/300mm Very Loose <15 0-4
	<b>L</b>	Loose 15-35 4-10
	<b>MD</b>	Medium Dense 35-65 10-30
	<b>D</b>	Dense 65-85 30-50
	<b>VD</b>	Very Dense >85 > 50
<b>Hand Penetrometer Readings</b>	<b>300</b> <b>250</b> <b>280</b>	Numbers indicate individual test results in kPa on representative undisturbed material unless noted otherwise.
<b>Laboratory Test</b>	<b>L.S. %</b>	Linear Shrinkage (As per RTA Method T113)
	<b>I<sub>ss</sub></b>	Shrink-Swell Index (As per Australian Standard AS1289.7.1.1)
<b>Remarks</b>	<b>'V' bit</b>	Hardened steel 'V' shaped bit.
	<b>'TC' bit</b>	Tungsten Carbide wing bit.
	<b>T<sup>60</sup></b>	Penetration of auger string in mm under static load of rig rear axle without rotation of augers.

# APPENDIX I

## Heritage Report



# HERITAGE REPORT

## WAGGA WAGGA BASE HOSPITAL

Wagga Wagga  
New South Wales



Main Hospital Building, Wagga Wagga Base Hospital

**WEIR PHILLIPS**  
Architects and Heritage Consultants

Level 5  
69 Regent Street  
Chippendale 2008  
NSW Australia  
(02) 9310 1010

**March 2011**

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## EXECUTIVE SUMMARY

### 1.0 Introduction

This Heritage Assessment and Heritage Impact Statement (HIS) for Wagga Wagga Base Hospital, Edward Street, Wagga Wagga, New South Wales, Australia, has been prepared by Weir Phillips Architects and Heritage Consultants, at the request of Rice Daubney, to assist in the completion of a Project Application to the Department of Planning under Part 3A Major Projects Development Approval of the *Environmental Planning and Protection Act 1979*.

It is proposed to demolish the existing buildings and services at Wagga Wagga Base Hospital, with the exception of the Clinical Services Building, the UNSW Rural Clinical School, the Hydrotherapy Pool and Yathong House, and to construct a new hospital facility on the site suited to the current and future needs of the regional population. The works will be staged so that the Hospital can continue to operate during construction. The new buildings will range in height from one storey to a maximum of seven storeys for the helipad proposed for the centre of the site.

The existing buildings on the site are subject to the following statutory heritage listings:

- 'Wagga Wagga Base Hospital' is listed by the Department of Health *Section 170 Register*, under the auspices of the *New South Wales Heritage Act 1977*.
- 'Wagga Wagga Base Hospital (c.1960 Building)' is listed by Schedule 5 Part 1 of the *Wagga Wagga Local Environmental Plan 2010*, where it is identified as being of local significance.

In addition,

- The site adjoins the Wagga Wagga Conservation Area as identified by Schedule 5 Part 2 of the *Wagga Wagga Local Environmental Plan 2010* and the accompanying Heritage Map.

### 2.0 Objectives

Weir Phillips Architects were engaged to undertake a Heritage and Archaeological Assessment in 2009. The archaeological requirements were met by the preparation of a separate report by Archaeological & Heritage Management Solutions (December 2009). This report should be read in conjunction with the Archaeological & Heritage Management Solutions report.

### 3.0 Location

The City of Wagga Wagga is located in the Riverina Region in southern New South Wales, Australia. Wagga Wagga Base Hospital is located approximately one kilometre outside of the Wagga Wagga Central Business District.

### 4.0 Historical Development

#### ***Land of the Wiradjuri (Wirraaydhurray) people***

Wagga Wagga lies in the lands of the Wiradjuri (*Wirraaydhurray*) people.

#### ***Early European History***

The origins of the City of Wagga Wagga lie in the opening of a Court of Petty Sessions on the Wagga Wagga pastoral run in 1847; two years later, a township was surveyed. Parish maps indicate that the subject site was outside the boundaries of the first township and formed part of 40 acre parcel of land owned by T. Byrnes.

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In 1885, 5 acres of Byrne's land, including the subject site, was resumed for a Gaol Site. The land, however, would never be used for this purpose and, when the existing hospital, located within the township itself, became inadequate to meet the needs of the population, the Gaol Site was re-dedicated as a hospital site on 3 January, 1907.

#### ***The First Hospital Buildings on the Site***

The first building on the site (now known as the Old Hospital Building) was designed by the Government Architect, W.L. Vernon, with working drawings prepared by local architect W.J. Monks. Funds for construction were raised locally and by means of Government grants. By the time builder Charles Hardy commenced work in 1907, the decision had been taken to build only the central section and one of two wings of Vernon's original design. Ancillary buildings, including a Nurses' Home and Morgue, were also constructed. By 1921 sufficient funds had been raised to build the second planned wing. Plans for this wing, which included a special children's ward, were prepared by Government Architect George McRae and were true to the Vernon's original design; the work was completed in 1922.

#### ***Expansion During the 1930s, 1940s and 1950s***

During the period leading up to World War II, new buildings were constructed and alterations and additions carried out to existing buildings on the site in response to government administrative changes, local growth, medical advances and the types of illnesses being treated. Wagga Wagga Hospital was declared a Base Hospital in June 1934. Major works of this period include a new Nurses' Home (later Harvey House and now the UNSW Rural Clinical School), 1936; the conversion of the original Nurses' Home into Private and Intermediate Wards (later Rawson House), 1937; the construction of a dedicated Maternity Ward (later Robinson House), 1938; and the construction of a New Laundry and Kitchen Block, 1942. Work continued into the Post World War II period, with the addition of the Administration Block to the Old Hospital Building, 1946; the construction of a New Nurses' Home (Lewis House), 1948; and the construction of a T.B. Unit (Gissing House), 1956.

#### ***Multi-Storey Ward Block***

Wagga Wagga was declared a City in 1946 and continued to expand as new subdivisions were carried out. To meet the needs of an expanding population, planning for a multi-storey ward block commenced in the early 1950s, under Government Architect Cobden Parkes, and continued under his successor Edward Farmer. Work commenced in until 1961 and the new block was opened in 1963, together with a new Nurses' Home (part of Lewis House) and a New Nurses' Training School (now Schofield House).

#### ***Growth and Change***

The changes that have occurred in the delivery of health care services and in medical treatment since the 1960s have significantly affected the efficiency of the buildings constructed at or before this time. Plans for extensive reconstruction of the Wagga Wagga Base Hospital in the 1970s were later abandoned. Existing buildings continued to be remodelled to meet demand and, in some instances, carry out new functions. New construction work in the 1990s provided a Dental Clinic, Hydrotherapy Pool and Clinical Services Building.

#### ***Community Associations***

Throughout its period of operation, numerous individuals and groups have been closely involved with the Wagga Wagga Base Hospital, including members of staff and the hospital board, and community groups, such as the Hospital Auxiliary and Country Women's Association. Their involvement is commemorated in the fabric of the place and in street and building names.



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## 5.0 Site Assessment

### ***Location and Site***

The Wagga Wagga Base Hospital is bounded by the Sturt Highway (Edward Street) to the north, Rawson Lane to the south, Docker Street to the west and private properties to the east. The principal access into the site is from Lewis Drive, off Edward Street. The main portion of the site comprises an area of approximately 4.2 ha; car parking on adjacent lands provides an additional 1.5 ha. The site falls approximately three metres from south to north.

### ***Surrounding Area***

The surrounding area is predominately residential and is characterised by free standing single storey dwellings constructed predominately during the Federation and Interwar periods, interspersed with later developments; some dwellings have been converted for use as medical suites. The site adjoins the Wagga Wagga Conservation Area, which lies to the south and south east of the site.

### ***Access***

Vehicular access to the Main Hospital Building, the Emergency Department and the main car park is directly off Edward Street, via Lewis Drive. Vehicular access to the Hydrotherapy Pool is directly off Docker Street, where the limited parking area is shared with the UNSW Rural School of Medicine. Vehicular access to the Dental Unit, Community Health and the Australian Red Cross Blood Service Donor Centre is via the rear of the site, off Rawson Lane. Additional parking can be accessed off Rawson Lane or Yathong Street.

### ***Old Hospital Building and Mortuary***

The northern most part of the site, fronting Edward Street, comprises a wide belt of landscaped area, extending across the front of the Old Hospital Building from Lewis Drive to Docker Street. The two-storey Old Hospital Building (with its later alterations and additions) address Edward Street. Vernon's original Federation Queen Anne Style building has almost been completely concealed beneath later alterations and additions, the most notable of which are the Functionalist Style Administration Block and the complete enclosure of the two storey balconies. The building displays low external and internal integrity. The former Mortuary, the only other building on the site that survives from the first period of development, lies to the rear of the Old Hospital Building. This building has similarly undergone major alterations and additions to the extent that it demonstrates low integrity.

### ***Main Hospital Building***

The most dominant building on the site is the multi-storey Main Hospital Building, an eight-storey reinforced concrete and brick building in the Functionalist Style. The building is 'L-shaped' in plan, comprising north-south and east-west running sections. The eastern elevation of the building is characterised by balconies with rendered balustrades which run the entire length of the elevation at first to fifth floor levels, before returning along the northern elevation of the east-west running section of the building. Triple hung timber framed windows open at each level onto the balcony at regular intervals. The building demonstrates a moderate to high degree of integrity.

### ***Other Hospital Buildings***

The two-storey Interwar Stripped Classical UNSW Rural Clinical School (formerly the 1936 Nurses' Home and later Harvey House) and the three storey brick and rendered brick form of Lewis House address Docker Street; both buildings are substantially intact. Gissing House, Schofield House, the Physiotherapy Block and Robinson House are single storey face brick buildings with hipped and/or gabled tiled roofs; all have been subject to extensive alteration and addition. The Maintenance, Engineering and Hospital Stores and the Dental Clinic are functional one and one and two storey cream brick buildings of more recent construction.

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### **Nos. 10, 12, 14 and 16 Yathong Street**

It is proposed to incorporate four dwellings, No. 10, 12, 14 and 16 Yathong Street, into the site and to demolish these dwellings to provide for new construction. These dwellings are free-standing, single storey brick bungalows with hipped and gabled tiled roofs dating from the Interwar period; externally, all but No. 10 appear to be intact.

### **Statement of Significance for the Site**

Wagga Wagga Base Hospital has high local historic and social significance as a place from where medical services have been continuously provided to the people of Wagga Wagga and the surrounding districts from 1910 to the present day. From this time, the site has been the focal point for medical services in Wagga Wagga and has evolved in line with the community it serves. As for many hospital sites across New South Wales, the site demonstrates state-wide patterns concerned with changing medical practices and technologies, government policies, community expectations and nursing services. The site demonstrates a strong continuity of use, despite the lack of integrity demonstrated by some individual buildings.

Wagga Wagga Base Hospital has local significance as a place of significant and widespread community involvement. The site is directly associated with many individuals, most notably the doctors, matrons, nurses, student nurses and other staff, who have worked in the Hospital since 1910, and with people who have served on the Hospital Board. Many of these people have had strong and significant ties to the local community. Community groups, such as the Hospital Auxiliary and the CWA, have close and sustained ties to the Hospital. Associations are expressed on site in fabric and in the names of buildings, hospital wards and streets.

Wagga Wagga Base Hospital has minor significance as one of many hospital sites across the state capable of demonstrating the evolution of hospital design and architecture over a prolonged period. There are extant examples of the work of the NSW Government Architect's Office from Federation times through to the Post World War II era. Given the extent of alteration to key buildings, however, much of this aspect of significance lies in historic records. The most significant and intact buildings on the site are an Interwar period nurses' home designed by Edwin Smith (UNSW Rural Clinical School, formerly the 1936 Nurses' Home and later Harvey House) and a Post World War II Functionalist Style ward block designed by Cobden Parkes (preliminary design) and Edward Farmer (realised design). These two buildings have aesthetic significance as examples of their type and style and for their contribution to the streetscape; neither, however, are rare beyond the local context or exceptional as benchmarks in architectural style or hospital design.

Individual buildings are also rated as to their significance.

### **Proposed Works**

#### ***The Proposal***

The proposal, as described in the *Wagga Wagga Base Hospital Principal Design Consultant's Report* (Rice Daubney 2010), is as follows:

‘The new WWBH Masterplan (2010) provides for a 41,500m<sup>2</sup> facility, with the possibility of further future expansion potential beyond the current planning horizon of 2021.

Delivery of the new WWBH Hospital is planned, on the existing hospital site, through a staged delivery approach to suit the current funding model. Stage 1 of this redevelopment has received funding for \$90m to be released over a four year period. In addition a funding application has been submitted to develop WWBH Stage 2 of this redevelopment which facilitates the delivery of the acute hospital.

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A breakdown of the proposed staging is provided below. Stage 1A – Provides an Acute Mental Health Facility on ground floor with Non-Acute on Level 1.

Stage 1B – Constructs a new build Emergency Department and Procedures Centre linking into the existing Clinical Services Building.

Stage 2A – Continues construction above the Emergency Department and Procedures Centre with four levels of Inpatient Units to the south and construction of the helipad.

Stage 2B – Demolition of the existing Ward Block.

Stage 2C – Construction of Inpatient Units to the north.

Stage 3 – Construction of the balance of accommodation providing Ambulatory Care and Allied Health Facilities and the demolition of redundant hospital buildings to clean up the site and provide additional parking areas.<sup>1</sup>

The proposal involves the demolition of all the existing buildings and structures on the site, with the exception of the UNSW Rural Clinical School, the Hydrotherapy Pool, the Clinical Services Building and Yathong House. Nos. 10-16 Yathong Avenue will also be demolished and the land incorporated into the site.

### ***Impact of the Proposed Works of the Significance of the Site and Buildings***

The potential impacts of the proposal on the heritage significance of the site and the adjoining Conservation Area are assessed against three matters for consideration raised by the New South Wales Heritage Office (now Branch) publication *Statements of Heritage Impact* (2002). In summary:

*The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:*

- The Wagga Wagga Base Hospital has a long history of renewal to support changing needs. Re-use of this site as a hospital will maintain its social significance. Improving the services that it provides will enhance this aspect of significance.
- The most intact and architecturally distinguished of the surviving Pre World War II hospital buildings is the UNSW Rural Clinical School (formerly the 1936 Nurses' Home and later Harvey House). The building's high level of significance on multiple levels is respected by its retention and the preservation of the most important aspects of its setting.
- Mitigation measures are proposed which respect the social significance of the buildings to be demolished.

*The following aspects of the proposal could detrimentally impact on heritage significance. The reasons are explained as well as the measures taken to minimise impacts:*

While maintaining and supporting social significance, demolition of most of the buildings on the site will have a detrimental impact on understanding how the site has evolved over time. The existing buildings all have significance as part of the historic development of the site, almost all have a level of social significance and some have aesthetic significance.

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<sup>1</sup> Rice Daubney, Principal Consultants Report, Wagga Wagga Base Hospital, Executive Summary.

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The demolition of the buildings is required for important operational reasons, arising out of changes that have occurred in the delivery of medical services and changing needs of the population which the Hospital services. The impact of the demolition of specific buildings is assessed.

With regard to the two most notable buildings on the site to be demolished as part of the proposal:

- The impact of the demolition of the Old Hospital Building will have an acceptable level of impact because of its low integrity. The understanding of the building's importance to past communities and of its once fine architectural form has been severely compromised by later works. There are better-preserved examples of hospitals designed by W.L. Vernon in New South Wales, including examples at Lidcombe Hospital and Garrawarra Hospital. Vernon's work is well represented within Wagga Wagga by the Courthouse. The high social significance of this building will be perpetuated by the continued use of the site as a hospital and by general mitigation measures such as interpretation, archival recording and the retrieval of moveable heritage.
- While the s170 listing identifies the site in its entirety, the *Wagga Wagga LEP 2010* listing identifies the Main Hospital Building alone. The demolition of this building is required before the site can be re-developed in a way that makes best use of the land. The building is identified as an intact, representative, example of the Functionalist Style, with landmark status. The Main Building derives its landmark status by being larger than any other building within its immediate vicinity and because of its longstanding use as a public hospital. The loss of this status is mitigated by the importance of the new facilities to be provided, which will perpetuate the social significance of the site as a whole. The new hospital is likely to develop a similar level of landmark status because of its size relative to the surrounding area. Landmark status because of size should not be confused with exceptional architectural merit. As an example of a Functionalist Style, the building is described as 'representative.' It is a fair example of the style without being exceptional; it is one of a number within New South Wales.

In recognition of the contribution that each building has made to the site, the following measures will be undertaken to ensure a continuity of the social significance of the place to its workers and to the community at large:

- The relocation of items of moveable heritage from the existing hospital to the new hospital. This includes paintings, memorial plaques, foundation stones, and any significant items of furniture or salvaged fabric, such as the balustrades from the 1910 Hospital. These items will serve to maintain a direct link with the existing hospital after its removal.
- The development of a policy for the naming of areas within the hospital to commemorate people who have served the community through the hospital or who have been benefactors of the hospital. This could include names such as Lewis, Gissing, Schofield, Robinson, etc.
- The preservation of old plantings on the site, in particularly those associated with country hospitals, such as the *Canary Island Date Palms*. Should new work require that these palms be removed, they should be relocated to an appropriate position on the site.
- The preparation of an interpretation strategy for the entire hospital site.
- Prior to demolition, full archival recording to Heritage Office standards should take place.

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*The following sympathetic solutions have been considered and discounted for the following reasons:*

- Construction of the new hospital on an alternate site allowing the adaptive reuse of the site.

This solution was discounted for two reasons:

- (i) There is no suitable alternate site that is conveniently located within/to the City.
  - (ii) There are many related healthcare services in the area immediately surrounding the site.
- Construction of the new hospital as proposed with the retention of the existing hospital buildings on the site.

The site is not large enough to allow for the new facilities required, including car parking, and the retention of the existing buildings. With regard to the Main Building: this building occupies a key part of the site. No suitable adaptive reuse for the building that would work within the overall master plan was forthcoming.

### **Impact of the Proposed Works on the Wagga Wagga Conservation Area**

The same three criteria are used to assess the impact of the proposed work on the Conservation Area.

It is established that the demolition of buildings on the site will have no impact on this Conservation Area because there are no heritage significant relationships that exist between the site and the Conservation Area.

The new work will have an acceptable level of impact. The new hospital buildings will provide a distinct edge to the Conservation Area, as do the existing. The main buildings will be well separated from the Conservation Area by car parking areas. The articulation of elevations and landscaping will be the main mitigation measures used.

### **Conclusions**

Wagga Wagga Base Hospital no longer meets the needs of the existing or projected populations. It has been determined that the existing site is the best location for the new facility. The social significance of the site, which is the most important aspect of significance for this site, will be preserved and perpetuated by the ongoing use of the site to provide hospital services. Past social significances will be commemorated through interpretation and archival recording.

The impact of the demolition of existing buildings on the site must be balanced against the need for new facilities, their level of integrity and/or the survival of comparable examples elsewhere. The demolition of the Main Building (opened 1961) has the potential to have the greatest individual impact. This building, while a fair example of a Functionalist Style building, is not an exceptional one. There are other, more architecturally distinguished and influential buildings, in this style within New South Wales. Mitigation measures include recommendations for archival recording, the preparation of an interpretation strategy, and the relocation of moveable heritage items.



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## 1.0 INTRODUCTION

### 1.1 Preamble

This Heritage Assessment and Heritage Impact Statement (HIS) for Wagga Wagga Base Hospital, Edward Street, Wagga Wagga, New South Wales, Australia, has been prepared by Weir Phillips Architects and Heritage Consultants, at the request of Rice Daubney, to assist in the completion of a Project Application to the Department of Planning under Part 3A Major Projects Development Approval of the *Environmental Planning and Protection Act 1979*.

Wagga Wagga Base Hospital is one of three major primary medical facilities within the Greater Southern Area Health Service (GSAHS). This area services six centres of population- Wagga Wagga, Albury, Deniliquin, Goulburn, Griffith and Queanbeyan- and covers thirty-nine Local Government Areas.

Wagga Wagga Base Hospital is located approximately one kilometre from Wagga Wagga Central Business District. The site is bounded by the Sturt Highway (Edward Street), to the north, Rawson Lane to the south, Docker Street to the west and private properties to the east. There are numerous buildings on the site, ranging in date from the Old Hospital Building, opened 1910, to recent developments. These buildings vary in scale from single storey buildings to the multi-storey Main Hospital Building.

The proposal as described in the *Wagga Wagga Base Hospital Principal Design Consultant's Report* (Rice Daubney 2010) is as follows:

‘The new WWBH Masterplan (2010) provides for a 41,500m<sup>2</sup> facility, with the possibility of further future expansion potential beyond the current planning horizon of 2021.

Delivery of the new WWBH Hospital is planned, on the existing hospital site, through a staged delivery approach to suit the current funding model. Stage 1 of this redevelopment has received funding for \$90m to be released over a four year period. In addition a funding application has been submitted to develop WWBH Stage 2 of this redevelopment which facilitates the delivery of the acute hospital.

A breakdown of the proposed staging is provided below. Stage 1A – Provides an Acute Mental Health Facility on ground floor with Non-Acute on Level 1.

Stage 1B – Constructs a new build Emergency Department and Procedures Centre linking into the existing Clinical Services Building.

Stage 2A – Continues construction above the Emergency Department and Procedures Centre with four levels of Inpatient Units to the south and construction of the helipad.

Stage 2B – Demolition of the existing Ward Block.

Stage 2C – Construction of Inpatient Units to the north.

Stage 3 – Construction of the balance of accommodation providing Ambulatory Care and Allied Health Facilities and the demolition of redundant hospital buildings to clean up the site and provide additional parking areas.<sup>2</sup>

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<sup>2</sup> Rice Daubney, *Principal Consultants Report, Wagga Wagga Base Hospital*, Executive Summary.

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The proposal involves the demolition of all the existing buildings and structures on the site, with the exception of the Clinical Services Building, the UNSW Rural Clinical School, the Hydrotherapy Pool and Yathong House. Nos. 10-16 Yathong Avenue will also be demolished and the land incorporated into the site.

The existing buildings on the site are subject to the following statutory heritage listings:

- 'Wagga Wagga Base Hospital' is listed by the Department of Health *Section 170 Register*, under the auspices of the New South Wales *Heritage Act 1977*.
- 'Wagga Wagga Base Hospital (c.1960 Building)' is listed by Schedule 5 Part 1 of the *Wagga Wagga Local Environmental Plan 2010*, where it is identified as being of local significance.

In addition,

- The site adjoins the Wagga Wagga Conservation Area as identified by Schedule 5 Part 2 of the *Wagga Wagga Local Environmental Plan 2010* and the accompanying Heritage Map.

In August 2005, McPhee Architects/Stedinger prepared a Conservation Management Plan (CMP) for the Wagga Wagga Hospital. This CMP focused on what was termed the Main Building of Wagga Wagga Base Hospital and what is referred to in this report as the Old Hospital Building. The CMP is referred to in this report as the *CMP 2005*.

## 1.2 Brief and Objectives

Weir Phillips Architects and Heritage Consultants were engaged to undertake a review of the project concept design development, relevant studies and reports and the preliminary environmental assessment and confirm or otherwise report on the finding and issues in regard to heritage and archaeological matters. This entailed the following:

- (1) Preparation of a Heritage/Archaeological assessment report incorporating a Heritage Impact Statement, including:
  - Assessing impacts on the proposal on significant components of the site such as heritage buildings, landscape elements, important views, and places of Aboriginal, historic or archaeological significance.
  - Consideration of wider heritage impacts in the area surrounding the site.
  - Providing response to matters required to be addressed in the Department of Planning Director General's requirements for the Concept Plan and Environmental assessment.
- (2) Preparation of a map of the archaeological sensitivity of the area.
- (3) Provision of advice/comment on the WWIRH redevelopment proposal, and its compatibility with heritage and archaeological recommendations and the management of issues.
- (4) Preparation of an executive summary for incorporation into the EA and input for the statement of commitments.



The Director General's Requirements for the Part 3A Application, with regard to heritage, are as follow:

- (1) An assessment should be provided detailing the impacts of the proposal on any adjoining items of heritage significance, including the 1910 and 1960 hospital buildings; and
- (2) Details of cultural impacts, including impact on items of Aboriginal significance.

The archaeological requirements above were met by the preparation of a separate Baseline Archaeological Assessment, prepared by Archaeological and Heritage Management Solutions Pty Ltd (2009).

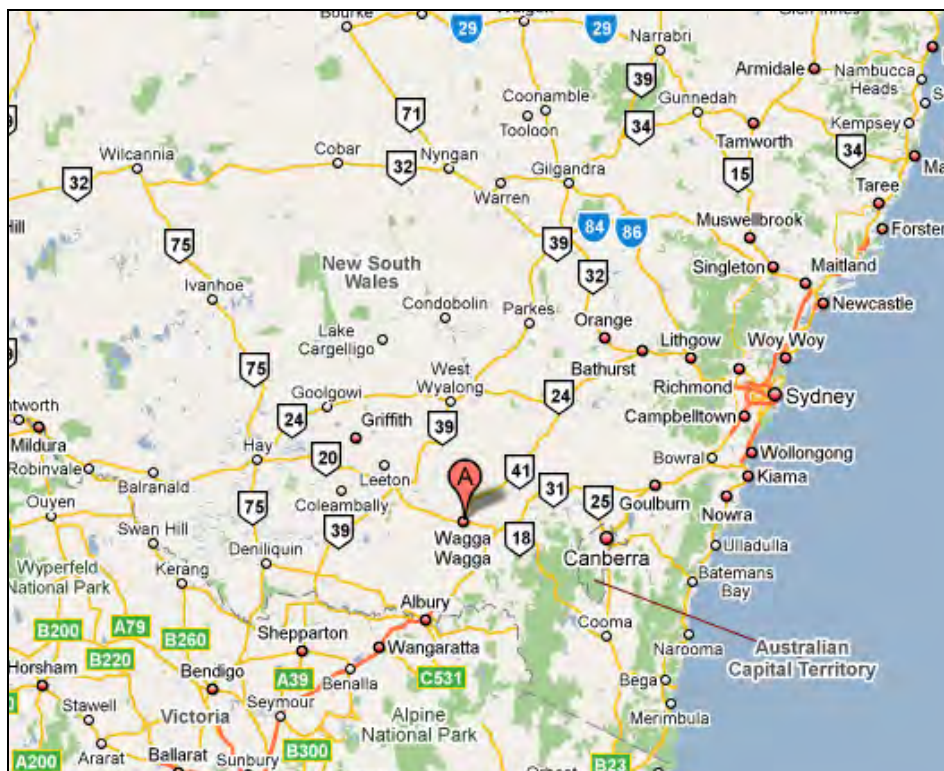
### 1.3 Authorship

This assessment was prepared by Alice Fuller, B. Appl. Sc. (CCM), M.Hert.Cons.(Hons), and James Phillips, B.Sc. (Arch) B. Arch., M.Hert.Cons.(Hons), of Weir Phillips, Architects and Heritage Consultants.

### 1.4 Identifying the Site

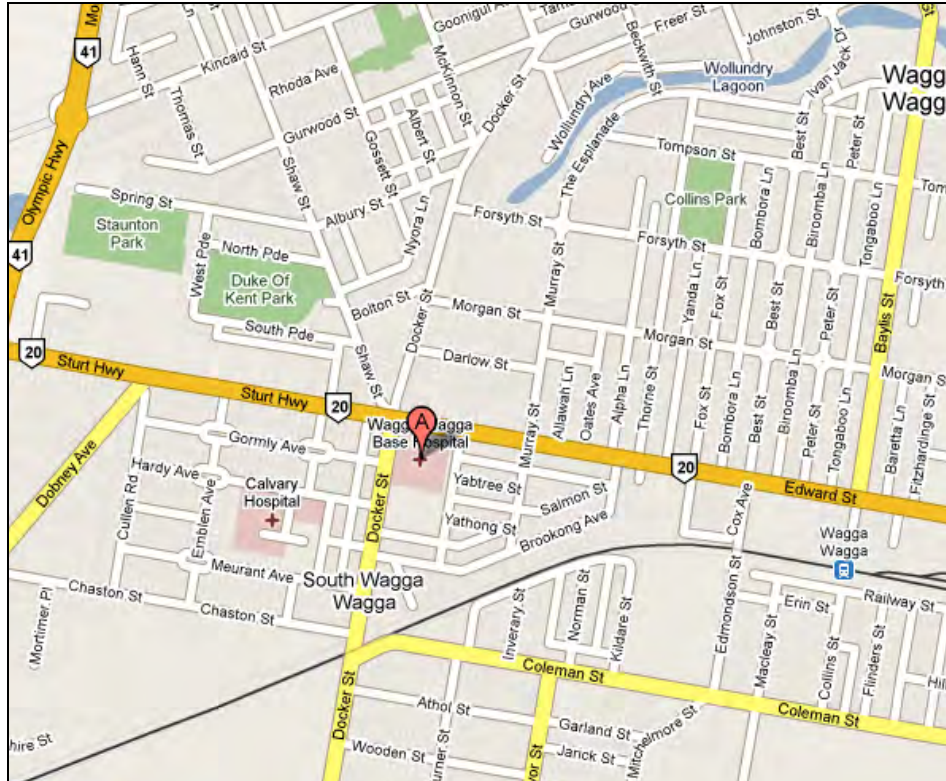
#### 1.4.1 Location

The City of Wagga Wagga is located in the Riverina Region in southern New South Wales, Australia. Wagga Wagga is located at the eastern end of the Riverina Region, where the slopes of the Great Dividing Range flatten and form the Riverina Plain (Figure 1).



**Figure 1: Wagga Wagga in the State of New South Wales.**  
Google maps.

Wagga Wagga Base Hospital is located approximately one kilometre away from the Wagga Wagga Central Business District. The site is bounded by the Sturt Highway (Edward Street) to the north, Rawson Lane to the south, Docker Street to the west and private properties to the east. The principal access into the site is from Lewis Drive, off Edward Street (Figure 2). The main portion of the site comprises an area of approximately 4.2 ha; car parking on adjacent lands provides an additional 1.5 ha.



**Figure 2: Location of the Hospital within Wagga Wagga**  
Google maps.

#### 1.4.2 Site Layout

Figure 3, and the accompanying key, identifies the principal elements of the site. This plan, and the identifying lettering and numbering, is referred to throughout this report.



**Figure 3: Site Plan**

Aerial photograph from Capital Insight; annotations Weir Phillips.

**Key**

No.	Element	No.	Element
1	Edward Street	G	Stores
2	Lewis Drive	H	Dental
3	Rawson Lane	I	Lewis House
4	Brookong Avenue	J	Nurses' Home, part of Lewis House (1961)
5	Dockers Street	K	Community Services
6	Yabtree Street	L	Clinical Services
7	Yathong Street	M	UNSW Rural Clinical School
A	Old Hospital Building	N	Hydrotherapy Pool
B	Main Building	O	Physiotherapy
C	Mortuary	P	Robinson House
D	Gissing House	Q	Blood Bank
E	Scofield House (formerly the Nurses' Training School)	R	Four dwellings to be demolished and land incorporated into the site
F	Maintenance and Engineering	S	Yathong Lodge



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## 1.5 Methodology

The assessment procedure contained within this report complies with the *NSW Heritage Manual* updates *Assessing Heritage Significance* (2001) and *Statements of Heritage Impact* (2002) as issued by the NSW Heritage Office. The guiding principles are provided by the ICOMOS Australia in the *Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance*, as revised and ratified in November 1999. Interpretation of the *Burra Charter* has been made with reference to the companion document, *The Illustrated Burra Charter: making good decisions about the care of important places* (1992).

## 1.6 Physical Evidence

Site visits were conducted 8 September, 2009 and 15 December, 2010. The photographs contained in this report were taken on these occasions. Capitol Insight provided additional site photographs (2009). No significant site works were carried out between the two site visits. Photographs taken in 2009 are thus still current.

## 1.7 Documentary Evidence

### 1.7.1 Resources

The following resources were accessed for the purposes of this report:

- Client Records.
- Plans Services, the Department of Commerce.
- State Library New South Wales (Mitchell Library and Reference Library).
- Wagga Wagga Library, Local Studies.

### 1.7.2 References

The authors wish to acknowledge that much of the history pertaining to the Hospital in this report was derived from:

- Morris, Sherry, *A Delicate Balance: A History of Wagga Wagga Base Hospital*, NSW, Wagga Wagga Base Hospital, 1988.

### Published Sources

- Ellis, William R., (comp.), *The Street Names of Wagga Wagga*, NSW, Council of the City of Wagga, 1990.
- Fletcher, Sir Bannister, *A History of Architecture on the Comparative Method*, England, University of London: The Athlone Press, 1967.
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- Howells, Trevor and Nicholson, Michael, *Towards the Dawn: Federation Architecture in Australia 1890-1915*, Sydney, Hale & Iremonger, 1993.
- Irving, Robert, *Twentieth Century Architecture in Wollongong*, NSW, Wollongong City Council, 2001.
- Metcalf, Andrew, *Architecture in Transition: The Sulman Award 1932-1996*, NSW, Historic Houses Trust, 1997.
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- Ritchie, John (gen. ed.), *Australian Dictionary of Biography Volume 12*, Victoria, Melbourne University Press, 1990.
- Shaw, John, *Sir Arthur Stephenson: Australian Architect*, Sydney, Stephenson and Turner, 1987.
- Thomson, Noel, *C. Hardy and Co. Builders, Monks + Hardy: We Built This City*. Brief online history, dated August 2008.

### Unpublished Sources

- McPhee Architects, *Conservation Management Plan: Wagga Wagga Base Hospital*. Unpublished document commissioned by The Greater Southern Area Health Service and dated August 2005.
- Peter Freeman Pty Ltd, *Wagga Wagga Urban Heritage Study*. Unpublished study in three volumes prepared for Wagga Wagga City Council and dated August 2002.

### Journals and Newspaper Articles

- Lewis, R.A., 'A Half Century of Medical Practice in Wagga Wagga', *Journal of the Wagga Wagga and District Historical Society*, NSW, Wagga Wagga and District Historical Society, 1982.
- 'New Wagga Hospital: Committee Meet the Government Architect/ Operations to be Commenced', *The Wagga Wagga Advertiser*, 12 May, 1906.
- 'The New Hospital. Laying the Foundation Stone. Visit of the State Premier. Other Distinguished Guests.' *The Wagga Wagga Advertiser*, 13 February 1908.
- 'The New Hospital. A Fine Structure. Approaching Completion.' *The Wagga Wagga Advertiser*, 4 June, 1908.
- 'Wagga's New Hospital. Opening Ceremony by State Premier.' *The Wagga Wagga Advertiser*, 8 September, 1910.'
- Walsh, Sylvia, 'On Foxborough Hill: Calvary Hospital, Wagga Wagga, Its Beginning and Development' in *Journal of the Wagga Wagga and District Historical Society*, Number 7, 1986.
- Willis, Julie, 'Machines for Healing', *Architecture Australia*, July/August, 2002.

Note: *Building* magazine was briefly searched for articles relating to the original hospital building (1908-1910), the Nurses Home (1935-6) and the Main Hospital Building (1961-2). This periodical reported on many major (and minor) building projects across New South Wales between c.1910 and 1965. Rural hospitals are often to be found among its pages. No articles about Wagga Wagga Hospital were found. *Building* is, however, unindexed. It is thus possible that an article or reference to the site was missed.

### Maps and Plans

- *Plan of Wagga Wagga, Parish of Wynyard*, 1889. NSW Parish Map Preservation Project, No. 15303201.

Note: The extensive plan collection for Wagga Wagga Base Hospital held by Plan Services, Department of Commerce was viewed. Permission was not gained to reproduce any of these plans for the purposes of this report. Any copies of plans appearing in this report have been reproduced from published sources. A list of the plans held by this archive can be found in Appendix 2 of this report.



## Photographs

- *Aerial Photograph of Wagga Wagga Base Hospital, undated.* Photograph hanging in Wagga Wagga Base Hospital.
- *Garrawarra Hospital, c.1990-2000.* Wollongong City Library, P11/P11793.
- *Junee Hotel, May 1999.* State Heritage Inventory, Database No. 1840055.
- *King George V Memorial Hospital for Women, c.1941.* City of Sydney Archives, SRC 8130.
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- *Rachel Forster Hospital, 1942.* Rachel Forster Hospital, undated brochure, State Library of New South Wales (Mitchell Library).
- 'Rachel Forster Hospital' in *Decoration and Glass*, February 1942.
- *St. Brendan's Roman Catholic Presbytery, September 2004.* State Heritage Inventory, Database No. 1400017.
- *St. Margaret's Public Hospital for Women (former).* State Heritage Inventory, Database No. 2420378.
- *Wagga Wagga Court House.* <http://commons.wikimedia.org/wiki/File:Wagga-courthouse.jpg>
- WP Architects, *Berry Sport and Recreation Centre, 2006.*
- WP Architects, *Auburn Hospital, 2006.*

## Council Planning Documents

- *Wagga Wagga Local Environmental Plan 2010.*
- *Wagga Wagga Development Control Plan 2010.*

## Heritage Registers

- (R)AIA Twentieth Century Register of Significant Buildings.
- National Trust of Australia (NSW).
- New South Wales Department of Health s170 Register.
- Register of the National Estate.

## 1.8 Limitations

While the history and assessment contained in this report is as comprehensive as provided for, it is possible that further information will come to light.

## 1.9 Time Line

Year	Event
	Wiradjuri Country.
1829-30	Charles Sturt, George Macleay and party travel through the area, being the first Europeans (recorded) to pass through the future site of Wagga Wagga.
1832-3	Tompson ( <i>Eunonyhareenyha</i> ) and Best ( <i>Wagga Wagga</i> ) families take up squatting runs on the northern and southern banks of the Murrumbidgee River.
1836	Squatting beyond the Limits of Settlement legalised with payment of a fee.
1839-41	Wiradjuri Wars.
1847	Court of Petty Sessions announced for Wagga Wagga. Fourteen year squatting leases made available.
1849	Town of Wagga Wagga gazetted; original plan prepared by T.S. Townsend.
1856	First Hospital opened in Kincaid Street, Wagga Wagga.

<b>Year</b>	<b>Event</b>
1858	'Newtown' surveyed.
1859-60	New Hospital built in Tarcutta Street, Wagga Wagga.
1861	<i>Robertson Land Acts</i> . Land selected in the area from the late 1860s onwards. Court of Quarter Sessions and District Court established in Wagga Wagga.
1862	Wagga Wagga Company Bridge opened over the Murrumbidgee River.
1870	Wagga Wagga incorporated as a Municipality.
1878	Railway extended to North Wagga Wagga.
1881	First Board of Public Health established. Gasworks constructed in Wagga Wagga.
1885	Waterworks constructed in Wagga Wagga. Subject site resumed reserved as a Gaol Site.
1892	Government Experimental Farm opened.
1895	Hampden Bridge opened over the Murrumbidgee River, Wagga Wagga.
1906	Department of Health established. Walter Liberty Vernon, Government Architect, prepares plans for new Hospital.
1907	Existing Hospital Site dedicated as a Hospital Site and first improvements made. Working drawings prepared by W. Monks and building work started by C. Hardy.
1908	Foundation stone of the hospital (now the Old Hospital building) laid.
1910	Hospital opened.
1914-18	World War I.
1916	Installation of first sewerage main.
1921	Foundation stone laid for new wing, including Children's Ward (Architect: G. McRae).
1922	New Wing opened. Electricity switched on in Wagga Wagga; gradually installed in the Old Building, along with fans, refrigeration, hot water and sewerage systems (1922-29).
1925	Best Street overbridge constructed. New Nurses' Quarters completed.
1929	Public Hospital Act.
1930s	Great Depression
1935	Foundation stone laid for new Nurses' Quarters.
1936	New Nurses' Home (later Harvey House, now the UNSW Rural Clinical School) opened.
1937	Rawson Private Hospital (Intermediate and Private Wards) opened. Wagga Wagga Hospital becomes Wagga Wagga Base Hospital.
1938	Maternity Ward opened (now part of Robinson House)
1939-45	Second World War. RAAF Base established at Forest Hill (1940); RAE Base established at Kapooka (1942)
1942	New Laundry and Kitchen Block opened to the rear of the Old Building.
1943	Recommendation that a multi-storey hospital building be constructed.
1945	Alterations and additions. Maternity Block, renamed Robinson House.
1946	Wagga Wagga proclaimed a city. New Administration Block constructed to the front of the Old Building; lift installed in the Old Building.
1952	Lewis House (Nursing Quarters) opened.
1956	Gissing House (T.B. Unit) opened.
1960	Air conditioning installed into the wards in the Old Building. Wagga Wagga Flood mitigation scheme commences.

Year	Event
1961	Foundation stone laid for multi-storey block (Main Building) at the Hospital. New Nurses' Home opened (part Lewis House). Preliminary Training School completed.
1963	New multi-storey hospital block (Main Building) opened.
1967-70	Renovation and re-allocation of spaces within the existing buildings for new uses, including conversion Robinson House into Psychiatric Unit and demolition of Rawson House.
1973	NSW Health Commission formed.
1975	New Hospital Stores Building officially opened 24 June.
1977	New industrial complex opened to serve Hospital, including the demolition of the old chimneystack.
1977-80	Leighton Irwin engaged to design new hospital; plans scrapped in 1980.
1981	City of Wagga Wagga was amalgamated with the surrounding Shires of Kyeamba and Mitchell. Wagga Wagga amalgamated with the Murray Health Region.
1982	Graduation of final year of hospital trained nurses.
1986-87	Psychiatric Unit moved from Robinson House into Gissing House, renamed Gissing House Psychiatric Unit. The later was extended after the old Preliminary Training School was demolished. Robinson House reused as Assessment and Rehabilitation Unit. 1936 Nurses' Home renovated and renamed Harvey House. Dental Clinic opened 27 August.
1988	Accident and Emergency/ Outpatients upgrade.
1991	Clinical Services Building completed. New hydrotherapy Pool added to the south of Robinson House.
1996	Greater Murray Area Health Service formed.
2005-	Continued planning for new Base Hospital.

## 2.0 HISTORICAL DEVELOPMENT

### 2.1 Preamble

The purpose of this section is to outline the history of the site within the context of the development of Wagga Wagga and the development of health services on a local and state-wide scale.

### 2.2 Wiradjuri Country

Wagga Wagga lies in the lands of the Wiradjuri (*Wirraaydhurray*), the largest group-by population and by area- of Aboriginal people in New South Wales.<sup>3</sup> Wiradjuri country is bounded by the Eastern Highlands in the east and the Murray River in the south (around Albury); it extends above the Lachlan River (to about Molong) in the north and close to the junction of the Lachlan and the Murrumbidgee Rivers in the west (to Hay and Booligal). Wiradjuri country is referred to as the land of the three rivers- the *Wambook* (Macquarie River), the *Kalare* (Lachlan River) and the *Murrumbidjeri* (Murrumbidgee River).

The name, Wiradjuri, was derived from the word *wirai*, meaning 'no', and distinguished them from their Kamilaroi neighbours to the north and other near neighbours who

<sup>3</sup> The name has been spelt in over sixty different ways.

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spoke similar languages.<sup>4</sup> The name of the town Wagga Wagga comes from the Wiradjuri word 'Wagga,' meaning 'crow.' Repetition of a word means more than one; thus the name *Wagga Wagga* translates as 'the place of many crows.'

Wiradjuri date their occupation of the country to the Dreamtime. Archaeological evidence from Lake Mungo, to the west of Wagga Wagga, establishes occupation to at least 30,000 ago. Given the nature of archaeological deposits, however, it is possible that occupation extends back further than the evidence would suggest.

Evidence suggests that the Wiradjuri usually lived in small groups, who travelled systematically between the river flats, open lands and the waterways in response to the seasonal availability of resources and spiritual commitments. The stories of the Dreamtime provided a complex system of spirituality that governed all aspects of Wiradjuri life. For Wiradjuri people, the supreme supernatural being is 'Baiame.' Men and women were divided into four 'classes', each with their own totem. Once or twice a year, smaller groups would meet, almost always near the Murrumbidgee River.

The three rivers were a rich source of food, including crayfish and fish. Canoes, nets and spears were used for fishing, as were intricate systems of log and stone weirs. This riverine diet was enriched by game and other land-based foods, such as seeds, fruits and nuts. The Wiradjuri joined the people of the Monaro and the Southern Tablelands for the annual summer feasts (December-January) of the Bogong moths in the alpine regions of the South Eastern Highlands and the Australian Alps.<sup>5</sup> Housing was simple, typically comprising windbreaks of boughs and bushes in fine weather and huts covered in animal skins or clay in poor weather.

The European settlement of Australia began at Sydney Cove in January 1788. The influence of the colonists preceded their appearance into Wiradjuri territory thirty-fourty years later. When Hume and Hovell travelled into the area in 1825, they met a group of Aborigines who had several iron tomahawks, an iron axe and an old jacket; one of the men could even speak a few words of English.<sup>6</sup>

Although initially welcoming, the Wiradjuri increasingly resisted the spread of European settlement as their pattern of life was disrupted by loss of lands, traditional hunting and fishing grounds and the spread of disease. F.A. Thompson of *Eunonyhareenyha Station* witnessed the decimation of the Aboriginal population as a result of the measles epidemic of 1835:

'When they first began to die, the deaths were so many and so sudden that I began to fancy some diabolical means had been used to poison them...As we always kept a good medicine chest on the station I administered gentle emetics and medicines to such as would taken them...but the number of deaths was great. Scarcely a child was left.'<sup>7</sup>

Conflict between the Wiradjuri and the European settlers flared around Bathurst between 1821 and 1827 (the Bathurst Wars), leading to the declaration of Martial Law in August 1824. Conflict also arose in the Murrumbidgee area between 1839 and 1841 (the Wiradjuri Wars). The conflict was serious enough to result in the temporary abandonment of some of the Narrandera pastoral stations, to the north west of Wagga Wagga, in 1839 and 1840. The climax of the Wiradjuri Wars involved the massacre of at least 60 people on an island in the middle of the River, six miles from Narrandera, later known as Murdering Island, in early 1841. The conflict lessened after this event, but did not completely cease.

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<sup>4</sup> Sherry Morris, *Wagga Wagga: A History*, NSW, Wagga Wagga City Council, 1999, p.4.

<sup>5</sup> *Ibid*, p.6.

<sup>6</sup> *Ibid*, pp.14-15.

<sup>7</sup> *Ibid*, p.3.

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According to Commissioner Bingham, there were around 1,500-2,000 Aborigines in the Murrumbidgee District in the early 1840s. Where possible, the Wiradjuri attempted to lead a traditional lifestyle, while others found in employment with the new settlers. The Wiradjuri continued to hold corroborees; there is a report of a corroboree at Wagga Wagga in the early 1840s, for example, that was attended by 400-500 people.<sup>8</sup>

By the late nineteenth century, it was increasingly difficult for the Wiradjuri to lead a traditional lifestyle. Relations between the Europeans and the Wiradjuri are marked by deliberate poisonings and, later, forced removal. The author Mary Gilmore, who spent her formative years in Wiradjuri Country, wrote a lament for the people she had befriended:

‘We are the lost who went,  
Like the cranes, crying;  
Hunted, lonely, and spent;  
Broken and dying.’<sup>9</sup>

The Wiradjuri nevertheless retained a strong sense of their identity. Major Wiradjuri communities exist today at Conobolin, Peak Hill, Narrandera and Griffiths, with significant populations also at Wagga Wagga and Leeton:

‘There have been Wiradjuri shearers, soldiers, lawyers, sportspeople, poets and preachers, in towns and cities throughout NSW. Organisations have been established to fight for land rights, to preserve culture and to reunite parents and children...The Wiradjuri have retained their kinship ties, a distinctive culture....’<sup>10</sup>

There are no heritage listed Aboriginal sites within a 5km radius of the Hospital site.<sup>11</sup>

### 2.3 European Exploration and the Squatting Runs

The ‘discovery’ of the Murrumbidgee River cannot be attributed to one person. Various explorers recorded the Murrumbidgee River on their inland explorations, including Charles Throsby in 1821, Captain Currie and Brigadier-Major Oven in 1823 and Hume and Hovell in 1824. John Oxley, having followed a number of rivers inland, formulated a theory that there was an inland sea into which the river systems emptied. In 1829, the task of investigating the Lachlan-Murrumbidgee Rivers was given to Charles Sturt. The following year, Charles Sturt and George Macleay led a waterborne party along the Murrumbidgee River from near its junction with the Lachlan River to a river he called the Murray River.

Charles Sturt described the Murrumbidgee River as a ‘still, deep sheet of water’, lined with casuarinas, willow and birch. To the west, a ‘high line of flooded gum trees’ extended from the river to the base of the hills. The flats near the river were ‘clear’ and ‘fertile’ and the hills ‘grassy’ and ‘lightly timbered.’<sup>12</sup> Sturt’s party would be the first recorded Europeans to travel over the site of modern day Wagga Wagga. While passing over the future site of North Wagga Wagga, they noted red kangaroos and wild turkey. By this time, there were already a few isolated European settlers who had followed in the footsteps of Hume and Hovell’s earlier expedition and ‘squatted’ on

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<sup>8</sup> Cited in Sherry Morris, *op.cit.*, 1999, p.25.

<sup>9</sup> Dame Mary Gilmore cited in NSW Heritage Office and Department of Urban Affairs and Planning, *Regional Histories of New South Wales*, NSW, The Authors, 1996, p.133.

<sup>10</sup> David Horton (gen.ed.), *The Encyclopaedia of Aboriginal Australia: Volume 2*, Australia, Aboriginal Studies Press for the Australian Institute of Aboriginal and Torres Strait Islander Studies, 1994, pp.1190.

<sup>11</sup> Refer to accompanying Baseline Archaeological Assessment prepared by AHMS.

<sup>12</sup> Cited in Sherry Morris, *op.cit.*, 1999, p.16.



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runs outside of the Official Limits of Settlement and within the modern day Shire of Gundagai.

When Surveyor Thomas Mitchell passed through the area in 1836, he found that the upper portion of the River was fully occupied by cattle runs and occupation had extended much lower down the River. The extent of settlement was such that he found a 'tolerable cart road' from one station to the next.<sup>13</sup> By the 1840s there were well-defined tracks used by the squatters to take their produce to the markets in Yass, Goulburn or Sydney. The route travelled by Mitchell in 1836 became the main overland route between Melbourne and Sydney and was known as Port Phillip Road or the Great Southern Road. Mail was carried once a week by horseback from the late 1840s between Tarcutta (on the Port Phillip Road) and Wagga Wagga; this was increased to twice weekly by the late 1850s. The Adelaide Road, later Sturt Highway, branched off from the Port Phillip Road at Lower Tarcutta; the road followed the Murrumbidgee River through the sites of Wagga Wagga, Narrandera, Hay and Balranald.<sup>14</sup>

Many of early squatters in the modern day Wagga Wagga area were former convicts. The first European settler was the emancipist Charles Tompson who, by 1828, had become one of the largest emancipist landholders in New South Wales. Tompson ran his pastoral empire from his headquarters in Windsor-Richmond District, within the Limits of Settlement. In 1832, having already occupied land near Gundagai, Tompson and his two sons took stock to the northern side of the Murrumbidgee River, east of modern day Wagga Wagga, which they called *Eunonyhareenyha*, meaning 'blacks lying in ambush.' By 1840, the Tompson's run was the largest of the seven runs that stood on the northern banks of Murrumbidgee River within the Lachlan Pastoral District. By this time, *Eunonyhareenyha* supported 35 residents, 1,200 head of cattle, 20 horses, 11,000 sheep and 20 acres of wheat under cultivation.<sup>15</sup>

By 1832, a second successful emancipist farmer, George Best, had taken up a run he called *Wagga Wagga* on the southern side of the River, later within the Murrumbidgee District. By 1839, *Wagga Wagga* was stocked with 1,000 head of cattle, 17 horses and 1,400 sheep, with 5 residents. Others who brought stock to the Wagga Wagga area in the early part of the nineteenth century include James and John Thorne (at *Wantabadgery* and *Gobbagombalin*) and John and Frank Jenkins (at *Toyeo* or *Tooyal*); and a number of Irish Catholics, including James Devlin and Thomas Small (at *Ganmain* and *Kockibitoo*), John Bray (at *Berry Jerry*) and James Bourke (at *Goolilagumby*, later *Gumly Gumly*).

After 1836, when squatting was legalised with the payment of an annual fee, most of the squatters of the Murrumbidgee applied for the necessary licences. Newcomers joined the early settlers; by 1839, the wealthy and influential Macleay family had taken up *Tarcutta* (later *Borambola*) and *Pullitop* as a back station. The equally influential John and Elizabeth Macarthur of *Camden Park* also had a cattle run, at *Nangus*. By the late 1830s, most of the squatters in the Wagga Wagga area were sending stock further down the river to the Lower Murrumbidgee area.<sup>16</sup>

The political power of the squatters of New South Wales grew in line with their wealth and the importance of the wool clip to the colonial economy. When NSW gained representative government in 1842, two thirds of the elected Legislative Council came from the squatting class. Their claims for security of tenure were met in 1847, when 14 year leases were introduced, together with the right to purchase unlimited parts of their runs at one pound an acre.

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<sup>13</sup> Sherry Morris, *op.cit.*, 1999, p.17.

<sup>14</sup> Peter Freeman Pty Ltd, *Wagga Wagga Urban Heritage Study*. Unpublished study prepared for Wagga Wagga Council, August, 2002.

<sup>15</sup> Cited in Sherry Morris, *op.cit.*, 1999, p.16.

<sup>16</sup> For further information see Sherry Morris, *op.cit.*, 1999, pp.14-20.

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By 1848-50, there were 237 gazetted squatting runs in the Murrumbidgee Pastoral District, the largest being Henry Osborne's *Brookong*, which covered 192,000 hectares on the southern of the Murrumbidgee River.<sup>17</sup> By this time, there were 2,592 people in the Murrumbidgee District (1846). As for many rural areas, the population was predominately male (70%). Of the small number of women settled within the area at this time, many played significant roles in station life.

## 2.4 The Founding Wagga Wagga

The gradual increase in population encouraged the establishment of townships. The earliest service town in the southwestern region of the Colony was Gundagai, where an inn and a blacksmith's workshop were established by 1838. The town was surveyed in 1840 and later re-sited after severe flooding in 1844.

In February 1847, sixteen licensed pastoralists from the Lachlan and Murrumbidgee Districts requested a bench of magistrates for the area around *Wagga Wagga* to overcome long standing problems of law and order. On 30 April, 1847, the *NSW Government Gazette* announced that *Wagga Wagga* was to be a place for the holding of Petty Sessions. A courthouse and lockup, blacksmith's shop, store and inn were built to the south of a popular ford on the *Wagga Wagga* run. Slab and bark huts housed the chief constable and his four men and a pound keeper. A more substantial dwelling, *Waterview*, was erected for the Clerk of Petty Sessions, Fred A. Tompson. A store and unlicensed hotel also opened on the *Eunonyhareenyha* run, north of the river, around this time.<sup>18</sup>

Thomas Townsend surveyed the township at Wagga Wagga; the township was gazetted on the 23 November, 1849. Townsend's plan provided for settlement on the northern and southern sides of the Murrumbidgee River. On the northern side, Townsend provided a formal street pattern with reserves for three churches, a market, public buildings and a cattle market. On the southern side, the larger of the two areas reserved, were reservations for a racecourse, courthouse and lockup, a police paddock, market, a national school, public buildings and a further three churches. The streets were named for veterans of the Peninsula Wars and of Waterloo, most likely by the Surveyor General Thomas Mitchell. In December 1849, the *Sydney Morning Herald* prophesised a bright future for the new township:

‘...the site of Wagga Wagga is extremely well chosen, and was selected by some experienced residents originally as the site for a police station. Its public house and blacksmith's shop may appear to many a very weak hypothesis to found the structure of a city upon, but there is not doubt that it will one day become a mighty place, and completely eclipse Gundagai and all those villages struggling into existence with an energy to desperate to last.’<sup>19</sup>

The general line of Edward Street, which marks the northern boundary of the Wagga Wagga Base Hospital, is shown on early maps of this period as the ‘Edward River Track.’ The Edward River is thought to have been named for Edward Howe, who, with his brothers, owned *Wyngolong*. T.S. Townsend's *Plan of Wagga Wagga* dated 1849 shows the track as a dotted line marked ‘From the Edward River...to Tarcutta.’<sup>20</sup>

The subject site was located outside of the boundaries of Townsend's plan.

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<sup>17</sup> NSW Heritage Office and Department of Urban Affairs and Planning, *Regional Histories of New South Wales*, NSW, The Authors, 1996, p.134.

<sup>18</sup> Sherry Morris, *op.cit.*, 1999, p.ix.

<sup>19</sup> ‘The Sydney Morning Herald’, 14 December, 1849, cited in William R. Ellis (comp.), *The Street Names of Wagga Wagga*, NSW, Council of the City of Wagga, 1990, p.10.

<sup>20</sup> William R. Ellis (comp.), *op.cit.*, 1990, p.40.

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The first residence in the area north of the railway line and as far as Edward Street, was *Foxborough Hall*, built in 1857 by hotelier Thomas Fox. Gardens, a small vineyard, servants' quarters, stables and coach-house etc surrounded this substantial dwelling. The site is now occupied by the Calvary Hospital.

## 2.5 Population Growth: The Squatter and the Selector

As the population of the Colony increased during the mid nineteenth century, and meat prices rose, the Murrumbidgee:

‘...became a vast fattening paddock, as squatter-dealers drew store cattle and sheep from the north and sold fats to Victoria. Overlanders no longer followed the rivers west to South Australia, but crossed them south to Victoria. Wagga, Narrandera and Hay became crossing places; local squatters were literally on the road to a fortune.’<sup>21</sup>

During the 1870s, the Murrumbidgee and Lachlan Pastoral Districts represented around 75% of pastoral investment in New South Wales. The earlier dominance of cattle declined in favour sheep; while the number of cattle almost half between 1859 and 1870, the number of sheep quintupled.

Although Albury remained the major centre within the Riverina, Wagga Wagga township prospered during its first thirty years. A significant stimulus for growth was provided when stock sales began to be held at Wagga Wagga in 1855-6; between 1856 and 1861, the population of the township doubled. By 1856, Wagga Wagga supported a population of 336 people, mostly male and mostly young; 50% were under the age of 21 and 87% were under the age of 44.<sup>22</sup> There were four hotels, a Mechanics' Institute and a School of Arts.

After the floods of the 1850s, a bridge was constructed over the Wollundry Lagoon at the end of Fitzmaurice Street; Baylis Street was formed to serve as a road south from it. The area was surveyed by P.F. Adams in 1858 and was, for some time after, known as 'Newtown.'

Until the 1870s, the pastoralists (squatters) continued to dominate Wagga Wagga society, controlling the majority of land, representing the district in parliament, filling appointments as magistrates and playing leading roles in the establishment of important institutions, such as schools, churches and hospitals. These men and their families had steadily opposed the increasingly calls for land reform during the 1850s. In response to public pressure to redress the inequitable distribution of land and open up the vast squatting runs to small settlers, the New South Wales Government had passed the *Robertson Land Act* in 1861 allowing 'free selection' before survey. Under this Act, leasehold areas, whether surveyed or not, were opened for sale. 'Selectors' were given the right to purchase a limited area (from 40 to 320 acres) of Crown Land for £1 per acre. In theory, the Act provided encouragement to the small selector; only one quarter of the purchase price was payable at the outset as a deposit. In practice, however, the Act failed in its objective. Numerous means were employed by the pastoralists to maintain their empires. It was not uncommon, for example, for pastoralists to purchase only the land around waterholes, rendering the intervening land worthless to anyone else. 'Dummying'- whereby the land was nominally purchased by someone else on behalf of the squatter- was also common.

Selection was slow in the Wagga Wagga area in the 1860s, largely due to the lack of immediate markets and poor transport. Only 63 selections (around 6,643 acres) were

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<sup>21</sup> Bill Gammage cited in NSW Heritage Office and Department of Urban Affairs and Planning, *op.cit.*, 1996, p.135.

<sup>22</sup> Shirley Morris, *op.cit.*, 1988, p.5.

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made between 1862 and 1865. By the 1870s, however, settlers were arriving in Wagga Wagga in greater numbers and were beginning to challenge the earlier dominance of the squatters: in 1873 there were 997 selections, in 1874, 728 selections and in 1875, 779 selections.<sup>23</sup> As a result of Selection, mixed farming was introduced; the acreage under wheat increased. Two mills were established in Wagga Wagga, in 1857 and 1866, one of either side of the River. By the mid 1870s, Wagga Wagga was no longer importing wheat, but exporting it. The selectors on their mixed wheat-sheep holdings would later benefit from the opening of the Government Experimental Farm outside of Wagga Wagga in 1892. The Farm developed new wheat varieties, encouraged new crops and gave advice to local farmers.

As had been predicted by *The Sydney Morning Herald* in 1849 (see back), the town of Wagga Wagga gradually eclipsed other early settlements, including Gundagai, Narrandera (1863) and Darlington Point (1876). When compared to the older town of Gundagai, Wagga Wagga was well located, as the road from Dubbo and Forbes to Albury, via Wagga Wagga, superseded the old road south through Gundagai. The future of the township was assured when a Court of Quarter Session and District Court for the Southern Districts, encompassing Wagga Wagga, Goulburn, Yass and Gundagai, were established in Wagga Wagga in 1861. It was also in this year that the first National School was opened. Three denominations- Roman Catholic, Anglican and Wesleyan- built churches in Wagga Wagga between 1859 and 1869. Sporting events were thriving and a town band was soon established. The Murrumbidgee River was bridged by a private consortium, which was then entitled to collect tolls (1861). For a brief period, the fact that the new steam river boats could reach as far as Wagga Wagga more regularly than they could Gundagai was a decided advantage. The businessmen at Wagga Wagga took full advantage of this link to the Murray River, and hence Victoria, forming the Wagga Wagga Steam Navigation Co. in 1869. The progress that had been made in Wagga Wagga over the past twenty years was consolidated by the declaration of the Borough of Wagga Wagga on 15 March of the following year (1870).<sup>24</sup>

The railway reached North Wagga Wagga (Bomen) in 1878. Wagga Wagga Railway Station was eventually built over a kilometre from the centre of town in 1879-80. Although principally extended into the Riverina to recapture the wool trade (which had been flowing into Victoria, and to a lesser extent, South Australia), the arrival of the railway stimulated the growth of wheat. From 1881 to 1891, the total acreage of land under wheat in the Wagga Wagga district rose to nearly 100,000 acres. By 1875, the population in the town had reached around 2,000 people and was continuing to rise. While there had been only 27 houses in Wagga Wagga, only 4 of which were of brick or stone in 1851, by 1891 there were 921 houses, 599 of which were brick.<sup>25</sup> The opening of the railway station at the end of Bayliss Street encouraged the establishment of some businesses in the immediate area, away from the major commercial area centred on Fitzmaurice-Gurwood Streets.<sup>26</sup>

The history of the subject site during the late nineteenth century is difficult to determine without a full title search. Parish maps indicate that the subject site was part of a 40-acre parcel of land owned by T. Byrnes, who also owned the adjoining 40 acres (Figure 4).<sup>27</sup> T. Byrnes was most likely Thomas Byrnes, a local innkeeper and businessman. In July 1885, following bitter complaints about the eyesore that was the gaol in the centre of town, 5 acres of Byrnes 40 acre lot was resumed for a Goal Site (14 July, 1885). The land would, however, never be used for this purpose.

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<sup>23</sup> Sherry Morris, *op.cit.*, 1999, p.47.

<sup>24</sup> Gazette notice cited in William R. Ellis (comp.), *op.cit.*, 1990, p.8.

<sup>25</sup> Statistics cited in Sherry Morris, *op.cit.*, 1999, p.71.

<sup>26</sup> Peter Freeman Pty Ltd, *op.cit.*, 2002, Volume 1, p.10.

<sup>27</sup> See 'Town Maps, Wagga Wagga.' Mitchell Library.



Figure 4: Detail from a *Plan of Wagga Wagga, Parish of Wynyard, 1889*. NSW Parish Map Preservation Project, No. 15303201.

## 2.6 Early Medical Services in Wagga Wagga

### 2.6.1 The First Medical Men

Prior to the 1850s, the people of Wagga Wagga and the surrounding area relied upon their own resources for medical treatment. A number of pioneers, such as F.A. Thompson of *Eunoyhareenyha*, who had treated the Aborigines during the measles epidemic in 1835, earned a reputation for their medical knowledge and were sought out to treat local emergencies.

During the 1850s, a number of men with formal or informal medical training arrived in Wagga Wagga, including the German surgeon, Dr. Frederic Brahtenal, and two uncertified practitioners, the Irishman 'Dr.' James Egan Wells and 'Dr.' Robert Davidson, who opened Wagga Wagga's first store in 1851. The first doctor to stay for any length of time was Dr. Allen Bradley Morgan, who arrived in Wagga Wagga in 1856.

### 2.6.2 The First Hospital in Wagga Wagga

A public meeting was held in the Wagga Wagga Court House on 21 April, 1856 in order to assess the growing need for more formal medical services within the district. The meeting led to the election of a committee to oversee the establishment of a hospital. The newly arrived Dr. Morgan was appointed as the first surgeon. As no provision had been made in the first town plan for a hospital, the owner of the old Royal Hotel offered a small slab hut with a bark roof in Kincaid Street for use as a hospital, 'to provide for the relief of the indigent and houseless sick of the neighbourhood.'<sup>28</sup> The level of support and the speed with which funds were raised for the hospital (over £280 in a month) demonstrate how important it was perceived to

<sup>28</sup> Cited in Sherry Morris, *op.cit.*, 1999, p.82.



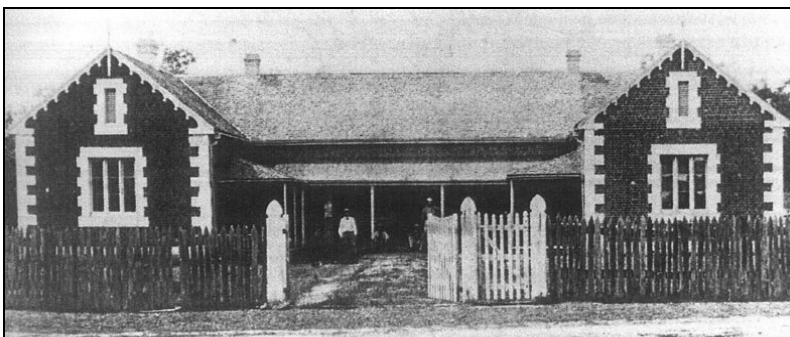
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be. Funds were also raised by diverting Court fines, usually reserved for the Benevolent Society in Gundagai, to the Hospital.

The Hospital was formally opened on 1 July, 1856. The number of patients treated in the first few years fluctuated between twenty and fifty people. During this period, the Trustees sought a grant of land from the Government in order to build a larger hospital and, in 1859, were allocated land on the corner of Tarcutta and Johnston Street, a site identified two years earlier by Surveyor Townsend as a suitable location for a hospital.

### 2.6.3 The Tarcutta Street Hospital

The first purpose-built Wagga Wagga Hospital was erected on the corner of Tarcutta and Johnston Streets in 1859-60 (Figure 5). Of the cost of £1,600, the Government contributed only £200. The building was small, containing only two wards. Extensions were carried out as funding became available: a façade and verandah were added in 1861 and a new wing in 1863. Ultimately, the Hospital comprised a central building and two return wings; the five ward rooms opened onto a return verandah. There were separate men's and women's wards, three smaller wards, a boardroom, kitchen, bathroom/storeroom, outhouses and a mortuary or 'dead house.'



**Figure 5: The Tarcutta Street Hospital in the 1870s.**

S. Morris, *Wagga Wagga: A History*, 1999.

The tradition of cultivating formal hospital gardens, which would later be replicated at the existing hospital site, was established in Tarcutta Street. The quarter acre frontage to the Hospital was laid out as a garden, which included regular planting along the boundary lines and 'some valuable plants and shrubs.'<sup>29</sup> The half-acre to the rear was laid out as a garden and stocked with fruit trees. During the early period of operation, the Hospital was staffed by a wardsmen, who acted as dispenser, superintendent and house steward, and his wife, who acted as matron and undertook the household duties.

The community's early enthusiasm for the Hospital, in terms of financial supported, waned. As early as 1861, and in stark contrast to the health of the thriving local economy, the Hospital was described as being in a sadly neglected state, the building filthy and the grounds neglected. The situation became increasingly critical as the number of patients being treated at the Hospital increased in the 1860s and 1870s. There were frequent complaints about the way in which the successive wardsmen and their wives managed and ran the hospital throughout this period.

A review of local hospitals in New South Wales and Queensland in the late 1870s carried out by Dr. Roberts revealed the poor state of most of the Colony's hospitals and the shortage of medical services outside the major cities in general. Roberts review revealed that the 20 beds provided by Wagga Wagga Hospital were now serving a population of 2,700 people (i.e. 1 bed for every 135 people). On average, 152 people were being treated each year, with a daily average of 12 men and 1

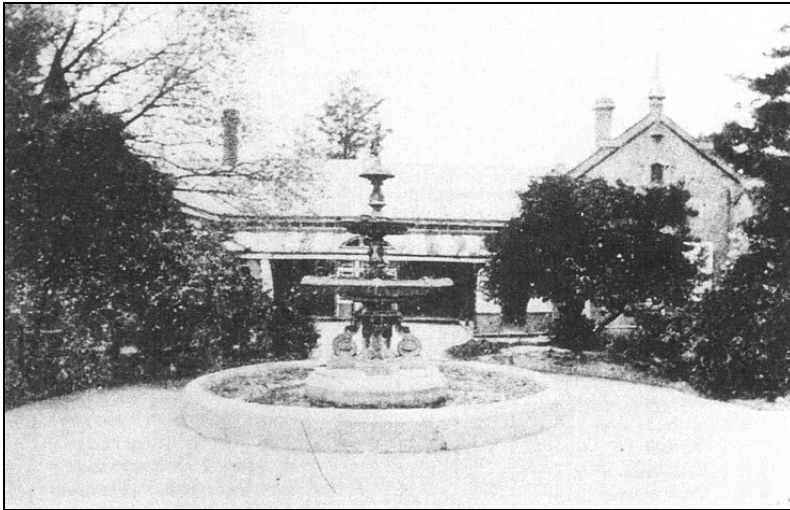
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<sup>29</sup> 'The Wagga Wagga Advertiser' cited in Sherry Morris, *op.cit.*, 1999, p.12.

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woman. Few of these patients were capable of paying for their care and there were a number of patients who were more suitable for admittance to a benevolent institution. By 1880, the situation at Wagga Wagga had reached crisis point as the number of patients treated doubled, primarily as a result of the number of railway workers in the district. Little had been done to improve the condition of the building. A new committee was elected and a new set of Rules and By Laws adopted. One of the most important changes was the dismissal of the wardsman and his wife, and their replacement with a paid doctor – a qualified Superintendent/Dispenser – and a qualified Nurse.

By now, there was considerable debate over whether the Hospital should remain at its current site or move to a new site. The Hospital Committee was offered several allotments on the southern side of the river, in Newtown. Few, however, favoured the proposed location, considering it too far from the centre of town and the land to flat and ill drained. Accordingly, the decision was taken to improve and extend the existing building. A complete renovation was carried out, including extensions and the construction of a new front to the building in 1880-3. The gardens were resurrected and extended; an iron foundation was donated for the front garden and land newly acquired to the rear was laid out with walks, flowerbeds and shrubs (Figure 6).



**Figure 6: The Tarcutta Street Hospital in the late nineteenth century.**  
S. Morris, *A Delicate Balance*, 1988.

By 1881, the population of Wagga Wagga had increased to 3,075 people. While existing industries expanded, new industries opened. A new roller mill, for example, reported to be the second largest in New South Wales, opened in 1890; two wool scouring plants opened in North Wagga Wagga in 1889 and 1890; and two butter factories opened in 1895.<sup>30</sup> In the seven year period from 1880 to 1887, the newly renovated Hospital treated 1,451 inpatients and 1,005 outpatients. Around two thirds were from the surrounding area, as opposed to the township. The Hospital continued to experience funding crisis, as donations from the wealthy squatters declined and small centres, such as Narrandera, Junee and Urana, built their own hospitals. While these smaller hospitals competed for local funding, they continued to refer some of their patients to the larger facility at Wagga Wagga.

The situation at the Hospital became acute as the population of the town and surrounding area continued to increase. The *Crown Land Act* of 1895 and the *Closer Settlement Act* of 1905 encouraged more intense rural settlement, the railway network was extended (in the form of branch lines) and agricultural education improved. Although Wagga Wagga was, by 1900, a large town, it remained un-sewered and unclesaned. The township was extending outwards as farms formerly on the outskirts

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<sup>30</sup> Peter Freeman Pty Ltd, *op.cit.*, 2002, Volume 1, pp. 20 onwards.

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of town were subdivided and sold. The rate of infectious disease rose and included outbreaks of typhoid fever, scarlet fever, gastroenteritis and diphtheria. Although further works were carried out, the Hospital was unable to meet demand. In 1906, for example, during an epidemic of typhoid fever, tents had to be added to provide for patients. This situation was damning for what was then the second largest country hospital in New South Wales.<sup>31</sup>

It was around this time that the government expressed an awareness of the role they had to play in public health and hygiene, including the need to supplement the efforts of charities and communities in funding hospital services. In 1881, the first Board of Public Health came into being. The responsibilities and powers of this Board were gradually extended and strengthened by the *Public Health Acts* of 1897 and 1902. The Department of Health was established two years later, in 1906.

## 2.7 Choosing the New Hospital Site

While agreeing that something needed to be done about the Wagga Wagga Hospital, the Hospital Committee could not agree whether to build a new hospital on the existing site or move to a new one. Those in favour of moving cited the fact that the current site was 'airless', constrained by surrounding development, too close to the business centre of town and to the River and was ill drained. Those in favour thought that money could be saved if some of the existing facilities were re-used.

In August 1905, the Principal Assistant Architect of the Public Works Department, Mr. McRae, inspected the Hospital and concluded that the existing site and most of the buildings were unsuitable for re-use. McRae recommended that the Hospital be moved to a five acre site on the corner of Docker and Edward Streets, the site reserved for a gaol in July 1885, but which was no longer required for this purpose. McCrae produced two plans for the new site: the first for a single storey building, with provision for a second storey at a later date (estimated construction cost: £8,000) and the second, for a two storey building (estimated construction cost: £7,700).

Dr. Milliard, of the Public Health Department, also inspected and condemned the existing buildings. Milliard similarly recommended that the Edward Street site be acquired, dismissing concerns that the site was too far from town and too close to a travelling stock route. The town of Wagga Wagga was already extending in this direction. By 1900, over 260 people were living to the south of the railway line:

‘Although the business centre remained in the Fitzmaurice-Gurwood area, the town was gradually growing southward from Wollundry Lagoon to the railway station.’<sup>32</sup>

Despite the recommendation of the Government officers, the Committee continued to be split, with most favouring remaining at the existing site and others favouring various other sites put forward. The decision to move to Edward Street was finally determined by the availability of funding. On approaching the Government in March, 1906, the Committee were informed they could have £1,000 provided that the new hospital was not built on the current site, but on the site in Edward Street. As a result, an agreement was reached with the Department of Justice to surrender their 5 acre sited in Edward Street. This land, being the subject site, was dedicated as a Hospital Site on 3 January, 1907.

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<sup>31</sup> S. Morris, *op.cit.* 1988, pp.28-9.

<sup>32</sup> *Ibid*, p.78.

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## 2.8 The New Hospital Building (now the Old Hospital Building)

### 2.8.1 The Visit of W.L. Vernon, Government Architect

While the Committee continued to debate the issue of the Hospital's location, the Government Architect, Walter Liberty Vernon, had visited Wagga Wagga and submitted preliminary plans for the new hospital in June 1906. These plans provided for a main, north facing building, in the 'modern Queen Anne Style, which was 'plain but good in appearance.'<sup>33</sup> The ground floor comprised a female ward of 16 beds, a male ward of 16 beds, administration offices and an outpatient's room (Figure 7). On the first floor, there was a second ward, an operating theatre and matron's quarters. There was also provision for a patients' dining room, the nurses' lecture room (also used as a dining room), sanitary conveniences and a kitchen, with servant's quarters above. The nurses' quarters were to be at the rear, some distance from the main building. The new building was to be sited 250 ft from the road in order to create a fall for the drains to the septic tank. It was also decided to move the Isolation Ward building from Tarcutta Street.

Raising the estimated £8,700 for construction was, as it had been in the past, problematic. The government promised a grant of £2,000, with an additional £1,500 for the purchase the old Tarcutta Street site. A further £1,000 was received from the Estate of the Late Abraham Booth in 1907. Given the shortfall, it was decided to build only one wing (the eastern wing) of the planned hospital, capable of accommodating 32 patients. The local paper later attributed the design of the Hospital to William John Monks.<sup>34</sup> Past reports have indicated that he prepared the working drawings for the building, without citing primary evidence. The only surviving drawings are signed by Vernon. How much input Monks had in the design of the building is thus unknown.

The first improvements to the new Edward Street site were made in August 1907, when trees were planted around the site and a substantial fence was erected. On the main Albury Road (later Bourke Street), a windbreak was planted to protect the site from the strong westerly winds and from dust:

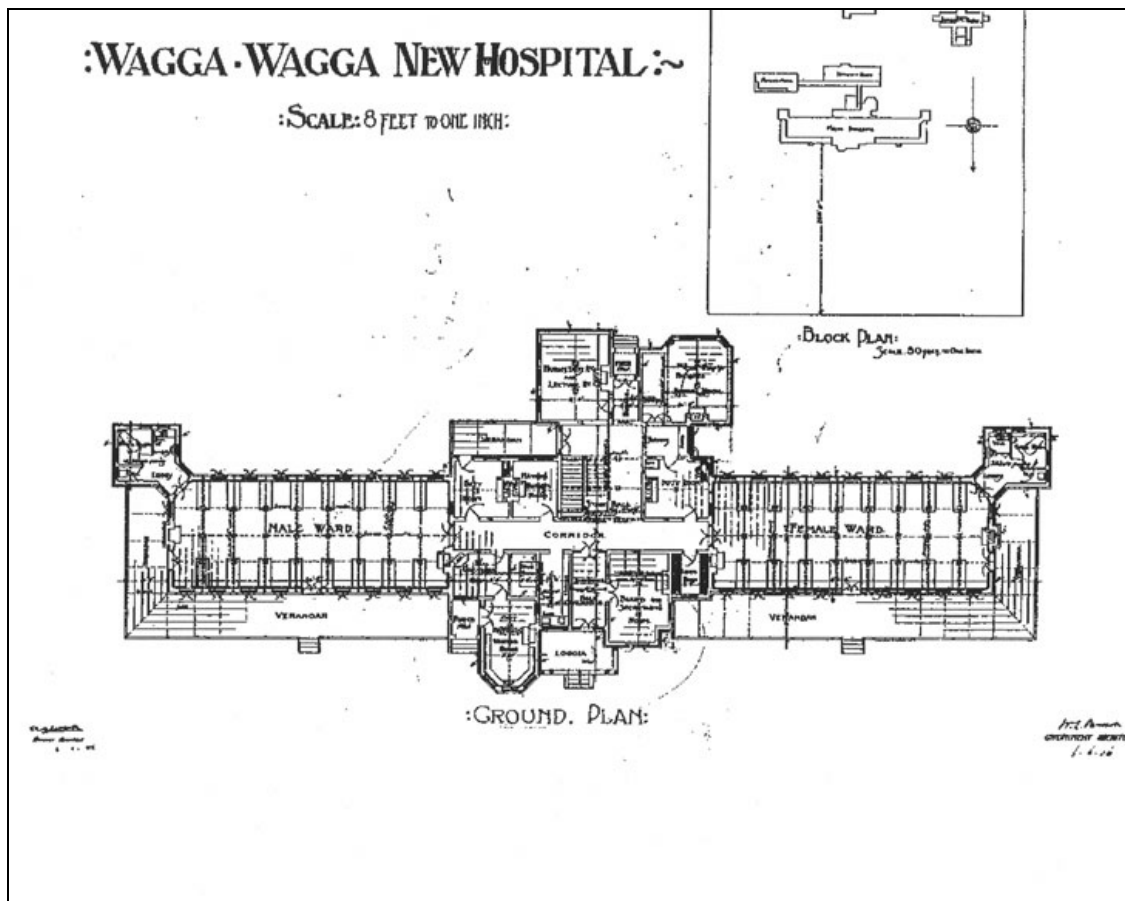
'The trees on the road were plain ones, while on the inside of the fence pines were planted opposite the spaces between the trees in the road and large growing shrubs inside the pines formed a lower windbreak. Ornamental araucarias and cypress trees were planted six feet from the fence facing Edward Street; pines were planted twelve feet from the fence on the south side; and acers oaks on the east.'<sup>35</sup>

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<sup>33</sup> Refer to the article that was printed in the *The Wagga Wagga Advertiser* on 12 May, 1906 in response to Vernon's visit in Appendix 1.

<sup>34</sup> For example, see the article in: *The Wagga Wagga Advertiser*, 13 February, 1908 in Appendix 1.

<sup>35</sup> S. Morris, *op.cit.*, 1988, p.33



**Figure 7: W.L. Vernon's original 1906 design for the Hospital, showing the layout of the ground floor and the location of buildings.**

McPhee Architects, *CMP 2005*. Also cited at Plan Services Department, Department of Commerce.

Note: this is the only plan from this phase of works held by this archive.

## 2.8.2 The Architects and the Builder: Vernon, Monk and Hardy

The English born architect, **Walter Liberty Vernon** (1846-1914) arrived in Australia in 1884. Vernon was appointed Government Architect in 1890, a position he held until his retirement in 1911:

'Unlike his predecessor, Vernon saw major city public buildings as 'monuments to Art', large in scale and finely wrought in stone (the main facade of the National Art Gallery of New South Wales, 1904-06); suburban buildings took on the scale and character of their surroundings (Darlinghurst fire station, Federation Free Style, 1910); and country buildings were designed with cross-ventilation, shady verandahs and sheltered courtyards (Bourke Court House, Federation Free Style, 1900).

In running the branch, Vernon insisted on the highest quality of design, the use of improved materials and construction methods, and the application of business-like procedures. Reserving the right to approve designs, he delegated project responsibility to capable officers.<sup>36</sup>

<sup>36</sup> John Ritchie (gen.ed.), *Australian Dictionary of Biography Volume 12*, Victoria, Melbourne University Press, 1990, pp.320-1.



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Vernon was particularly noted for the careful attention he paid to the provision of light and ventilation to hospital buildings.

Walter Liberty Vernon (and/or buildings produced by the Government Architect's Office under his charge) is well represented by buildings/complexes listed on the State Heritage Register (42 items) and the State Heritage Inventory (209 items). The majority of these buildings were designed in his position as Government Architect. Included among these listings are a number of hospital buildings, including:

- Albert and Victoria Pavilions, Royal Prince Albert Hospital.
- Buildings at Cumberland Hospital (including Wisteria House (1906) and the Administration Block (1910))
- Nine ward buildings at Lidcombe Hospital (1906)
- Garrawarra Hospital, Miranda (1908-1918)
- Kenmore Hospital, Goulburn (Administration Block and various 'cottages')

A selection of these buildings is illustrated below for comparative purposes (Figures 8 to 10).



**Figure 8: Lidcombe Ward Block, 1906.**

T. Howells and M. Nicholson, *Towards the Dawn: Federation Architecture in Australia 1890-1915*, 1993.



**Figure 9: Garrawarra Hospital, photographed in 1990-2000.**

Wollongong City Library, P11/P11793.

There is another Vernon designed building in Wagga Wagga, being the Wagga Wagga Court House, erected in 1900-02. According to the statement of significance given by the State Heritage Inventory Listing Sheet:

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‘The Wagga Wagga Court House is a large and visually stimulating public building complex that occupies a prominent corner site within the town and is one of the finest examples of its type in Australia. This building, along with the Bourke Court House is a rare and largely unaltered example of the creativity of the Government Architects’ office at the turn of the century. The clock tower is a city landmark.’<sup>37</sup>



**Figure 10: Wagga Wagga Court House**  
<http://commons.wikimedia.org/wiki/File:Wagga-courthouse.jpg>

**William John Monks** (1869-1943) was born in Wagga Wagga in 1869, the oldest child of a local publican. He later served his articles with the Sydney based practice of Stockham and Hassalls. In 1890, he returned to Wagga Wagga and opened a practice, which he continued until 1938. Monk later formed a partnership with Christopher Ernest Jeffs and, briefly, Roy Ashley Shaw (Monks, Jeffs and Shaw and, from 1932, W.J. Monks and Jeffs):

‘While most of his designs adhered to a Federation style, interestingly he was courageous enough to mix details from both periods (the other being Victorian), however with the decoration to his buildings, they fall under the general category of ‘Federation.’ The common thread to all his designs was the use of asymmetrical design, the decorative treatment of gable ends, feature chimneys, decorative timber work at verandahs and eaves and the prominent location of a bay window.’<sup>38</sup>

Local builder, **Charles Hardy**, won the tender for the construction of the hospital building; work commenced towards the end of 1907. C. Hardy & Co. Ltd was the most influential building firm in Wagga Wagga over four generations. The company had been founded by Charles Hardy, an English builder who had arrived in Wagga Wagga in 1861. The firm erected many of the principal buildings of the Riverina, including courthouses, stations, mills, factories and private residences. Hardy established his own brickyard, timber yard, lime kilns, sawmill and joinery works. The Hardy who constructed the Hospital was Charles Hardy Junior, who carried on his father’s business after his death in 1908 with the assistance of his brother William Henry. The company continued to attract important contracts, providing employment for up to 100 people.<sup>39</sup>

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<sup>37</sup> Wagga Wagga Courthouse, State Heritage Inventory, Database No. 2560006.

<sup>38</sup> Noel Thomson, *C. Hardy and Co. Builders, Monks + Hardy: We Built This City*, August 2008.

<sup>39</sup> *Ibid.*

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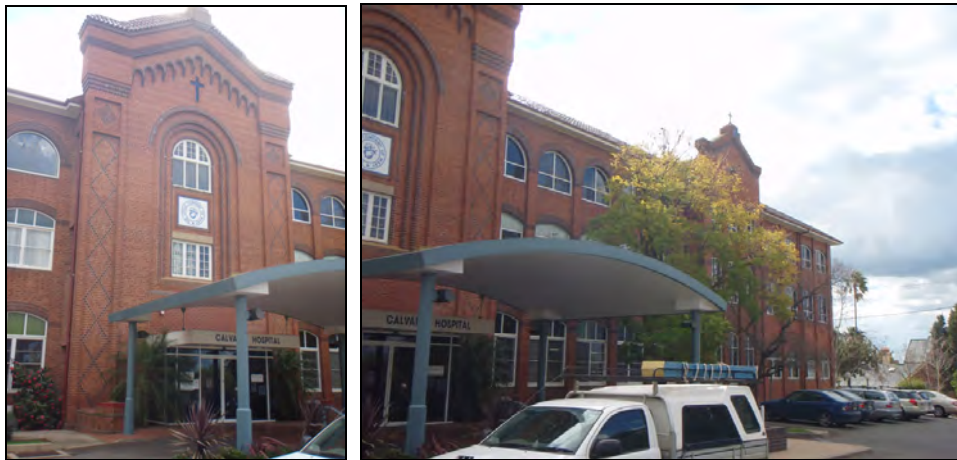
Close friends, the Hardys and Monks collaborated on a number of important projects including:

- Murrumbidgee Flour Mill, Company Office Building (1890s).
- J.J. McGrath's Saddlery, Fitzmaurice Street (1893).
- Hogan's Brewery, The Esplanade (1899).
- Major extensions to Mt. Erin, the Boarding School (1892), Infants School Room (1901) and Chapel (1915).
- Extensions to St. John's Church (1912).
- Wagga Wagga Base Hospital, kitchen and nurses' quarters (1908-9).
- Conversion of Foxborough Hall into St. Joseph's Hospital.
- Lewisham, later Calvary, Hospital (1930). Completion works at St. Michael's Cathedral (1922).
- Private residences at No. 53 and 95-7 Gurwood Street, 77 and 79 Johnston Street and 16 The Esplanade.<sup>40</sup>

Other works by Monk (all listed on the State Heritage Inventory and demonstrating a variety of architectural styles, include:

- The Junee Hotel, 1910-11.
- Former School of Arts, Junee, 1903.
- St. Brendan's Roman Catholic Presbytery, Ganmain, 1908.

A selection of these buildings is illustrated below for comparative purposes (Figures 11-14).



**Figure 11: Calvary Hospital.**  
Weir Phillips 2009.

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<sup>40</sup> Noel Thomson, *C. Hardy and Co. Builders, Monks + Hardy: We Built This City*, August 2008.



**Figure 12: Junee Hotel, May 1999.**  
State Heritage Inventory, Database No. 1840055.



**Figure 13: Medical Centre (former School of Arts),  
Junee**  
State Heritage Inventory, Database No. 1840154.



**Figure 14: St. Brendan's Roman Catholic Presbytery,  
September 2004.**  
State Heritage Inventory, Database No.  
1400017.



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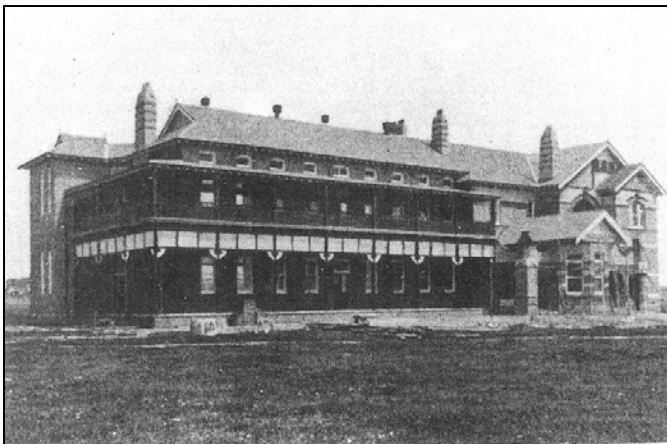
### 2.8.3 Laying of the Foundation Stone

The foundation stone for the new Hospital was laid by the Premier, the Hon. C.G. Wade, on 12 February 1908, in the presence of the Federal Treasurer, the local MP and other local dignitaries. The *Wagga Wagga Advertiser* reported it as ‘one of the greatest gala days in the history of Wagga.’ Having followed a procession from the Railway Station to the Hospital Site, a crowd of 2,000 to 3,000 people watched the laying of the foundation stone. The building, already advanced, was decorated with flags. The Premier described the new hospital as a ‘comfortable building with all the latest sanitary improvements.’ The Premier was presented with a trowel in a glass case by the Mayor, on behalf of the architect, W.J. Monks, and the contractor, Charles Hardy Junior. The report of the event that appeared in the *Wagga Wagga Advertiser* on 13 February, 1908 can be found in Appendix 1.

By June 1908, the brickwork for the building was nearing completion and the imported French tiles were being laid on the roof. Financial difficulties arose once more when tenders accepted by the Government Architect were well above estimated costs. Additional monies were raised by appeal and through government grant. In June 1908, the *Wagga Wagga Advertiser* carried an enthusiastic description of the building, a full copy of which can be found in Appendix 1:

‘The most striking points in connection with the building is the attention given to light and ventilation. In the large ward on the ground floor, in which accommodation will be provided for 16 male patients...there are no less than eight windows on either side. The upper floor of similar proportions and appointments will be used as a female ward. The ceilings are of plain steel, and the walls are neatly plastered. So as to guard as much as possible against the accumulation of dust, the corners have been rounded off.... The Matron and nurses’ living rooms are situated on the upper floor and there are also surgical wards and a sterilising room. One of the most important rooms on the upper floor is the operating theatre...’<sup>41</sup>

The tenders of C. Hardy and Co. were also accepted for the erection of the Kitchen Block and Nurses’ Quarters in June 1909 and for the Laundry, Mortuary, Latrines, Balcony and Stairs in November 1909. Figure 15 is a photograph of the Hospital nearing completion.



**Figure 15: The Hospital nearing completion in 1908.**  
S. Morris, *A Delicate Balance*, 1988.

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<sup>41</sup> ‘The New Hospital: A Fine Structure Approaching Completion’, *Wagga Wagga Advertiser*, 4 June, 1908.



## 2.8.4 Official Opening

By February 1910, the buildings were almost complete but could not be opened until another £2,500 was obtained for final works, notably drainage works. Although describing Wagga Wagga Hospital as a 'veritable nightmare', the Chief Secretary again assisted. By the time that the Hospital opened, the Government had contributed £11,000 out of the total cost of around £14,000. The Premier, C.G. Wade, returned to open the Hospital on 7 September, 1910 on what was, once again, a Gala Day for Wagga Wagga. The report that appeared the following day in the *The Wagga Wagga Advertiser* can be found in Appendix 1.

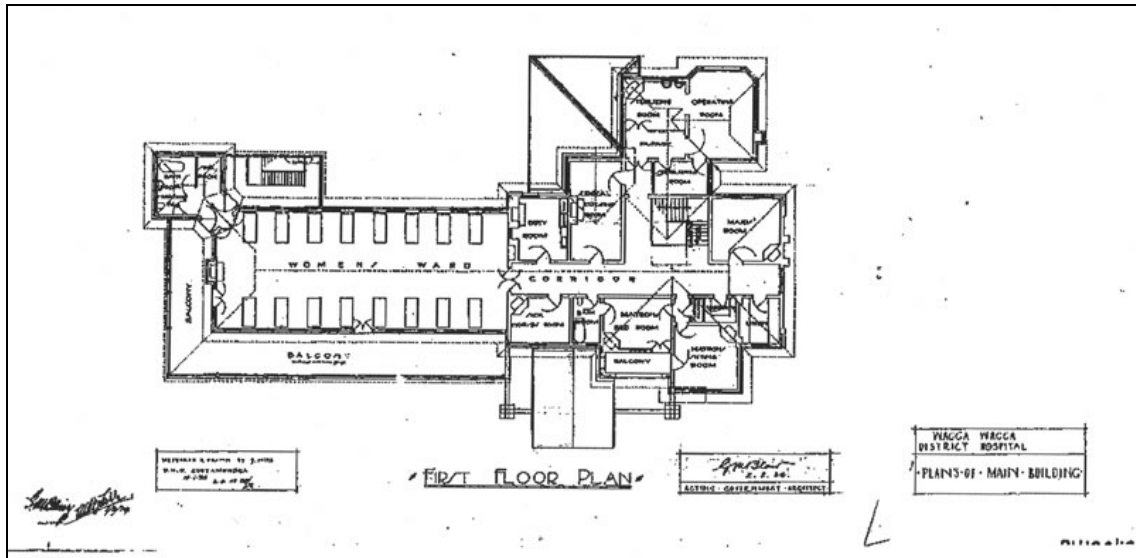
Figures 16 and 17 provide two photographs from the Official Opening. The building to the front of the Hospital is the Nurses' Quarters (since demolished). Figure 18 is a plan of the first floor of the building as executed and Figure 19 is of the only early internal photograph found of the Hospital from this period, being of the first floor Female Ward.



**Figure 16: Hospital Opening.**  
S. Morris, *A Delicate Balance*, 1988.



**Figure 17: Hospital Opening.**  
S. Morris, *A Delicate Balance*, 1988.



**Figure 18: Works as executed, dated 1924, showing the first floor of the eastern wing.**  
 CMP 2005. Original sighted at the Plan Services Department, Department of Commerce.



**Figure 19: Female Ward, c.1910.**  
 S. Morris, *A Delicate Balance*, 1988.



**Figure 20: The Mortuary, photographed in the 1920s.**

S. Morris, *A Delicate Balance*, 1988.

The above photographs indicate that the design of the Hospital generally followed trends in contemporary local residential architecture:

‘By the turn of the century architectural styles were changing, although in Wagga, as in other country centres, trends persisted for a while after they had become outmoded in the cities. Despite this, contemporary architectural trends of the Federation era are to be found in Wagga residential architecture of that time although the form of the buildings generally reflected the conservative Victorian-era styles. The decorative cast iron verandah ornament which had become popular following the establishment of rail links with Sydney and Melbourne continued to be applied, but more often fine timber fretwork would be used for verandah decoration, along with roughcast panels under eaves or on front gable projections. Other Federation era features such as pressed metal gable ends and decorative window hoods, and casement windows with Art Nouveau inspired coloured glass panels were also used. Corrugated iron was the favoured roofing material, rather than the Marseilles terracotta tiles which were popular in the larger cities.’<sup>42</sup>

The use of Marseilles tiles at the Hospital was particularly noted and indicative of the status of the building.

Wagga Wagga continued to be served by a number of small private hospitals and maternity homes, including *St Elmo* in Morrow Street (est. 1890s), *Welwyn* (est. 1923), Nurse Scott in Thorne Street; Nurse Myra May Daley in Gurwood Street; Sisters Amy Rosina Richardson and Mary Theresa Hogan at *The Hoberne Hospital* at 46 The Esplanade; Nurse Longmore in Kincaid Street; Nurse Jago in Peter Street; Nurse Trotter in Morgan Street; and Mabel Dickens at *Rossmoyne*, in Kincaid Street.<sup>43</sup>

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<sup>42</sup> Peter Freeman Pty Ltd, *op.cit.*, 2002, Volume 1, p. 27.

<sup>43</sup> *Ibid*, p. 17.

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## 2.9 Wagga Wagga Hospital During the Interwar Period

### 2.9.1 The First World War Years

Within ten years of opening, the new Hospital was operating at capacity. In 1912-13, the Government provided a grant of £1,500 for a new building to replace the timber Isolation Ward moved from Tarcutta Street. In 1913, the design of a new brick building consisting of two wards, a day room, a nurses' room, a duty room, lobby, conveniences and verandah, had been approved. Contractor John Barnett completed the building by early 1916.

By this time, the Hospital was again struggling as the outbreak of World War I in 1914 diverted public attention and funding. This was partially offset by an increase in the amounts raised through patient fees. In the past, hospitals had been viewed as a service for the poor. Those who could afford too, engaged private nurses when required, with operations often performed in the house. As hospital care improved, hospitals began serving a broader sector of society and the number of patients who could contribute towards their care increased. There was also an increasing active Ladies Advisory Committee, who organised numerous fundraising events.

In addition to their financial troubles, there were several outbreaks of diphtheria and meningitis and a serious crisis among the staff in 1917. Disagreement between the Matron and several of the nurses escalated to the point when a strike was threatened, leading to an investigation carried out by the Minister for Public Health and a number a well attended public enquires. The issue was resolved just prior to the outbreak of the 1919 influenza epidemic. By the end of the epidemic, there had been 320 cases within the Municipality and 142 additional cases from the outside, of whom 32 had died. During the worse of the epidemic, schools were closed, households quarantined and some activities restricted.

Figures 21 and 22 provide photographs of the Hospital during this period. The building to the rear of the hospital (since demolished) has not been identified.



**Figure 21: View of main hospital building.**  
S. Morris, *A Delicate Balance*, 1988.

Note: the recesses in the chimney on the western (side) elevation in anticipation of the later construction of the western wing.



**Figure 22: An undated photograph of the front entrance, showing the original, fine detailed brickwork contrasted with sections of roughcast render. Note also the carefully planted garden beds.**

S. Morris, *Wagga Wagga: A History*, 1999.

During the 1920s, the area immediately surrounding the Hospital Site began to develop. Access to the area south of the railway line was improved when a bridge was built over the railway line in Best Street in 1924:

‘On the surface, the 1920s were generally prosperous years for Wagga Wagga. The state government, and to a lesser extent the federal government, had spent large sums on transport (road and railways) and communication. Local authorities had spent massive sums on such improvements as electricity, sewerage and water reticulation. Living conditions improved for most...As transport and communications improved, Wagga Wagga became the dominating commercial and marketing centre for the whole region. Farmers and graziers often chose Wagga Wagga as their home base when they retired. Shearers, drovers and farm labourers lived in town rather than, as in the past, on the properties where they worked. Country people regarded Wagga Wagga as the centre rather than the closer, smaller towns, since many of the big stock firms.... had established offices in Wagga Wagga. They were also attracted by professional services, the larger shopping centre, hospitals and wider social life.’<sup>44</sup>

Most of the new residential development in Wagga Wagga during this period took place to the south of the town; there were numerous subdivisions of land, between Edward Street and the railway line, north of the railway line east and west of Mount Erin, and within the suburb of Turvey Park, south of Coleman Street.

The land around nearby *Foxborough Hall*, soon to become a Catholic hospital (see below), was owned by the Gormly and Hardy families and was subdivided in the 1920s. Robert Joseph Ernest Gormly advertised building lots fronting Edward Street from £2/2 per foot in the *Daily Advertiser* of 25 July, 1923, exhorting potential buyers to ‘buy where the floods will never reach you.’ In October 1927, the *Daily Advertiser* reported that a new ‘garden suburb’ was being developed by Hardys Ltd (later Akarana), where forty residences were proposed, together with a recreation ground and a central garden plot. The area on the other side of Docker Street was subdivided

<sup>44</sup> Sherry Morris, *op.cit.*, 1999, p.168.



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around the same time, in 1925. At this time, the 'Housing Board' purchased the Bolton Estate, which comprised Brookong, Salmon, Yabtree and Yathong Streets.<sup>45</sup> To the north of the Railway, the Mount Erin Trustees created 23 allotments, extending from Fox Street and creating Donnelly and Cox Streets:

'There was a great deal of subdivision during the 1920s, particularly in the areas around Mount Erin Convent, south of the railway line, and south of Edward Street, and much of the development which would occur within these subdivisions would be in the Bungalow style. Most of these residences were in brick, with corrugated iron roofs. Their principal features include prominent gables [single, double or triple] with porches supported on substantial brick piers topped with squat colonnettes or grouped timber posts. Windows were usually casement, sometimes in groups of three, and often featured leadlight.

Sometimes the Art Nouveau influence is apparent in the timber fretwork. This is far and away the most common housing style in the inner areas of Wagga, well illustrated in Brookong Avenue, Edmondson Avenue and Erin Street. Within some of these 1920s subdivisions there is clear evidence of housing development being the work of one builder, with numerous houses being variations on a common theme.<sup>46</sup>

For those outside town, the 1920s were mixed years. While large property owners benefited from high prices for wheat and wool, the end of the War had also brought soldier-settlers in the area. Despite assistance, many failed; the land parcels allocated to them were too small, most had no experience of the land and much of the land was unsuitable. Many soldier-settlers walked off their land in the late 1920s and 1930s.

### **2.9.2 The New Wing and Extensions to the Nurses' Quarters**

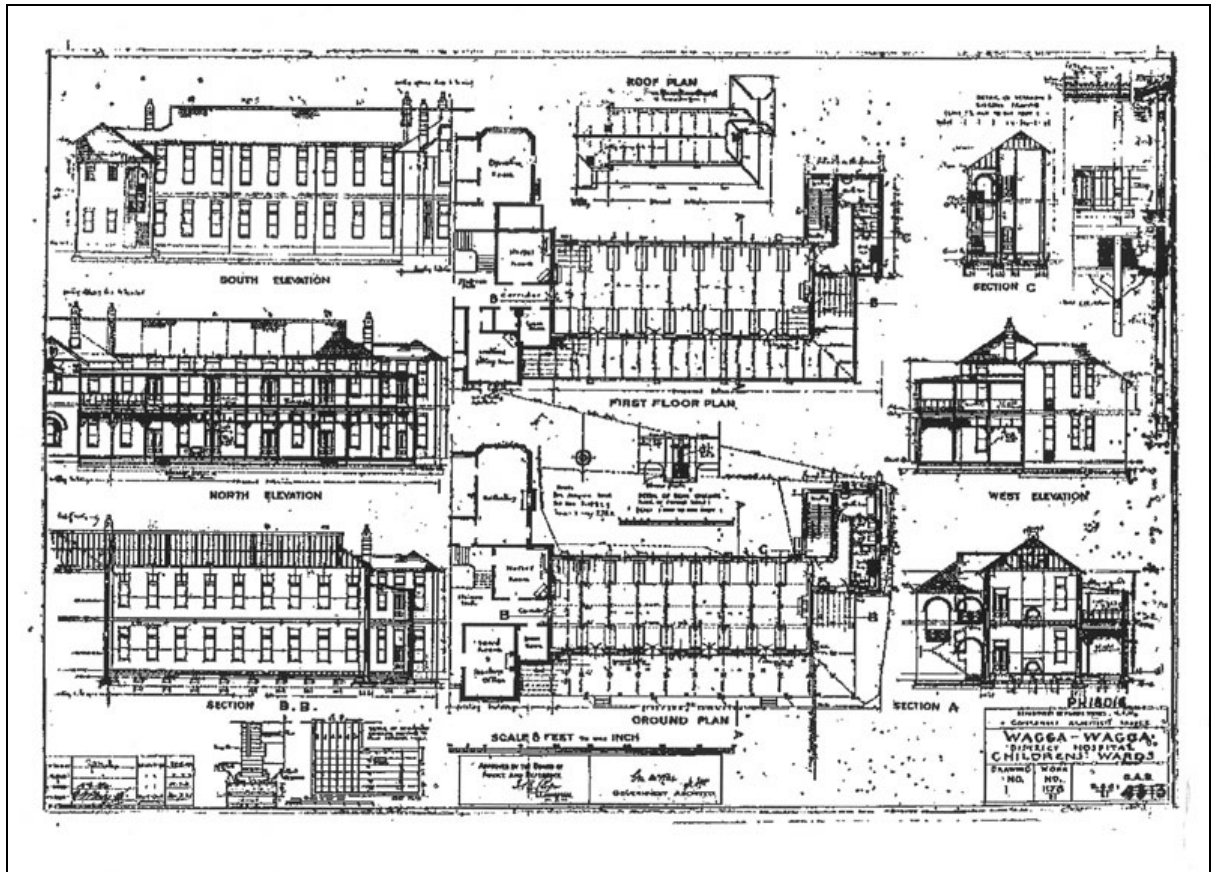
During 1919-20, funds were raised to enable the construction of the planned second wing, including a dedicated Children's Ward. W.J. Monks, who had prepared the working drawings for the main building, prepared initial plans for a new wing. When tenders were received well above estimates, the Public Works Department undertook to construct the new ward. The decision was taken not to employ a local architect and the Government Architects Office, under George McRae, prepared plans (Figure 23).<sup>47</sup> The Hon. J.J. G. McGirr laid the foundation stone for the new works on 25 May, 1921.

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<sup>45</sup> The Housing Board is the term given by Peter Freeman Pty Ltd, *op.cit.*, 2002, Volume 1, p.104. There was no Housing Board at this time. It may be a reference to the Commonwealth War Service Homes Commission.

<sup>46</sup> Peter Freeman Pty Ltd, *op.cit.*, 2002, Volume 1, p.16 and Volume 2, p.104. Quote from Volume, pp. 27-28.

<sup>47</sup> Note: this report refers to the Government Architects Office, which is the standard reference on the State Heritage Inventory. At times in its history, however, it is more correctly referred to as the Government Architects Branch.



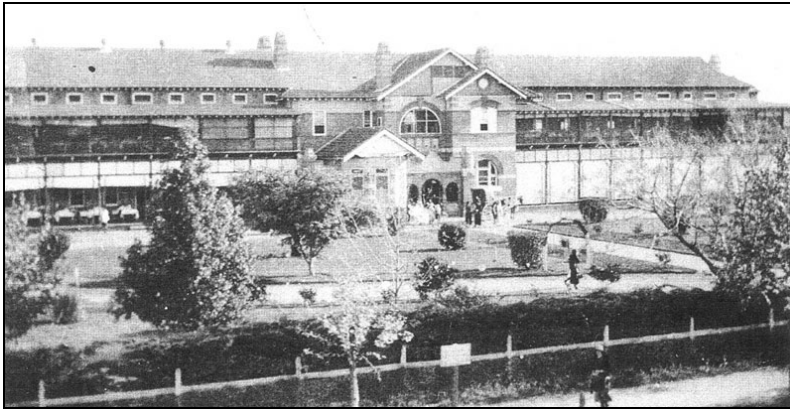
**Figure 23: G. McRae, Wagga-Wagga District Hospital- Children's Wards.**  
 CMP 2005.

Also cited at Plan Services, Department of Commerce.

The Edinburgh born **George McRae** (1858-1923) arrived in Sydney in 1884 and was appointed Assistant Architect in the Sydney City Architect's Office. In 1897, he was appointed Assistant Principal Architect to W.L. Vernon, succeeding Vernon as Government Architect in 1912 and retaining this position until his death in 1923.

In designing the new wing, McRae followed the style of the existing wing. There are a number of buildings listed on the State Heritage Inventory that are similarly the result of collaborations between Vernon and McRae, including Maclaurin Hall (1902-9) at the University of Sydney and the complex of buildings at Garrawarra Hospital (1908-1918).

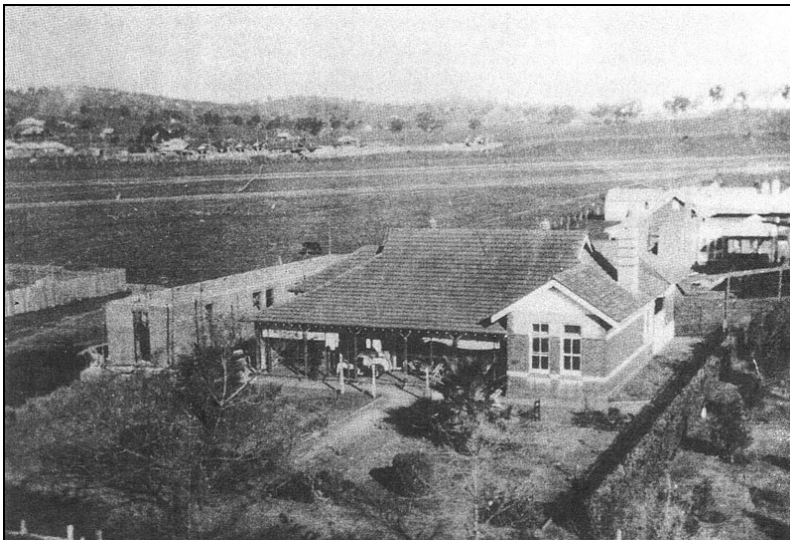
The new wing, with the Children's Ward on the upper floor, was completed by September 1922 at a cost of £9,000 and officially opened on 18 October, 1922 by the Chief Secretary and Minister for Public Health, the Hon. C.W. Oakes. The Children's Ward was named the Scott Ward in honour of J.J. Scott, the Committee Member who had been the driving force behind the ward. The ward was connected to a ward of identical proportions on the ground floor by a decorative stair at the western end. As for the earlier part of the building, the semi-enclosed (using flyscreens and canvas blinds) northern-facing balconies were utilised for patient care (Figure 24).



**Figure 24: The Hospital after the addition of the second wing.**  
S. Morris, *A Delicate Balance*, 1988

To provide for additional staff brought about by the increased capacity of the Hospital, the Hospital Committee applied to the Department of Public Health for the extension of the Nurses' Quarters and the completion of the Nurses' Quarters in the Isolation Block. The original Nurses' Quarters had already been extended once, in 1918, when a sleep out room was added to increase accommodation.

Plans and specifications were prepared in 1922 and a block of land adjoining the Hospital on Edward Street was purchased for £275. In late 1923, the Hospital Committee was informed that the Public Health Department would provide half the construction costs. Tenders were called for in February 1924; the successful tenderer was J.P. Keely. The new Nurses' Quarters were completed in January 1925 at a cost of £4,300 (Figure 25).



**Figure 25: Extensions to the Nurses' Home under construction, 1924.**  
S. Morris, *A Delicate Balance*, 1988

Other improvements were carried out at this time, including the construction of a tennis court for the nurses (1920), the repainting and decorating of the main building and the gradual introduction of electric lighting into the building. Fans and refrigeration were also introduced and the hot water extended and improved.

The first specialist services arrived at the Hospital in 1927, when two specialists joined the seven Honorary Doctors working at the Hospital. The first was Dr. Scott, who

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provided ophthalmic services, and the second was Dr. Sim, a radiologist, who operated the Hospital's primitive x-ray machine.

The type of disease now being treated at the Hospital had changed significantly from the time when the new building was constructed. As sanitation and public health education improved, including the sewerage of the town and the provision of piped water, infectious diseases had declined. Wagga Wagga Hospital itself was located outside the area first sewerage.<sup>48</sup> From 1925, the Hospital began accepting uncomplicated pregnancy cases. In the absence of a maternity ward, mothers had to be admitted into the General Ward.

A milestone was achieved when the first Resident Medical Officer (RMO), Dr. A.O. Barkley, was appointed in 1923. The lack of accommodation, which had prevented such an appointment in the past, was overcome by utilising unused ground floor ward space in the new wing. A Junior RMO was appointed soon after. Another milestone was achieved when the first female RMO, Dr. Beryl Plummer, was appointed in 1927.

The Hospital featured prominently in Wagga Wagga social events during this period, with a number of fund raising events, including balls and stock and poultry drives.

### **2.9.3 Other Medical Services in Wagga Wagga**

Two private hospitals, supplementing the services of the Hospital, opened in Wagga Wagga during this period. The first *Welwyn* was owned and operated by two Wagga Wagga doctors (c.1923). A second private hospital, St. Joseph's Hospital, was opened by the Roman Catholic 'Blue Sisters' in *Foxborough Hall*, as a branch of the Lewisham Hospital of Sydney (1926). The old hall was replaced with a new two-storey building, designed by William Monk, which provided for 32 patients, in March 1930 (refer back to Figure 11). In addition to these hospitals, a baby health clinic was opened by the NSW Department of Health in Fitzmaurice Street in 1922. In January 1926, an ambulance service was established to serve both Wagga Wagga and the surrounding shires. In one year (1927-8), the two service ambulances travelled about 20,000 miles and treated over 1,000 cases.<sup>49</sup>

### **2.9.4 The Great Depression and Changes to the State Hospital System**

Wagga Wagga was deeply affected by the Great Depression of the early 1930s. 'Tent Town' on the outskirts of Wagga Wagga became overcrowded and poor sanitation led to the return of infectious disease. Wagga Wagga Hospital, which was operating at a loss, was also required during this period to provide temporary accommodation to destitute pregnant women. At the Hospital, the construction of a planned Maternity Ward was delayed, salaries cut and staffed retrenched. Locals, led by builder Charles Hardy, were so angered at the perceived mismanagement of the state, that a movement for a separate state for the Riverina was launched.

Although the Depression temporarily halted progress, the establishment of the Hospital Commission of NSW by the *Public Hospitals Act of 1929*, provided some hope for the future. Public hospitals were to be incorporated under the Act. While all hospitals were to retain an internal board of management, the Commission was to control public hospitals statewide. Although hospitals would still be required to raise funds through fees, donations and subscriptions, subsidies were to be paid to hospitals by the Commission out of Consolidated Revenue. Subsidies were to be more equitable and on a needs basis.

One of the most significant of the Commission's decisions, with regard to the future of the Wagga Wagga Hospital, was their resolution to establish country district base

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<sup>48</sup> A. Peake, *Wagga Wagga Sewerage Plan*, 1910.

<sup>49</sup> Sherry Morris, *op.cit.*, 1999, p.160.

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hospitals at strategic points and equip them to the standard of major metropolitan hospitals with a full range of scientific equipment, personal and complete laboratory units. All hospitals were to be developed along logical lines and each graded, so that each class would conform to a minimum standard.

Wagga Wagga Hospital was among those country hospitals designated as 'A', alongside other major district centres such as Albury, Armidale and Broken Hill. Wagga Wagga was recognised as the largest stock selling area outside of the metropolitan markets. In 1921, the town's population had stood at 7,679 people; by 1931, this had increased to 11,631 people.<sup>50</sup>

Wagga Wagga Hospital was to have eighteen elected directors (reduced to twelve in 1935), five appointed by the government and seven elected by subscribers. The subscribers were those who participated in the Systematic Contributions Scheme introduced in 1931, whereby families donated one shilling a week (less for individuals) to the Hospital and received free hospital treatment when required. By 1933, there were 1,800 contributors, providing much needed funding.

## **2.10 Wagga Wagga Base Hospital**

### **2.10.1 Base Hospitals**

The Commission foresaw that Base Hospitals would be established in country centres where:

- There was a daily average of 60 occupied beds.
- The hospital was functioning as a community hospital with private, intermediate and public wards.
- The medical staff was classified on the basis of specific appointment, including medical officers in charge of specific departments.
- The services of specialist on the honorary staff were available to public ward patients administer to the base hospital from any district in the area recognised as being serviced by that hospital.
- Case records were kept of all treatments.

Wagga Wagga was among the country hospitals that indicated that they were ready to commence operation as a Base Hospital by June 1934. Additions and improvements, however, were required before Wagga Wagga Hospital could be classified as a Base Hospital, including the provision of Private and Intermediate Wards, improved Nursing Quarters and an improved Out Patients Department. Estimates for the required works were placed at over £11,000. The Government announced that they would provide £8,000, half as a grant and half at a loan repayable over 15 years.

### **2.10.2 New Nurses' Quarters**

Plans for long delayed new Nurses' Quarters were prepared by the Government Architects Office in 1934. The drawings are signed by the Government Architect of the day, Edwin Smith.

Tenders for the construction of the new nurses' home at Wagga Wagga Hospital were called and that of Lipscombe and Price was accepted in 1934. The Minister for Health, the Hon. H.P. Fitzsimons, laid the foundation stone in May 1935. Later alterations to the initial plans added a balcony for Matrons Quarters, an additional 11 bedrooms and an enlarged recreation room at an additional £3,000. The building was completed on 3 March, 1936.

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<sup>50</sup> Sherry Morris, *op.cit.*, 1999, p.148.

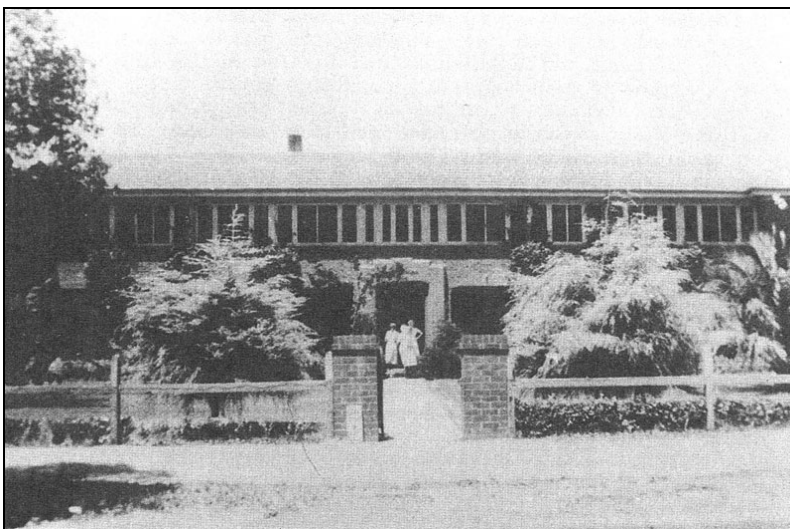


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By the time that the new building was completed, the local economy was showing strong signs of recovery:

‘After a decade of distress and upheaval and threats of secession, the Wagga Wagga community was slowly recovering. With improvement in roads and transport and the upgrading of this hospital, schools and other amenities, the town continued to draw trade from villages and smaller towns in the larger neighbourhood. The population was over 13,000 in 1938.’<sup>51</sup>

The relief provided by the additional accommodation was short-lived. By 1942, the nursing staff had increased to 68. With only 45 bedrooms, 30 were required to share rooms and slept out on the verandah (Figure 26).



**Figure 26: New Nurses' Home, opened in 1936.**

S. Morris, *A Delicate Balance*, 1988.

‘The building faced the Albury Road (later Docker Street) on a block 122 feet x 81 feet and had been designed to fit in with the architecture of the main hospital buildings. It contained 45 bedrooms, each 11 feet x 9 feet with adequate sleep-out space on the 90 feet long balcony that was enclosed by gauze. The dining room (35 feet x 20 feet) was also a recreation room and had two fireplaces. The furnishings cost another thousand pounds...’<sup>52</sup> Note the screens to the verandahs and the young Canary Island Date Palm on the right hand side.

**Edwin Smith** was Government Architect for a relatively short period, from 1929 to 1935. Born in Scotland in 1870, he arrived in Australia in 1889. Prior to his appointment as New South Wales Government Architect, Smith worked as a draughtsman in the Queensland Department of Public Works and as Chief Architect in the Victorian Department of Public Works. Smith oversaw the department during the difficult years of the Great Depression. Buildings constructed during his tenure as Government Architect include the Blackburn Building at the University of Sydney, Tea Gardens Courthouse, Quirindi Courthouse, Lismore District Works Office and Lismore Police Station. Of particular interest, with regard to comparative analysis with the Nurses' Home at Wagga Wagga Hospital, are the buildings designed under his supervision for the Berry Training School (Berry), opened in October 1935 (Figure 27) and the Matron Dickson Nurses Home, constructed in 1935, at Prince Henry Hospital, Randwick (Figure 28).

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<sup>51</sup> Sherry Morris, *op.cit.*, 1999, p.190.

<sup>52</sup> *Ibid*, p.66.

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It is interesting to note the distinct change in architectural style that would soon be employed for many hospital buildings by Smith's successor as Government Architect, Cobden Parkes (from 1935 onwards). Smith's Wagga Wagga Nurses Home and the Matron Dickson Nurses Home at Randwick are both in the Interwar Free Classical Style. As further discussed in a later Section 2.11 of this report, many major hospital buildings constructed from c.1935 onwards, including those designed by the Government Architect's Office under Cobden Parkes, were in a radically different style- the Interwar Functionalist Style. Smith's Wagga Wagga Nurses Home shows one concession to this emerging style in the Art Deco Style detailing of the entrance porch.



**Figure 27: Berry Sport and Recreation Centre, Government Architects Branch under Edwin Smith.**

WP Architects 2006.



**Figure 28: Matron Dickson Nurses Home, opened in 1935. Photographed in 2001. Note also the palm trees, plantings also present outside the UNSW School of Rural Clinical School.**

Randwick City Library, Item No. I00/I00204.

Once again, the new Nurses Home at Wagga Wagga reflected changing architectural trends apparent in local, particularly residential architecture. Houses constructed during this period became more austere, with less emphasis on decorative elements. Decorative brickwork, however, continued to be popular.<sup>53</sup>

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<sup>53</sup> Peter Freeman Pty Ltd, *op.cit.*, 2002, Volume 1, p. 30.

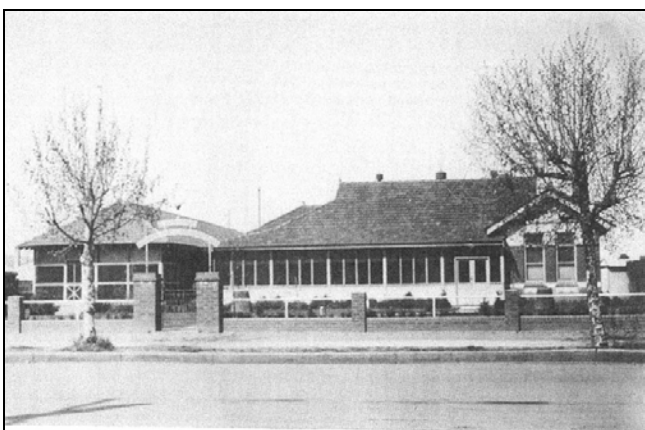
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### 2.10.3 The Intermediate and Private Wards and Pathology Block

Following the completion of the New Nurses' Home, work commenced on converting the Old Nurses' Quarters into Private and Intermediate Wards. A new Pathology Department, Morgue, and a second Operating Theatre were also designed and erected by G.F. Fitzgerald. The price of over £5,000 was once again partially met through government loan and grant.

The new wards (fifteen single wards and four two bed wards) and operating theatre were partially furnished through public subscription and opened by the Minister for Health on 2 May, 1937. In October 1937, the new wards were named the Rawson Private Hospital, in honour of the late John Rawson of Milbrulong, who had been a principal benefactor of the Hospital over a long period of time. The newly opened Pathology Block (attached to the original morgue) comprised two large laboratory rooms, a room for post mortems and the morgue. The design work was carried out by the Government Architect's Office under Cobden Parkes (Figure 29).

**Cobden Parkes**, the youngest son of Sir Henry Parkes, was Government Architect from 1935 to 1958. While continuing the conservative style of architecture favoured by his predecessors in projects such as the portico and reading room of the State Library (1939-1941), he also took note of changing architectural styles. In 1939, Parkes had accompanied the Minister for Health on a visit to inspect hospitals in England and North America. A number of the new developments that he saw on this tour would be implemented in hospital design during the war and post World War II periods. This is discussed further in Section 2.11.



**Figure 29: An undated photograph of Rawson House, showing formal entrance.**

S. Morris, *A Delicate Balance*, 1988.

It was only in 1937, following the completion of the Private and Intermediate Wards and the reaching of an agreement between the Commission and the doctors at the Hospital with regard to specialisation, that the Wagga Wagga Hospital was gazetted as a Base Hospital.

In May 1937, the Minister for Health announced that the Hospital was to be known as the Wagga Wagga Base Hospital and was to service the town of Wagga Wagga and the shires of Mitchell, Kyeamba, Coolamon and Lockhart, with an estimated population of 35,000 people.

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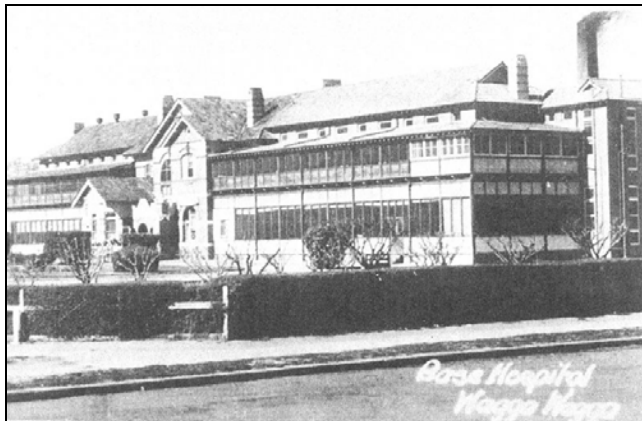
#### 2.10.4 The Maternity Ward

The idea of opening a dedicated Maternity Ward at Wagga Wagga Hospital had first been raised in 1926, soon after the Hospital began accepted non-complicated pregnancy cases. It was not until 1930, however, following agitation and fund raising by the Country Women's Association (CWA), that plans for an eight-bed ward were completed by the Government Architect's Office, under Cobden Parkes (1945). Although £1,700 had been raised, the Hospital Commission and the Hospital's Board were unable or unwilling to fund the difference until early 1937, when work began on the construction of the building on the site of the nurses' tennis court. This single storey building was completed by March 1938 and consisted of two four-bed wards and one single ward. Each ward was well ventilated with large windows and fanlights. Both the babies' ward and premature babies ward were steam heated; the former had a large viewing window. There was also a labour ward, a baby changing room, a duty room and kitchenette. The front and rear verandahs were screened; the latter provided access to all wards. The official opening was held on 22 March, 1938. A bronze plaque at the front commemorated the efforts of the CWA in erecting the building. To compensate the nurses for the loss of their tennis court, a new court was constructed on the extreme southwestern portion of the Hospital grounds fronting Albury Road (later Docker Street).

#### 2.10.5 New Facilities, Garden Works and Further Building Works

Other general improvements were made to facilities in the late 1930s and early 1940s as increased government funding allowed improved equipment, for example, a new X-Ray machine (1941; and a portable machine 1944), a gas oxygen anaesthesia apparatus, refrigeration units and an autoclave system.

At the urging of J.J. Scott, the Hospital grounds were improved during the 1930s and 1940s. The garden beds to the front of the Hospital were rearranged and improved by unemployed relief workers, who also created concrete paths around the site, under the supervision of Tom Wood, curator of the Municipal Parkes and Gardens and Honorary Consulting Gardener to the Hospital. The Cypress hedge to the front of the site was removed and a new brick fence erected (Figures 30 and 31).



**Figure 30: The cypress hedge before removal.**  
S. Morris, *A Delicate Balance*, 1988.



**Figure 31: New boundary wall to the front of the Hospital.**

Note the elaborate gates to the main entrance, since removed.

S. Morris, *A Delicate Balance*, 1988.

Further building works followed in the early 1940s. A.G. Brown of Young erected a new boiler house and chimney, later nicknamed 'Old Smokey'. The tender of H.C. Buckman for a new Laundry and Kitchen Block (£16,000) was accepted in May 1941. The latter ran in an east-west direction and was located to the rear of the original hospital building, to which it was connected by a covered walk. This brick building comprised a modern kitchen, with separate dining rooms for domestic and nursing staff at the Docker Street end of the building. There was also a large sewing room (for use by the Hospital Ladies Auxiliary Service), sculleries, a general store room, a cool room and separate rooms or compartments for the storage and preparation of meat, vegetables and milk. Underneath, there was a general cellar. The Laundry was situated at the rear, on the southern side of the Kitchen Block. The new building was opened by the Minister for Health, the Hon. C.A. Kelly on 8 July, 1942, once again to large crowds and entertainment. These new buildings are clearly identifiable in an aerial photograph taken of the site in 1943, Figure 32. This photograph also demonstrates the extent to which suburban development now surrounded the Hospital.



**Figure 32: Aerial photograph of Wagga Wagga Hospital, 1943.**

S. Morris, *A Delicate Balance*, 1988.



## Key

1	Main Building (now the Old Hospital Building)
2	Rawson House (private and intermediate wards)
3	Isolation Block
4	Kitchen and Staff Dining
5	Maternity Unit (later Robinson House)
6	Nurses' Home (later Harvey House, now the UNSW Rural Clinical School)
7	Laundry
8	Boiler House
9	Chimney Stack

As the patient numbers continued to grow, ward accommodation once again became acute, particularly in the Maternity and Female Wards. The Hospital Board leased the former private hospital *Welwyn* in Wagga Wagga to provide (nominally) an additional ten beds. The lease was retained until 1946.

### 2.10.6 World War II, Short and Long Term Plans

World War II introduced its own demands on the Hospital, as Wagga Wagga became a key part of the government's national defence plans. During World War II, RAAF bases were set up at Forest Hill and Uranquinty and a temporary military camp was established at the Wagga Wagga Showgrounds, to be followed by a more permanent camp at Kapooka. A munitions factory and an electric lamp factory were also opened. The Number 1 RAAF Hospital was relocated to the Wagga Wagga base in 1942. The unit was later transferred from Forest Hill to a new hospital of 150 beds at Turvey Park (now south campus of Charles Sturt University) in January 1944.

The increased caseload at the Wagga Wagga Hospital during these years was matched by personnel shortages as staff joined the armed forces. When visiting the Hospital in November, 1943, Commissioner Digby (a representative of the Hospital Commission) remarked on the bed shortages. Wagga Wagga Hospital could accommodate (including the facilities at *Welwyn*) 115 patients and up to another 64 patients on the verandahs. He noted that the daily average had doubled in 10 years and was expected to increase further. Digby recommended that:

- The Old Hospital Building be restricted to female and male public ward (32 beds each).
- The Maternity Unit be converted into a children's block with necessary additions to provide 30 beds.
- That the Rawson Block be left as is.
- That a new multi-storeyed building be erected, to include a male public ward (8 beds), a female public ward (8 beds), a maternity ward (30 beds) and private and intermediate wards (68 beds).
- That additional isolation ward accommodation (12 beds) be provided.

Digby further noted that the nurses' accommodation was inadequate for the existing or projected nursing strengths, that domestic accommodation was insufficient and that the centre portion of the old building needed remodelling, in particularly the administration areas, the operating theatres, Out Patients Department, Dispensary, X-Ray Department and first floor RMO accommodation. As a result, he recommended that the whole of the central portion of the building be reconstructed.<sup>54</sup>

<sup>54</sup> S. Morris, *op.cit.*, 1988, p.80.

The above recommendations were, however, long term at best. A number of urgent works were identified, including the extension of the existing Maternity Unit, additional housing for nurses and RMO staff. The Maternity Unit was extended to provide two additional five-bed wards and four two-bed wards, a second labour ward and increased nursery space. In August 1945 it was decided to name the Maternity Block Robinson House, in honour of O.A.F. Robinson, Chairman of Directors who had been associated with the Hospital for 35 years. The extended Block was constructed by L.S. Kemmis and opened by the Minister for Health, C.A. Kelly, on 25 November, 1945.

Concurrently, the tender of Fitzgerald Construction for the erection of a new Administration Block (designed by the Government Architect's Office) was accepted and a lift installed into the old building. The Administration Block and lift were officially opened by the Deputy Mayor, Alderman B.U. Byles on 14 December, 1946 (Figures 33 and 34).

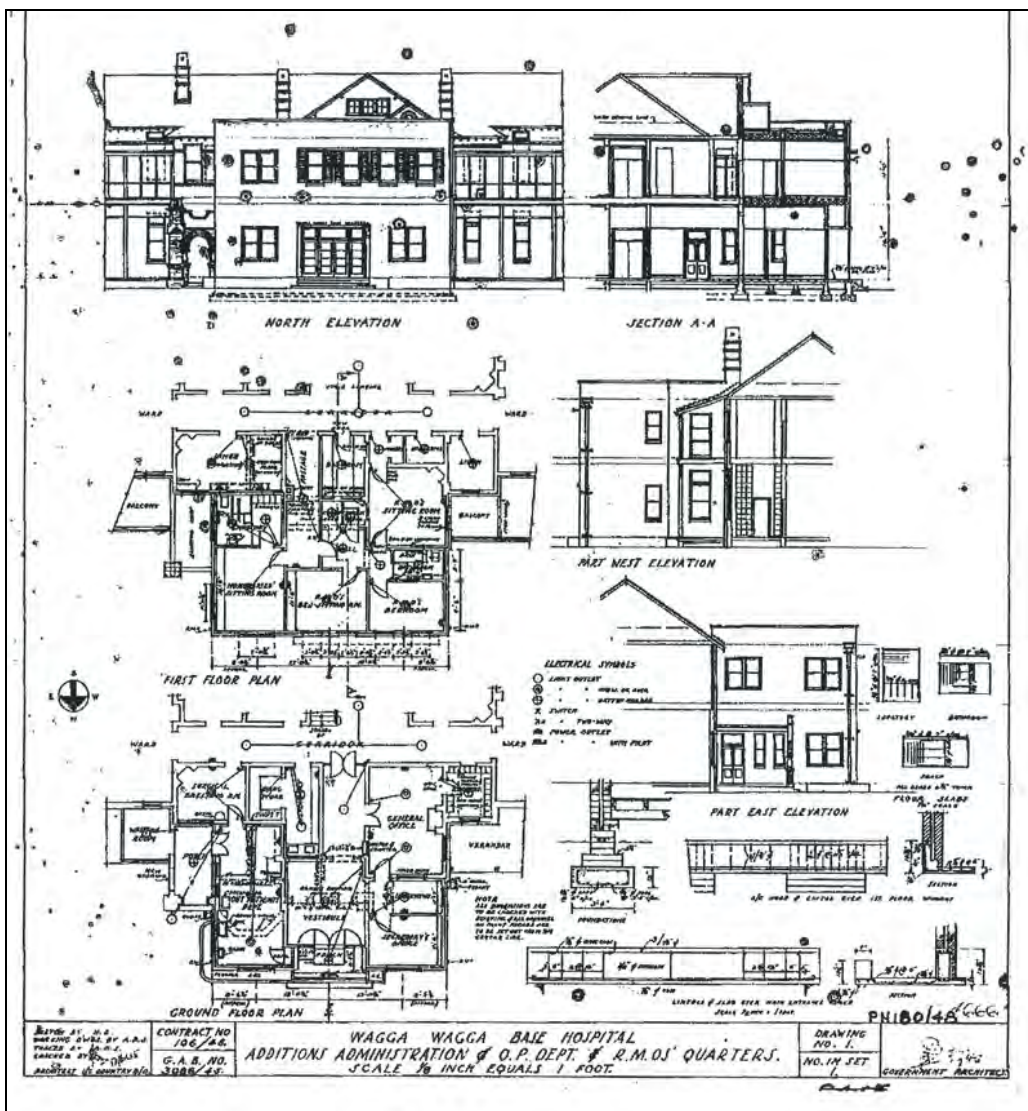
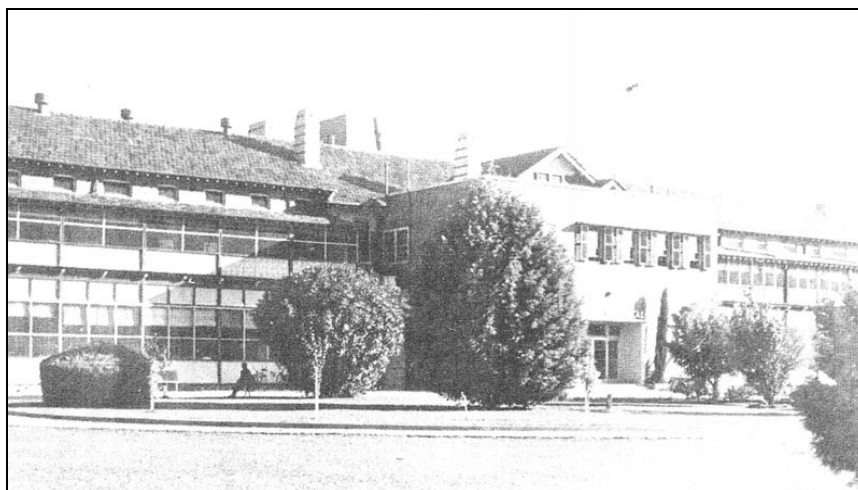


Figure 33: Plans for 1946 Extension.  
CMP 2005.



**Figure 34: Undated photograph of the Hospital Building after the addition of the Administration Block.**

S. Morris, *A Delicate Balance*, 1988.

### **2.10.7 Post World War II Growth and New Units at the Hospital**

On 17 April, 1946, Wagga Wagga was declared to be a City, the area having maintained a population of over 15,000 people for five consecutive years. As attested by the birth statistics at the Hospital, the population continued to grow rapidly. While an average of 140 babies had been born at the Hospital each year just before the war, 805 were born in 1955-6 alone. The other large hospital in Wagga Wagga, Calvary Hospital (the Lewisham Hospital), also experienced a baby boom, opening a new maternity wing in 1959.

When an outbreak of Poliomyelitis occurred in 1949, a fibro-framed building was transferred from the RAAF Base at Uranquinty to provide an additional temporary additional isolation ward to cope with the outbreak. This building was later used as a Preliminary Training Unit (PTU) for nurses (1954). For six weeks, prior to their introduction to the wards, the students lived and worked in the PTU.

In the early 1950s the Wagga Wagga City Council boundary was expanded. Within Wagga Wagga, Baylis Street continued to develop strongly during the 1950s and 1960s; its dominance over Fitzmaurice Street was complete when in 1979 the air-conditioned one-stop K-Mart-Sturt Mall development was completed. The hub of the shopping centre thus changed from the northern end of the city to the Baylis Street end. The Housing Commission and private subdividers were active, with new suburbs including Korrungal, Lake Albert, Tolland and San Isidore.<sup>55</sup> Local industries continued to dominate. The largest industry was the Dunlop Weatherproof Factory and Hardys.<sup>56</sup>

Although solidier settlements were again opened in the Riverina in the post World War II period, there would be a gradual decline within many rural populations as farming became less labour-intensive and export earnings declined. Census records indicate that the decline was slower in Wagga Wagga than other areas. Wagga Wagga remained situated well within the wheat belt; canola developed as an important new crop; and the Murrumbidgee Irrigation Scheme lay within its sphere of influence. As air services expanded, Wagga Wagga became a major country air link, with regular services to Sydney and Melbourne and to local feeder aerodromes. The new suburbs spread north and to the higher ground to the south, away from flood prone areas.

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<sup>55</sup> Peter Freeman, *op.cit.*, 2002, Volume 1, p. 20.

<sup>56</sup> *Ibid*, Volume 1, p. 21.

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Government departments- the School Directorate, Main Roads and the Department of Motor Transport- established head quarters in the town.

## 2.11 The Wagga Wagga Base Hospital After 1955

### 2.11.1 Renewed Plans for a Multi-Storeyed Building and the Construction of Lewis House

During the early 1950s, the Hospital Board continued to push for the multi-storey building envisaged by Commissioner Digby during the War. The first plans for a multi-storey building were prepared in 1953 under Government Architect Cobden Parkes. During the post World War II period, Parkes increasingly developed co-operative relationships with private architects to alleviate staff shortages. Thus while sketches for a multi-storey ward block were prepared by the Government Architect's Office, the working drawings were prepared by the private practice of Henry E. Budden and Nangle.<sup>57</sup>

**Henry E. Budden** CBE (1871-1944) was a prominent architect during the first part of the twentieth century. His partnership with Alan P. Nangle, begun in 1940, lasted until his death in 1944. Numerous examples of Budden's work with his former partners (Kent & Budden; Kent, Budden & Greenwell; Budden & Greenwell; H.E. Budden; Budden & Mackey) are cited in heritage registers. Of his later work, the most notable of these heritage listed buildings in the Interwar Functionalist Style Sydney Water Board Building, constructed in 1939 in Pitt Street (Budden & Mackey). No other works by Budden & Nangle are identified by the State Heritage Inventory or the (R) AIA Twentieth Century Register.<sup>58</sup> No examples of A.P. Nangle's work are identified individually by either register.

Concurrently, hospitals across New South Wales were facing widespread funding shortfalls, a situation that was not improved by the new Nurses' Award, which shortened working hours and increased overtime and rates. In 1947, in order to increase nursing numbers and thus save on over-time, the decision was taken to construct a new two storey domestic block that could be used as temporary Nurses' Quarters, with the intention of constructing a three storey Nursing Home when resources permitted. Budden and Nangle also prepared the working drawings for this building.

Construction of the new building began in June 1948 but was delayed by contractual problems, brick shortages and the 1950 floods. The building was completed by contractor H.C. Buckman by the end of 1952 and provided 25 bedrooms, with built in furniture (wardrobe, dressing table and linen cupboards), a lounge, a kitchenette, sewing and writing rooms, a sun balcony and self-contained flat for Matron. The building was named Lewis House, in recognition of the services of Chairman of the Board of Directors, Daniel E. Lewis (Figure 35).

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<sup>57</sup> 'Cobden Parkes', *Australian Dictionary of Biography Volume 15*, Victoria, Melbourne University Press, 2000, pp.569-570.

<sup>58</sup> Mount St. Mary College and Convent, Katoomba, is identified as the work of 'Nangle and Nurzey subsequently known as Henry E Budden & Nangle.' The Nangle in Nangle and Nurzey was James Nangle, not A.P. Nangle. H.E. Budden was never in partnership in James Nangle, who died in 1941. State Heritage Inventory Database No.: 5052867. Budden and Nangle may have done some later work for the convent, but it is important to note that Nangle & Nurzey never evolved into Budden and Nangle.



**Figure 35: The official opening of Lewis House, 1953.**

S. Morris, *A Delicate Balance*, 1988.

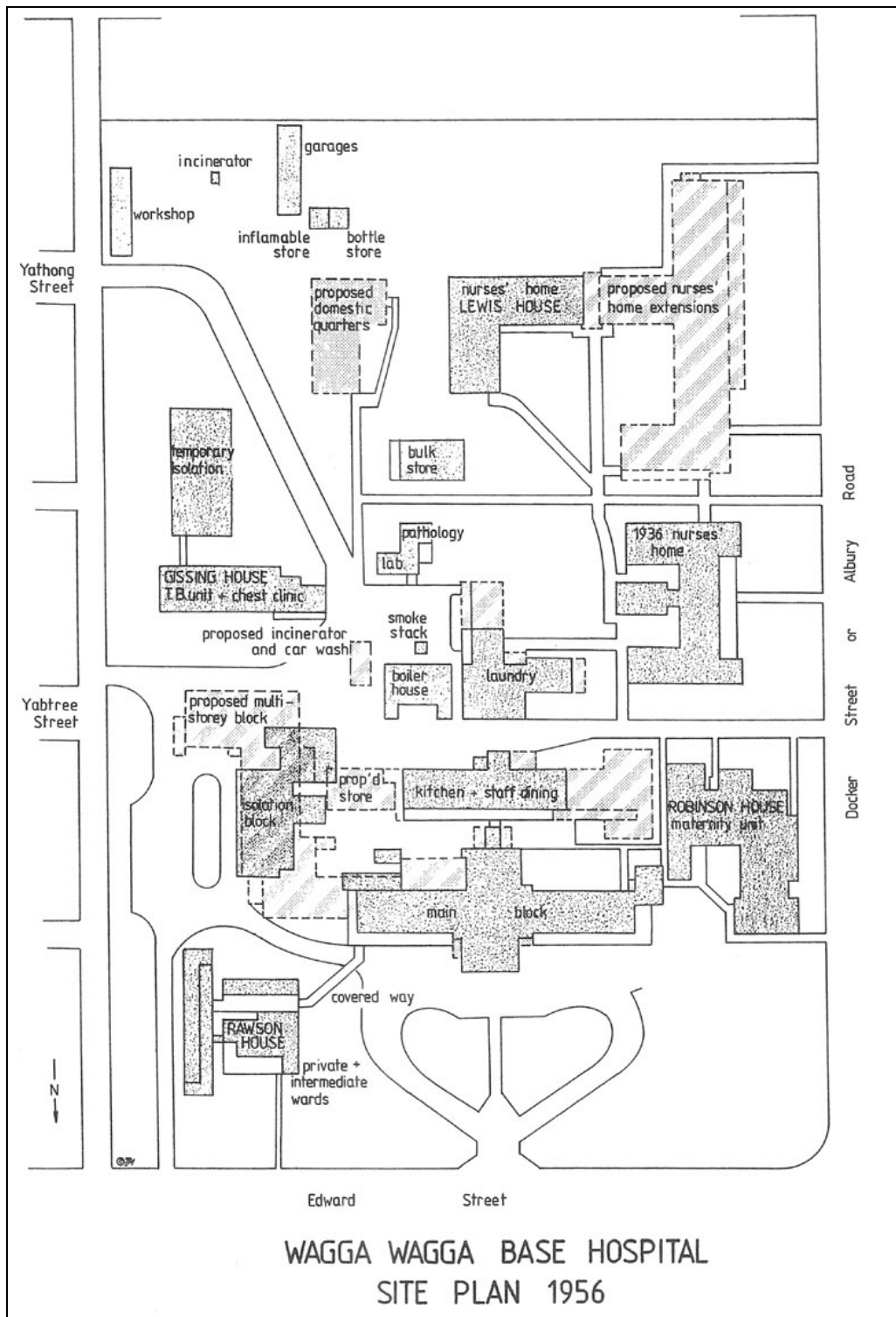
Note how the end wall is three storeys in height, in anticipation of the planned three storey nurses' home.

Medical services at the Hospital and within the general community improved as the number of General Practitioners in Wagga Wagga doubled in the decade after the war. All of Wagga Wagga's GPs were honorary medical officers at the Hospital. There was a steady increase in the specialities being offered. The Pathology Department in particular increased as scientific advances provided new means of investigating and treating illness. A Bleeding Unit, to collect blood donations, was opened in 1959, to designs prepared by J.H. Andrews and constructed by R.H. Fraser.

A ten bed Tuberculosis Unit and Chest Clinic (designed by the Government Architect's Office) opened at the Base Hospital on 5 May, 1956. The Unit was funded by the Government as part of its concerted campaign against the disease and consisted of five two-bedroom wards, a day room, a treatment room and an outpatients' chest clinic. The Unit was named Gissing House, in memory of Henry. E. Gissing, a former Mayor and member of the Hospital Board. To provide for an extra eight nurses, the Nursing Quarters were extended. Figure 36 shows the layout of the Hospital as it stood in 1956. This plan also shows provision for future expansion.

In the face of continued petitioning for the promised new hospital building, the Chairman of the Hospital Commission, Dr. Allan Lilley, visited Wagga Wagga Hospital in July 1954. When no progress was made by 1958, various bodies within Wagga Wagga (including the Council, Chamber of Commerce, doctors and Hospital Board) formed a sub-committee, known as the Base Hospital Building Emergency Committee, to press for the construction of the new hospital. The Committee met with success and on September 1958, it was announced that the Premier had made available £600,000 for a proposed multi-storey block on the site of the old Isolation Block. The earlier plans were resurrected and revised under Government Architect Edward Farmer, with working drawings prepared by Thompson, Spooner and Dixon (1960). Minor changes were made to the earlier elevations. Cobden Parkes, for example, had envisaged metal railings to the ward balconies; these were replaced with solid concrete balustrades. Some fixed timber framed windows were replaced with aluminium framed awning windows. Tenders were called in January 1960 and the contract let to the Sydney firm of K.D. Morris and Sons Pty Ltd. Included in the work was a single storey brick building to be used as a Nurses' Training School (also with working drawings by Thompson, Spooner and Dixon) to replace the temporary building moved to the site from the RAAF Base in 1949.





**Figure 36: Site Plan, 1956.**  
S. Morris, *A Delicate Balance*, 1988.

**Edward Farmer** (1909-2001) joined the Melbourne architectural firm Leighton Irwin and Co. in 1934 and set up the firm's Sydney office in 1936. He joined the Government Architect's Office in 1939, eventually becoming Government Architect in 1958. Farmer executed or oversaw numerous commissions as Government Architect. Under Farmer's charge the Government Architect's Office received several Sulman awards and Blakett awards. Significant buildings associated with Farmer include:

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School of Chemistry and Chemistry Hall (1959); the Australian Museum, William Street Wing (1959); Fisher Library, Sydney University (with T. O'Mahoney, winner 1962 Sulman Award); Taree Technical College (1963); Goldstein Hall, University of NSW (winner of the 1964 Sulman Award); extensions to the Darlinghurst Courthouse (1965); Former Wollongong Teachers College (with Joseland & Gilling, 1965); Randwick High School (1966); University of Technology Sydney Tower Block (1966); State Office Block (1967; demolished); NSW Government Offices, Albury (1967); University of Technology, Ku-Ring-Gai (1967-1973); Marsden Rehabilitation Hospital (winner of the 1969 Sulman Award); Charles Sturt University Student Residence (with Edwards Madigan, 1970). He was awarded the prestigious Royal Australian Institute of Architects Gold Medal for 1972.<sup>59</sup>

**Thompson, Spooner and Dixson**, formed in the 1940s, specialised in domestic and ecclesiastical work, with some commercial and industrial clients. The most significant commissions completed by this firm were the Phoenix Assurance building, 1959 and Sydney University sports complex. The partners were E.L. Thompson (d.1958) Eric Lindsay Spooner (d.1972) and Alan D. Dixson (d.1987).<sup>60</sup> One still extant example of their work is listed on the State Heritage Inventory being an addition to the Julian Ashton Art School, Sydney (1955); no examples of their work are cited in the (R)AIA Twentieth Century Register.

The foundation stone for the multi-storey block was laid on 25 March, 1961 by the Minister for Health, the Hon. W.F. Sheehan (Figure 37). On the same day, the Minister officially opened the long planned three-storey, 88 bed Nurses' Home (Figure 38). This building, which had been designed by Cobden Parkes in 1953 (with working drawings by H.E. Budden, Nangle and Michael), had been constructed by Ernst Haupt Pty Ltd.



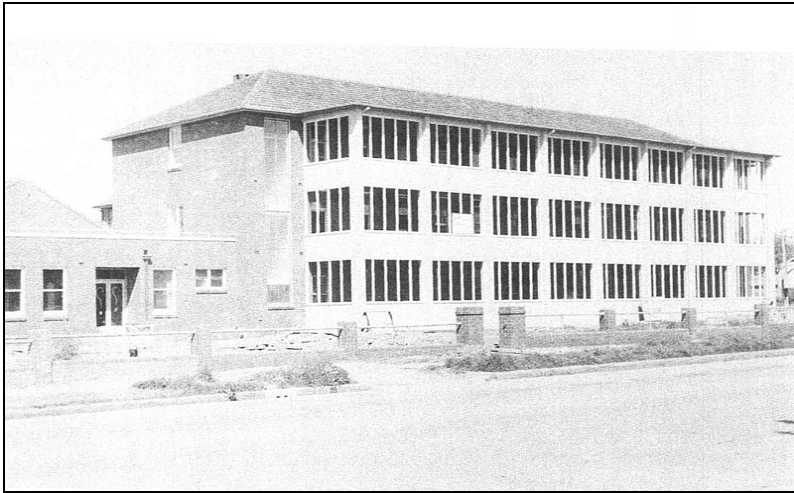
**Figure 37: The Multi-Storey Block under construction.**

S. Morris, *A Delicate Balance*, 1988.

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<sup>59</sup> From search of the State Heritage Inventory and the (R) AIA Twentieth Century Register. Biographical information from the State Library of NSW catalogue

<sup>60</sup> Biographical information from the State Library of NSW catalogue.



**Figure 38: New Nurses' Home, opened in 1961.**

S. Morris, *A Delicate Balance*, 1988.

The new Preliminary Training School was completed in September 1962 and the multi-storey building on 15 January, 1963 (Figure 39).



**Figure 39: New Nurses' Training School**

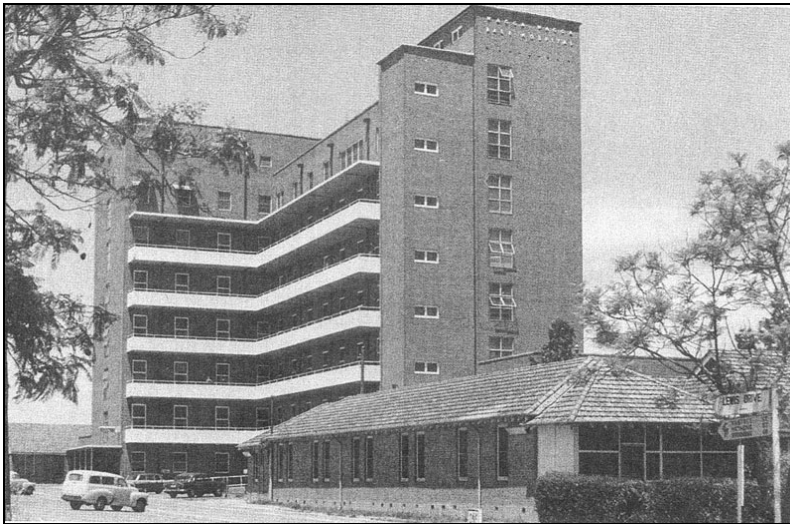
S. Morris, *A Delicate Balance*, 1988.

The new multi-storey building was officially opened on 2 February, 1963 by the Hon. W.F. Sheahan in front of a crowd of 1,000 people, who informed his audience that more money had been spent on Wagga Wagga Base Hospital in the previous 10 years than any other Hospital in New South Wales (Figure 40). The Chairman of the Hospital Board of Directors surmised:

‘This hospital will provide for people of Wagga Wagga and the surrounding district a type of service previously unavailable outside the capital cities. The type and range of equipment and services are not included in hospitals outside the capitals. It is as though the infant hand of decentralisation has rested on Wagga. This Hospital building here means real progress for the City.’<sup>61</sup>

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<sup>61</sup> Cited in Sherry Morris, *op.cit.*, 1988, p.91.



**Figure 40: Undated photograph of the completed multi-storey block, with Rawson House in the foreground. The distinctive external concrete staircase, that it is feature of the building today, was not constructed until 1986.**

S. Morris, *A Delicate Balance*, 1988.

The other major construction work in Wagga Wagga during this period was the construction of the levy banks. Prior to the 1950s, Wagga Wagga had experienced at least 8 major floods: 1844, 1852, 1853, 1870, 1891, 1900, 1925 and 1956. Work on the main levee was completed in early 1962, providing protection of 1 in 100 year floods.

### 2.11.2 The Functionalist Style Hospital

The listing sheet for Wagga Wagga Hospital prepared as part of the *Wagga Wagga Heritage Study 2002* identifies the Main Hospital Building as being in the 'International Style.' The building, however, is perhaps better understood as a Functionalist Style building. The two styles share similar characteristics. Indeed, it could be argued that Post World War II Internationalism has its origins in Interwar Functionalism. Although subject, as for any architectural style, to regionalism, both architectural styles looked to express universal truths following the devastation of world war.

The Functionalist Style first emerged in the 1930s and dominated hospital design in Australia from the mid 1930s through to the mid 1960s. As the building has recently been identified as a heritage item by Wagga Wagga Council- and is the only building on the site to be singled out for heritage listing by Council- it is important to understanding it within its architectural context.

From the 1930s onwards, there was a growing interest and specialisation in the hospital design among private architectural practices and the NSW Government Architects Branch. Design elements and ideas revolutionised hospital design in the 1930s and influenced hospital design well into the Post World War II period.

Hospital design presents a series of challenges to the architect:

'Hospitals are arguably the most complex of modern buildings. They are mini-cities with large populations, permanent and transient. They have many functions and serve many demands – reception, accommodation, feeding, examination, diagnosis, treatment, recovery and rehabilitation. Their technology is a mix of the high and the banal. They have to be thought out, laid out and fitted out as, in part, hotels, laboratories, universities, archives and conveyor belts. They

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have to work every hour of every day. Their hygiene, ventilation, acoustics, lighting and security all make special demands. They deal with lives, not just tenants.

Moreover, the modern hospital is always under pressure to evolve. Obsolescence is its occupational hazard. To give a hospital some prospect of staying modern in the swirl of scientific, technical and social developments, an architect must plan so that it is as near to the state of the art as possible on opening day – but design it to be architecturally open-minded and flexible enough to absorb changes.’<sup>62</sup>

By the 1930s, hospitals had become symbolic of a modern, healthy society.<sup>63</sup> Hospital management and design increasingly became a specialisation in its own right.

Modernism was the architectural style frequently chosen by architects and hospital boards during the 1930s to express the new role and status of a hospital. Interwar modernist architecture, now more commonly referred to as the Interwar Functionalist Style, had developed following the end of World War I. The style was, in part, a reaction against the revivalist traditions of the architectural styles of the Victorian period and a past that had ended in a world war and grew out of the Art Deco Style of the 1920s; in some respects, early modernist design was a streamlined ‘Art Deco.’ Modernism found its ideal expression in health-related buildings. Hospitals could be readily associated with scientific and technological advance:

‘...health, both moral and physical, was achieved through hygienic – that is, modern – architecture.’<sup>64</sup>

Modernism arrived in Australia during the early 1930s through the experience of architects who traveled in post war Europe and North America and by means of a growing range of imported architectural publications. When the desire of the modernist to express ‘function in form’ was combined with the prevailing belief in the restorative action of sunshine and fresh air to promote the well being of patients, a radical departure in the design of hospitals resulted.

Modernist hospital design in Australia in the late 1930s and 1940s was greatly influenced by the work of European architects such as Alvar Aalto and Willem Dudok. The strong horizontal and vertical forms of Aalto’s Tuberculosis Sanatorium in Paimio, Finland (1929-33), were particularly influential on Australian hospital design (Figure 41). Architects who had traveled to Europe were not only impressed by the use of steel, concrete and glass in the modernist European buildings, but also by the way in which more traditional materials, such as brick, were being employed by Dutch modernist architects, such as Dudok (Figure 42).<sup>65</sup>

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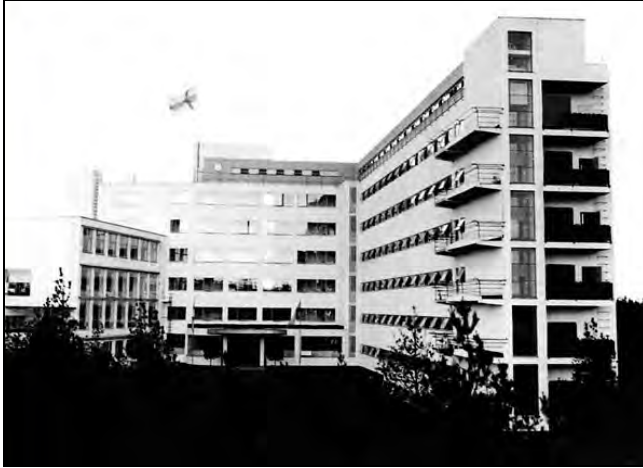
<sup>62</sup> ‘Machines for Caring’ in John Shaw, *Sir Arthur Stephenson: Australian Architect*, Sydney, Stephenson and Turner, 1987, pp.89-90.

<sup>63</sup> Julie Willis, ‘Machines for Healing’, *Architecture Australia*, July/August, 2002.

<sup>64</sup> Mark Wigley cited in Julie Willis, *op.cit.*, July/August, 2002

<sup>65</sup> Cited in relation to Arthur Stephenson in ‘Modern in Melbourne. Melbourne Architecture 1930-1950. Three Ways of Being Modern.’ This is equally applicable to Leighton Irwin.





**Figure 41: Aalto's Tuberculosis Sanatorium Paimio (1929-1933).**

[www.alvaraalto.fi/net//paimio.html](http://www.alvaraalto.fi/net//paimio.html)



**Figure 42: Dudok's Town Hall at Hilversum (1929).**

James Phillips, November 2010.

The New South Wales Government Architect's Office, under Cobden Parkes and later Edward Farmer, who were both involved in the design of the Main Building at Wagga Wagga Hospital, was responsible for the construction of a number of health-related complexes in the Interwar Functionalist Style from the mid 1930s through to the 1960s. Examples from the Government Architect's Office under Cobden Parkes include: the Wollongong Nurses Home (1937) and Hickman House (1946-51) at Wollongong Hospital; Mater Misericordiae Maternity Hospital (1939-41), Crows Nest; Jeffrey House, Parramatta District Hospital (1937-43); and St. Margaret's Public Hospital for Women, Surry Hills (1947-1951). A second example of a major hospital building with input by Cobden Parkes and Edward Farmer is provided by Auburn Hospital, opened in 1961 (designed in conjunction with T. O'Mahoney).

Within the private sector, the leading Australian architects in hospital design during the 1930s and 1940s were Leighton Irwin and Stephenson and Turner; both practices continue to design hospitals today. Hospitals by Stephenson and Turner dating from the 1930s and 1940s include: in Melbourne, under Arthur Stephenson: St. Vincent's Hospital (1933), the Mercy Hospital (1934), the Freemansons' Hospital (1936) and the Royal Melbourne Hospital; and in Sydney, under Donald Turner: 'Gloucester House' at the Royal Prince Alfred Hospital (1936), the United

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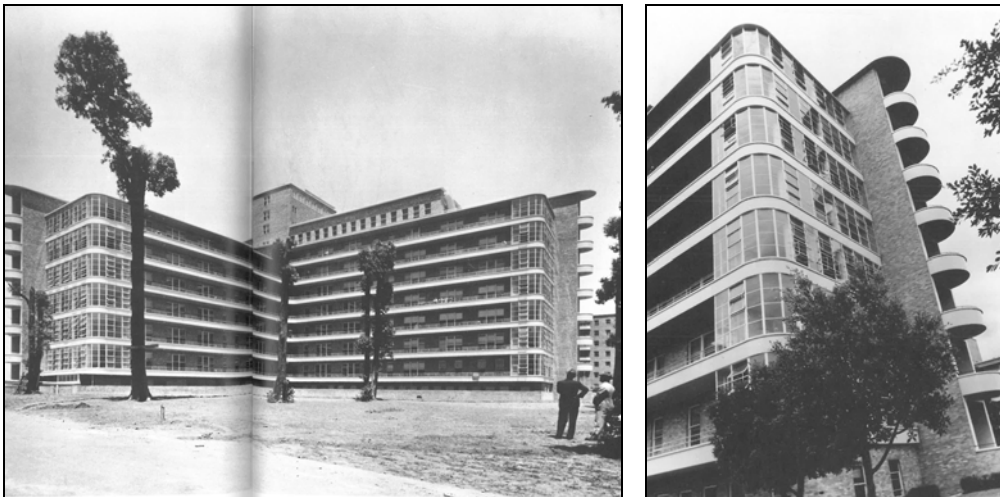
Dental Hospital (1940), the King George the Fifth Memorial Wing at the Royal Prince Alfred and the Yarralla (Repatriation) Hospital, Concord (1942). Examples of the work of Leighton Irwin are provided by the Mildura Base Hospital (1930), Broken Hill Hospital (1941) and the Rachel Forster Hospital in Sydney (1941). The Mercy Hospital, Albury, opened in 1957 (architect unknown), provides an example of a second, near contemporary, multi-storey hospital block in a regional centre.

Figures 43 to 51 provide images of a selection of the above examples for comparative purposes.



**Figure 47: Auburn Hospital, opened in 1961. Designed by Cobden Parkes and Edward Farmer with T. O'Mahoney.**

WP Architects, 2006.

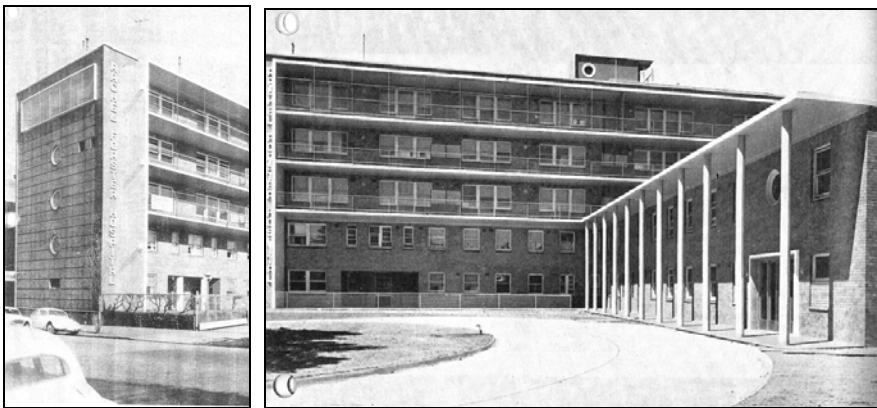


**Figure 48: Yarralla Military Hospital, Stephenson and Turner, 1942.**

John Shaw, *Sir Arthur Stephenson: Australian Architect*, 1987.



**Figure 49: King George V Memorial Hospital, Stephenson and Turner, c.1941.**  
 City of Sydney Archives, SRC 8130; Andrew Metcalf, *Architecture in Transition*, 1997.



**Figure 50: The Rachel Forster Hospital, Leighton Irwin, 1942.**  
 Rachel Forster Hospital, undated brochure (State Library NSW, Mitchell Library);  
*Decoration and Glass*, February 1942.



**Figure 51: Mercy Hospital Albury, erected in 1957.**  
 John Dallinger, 2006 (Flickr).

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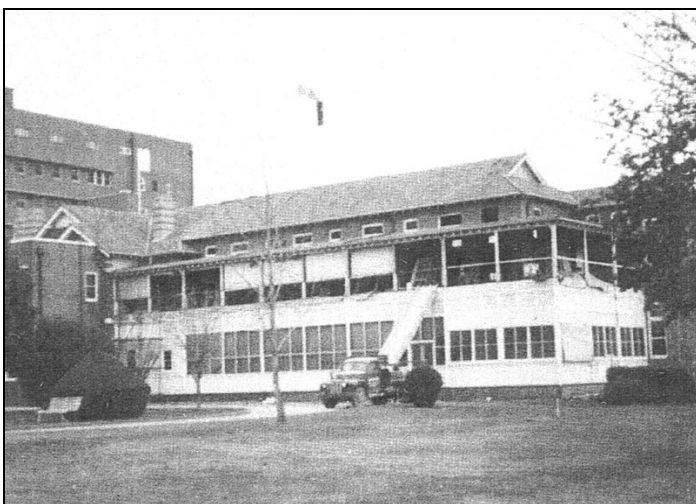
Functionalist Style hospitals were among the first large-scale buildings in Australia in which the ideals of modernism were expressed:

‘The Australian modern hospital holds a pivotal place both in the development of Australian Modernism and in the advancement of Australian health. They used a distinctive modern language, drawing upon the latest medical and architectural theories of the time. In doing so, they introduced Modernism to the Australian public, seeding a fundamental shift in Australian architectural aesthetics.’<sup>66</sup>

### 2.11.3 Changes to the Public Health System, the Demolition of Rawson House and the Opening of a Psychiatric Unit

The New South Wales public hospital system was again rationalised in the late 1960s. Following the recommendation of the Starr Committee, the government decided to establish a number of hospital regions. The pilot scheme was trialled in the Riverina, with Wagga Wagga as the headquarters, where a Regional Officer was appointed together with an advisory council of local people to oversee the running of the 45 hospitals in the region. If successful, this scheme was to be implemented state wide, leaving the Hospital Commission to concern itself with major policy decisions, and domestic issues to be settled at the regional level.

By 1967, Wagga Wagga Base Hospital was employing six RMOs and a number of junior medical officers. A new and larger Pathology Department was established in the old male medical ward. The project was designed by local architect O’Halloran and built by Siebel Brothers Pty Ltd. Other improvements carried out in 1965-8 included a new Records Department, which would allow the collection of statistics to better direct services, the conversion of the old First Floor Theatre into a Quiet Room and the renovation of the 1921 Children’s Ward. The latter involved the enclosure of the verandah, doubling of numbers who could be accepted (Figure 52). The vacated Children’s Ward was renovated in 1970 to provide a 24-bed acute medical and observation ward. The Blood Bank was expanded to become the Regional Blood Bank and a mobile unit introduced to travel to outlying hospitals (1968). The boiler house and workshop were also renovated in this year and the 1938 boiler removed and replaced. To alleviate congestion at the hospital caused by minor complaints that could also be treated in the home, a District Nursing Service was established.



**Figure 52: Western wing of the Old Hospital Building during remodelling.**

S. Morris, *A Delicate Balance*, 1988.

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<sup>66</sup> Julie Willis, *op.cit.*, 2002.



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In November 1967, Rawson House was demolished, despite prolonged local protest, to provide for car parking. In 1987, a lane marking the rear boundary of the hospital was named Rawson Lane in commemoration of the Rawson family.

Robinson House was converted into a Psychiatric Unit and opened in April 1969. This facility was the first separate psychiatric centre attached to a country hospital and offered 23 beds in one-to five-bedroom wards, a lounge and activities room, a dining room, occupational therapies quarters and verandah.

Figure 53 provides an aerial photograph of the Hospital during this period.



**Figure 53: Undated aerial photograph of Wagga Wagga Base Hospital, after the construction of the multi-storey block.**

Photograph of a photograph hanging in the Wagga Wagga Base Hospital.

#### **2.11.4 Grand Plans for Future Expansion**

Between 1970 and the mid 1980s, methods of health delivery underwent radical changes in their philosophy, economics and technology. In addition to higher wages, rapid advances in technology had increased the cost of direct health care, leading to a new emphasis on preventative and community medicine.

When the NSW Health Commission was formed on 1 January, 1973, it was decided to formally proceed with a system of regional health services throughout the state. Services at base hospitals were to be upgraded, while those at smaller hospitals reduced. During the 1970s, there was a significant expansion in community-based health care for the elderly and the handicapped. While the expansion of the Riverina Community Health Service that occurred at this time resulted in a decline in the number of general nursing care inpatients, the number of patients at Wagga Wagga continued to increase: from 6,000 people in 1973 to 9,700 people in 1986-7. A five stage plan was formulated to raise the number of beds from 220 to 400 by 1985.

The first stage of this work was the replacement of the old boilers with a new industrial complex, including a steam raising plant, new laundry facilities and new workshops.

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The tender of Siebel Brothers was accepted in March 1974. The chimneystack, 'Old Smokey', was retired from service and dismantled in 1977. The Minister for Health, the Hon. Kevin Stewart, opened the new complex on 8 July 1977.

The second stage of the ambitious plan comprised new medical and outpatient services, operating theatres, recovery and intensive care units, and accident and emergency facilities. Leighton Irwin, hospital design specialists, was engaged to develop a brief and design for the new work. In November 1980, however, the Minister for Health informed the Hospital Board that the plans were to be scrapped in favour of a new 250 bed hospital on the Glenfield Estate, six kilometres to the south. Ultimately, these plans were also abandoned.

Significant change within the region came when the City of Wagga Wagga was amalgamated with the surrounding Shires of Kyeamba and Mitchell on 1 January 1981, enlarging the area under its control to 488,600 hectares, with a population in excess of 50,000 people.

Another important change was also made to the state hospital system when the State Government announced their decision to reduce the number of regional offices from thirteen to nine. As a result, and despite protest, Wagga Wagga was amalgamated with the Murray Region; the Head Quarters of the new region located in Albury. At Wagga Wagga, the focus moved from the provision of new facilities to upgrading and refurbishing the existing facilities; a greater emphasis was placed on Community Health Services. Improvements were carried out to the Kitchen, Mortuary, Operating Theatres, Delivery and Intensive Care Wards. In 1986, alterations were carried out to the multi-storey block. It was at this time that the distinctive concrete fire stair (designed by the Government Architect's Office and the Public Works Department, with documentation by Sutton & Percy Pty Ltd) was constructed. The ramps and under cover access to the ground floor were also added at this time.

Despite the budget cuts and the abandonment of earlier grand plans, the accident and emergency/outpatients ward underwent a multi-million dollar expansion, which was completed in September 1988. A widened ambulance bay, now under cover, provided faster and easier access.

Other departments were also undergoing expansion and change in the late 1980s. The Radiography Department doubled in size and, by 1988, included three equipped X-Ray rooms, and General Screening and Casualty Rooms. Medical Records, Pharmacy, Blood Bank and Physiotherapy also continued to expand. The Old Hospital Building was again altered to provide Pathology Labs on the western ground floor and in-patient consulting rooms at the eastern end (1988). A porte cohere was added to the northern elevation of the 1946 addition to the Old Hospital Building in the 1980s.

After Gissing House was no longer required for TB patients, it was used only for elective day surgery patients. When the Old Preliminary Training Building was pulled down, Gissing House was extended. In April 1986, the Psychiatric Unit was transferred from Robinson House into the extended building and renamed the Gissing House Psychiatric Unit. In turn, Robinson House was converted into a 20-bed Assessment and Rehabilitation Unit, opened in mid June 1987. The 1936 Nurses' Home was renovated and used for a number of services including nurse education, occupational therapy, library services, computer services and the Regional Health Food, Health and Hospital Inspection Service. The building was renamed Harvey House in honour of Mr. Vince Harvey, Director of the Hospital Board for 26 years. The former Nurses Training School, since renamed Schofield House after the then Chairman of the Board of Directors, was refurbished in 1984 to provide improved conference facilities. Lewis House was renovated in 1986 for Community Health Services.

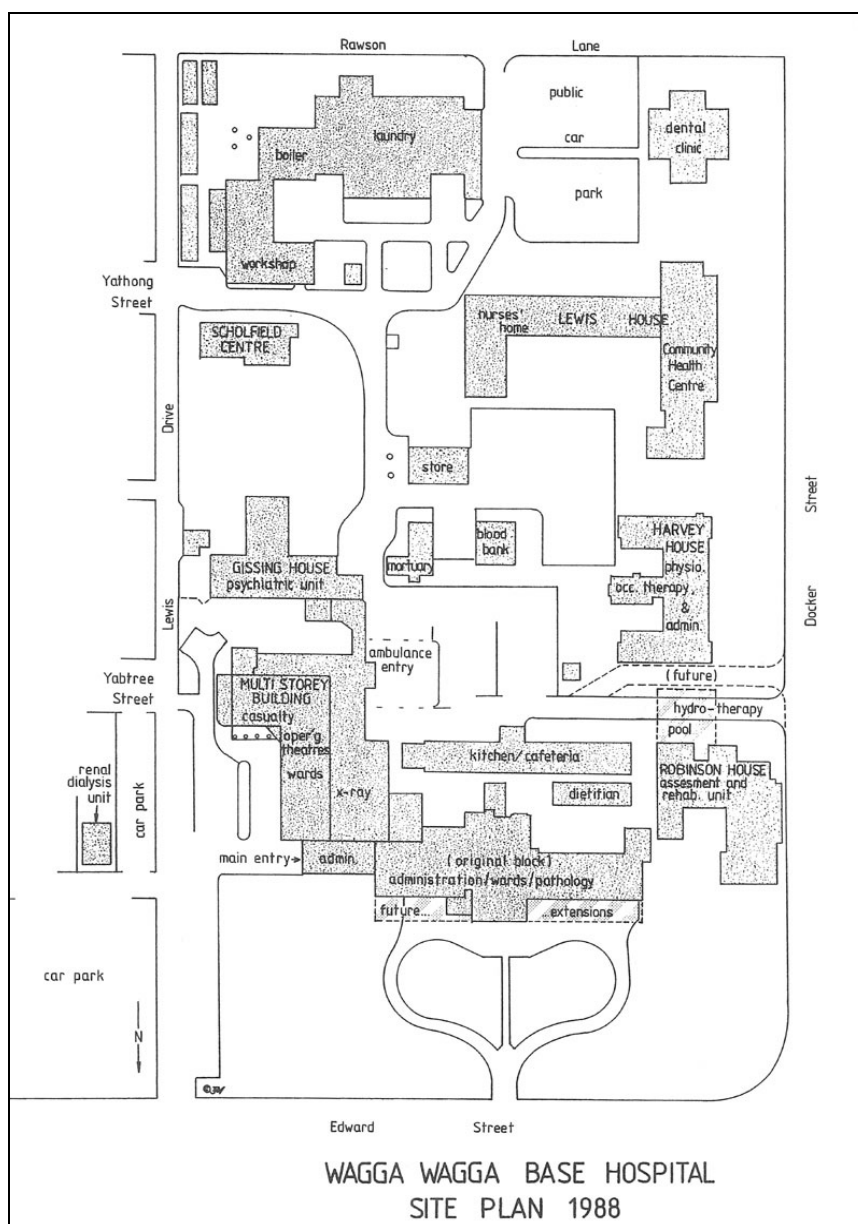


Within the grounds, a Dental Clinic for the economically disadvantaged was constructed at a cost of \$380,000 and officially opened on 27 August 1987. The building provided six surgeries, a laboratory, sterilising room, reception area and waiting rooms, staff facilities, plant and storerooms. The building had been designed by local architect David Nimmo in conjunction with Leighton Irwin.

Three other significant additions to the Hospital around this time were the Golden Gown Cottage (accommodation for relatives of patients in emergency situations), Brookong House (mother and baby unit) and the Living Skills Unit in Tarcutta Street.

As a Regional Referral Hospital, the number of specialist services provided at Wagga Wagga Hospital increased. A new orthopaedic service and a new Renal Dialysis Unit were added to the Hospital. The latter opened in May 1987 in a small building in the front of the hospital previously occupied by the District Nursing Service, which then moved to an adjacent cottage.

Figure 54 provides a site plan of the Hospital as it stood in 1988.



**Figure 54: Site plan in 1988.**

S. Morris, *A Delicate Balance*, 1988.

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### 2.11.5 Changes in Nursing Education

As the developments described above took place, significant changes were introduced to nursing education that had a long-term impact on hospitals across New South Wales.

By 1973, Wagga Wagga Hospital was accepting about 60 nursing students a year for their three year Certificate Course. In 1974, the Nurses Education Board recommended a complete overhaul of the system, suggesting that the Minister for Education should be responsible for nursing education, as opposed to the Health Commission, and that Colleges of Advanced Education should be encouraged to offer diploma courses for registered nurses. The transfer of nursing education to colleges began as a pilot programme in Wagga Wagga in 1975 when the Riverina College of Advanced Education agreed to offer a three-year full-time nursing course. The course combined academic training with practical work in hospitals. The final graduation of hospital trained nurses from Wagga Wagga occurred in 1982. Other changes, such as the employment of married nurses were also introduced; from the 1980s, the Hospital employed part time staff to help make up the continual shortage of nurses. By this time, less than half the nursing staff was living on site.

The decline in the all-inclusive role that the hospital had played in the lives of nurses impacted upon the organisation and running of hospitals. Changes in nursing methods ultimately had a significant impact on hospital design and equally impacted the ongoing efficiency of hospitals designed in a period when nursing numbers were high.

### 2.12 Wagga Wagga Hospital in the Last Twenty Years

In 1991, a new Clinical Services Building was constructed, having been identified in the 1980 by the Leighton Irwin Master Development Control Plans as a priority. Drawings for the building were prepared by Di Carlo Potts Architects.

Hospital boards throughout NSW were abolished in March 1996, following the revision of the structure of the eight Rural Health Services that had been in operation. The Hume, Murrumbidgee, Murray and Riverina Health Services were amalgamated to form the Greater Murray Area Health Service. The largest health service in NSW, the GMAHS area, covered 100,000 sq kilometres and serviced 257,000 people. Wagga Wagga was the administrative headquarters.

Changes continued to be made to the Old Hospital Building. The decorative tessellated tiled floors to the entry lobby and stairwell were removed in 2004 as they had become a trip hazard.

Yet another restructure of the State hospital system was announced in July 2004, following a review of NSW health administration by the Independent Pricing and Regulatory Tribunal (IPART). The review, conducted in 2003, recommended streamlining the administration structure and more clearly delineating roles and responsibilities between the Area Health Services and the Department of Health. The *Health Services Act 1997* was amended in December 2004 by the *Health Services Amendment Act 2004*.

Plans for the re-development of the Wagga Wagga Base Hospital have been debated since 2005 in the face of mounting community concern over the management and the delivery of services.

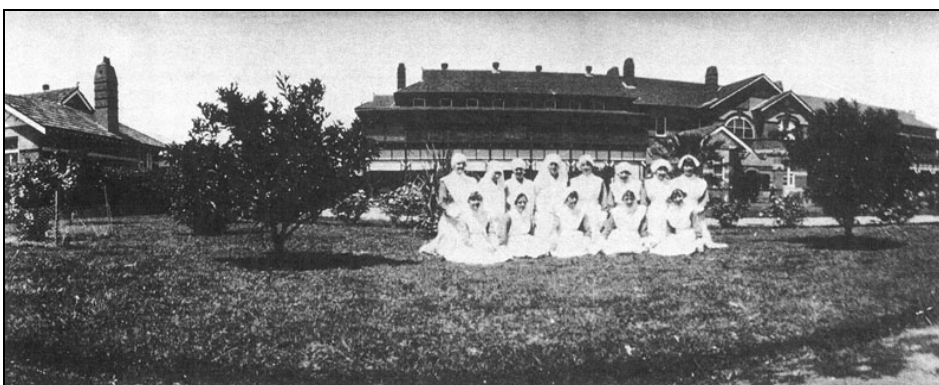
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## 2.13 People and Organisations Associated with Wagga Wagga Hospital

Numerous people have played a significant role in the Wagga Wagga Base Hospital. The reader is referred to Sherry Morris' comprehensive history of the Hospital for the details of various people and organisations that have played a role in the Hospital.

The esteem in which the community held the Hospital's doctors is demonstrated by the events that occurred at the funeral of Dr. W.W. Martin, who served the Hospital for 35 years. At the funeral held in Wagga Wagga in 1947, the Matron and 35 uniformed sisters formed a funerary guard of honour; and a large crowd lined the streets for the procession. Many of the doctors associated with the Hospital also played prominent roles in society and other community organisations. Perhaps the longest association of a single doctor with the Hospital was that of Dr. R.A. Lewis, who worked at the Hospital in various capacities for 56 years and who, in 1982, was awarded an M.B.E.

Of equal importance to the social history of the Hospital is the nursing staff (Figure 55). Employment conditions, roles and responsibilities of nurses have changed dramatically from the time that the Hospital opened in Edward Street until the present day, impacting on the design of the Hospital, the efficiency of buildings over time and how it has been run. During the 1920s, for example, the Matron acted as both nurse and housekeeper, with responsibility not only for the nursing staff, but also for the gardener and domestic staff. Among the notable matrons to serve the Hospital is Matron White, M.B.E., who between 1954 and 1972 witnessed an increase in nursing staff from 90 to over 200, oversaw the opening of the Preliminary Training School (1954), the Regional Training School (1964), and later became the only woman appointed to the Regional Council.



**Figure 55: Nurses' outside the Hospital in 1925.**

S. Morris, *A Delicate Balance*, 1988.

The contribution of Committee members, administration staff and ancillary staff are also commemorated in Sherry Morris' history. The gardeners, for example, played an important role. From 1891, when the Hospital was still located in Tarcutta Street, a full time gardener was employed to maintain the grounds and grow vegetables. By the 1920s, there were two gardeners, a front gardener and a back gardener, who also grew vegetables and milked the hospital's cows. The Hospital also employed a yardman and rouseabout to look after poultry.

The Wagga Wagga Hospital has always been dependant on community assistance. Women's organisations have been particularly notable in the raising of funds through balls, bazaars, live stock sales, raffles and the like, and by donating goods such as linen. From 1912 to 1920, there was an official Ladies Advisory Committee; this was reformed in 1927. Ladies' Auxiliaries were also formed at outlying hospitals, which not only supported their local centres, but also contributed to the Base Hospital. A second group of volunteers, the Pink Ladies, was formed in 1972. Many community groups,

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such as the Country Women's Association, the Chamber of Commerce, and the Lions and Rotary Clubs are also acknowledged.

## **2.14 Notes on the Streets Naming of the Streets Bordering the Hospital**

### **2.14.1 Brookong Avenue**

Brookong Avenue was named in the 1920s. *Brookong* was a large pastoral property west of Lockhart in the Riverina. The aboriginal word 'Brookong' means 'scrub' and also 'magpie.'

### **2.14.2 Docker Street**

Docker Street was formerly known as Albury Road. The street was renamed after the judge of the first circuit court.

### **2.14.3 Edward Street**

The general location of Edward Street is shown on an early map as a dotted line with the label, the 'Edward River Track.' The Edward River was named by John Webster and James McLaurin on 3 January, 1841, after their employer Edward Howe.

### **2.14.4 Lewis Drive**

Lewis Drive was named in 1963 after Daniel Edward Lewis (1892-1982), who served as a member of the Board of Directors of Wagga Wagga Base Hospital for 36 years, from 1925 to 1961. He was Chairman of the Board for 17 years from 1944 to 1961 and also Health Inspector and Chief Health Inspector for Wagga Wagga City Council from 1921 to 1957.

### **2.14.5 Rawson Lane**

Rawson Lane was named in 1987 in honour of the Rawson family, who were major benefactors to the Hospital. The Hospital Board had given an understanding to the family when Rawson House was demolished in 1968 that the family name would be perpetuated in some way.

### **2.14.6 Yabtree Street**

Yabtree Avenue was named in 1925 after *Yabtree Station*, a renowned grazing property on the Murrumbidgee River, located about halfway between Wagga Wagga and Gundagai, taken up c.1832.

### **2.14.7 Yathong Street**

Yathong Street was named in 1925 after *Yathong Station in* Jerilderie Shire, taken up as a cattle run in 1850. 'Yathong' is an Aboriginal word meaning 'sandhill.'

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### 3.0 SITE ASSESSMENT

#### 3.1 Preamble

This section briefly describes the site, the structures upon it, and its setting.

#### 3.2 The Setting

For the following, refer to the aerial photograph, Figure 56.

##### 3.2.1 Wider Area

The area surrounding the Hospital is relatively flat, with minor rises and falls. The underlying street pattern is formed by streets running north-south, intersected with east-west running streets at irregular intervals. Land use around the Base Hospital is largely residential, but also includes ovals and parks, schools, the Riverina TAFE College to the east, Calvary Hospital to the west and the showgrounds to the south. In addition to Calvary Hospital, there is a concentration of private clinics and doctor's surgeries in Docker and Edward Streets.



Figure 56: Aerial Photograph of the Hospital Site within its setting.

##### 3.2.2 Edward Street (Stuart Highway)

Edward Street forms the northern boundary of the site. The Old Hospital Building and the Main Hospital Building address this street.

Edward Street is a long east-west running street, part of the Stuart Highway (Figure 57). The street is four lanes wide, carrying two-way traffic, with provision for parking along both sides. There are wide nature strips and footpaths to both sides. Street planting varies in density in the section approaching the Hospital. The streetscape within the immediate vicinity of the Hospital is characterised by single storey buildings, predominately residential, with some having been converted for use as medical rooms. Most of these buildings are made of brick and range in date from the



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Federation and Interwar periods until the current day. The street setback of these buildings is consistent, providing for small front yards, some of which are concealed by high walls. Side setbacks are narrow and integrity is mixed.

Immediate adjoining the hospital site along Edward Street to the east is the Heritage Motel, a two storey, 'L'-shaped, brick building with a hipped tiled roof. The motel is separated from the nearest hospital buildings by the main hospital car park accessed of Lewis Drive, the road that crosses the hospital site from north to south. A series of single storey Late Federation/Interwar period bungalows complete the block to the east.

Immediately adjoining the hospital site along Edward Street to the west, and separated from the site by Docker Street, is a petrol station.



**Figure 57: Looking from the roof of the Hospital towards Edward Street, showing the character of the street directly opposite the Hospital site. The motel adjoining the Hospital on the eastern side can be seen on the right hand side of the photograph.**

### **3.2.3 Docker Street**

Docker Street forms the western boundary of the site.

Docker Street is a long north-south running street; it is four lanes wide, carries two-way traffic, and has parking to either side. The street has wide nature strips and footpaths to both sides; street planting in the immediate vicinity of the site is regular.

Like Edward Street, the street in the immediate vicinity is comprised of single storey brick buildings, mostly interwar period bungalows, some of which are used for medical purposes. The setback of buildings is consistent providing for small front yards that are generally open to the street (Figures 58 to 60).



**Figure 58: Docker Street, looking east. Lewis House is visible on the right hand side.**



**Figure 59: Typical dwelling in Docker Street.**



**Figures 60: Typical Dwelling in Docker Street.**

### 3.2.4 Lewis Drive

Lewis Drive defines the western boundary of the main part of the site. All the main hospital buildings are located to the west of Lewis Drive.

Lewis Drive is a long, wide, straight access road that runs from Edward Street to Brookong Avenue (Figure 61). It services car-parking areas for the hospital on either side, the entrance to Accident & Emergency and, in the northern part the site, access to hospital services and Yathong Lodge. Planting along the street is low in scale.



**Figure 61: Lewis Drive from the entrance off Edward Street.**

### 3.2.5 Rawson Lane and Brookong Avenue

Rawson Lane forms the southern boundary of the site. Rawson Lane is narrow and runs east from Docker Street, before turning northeast towards Yathong Street. The southern side of the lane, directly opposite the Hospital, comprises the rear yards and garages of the single storey dwellings fronting Brookong Avenue. The Hospital has small additional parking areas on this side. The northern side of Lane is characterised by the rear of Hospital buildings and car parking. To the east of the Hospital, and separated by Lewis Drive, is Yathong Lodge, a recently built, single storey aged care facility (Figures 62 to 65).



**Figure 62: View along Rawson Lane.**

**Figure 63: View along Rawson Lane.**





**Figure 64: Additional Hospital parking in Rawson Lane.**

**Figure 65: Additional parking in Rawson Lane, outside Yathong Lodge.**

The dwellings along Brookong Avenue, which form part of the Wagga Wagga Conservation Area, must also be taken into consideration in any assessment of the area surrounding Wagga Wagga Hospital Site. Brookong Avenue is a tree-lined street characterised by substantially intact Late Federation/Interwar period brick bungalows (Figures 66 and 67).



**Figures 66 and 67: Typical dwellings in Brookong Avenue.**

### **3.2.6 Yathong Avenue and Yabtree Street**

Yathong Street and Yabtree Street run to the east at right angles to Lewis Drive. The western ends of these streets form part of the Wagga Wagga Conservation Area. When compared to Edward and Docker Streets, these streets are narrow, with narrow nature strips and footpaths. Where not used as car parking areas by the Hospital, they are characterised by closely spaced single storey Interwar period dwellings, with later infill developments. There are no street plantings. It is proposed to acquire the four Interwar period bungalows adjoining the hospital site, and to demolish these dwellings, incorporating the land into the hospital site (Figure 68). These buildings are further described in Section 3.4 below.



Figure 68: Yabtree Street, looking west, from the roof of the upper levels of the Main Building.

### 3.3 The Site

Figure 3 identifies the principal elements on the site and should be referred to for the following.

The site covers an area of approximately 4.2 ha (bound by Edward Street, Docker Street, Rawson Lane and Lewis Drive), with an additional 1.5ha of parking on adjacent land. There is a gradual slope across the site, with a high point at the corner of Rawson Lane and Lewis Drive and a low point at the Edward/ Docker Street intersection.

Vehicular access to the Main Hospital Building, the Emergency Department and the main car park is directly off Edward Street, via Lewis Drive. Vehicular access to the Hydrotherapy Pool is directly off Docker Street, where the limited parking is shared with the UNSW Rural School of Medicine. Vehicular access to the Dental Unit, Community Health and the Australian Red Cross Blood Service Donor Centre is via the rear of the site, off Rawson Lane. Additional parking can be accessed off Rawson Lane or Yathong Street.

Under the *Wagga Wagga LEP 2010* the majority of the hospital site is zoned SP2 Hospital (Special Uses Zone). The four properties in Yathong Street are zoned R3 (Medium Density Zone).

The **northern** most part of the site, fronting Edward Street, comprises a wide belt of landscaped area, extending across the front of the Old Hospital Building from Lewis Drive to Docker Street. This comprises open lawn, with specimen trees towards the Edward Street fence and a central path that lead to the main entrance of the Old Building. There are no gates across the main path. The two sweeping semi-circular concrete paths to the front of the Old Building shown by historic photographs remain in evidence. As demonstrated by the following photographs, many of the trees shown by the aerial photograph Figure 3 have since been removed. The boundary fence to Edward Street is formed by a low brick wall, the piers of which are joined by a metal rail. Refer to Figures 69 to 73.





**Figure 69: Edward Street entrance.**



**Figure 70: Looking east from the car park across the front lawn.**



**Figure 71: Looking east from near the entrance to the Old Hospital.**



**Figure 72: From the entrance, looking towards Edward Street.**



**Figure 73: Detail of front fence.**

The brick fence returns along **Docker Street**. Robinson House protrudes from the building line that is created by UNSW Rural Clinical School (formerly the 1936 Nurses' Home, later Harvey House), the Hydrotherapy Pool and Lewis House. The deep setback of these buildings provides for further lawn, with concrete paths and specimen planting. Landscaping outside each building varies; there is bitumen car park outside the Hydrotherapy Pool. Planting is more formal outside Harvey House, with bricked edged garden beds and two sentinel Date Palms. Outside Lewis House there is a row

of trees and garden beds in the lawn. A wrought iron gate, contemporary with the fence, remains.

Landscaping around the remainder of the site varies. Aside from hard surfaced areas, there are areas of lawn and, around some buildings, formal or informal garden beds. Refer to Figures 74 to 79.



**Figure 74: Canary Island Date Palms outside the UNSW Rural Clinical School.**



**Figure 75: Formal brick edged garden beds outside the UNSW Rural Clinical School (later landscaping).**



**Figure 76: Tree planting and garden bed outside Lewis House.**



**Figure 77: Garden beds and lawn around the Dental Centre.**



**Figure 78: Typical landscaping in areas to the rear of the site.**



**Figure 79: Extensive hard surfaced areas around the former Mortuary.**

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The site to the east of Lewis Drive is, as shown by Figure 3, comprised of car parking with limited planting.

### 3.4 Buildings and Structures

Note: Many of the buildings could not be inspected internally.

#### 3.4.1 Old Hospital Building

*(Figure 3, Building A)*

##### **Date of Construction**

First Stage:	Opened in 1910 (central section and eastern wing).
Second Stage:	Opened in 1922 (western wing).
Administration Block:	Opened in 1946 (addition to the front).
Other significant alterations:	1967 (Children's Ward). 1969 (alterations to the vacated Children's Ward). 1989 (interim re-development).

##### **Architect**

First Stage:	Initial drawings by W.L. Vernon; working drawings attributed to W.M. Monks.
Second Stage:	Initial drawings by W.M. Monks; final scheme by the Government Architect, under G. McRae.
Administration Block:	Government Architect, under Cobden Parkes.
Other known alterations:	Various architects.

##### **Description and Assessment of Integrity**

The Old Hospital Building as it stands today is comprised of Vernon's 1910 building, McCrae's 1922 wing (western wing) and the 1946 Administration block. These key elements have been subject to extensive alteration, both major and minor, recorded and unrecorded.

##### **Exterior**

W.L. Vernon's 1910 two-storey hospital and G. McCrae's 1922 two-storey addition (being the western wing) were designed and constructed in the Federation Queen Anne Style. These buildings were constructed of banded polychrome brickwork and detailed with projecting sills, brick and arch copings, pebble-dash render (on the 1910 building), exposed timber rafters and decorative timber work, and decorative terracotta panels. The two-storey, northern facing verandahs had decorative cast iron railing balustrades. The roof was a complex combination of hipped, gabled and gambrel roof forms, clad in Marseilles terracotta tiles with ridgeline vents (1910 building) and vents in the gables. Timber joinery included double hung windows and casement windows.

Beyond the main roof (still clad in terracotta tiles) and the highlight windows that once provided ventilation to the wards, little of the **northern elevations** of the 1910 and 1922 buildings are visible today. The original external walls have been opened up (and in many cases rendered and painted) and the two storey verandahs enclosed in fibro clad stud walls. The northern elevation is now comprised of a fibro-clad stud wall punctuated with regularly spaced aluminium framed windows with canvas awnings. Two brightly coloured service pods break out of the first floor elevation of the western wing. The original ridgeline vents remain and a number of the original banded brick chimneys (albeit with altered tops) are also visible.

Vernon's original gabled and arched entrance was replaced by the two-storey Administration Block addition of 1946. This face brick addition is in the Functionalist Style, with concealed roof form, shallow projecting concrete hood above the first floor



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windows and a horizontal emphasis to the arrangement of openings. Windows and doors are a mixture of timber framed and aluminium framed. The main entrance is shaded by a port-cochere with flat metal deck roof.

Attached to the eastern end of the 1910 building is a two-storey brick block constructed of face brickwork with bands of paired windows at ground and first floor level. The roof form is concealed.

Figures 80 to 84 illustrate the northern elevation of the Old Hospital Building from west to east. Figure 85 to 88 show surviving details of the 1910 and 1922 buildings.



**Figure 80: Northern elevation of the later brick addition at the western end of the building.**



**Figure 81: Northern elevation of the original 1910 wing, now enclosed in fibro clad stud walls.**



**Figure 82: Northern elevation of the 1944 Administration Block, above which can be seen the gables of Vernon's original entrance and two banded brick chimneys.**



**Figure 83: The port-cochere, a later addition to the 1946 Administration Block**



**Figure 84: The northern elevation of the 1922 wing, enclosed by fibro-clad walls, with recent service pods and air conditioning units.**





**Figure 85: The 1908 foundation stone.**



**Figure 86: Detail of an original brick banded chimney, the top of which has been removed and capped. Note also the exposed timber rafters.**



**Figure 87: Detail of the original roof vents on the 1910 building.**



**Figure 88: An original double hung window (top centre) in the 1910 building, with the head set into the upper rough cast band and a fine brick sill detail. This photograph also shows typical alterations to the 1946 addition, being the replacement of timber framed double hung windows with aluminium-framed windows. Note also the proliferation of services that characterise this elevation and the roof of the Old Building.**

The **eastern elevation** of the 1910 wing was extensively altered during the 1990 works; originally exterior walls were converted into internal walls and rendered and painted.

The **western elevation** of the 1922 wing is shown by Figure 89. The forward section (with gable roof) and the verandah have been completely encased with fibro-clad walls and the original chimney removed. Air conditioning units and service ducts are prominent. The rear section of the wing, however, is substantially intact, with original timber framed double-hung windows.



**Figure 89: The western elevation of the 1922 wing.**

Later works and enclosures conceal sections of the original 1910 eastern wing. The original central two storey brick protrusion behind Vernon's entrance, remains, with its hoist and double timber doors on the top floor (Figure 90). It is, however, disfigured by a later plant room, covered way, air conditioning units and service pipes. Close by this projection is the bay that contained the original operating theatre on the first floor (Figure 91). At ground floor level there are original narrow double hung windows with upper vents; at first floor level, a large timber framed window marks the location of the former theatre. Note also the surviving decorative timber brackets.

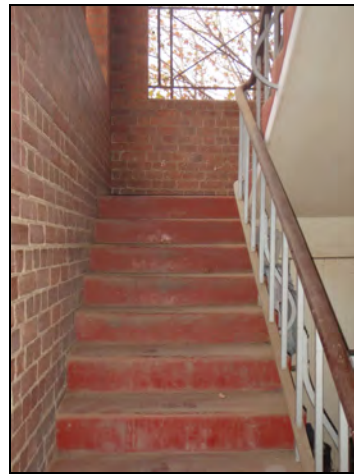


**Figure 90: Remnants of the hoist, southern elevation.**

**Figure 91: Bay containing the original Operating Theatre, showing window and decorative timber brackets.**

At the western end of the 1922 wing there is an original semi-enclosed staircase, with original arched openings, concrete stairs and wrought iron balustrades (Figures 92 and 93). Figure 90 shows a chimney breast, also part of the 1922 work.





**Figure 92: Staircase, 1922 wing, showing detailed brick arches and wrought iron balustrades. Note also later glass blocks filling in an original window opening. The first floor windows above are original.**

**Figure 93: Original painted concrete stairs with wrought iron balustrade.**



**Figure 94: Detail of an original chimneybreast, rear of 1922 wing.**

Some of the original wrought iron balustrades from the 1909 building have been recycled in other areas around the site (Figure 95).



**Figure 95: Recycled balustrade from the 1909 building re-used as a handrail outside the Community Health Centre.**

***Interior***

Only part of the interior was accessible.

The interior of the Old Hospital Building has undergone considerable alteration. An understanding of the original floor plans has been compromised through additions commencing in the 1940s and continuing until the present day. The naturally lit and ventilated spaces of the original buildings have become wide-bodied spaces serviced by air conditioning and fluorescent lighting. As previously noted, the northern walls of the 1908 and 1922 sections have been extensively opened up and the brickwork re-surfaced and painted.

The building is entered via the 1990s port-cochere and aluminium air lock of the same date, through the 1946 addition. The lobby exhibits a simple plaster ceiling typical of this date, simply detailed architraves and single leaf timber doors, all typical of this period.

Figures 96 to 99 provide a selection of images from this part of the building.



**Figure 96: Ceiling detail in 1946 section. In other areas, the original ceilings have been replaced or covered over.**

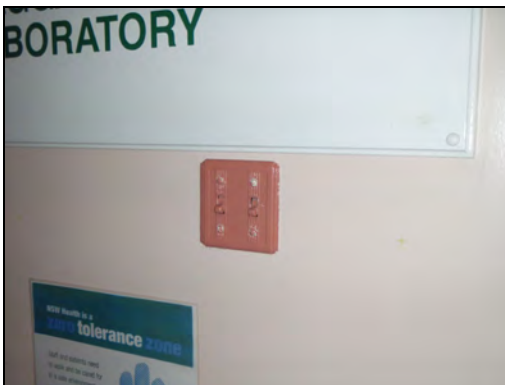




**Figure 97: Typical joinery detail.**



**Figure 98: Inbuilt cupboard, typical of a c.1940s hospital.**



**Figure 99: Remnant light switch.**

Some of the original finishes – such as pressed metal ceiling and terrazzo stairs – are evident in the corridor and lobby connecting the 1910 and 1946 areas. The main stairwell in the 1910 building contains the greatest concentration of original finishes, including pressed metal ceiling panels, set plaster walls with dado lines, rounded corners and original joinery. The staircase, with original timber and wrought iron balustrade, remains. Building services and lighting are detracting elements. Refer to Figures 100 to 103.



Figure 100: Original (1910) front entrance, now encased in the 1946 addition.



Figure 101: Lobby, showing dado line and exposed rounded corners.



Figure 102: Detail of the original stair balustrade.

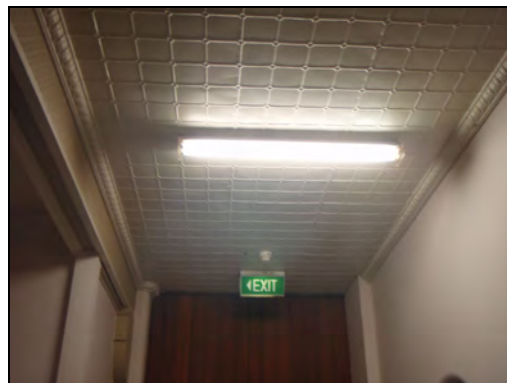


Figure 103: Detail of pressed metal ceiling and cornice.

The interior inspection of other parts of the Hospital was limited. Surmising from the CMP 2005:

***Ground Floor, Central Area Behind the Entrance:***

Some evidence of original wall locations; much of the original finishes (doors, architraves, windows) have been removed.

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**Ground Floor, Remainder:**

This area, once a medical ward, includes later partitioning, later ceilings with exposed ductwork and industrial lighting and replacement of some windows with fire-rated glass blocks. Little original fabric remains and is limited to a few examples of double hung windows and a glazed door leaf.

**First Floor, 1946 area:**

The northern central area shows evidence of extensive refurbishment, c.1990s- new ceilings, walls finishes, floor surfacing and detailing.

**First Floor, Central Area Behind the Entrance:**

Significant altered from 1969 onwards. A partition has been constructed at the central stair lobby landing edge to separate the top section of the lobby space from below. A small section of pressed metal ceiling survives.

**First Floor, 1910 Wing:**

Partitions and widened openings to the verandah enclosure have significantly modified the once-open ward space. Little evidence remains of the original fabric (ceilings, joinery etc.). Rooms at the southeast end of the corridor, including utility room, storeroom and bathroom, have been heavily modified. The only original fabric is a number of external windows. Ramped access at the eastern end leads into the first floor Intensive Care Ward constructed in 1990.

**First Floor, 1922 Wing:**

Partitions have significantly modified the once-open ward space. The enclosed verandah space is used for various purposes. These areas and the southwest bathrooms were refurbished c.1989. With the exception of some of the original timber verandah ceilings and some original double hung windows in the southern elevation, there is no original 1922 fabric.

**Conclusion**

While the evolution of the Old Hospital Building from 1910 until the present day is reasonably well recorded in historic plans and photographs, architecturally, and in terms of physical fabric, the building demonstrates a low degree of integrity. The extent of alteration and addition has been such, that the building is no longer a good example of the Federation Queen Anne Style. The most significant elevation, the northern elevation, has been irreparably altered. Most of the original northern elevation has been cut away and removed to allow free extension into the closed verandah space. This elevation was not only a fine example of the Federation Queen Anne Style, but provided important elements typical of Vernon's Hospital buildings, most notably a wide verandah. The 1946 addition, while a modest example of the Functionalist Style then popular for hospital buildings, made no reference to the forms and detailing of the earlier building; indeed, it resulted in the loss of one of the most significant architectural elements, the main entrance. Internally, it is no longer possible to understand how the hospital was laid out in 1910-1922. Neither is the evolution clear from the fabric alone; each successive alteration has resulted in changes to the fabric that preceded it.

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### 3.4.2 Main Hospital Building (Multi-Storey Ward Block)

#### *(Building B, Figure 3)*

##### **Date of Construction**

Constructed: 1963 (opened).  
Major Alterations: 1986 and 1990s.

##### **Architect**

Initial sketch plans	Government Architect (Cobden Parkes), with
Initial working drawings	Henry E. Budden and Nangle.
Executed plans	(pre-construction) Gov. Arch. Edward Farmer
Executed working drawings	Thompson, Spooner and Dixon.
Later work	(1986) Government Architect and the DPW, with documentation drawings by Sulton & Percy Pty Ltd.

##### **Description and Assessment of Integrity**

###### **Exterior**

The multi-storey ward block is an eight-storey reinforced concrete and brick building. The building is 'L'-shaped in plan and of the Functionalist Style. The following photographs, Figures 101 to 107, show each elevation of the building.

The narrow northern elevation of the north-south section of the ward comprises two tower sections, one higher than the other, the whole characterised by single offset windows placed one above the other. At the top of the higher tower are the words 'WAGGA WAGGA BASE HOSPITAL' in raised white lettering. A clear roofed covered way has been added at ground floor level along the eastern elevation of this block.

Above ground floor, the eastern elevation is characterised by balconies with rendered balustrades which run the entire length of the elevation at first to fifth floor levels, before returning along the northern elevation of the east-west running section of the building. The fifth floor east-facing balcony has been enclosed; the north-facing balcony at this level remains open and is shaded by a cantilevered concrete hood. Triple hung timber framed windows, with wire screen doors, open at each level onto the verandah, at regular intervals. The sixth floor has timber framed double hung windows and the six, smaller windows. Openings are placed one above the other, floor after floor, creating both a vertical and horizontal emphasis.

A stylised white concrete fire stair dominates the eastern elevation of the east-west running section. This stair was added in the 1980s; it is not an original element.<sup>67</sup>

The southern and western elevations are characterised by horizontal bands of windows. There are continuous projecting sun hoods running above the central windows of the western elevation.

Figures 104 to 113 provide a selection of images of the exterior of the building.

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<sup>67</sup> With reference to plans held by the NSW Department of Commerce (Plan Room).



**Figure 104: Looking south towards the Main Building. The two storey section on the northern side, the fire stair and the ground floor colonnade are later additions to the original building.**





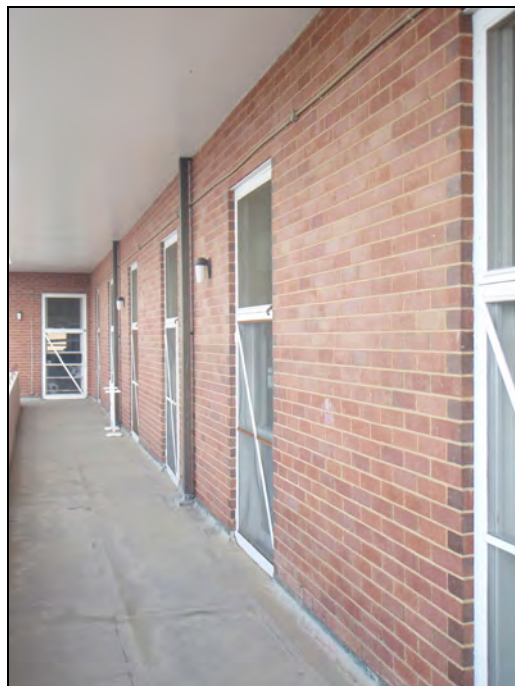
**Figures 105 and 106: Details of the later ground floor colonnade that runs along the eastern elevation of the north-south running section of the building and the northern elevation of the east-west running section of the building.**



**Figure 107: Main entrance into the Hospital. This photograph continues on from Figure 106.**



**Figure 108: Detail of the eastern elevation, showing the regular pattern of triple hung windows and screen doors.**



**Figure 109: Detail of the east-facing verandah.**



**Figure 110: Looking west towards the Main Hospital Building showing the fire stair on the eastern elevation of the east-west running section of the building and the east facing balconies of the north-south section of the building.**



**Figure 111: Detail of the Fire Stair built in 1986. This stair has strong echoes of Wells Coates' iconic staircase at the Isokon Flats, Hampstead (1933-4).**



**Figure 112: The southern elevation.**



**Figure 113: The western elevation.**

Externally, the building is substantially intact. The most significant alterations have been the addition of a fire stair (c.1986) and alterations to the ground floor in the 1980s and 1990s. These works have had varying degrees of impact. While the ground floor colonnade has only marginally disrupt the horizontal banding, the fire stair has had a more pronounced impact on the building. The stair is a prominent element, so much so that it is listed among the 'strong visual elements' that, according to the *Wagga Wagga Urban Heritage Study* make this building characteristic of the 'International Style.'<sup>68</sup>

### ***Interior***

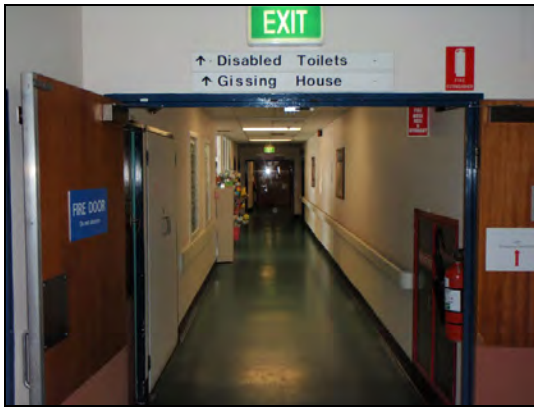
The interior was only briefly inspected; not all areas were accessible. With the exception of the ground floor, the floor plans of the Main Building are largely intact and are typical in layout and finish of a hospital of this period. The building is characterised by long corridors with wards etc. on the north and north western sides and services on the southern side.

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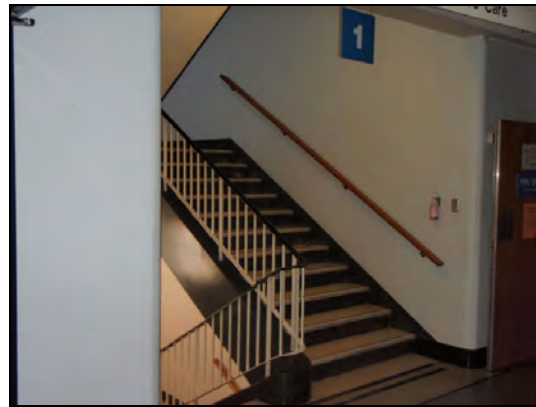
<sup>68</sup> Wagga Wagga Urban Heritage Study 2002, Reference No.: UHS45.



Figures 114 to 117 show typical interiors and finishes.



**Figure 114: Typical corridor within the Main Hospital Building, showing rubber skirting, ceiling panels and timber doors.**



**Figure 115: Detail of the internal staircase within the Main Hospital Building showing terrazzo stair and original metal and timber balustrades.**



**Figure 116: Plaques commemorating the construction and opening of the Main Hospital Building.**



**Figure 117: Detail of original ceiling panels and small light fitting.**

### **Conclusion**

For the following, refer back to Section 2.11.2: The Functionalist Style Hospital, for comparative examples.

The Main Hospital Building demonstrates high integrity and is a representative example of a Functionalist Style hospital. While a rare within Wagga Wagga, the style was the dominant style used in hospital design in New South Wales between c.1935 and 1965. While representative of a Functionalist Style hospital of this period, the Main Hospital Building at Wagga Wagga Hospital is relatively modest, if competent, example. The building, however, lacks the ‘flamboyance’ of the best examples of the style identified in Section 2.11.2. The variation in form and attention to detail- often subtle- demonstrated by Stephenson & Turner’s King George V and Yaralla Hospitals, for example, are not in evidence. The fire stair that adds considerable visual interest to the otherwise simply detailed building is not in fact an original feature, but a relatively recent addition. The size of the building relative to the surrounding area and its association with an important community service has given it landmark status; this should not, however, be confused with architectural merit.

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### 3.4.3 Mortuary

#### *(Building C, Figure 3)*

The Mortuary was constructed in 1909-1910 as part of the original hospital complex. Originally a small building, it was first extended by Cobden Parkes in the late 1930s to provide a pathology department and then, during the 1970s, to provide accommodation for the engineering workshop staff. The building is a single storey brick building with a hipped terracotta tile roof with a large industrial vent.

The building was not inspected internally.

The building's form, openings and architectural detailing have been altered substantially over time. The building has a low level of intactness.

Refer to Figures 118 to 120.



**Figure 118: Looking down over the mortuary.**



**Figure 119: Northern elevation of the mortuary.**





**Figure 120: Southern elevation.**

### **3.4.4 Gissing House**

#### ***(Building D, Figure 3)***

Gissing House was designed by the Government Architect's Office and constructed in 1956 for use as a tuberculosis and chest clinic, with a temporary single storey isolation area attached to the western side. The 1956 block is clearly identifiable as a simple, single storey brick (single tone) building with a wide gable roof clad in terracotta tile roof and large timber framed windows. When the isolation wing was demolished, Gissing House was extended to create an L-shaped footprint. A new linked single storey wing, with walls of banded brickwork, was constructed in 1991. The older section was altered by Di Carlo Potts Architects in 2003. The integrity of this building is mixed.

The building was not inspected internally.

Refer to Figures 121 to 124.



**Figure 122: The 1956 section of Gissing House.**



**Figure 123: The 1991 Extension to Gissing House and wall to the front.**



**Figure 124: Wall to the front of Gissing House, concealing most of the building. Beyond, is the Emergency Department (E in Figure 3).**

### **3.4.5 Schofield House**

#### ***(Building E, Figure 3)***

Designed by the Government Architect's Office (with working drawings prepared by Thompson, Spooner and Dixon), Schofield House opened as the Nurses' Training School in 1961. The building was refurbished in 1984 to provide conference facilities and disabled access provided.

The building is a simple, single storey brick building with large timber framed windows, and a gabled roof clad in terracotta tiles. The entrance is located off a long narrow porch, under the main roof, on the northern side. This entrance is detailed with textured pre-cast concrete panels.

The building was not inspected internally.

Refer to Figures 125 and 126.



**Figure 125: The northern elevation of Schofield House, showing concrete panelling.  
Figure 126: Western and southern elevations.**

### **3.4.6 Maintenance and Engineering Stores, and Hospital Stores**

*(Buildings F and G, Figure 3)*

Designed by the Government Architect's Office (under Charles Percy Weatherburn) and officially opened in June 1975, the maintenance, engineering and stores facilities are located in a single storey complex of light brick and metal clad industrial buildings. Rawson Lane provides access to the complex and a semi-enclosed courtyard with a loading dock.

Refer to Figures 127 and 128.



**Figures 127 and 128: Maintenance, storage and engineering buildings.**

Nearby to the north is the Medical Gases Compound and Flammable Liquid Store, c.1985. This has a flat metal roof, semi-open shed, chain wire mesh gate and fence enclosure, with a freestanding medical gases tank (Figure 129).



**Figure 129: Flammable Liquid Stores and Medical Gases Compound.**

### 3.4.7 Dental Clinic

***(Building H, Figure 3)***

The Dental Clinic is located on the corner of Docker Street and Rawson Lane. The building was designed by local architect David Nimmo in conjunction with Leighton Irwin in 1986 and officially opened on 27 August 1987. This building is a small single storey pale brick building, with a cruciform plan, metal roof with deep metal fascia and aluminium-framed windows. Externally, it appears to be substantially intact. The interior was not inspected.

Refer to Figures 130 and 131.



**Figure 130: Dental Clinic from Docker Street.**

**Figure 131: Dental Clinic from Rawson Lane.**

### 3.4.8 Lewis House and Community Services

***(Buildings I, J and K, Figure 3)***

***Date of Construction***

Two-storey section completed in 1952; three storey section, completed in 1961.



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### **Architect**

First section: Two storey nurses home designed by Cobden Parkes, with working drawings by Budden and Nangle.  
Second section: Three storey nurses home designed by Cobden Parkes, with working drawings by Budden, Nangle and Michael.  
Renovated: 1986-7.

### **Description** **Exterior**

Lewis House is comprised of a L-shaped three storey section, with a smaller two storey wing to the rear. Both sections have low-hipped terracotta tile roofs and enclosed eaves and simple brick chimneys.

To Docker Street, it presents as a three storey building. The Docker Street elevation is divided into vertical panels, with horizontal bands of glazing and rendered panels. The remaining elevations are constructed of face brick. As shown by the following photographs, the secondary elevations are characterised by regularly spaced rows of timber framed double hung windows.

A single storey wing attached to the southern end of the Docker Street elevation houses Community Services. This wing has a flat roof screened with high timber lattice panels. Windows and doors are aluminium framed. The balustrade of the concrete ramp that leads to the main entrance is comprised of recycled wrought iron panels from the verandah of the Old Hospital Building.

Refer to Figures 132 to 138.



**Figure 132: Docker (eastern) Street elevation of Lewis House, southern end. Note the stylised 1960s-style wrought iron lettering 'Lewis House.'**





**Figure 136: Behind the Community Services wing.  
These doors have original timber  
flyscreens.**



**Figure 137: View to the rear of Lewis House from  
the roof of the Main Hospital  
Building.**



**Figure 138: Southern elevation of Lewis House.**

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**Interior**

Lewis House was only briefly inspected internally. The floor plan is characterised by long corridors with small rooms, originally bedrooms, to either side, with larger common areas. Finishes are simple and utilitarian.

Figures 139 to 144 demonstrate typical areas and finishes.



**Figure 139: Typical hallway in Lewis House, showing rooms leading off either side of a narrow corridor. Note the simple cornice and skirting detail.**



**Figure 140: Former common room in Lewis House, showing brick fireplace.**



**Figure 141: Within the enclosed verandah. The original windows have been replaced.**



**Figure 142: Typical door and hardware.**

### ***Conclusion***

Overall, Lewis House is highly intact with its building form and most elevations as per original plans. The building is typical in plan and detail of many nurses' homes constructed at hospitals throughout NSW during the 1950s and 1960s. The large residential nurses' homes of this period were the last to be built; later changes in nursing meant that onsite accommodation was no longer required. The windows to the Docker Street elevation of Lewis House and to the Community Centre have been replaced. This has had some impact on Lewis House as the new windows are not of the same height as the old, altering the solid to void ratio of this elevation. The lattice to the top of the Community Centre is a detracting element.

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### 3.4.9 Clinical Services

#### *(Building L, Figure 3)*

Plans for the Clinical Services Building were prepared in 1990 by Di Carlo Potts Architects and the work completed in 1991. The building is a large wide-bodied reinforced concrete-framed structure, with polychrome brickwork walls and low hipped and arched Colorbond roof forms. A covered walkway links it to the multi-storey block.

Internally, the ground floor comprises kitchen, cafeteria and laundry spaces. The first floor houses operating theatres, acute recovery CSSD, and post-operative lounge facilities.

Refer to Figure 144.



Figure 144: Side and rear of the Clinical Services Building.

### 3.4.10 UNSW Rural Clinical School (formerly the 1936 Nurses' Home, later Harvey House)

#### *(Building M, Figure 3)*

##### **Date of Construction**

Opened in 1936.  
Major alterations and additions carried out in 2001.

##### **Architect**

Government Architect, Edwin Smith (1936); Budden Nangle Michael & Hudson (2001).

##### **Description**

###### **Exterior**

This building is a finely detailed two storey face brick building with a low hipped and tiled roof in the Interwar Free Classical Style. The front elevation is symmetrical, with two street facing projections at either end, joined by a two storey verandah that runs along the central section. The verandah has brick piers and balustrade; timber posts support the first floor verandah roof. The central entrance is marked by a shallow, simply detailed Art Deco Style porch front. The windows on this and other elevations are regularly spaced, timber framed double hung sash windows with multiple panes. The eaves are wide and closed.



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Externally, the building demonstrates a high level of integrity, albeit with some tiles and verandah posts replaced. The building is a fine, if modest, example, of an Interwar Free Classical institutional building, one of several in this style designed by the Government Architect's Office under Edwin Smith.

Refer to Figures 145 to 150.



**Figure 145: Looking towards the eastern elevation of UNSW Rural Clinical School from Docker Street.**



**Figure 146: The eastern elevation**





**Figure 147: Detail of the entrance porch. The tiling is of a later period. The Art Deco Style detailing of this porch stands in marked contrast to the otherwise Interwar Free Classical of the building and looks forward towards the Functionalist Style (a development of the Art Deco Style) that was soon to dominate hospital architecture.**



**Figure 148: The southern elevation.**



**Figure 149: Detail of the southern elevation, showing closed eaves, chimney breast and multi-pane windows.**



**Figure 150: Southern elevation, detail.**

### ***Interior***

Figures 151 and 152 demonstrate the floor plans of Harvey House. The original floor plan is substantially intact and is characterised by small rooms of narrow corridors with larger common areas.

Finishes are characteristic of the Interwar period and include timber doors with top lights, timber joinery and simple cornice profiles. The main stairway, lit by the

arched window visible in Figure 150, has terrazzo stairs and a metal and timber balustrade.

Major alterations and restoration was carried out in 2001 to enable use of the building by the University of New South Wales Clinical School. Figure 153 to 156 show various aspects of the interior.



Figure 151: Ground floor plan.



Figure 152: First Floor plan.





**Figure 153: Front entrance.**



**Figure 154: First floor hallway, showing rooms to either side with profiled timber skirting, simply profile cornices and doors with top lights.**



**Figure 155: Lecture room within Harvey House.**



**Figure 156: Main stair within Harvey House.**

### **3.4.11 Hydrotherapy Pool**

***(Building N, Figure 3)***

The Hydrotherapy Pool was designed by Di Carlo Potts and opened in 1991.

#### ***Description***

The building is a single storey structure with polychrome brick walls and an arched Colorbond Roof.

The interior was not inspected.



Refer to Figure 157.



**Figure 157: Hydrotherapy Pool.**

### **3.4.12 Physiotherapy Block**

***(Building O, Figure 3)***

The Physiotherapy block is a single storey brick building with a hipped terracotta tile roof and a north-facing verandah. The western end of this building formed part of the 1942 kitchen block, opened in July 1942. This building was renovated c.1990. The metal balustrade was taken from the Old Hospital Building. The integrity of this building is mixed.

The interior was not inspected.

Refer to Figure 158.



**Figure 158: Physiotherapy Block, showing detail of the re-use of the Old Hospital balustrade.**

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### 3.4.13 Robinson House

#### *(Building P, Figure 3)*

Robinson House was opened in 1938 as the Maternity Block (Government Architect). Alterations and additions were carried out in 1945, c.1976 and June 1987 to facilitate changing uses.

The original building is a single storey face brick building with a hipped terracotta tiled roof. Robinson House is now a series of single storey linked structures. The building demonstrates mixed integrity.

Refer to Figures 159 to 1961

The interior was not inspected.



Figures 159 and 160: Robinson House, looking along the Docker Street elevation.



Figure 161: Looking towards Robinson House from outside Harvey House.

### 3.4.14 Blood Bank

#### *(Building Q, Figure 3)*

Attached to the northern end of the two storey section of Lewis House is a single storey addition, c.1988 (the Blood Bank). This addition is a detracting element from Lewis House.

The interior was not inspected.

Refer to Figure 162.



**Figure 162: 1953 building and c.1988 Blood Bank addition.**

### **3.4.15 Dwellings in Yabtree Street**

*(Building Q, Figure 3)*

It is proposed to acquire four dwellings on the southern side of Yabtree Street, being Nos. 10-16 Yabtree Street, for incorporation into the site. These dwellings are single storey Interwar period brick bungalows, each with two wide street-facing gables, and a corrugated iron roof. Nos. 12, 14 and 16 Yabtree Street demonstrate a high degree of integrity, with regard to their streetscape presentation. No. 10 Yabtree Street has been rendered and painted, windows replaced and arched entrances incorporated to either side and to the entrance. Refer to Figures 163 to 166.



**Figure 163: Looking west along the southern side of Yabtree Street from near Lewis Drive.**

**Figure 164: Dwelling on the corner of Lewis Drive and Yabtree Street, No. 10 Yabtree Street.**



**Figure 165: No. 12 Yabtree Street.**



**Figure 166: Nos. 14 and 16 Yabtree Street.**

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### 3.5 Identifying View Corridors to and from the Site

Wagga Wagga Base Hospital is an anomaly in the immediate landscape in terms of the size of the site, the extensive areas of parking associated with it, the type and scale of buildings that stand upon it, and their deep set back from the principal frontages of Edward and Docker Streets.

#### 3.5.1 View Corridors into the Site

The most significant view corridors towards the site from the public domain occur when standing directly outside of, or opposite, the site on Edward and Docker Streets.

The Hospital Site is visible as approached along **Edward Street** from either direction primarily because of its size and the height of the Main Building. The height of this building makes it the most dominant element and gives the site landmark status within the street. The most significant views towards this building on approach are from the east, where the view corridor takes in the main elevations of the building. As approached from the west, the view is of the relatively unarticulated western elevation and north western corner of the building. The trees and open space that lie between the buildings and the Edward Street boundary, as well as street trees, frame the view on approach. The deep set back of the buildings from Edward Street reduces the absolute dominance that their scale may otherwise have given them. The formal landscaping in front of the Old Hospital Building that, together with the fine Federation Queen Anne Style detailing that once highlighted its presence in the street, drawing the eye into the site, has, with the exception of the curved path to either side of the main path, been lost. This landscaping was an integral part of the Old Hospital Building and its presentation to the public domain. The buildings visible from Edward Street do not express any significant visual relationships with each other or with the surrounding landscaping. Refer to Figures 167 to 169.



Figures 167 and 168: Views towards the site as approached along Edward Street from the east.





**Figure 169: View towards the site as approached along Edward Street from the west.**

Note: Refer to the central photograph on the front cover for the view from directly outside the site from Edward Street.

**Lewis Drive** forms a wide access way through the Hospital site and provides the only un-impeded view corridor from one end of the site to the other. It has not, however, been designed to be a formal access way; its purpose is utilitarian. Although the Main Building dominates Lewis Drive, the view corridors towards it are not of heritage significance.

Refer to Figure 170.



**Figure 170: View into the site Edward Street, along Lewis Drive.**

View corridors towards the site from **Docker Street** are more densely screened by vegetation. As the site is approached from either direction along the street, the Main Building is less dominant than when the site is approach along Edward Street; from some angles it is not visible. The set back of the buildings from Docker Street is shallower and the landscaping more formal than the presentation to Edward Street. The presentation of these buildings to the street has altered over time with changes in landscaping and fencing. Compare for example Figure 26, an old photograph of the UNSW Rural Clinical School (formerly the 1936 Nurses' Home, later Harvey House) and Figure 133, a recent photograph. While the landscaping may lack historical



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integrity, it makes a positive contribution to the streetscape and the presentation of the buildings.

Refer to Figures 171 and 172.



**Figure 171: View towards the site from Docker Street.**



**Figure 172: View towards the site from Docker Street.**

There are views towards the Hospital Site as it is approached up **Yathong** and **Yabtree Streets**, looking west. These views comprise the Main Hospital Building, which dominates, the service buildings/areas and the minor buildings of the site. The Main Hospital Building dominates Yabtree Street because of its massing and scale relative to the single storey dwellings that line the street. Although less immediate from Yathong Street, the Main Hospital Building is still a significant element in the street. Views from this direction are primarily of the rear elevation.

Refer to Figures 173 and 174.



**Figure 173: View towards the Hospital from Yathong Street.**

**Figure 174: View towards the Hospital from Yabtree Street. Refer also to Figure 110.**

View corridors towards the site from **other nearby streets** consist of glimpses of the Main Building between or behind other buildings. Its scale, rather than its architectural merit, make it a notable element from these view points. Figure 175 was taken within the Wagga Wagga Conservation Area, on the corner of Murray and Yathong Streets. Figure 176 shows the view towards the Hospital from Wagga Wagga High School, on the corner of Coleman and Edmondson Streets showing how, from the distance, the Main Building is the only building visible and even then, is shrouded by intervening vegetation and/or buildings. View corridors from ground level at **Calvary Hospital** (Harvey Road) are similarly distant views, partially screened by intervening houses and vegetation.



**Figure 175: Looking towards the Hospital Site from within the Wagga Wagga Conservation Area (from the corner of Murray and Yathong Streets).**



**Figure 176: View towards the site from Wagga Wagga High School (Coleman Street, Wagga Wagga).**

### **3.5.2 View Corridors out of the Site**

None of the literature cited to date indicates that the site was laid out and buildings designed to provide significant view corridors over the surrounding area. From ground level, view corridors are essentially blocked or screened by other buildings and trees. Views over suburban Wagga Wagga are available from the upper floors of the Main Building. This building was not built or orientated to obtain these views; they are not of heritage significance.

Refer to Figures 177 and 178.



**Figure 177: View corridors out to Edward Street from ground level.**





**Figure 178: View over Wagga Wagga from the upper floors of the Main Building. While distant from some view points, these views do not of heritage significance.**

### **3.5.3 View Corridors Within the Site**

The once significant view corridor towards the Old Hospital Building from the grounds outside the building no longer exists because of the extent of alteration to the building and the loss of almost all of the original landscaping.

There is a view corridor towards the Main Hospital Building up Lewis Drive from near Edward Street. This is more a functional view corridor, arising out of the need for efficient access to the Building, as opposed to a deliberate one, framed by landscaping.

There is a short view corridor towards the UNSW Rural Clinical School from inside the Docker Street boundary. This view contributes to the significance of the building and includes some original elements.

## **4.0 ASSESSMENT OF SIGNIFICANCE**

### **4.1 Preamble**

The purpose of this section is to use the information provided by Sections 2.0 and 3.0 to assess the heritage significance of the site and provide a Statement of Significance. Prior to using a series of criterion developed by the New South Wales Heritage Office for this purpose (Section 4.4), it is first important to briefly consider the overall integrity of the site (Section 4.2) and to assess it alongside comparable sites (Section 4.3).

### **4.2 Overall Integrity**

Integrity, in terms of heritage significance, can exist on a number of levels. A heritage item or place may be an intact example of a particular architectural style or period and thus have a high degree of significance for its ability to illustrate that style or period.

Equally, heritage significance may arise from a lack of architectural integrity, where significance lies in an ability to provide information of a significant evolution or change in use.

The Wagga Wagga Base Hospital has operated continuously from this site since 1910. The service provided has constantly evolved since this time as a result of advances in medical science and education, government policy and changes in the types of services required by the community. Consequently, like many hospitals of this age, the site has evolved in terms of site area, buildings constructed and demolished or altered and added to.

Landscaping around the site has changed over time. The area behind the Old Hospital was once used for dairy cows and fresh produce; this area was gradually built out. The once formal and well-maintained garden along the Edward Street frontage has become less formal than that shown by earlier photographs. There are fewer garden beds and well-clipped shrubbery. As the original trees planted grew, the front of the Hospital was partially screened. Many of the trees shown in the aerial photograph Figure 3 have recently been removed, returning the openness to this part of the site. The one element that remains common across all periods of development is the main path from the Edward Street entrance to the Old Hospital Building, with the two semi-circular paths, one to either side. None of the trees to the front of the Old Hospital Building appear to be of great age. The loss of the formal landscaping to the front of the Old Hospital Building, together with the extensive alterations to the front elevation, has had a detrimental impact on understanding the early history of the site.

Additions/alterations to buildings and the construction of new buildings has impacted on how buildings related to each other and to the surrounding landscape. The most notable example of the latter is the enclosure of the verandahs of the Old Hospital Building, which reduced the interaction of the building with its landscape. The construction of the multi-storey ward block altered the vertical scale of the site, the degree to which it was visible from the surrounding landscape, and created new view corridors out of it.

The photographs, records and plans of Morris' history, *A Delicate Balance*, provide a good understanding of the major stages of change on the site. This process is not always evident on site, as all traces of some buildings, such as Rawson House (the original nurses' home) have been removed. In some instances, changes made to buildings have compromised the possibility of appreciating earlier phases of history.

The integrity of each of the main elements of the site was briefly assessed in the preceding section. The following table summarises this discussion, referring to the exteriors of the buildings only.

No.	Element	Level of Integrity
A	Old Hospital Building	Low
B	Main Building	High
C	Mortuary	Low
D	Gissing House	Moderate (extensively altered, but original block identifiable)
E	Scofield House (formerly the Nurses' Preliminary Training School)	High
F	Maintenance and Engineering	Moderate-High
G	Stores	Moderate-High
H	Dental	High (appears to be as built)
I	Lewis House	High
J	Nurses Home 1961	Moderate-High



No.	Element	Level of Integrity
K	Community Services	Moderate
L	Clinical Services	High (appears to be as built)
M	UNSW Rural Clinical School (formerly the 1936 Nurses' Home, later Harvey House)	High
N	Hydrotherapy Pool	High (appears to be as built)
O	Physiotherapy	Low-Moderate
P	Robinson House	Low-Moderate
Q	Blood Bank	Intrusive later addition to Lewis House
R	Four dwellings to be demolished in Yabtree Street	No. 10: Low; Nos. 12-16: High

### 4.3 Summary of Comparative Analysis

Comparative analysis aids in the determination of whether a place is 'rare' or 'representative' and also helps to locate it within patterns of history or activity. The level of integrity displayed by a site may impact upon how it compares with other sites.

Hospitals that have operated on a site over a long period frequently have significant local historic and community associations because of their inherent function. Many hospitals can also demonstrate strong community ties arising out of fun-raising activities. Wagga Wagga Base Hospital is no exception in this regard. Numerous hospitals across New South Wales can demonstrate associations of a similar period of time.

With regard to particular buildings:

#### **Old Hospital Building**

Once a fine example of a rural hospital building by W.L. Vernon (and G. McRae), the Old Hospital Building has been extensively altered over time. It can no longer be regarded as a good example of Vernon's work in hospital design or of the Federation Queen Anne Style.

As discussed in Section 2.0, Vernon's work is well represented on the State Heritage Inventory and there are better-preserved examples of his architectural abilities and his hospital designs, including buildings at Lidcombe, Kenmore and Garrawarra Hospitals. Within Wagga Wagga, there is a fine example of Vernon's work in the Court House building.

With regard to the building's association with W.M. Monk, it can also be said that there are other examples that are more identifiably his work and which demonstrate a greater degree of integrity.

#### **Main Building**

The multi-storey block is a representative example of a Functionalist Style hospital and typical of hospital ward blocks constructed across New South Wales from c.1935 to c.1965. This is a late example among the examples listed by the (R)AIA Twentieth Century Register. While a fair example of the work of the Government Architect's Office and substantially intact, it lacks the subtle attention to form and detail that elevate the best hospital blocks in this style, such as Stephenson and Turner's King George V Memorial Hospital and Concord Repatriation Hospital (refer back to the

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discussion in Section 2.11.2). Its landmark status primarily arises out of its height and use and should not be confused with architectural merit.

***UNSW Rural Clinical School (formerly the 1936 Nurses' Home, later Harvey House)***

This building is a representative example of the Interwar Free Classical Style and a fine example of the work of the Government Architect's Office under Edwin Smith. A second example of this period and in this style is provided by the Matron Dickson Nurses Home (1935) at the Prince Henry Hospital, Randwick. The building is also similar to institutional buildings designed by the Government Architect's Office under Edwin Smith at Berry Training Farm (now Berry Sport and Recreation Centre), built to house male wards of the state. The former is listed on the NSW Health Department's s170 Register; the latter is listed by Shoalhaven City Council.

***Lewis House***

Lewis House is a representative example of a mid size nurses' home designed by the Government Architect's Office during the period 1940-60. It is not a building of architectural distinction.

***Nos. 10-16 Yabtree Street***

Nos. 12-16 Yabtree Street are representative examples of the type and style of brick bungalow built in Wagga Wagga during the interwar period. This style of dwelling is common in the area immediately surrounding the Hospital Site. Nearby Brookong Avenue provides a particularly intact group of these dwellings. No. 10 Yabtree Street has been altered and is no longer a good example of this type of dwelling.

**4.4 Citations and Listings**

**4.4.1 The Site**

**Statutory Listings**

- *State Heritage Register*

Neither the site nor any building upon it is listed on the State Heritage Register under the auspices of the *NSW Heritage Act 1977*.

- s170 Register

'Wagga Wagga Base Hospital' is listed by the Department of Health's *Section 170 Register*, under the auspices of the *New South Wales Heritage Act 1977*. The listing sheet is not specific as to what part of the Hospital site is listed. The statement of significance simply states 'of historical significance.' Database No.: 3540663.

The heritage listing sheet from the State Heritage Inventory can be found in Appendix 3.

- *Wagga Wagga LEP 2010*

'Wagga Wagga Base Hospital (c.1960 Building)' is listed by Schedule 5 Part 1 of the *Wagga Wagga Local Environmental Plan 2010*, where it is identified as being of local significance. While the site in its entirety is not listed by the Schedule, there is no separate listing sheet for the Main Building distinct from the general listing sheet for the whole site prepared as part of the Wagga Wagga Urban Heritage Study 2002. The statement of significance for the site given by this Study is as follows:

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‘This site has been associated with the provision of health care in Wagga Wagga since 1910 and continues to fulfil that function. The c1960 hospital building is a representative and relatively intact example of the International Style of architecture. Local significance.’<sup>69</sup>

The heritage listing sheet from the *Wagga Wagga Urban Heritage Study 2002* can be found in Appendix 3.

#### **Non Statutory Listings**

- *Register of the National Estate and the Commonwealth and National Heritage Lists*

Neither the site nor any buildings upon it are identified as heritage items by the Register of the National Estate or the Commonwealth or National Heritage Lists.

- *National Trust of Australia (NSW)*

Neither the site nor any buildings upon it are identified as heritage items by the National Trust.

- *(R)AIA Twentieth Century Register of Significant Buildings*

The ‘1936 Nurses Home’ and the ‘1961 Hospital’ are listed by the Twentieth Century Register (Nos. 4701954 and 4701955).

#### **4.4.2 The Surrounding Area**

The site lies adjoins the Wagga Wagga Conservation Area as defined by Schedule 5 Part 2 of the *Wagga Wagga LEP 2010*.

Wagga Wagga Council were not able to provide a statement of significance for the Wagga Wagga Conservation Area.<sup>70</sup> The following is taken from Section 3 of the *Wagga Wagga DCP 2010*:

‘The heritage conservation area incorporates the area of the town’s early settlement. The heritage conservation area includes the Fitzmaurice Street commercial precinct and the residential precincts to the west and south.

The conservation area has cohesive streetscape qualities. Characteristic elements that contribute to the conservation area’s thematic significance and character are:

- Buildings from the Victorian, Federation, Edwardian and Interwar periods
- Single storey dwellings, mainly detached dwellings Pitched roofs and similar roof styles
- Common use of local red brick with corrugated iron roofing
- Common fencing styles and materials
- Garages and outbuildings located to the rear of dwellings
- Street trees and private garden plantings unify the streetscape, especially the Peter Street palm trees, Gurwood Street plane trees.’<sup>71</sup>

Figures 179 and 180 illustrate these general characteristics from the vantage point of the corner of Brookong Avenue and Murray Streets.

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<sup>69</sup> Wagga Wagga Urban Heritage Study 2002. Reference No. UHS45.

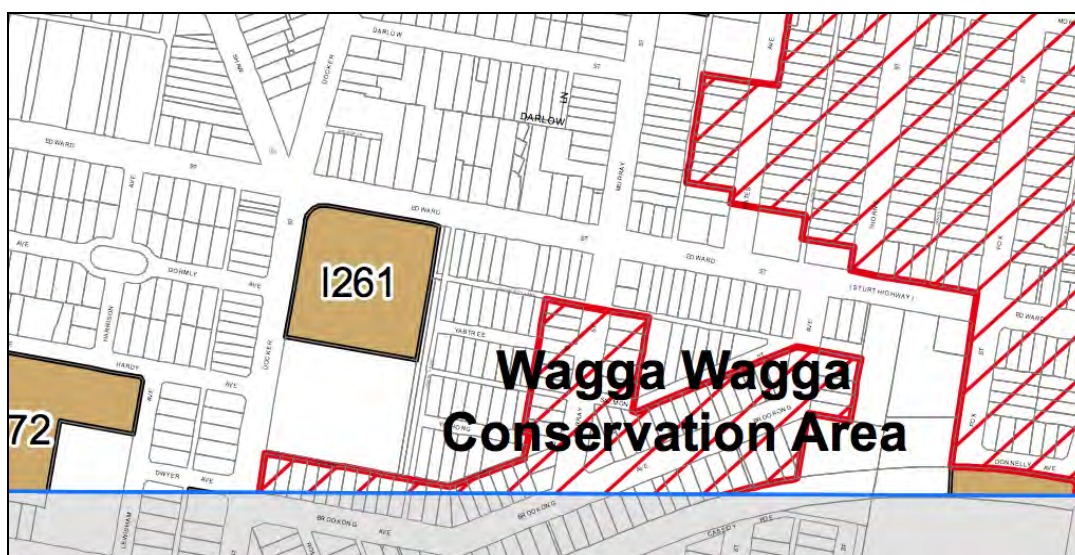
<sup>70</sup> Enquiry made to Council.

<sup>71</sup> *Wagga Wagga Development Control Plan 2010*, Section 3.3.



**Figures 179 and 180: Streetscapes within the Wagga Wagga Conservation Area (taken from the corner of Brookong Avenue and Murray Street).**

Figure 181 identifies the boundaries of the Conservation Area with respect to the subject site.



**Figure 181: Showing the boundaries of Conservation Area close to the subject site.**

**The site marked '1261' is the Hospital Site.**

*Wagga Wagga LEP 2010 (Detail from the Heritage Map, Section 3C).*

#### **4.5 NSW Heritage Office Criteria**

Once the historical and physical evidence has been established, it is possible to assess the heritage significance of a place. The *Australian ICOMOS Burra Charter* defines heritage significance as 'aesthetic, historic, scientific or spiritual value for past, present or future generations.'<sup>72</sup> Heritage significance may relate to how rare or representative a place may be and/or its relationship to its setting and context, whether historical, contemporary, physical or social. It may relate to the place as a whole or to some of its components. The NSW Heritage Office has developed a series of criteria based on the principles of the *Burra Charter*. These criteria are as follows.

<sup>72</sup> Article 1.2, *The Burra Charter (The Australian ICOMOS Charter for Places of Cultural Significance)*, adopted 19<sup>th</sup> August, 1979 and revised 23 February, 1981, 23 April 1988 and November 1999.

Few of the aspects of significance discussed below are exclusive: a characteristic may, for example, have both historical and aesthetic significance.

The Guidelines for Inclusion / Exclusion are as provided by *Assessing Heritage Significance, NSW Heritage Manual Update*.

#### 4.5.1 Criterion (a)

##### **An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area)**

<i>Guidelines for Inclusion</i>	<i>Guidelines for Exclusion</i>
<ul style="list-style-type: none"> <li>shows evidence of a significant human activity</li> </ul>	<ul style="list-style-type: none"> <li>has incidental or unsubstantiated connections with historically important activities or processes</li> </ul>
<ul style="list-style-type: none"> <li>is associated with a significant activity or historical phase</li> </ul>	<ul style="list-style-type: none"> <li>provides evidence of activities or processes that are of dubious historical importance</li> </ul>
<ul style="list-style-type: none"> <li>maintains or shows continuity of a historical process or activity</li> </ul>	<ul style="list-style-type: none"> <li>has been altered so that it can no longer provide evidence of a particular association</li> </ul>

Wagga Wagga Base Hospital has high local historic significance as a place from where medical services have been continuously provided to the people of Wagga Wagga and the surrounding districts from 1910 to the present day. From this time, the site has been the focal point for medical services in Wagga Wagga. As for many hospital sites across New South Wales, the site demonstrates state-wide patterns related to changing medical practices and technologies, government policies, community expectations and nursing patterns. Concurrently, Wagga Wagga Base Hospital has local historic significance for its ability to mirror developments in the wider community. The Hospital has clearly developed in line with the community over time. Despite the lack of integrity of individual buildings, the site, as a *whole*:

- shows evidence of a significant human activity; and
- shows continuity of a historical process of activity.

The Wagga Wagga Base Hospital has minor historic significance as one of many hospital sites across the state capable of demonstrating the evolution of hospital design and architecture over a prolonged period. The work of the NSW Architects Office (sometimes in conjunction with private practices) from Federation times through to the Post World War II period is represented on the site. Much of this significance, however, lies in historic records, as key buildings from the Federation period (the earliest period) have been extensively altered, and buildings from the Interwar and Post War periods modified. Nevertheless, as further discussed below, the site retains good examples of an Interwar period nurses' home (UNSW Rural Clinical School, formerly Harvey House) and Post World War II Functionalist Style ward block (the Main Building) designed by the NSW Government Architects. Both buildings demonstrate typical accommodation hospital provisions for their day (1936 Nurses' Home; the ward building for patients).

Nos. 12 to 16 Yabtree Avenue have local historic significance as examples of the type, style and standard of dwelling constructed in the immediate area during the Interwar period. Note: No. 10 Yabtree Avenue has been altered.



#### 4.5.2 Criterion (b)

**An item has strong or special association with the life works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area)**

<i>Guidelines for Inclusion</i>	<i>Guidelines for Exclusion</i>
<ul style="list-style-type: none"> <li>shows evidence of a significant human occupation</li> </ul>	<ul style="list-style-type: none"> <li>has incidental or unsubstantiated connections with historically important people or events</li> </ul>
<ul style="list-style-type: none"> <li>is associated with a significant event, person, or group of persons</li> </ul>	<ul style="list-style-type: none"> <li>provides evidence of people or events that are of dubious historical importance</li> </ul>
<ul style="list-style-type: none"> <li>maintains or shows continuity of a historical process or activity</li> </ul>	<ul style="list-style-type: none"> <li>has been altered so that it can no longer provide evidence of a particular association</li> </ul>

Wagga Wagga Base Hospital has local significance as a place of sustained and considerable and widespread community involvement. The site is directly associated with many individuals within the local community, including the doctors, matrons, nurses, student nurses and other staff, who have worked in the Hospital since 1910, and with people who have served on the Hospital Board. Many of these people have had strong and significant ties to the local community. Community groups, such as the Hospital Auxiliary and the CWA, have close and sustained ties to the Hospital. Associations are expressed on site in fabric (for example, plaques) and in the names given to streets, areas and buildings (for example, Lewis House, Robertson House, Harvey House).

Wagga Wagga Base Hospital has some significance for its association with the NSW Government Architect's Office. Edwin Smith's 1936 Nurses' Home (UNSW Rural Clinical School, formerly Harvey House) is significantly intact, as is the Main Building, designed Edward Farmer (with early design input from Cobden Parkes). Both these buildings are representative of the work of the Government Architect's Office of the day. Buildings, or substantial alterations to existing buildings, carried out by W.L. Vernon, G. McCrae and C. Parkes on the site have been significantly comprised; the work of these architects is no longer well represented on the site.

#### 4.5.3 Criterion (c)

**An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)**

<i>Guidelines for Inclusion</i>	<i>Guidelines for Exclusion</i>
<ul style="list-style-type: none"> <li>shows or is associated with, creative or technical innovation or achievement</li> </ul>	<ul style="list-style-type: none"> <li>is not a major work by an important designer or artist</li> </ul>
<ul style="list-style-type: none"> <li>is the inspiration for creative or technical innovation or achievement</li> </ul>	<ul style="list-style-type: none"> <li>has lost its design or technical integrity</li> </ul>
<ul style="list-style-type: none"> <li>is aesthetically distinctive or has landmark qualities</li> </ul>	<ul style="list-style-type: none"> <li>its positive visual or sensory appeal or landmark and scenic qualities have been more than temporarily degraded</li> </ul>
<ul style="list-style-type: none"> <li>exemplifies a particular taste, style or technology</li> </ul>	<ul style="list-style-type: none"> <li>has only a loose association with a creative or technical achievement</li> </ul>

The landmark qualities of the site as a whole are derived more from community association and the relative massing/height of the buildings on the site than from overall aesthetic distinctiveness. The buildings on the site vary significantly as to architectural merit and do not demonstrate architectural cohesiveness. The most historically significant view corridor into the site was from Edward Street looking

towards the front of the Old Hospital Building. This view corridor has been permanently lost as a result of alteration and addition to the building and the loss of the formal front garden.

There are two buildings of individual aesthetic significance on the site: the UNSW Rural Clinical School (formerly the 1936 Nurses' Home, later Harvey House) and the Main Hospital Building:

- The UNSW Rural Clinical School provides a fine example of the Interwar Free Classical Style as applied by the Government Architect, Edwin Smith, to an institutional building. Externally, the building is substantially intact. The landscaping, while contributing to the presentation of the building, is not of significance in and of itself, given that much of it is recent in date. The Canary Island Date Palms, however, appear in early photographs and are significant. Canary Island Date Palms are often found on Hospital Sites of the Federation and Interwar periods. The building makes a positive contribution to the site and to Docker Street.
- The Main Hospital Building provides a fair, late and relatively simple, example of a Functionalist Style hospital ward block. This style had first revolutionised hospital architecture in mid to late 1930s and continued to dominate hospital architecture until the mid 1960s. The style was informed by design and health theories of the 1930s, for example, the use of long ward balconies positioned to maximise light and free air. By the time that this building was constructed the idea of wheeling patients out of wards onto balconies was no longer current. The narrowness of the balconies at Wagga Wagga and their exposure to the summer heat and winter frosts of Wagga Wagga made them impractical. Their inclusion in the design of the building was a 'nod' to an architectural convention, rather than a practical, functional element. This type and style of hospital building was soon to be obsolete. The building has undergone some alteration, particularly with regard to the ground and first floors, but is otherwise substantially intact. It should be noted that the striking external fire stair is not part of the original design, but is a relatively recent addition. While its size and long standing use as a public hospital building make it a local landmark, the building lacks the exuberance and subtle detailing of the best examples of the Functionalist Style hospital building. The building was not, in itself, a technical achievement; nor did it inspire the design other buildings in the same way as, for example Stephen & Turner's Yarralla or King George V Hospitals. There are no documented cases where the style of this particular hospital building inspired similar designs within the local or wider area. The building followed the lead of existing examples, as opposed to demonstrating technical innovation or achievement.

Additionally, Nos. 12 to 16 Yabtree Avenue have minor local significance under this criterion as examples of the Californian Bungalow Style.

#### 4.5.4 Criterion (d)

**An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons**

<i>Guidelines for Inclusion</i>	<i>Guidelines for Exclusion</i>
<ul style="list-style-type: none"> <li>• is important for its association with an identifiable group</li> </ul>	<ul style="list-style-type: none"> <li>• is only important to the community for amenity reasons</li> </ul>
<ul style="list-style-type: none"> <li>• is important to a community's sense of place</li> </ul>	<ul style="list-style-type: none"> <li>• is retained only in preference to a proposed alternative</li> </ul>

As stated under Criterion (b), the site has historic and ongoing significant relationships with health providers and receivers and with community groups who actively assist in

its operation. The significance of the site to the local community goes beyond the health services (i.e. the amenity) it provides.

#### 4.5.5 Criterion (e)

**An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)**

<i>Guidelines for Inclusion</i>	<i>Guidelines for Exclusion</i>
<ul style="list-style-type: none"> <li>• has the potential to yield new or further substantial scientific and/or archaeological information</li> </ul>	<ul style="list-style-type: none"> <li>• has little archaeological or research potential</li> </ul>
<ul style="list-style-type: none"> <li>• is an important benchmark or reference site or type</li> </ul>	<ul style="list-style-type: none"> <li>• only contains information that is readily available from other resources of archaeological sites</li> </ul>
<ul style="list-style-type: none"> <li>• provides evidence of past human cultures that is unavailable elsewhere</li> </ul>	<ul style="list-style-type: none"> <li>• the knowledge gained would be irrelevant to research on science, human history of culture</li> </ul>

Wagga Wagga Base Hospital has the potential to reveal how health services within the regional area have changed over the period since 1910, making it significant under this criterion at a local level. Understanding how the site has evolved is heavily dependent on historic record, because of the extent of change that has occurred over time. The ability of the site to demonstrate development within a regional area is not rare; it is a quality shared by many regional hospitals that have occupied the one site for many years.

The UNSW Rural Clinical School provides a fine example of a mid sized Interwar Free Classical Style Nurses Home. It is one of several nurses' homes of this period and style to survive across New South Wales. It is the more architecturally distinguished and intact (externally) of the two nurses homes on the site, the other being Lewis House.

The Main Hospital Building provides an intact example of a simply detailed Functionalist Style Hospital Building. While a rare and large example of the style in Wagga Wagga, this building was not an important reference for other hospital buildings of this style in New South Wales. It is a comparatively late example of the style; it lacks the subtle variation in form and detail that elevate the best examples of the style. As stated above, the building followed the lead of existing examples, rather than becoming an important reference point for future design.

Refer to the separate archaeological report with regard to archaeological potential.

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#### 4.5.6 Criterion (f)

**An item possesses uncommon, rare or endangered aspects of New South Wales' cultural or natural history (of the cultural or natural history of the local area)**

<i>Guidelines for Inclusion</i>	<i>Guidelines for Exclusion</i>
<ul style="list-style-type: none"><li>• provides evidence of a defunct custom, way of life or process</li></ul>	<ul style="list-style-type: none"><li>• is not rare</li></ul>
<ul style="list-style-type: none"><li>• demonstrate a process, custom or other human activity that is in danger of being lost</li></ul>	<ul style="list-style-type: none"><li>• is numerous but under threat</li></ul>
<ul style="list-style-type: none"><li>• shown unusually accurate evidence of a significant human activity</li></ul>	
<ul style="list-style-type: none"><li>• is the only example of its type</li></ul>	
<ul style="list-style-type: none"><li>• demonstrate designs or techniques of exceptional interest</li></ul>	
<ul style="list-style-type: none"><li>• shown rare evidence of a significant human activity important to a community</li></ul>	

As the primary place of public health care for the district over a long period, Wagga Wagga Base Hospital is a unique site within the City of Wagga Wagga. Calvary Hospital (c.1926) provides a second example, but of a non-government hospital.

The proposed works mean that most of the buildings on the site are 'under threat' of demolition. The ability of Wagga Wagga Hospital to demonstrate a long term association with one site and to demonstrate change over a long period is shared by many hospitals across New South Wales. The extent of alterations to many of the building at Wagga Wagga Hospital means that understanding the evolution of this site lies largely in historic records, as opposed to extant fabric. Only one of the buildings to be demolished under the current proposal, being the Main Hospital Building, has been assessed as having sufficient integrity and/or architectural significance to warrant heritage listing. While rare within Wagga Wagga because of its size, this building is only one example of several hospital complexes in this style and of this period that survive throughout New South Wales. The Main Hospital Building followed, rather than created, architectural precedent and does not demonstrate design details or techniques of exceptional significance.

The Interwar period bungalows at Nos. 12-16 Yabtree Avenue are not rare.

#### 4.5.7 Criterion (g)

**An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural or natural environments (or the class of the local area's cultural or natural places; or cultural or natural environments.)**

<i>Guidelines for Inclusion</i>	<i>Guidelines for Exclusion</i>
<ul style="list-style-type: none"><li>• is a fine example of its type</li></ul>	<ul style="list-style-type: none"><li>• is a poor example of its type</li></ul>
<ul style="list-style-type: none"><li>• has the potential characteristics of an important class or group of items</li></ul>	<ul style="list-style-type: none"><li>• does not include or has lost the range of characteristics of a type</li></ul>
<ul style="list-style-type: none"><li>• has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique of activity</li></ul>	<ul style="list-style-type: none"><li>• does not represent well the characteristics that make up a significant variation of type</li></ul>
<ul style="list-style-type: none"><li>• is a significant variation to a class of items</li></ul>	
<ul style="list-style-type: none"><li>• is part of a group which collectively illustrates a representative type</li></ul>	
<ul style="list-style-type: none"><li>• is outstanding because of its setting, condition or size</li></ul>	
<ul style="list-style-type: none"><li>• is outstanding because of its integrity or the esteem in which it is held</li></ul>	

As outlined above, the Wagga Wagga Base Hospital demonstrates the typical evolution of a country hospital as the needs of the local community changed. It is not outstanding for its size, integrity, setting, condition or architectural merit.

Two buildings have some significance under this criterion:

- The UNSW Rural Clinical School provides a fine example of an Interwar Free Classical Style institutional building.
- The Main Hospital Building is representative of the Interwar Functionalist Style hospital.

Additionally, Nos. 12 to 16 Yabtree Avenue are representative examples of the Interwar Californian Bungalow Style.

#### 4.6 Statement of Significance

Wagga Wagga Base Hospital has high local historic and social significance as a place from where medical services have been continuously provided to the people of Wagga Wagga and the surrounding districts from 1910 to the present day. From this time, the site has been the focal point for medical services in Wagga Wagga and has evolved in line with the community it serves. As for many hospital sites across New South Wales, the site demonstrates statewide patterns concerned with changing medical practices and technologies, government policies, community expectations and nursing services. The site demonstrates a strong continuity of use, despite the lack of integrity demonstrated by some individual buildings.

Wagga Wagga Base Hospital has local significance as a place of significant and widespread community involvement. The site is directly associated with many individuals, most notably the doctors, matrons, nurses, student nurses and other staff, who have worked in the Hospital since 1910, and with people who have served on the Hospital Board. Many of these people have had strong and significant ties to the local community. Community groups, such as the Hospital Auxiliary and the CWA, have close and sustained ties to the Hospital. Associations are expressed on site in fabric and in the names of buildings, hospital wards and streets.



Wagga Wagga Base Hospital has minor significance as one of many hospital sites across the state capable of demonstrating the evolution of hospital design and architecture over a prolonged period. There are extant examples of the work of the NSW Government Architect's Office from Federation times through to the Post World War II era. Given the extent of alteration to key buildings, however, much of this aspect of significance lies in historic records. The most significant and intact buildings on the site are an Interwar period nurses' home designed by Edwin Smith (UNSW Rural Clinical School, formerly the 1936 Nurses' Home and later Harvey House) and a Post World War II Functionalist Style ward block designed by Cobden Parkes (preliminary design) and Edward Farmer (realised design). These two buildings have aesthetic significance as examples of their type and style and for their contribution to the streetscape; neither, however, are rare beyond the local context or exceptional as benchmarks in architectural style or hospital design.

The significance of each of the main buildings on the site is determined as follows. Significance is at a **local** level.

No.	Element	Significance		
		Historic	Social	Aesthetic
A	Old Hospital Building	High	High	Low
B	Main Building	High	High	Moderate architectural significance as representative of its style; landmark value because of size
C	Mortuary	Moderate	Low	Low
D	Gissing House	Moderate	Moderate	Low
E	Scofield House (formerly the Nurses' Training School)	High	Moderate	Moderate. An intact, simply detailed building that has no particularly prominence on the site or within the public domain.
F	Maintenance and Engineering	Low	Low	Low
G	Stores	Low	Low	Low
H	Dental	Moderate	Moderate	Low
I	Lewis House	High	Moderate	Low-Moderate. Visible from the public domain but without architectural pretension.
J	Nurses Home 1961	Moderate	Moderate	
K	Community Services	Moderate	Moderate	Low
L	Clinical Services	Moderate	Moderate	Low
M	UNSW Rural Clinical School (formerly the 1936 Nurses' Home, later Harvey House)	High	Moderate	High significance as an example of an Interwar Classical Free Style institutional building; contributes to the site and streetscape
N	Hydrotherapy Pool	Moderate	Moderate	Low
O	Physiotherapy	Moderate	Moderate	Low
P	Robinson House	Moderate	Moderate	Low
Q	Blood Bank	Moderate	Moderate	Low
R	Four houses in Yathong Street	Moderate	Moderate	Moderate

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## 5.0 HERITAGE IMPACT STATEMENT

### 5.1 The Proposal

For the following, refer to the plans that accompany this application.

The proposal is described as follows:

‘The new WWBH Masterplan (2010) provides for a 41,500m<sup>2</sup> facility, with the possibility of further future expansion potential beyond the current planning horizon of 2021.

Delivery of the new WWBH Hospital is planned, on the existing hospital site, through a staged delivery approach to suit the current funding model. Stage 1 of this redevelopment has received funding for \$90m to be released over a four year period. In addition a funding application has been submitted to develop WWBH Stage 2 of this redevelopment which facilitates the delivery of the acute hospital.

A breakdown of the proposed staging is provided below. Stage 1A – Provides an Acute Mental Health Facility on ground floor with Non-Acute on Level 1.

Stage 1B – Constructs a new build Emergency Department and Procedures Centre linking into the existing Clinical Services Building.

Stage 2A – Continues construction above the Emergency Department and Procedures Centre with four levels of Inpatient Units to the south and construction of the helipad.

Stage 2B – Demolition of the existing Ward Block.

Stage 2C – Construction of Inpatient Units to the north.

Stage 3 – Construction of the balance of accommodation providing Ambulatory Care and Allied Health Facilities and the demolition of redundant hospital buildings to clean up the site and provide additional parking areas.<sup>73</sup>

The proposal involves the demolition of all the existing buildings and structures on the site, with the exception of the UNSW Rural Clinical School, the Hydrotherapy Pool and the Clinical Services Building. The dwellings at Nos. 10-16 Yathong Avenue will also be demolished and the land incorporated into the site.

The existing entrance to the site from Edward Street will be retained with traffic leaving the site via Yabtree or Yathong Streets. Yathong Street will be extended across the site to Docker Street and would form a new entrance into the site, opposite Hardy Avenue.

Landscaping will be carried out, with a green belt being provided along Edward and Docker Streets.

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<sup>73</sup> Rice Daubney, *Principal Consultants Report, Wagga Wagga Base Hospital*, December 2010, Executive Summary.

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## 5.2 Effect of Work on the Heritage Significance of the Site

The following assessment of the effect of work on the site:

- Is made with reference to the assessment of significance contained in this report, which establishes a high level of historic and social significance for the site as a whole and establishes that a number of individual buildings also have significance in their own right.
- Takes into account the integrity of the individual buildings and carefully considers how integrity, or the lack thereof, has impacted upon what these buildings contribute to the overall significance of the site.
- Takes into consideration the significance of the site and individual buildings relative to other examples in New South Wales.
- Is made with an understanding of the benefits to health delivery promised by the proposal.

The potential impacts of the proposal on the heritage significance of the site is assessed against the three matters for consideration as required by the New South Wales Heritage Office update, *Statements of Heritage Impact* (2002).

### 5.2.1 Consideration 1

#### **The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons**

Where social significance is one of the dominant aspects of a site's significance, renewal and adaptation so that the significant social function can be continued may be seen as supporting and even enhancing that aspect of its significance. As the social function of a place evolves with its supporting population, so too does the understanding of that significance. This is particularly applicable to hospital facilities where maintaining the use of the site *and* the quality of the service delivered to the public is vital in maintaining the site's social significance. As medical delivery systems evolve, so too must the buildings in which they are delivered. Wagga Wagga Base Hospital has continually evolved to meet changing public needs. This process has, in the past, entailed the demolition of buildings, the construction of new buildings and the carrying out of alterations and additions to existing buildings. It is because of this process of evolution that many of the pre-1970s buildings on the site demonstrate a low level of architectural and physical integrity and have become difficult to further adapt to modern medical requirements. Almost paradoxically, it is because of the site has constantly evolved, and thus remains in use as a hospital, that the site has developed the high level of community identification and social significance that it now possesses.

The proposed new works represent the next stage of evolution, albeit a comprehensive one. Social significance, unlike other aspects of significance, does not necessarily depend on the physical retention of fabric. The continuity of social significance lies in the delivery of services and those using the services, being, in effect, the community of Wagga Wagga and its surrounding districts. Were the place not to be renewed, use would decline and with it, its ongoing social significance. In short, re-use of this site as a hospital will maintain its social significance. Improving the services that it provides will enhance social significance.

The Old Hospital Building provides a good example of how evolution has supported social significance, but resulted in loss of integrity and other aspects of significance, most notably aesthetic and historic significance. When completed in 1922, this building presented a finely detailed Federation Queen Anne Style building to Edward Street. Over the following twenty years, formal landscaping, typical of a country hospital of this period, was added, enhancing its considerable aesthetic appeal. The building once had a carefully considered relationship with its garden surrounds, with the wards opening onto wide, screened verandahs. Over time, the need for new

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services has compromised the integrity of the building. The extent of alteration has been such that the building no longer reads, externally or internally, as an example of the Federation Queen Anne Style country hospital building, but instead presents as an unsightly conglomeration of different architectural periods. A long history of use as a hospital has given this building considerable historic and social significance, but low integrity and little aesthetic significance. The surviving fabric does not further our understanding of the Federation Queen Anne Style or of W.L. Vernon's distinctive country hospitals. There are ways of preserving the community memory of this and other buildings while allowing demolition for new, purpose built facilities that, in turn, may develop their own social significance over time. These are outlined under Consideration 2 below.

Two buildings have been identified as having significance beyond significance arising out of the site in general: the Main Hospital Building and the UNSW Rural Clinical School. The impact of the proposal to demolish the Main Hospital Building, and other buildings on the site, is dealt with below. The proposal to retain The UNSW Rural Clinical School represents a positive outcome. This building is the second Nurses' Home constructed on the site and is the oldest extant nurses' home on the site. Like the Old Hospital Building, it has considerable social significance; unlike the Old Hospital Building, it also demonstrates a high level of integrity and, has aesthetic significance, in terms of architectural significance and its contribution to the site and public domain. The UNSW Rural Clinical School is a fine example of the Interwar Free Classical Style and presents a coherent elevation of considerable architectural merit to Docker Street. This high level of significance on multiple levels is respected by the retention of the building, the maintenance of some part of its setting and view corridors as it is approached along Docker Street from either direction. It is also suggested that the boundary fence, of the same period, be retained. The impact of the proposed car parking on the northern and southern sides can be managed through the use of landscaping and planting.

### 5.2.2 Consideration 2

**The following aspects of the proposal could detrimentally impact on heritage significance. The reasons are explained as well as the measures taken to minimise impacts**

While maintaining and supporting social significance, demolition of most of the buildings on the site will have a detrimental impact on understanding how the site has evolved over time. The existing buildings all have significance as part of the historic development of the site, almost all have a level of social significance and some have aesthetic significance.

The demolition of the buildings is required for important operational reasons. As outlined in greater detail by other reports prepared as part of the planning process for the new Wagga Wagga Base Hospital, the existing site has been identified as the best site for a hospital in Wagga Wagga. The existing facilities are, however, inadequate to serve the needs of the current and projected populations and in particular do not allow the best delivery of current health services. Scientific advances and a complete change in patterns of nursing since the 1970s are two factors that have a fundamental impact on health care, such that architecture that was appropriate in 1910 or 1961 now mitigates the delivery of suitable service.

Advances in the science and technology of health care since the hospital first opened its doors in 1911 have been extensive. The various buildings on the site were designed to meet the medical standards of their day. The Old Hospital Building, for example, was constructed with particular attention to light and ventilation. Now lighting in Hospitals is largely artificial and environments controlled by air-conditioning. Medical care has developed to the point that hospital stays for many treatments are greatly reduced in length. The Old Hospital was designed without facilities such as pathology and X-Ray, services that are now considered essential. Building technology

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has similarly played a role. Prior to the widespread use of mechanical lifts, ward buildings were limited in height. During the 1940s-1970, multi-storey buildings became the norm for many hospitals; today these buildings are no longer considered to be efficient in terms of patient movement and care. Similarly, nurses' homes, many substantial, were built on hospital sites across New South Wales in the period before 1970. Radical changes in nursing education and the types of services they now carry out has had a direct impact on the design of wards, and eliminated the need for extensive onsite domestic accommodation.

With regard to the demolition of specific buildings:

- The demolition of the Old Hospital Building will have an acceptable level. The understanding of the building's importance to past communities and of its once fine architectural form is now largely contained in historic records. There are better-preserved examples of hospitals designed by W.L. Vernon in New South Wales, including examples at Lidcombe Hospital and Garrawarra Hospital. In Wagga Wagga, his work is represented by the Court House. The high social significance of the building will be perpetuated by the continued use of the site as a hospital and by the general mitigation measures outlined at the end of this discussion, in particularly archival recording.
- The Mortuary is the only other remaining building on the site to date from the initial period of development. Demolition of this building will have an acceptable level of impact because of its low integrity and minimal architectural significance. It is not located in a prominent position and makes no aesthetic contribution to the site or public domain. This building is of lesser social significance than, for example of the Old Hospital Building.
- While the s170 listing identifies the site in its entirety, the *Wagga Wagga LEP 2010* listing specifically identifies the Main Hospital Building. The demolition of this building is required before the hospital can be re-developed in a way that makes best use of the site. The size and floor plate of the building make adaptive reuse difficult; no suitable use arises out of the way in which the new health service must operate in order to deliver the most efficient health service to the people of Wagga Wagga. In the words of the WWBH Masterplan Report:

‘...the Ward Block could only be reused for a non-clinical purpose given its lack on ensuite facilities and the existing floor to floor heights. Having a non-clinical building in this location within such close proximity to the central acute core of the building limits opportunities which could be created if this building were to be demolished...

Option 3 was selected as the preferred option with a building having an address to Edward Street and with the hospital footprint located central to the acute services. In addition the benefits of providing a clinical building with adequate floor to floors on the existing ward block location would provide the acute hospital functions centrally to the site with opportunities for ambulatory functions to be located on Edward and Docker Streets.’<sup>74</sup>

As stated above, demolition of this, and other buildings on the site, perpetuates its social significance by facilitating use. The social significance attached to this particular building can be interpreted in other ways. The main impact then arises out of the demolition of a building identified as an intact representative example of the Functionalist Style. As outlined elsewhere within this report, the Main Building derives its landmark status principally by

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<sup>74</sup> ‘Assessment of Options’, *WWBH Masterplan 2010*, p. 28.



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being larger than any other building within its immediate vicinity and because of its longstanding use as a public hospital. In this regard, the loss of this status through demolition is mitigated by the importance of the new facilities to be provided, which will perpetuate the social significance of the hospital as a whole. As an example of a Functionalist Style, the building is ranked as 'representative'. It is a fair example of the style without being exceptional; it is one of a number within New South Wales. The building lacks the subtle attention to form and detail that elevate the best examples of hospital buildings in this style. This building followed established tradition without new innovation and is of a type of hospital design that was soon to be superseded in the face of dramatic changes in the delivery of health care. The striking external staircase is not an original element, but a relatively recent addition.

- Gissing House and Robinson House are modest buildings that make little aesthetic contribution to the site or public domain. Both buildings have undergone alteration and addition and been used for various purposes throughout their history. The considerable social significance of the services that they have provided is perpetuated by the improved services that the new hospital complex will be capable of providing. Their historic role can be interpreted in other ways.
- Schofield House displays a higher level of architectural integrity but is also a modest building located towards the rear of the site. Its moderate social significance can be interpreted in other ways.
- Lewis House is one of two substantial former nurses homes on the site. This building, constructed in stages, is, despite its size, a modest building. Although presenting a predominately intact elevation to Docker Street, its architectural merit does not approach that of Vernon's original Hospital building (in its original form) or the other nurses home on the site, being the UNSW Rural Clinical School (formerly Harvey House). The demolition of this building is mitigated by the retention of the former Harvey House. The two nursing homes were built to serve the same style of nursing system and have a similar level of social significance. The historic role of nursing on the site will continue to be represented by UNSW Rural Clinical School (formerly Harvey House) and by the fact that nursing continues to be a key activity on the site.
- The more recent buildings on the site, such as the dental clinic and clinical services building have no architectural significance and are more significant in terms of the amenity they provide than in terms of individual social or historic significance beyond that which they acquire as part of a long standing hospital site.
- The remaining buildings on the site, such as maintenance and store buildings, have no heritage significance.
- The demolition of Nos. 10-16 Yathong Avenue can be managed. No. 10 Yathong Avenue has been modified and is no longer a good example of an Interwar period bungalow. Nos. 12 to 16, however, appear to be substantially intact. The demolition of these three dwellings is mitigated by the fact that there are numerous examples of bungalows of this type and style within the immediate area. These dwellings are separated by several intervening properties from the edge of the Wagga Wagga Conservation Area.

In recognition of the contribution that each of the above buildings has made to the site, the following measures will be undertaken to ensure a continuity of the social significance of the place to its workers and to the community at large:

- The relocation of items of moveable heritage from the existing hospital to the

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new hospital. This includes paintings, memorial plaques, foundation stones, and any significant items of furniture or salvaged fabric, such as the balustrades from the 1910 Hospital. These items will serve to maintain a direct link with the existing hospital after its removal.

- The development of a policy for the naming of areas within the hospital to commemorate people who have served the community through the hospital or who have been benefactors of the hospital. This could include names such as Lewis, Gissing, Schofield, Robinson, etc.
- The preservation of old plantings on the site, in particularly those associated with country hospitals, such as the *Canary Island Date Palms*. Should new work require that these palms be removed, they should be relocated to an appropriate position on the site.
- The preparation of an interpretation strategy for the entire hospital site.
- Prior to demolition, full archival recording to Heritage Office standards should take place as outlined under Option B in section 7.3.10 of the *CMP 2005*.

### 5.2.3 Consideration 3

**The following sympathetic solutions have been considered and discounted for the following reasons**

- Construction of the new hospital on an alternate site allowing the adaptive reuse of the site.

The decision that the Hospital should remain on this site was the result of other studies. This solution was discounted for two principal reasons:

- (iii) There is no suitable alternate site that is conveniently located within the City.
  - (iv) There are many related healthcare services in the area immediately surrounding the site.
- Construction of the new hospital with the retention of the existing hospital buildings on the site.

This solution was discounted because this site is not large enough to allow for the new facilities required, including car parking, and the retention of the existing buildings. The UNSW Rural School is retained because of where it is located on the site, because there is a viable use for the building and because it demonstrates architectural merit. As noted above, the Main Building occupies a key part of the site. No suitable adaptive reuse for the building that would work within the overall master plan was forthcoming.

### 5.3 Effect of Work on the Conservation Area

The site adjoins the Wagga Wagga Conservation Area along its southern boundary; part of the western boundary of the Conservation Area is located within the immediate vicinity of the site.

A site of substantially greater size, with buildings of a greater massing and scale, will have an inherent impact on a Conservation Area comprised of small, detached buildings. The impact of the proposed work on the Conservation Area is assessed under the same criterion as used in Section 5.2.

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### 5.3.1 Consideration 1

#### **The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons**

The demolition of buildings on the Hospital Site will have no impact on the heritage significance of the Wagga Wagga Conservation Area. The Hospital Site and the Conservation Area do not share significant relationships beyond the fact that, as the population of Wagga Wagga increased, with one phase of this increase being demonstrated by the bungalows that characterise the Conservation Area within the immediate vicinity of the site, so too did the facilities provided by the Hospital. Thus:

- There are no strong ties arising out of similarity of purpose. The Conservation Area comprises dwellings, while the Hospital was designed to provide medical services.
- There are no relationships arising out of similarities in form, scale or architectural style. The Hospital buildings are institutional in form and design, while the Conservation Area is comprised of small single storey residential dwellings. The height of the Main Building on the Hospital Site makes it a discordant element that contrasts with the single storey dwellings.
- There is no vegetation on the Hospital site that significantly contributes to the Conservation Area.
- There are no heritage significant view corridors to the Hospital from the Conservation Area and vice versa.

The Hospital makes no visual contribution to the Conservation Area and vice versa. A service lane, Rawson Lane, forms the physical interface between the site and the Conservation Area. The northern side of Rawson Lane is characterised by the architecturally undistinguished rear and side elevations of the Hospital's buildings and car parking areas. There are low or transparent fences and irregularly spaced plantings along this side of the Lane. The southern side of the lane is characterised by the rear gardens and outbuildings, including garages, of properties fronting Brookong Avenue and includes additional car parking for the Hospital.

Given the lack of significant heritage relationships between the Conservation Area and the Hospital Site, it remains to assess the impact of the new proposal. The Hospital Site will continue to present rear elevations of buildings, plants and car parking to the edge of the Conservation Area. Provision will be made for improved soft landscaping and planting and the proper articulation of elevations to mitigate any impacts. The new buildings are located further into the site than the existing, providing an improved separation between the Hospital the Conservation Area. The highest sections of the new buildings- the plants and helipad are generally well removed from the Conservation Area. No significant view corridors to or from the Conservation Area will be impacted upon.

### 5.3.2 Consideration 2

#### **The following aspects of the proposal could detrimentally impact on heritage significance. The reasons are explained as well as the measures taken to minimise impacts**

The proposed works will result in an overall increase in the massing and scale of buildings on the site. In short, the hospital will be a larger facility. With the exception of the Main Building, the existing buildings on the site range from one to three storeys. The proposed buildings will be predominately three and four storey in height, rising to seven storeys for the helipad in the centre of the site. The proposal provides for a better separation between the buildings on the site and the Conservation Area than the existing.

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Landscaping the site, in particularly car parking areas close to the Conservation Area, and the proper articulation of the elevations of the buildings addressing the Conservation Area will be the main mitigation measures employed. The new buildings will provide a distinct edge to the Conservation Area in the same manner as the existing buildings.

### 5.3.3 Consideration 3

#### **The following sympathetic solutions have been considered and discounted for the following reasons**

As outlined in the above section, the decision was taken elsewhere not to move the Hospital to a new site for cost and logistical reasons including, the established community associations with this site and the location of related medical services in the surrounding area. Similarly, the decision was taken to keep the Hospital operating during new works, rather than move it to a temporary location. None of the alternate solutions considered in formulating the Master Plan for the site could deliver the complex medical services required in a manner that is appropriate and they were therefore discounted in forming the present plan.

## 6.0 CONCLUSIONS

This Heritage Report has outlined the history of the Wagga Wagga Base Hospital and has assessed its heritage significance.

Wagga Wagga Base Hospital, originally Wagga Wagga Hospital, has operated continuously on this site since the first stage of works was completed in 1910. Since this time, the Hospital has been constantly altered and new buildings constructed on the site so that it now presents as a complex of buildings of different periods and architectural styles. The long period of association of the Hospital with this site, together with significant community involvement at various levels, means that the site has a high degree of social significance. This social significance has made it a landmark site in Wagga Wagga. The proposed works will perpetuate this significance by providing for the next phase of health services on the site.

It has been determined that the existing site is the best site for a public hospital in Wagga Wagga for logistical and other reasons. To provide for the construction of the new hospital much of the existing infrastructure will be demolished, resulting in the loss buildings that have social, historic and/or aesthetic significance in their own right. The social significance of these buildings will be perpetuated by the ongoing use of the site and can be recorded by measures such as interpretation, the relocation of moveable heritage and archival recording where appropriate.

The most significant buildings that will be demolished are the Old Hospital Building (1910; 1922) and the Main Hospital Building (1961). With regard to the Old Hospital Building, the impact will be acceptable because of the greatly reduced integrity of the building and the survival of other, more intact, examples of Queen Anne Federation Style hospital buildings elsewhere in New South Wales. The work of the architect, W.L. Vernon, is represented in Wagga Wagga by the Courthouse. The Main Hospital Building demonstrates a higher degree of integrity. This building has derived landmark status, exclusive of its associations with the Hospital, in its own right because of its height comparative to the surrounding area. This should not, however, be confused with landmark architectural merit. While a fair and intact example of the Functionalist Style, this building is not an exceptional example. It lacks the subtlety of form and detailing that make the best examples in this style outstanding. The benefits to be derived from the new hospital facility, which requires that this building be demolished, must be weighed against the fact that there are other, and better, examples of hospitals in this style in New South Wales.

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The proposed works will not result in the loss of any significant historic or aesthetic relationships between the site and the adjoining Wagga Wagga Conservation Area or impact upon any significant view corridors into or out of the Conservation Area. The visual impact of placing buildings of a greater massing and scale within the vicinity of the Conservation Area is to be managed through the appropriate articulation of elevations and planting. The new buildings will provide a distinct edge to the Conservation Area, as do the existing buildings on the site. The proposed car parking along the southern edge of the site, which will be appropriately screened by landscaping, will provide good physical separation.



**Articles from *The Wagga Wagga Advertiser***

- 'New Wagga Hospital: Committee Meet the Government Architect/ Operations to be Commenced', *The Wagga Wagga Advertiser*, 12 May, 1906.
- 'The New Hospital. Laying the Foundation Stone. Visit of the State Premier. Other Distinguished Guests.' *The Wagga Wagga Advertiser*, 13 February 1908.
- 'The New Hospital. A Fine Structure. Approaching Completion.' *The Wagga Wagga Advertiser*, 4 June, 1908.
- 'Wagga's New Hospital. Opening Ceremony by State Premier.' *The Wagga Wagga Advertiser*, 8 September, 1910.'

**'New Wagga Hospital: Committee Meet the Government Architect/ Operations to be Commenced', *The Wagga Wagga Advertiser*, 12 May, 1906**

**New Wagga Hospital.**

**COMMITTEE MEET THE GOVERNMENT ARCHITECT.**

**OPERATIONS TO BE COMMENCED.**

The Government Architect (Mr. Vernon) and Mr. P. M'Garry, M.L.A., arrived in Wagga from Sydney by the mail train yesterday morning, the former for the purpose of submitting the plans of the new hospital to be built in 'Edward-street' to the committee, and of consulting with them in connection therewith. About half-past 10 o'clock the committee and medical officers met Mr. Vernon in the Board-rooms, after having first shown him through the institution. There were present: Messrs. J. J. M'Grath (President in the chair), Horne, Williams, Mitchelmore, Monks, Ferris, Morrison, Wilkins, Drs. Burgess, Leahy, Warren, and Moncrieff, and Mr. Fitzgerald, District Architect, from Albury.

Mr. Vernon submitted the plans, which provided for a main building facing the north, containing a female ward, with accommodation for 16 beds; a male ward, with 16 beds; a nurses' dining and outpatient rooms on the ground floor. Provision is made upstairs for a male ward, with 16 beds, two private male wards, the operating theatre, and the matron's quarters. The nurses' quarters are to be some distance away from, and at the rear of, the main building. The patients' dining-room, the nurses' lecture room (which will also be used as a dining-room), and the kitchen will be included in the main block. The servants' quarters will be above the kitchen. The new hospital is to be built of brick, with the exception of the washhouse, on the modern Queen Anne style, plain, though good in appearance. Provision is made for necessary verandahs and balconies, and for sheltering all the wards. Sanitary conveniences are also included, and everything arranged to fully equip a hospital on modern lines.

The President said Mr. Vernon desired them to express their opinions freely, so that he might ascertain exactly what the committee required.

Mr. Vernon said he had prepared the plans of the suggested accommodation for the new hospital, but, as the notice was short, they were capable of very great improvement. The buildings proposed by the committee would cover a large area of ground, and would cost a good deal of money, but they could go through the plans, and bring their requirements within a reasonable limit. He would give them just what they wanted. He did not personally interfere in these matters. The plans would have to be sent to the Board of Health for approval. He would attend to that for them. They were asking for 50 beds, and the medical men would hear him out in stating that they did not desire to have too many beds in one ward.

Dr. Burgess: That is so.

Mr. Vernon: Sixteen or twenty beds at the outside would be ample for one ward. Fifty beds meant three wards of unequal size. He then gave a minute description of what the hospital would contain, stating, in accordance with our account above, that the verandahs would be purposely divided in order to suit the patients' in changed weather conditions.

Mr. Mitchelmore said he noticed that the outpatients' room was away altogether from the dispensary. He would like to see all the administration central.

Mr. Vernon: They could bring it in. When he told them the estimated cost of the new hospital, according to the plans, he was afraid it would frighten them. As to the isolation ward, they could take the present one to the site in Edward-street, and place it in the rear ground. The estimated cost of the hospital, not including the isolated buildings, was about £8,700. The isolation ward, if they re-erected the present one, would not cost them much, and they could have whatever kind of laundry they desired.

Mr. Mitchelmore: Provision is made in the plans for a steam laundry. They did not want that.

Mr. Vernon: It is for you to say.

Mr. Horne said the district was increasing in population very rapidly, and eight new houses had recently gone up in Newtown alone. They could not do with less than 50 beds, as they had to look to the future as well as the present.

Mr. Vernon said he had arranged the matron's quarters, and they would be very nice, in the main building in the plans. He thought the quarters should be central.

In regard to the sewerage, Mr. Vernon could not suggest anything for the hospital but a septic tank. They would have to provide for a sufficient fall for the tank, the precipitation, and there was not a

building with the roof on, that would do.

Mr. M'Garry said he hoped to get another £1000 from the Government by the 30th June.

Mr. Mitchelmore: It was intended to ask the Government to take over the present site and advance them the money for it. They valued the land at £2000.

Mr. M'Garry said as the present site, or part of it was a Crown grant, a Bill would have to be passed to sanction its sale.

Mr. Mitchelmore: We do not want any Act of Parliament. We purchased some of the land, and we will hand it over to the Government.

Mr. Vernon: The Government have more empty buildings than they can use now.

Mr. Mitchelmore: We do not value the buildings, but the land, we consider as worth £2000.

Mr. M'Grath: Is Mr. Vernon prepared to prepare the working plans?

Mr. Vernon: I want to know what you want me to do.

Mr. Mitchelmore: I am sure that every member of the Committee desires that the Government will do the whole thing. To narrow it down he would propose that Mr. Vernon prepare sketch plans of the proposed building, and working plans and specifications of the main building, patients' dining-room, nurses' lecture room, and kitchen.

The proposal was agreed to, and the meeting terminated.

Mr. Vernon returned to Sydney by last evening's train.

**District News.**

(From our Correspondent).

**JUNE.**

May 10.

Death of an old Resident.—Mr. Richard Parkes, an old identity of Junee, and formerly a resident in the Wagga district, after a long illness, died at his residence, Railway Row, early on Friday morning last. At the time of his death deceased was 62 years of age, and had been a sufferer for months from asthmatic seizures, from which the best medical skill could give him no relief. Mr. Parkes, for the past twelve years had carried on a fruit and greengrocery business in Railway Row, and won the respect of all classes of the community. He left a widow and two children. The funeral took place on Saturday afternoon, and was largely attended, the members of the local Rechabite lodge and Orange lodge (both of which deceased was a member) marching. The remains were interred in the Presbyterian portion of the Junee Cemetery, the Rev. J. D. Landels officiating at the grave.

The State Governor's Visit.—Junee was en fête on Tuesday on account of the official visit of the Governor of this State (Sir Harry Holdsworth Rawson, K.C.B., B.N.): For the past two weeks a strong citizens' committee have been making arrangements to suitably welcome and entertain the Governor when he did arrive. His Excellency was due to reach Junee from Yanco by special train at 10 o'clock on Tuesday morning, and in consequence of this a large and enthusiastic crowd assembled in Railway Square. When the train arrived, His Excellency, who was accompanied by Miss Rawson, Captain Wilson, A.D.C., Mr. Harrison Smith (Private Secretary), Mr. Ashton (Minister for Lands), Mr. P. M'Garry, M.L.A., were all introduced to the Mayor of Junee (Alderman J. E. Hoad), the aldermen, the clergy, and the executive committee. Miss Rita Humphys presented Miss Rawson with a handsome bouquet, after which the party proceeded to the back of the station and mounted a dais built on the lockery in Railway Square, where His Excellency was greeted with tremendous cheers. The National Anthem was sung by the school children and public, the united local bands playing the accompaniment. After this the Mayor read the following address of welcome, which was neatly executed by Mr. John Sande, of Sydney, and was in the form of a leather scroll:—

May, 1906. To His Excellency, Admiral Sir Harry Holdsworth Rawson, K.C.B., Governor and Commander-in-Chief of the State of New South Wales and its dependencies, Your Excellency, We, the Mayor, Aldermen, and residents of Junee, beg to tender you and your party a most hearty welcome on the occasion of this your first visit to the town. We beg to assure you that we feel deeply honored by your visit, and most sincerely wish that your stay, although short, may be a pleasant one. You visit the district under most auspicious circumstances, and will find it hard to realize that it has passed through one of the severest droughts in the history of the State. The soil and climate have been proved to be capable

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much, and they could have whatever kind of laundry they desired.

Mr. Mitchelmore: Provision is made in the plans for a steam laundry. They did not want that.

Mr. Vernon: It is for you to say.

Mr. Horne said the district was increasing in population very rapidly, and eight new houses had recently gone up in Newtown alone. They could not do with less than 50 beds, as they had to look to the future as well as the present.

Mr. Vernon said he had arranged the matron's quarters, and they would be very nice, in the main building in the plans. He thought her quarters should be central.

In regard to the sewerage, Mr. Vernon said he could not suggest anything else for the hospital but a septic tank. They would have to provide for a sufficient fall for the tank by precipitation, as there was not a natural one, by raising the building a little.

Mr. Mitchelmore: They could arrange for sewerage works to take away all the sewerage.

Mr. Vernon said they could not have a septic tank close to the main road, as objection might be taken to it. They would have to take it back. They were perfectly justified in having a septic tank.

Miss Cashel, the Matron, was shown the plans, and she said she approved of the operating room being upstairs.

Dr. Burgess: How are you going to take the patients up? By a lift?

The Matron: They have a special lift in Sydney.

It was pointed out that as there was not very much surgery done at the Wynga Hospital that the patients could be carried up to the operating theatre by means of an easy staircase.

Mr. Vernon said they would not save much if they had forty beds. To have only two wards the same size would not do. He thought by carrying out the proposals of the Committee the amount estimated for building the hospital could be reduced by £1000.

Mr. Mitchelmore: The plans recommend themselves to me, because provision is made for future requirements.

Mr. Vernon said the cost of the hospital would probably be £9000, including the foundations. It was for them to say whether he would leave the plans with them for further consideration or take them with him that evening on his return to Sydney. If he took them with him they could have the alleged tracings in the course of two or three days. They had not much time to lose if they desired to secure the £1000 from the Government.

Mr. Mitchelmore did not think further consideration necessary. They had cut out the laundry altogether, and re-adjusted the nurses' quarters.

Mr. Horne: Will Mr. Vernon supply us with the working plans for the building?

Mr. Vernon: That is for the Committee to decide.

Mr. Horne: They would have to proceed with the erection of the hospital by sections, as the money became available. They could not accept a tender for the whole of the building. They could obtain working plans for the foundations, and then get the £1000 from the Government.

Mr. Mitchelmore: We could go up to £3000 at once.

Mr. Horne: The Committee would not be justified in obtaining working plans for the whole of the building at a cost of £9000. They were not bound to expend the £1000 by the 30th June.

Mr. Vernon: You have to satisfy the officer concerned, and it happens to be myself in this case, that the money is to be justifiably expended. We would not say that outbuildings, or even the foundations would be sufficient, if the intention was to build up the main

accompanying. After this the Mayor read the following address of welcome, which was neatly executed by Mr. John Sands, of Sydney, and was in the form of a leather scroll—

May, 1906. To His Excellency, Admiral Sir Harry Houldworth Rawson, K.C.B., Governor and Commander-in-Chief of the State of New South Wales and its dependencies. Your Excellency,—We, the Mayor, Aldermen, and residents of Junee, beg to tender you and your party a most hearty welcome on the occasion of this your first visit to the town. We beg to assure you that we feel deeply honored by your visit, and mostly sincerely wish that your stay, although short, may be a pleasant one. You visit the district under most auspicious circumstances, and will find it hard to realize that it has passed through one of the severest droughts in the history of the State. The soil and climate have been proved to be capable of producing, in addition to wheat and wool, waxes quite equal to those of the Murray Valley, while its proved mineral resources await only development. As Governor of New South Wales you hold its future destiny in your hands, and we gratefully recognize the great interest you have always manifested in all matters appertaining to the advancement of the social, industrial, and educational welfare of the people. We feel assured that your actions have at all times been prompted by honest, sincere, and disinterested motives, and we sincerely trust that you may be long spared to rule over us. We also desire to convey to your Excellency the expression of our continued loyalty to the Throne and persons of their Most Gracious Majesties the King and Queen, and finally to express the hope that when seeking relaxation from your high duties our district may offer you unrivalled climate and scenery, coupled with our best hospitality. We are, on behalf of the council and residents, Your Excellency's humble servants, James E. Road, Mayor; W. J. Luke, Council Clerk. The Governor read a formal reply, and added that he was very pleased to visit them. He was also very pleased with the reception they had given him. It was only by coming among the people that he could become acquainted with the portion of the country they lived in and their mode of living. He was pleased to be among them when there was every prospect of good times ahead. But when people were prosperous they were inclined to forget adversity, and as New South Wales had its cycles of good and bad seasons, they should always prepare for the bad years when they were prosperous. When last in England King Edward had given him a message, and it was to the effect that he (the King) had a tender spot in his heart for the colonies, and especially Australia. His Excellency, on concluding his speech, was again cheered, and descending from the dais, was with Miss Rawson and the Mayor, accommodated with a seat in Mr. Mat. Snayor's sociable, drawn by four beautiful white horses, and driven by their owner. The Vice-Royal party, followed by quite a large number of vehicles, journeyed to the local hospital, where they were received by the President (Mr. Alex. McKillop). They were shown round by Dr. Button and the Matron, and expressed themselves well pleased with the general appearance of the institution. Having left the hospital, the locomotive workshops were visited, His Excellency and Miss Rawson being received by Mr. Loco. Inspector Close. From here the party went to the Superior Public School, being received by Mr. T. C. Humphrys, Chairman of the Local School Board. Having been accommodated with seats, little Miss Alice McDonald read an appropriate address, and, in reply, His Excellency gave the school children assembled some very sound advice. After circulating some

given for the present.

Fachre Pat pleasant Fro Dance was ger's residen nesday night. Stall at th be held at l ing Show we "Toronto" the occasion Chinese lant weather was and about 13 outing. Am visitors from The Rock, U and Albany. play, which and continue rang at 10.30 when the indi ed. The win a very nice si horn—was for The Rock, an carrying of t silver comb t was run very The Rock, a who were se gentlemen's each received photo frames for ladies (a Flynn, and A won the gent struggle, and to play with, well was evide the euhre: round, to v Willing hands and prepared lovers-of-the keep the ball fight, when t ter one of the that has been Bolger had cl and Mr. Ruty for the dance sion was su Misses Partel ano), Miss (Violin). Gr promoters, Mr and O'Connell mer in which rangements, a pleasant an The promoter heartiest than Allum, Day, Perry, Lynch and also to cards, &c., fo containing a posed of durit by Mr. Stau.

The Weathe having a spo which is reg ing. All the paring the la be in great more, so the splendid resul following and farmer who class of farm to-date.

Increase of increase; but every inquiry to find out any serious lambs, or pot there is no doing any they may id from observa sive the



**'The New Hospital. Laying the Foundation Stone. Visit of the State Premier. Other Distinguished Guests.'** *The Wagga Wagga Advertiser*, 13 February 1908

ISER, THURSDAY, FEBRUARY 13, 1908.

# The New Hospital.

## LAYING THE FOUNDATION STONE.

### VISIT OF THE STATE PREMIER.

#### Other Distinguished Guests

One of the greatest gala days in the history of Wagga eventuated yesterday, when the important function of laying the foundation stone of the new hospital was successfully conducted by the State Premier, the Hon. C. G. Wade. Elaborate preparations for the event have been in progress for some months past, and a spirit of enthusiasm animated the Citizens' committee formed of the Hospital committee and other leading citizens with the object of successfully arranging all details. The sympathy and encouragement of the general public were enlisted in the cause and, as was confidently expected, the arrangements were well worthy of the occasion. It was hoped to have held the ceremony towards the end of last year, but the prolongation of the Parliamentary session would not allow of the Premier's presence, and other matters rendered a postponement necessary. The only anomaly, if such it may be called, the delay has created is the fact that the construction of the building has grown to rather an advanced stage for laying the foundation stone, the walls being almost complete, but provision was made by the builders to leave a space which can be subsequently built upon without affecting the rest of the structure. What had, perhaps, more influence than anything else in the success of the day's function was the genial weather conditions which prevailed. The general expression in this regard was that had the weather been made to order it could not have been more acceptable for such an occasion.

The Premier arrived by the 9 o'clock train from Sydney yesterday morning and was met on the station platform by the Mayor and other leading citizens, by whom the distinguished visitor was cordially welcomed to Wagga. The procession, the members of which were assembled in readiness prior to the arrival of the train, was formed up in order and marched to the town hall. As it moved along Baylis-street, the procession formed rather an imposing spectacle. The uniforms of the band and cadets and the fire brigade contrasting with the regalia of the various friendly societies, gave brightness and color to the scene. The procession was led by the Wagga Citizens' Band playing an inspiring march, and next in order came a company of cadets, followed by the fire brigade, citizens' reception committee (including the Premier and distinguished visitors, Mayor and aldermen, president and hospital committee). Then came the various friendly societies, as follows:—(a) A.O.F.; (b) G.U.O.O.F.; (c) I.O.O.F.; (d) M.U.L.O.O.F.; (e) L.O.L.; (f) B.A.C.B.S. The streets were thronged with crowds of people gathered to view the procession.

grown to five times as much. Now they had the advisory boards, which would investigate areas suitable for settlement, it was hoped to expedite the opening up of land for agricultural purposes. There was room for a greatly increased population in the country, and a place must be found for millions of more population in order to develop the wealth of the country. In a decade or so they would be able to compete with the halcyon days of America. The country was at the present moment in its infancy, and with the development of the closer settlement policy there would be an immense access of wealth. In conclusion, the Premier hoped there would not be any unnecessary trouble in the way of entertaining him, as he intended to keep his eyes open to see all there was to be seen in the short time at his disposal in the town.

The gathering at the Town Hall dispersed after the Mayor invited all to adjourn to the new hospital building. He intimated that meanwhile he would drive the Premier around the town.

#### At the New Building.

##### COLLECTION OF £160.

A crowd which must have numbered between 2000 and 3000 was assembled at the new hospital building to witness the laying of the foundation stone by the State Premier. A platform for the distinguished guests was erected at the main entrance, and around this the children were drawn up in a kind of half-square. An avenue to the gate was formed by the cadets, and the building was gaily decorated with flags. Amongst the visitors besides Mr. Wade (the State Premier), were Sir William Lyne, the Federal Treasurer; Mr. Chanter, M.H.R. for Riverina; Mr. P. McGarry, M.L.A. for Wagga; Mr. Gordon McLaurin, M.L.A. for Albury; the Hon. Jas. Giblin, M.L.C.; Mr. J. Hayes, Mayor of Wagga; Mr. J. J. McGrath, President of the Hospital Committee, the aldermen of the town, members of the Hospital Committee, and many other leading citizens. A prominent position was thoughtfully provided for the matron (Miss Wiseman) and the head nurse (Miss Gallagher).

The proceedings opened with the National Anthem, sung by the children, and three cheers for the Premier.

The Mayor explained the object of the Premier to lay the foundation stone of the new building. The old building had served its purpose; but, like some men, it had come to the time when it had outlived its usefulness. In life's long pilgrimage many required to make use of the hospital who had not the means of obtaining medical attendance. But for the hospital many of these would die on the road. The Mayor trusted that all would endeavor to help in some way towards the expenses of the institution.

As president of the hospital, Mr. McGrath extended a hearty welcome to the young Australians and all present. The Premier was present to lay the foundation stone of what would be one of the finest institutions of the kind outside of the cities. The hospital was intended to meet the requirements of trouble the present population. The rays of the sun were not a

lag up the springs of charity in the individual and inducing them to do what was not desirable to always pass on the Government rather than give themselves. He could safely say that he was in the presence of an audience which would do all that was necessary in the support of the institution. The advice of the worthy president should not be lost sight of on an occasion like the present. Those present should take the opportunity of doing their duty so far as to make the institution a success and a credit to the whole district. The care and work of relieving human affliction and suffering was the highest work; and all praise was due to the efforts put forward for this purpose. All credit was due to the nursing staff not only in Wagga but in every hospital. They had their heroes on the battlefield, where men under impulse for glory would risk their lives and hold them cheap. But in the hospitals they had the nurses— brave, determined, and kindly women—with no such stimulus as a crown of glory, with one determined purpose, to do good to their fellow creatures and even risk their own health and lives. All honor was due to them, and they were entitled to the gratitude of one and all. One thing that was required in every hospital was proper accommodation for the females to enjoy proper sleep, so that they could rise refreshed to carry on their work again. He was glad that this part of the scheme had not been lost sight of, and money spent in this way could not be regarded as extravagant. He hoped the object would be realized in the obligations being met, and that the institution would be a success for all time. (Applause.)

The Hon. Jas. Gornly, M.L.C., addressed the gathering, and Mr. P. Metiary, M.L.A., expressed gratification at the Premier honoring the town with his presence. Mr. Gordon McLaurin, M.L.A. for Albury, also spoke.

Sir William Lyne said he hardly expected to be present, but was glad of the opportunity of doing so, although he recognized it as a State function. He congratulated the Premier and Ministry and Parliament on giving them the money to commence the hospital, and with the wealthy people in the district there need be no hesitation in stating that the institution would soon be properly completed. In reference to the nurses he thought much was due to the educational system of training them, and considered it was of the greatest benefit to humanity. The institution they would find would be the greatest boon they ever had in the community. He remembered the ceremony in connection with the opening of the Murray bridge, and felt sure that whether it was hundreds or thousands the Premier with his generosity would see to it that they would get the institution completed. (Hear, hear.) As a member of the Federal Ministry, if ever the time came to do anything possible to assist the institution he would be very glad to do so. (Applause.)

Mr. Chanter, M.H.R., also addressed the gathering. He hoped to see the time when the institution would be free from debt, and trusted it would never be overcrowded.

Mr. McGrath announced that subscriptions would be gladly received, and an amount of about £160 was promptly forthcoming. It is expected that this will be further augmented before the list in connection with the ceremony is closed.

Cheers were given for Mr. and Mrs. Wade, and the National Anthem brought the function to a close.

#### Donations.

Donations laid on the stone of the new Wagga Wagga Hospital, 12th February, 1908—	
Commercial Banking Co.	£25 0 0
Bank of N.S. Wales	25 0 0
Loyal Southern Star Lodge, No. 29	M.U.L.O.O.F. 12 13 6
Bank of Australasia	10 0 0
D. Copland	10 0 0
C. Hardy and Co.	10 0 0
P. McGarry, M.L.A.	5 5 0
Mrs. James Hill	5 5 0
Bellair's Hotel	5 5 0
A.M.	5 0 0
Sir William Lyne	5 0 0
J. T. Keating	3 3 0
J. J. M'Nickel	3 3 0
Meld's Pharmacy	2 12 6
Walter Day	2 5 0
J. H. Foot	2 0 0
E. J. Colcroft	2 0 0
R. Cox	2 0 0
The Mayor (Ald. Hayes)	2 2 3
W. F. Stone	5 0 0



## Reception at Town Hall

On arrival at the Town Hall, the Mayor from the steps officially welcomed the Premier, who, he said, was on a mission fraught with very great interest to the town, as it was a historical day for Wagga.

The Premier, who was received with applause, thanked the people for their warm and generous welcome. In the gathering were all shades of opinion, political and otherwise, and he could not pretend to belong to all of them. He was not so vain as to suppose the warm welcome was extended towards himself personally. He took it rather to refer to the Ministry he had the honor to lead, and the manifestation of the keen and active interest the people had in the political life of New South Wales. It was a healthy sign to see the people keep in touch with the Ministry of the day, and there was thus more chance of cordial co-operation with regard to steps taken for the benefit of the community and less chance of friction between the Government and the various constituencies throughout the State. This was the first occasion on which he had officially visited Wagga, though he first visited the town 20 years ago when he stayed with the late well-respected Mr. Henry Baylis, Police Magistrate, and went to school with most of his sons. His desire was to come into contact with the people, so as to establish bonds of cordiality and sympathy and the feeling of confidence that ought to exist between the electors and the Government. He proposed to devote special efforts to the development of the interior of the State, as he realised the great wealth-producing powers of New South Wales lay away from the seaboard rather than on the coast. Sydney could not live more than three or four days without the country. Therefore it was incumbent on the Government to take every opportunity of attracting settlement on the land. He hoped to continue in this respect on the same lines as the previous Government, but they could not succeed without the sympathy of the people. He expressed pleasure at having the opportunity of being present, and reiterated his remarks regarding the necessity of sympathy and co-operation between the electors and the Ministry. (Applause.)

Cheers for the Premier were heartily given by the crowd, and the leading guests adjourned to the inner room of the Town Hall, where light refreshments were provided.

Mayor Hayes, who presided, proposed the Royal toast, and the health of Mr. Wade was then honored at the instance of the chairman, supported by Mr. J. J. McGrath as president of the hospital.

Mr. Wade said the gathering reminded him of the old Biblical story of Daniel in the lions' den, as he recognised that he was amongst the

lion. The rays of the sun were not a bit warmer than the sympathy of the people upon whom he called to help suffering humanity who could not help themselves.

The Premier here went through the ceremony of declaring the foundation stone laid. The inscription reads:—

This stone was laid on 12th Feb., 1908.

By the Hon. C. G. Wade, Premier of New South Wales.

The Premier was then presented with a handsome silver trowel in a case by the Mayor, on behalf of the architect and contractor of the buildings. The inscription read:—

Presented by the architect and contractor of the Wagga Hospital to the Hon. C. G. Wade, Premier of New South Wales on the occasion of the laying of the foundation stone of the Wagga Wagga District Hospital, 12th February, 1908. W. J. Monks, architect; Chas. Hardy, junr. builder.

The Premier, who was received with applause, said it gave him exceedingly great pleasure in being allowed to take part in laying the foundation stone of the new hospital, which was fast approaching completion. When it became fit for occupation it would be used by all sections in the beneficent work of finding comfort and care for the suffering poor. Yet he hoped the occasion would never arise when the wards would be full. In spite of scientific advancement and the circulation of wealth, they had an ever-increasing number of the sick and the needy. Great strides had been made in hospital treatment as compared with the experience of the suffering 50 years ago. They had a comfortable building, with all the latest sanitary improvements, and they had medical men trained in all the latest surgical science. Then they had the assistance and tender care of those heroines in modern life known as matrons and nurses. (Applause.) The sick and the injured now received a measure of care and attention unthought of by the unfortunate men who lived in days

gone by. Under these circumstances they had a solemn obligation to perform in helping to make provision for those who most required assistance. It was always a matter of satisfaction to find that the public made an effort in accordance with their means. He always regarded the granting of a subsidy for this purpose as a most worthy object, and without boasting he could say that the Government of New South Wales in the past had not been wanting in its obligations in this respect. During the past five years there had been a special grant of something like £2000 given and £3000 promised, most of which had been advanced. With proper and reasonable help given by the people in whose midst the building was, they might reasonably look forward to the hospital being able to supply all requirements. He realised that while the Government was always willing to give as far as was practicable and

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J. F. O'Regan ...  
Hon. Jas. Gormley ...  
J. J. McGrath ...  
M'Intosh Bros. ...  
George Mumford ...  
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## Visit to Exp

### INTEREST

After the ceremony of laying the foundation stone distinguished guests were kindly received by Mr. M'Keown, architect. The toast King was duly hoisted.

The toast of the Premier was proposed who considered shown some grit to have a settlement with the Federation should not be wealth had its

They were fortunate like Mr. Wade. He trusted that Mr. Wade would be able to settle difficulties between the State and the Commonwealth.

Mr. Wade once again expressed his appreciation of the generous treatment he would be hoping to be pursued by the direction of the agricultural side of the life of the State. The prospect was held entirely the portfolio of Agriculture, but brought to fruition by the Agricultural Departments together with the danger of the other weeks they had been Agricultural Departments basis, and now the



**'The New Hospital. A Fine Structure. Approaching Completion.'** *The Wagga Wagga Advertiser*, 4 June, 1908

<p>nce of the plag- long Kong. <b>REFORM.</b> support Sir Ed- reform for Ma- <b>SAMOS.</b> arned the Porte amos must be te has promised ops when order he island. <b>PICTURE.</b> sborough, stolen burglars in 1906 a doorstep at</p>	<p style="text-align: center;"><b>The New Hospital.</b> A FINE STRUCTURE. APPROACHING COMPLETION.</p> <p>Some progress has been made with the new hospital buildings as was seen in an inspection made by a representative of the 'Advertiser' yesterday under the guidance of the foreman of works, Mr. George Bruce. The contractors, Messrs. C. Hardy and Co., hope to have the buildings completed within the next three months and already a handsome structure appears on view.</p>	<p>of the Em <b>The</b> CEA UNSET</p>
<p><b>er Dead.</b> NDON, June 2. need, in his 69th Redvers Buller, th African war, tions for the re-</p>	<p>The brickwork is practically finished, and the tiles forming the covering for the roof have all been placed in position. It is rather a remarkable fact that the tiles have come all the way from France, as there is said to be nothing of the kind so suitable obtainable elsewhere. The tiles are made by French peasants and have the double recommendation of being cool and durable. The most striking points in connection with the building is the attention given to light and ventilation. In the large ward on the ground floor in which accommodation will be provided for 16 male patients, and of which the dimensions are 65 feet by 25 feet, there are no less than eight windows on either side. The upper floor of similar proportions and appointments will be used as a female ward. The ceilings are of plain steel, and the walls are neatly plastered. So as to guard as much as possible against the accumulation of dust, the corners of the</p>	<p>Judge Ho tion Court pute in co makers' an reached be month he its coffin Arbitration after June <b>We</b></p>
<p><b>IBUTE.</b> <b>JUSTIFIED.</b> NDON, June 3. nier of the Trans with Sir Redvers egarded General hardest fighters. campaign were</p>	<p>walls have all been rounded off. On the right hand side of the main entrance a commodious room has been set apart for the secretary's office and committee meetings. In a handy position there are the matron's office, dressing room, out-patients' room, nurse's room, refectory, kitchen, dining-room, etc. A fine balcony overlooks the south, giving an excellent view of the town and altogether the surroundings appear healthful. Adjoining both wards are small rooms designated duty rooms in which the nurses may remain and through an opening have the whole of the wards under observation. The matron's and the nurses' living rooms are situated on the upper floor and there are also</p>	<p>The late ment Astro Weather ing fine a generally i to north i  OLDY In the a Lake Alber town will ing—Gree riman, Ma monds, Sn Lugsden, C lett, Patte Lampe, O'</p>
<p><b>nd Grant.</b> <b>ALE CASE.</b> <b>RESERVED.</b> EY, Wednesday. concluded the the Scottish Aus- Co., Ltd. versus connection with ands in the Cen- or reserved judg-</p>	<p>plaintiff company that it was en-act for surrend-ands in the Cen-ally performed on-vernment by the-own grant of a-ood frye from-if at any time-e found to con-</p>	<p>NEWY The team their matc the Cricke will be sel Dryden (; Hann, Sen Ryan, M L an, Field, Angel.</p>
<p><b>ALOYSIA</b> An inter the cricke noon betw the first h determinat bination b ly doing h started w matches became an it finished out of pla</p>		



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**Age Pensions.**

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dressing room, out-patients' room,  
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looks the south, giving an excellent  
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surroundings appear healthful. Ad-  
joining both wards are small rooms  
designated duty rooms in which the  
nurses may remain and through an  
opening have the whole of the wards  
under observation. The matron's and  
the nurses' living rooms are situated  
on the upper floor and there are also  
surgical wards and a sterilising room.  
One of the most important rooms on  
the upper floor is the operating room,  
the floor of which is to be of concrete.  
There may be recommendations for  
having this room on the upper in pre-  
ference to the ground floor, but it  
would seem that a lift will have to be  
put in sooner or later for the purpose  
of conveying patients to the operating  
table. Otherwise the only means of  
overcoming the difficulty is the crude  
arrangement of carrying the patients  
upstairs. A small lift to carry meals  
etc., from the lower to the upper  
floor has been installed.

With all the completeness in the ar-  
rangements that has apparently been  
so far achieved, there is a serious pro-  
blem that the committee will have to  
face. No provision has been made in  
regard to drainage and this, especial-  
ly in such an institution as a hospi-  
tal, is of supreme importance. It is  
almost imperative that a septic tank  
system or some other modern method  
of disposing of the drainage will have  
to be installed before anything ap-  
proaching perfection can be claimed.  
This, of course, will entail additional  
expense and the committee should be  
assisted in every possible way by the  
public in their efforts to provide an  
institution that will meet the require-  
ments of the district for many genera-  
tions to come. The Government have  
been approached for assistance and  
will no doubt respond, but it remains  
for the general community to contri-  
bute their quota towards the most  
worthy institution a town can possi-  
bly possess, and make it a creditable  
and lasting monument in memory of  
the charitably disposed citizens of  
this generation.

**Land Administration**

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**'Wagga's New Hospital. Opening Ceremony by State Premier.' *The Wagga Wagga Advertiser*, 8 September, 1910.'**

**WAGGA'S NEW HOSPITAL.**  
**OPENING CEREMONY BY STATE PREMIER.**  
**GREAT ASSEMBLAGE OF PEOPLE.**

Yesterday saw the consummation of the hopes given birth to five years ago when the idea of a new hospital for Wagga was first mooted, the Hon. C. G. Wade, K.C., M.P., performing the opening ceremony, in the presence of a large concourse of people, of the new hospital erected at the corner of the Albury-road and Edward-street.

The day turned out to be an ideal one for such an auspicious occasion, being warm and bright with very little breeze to annoy the many people witnessing the ceremony by stirring the dust. Mr. Wade stayed in Wagga over night purposely for the occasion, and yesterday morning he paid a private visit to the new building, accompanied by several members of the hospital committee. He expressed himself as very well pleased with everything and much admired the style and architecture, both interior and exterior, the accommodation provided, and the modern fittings and appliances with which the institution has been supplied.

After his visit of inspection he was entertained to luncheon by the hospital committee, a function which was presided over by Mr. H. E. Mitchell, Mayor, President of the Wagga Hospital Committee, and to which the medical staff of the institution had been invited. The luncheon was of an entirely private character and there were no speeches.

**THE PROCESSION.**

The procession started well to time, thanks to the excellent work of the chief marshal, Mr. T. Dolney (Mayor) and his deputies, Messrs. S. Warren and C. I. Amison, and the assistance of those forming the various contingents. It was, as a matter of fact, a little before 2.30 when a move was made from the Hampden Bridge, the order being as follows—Mounted Police, Foot Police, Citizens' Band, Junior Cadet Buglers, Senior Cadets, Junior Cadets, Mayor and Aldermen, Hospital Committee, I.O.O.F., Newtown Band, Manchester Unity I.O.O.F., and the H.A.C.B.S. The route taken was along Fitzmaurice-street, Little Galloway-street and into Tarcutta-street, past the old hospital. Here a cheer was raised by a few of the members of the hospital committee in honor of the building which had served the community so well for so long a time; but the cheer was a very feeble one, seemingly symbolical of an existence almost ended, a course almost run. From hence the procession moved on—across along Johnston-street, Baxter-street, and Edward-street, and finally was arranged in column formation in the grounds in front of the new building. All along the line of route the streets were lined with people, and it seemed as though all Wagga had turned out to witness the spectacle while in addition to the local population were many people on foot and seated in all kinds of vehicles drawn up to the gates, who had come in many miles from the surrounding districts to do honor to the occasion. Certainly the procession was an imposing one despite the absence of the military, who had been called away on military duty, the Fire Brigade, and the representatives of several of the friendly societies whom it was thought would take part. As it was, however, the phalanx was a long one, and the uniforms of the police, cadets and band, and the gay badges of the Oddfellows and the Bilberians, together with the appropriately selected tunes played by the bands gave the necessary touches of dignity and picturesqueness.

Into the grounds with the procession came an enormous crowd of people to join the large assemblage already present. The front of the hospital was gallantly bedecked with large flags and those, with the dice new building, the bright green grass of the paddock and the bright "coloring" of feminine attire, made up a very pleasing scene.

Whether it was intended to be so or not, it is hard to say, but the crowd had the run of the hospital. True enough none of the inmates were seriously ill, but it seemed decidedly out of place for hundreds of people to be allowed to parade through the female ward without let of hindrance, for the whole of the afternoon. The doors of the male ward were closed just during the whole afternoon there were as many pairs of eyes as the glass panels would accommodate staring into it. To allow public inspection on such a large scale would hardly confer any benefit upon the building or be conducive to the comfort of the patients, and there would be plenty of opportunity for visits later on in the hours set aside for the purpose.

The Premier arrived shortly after the procession, motoring up the approach to the front of the hospital in company with Dr. Burgess, his appearance being heralded by a loud cheer.

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## THE SPEECHES.

The speeches were few and brief, and were delivered from the balcony in front of the female ward. Here was assembled a great number of people, as many as could comfortably get there in fact, and Mr. Dolmey started the proceedings by asking that Mr. Wade should be accorded a hearty welcome as a mark of appreciation for his kindness in coming to Wagga to perform the opening ceremony in connection with the new building. This was responded to with acclamation, and Mr. H. E. Mitchelmore then followed with a resume of the history of the Wagga Hospital. Wagga, he said, had had a hospital for close upon 55 years. About five years ago the subscribers and the committee recognised the futility of attempting to adequately attend to the needs of the sick in such a rapidly growing district in that old institution. If those present had had the opportunity of going through the old building they would have wondered how the nursing and medical staffs could have performed the great work they had. About that time the Carruthers Government sent officers to inspect the old premises and they condemned every brick in the building as insanitary and the place to be unfit to carry on the work delegated to it. It therefore became necessary for steps to be taken for the provision of a new building, and an appeal to the public quickly brought in subscriptions amounting to £700. The Government of the day then gave a grant of £2000 as a start, but altogether the amount received from this source totalled £11,500. (Applause). Altogether the hospital when complete would have cost £14,000, all of which had been paid. (Applause). The public were invited by the committee to visit the hospital and inspect every part of it as it belonged to the public and not to the committee, who would be only too glad to accept and give consideration to any and every suggestion which may be made to improve the institution. The hospital would not be used only by this town but it would prove a haven of refuge for the sick from the outlying districts for miles around. Antiseptic surgery had assumed such a position that no more has been made for an operating theatre and appliances which made the hospital practically ready for use.

ped with the city institutions. The cost of the sheep would run into upwards of £2000 per annum. The monthly average of patients was 1500 during the last few years. It had been 25% the summer months, of course, bringing in the greatest number. It showed therefore that the institution would be in need of continued support from the public and though no collections had been made at that function, and he was not going to ask for subscriptions from the public who had already subscribed so generously, he would remind them that there was a box there into which everything they had brought could be put and the secretary was present to take down any promises of donations. The institution did, however, need practical help, and he hoped that some would be inclined to benefit by going so far as the late Mr. Abraham Booth had done and leave a bequest of £1000. Referring to Mr. Wade's presence, Mr. Mitchell more had he felt sure the Premier would feel bound to open the institution the following stone of which he had laid on 22nd February, 1908, and of the enthusiasm which the Wages folk had displayed in supporting it so generously as they had done. And he doubt he would feel gratified, too, to belong to the Government which had granted such a large sum for the erection of this institution.

The speaker then presented Mr. Wade with a gold key, suitably inscribed with the Premier's name and the date of the opening ceremony.

Mr. Wade then said it was hardly necessary for him to say what great pleasure it gave him to take part in the launching of such a fine and well-equipped institution upon its career of usefulness. He congratulated the people of Wexport on having such a splendid hospital, and that they had been favored with such a day of ceremonial sunshine for the opening ceremony. Everything appeared well for the success of the undertaking. They had every prospect of a prosperous season, and the fact that there was so great a gathering of the public present testified to the keen interest evinced in the institution. It was two and a half years since he had come to lay the foundation stone of that building, and since then the work had progressed with rare speed. He had had the opportunity of going through the building earlier in the day and he saw that it was equipped with all modern appliances to fight disease and was staffed with competent and Christian minded nurses. It was equal to any other similar institution outside Sydney or Newcastle, and so far as being fitted with every comfort that science could dictate, it was all that could be desired or achieved. Wages should be proud to know that it had contributed to an institution that was capable of doing so much to alleviate the sufferings of the sick. Especially were thanks due to the ladies for the work they had done for the hospital, and the gentlemen of the committee, to whom they owed much, for they had done all they possibly could do to bring matters to a successful conclusion. When he was first asked for help for this hospital he had replied that the Government was always ready to help when there were indications of a desire on the part of the public to help themselves and that they would not weigh on golden scales what they had to give. Bearing in mind their own effort, as mentioned by the President of the committee, the Government had felt justified in giving rather more than the ordinary grant to country hospitals, but seeing that though the people of Wages were not, perhaps, all on the road to affluence they were at any rate on the road to comfort they felt secure in taking the action they did by way of conclusion the Premier stated that the people ought to find it a pleasure to keep up the hospital by their own efforts. He wanted them to be able to make the proud boast that, year by year, they had provided all that was required to keep the institution going without having to apply for aid from outside sources.

He then thanked the President of the committee for the key which had been presented to him which, he said, he would always regard as an interesting memorial, and would treasure it as a symbolical of the good work that had been done here.

Mr. Mitchellmore then read apologies from Messrs. Chantler, M.H.R., M'Garry, Donaldson and Holman, M.L.A., Mr. Geo. Stevenson, P.M., the Chairman of the Advisory Board, and the Presidents of the County and Town hospitals for their inability to be present. The latter part of Mr. M'Garry's letter, he said, was the most interesting, as it stated that if there was a collection on behalf of the funds, they were to get him down for five guineas. The P.M. had also stated that he already owned a few bricks in the new building, and he forwarded a further contribution of a guinea while Mr. Mitchellmore sought a contribution of five guineas.

The function then concluded with three hearty cheers for Mr. Wade and a further three cheers for Mr. Mitchellmore.

**Obituary.**



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**8.0 APPENDIX 2**

**Plan list for Wagga Wagga Base Hospital**  
Plan Services, Department of Commerce

Record Number	Record Title	Date Created	Plan Type
PH180-1/1	Wagga Wagga Hospital - Edward St Wagga Wagga - 60 Gallon Horizontal Hw Calorifier	1/01/1000	MECHANICAL
PH180-1/4	Wagga Wagga Hospital - Edward St Wagga Wagga - Existing Nurses Qrts (Quarters) - Engineering Services	1/1/34	MECHANICAL
PH180-1/5	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Qrts (Quarters) - Engineering Services Plans	1/1/35	MECHANICAL
PH180-1/6	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Qrts (Quarters) - Engineering Services Elevations	1/1/35	MECHANICAL
PH180-1/7	Wagga Wagga Hospital - Edward St Wagga Wagga - Extra On Contract 26334 Servery To Calorifier rm	1/1/35	MECHANICAL
PH180-1/8	Wagga Wagga Hospital - Edward St Wagga Wagga - Conv To Exist.nurses Qrts (Quarters) To Paying Unit - Engineering Services	1/1/36	MECHANICAL
PH180-1/9	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Block - Engineering Services	1/1/36	MECHANICAL
PH180-1/10	Wagga Wagga Hospital - Edward St Wagga Wagga - New Pathological Block - Engineering Services	1/1/36	MECHANICAL
PH180-1/11	Wagga Wagga Hospital - Edward St Wagga Wagga - New Maternity Block - Engineering Services	1/1/36	MECHANICAL
PH180-1/12	Wagga Wagga Hospital - Edward St Wagga Wagga - Hw Services To Toilet Annexe In Boiler rm	1/1/38	MECHANICAL
PH180-1/13	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Block - Dressings Sterilizer	1/1/38	MECHANICAL
PH180-1/14	Wagga Wagga Hospital - Edward St Wagga Wagga - Eng.servs Layout Cooking Equip.	1/1/40	MECHANICAL
PH180-1/15	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry & Staff Qrts (Quarters) Block - Steam Hw Laundry Services	1/1/40	MECHANICAL
PH180-1/16	Wagga Wagga Hospital - Edward St Wagga Wagga - New Position Of Hw Calorifier-ex Kitchen After Exist.servs	1/1/40	MECHANICAL
PH180-1/17	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Block - Engineering Services-retraced	1/1/49	MECHANICAL
PH180-1/18	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Block Female & Male Wards - Additional Pan Sterilizers	1/1/44	MECHANICAL
PH180-1/19	Wagga Wagga Hospital - Edward St Wagga Wagga - Eng.servs Hw Servs Ground & First Floor Calorifier rm Tanks In Roof	1/1/47	MECHANICAL
PH180-1/20	Wagga Wagga Hospital - Edward St Wagga Wagga - Temp.nurses Qrts (Quarters) - Eng.servs Mis.dets Calorifier	1/1/47	MECHANICAL
PH180-1/21	Wagga Wagga Hospital - Edward St Wagga Wagga - Temp.isolation Block - Eng.servs Floor Plans	1/1/47	MECHANICAL
PH180-1/22	Wagga Wagga Hospital - Edward St Wagga Wagga - Temp.isolation Block - Mis.details	1/1/47	MECHANICAL
PH180-1/23	Wagga Wagga Hospital - Edward St Wagga Wagga - Eng.servs Arrang. & Dets Of Steam Service	1/1/47	MECHANICAL
PH180-1/24	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) & Isolation Block - Mech.eng.servs-dets Of Pipe Brackets	1/1/47	MECHANICAL
PH180-1/25	Wagga Wagga Hospital - Edward St Wagga Wagga - Main Block - Record Plan	1/1/53	MECHANICAL
PH180-1/26	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Block - Heating Of Labour Wards	1/1/48	MECHANICAL
PH180-1/27	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) & Isolation Block - Amended Layout Of Steam Mains-fly Plan To 1/4808	1/1/49	MECHANICAL
PH180-1/29	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry Block - Domestic Hot Water System Sundry Details	1/1/49	MECHANICAL
PH180-1/30	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry & Kitchen Block - Mech.services	1/1/49	MECHANICAL
PH180-1/31	Wagga Wagga Hospital - Edward St Wagga Wagga - Childrens Block - Hw Heating System Mis.details	1/1/49	MECHANICAL
PH180-1/32	Wagga Wagga Hospital - Edward St Wagga Wagga - Childrens Ward - Hw Heating System	1/1/49	MECHANICAL
PH180-1/33	Wagga Wagga Hospital - Edward St Wagga Wagga - Existing Main Block - Steam Condensate Mains Site Plan	1/1/53	MECHANICAL
PH180-1/34	Wagga Wagga Hospital - Edward St Wagga Wagga - Existing Main Block - Steam Hw Hw Heating Service	1/1/53	MECHANICAL
PH180-1/35	Wagga Wagga Hospital - Edward St Wagga Wagga - Foundation Plan & Calorifier rm Details	1/1/52	MECHANICAL
PH180-1/36	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Ground Floor Layout	1/1/52	MECHANICAL
PH180-1/37	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - 1st 2nd 3rd 4th Floor Layouts	1/1/52	MECHANICAL
PH180-1/38	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - 5th & 6th Floor Plans	1/1/52	MECHANICAL
PH180-1/39	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - 7th & 8th Floor Plans	1/1/52	MECHANICAL
PH180-1/40	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Site Plan & Building Sections	1/1/52	MECHANICAL
PH180-1/42	Wagga Wagga Hospital - Edward St Wagga Wagga - New Tb Block & Clinic - Engineering Services	1/1/53	MECHANICAL
PH180-1/43	Wagga Wagga Hospital - Edward St Wagga Wagga - Isolation Block - Layout Of Heating-hw-steam Systems	1/1/54	MECHANICAL
PH180-1/44	Wagga Wagga Hospital - Edward St Wagga Wagga - Isolation Block - Temp.steam Main Layout	1/1/54	MECHANICAL
PH180-1/45	Wagga Wagga Hospital - Edward St Wagga Wagga - New Tb Block & Clinic - Eng.servs Amendment To 1/5860	1/1/54	MECHANICAL
PH180-1/46	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Nurses Home - Exts To Hw Heating Systems	1/1/55	MECHANICAL
PH180-1/47	Wagga Wagga Hospital - Edward St Wagga Wagga - Main Hospital Block - Removal Of Hw Calorifier To New Position	1/1/55	MECHANICAL
PH180-1/48	Wagga Wagga Hospital - Edward St Wagga Wagga - New Tb Block - Amended Position Of Steam Main	1/1/55	MECHANICAL
PH180-1/49	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Qrts (Quarters) - Diagram Layout-domestic Hw Service	1/1/60	MECHANICAL
PH180-1/50	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Qrts (Quarters) - Diagram Layout-hw Heating Service	1/1/60	MECHANICAL
PH180-1/51	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Qrts (Quarters) - Domestic Hw Hw Heating Services Ground Floor	1/1/60	MECHANICAL
PH180-1/52	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Qrts (Quarters) - Domestic Hw-hw Heating Services-1st Floor & Roof	1/1/60	MECHANICAL
PH180-1/53	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Qrts (Quarters) - Domestic Hw Hw Heating Services 2nd Floor	1/1/60	MECHANICAL
PH180-1/54	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Qrts (Quarters) - Calorifier rm Layout	1/1/60	MECHANICAL
PH180-1/55	Wagga Wagga Hospital - Edward St Wagga Wagga - Old Nurses Home - Hw Heating System	1/1/60	MECHANICAL
PH180-1/56	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Eng.services-ground Floor Plan	1/1/60	MECHANICAL
PH180-1/57	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Eng.services 1st & 2nd Floor Plan	1/1/60	MECHANICAL
PH180-1/58	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Eng.services 3rd & 4th Floor Plan	1/1/60	MECHANICAL
PH180-1/59	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Site Plan & Building Section	1/1/60	MECHANICAL
PH180-1/60	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Block - Steam & Hw Service Ground & 1st Floor Plans	1/1/60	MECHANICAL
PH180-1/61	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Basement & Calorifier rm Plans	1/1/60	MECHANICAL
PH180-1/62	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Training School - Steam-hw System-heating Systems	1/1/60	MECHANICAL
PH180-1/63	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Training School - Heating Heater	1/01/1000	MECHANICAL
PH180-1/64	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Eng.services 5th & 6th Floor Plans	1/1/60	MECHANICAL
PH180-1/65	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Eng.services 7th & 8th Floor Plans	1/1/60	MECHANICAL
PH180-1/66	Wagga Wagga Hospital - Edward St Wagga Wagga - Site Plan Steam Retic.	1/1/76	MECHANICAL
PH180-1/67	Wagga Wagga Hospital - Edward St Wagga Wagga - Piping Diagram. Steam Retic.	1/1/76	MECHANICAL
PH180-1/68	Wagga Wagga Hospital - Edward St Wagga Wagga - Trench Details-steam Retic.	1/1/76	MECHANICAL

Record Number	Record Title	Date Created	Plan Type
PH180-1/69	Wagga Wagga Hospital - Edward St Wagga Wagga - Trench Details-steam Retic.	1/1/76	MECHANICAL
PH180-1/70	Wagga Wagga Hospital - Edward St Wagga Wagga - Ward Block - Plant rm & Drainage Details	1/1/76	MECHANICAL
PH180-1/70A	Wagga Wagga Hospital - Edward St Wagga Wagga - Ward Block - Plant rm & Drainage Details Amended	1/1/76	MECHANICAL
PH180-1/71	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Training School 1 & 2 - Plant rm Details-trench Reinf.dets	1/1/76	MECHANICAL
PH180-1/72	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Home - Plant rm Details Schedules	1/1/76	MECHANICAL
PH180-1/73	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt To Accident Emergency X Ray - Medical Gases Layout Plan	1/1/84	MECHANICAL
PH180-1/74	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt To Accident Emergency X Ray - Medical Gases Sections	1/1/84	MECHANICAL
PH180-1/75	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt To Accident Emergency X Ray - Medical Gases Mod.of Suction & Med.air Comp.plant	1/1/84	MECHANICAL
PH180-1/76	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt To Accident Emergency X Ray - Medical Gases Elect.wall Outlet Panels	1/1/84	MECHANICAL
PH180-1/77	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt To Accident Emergency X Ray - Medical Gases Alarm Indicator Details	1/1/84	MECHANICAL
PH180-1/78	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt To Accident Emergency X Ray - Medical Gases Alt To Compressor Controls	1/1/84	MECHANICAL
PH180-2/2	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler Stack & Connecting Flue	1/1/65	MECHANICAL
PH180-2/3	Wagga Wagga Hospital - Edward St Wagga Wagga - Shackle Detail For Guy Rope	1/1/65	MECHANICAL
PH180-2/4	Wagga Wagga Hospital - Edward St Wagga Wagga - Installation Of High Pressure Steam Raising Plant	1/1/38	MECHANICAL
PH180-2/5	Wagga Wagga Hospital - Edward St Wagga Wagga - Arrang.of Auxiliary Steam Pump Injector Suction Delivery Piping	1/1/38	MECHANICAL
PH180-2/6	Wagga Wagga Hospital - Edward St Wagga Wagga - Steel Flue Connection Between Boiler & Brick Stack	1/1/38	MECHANICAL
PH180-2/7	Wagga Wagga Hospital - Edward St Wagga Wagga - Ladders & Gratings	1/1/38	MECHANICAL
PH180-2/8	Wagga Wagga Hospital - Edward St Wagga Wagga - Installation Of Add.boiler & Flue Ladders Gratings	1/1/40	MECHANICAL
PH180-2/9	Wagga Wagga Hospital - Edward St Wagga Wagga - Installation Of Add.boiler Steam Auxiliary Piping Det.of Service Interconnection	1/1/40	MECHANICAL
PH180-2/10	Wagga Wagga Hospital - Edward St Wagga Wagga - Details For Raising Boiler Drum 18 inch	1/1/54	MECHANICAL
PH180-2/11	Wagga Wagga Hospital - Edward St Wagga Wagga - Piping Diagram.& Piping Plan	1/1/74	MECHANICAL
PH180-2/11A	Wagga Wagga Hospital - Edward St Wagga Wagga - Piping Diagram.& Piping Plan Amended	1/1/74	MECHANICAL
PH180-2/12	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House - Layout Plan & Sections	1/1/74	MECHANICAL
PH180-2/13	Wagga Wagga Hospital - Edward St Wagga Wagga - Stacks & Blowdown Pit Details	1/1/74	MECHANICAL
PH180-2/14	Wagga Wagga Hospital - Edward St Wagga Wagga - Hotwell Details & Vent.systems	1/1/74	MECHANICAL
PH180-2/15	Wagga Wagga Hospital - Edward St Wagga Wagga - Schedules & Tank Details	1/1/74	MECHANICAL
PH180-3/1	Wagga Wagga Hospital - Edward St Wagga Wagga - Kitchen Vent.	1/1/64	MECHANICAL
PH180-3/2	Wagga Wagga Hospital - Edward St Wagga Wagga - Operating rm Vent.	1/1/28	MECHANICAL
PH180-3/3	Wagga Wagga Hospital - Edward St Wagga Wagga - Kitchen Exhaust System	1/1/40	MECHANICAL
PH180-3/5	Wagga Wagga Hospital - Edward St Wagga Wagga - Operating Theatres - Air Cond.plant Layout	1/1/45	MECHANICAL
PH180-3/6	Wagga Wagga Hospital - Edward St Wagga Wagga - Ground & 5th Floors-air Cond.& Vent.systems	1/1/45	MECHANICAL
PH180-3/7	Wagga Wagga Hospital - Edward St Wagga Wagga - 6th Floor Air Cond.& Vent.systems	1/1/60	MECHANICAL
PH180-3/8	Wagga Wagga Hospital - Edward St Wagga Wagga - Layout Of Air Cond. & Vent.plant rm 7th Floor	1/1/60	MECHANICAL
PH180-3/9	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Building Requirements	1/1/60	MECHANICAL
PH180-3/10	Wagga Wagga Hospital - Edward St Wagga Wagga - Cover Sheet & Title Sheet	1/1/85	MECHANICAL
PH180-3/11	Wagga Wagga Hospital - Edward St Wagga Wagga - A/c Of Accident-emergency-x Ray Sections-legend	1/1/85	MECHANICAL
PH180-3/12	Wagga Wagga Hospital - Edward St Wagga Wagga - A/c Duct Layout-accident & Emergency Sections	1/1/85	MECHANICAL
PH180-3/13	Wagga Wagga Hospital - Edward St Wagga Wagga - A/c Duct Layout X Ray & Pharmacy Sections	1/1/85	MECHANICAL
PH180-3/14	Wagga Wagga Hospital - Edward St Wagga Wagga - A/c Plantrm Layout	1/1/85	MECHANICAL
PH180-3/15	Wagga Wagga Hospital - Edward St Wagga Wagga - A/c Of Accident Emergency X Ray Sects Piping Layout & Diagram.	1/1/85	MECHANICAL
PH180-3/16	Wagga Wagga Hospital - Edward St Wagga Wagga - A/c Of Accident Emergency X Ray Sects Power & Control Diagrams	1/1/85	MECHANICAL
PH180-3/17	Wagga Wagga Hospital - Edward St Wagga Wagga - Medical Records A/c & Linen rm Toilet Exhaust	1/1/85	MECHANICAL
PH180-3/18	Wagga Wagga Hospital - Edward St Wagga Wagga - A/c Of Accident Emergency X Ray Sects Equip.schedules	1/1/85	MECHANICAL
PH180-4/1	Wagga Wagga Hospital - Edward St Wagga Wagga - 22 X 36 Dressing Sterilizers-main Op.sterilizing rm	1/1/38	MECHANICAL
PH180-4/2	Wagga Wagga Hospital - Edward St Wagga Wagga - Sucker & Blower Unit For 2 Theatres	1/1/38	MECHANICAL
PH180-4/3	Wagga Wagga Hospital - Edward St Wagga Wagga - 100 Gallon Water Sterilizers	1/1/45	MECHANICAL
PH180-4/4	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Sucker & Blower System Single Pipe System	1/1/52	MECHANICAL
PH180-4/5	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Sterile Water Tanks Diagram.layout Sterile Water	1/1/52	MECHANICAL
PH180-4/6	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Sucker & Blower System-5th & 6th Floors	1/1/60	MECHANICAL
PH180-4/7	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Electronic Water Sterilizer-service Rms	1/1/60	MECHANICAL
PH180-4/8	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - 6th Floor-sterilizing rm & Sterile Store Arrang.	1/1/60	MECHANICAL
PH180-4/9	Wagga Wagga Hospital - Edward St Wagga Wagga - Location Of Ultrasonic Cleaner	1/1/71	MECHANICAL
PH180-5/1	Wagga Wagga Hospital - Edward St Wagga Wagga - Plan Showing Position Of Washing Machines & Hydro.extractor	1/1/40	MECHANICAL
PH180-5/2	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry Alts - Floor Plan	1/1/45	MECHANICAL
PH180-5/3	Wagga Wagga Hospital - Edward St Wagga Wagga - Layout Of Laundry Machinery	1/1/49	MECHANICAL
PH180-5/4	Wagga Wagga Hospital - Edward St Wagga Wagga - Installation Of Twin Garment Press	1/1/52	MECHANICAL
PH180-5/5	Wagga Wagga Hospital - Edward St Wagga Wagga - Plan Of Laundry Equipment & Pipework	1/1/75	MECHANICAL
PH180-5/6	Wagga Wagga Hospital - Edward St Wagga Wagga - Amenities & W/shop - Piping Diagram.& Plan	1/1/75	MECHANICAL
PH180-5/7	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry - Piping Diagram.	1/1/75	MECHANICAL
PH180-5/8	Wagga Wagga Hospital - Edward St Wagga Wagga - Cooling & Vent.systems Plans & Sections	1/1/75	MECHANICAL
PH180-5/9	Wagga Wagga Hospital - Edward St Wagga Wagga - Schedules	1/1/75	MECHANICAL
PH180-5/10	Wagga Wagga Hospital - Edward St Wagga Wagga - Layout Of Steam Easy Finisher Cabinet	1/1/75	MECHANICAL
PH180-5/11	Wagga Wagga Hospital - Edward St Wagga Wagga - Layout Of Steam/air Form Finisher	1/1/75	MECHANICAL
PH180-5/12	Wagga Wagga Hospital - Edward St Wagga Wagga - Layout Of 45kg Tumbler	1/1/75	MECHANICAL

Record Number	Record Title	Date Created	Plan Type
PH180-5/13	Wagga Wagga Hospital - Edward St Wagga Wagga - Prop.soiled Linen Sorting & Storage	1/1/88	MECHANICAL
PH180-6/1	Wagga Wagga Hospital - Edward St Wagga Wagga - Kitchen 12 Foot Hot Press Plan Elevation Section	1/1/40	MECHANICAL
PH180-6/2	Wagga Wagga Hospital - Edward St Wagga Wagga - Kitchen Layout Of Equip. Heat Storage Unit	1/1/40	MECHANICAL
PH180-7/1	Wagga Wagga Hospital - Edward St Wagga Wagga - Kitchen Block - Cool Rm-milk & Butter Cabinets	1/1/40	MECHANICAL
PH180-11/1	Wagga Wagga Hospital - Edward St Wagga Wagga - 2 Hosptial Passenger Lifts Layout	1/01/1000	TRANSPORT
PH180-13/1	Wagga Wagga Hospital - Edward St Wagga Wagga - Electrical Retic - site Plan	1/1/63	ELECTRICAL
PH180-13/2	Wagga Wagga Hospital - Edward St Wagga Wagga - Electrical Retic -s/bds	1/1/63	ELECTRICAL
PH180-13/3	Wagga Wagga Hospital - Edward St Wagga Wagga - Temp.isolation & Temp.nurses Qrts (Quarters) - Electrical Services	1/1/47	ELECTRICAL
PH180-13/4	Wagga Wagga Hospital - Edward St Wagga Wagga - Temp.isolation & Temp.nurses Qrts (Quarters) - Schedules	1/1/47	ELECTRICAL
PH180-13/5	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home - Ground Floor Electrical Services	1/1/59	ELECTRICAL
PH180-13/6	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home - First Floor	1/1/59	ELECTRICAL
PH180-13/7	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home - Second Floor	1/1/59	ELECTRICAL
PH180-13/8	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home - Basement Foundation Plan	1/1/59	ELECTRICAL
PH180-13/9	Wagga Wagga Hospital - Edward St Wagga Wagga - T.b.ward & Exts To Nurses Home - Floor & Foundation Plans / Ground & First Floor Plans	1/1/54	ELECTRICAL
PH180-13/10	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home - Revised Plan Electrical Services	1/1/59	ELECTRICAL
PH180-13/11	Wagga Wagga Hospital - Edward St Wagga Wagga - New Ward Block-nurses Training School - Basement	1/1/60	ELECTRICAL
PH180-13/12	Wagga Wagga Hospital - Edward St Wagga Wagga - New Ward Block - Ground & Part First Floor	1/1/60	ELECTRICAL
PH180-13/13	Wagga Wagga Hospital - Edward St Wagga Wagga - New Ward Block - First & Second Floors	1/1/60	ELECTRICAL
PH180-13/14	Wagga Wagga Hospital - Edward St Wagga Wagga - New Ward Block - Third & Fourth Floors	1/1/60	ELECTRICAL
PH180-13/15	Wagga Wagga Hospital - Edward St Wagga Wagga - New Ward Block - Fifth & Sixth Floors	1/1/60	ELECTRICAL
PH180-13/16	Wagga Wagga Hospital - Edward St Wagga Wagga - Seventh & Eighth Floors	1/1/60	ELECTRICAL
PH180-13/17	Wagga Wagga Hospital - Edward St Wagga Wagga - Site Plan Main S/bds Sld Details	1/1/60	ELECTRICAL
PH180-13/19	Wagga Wagga Hospital - Edward St Wagga Wagga - Electrical Retic.	1/1/60	ELECTRICAL
PH180-13/20	Wagga Wagga Hospital - Edward St Wagga Wagga - Ground & 1st Floor Elect.servs Amended For Drw 21 See No.2	1/1/61	ELECTRICAL
PH180-13/22	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House - Electrical Services	1/1/70	ELECTRICAL
PH180-13/23	Wagga Wagga Hospital - Edward St Wagga Wagga - X Ray Equip.rm 2	1/1/71	ELECTRICAL
PH180-13/24	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House - Electrical Services	1/1/73	ELECTRICAL
PH180-13/25	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 1 Boiler House Laundry W/shop - Single Line Diagram Electrical Retic.	1/1/75	ELECTRICAL
PH180-13/26	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 1 Boiler House Laundry W/shop - Submain Layouts Site Plan	1/1/75	ELECTRICAL
PH180-13/27	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 1 Boiler House-laundry-w/shops - Lighting Layouts	1/1/75	ELECTRICAL
PH180-13/28	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 1 Boiler House Laundry W/shop - Power Point Layout Clock Telephone	1/1/75	ELECTRICAL
PH180-13/29	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 1 Boiler House-laundry-w/shop - Thermal Fire Detector Layout	1/1/75	ELECTRICAL
PH180-13/30	Wagga Wagga Hospital - Edward St Wagga Wagga - Site Plan & Single Line Diagram	1/1/76	ELECTRICAL
PH180-13/31	Wagga Wagga Hospital - Edward St Wagga Wagga - Prop.upgrading Electrical Retic.	1/1/79	ELECTRICAL
PH180-13/32	Wagga Wagga Hospital - Edward St Wagga Wagga - New Submains & Dist/bds	1/1/80	ELECTRICAL
PH180-13/33	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Bld - Symbols Sheet	1/1/84	ELECTRICAL
PH180-13/34	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Bld - Site Plan & Electrical Retic.	1/1/84	ELECTRICAL
PH180-13/35	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Bld - Single Line Diagram	1/1/84	ELECTRICAL
PH180-13/36	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Bld - Lighting Layout North	1/1/84	ELECTRICAL
PH180-13/37	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Bld - Lighting Layout South	1/1/84	ELECTRICAL
PH180-13/38	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Bld - Power & Mis.services North	1/1/84	ELECTRICAL
PH180-13/39	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Bld - Power & Mis.services South	1/1/84	ELECTRICAL
PH180-13/40	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Adds To Main Bld - Light & Power In Other Areas Nurses Call System Dets	1/1/84	ELECTRICAL
PH180-13/41	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts & Addsss To Main Bld - Details Sheet	1/1/84	ELECTRICAL
PH180-14/1	Wagga Wagga Hospital - Edward St Wagga Wagga - Main Block - Fire Safety Alts	1/01/1000	HYDRAULIC
PH180-16/1	Wagga Wagga Hospital - Edward St Wagga Wagga - Existing Main Block - Tanks In Roof & 'y' Details	1/1/53	MECHANICAL
PH180-16/2	Wagga Wagga Hospital - Edward St Wagga Wagga - Existing Main Block - Heating Hw Steam Systems	1/1/53	MECHANICAL
PH180-16/3	Wagga Wagga Hospital - Edward St Wagga Wagga - Existing Main Block - Steam Sytsem Diagram.layout	1/1/53	MECHANICAL
PH180-16/4	Wagga Wagga Hospital - Edward St Wagga Wagga - Existing Main Block - Hw System Diagram.layout	1/1/53	MECHANICAL
PH180-16/5	Wagga Wagga Hospital - Edward St Wagga Wagga - Existing Main Block - Heating System Diagram.layout	1/1/53	MECHANICAL
PH180-16/6	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Diagram - hws - balance Cw	1/1/60	MECHANICAL
PH180-16/7	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Diagram.hws-1st & 6th Floors	1/1/60	MECHANICAL
PH180-16/8	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Diagram.hws Ground Floor	1/1/60	MECHANICAL
PH180-16/9	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Digram.heating 1st 6th Floors	1/1/60	MECHANICAL
PH180-16/10	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Diagram.steam System	1/1/60	MECHANICAL
PH180-16/11	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Diagram.steam System & Hw System	1/1/60	MECHANICAL
PH180-16/12	Wagga Wagga Hospital - Edward St Wagga Wagga - New Block - Diagram.sucker & Blower	1/1/60	MECHANICAL
PH180-16/13	Wagga Wagga Hospital - Edward St Wagga Wagga - Steam & Condensate Services	1/1/40	MECHANICAL
PH180-16/14	Wagga Wagga Hospital - Edward St Wagga Wagga - New Steam Service & Alts To Exist.steam Service	1/1/40	MECHANICAL
PH180-16/15	Wagga Wagga Hospital - Edward St Wagga Wagga - Diagram.of Boiler rm	1/1/34	MECHANICAL
PH180-16/16	Wagga Wagga Hospital - Edward St Wagga Wagga - Amended Steam Services (to Be Read In Conj.w/ 562)	1/1/71	MECHANICAL
PH180/1	Wagga Wagga Hospital - Edward St Wagga Wagga - Ground Plan	1/1/06	ARCHITECTURAL
PH180/5	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) Adds - Ground & Roof Plans Elevations Sections & Details	1/1/23	ARCHITECTURAL
PH180/6	Wagga Wagga Hospital - Edward St Wagga Wagga - Childrens Ward - Plans-elevations-details	1/1/21	ARCHITECTURAL

Record Number	Record Title	Date Created	Plan Type
PH180/10	Wagga Wagga Hospital - Edward St Wagga Wagga - Main Block - First Floor Plan	1/1/24	ARCHITECTURAL
PH180/17	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) - Ground Floor Plan	1/1/34	ARCHITECTURAL
PH180/18	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) - First Floor Plan	1/1/34	ARCHITECTURAL
PH180/19	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) - Sections	1/1/34	ARCHITECTURAL
PH180/20	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) - Elevations	1/1/34	ARCHITECTURAL
PH180/21	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) - Structural Details	1/1/34	STRUCTURAL
PH180/23	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) - Chrminey Stack To Laundry	1/1/34	ARCHITECTURAL
PH180/24	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) Adds - Ground Floor Plan & East Elevation	1/1/35	ARCHITECTURAL
PH180/25	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) Adds - First Floor Plan North & South Elevations	1/1/35	ARCHITECTURAL
PH180/26	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) Adds - Part Block Plan Elevations	1/1/35	ARCHITECTURAL
PH180/27	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) - Extra On Contract 263/34	1/1/35	ARCHITECTURAL
PH180/28	Wagga Wagga Hospital - Edward St Wagga Wagga - Pahtology Block & Morgue - Plans	1/1/36	ARCHITECTURAL
PH180/29	Wagga Wagga Hospital - Edward St Wagga Wagga - Main Block-altS - Floor Plan Verandah Elevations	1/1/36	ARCHITECTURAL
PH180/30	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) Conv To Paying Unit - Floor Plan Elevations & Sections	1/1/36	ARCHITECTURAL
PH180/32	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Block - Floor Plans Elevations Sections	1/1/36	ARCHITECTURAL
PH180/33	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Block - Structural Details	1/1/36	STRUCTURAL
PH180/34	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House & Chimney Stack - Block & Floor Plans Elevations & Sections	1/1/37	ARCHITECTURAL
PH180/35	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House & Chimney Stack - Electric Light Plan	1/1/37	ARCHITECTURAL
PH180/36	Wagga Wagga Hospital - Edward St Wagga Wagga - Block Plan	1/1/38	ARCHITECTURAL
PH180/37	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry Kitchen Dom.Qrts (Quarters) - Floor Plans & Elevations	1/1/40	ARCHITECTURAL
PH180/38	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry Kitchen Dom.Qrts (Quarters) - Floor Plans & Sections	1/1/40	ARCHITECTURAL
PH180/39	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry Kitchen Dom.Qrts (Quarters) - Floor Plans Structural Details	1/1/40	STRUCTURAL
PH180/40	Wagga Wagga Hospital - Edward St Wagga Wagga - Extra On Contract 252/40	1/1/40	ARCHITECTURAL
PH180/41	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Block-adds - Plans	1/1/44	ARCHITECTURAL
PH180/42	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Block-adds - Elevations & Sections	1/1/44	ARCHITECTURAL
PH180/43	Wagga Wagga Hospital - Edward St Wagga Wagga - Bulk Store Rc Details	1/1/43	STRUCTURAL
PH180/44	Wagga Wagga Hospital - Edward St Wagga Wagga - Bulk Store Floor Plans	1/1/43	ARCHITECTURAL
PH180/45	Wagga Wagga Hospital - Edward St Wagga Wagga - Refractory Ward - Plans & Details	1/1/43	ARCHITECTURAL
PH180/47	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Ward - Vary On Contract 53/44 Floor Plan & Details	1/1/45	ARCHITECTURAL
PH180/48	Wagga Wagga Hospital - Edward St Wagga Wagga - Admin Op Dept & Rmo's Qrts (Quarters) - Plans	1/1/45	ARCHITECTURAL
PH180/49	Wagga Wagga Hospital - Edward St Wagga Wagga - Air Conditioning rm	1/1/45	ARCHITECTURAL
PH180/50	Wagga Wagga Hospital - Edward St Wagga Wagga - Bed Passenger Lift Plans & Sections	1/1/46	ARCHITECTURAL
PH180/51	Wagga Wagga Hospital - Edward St Wagga Wagga - Bed Passenger Lift Floor Slab	1/1/46	STRUCTURAL
PH180/53	Wagga Wagga Hospital - Edward St Wagga Wagga - Isolation Block - Plans Sections Elevations	1/1/47	ARCHITECTURAL
PH180/54	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) -future Dom.Qrts (Quarters) - Plans & Elevations	1/1/47	ARCHITECTURAL
PH180/55	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) Future Dom.Qrts (Quarters) - Plans & Details	1/1/47	ARCHITECTURAL
PH180/56	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) -future Dom.Qrts (Quarters) - Foundations & Stairs	1/1/47	STRUCTURAL
PH180/57	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) -future Dom.Qrts (Quarters) - Ground Floor Details	1/1/47	STRUCTURAL
PH180/58	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) Future Dom.Qrts (Quarters) - First Floor Details	1/1/47	STRUCTURAL
PH180/60	Wagga Wagga Hospital - Edward St Wagga Wagga - Tb Block & Nurses Home - Plans & Foundations	1/1/53	ARCHITECTURAL
PH180/61	Wagga Wagga Hospital - Edward St Wagga Wagga - T.b.block & Nurses Home - Plans Amended	1/1/53	ARCHITECTURAL
PH180/62	Wagga Wagga Hospital - Edward St Wagga Wagga - T.b.block & Nurses Home - Elevations & Sections	1/1/53	ARCHITECTURAL
PH180/63	Wagga Wagga Hospital - Edward St Wagga Wagga - T.b.block & Nurses Home - Plans & Elevations	1/1/53	ARCHITECTURAL
PH180/64	Wagga Wagga Hospital - Edward St Wagga Wagga - T.b.block & Nurses Home - Plans & Details	1/1/53	ARCHITECTURAL
PH180/65	Wagga Wagga Hospital - Edward St Wagga Wagga - T.b.block & Nurses Home - Block Plan & Details	1/1/53	ARCHITECTURAL
PH180/66	Wagga Wagga Hospital - Edward St Wagga Wagga - T.b.block & Nurses Home - Floor & Foundation Plans	1/1/53	STRUCTURAL
PH180/67	Wagga Wagga Hospital - Edward St Wagga Wagga - T.b.block & Nurses Home - Floor Slab Plans Stair Details	1/1/53	STRUCTURAL
PH180/68	Wagga Wagga Hospital - Edward St Wagga Wagga - X Ray rm Alts Floor Plan Elevations Sections & Details	1/1/55	ARCHITECTURAL
PH180/70	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Basement & Foundations	1/1/53	ARCHITECTURAL
PH180/71	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Ground Floor Plan	1/1/53	ARCHITECTURAL
PH180/72	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - First Floor Plan	1/1/53	ARCHITECTURAL
PH180/73	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Second Floor Plan	1/1/53	ARCHITECTURAL
PH180/74	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - 3rd & 4th Floor Plan	1/1/53	ARCHITECTURAL
PH180/75	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - 5th & 6th Floor Plan	1/1/53	ARCHITECTURAL
PH180/76	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - 7th & 8th Floor Plan	1/1/53	ARCHITECTURAL
PH180/77	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Sections	1/1/53	ARCHITECTURAL
PH180/78	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Elevations	1/1/53	ARCHITECTURAL
PH180/79	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Elevations	1/1/53	ARCHITECTURAL
PH180/80	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Elevations	1/1/53	ARCHITECTURAL
PH180/81	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Elevations	1/1/53	ARCHITECTURAL
PH180/82	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses Home - Foundations	1/1/53	STRUCTURAL
PH180/83	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses Home - Ground Floor Plan	1/1/53	ARCHITECTURAL
PH180/84	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses Home - First Floor Plan	1/1/53	ARCHITECTURAL
PH180/85	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses Home - Second Floor Plan	1/1/53	ARCHITECTURAL



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PH180/86	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses Home - Sections	1/1/53	ARCHITECTURAL
PH180/87	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses Home - Elevations	1/1/53	ARCHITECTURAL
PH180/88	Wagga Wagga Hospital - Edward St Wagga Wagga - Conv Of Paying Unit To Isolation Block - Floor Plan	1/1/53	ARCHITECTURAL
PH180/89	Wagga Wagga Hospital - Edward St Wagga Wagga - Incinerator & Car Wash Plan Elevation & Details	1/1/53	ARCHITECTURAL
PH180/90	Wagga Wagga Hospital - Edward St Wagga Wagga - Structural Steelwork-setout Plan & Notes	1/1/53	STRUCTURAL
PH180/91	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Structural Steelwork-ground To Fifth Floors	1/1/57	STRUCTURAL
PH180/92	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Structural Steelwork Sixth Floor & Superstructure	1/1/57	STRUCTURAL
PH180/93	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Structural Details Column Schedule & Dets	1/1/57	STRUCTURAL
PH180/94	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Dets Foundations	1/1/57	STRUCTURAL
PH180/95	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Dets Foundations	1/1/52	STRUCTURAL
PH180/96	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Dets Ground Floor	1/1/52	STRUCTURAL
PH180/97	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Details Ground Floor Beams	1/1/52	STRUCTURAL
PH180/98	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Dets-ground Floor Beams	1/1/52	STRUCTURAL
PH180/99	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Details Ground Floor Beams	1/1/52	STRUCTURAL
PH180/100	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Details-ground Floor Beams	1/1/52	STRUCTURAL
PH180/101	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Details First Floor Plan	1/1/52	STRUCTURAL
PH180/102	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Details 2nd & 3rd Floor Plan	1/1/52	STRUCTURAL
PH180/103	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Details 4th & 5th Floor Plan	1/1/52	STRUCTURAL
PH180/104	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Details 6th Floor	1/1/52	STRUCTURAL
PH180/105	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Details-main Roof & Superstructure	1/1/52	STRUCTURAL
PH180/106	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 - Reinf.concrete Details Stair Details	1/1/57	STRUCTURAL
PH180/107	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses - Structural Details Foundation	1/1/52	STRUCTURAL
PH180/108	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses Home - Structural Details Ground Floor	1/1/52	STRUCTURAL
PH180/109	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses Home - Structural Details First Floor	1/1/53	STRUCTURAL
PH180/110	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 3 Nurses Home - Structural Details-second Floor	1/1/53	STRUCTURAL
PH180/111	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 - Block Plan & Ground Improvements	1/1/52	ARCHITECTURAL
PH180/112	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 - Ground Floor Plan Elevations Sections	1/1/52	ARCHITECTURAL
PH180/113	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 - Ground Floor Plan Elevations Sections	1/1/52	ARCHITECTURAL
PH180/114	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 - First Floor Plan Elevations Sections	1/1/52	ARCHITECTURAL
PH180/115	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 - First Floor Plan-elevations-sections	1/1/52	ARCHITECTURAL
PH180/116	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Kitchen - Plans Elevations Sections	1/1/52	ARCHITECTURAL
PH180/117	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Laundry - Plans-elevations-sections	1/1/52	ARCHITECTURAL
PH180/118	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Car Shelter & W/shop - Plans & Details	1/1/52	ARCHITECTURAL
PH180/119	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Main Block - Ground & First Floor Plans	1/1/52	STRUCTURAL
PH180/120	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Main Block - Ground & First Floor Plans Foundation Plan	1/1/52	STRUCTURAL
PH180/121	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Main Block - Foundation Plan & Details	1/1/52	STRUCTURAL
PH180/122	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Kitchen - Reinf. Concrete Details Foundation Plan	1/1/52	STRUCTURAL
PH180/123	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Kitchen - Truss Details	1/1/52	STRUCTURAL
PH180/124	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Laundry - Foundation & Ceiling Level Plans	1/1/52	STRUCTURAL
PH180/125	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 2 Car Shelter & W/shop - Structural Details	1/1/52	STRUCTURAL
PH180/126	Wagga Wagga Hospital - Edward St Wagga Wagga - Amendments To Contract 69/52	1/1/52	ARCHITECTURAL
PH180/127	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home Revised - Site & Ground Improvements	1/1/59	ARCHITECTURAL
PH180/128	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home Revised - Foundation Plan	1/1/59	STRUCTURAL
PH180/129	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home Revised - Ground Floor Plan	1/1/59	ARCHITECTURAL
PH180/130	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home Revised - First Floor Plan	1/1/59	ARCHITECTURAL
PH180/131	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home Revised - Second Floor Plan	1/1/59	ARCHITECTURAL
PH180/132	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home Revised - Sections	1/1/59	ARCHITECTURAL
PH180/133	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home Revised - Elevations	1/1/59	ARCHITECTURAL
PH180/134	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home Revised - Structural Details	1/1/59	STRUCTURAL
PH180/135	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - Site Plan	1/1/60	ARCHITECTURAL
PH180/136	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - Basement & Foundation	1/1/60	ARCHITECTURAL
PH180/137	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - Ground Floor Plan	1/1/60	ARCHITECTURAL
PH180/137A	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Block - Ground Floor Plan	1/1/60	ARCHITECTURAL
PH180/138	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - First Floor Plan	1/1/60	STRUCTURAL
PH180/138A	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Block - First Floor Plan	1/1/60	ARCHITECTURAL
PH180/139	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - Second Floor Plan	1/1/60	ARCHITECTURAL
PH180/139A	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Block - Second Floor Plan	1/1/60	ARCHITECTURAL
PH180/140A	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Block - Third & Fourth Floor Plans	1/1/60	ARCHITECTURAL
PH180/141	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - 5th & 6th Floor Plan	1/1/60	ARCHITECTURAL
PH180/141A	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Block - Fifth & Sixth Floor Plans	1/1/60	ARCHITECTURAL
PH180/142	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - 7th & 8th Floor Plan	1/1/60	ARCHITECTURAL
PH180/142A	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Block - Seventh & Eighth Floor Plans	1/1/60	ARCHITECTURAL
PH180/143	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - Sections	1/1/60	ARCHITECTURAL
PH180/144	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - North Elevations	1/1/60	ARCHITECTURAL

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PH180/144A	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Block - North Elevations	1/1/60	ARCHITECTURAL
PH180/145	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - South Elevations	1/1/60	ARCHITECTURAL
PH180/145A	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Block - South Elevations	1/1/60	ARCHITECTURAL
PH180/147	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - West Elevations	1/1/60	ARCHITECTURAL
PH180/148	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - Detail Section & Stairs	1/1/60	ARCHITECTURAL
PH180/149	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - Detail Of Main Entrance	1/1/60	ARCHITECTURAL
PH180/150	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Nursing Training School - Floor Plans Elevations	1/1/60	STRUCTURAL
PH180/152	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Structural Steelwork	1/1/60	STRUCTURAL
PH180/153	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Structural Foundations	1/1/60	STRUCTURAL
PH180/154	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Structural Ground Floor	1/1/60	STRUCTURAL
PH180/155	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital-main Block - Structural First Floor	1/1/60	STRUCTURAL
PH180/156	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Structural 2nd 3rd 4th Floors	1/1/60	STRUCTURAL
PH180/157	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Structural 5th & 6th Floors	1/1/60	STRUCTURAL
PH180/158	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Structural Main Roof	1/1/60	STRUCTURAL
PH180/159	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital-main Block - Structural Machine rm	1/1/60	STRUCTURAL
PH180/160	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Structural Column Schedule	1/1/60	STRUCTURAL
PH180/161	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Structural Rc Ground Floor	1/1/60	STRUCTURAL
PH180/162	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Rc Ground Floor	1/1/60	STRUCTURAL
PH180/163	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Rc Ground Floor	1/1/60	STRUCTURAL
PH180/164	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital-main Block - Rc First Floor	1/1/60	STRUCTURAL
PH180/165	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Rc 2nd 3rd 4th Floors	1/1/60	STRUCTURAL
PH180/166	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital-main Block - Rc 5th & 6th Floors	1/1/60	STRUCTURAL
PH180/167	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Rc Main Roof & Motor rm	1/1/60	STRUCTURAL
PH180/168	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Rc Machine rm & Motor rm	1/1/60	STRUCTURAL
PH180/169	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Rc Stairs	1/1/60	STRUCTURAL
PH180/170	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Main Block - Structural Details	1/1/60	STRUCTURAL
PH180/171	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Nurses Training School - Structural Details	1/1/60	STRUCTURAL
PH180/172	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Nurses Home - Amended Roof Plan	1/1/60	STRUCTURAL
PH180/174	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - Lift Well Layout Amendments	1/1/60	ARCHITECTURAL
PH180/175	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital - Ground & First Floors Amendments	1/1/60	ARCHITECTURAL
PH180/175A	Wagga Wagga Hospital - Edward St Wagga Wagga - New Hospital Blocks - Ground & First Floor Plan Amended	1/1/60	ARCHITECTURAL
PH180/176	Wagga Wagga Hospital - Edward St Wagga Wagga - Prf Nurses Home - Site & Floor Plans	1/1/60	ARCHITECTURAL
PH180/177	Wagga Wagga Hospital - Edward St Wagga Wagga - Casualty & Outpatients - Plans	1/1/58	ARCHITECTURAL
PH180/178	Wagga Wagga Hospital - Edward St Wagga Wagga - Obstetrical 5th Floor Plan	1/1/58	ARCHITECTURAL
PH180/180	Wagga Wagga Hospital - Edward St Wagga Wagga - 4th Floor Obstetrical	1/1/58	ARCHITECTURAL
PH180/181	Wagga Wagga Hospital - Edward St Wagga Wagga - Utility rm Layout	1/1/60	ARCHITECTURAL
PH180/182	Wagga Wagga Hospital - Edward St Wagga Wagga - Sterile Store Fittings	1/1/60	ARCHITECTURAL
PH180/183	Wagga Wagga Hospital - Edward St Wagga Wagga - X Ray & Dark rm Fittings	1/1/61	ARCHITECTURAL
PH180/184	Wagga Wagga Hospital - Edward St Wagga Wagga - Utility rm Layout	1/1/60	ARCHITECTURAL
PH180/185	Wagga Wagga Hospital - Edward St Wagga Wagga - Structural Details-cov.way Rear Entrance	1/01/1000	STRUCTURAL
PH180/186	Wagga Wagga Hospital - Edward St Wagga Wagga - Ground Floor-minor Alts To Dark rm	1/1/71	ARCHITECTURAL
PH180/187	Wagga Wagga Hospital - Edward St Wagga Wagga - Ground Floor Minor Alts To Dark rm	1/1/71	ARCHITECTURAL
PH180/188	Wagga Wagga Hospital - Edward St Wagga Wagga - Ground Floor Minor Alts To X Ray rm 2	1/1/72	ARCHITECTURAL
PH180/189	Wagga Wagga Hospital - Edward St Wagga Wagga - Old Main Block - Ground & First Floor Plan	1/1/74	ARCHITECTURAL
PH180/190	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Title Sheet	1/1/75	ARCHITECTURAL
PH180/191	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Location Plan	1/1/75	ARCHITECTURAL
PH180/193	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Floor Plans	1/1/75	ARCHITECTURAL
PH180/195	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Elevations Sections	1/1/75	ARCHITECTURAL
PH180/196	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Elevations Sections	1/1/75	ARCHITECTURAL
PH180/197	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Elevations-sections	1/1/75	ARCHITECTURAL
PH180/198	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Linen Handling Dock	1/1/75	ARCHITECTURAL
PH180/199	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops Amenities Block - Plan Elevations	1/1/75	ARCHITECTURAL
PH180/200	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Sections	1/1/75	ARCHITECTURAL
PH180/201	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Sections A7/03 & Details	1/1/75	ARCHITECTURAL
PH180/202	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Section A9/12	1/1/75	ARCHITECTURAL
PH180/203	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Section A10/03 & Details	1/1/75	ARCHITECTURAL
PH180/204	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Details	1/1/75	ARCHITECTURAL
PH180/205	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Door Details	1/1/75	ARCHITECTURAL
PH180/206	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Window Schedule	1/1/75	ARCHITECTURAL
PH180/207	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Window Details	1/1/75	ARCHITECTURAL
PH180/208	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Window Details	1/1/75	ARCHITECTURAL
PH180/209	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Site Plan & Legend Hydraulic Services	1/1/75	HYDRAULIC
PH180/210	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Ground Level Hydraulic Services	1/1/75	HYDRAULIC
PH180/211	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops-amenities - Details-hydraulic Services	1/1/75	HYDRAULIC

Record Number	Record Title	Date Created	Plan Type
PH180/212	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Footing Layout & Details	1/1/75	STRUCTURAL
PH180/213	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Ground Floor Plan & Details	1/1/75	STRUCTURAL
PH180/214	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Roof Layouts	1/1/75	STRUCTURAL
PH180/215	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Concrete Details	1/1/75	STRUCTURAL
PH180/216	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House - Elevation & Steel Details	1/1/75	STRUCTURAL
PH180/217	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Steel Details Sheet 1	1/1/75	STRUCTURAL
PH180/218	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Steel Details Sheet 2	1/1/75	STRUCTURAL
PH180/219	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Boiler Stack & Steel Stair Details	1/1/75	STRUCTURAL
PH180/220	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Pit Sections	1/1/75	STRUCTURAL
PH180/221	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Linen Handling Dock Precast Concrete Detail	1/1/75	STRUCTURAL
PH180/222	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House-laundry-w/shops - Roadworks	1/1/75	ARCHITECTURAL
PH180/223	Wagga Wagga Hospital - Edward St Wagga Wagga - Boiler House Laundry W/shops - Roadwork Details	1/1/75	ARCHITECTURAL
PH180/224	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 1 Redesign Linen Dock - Plans Elevations Sections Details	1/01/1000	ARCHITECTURAL
PH180/225	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry-boiler House-w/shops - Hydraulic Services	1/1/78	HYDRAULIC
PH180/226	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Title Sheet	1/1/86	ARCHITECTURAL
PH180/227	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ground Floor Level Measured Drw	1/1/86	ARCHITECTURAL
PH180/228	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Site Plan	1/1/86	ARCHITECTURAL
PH180/230	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ground Floor Plan	1/1/86	ARCHITECTURAL
PH180/231	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - First Floor Plan & Roof Plan	1/1/86	ARCHITECTURAL
PH180/232	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Building - Plan Of Floors 2 3 4 5 6 7	1/1/86	ARCHITECTURAL
PH180/233	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - East Elevation	1/1/86	ARCHITECTURAL
PH180/234	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - South Elevation	1/1/86	ARCHITECTURAL
PH180/235	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - West Elevation	1/1/86	ARCHITECTURAL
PH180/236	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Section Aa	1/1/86	ARCHITECTURAL
PH180/237	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Elevations & Sections	1/1/86	ARCHITECTURAL
PH180/238	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Detail Sections	1/1/86	ARCHITECTURAL
PH180/239	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Detail Sections	1/1/86	ARCHITECTURAL
PH180/240	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Fire Stair No.1 Detail	1/1/86	ARCHITECTURAL
PH180/241	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Entrance Canopy	1/1/86	ARCHITECTURAL
PH180/242	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ambulance Canopy & Walkway Detail	1/1/86	ARCHITECTURAL
PH180/243	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ceiling Plan	1/1/86	ARCHITECTURAL
PH180/244	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ceiling Plan	1/1/86	ARCHITECTURAL
PH180/245	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Windows & Doors	1/1/86	ARCHITECTURAL
PH180/246	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Window Details	1/1/86	ARCHITECTURAL
PH180/247	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Metal Louvres	1/1/86	ARCHITECTURAL
PH180/248	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Fittings Layout	1/1/86	ARCHITECTURAL
PH180/249	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Fittings Layout	1/1/86	ARCHITECTURAL
PH180/250	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Joinery Details	1/1/86	ARCHITECTURAL
PH180/251	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Joinery Details	1/1/86	ARCHITECTURAL
PH180/252	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Detail Wall Finishes	1/1/86	ARCHITECTURAL
PH180/253	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Dtails	1/1/86	ARCHITECTURAL
PH180/254	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Detail Sects-fittings-ceiling Medical Records	1/1/86	ARCHITECTURAL
PH180/255	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Detail Sections At Walkways	1/1/86	ARCHITECTURAL
PH180/256	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Landscape Plan 1	1/1/86	LANDSCAPE
PH180/257	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Landscape Plan 2	1/1/86	LANDSCAPE
PH180/258	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Landscape Plan 3	1/1/86	LANDSCAPE
PH180/259	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Hydraulic Services Part Site Plan	1/1/86	HYDRAULIC
PH180/260	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Hydraulic Servs-ground Floor Plan-plant Rm-sewer-s/water-subsoil-drain.layouts	1/1/86	HYDRAULIC
PH180/261	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Hydraulic Servs-ground Floor Plan-plant Rm-h & C Water-fire Hydrant Serv.	1/1/86	HYDRAULIC
PH180/262	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Hydraulic Servs-ground Floor Plan-plant Rm-exist.conditions	1/1/86	HYDRAULIC
PH180/263	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Foundation Plan & Details	1/1/86	STRUCTURAL
PH180/264	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Basement Details Column & Footing	1/1/86	STRUCTURAL
PH180/265	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ground Floor Plan & Sections	1/1/86	STRUCTURAL
PH180/266	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ground Floor Sections	1/1/86	STRUCTURAL
PH180/267	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ground Floor Beam Elevations Sheet 1	1/1/86	STRUCTURAL
PH180/268	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ground Floor Beam Elevations Sheet 2	1/1/86	STRUCTURAL
PH180/269	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Upper Floor Slabs & Sections	1/1/86	STRUCTURAL
PH180/270	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Upper Floor Beam Elevations	1/1/86	STRUCTURAL
PH180/271	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Fire Stair 1 Concrete Details	1/1/86	STRUCTURAL
PH180/272	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Fire Stair 1 & Mis.details	1/1/86	STRUCTURAL
PH180/273	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Steel Framing Plan & Elevations	1/1/86	STRUCTURAL
PH180/274	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Roof Framing Steel Details Sheet 1	1/1/86	STRUCTURAL
PH180/275	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Ambulance Canopy Steel Details Sheet 2	1/1/86	STRUCTURAL
PH180/276	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Add To Main Bld - Walkway Frames Steel Details Sheet 3	1/1/86	STRUCTURAL

Record Number	Record Title	Date Created	Plan Type
PH180/277	Wagga Wagga Hospital - Edward St Wagga Wagga - Electricity Sub Station Floor Plan Elevs Sects Dets Location & Drainage Plan	1/01/1000	ARCHITECTURAL
PH180/278	Wagga Wagga Hospital - Edward St Wagga Wagga - Site Plan	1/01/1000	ARCHITECTURAL
PH180/279	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts To Exist.main Bld - Plan Showing Position Of Wastes	1/01/1000	ARCHITECTURAL
PH180/280	Wagga Wagga Hospital - Edward St Wagga Wagga - Main Bld - Outline Plan	1/01/1000	ARCHITECTURAL
PH180/281	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt To Exist.verandah - Ground & First Floor Plans Elevations	1/01/1000	ARCHITECTURAL
PH180/282	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt To Exist.verandah - Ground & First Floor Plans Sections	1/1/62	ARCHITECTURAL
PH180/283	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt To Exist.verandah - Ground & First Floor Plans Elevations	1/1/62	ARCHITECTURAL
PH180/284	Wagga Wagga Hospital - Edward St Wagga Wagga - Psychiatric Unit - Floor Plan	1/1/67	ARCHITECTURAL
PH180/285	Wagga Wagga Hospital - Edward St Wagga Wagga - Matrons Fire Place	1/01/1000	ARCHITECTURAL
PH180/286	Wagga Wagga Hospital - Edward St Wagga Wagga - Prop.kiosk - Site Plan	1/01/1000	ARCHITECTURAL
PH180/287	Wagga Wagga Hospital - Edward St Wagga Wagga - Prop.kiosk - Plan & Elevation	1/01/1000	ARCHITECTURAL
PH180/288	Wagga Wagga Hospital - Edward St Wagga Wagga - Vehicular Crossing To Access Rd	1/1/62	ARCHITECTURAL
PH180/289	Wagga Wagga Hospital - Edward St Wagga Wagga - Psychiatric Unit - Electricity Services	1/1/67	ELECTRICAL
PH180/290	Wagga Wagga Hospital - Edward St Wagga Wagga - Psychiatric Unit Adds & Alts - Heating & Domestic Hw	1/01/1000	HYDRAULIC
PH180/291	Wagga Wagga Hospital - Edward St Wagga Wagga - Layout Of Rdway At Main Entrance	1/01/1000	ARCHITECTURAL
PH180/292	Wagga Wagga Hospital - Edward St Wagga Wagga - Plan Showing Sewer Pits Traced From Develop.plan	1/01/1000	ARCHITECTURAL
PH180/293	Wagga Wagga Hospital - Edward St Wagga Wagga - Plan Showing Sewer Pits Traced From Develop.plan	1/01/1000	ARCHITECTURAL
PH180/294	Wagga Wagga Hospital - Edward St Wagga Wagga - Portion Of Exist.bld - Plans	1/01/1000	ARCHITECTURAL
PH180/295	Wagga Wagga Hospital - Edward St Wagga Wagga - Cov.way To Rear Entrance	1/1/65	ARCHITECTURAL
PH180/296	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt Of Maternity Wing To Psychiatric Unit - Details	1/01/1000	ARCHITECTURAL
PH180/297	Wagga Wagga Hospital - Edward St Wagga Wagga - Site & Services Plan	1/01/1000	ARCHITECTURAL
PH180/298	Wagga Wagga Hospital - Edward St Wagga Wagga - Matrons Suite - Door Details	1/01/1000	ARCHITECTURAL
PH180/299	Wagga Wagga Hospital - Edward St Wagga Wagga - Theatre Bld-alts - Part Plans	1/01/1000	ARCHITECTURAL
PH180/300	Wagga Wagga Hospital - Edward St Wagga Wagga - W/shop Paint Shop Store rm Plant rm - Site & Floor Plans Elevation Section	1/01/1000	ARCHITECTURAL
PH180/301	Wagga Wagga Hospital - Edward St Wagga Wagga - Temp.isolation Block & Nurses Home - Sewerage & S.water Drains Plan	1/01/1000	HYDRAULIC
PH180/302	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Qrts (Quarters) - Sewer Lines Plan	1/01/1000	HYDRAULIC
PH180/303	Wagga Wagga Hospital - Edward St Wagga Wagga - Cov.way To Rear Entrance - Details	1/01/1000	ARCHITECTURAL
PH180/304	Wagga Wagga Hospital - Edward St Wagga Wagga - Boilers - Foundation Slabs	1/01/1000	STRUCTURAL
PH180/305	Wagga Wagga Hospital - Edward St Wagga Wagga - Exts To Store - Plan & Elevations	1/1/67	ARCHITECTURAL
PH180/306	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 1-alts To Exist.mortuary - Plan	1/01/1000	ARCHITECTURAL
PH180/307	Wagga Wagga Hospital - Edward St Wagga Wagga - Cov.way To Rear Entrance - Structural Details	1/1/67	STRUCTURAL
PH180/308	Wagga Wagga Hospital - Edward St Wagga Wagga - Pssychiatric Unit - Sketch Indicating Variations To Original Contrcat	1/1/68	ARCHITECTURAL
PH180/309	Wagga Wagga Hospital - Edward St Wagga Wagga - Psychiatric Unit - Servery C/bds Amended Layout	1/1/68	ARCHITECTURAL
PH180/310	Wagga Wagga Hospital - Edward St Wagga Wagga - Main Entrance - Detail	1/1/68	ARCHITECTURAL
PH180/311	Wagga Wagga Hospital - Edward St Wagga Wagga - Theatre Suite - 6th Floor Floor Areas To Be Sheeted W/anti Static Vinyl	1/01/1000	ARCHITECTURAL
PH180/312	Wagga Wagga Hospital - Edward St Wagga Wagga - Maternity Section - 5th Floor-floor Areas To Be Sheeted W/anti Static Vinyl	1/01/1000	ARCHITECTURAL
PH180/313	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home - Fire Escape Plan Elevation Side Elevation	1/01/1000	ARCHITECTURAL
PH180/314	Wagga Wagga Hospital - Edward St Wagga Wagga - Laundry Block - Plan	1/01/1000	ARCHITECTURAL
PH180/315	Wagga Wagga Hospital - Edward St Wagga Wagga - Ambulance Entrance To Casualty Section - Plan Elevation Section	1/1/71	ARCHITECTURAL
PH180/316	Wagga Wagga Hospital - Edward St Wagga Wagga - Nurses Home - Sketch Of Prop.method Of Escape From Fire At 1st Floor Level	1/1/73	ARCHITECTURAL
PH180/317	Wagga Wagga Hospital - Edward St Wagga Wagga - Sisters Home - Fire Escape Layout Plan Sects Platform Dets	1/1/74	ARCHITECTURAL
PH180/318	Wagga Wagga Hospital - Edward St Wagga Wagga - Lewis House-nurses Qrts (Quarters) - Day Rms-ground & Second Floor Layouts	1/1/76	ARCHITECTURAL
PH180/319	Wagga Wagga Hospital - Edward St Wagga Wagga - Lewis House-nurses Qrts (Quarters) - Day Rms-ground & Second Floor Plans-sects	1/01/1000	ARCHITECTURAL
PH180/320	Wagga Wagga Hospital - Edward St Wagga Wagga - Lewis House Nurses Qrts (Quarters) - External Drainage Plan	1/1/77	ARCHITECTURAL
PH180/321	Wagga Wagga Hospital - Edward St Wagga Wagga - Lewis House Nurses Qrts (Quarters) - Drainage & Paving Plan & Details	1/1/77	ARCHITECTURAL
PH180/322	Wagga Wagga Hospital - Edward St Wagga Wagga - Exts To Store - Floor Plan-elevs-sects-site Plan	1/1/83	ARCHITECTURAL
PH180/323	Wagga Wagga Hospital - Edward St Wagga Wagga - Fire Protection Site Plan Stair 1 Doors Location Plan	1/1/83	ARCHITECTURAL
PH180/324	Wagga Wagga Hospital - Edward St Wagga Wagga - Fire Protection Site Plan Stair 1 Doors Location Plan	1/1/83	ARCHITECTURAL
PH180/325	Wagga Wagga Hospital - Edward St Wagga Wagga - Fire Protection Site Plan Stair 1 Doors Location Plan	1/1/83	ARCHITECTURAL
PH180/326	Wagga Wagga Hospital - Edward St Wagga Wagga - Fire Protection-site Plan-stair 1-doors-location Plan & Details	1/1/83	ARCHITECTURAL
PH180/327	Wagga Wagga Hospital - Edward St Wagga Wagga - Fire Protection Site Plan Stair 1 Doors Details	1/1/83	ARCHITECTURAL
PH180/328	Wagga Wagga Hospital - Edward St Wagga Wagga - Plan Showing Position Of Sewerage Lines & Pits	1/01/1000	HYDRAULIC
PH180/329	Wagga Wagga Hospital - Edward St Wagga Wagga - Hospital Block - Plan & Section Aa	1/01/1000	ARCHITECTURAL
PH180/330	Wagga Wagga Hospital - Edward St Wagga Wagga - Alts To Water Service	1/01/1000	HYDRAULIC
PH180/331	Wagga Wagga Hospital - Edward St Wagga Wagga - Electricity Sub Station Floor Plan Elevs Section Aa	1/01/1000	ARCHITECTURAL
PH180/332	Wagga Wagga Hospital - Edward St Wagga Wagga - Stage 1 Laundry - Floor Slab Amended Joining	1/1/76	STRUCTURAL
PH180/333	Wagga Wagga Hospital - Edward St Wagga Wagga - stage 1 Laundry - Floor Slab Amended Joining Superseded Drw C/3710/r	1/1/76	STRUCTURAL
PH180/334	Wagga Wagga Hospital - Edward St Wagga Wagga - Alt & Exts Robinson House Occupational Therapy Ext/laundry - Plans & Elevs/plan	1/1/79	ARCHITECTURAL
PH180/335	Wagga Wagga Hospital - Edward St Wagga Wagga - Exts To Occupational Therapy & Ironing rm - Plans-elevs-section Aa-dets-elect.layouts	1/01/1000	ARCHITECTURAL
PH180/336	Wagga Wagga Hospital - Edward St Wagga Wagga - Replacement Of Roof Tiles	1/1/82	ARCHITECTURAL
PH180/337	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Home - Block Plan Ground Improvements	1/1/53	ARCHITECTURAL
PH180/338	Wagga Wagga Hospital - Edward St Wagga Wagga - New Nurses Home - Foundation Plan	1/1/53	STRUCTURAL
PH180/339	Wagga Wagga Hospital - Edward St Wagga Wagga - Ultrasonic Ethoscope Room - Floor Plan & Sections	1/1/78	ARCHITECTURAL
24388	Wagga Wagga Hospital - Edward St Wagga Wagga - General Arrangement	1/1/07	HYDRAULIC

<b>Record Number</b>	<b>Record Title</b>	<b>Date Created</b>	<b>Plan Type</b>
24389	Wagga Wagga Hospital - Edward St Wagga Wagga - Miscellaneous Details	1/1/07	HYDRAULIC
56678	Wagga Wagga Hospital - Edward St Wagga Wagga - Roadway Details	1/1/62	ARCHITECTURAL



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**9.0 APPENDIX 3**

**Heritage Inventory Sheets**

Wagga Wagga Base Hospital, *State Heritage Inventory Database No.: 3540663*.

Wagga Wagga Base Hospital, *Wagga Wagga Urban Heritage Study 2002*.

Central Area North of the Railway Line (to Edward Street), *Wagga Wagga Urban Heritage Study Inventory, 2002*.


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## Wagga Wagga Base Hospital

### Item

**Name of Item:** Wagga Wagga Base Hospital  
**Type of Item:** Built  
**Primary Address:** Edward Street, Wagga Wagga, NSW 2650  
**Local Govt. Area:** Wagga Wagga

#### Property Description:

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
-	-	-	-	-

#### All Addresses

Street Address	Suburb/Town	LGA	Parish	County	Type
Edward Street	Wagga Wagga	Wagga Wagga	SOUTH WAGGA WAGGA	WYNYARD	Primary

### Owner/s

Organisation Name	Owner Category	Date Ownership Updated
NSW Department of Health	State Government	20 Jul 05

### Statement of Significance

Of historical significance.

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

**Current Use:** Hospital

**Former Use:** Hospital


### History

**Historical Notes:** The first hospital was started in the 1850s, which was then a small house in Kincaid Street. A hospital was erected on the corner of Johnson and Tarcutta Streets in the 1860s. The new district hospital was erected in 1910.

### Historic Themes

Australian Theme (abbrev)	New South Wales Theme	Local Theme
3. Economy - Developing local, regional and national economies	Health - Activities associated with preparing and providing medical assistance and/or promoting or maintaining the well being of humans	(none) -

**Assessment Criteria**

Items are assessed against the  **State Heritage Register (SHR) Criteria** to determine the level of significance. Refer to the Listings below for the level of statutory protection.

**Recommended Management**

As per Preliminary Heritage and Conservation Register. Subject to further investigation.

**Listings**

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
<i>Heritage Act - s.170 NSW State agency heritage register</i>	Dep. Of Health s.170 Register				

**References, Internet links & Images**

Type	Author	Year	Title	Internet Links
Written	Schwager Brooks & Partners Pty Ltd		Study	

Note: Internet links may be to web pages, documents or images.

**Data Source**

The information for this entry comes from the following source:

**Name:** State Government Agency

**Database Number:** 3540663

Every effort has been made to ensure that information contained in the State Heritage Inventory is correct. If you find any errors or omissions please send your comments to the [Database Manager](#).

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# Wagga Wagga Urban Heritage Study 2002

Name: Wagga Wagga Base Hospital  
Address: Edward Street  
Suburb: Wagga Wagga

Reference No: UHS45

## Other Names

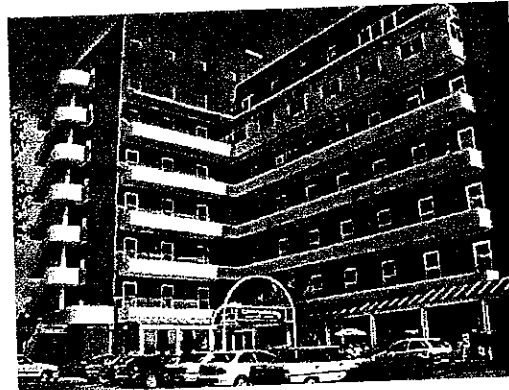
## Related Places:

Site Type: Health

## Property Details:



The 1910 hospital building



The 1960s hospital building

## Historical Background

Wagga Wagga's first hospital opened in a small slab cottage with a bark roof on the sandhill in Kincaid Street on 1 July 1856. A new hospital was erected at the corner of Tarcutta Street and Little Gurwood Street in the early 1860s. The first building of the current hospital was officially opened on 7 September 1910. It had been erected by Charles Hardy and Company. It had a large ward on the bottom floor with accommodation for sixteen male patients and a similar ward on the top floor for sixteen female patients. A new wing, with a children's ward on the upper floor, was added in 1922. It became a Base Hospital to serve the town of Wagga Wagga and the shires of Coolamon, Kyeamba, Lockhart and Mitchell [with an estimated population of 35,000] in May 1937. New nurses quarters had been constructed on the Albury Road [later Bourke Street] and the old nurses' home was converted into private and intermediate wards. In 1938 a maternity ward was built with the assistance of funds raised by the CWA. Later additions included a new kitchen and domestic block [1942], a new administration block [1946], Lewis House nurses' quarters [1953], Gissing House Tuberculosis Unit [1955] and another new nurses' home in 1961. The multi-storey block opened in 1963. When regional hospitals were developed in NSW in 1965 the Wagga Wagga Base Hospital became the major referral hospital in the Riverina Region with responsibility for forty-five hospitals. A new children's ward was constructed in 1967 and Robinson House converted into a Psychiatric Unit for the south west slopes and Riverina region in 1969. In another radical shake-up in the rural health system, the Hume, Murrumbidgee, Murray and Riverina health services were amalgamated to form the Greater Murray Area Health Service. A new adult males and children's wing was added to the Wagga Wagga District Hospital in 1922 and new nurses' quarters in 1925. In 1936 there was another Nurses Home, with the old home remodelled to a general private section and named Rawson House. A ten bed maternity section was built in 1937 and added to 1945 [then offering 28 beds]. The administration block was remodelled in 1947 and nurses' quarters, Lewis House, was built in 1953. Despite these additions, a shortage of up to 250 beds had been identified by about 1943. About one third of patients [49] were housed on an open verandah with a gauze screen and a canvas blind, in all seasons, while other patients were placed on stretchers in the centre of wards.

Tenders were called for a new, seven-storey hospital in January 1960. The hospital was to be built on the site of the old isolation block and would contain 250 beds. The foundation stone was laid on 25 March 1961 and the Wagga Wagga Base Hospital was opened by Mr Wal Fife on 2 February 1963.

A number of smaller private hospitals and maternity homes were also established, including St Elmo in Morrow Street [now The Manor Restaurant] in the 1890s; Welwyn established by Doctors Martin and Weedon in 1923 [later used as offices by Department of Main Roads but demolished in the 1980s]; Nurse Scott in Thorne Street; Nurse Myra May ['Wimpy'] Daley in Gurwood Street; Sisters Amy Rosina Richardson and Mary Theresa Hogan at The Hoberne Hospital at 46 The Esplanade; Nurses Longmore [Kincaid Street]; Nurse Jago [Peter Street]; Nurse Trotter [Morgan Street]; and Mabel Dickens ['Rossmoyne', Kincaid Street].

# Wagga Wagga Urban Heritage Study 2002

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**Name:** Wagga Wagga Base Hospital  
**Address:** Edward Street  
**Suburb:** Wagga Wagga

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**Reference No:** UHS45

**Description:**

The Wagga Wagga Base Hospital comprises two main sections. The 1910 section is two storey with a terracotta tiled hipped roof. Most of the original architectural detailing of the building has been obscured by enclosures and modifications, and the original entrance has been extended.

The seven-storey 1960s hospital building is in the International style, of face brick with a flat roof; rendered and white painted balconies and stairwells provide a strong visual element.

**Statement of Significance:**

This site has been associated with the provision of health care in Wagga Wagga since 1910 and continues to fulfil that function. The c1960 hospital building is a representative and relatively intact example of the International style of architecture. Local significance.

**Sources of information:**

R. A. Lewis, 'A Half Century of Medical Practice in Wagga Wagga' in the Journal of the Wagga Wagga and District Historical Society, Number 5, 1982, p.39; and Wagga Wagga Municipal Council, Ratebooks, 1923-1925.

**Recommendations:**

It is recommended that the Wagga Wagga Base Hospital [c1960 building] be included within the Wagga Wagga DCP 1986

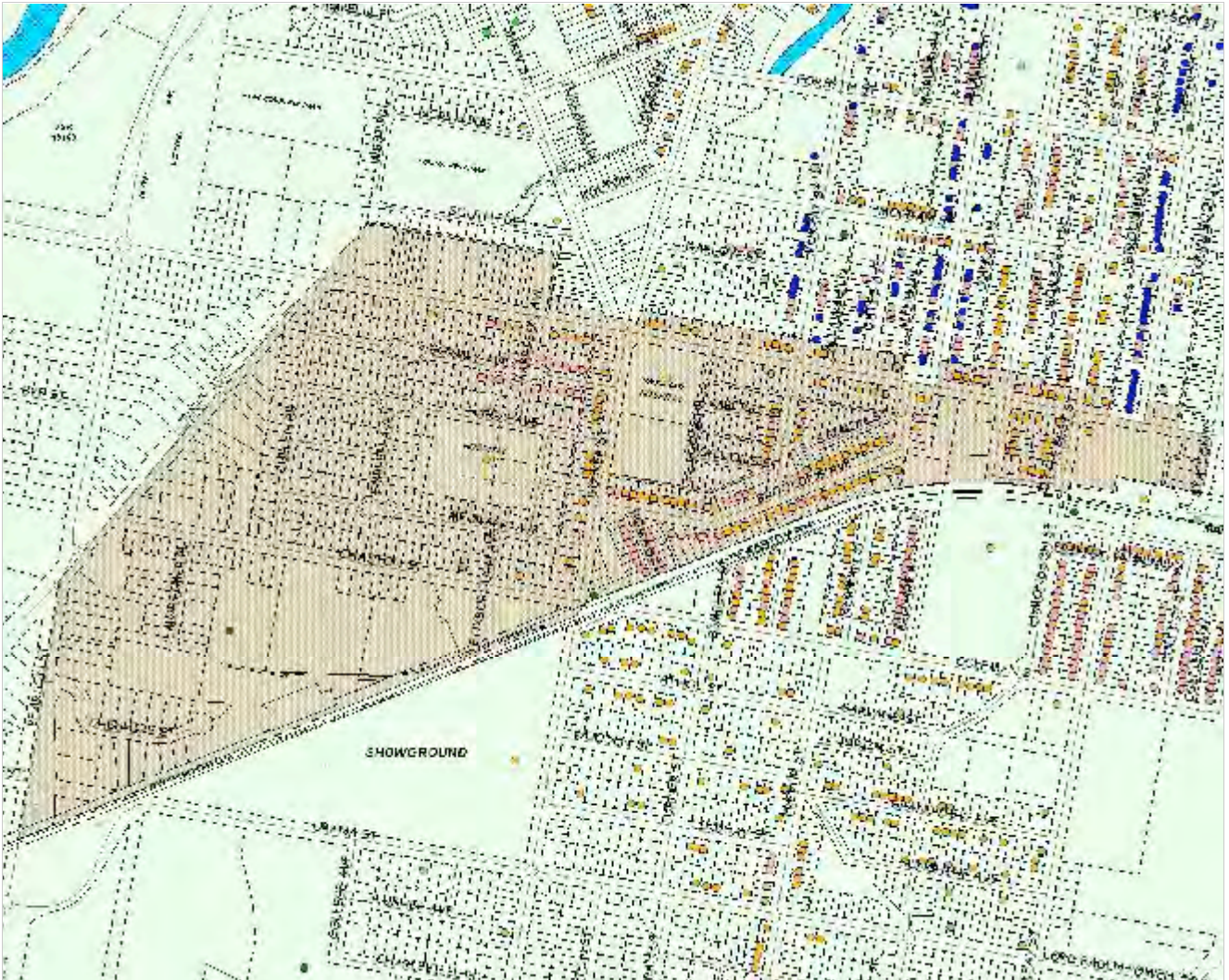




WAGGA WAGGA CITY COUNCIL  
URBAN HERITAGE STUDY  
INVENTORY

CENTRAL AREA NORTH OF THE RAILWAY LINE [TO EDWARD STREET]

CENTRAL AREA NORTH OF THE RAILWAY LINE [TO EDWARD STREET]



Map showing the Central Area north of the railway line [including Edward Street] shaded.  
Wagga Wagga City Council map

### HISTORICAL BACKGROUND

*The first residence located in this area was Foxborough Hall, built by wealthy Wagga hotelier Thomas Fox in 1857 and named after his wife's parent's home in Ireland. Foxborough Hall incorporated flower gardens, a small vineyard, a brick kitchen, servants' quarters, men's huts, brick stables, a coach house etc. Fox died in 1859 and the property changed hands several times until it was bought by James Gormly on 8 July 1882. The house was rebuilt in 1893 after a fire in about 1887. During the 1920s, the property and 20 acres of land was purchased by the Roman Catholic 'Blue Sisters' for conversion into a private hospital called St Joseph's, a branch of the Lewisham Hospital of Sydney. The Gormly and Hardy families owned land around the former Foxborough Hall, which they subdivided during the 1920s. The area was then referred to as Lewisham. The Gormlys subdivided their land around 1920. James Gormly [died 1922] is reputed to have planted all of the Kurrajong trees in the Gormly Avenue area. The tree stock came from his mother's home and in one year he spent £37 on water for the trees. Robert Joseph Ernest Gormly advertised building lots*



WAGGA WAGGA CITY COUNCIL  
URBAN HERITAGE STUDY  
INVENTORY

CENTRAL AREA NORTH OF THE RAILWAY LINE [TO EDWARD STREET]

*facing Edward Street from £2/2 per foot in the Daily Advertiser of 25 July 1923, with potential purchasers being exhorted to '... buy where the floods will never reach you'.*

*The Daily Advertiser of 13 October 1927 reported that a new 'garden suburb' was being developed on the old Foxborough subdivision by Hardys Ltd. The name of this area was to be Akarana, decided after a competition which attracted over 70 entries, the winner being Mrs Jean Stinson of Peter Street. About 40 cottages were planned. It was planned to include a recreation ground, and central garden plot which will be kept fresh by means of automatic sprinklers. The subdivision was described as an 'excellent scheme for keeping beautiful the outskirts of Wagga'.*

*The area on the other side of Docker Street was subdivided around the same time, in 1925. The Bolton Estate was purchased by the Housing Board and comprised Brookong, Salmon, Yabtree and Yathong Streets. The Mount Erin trustees subdivided an area north of the railway in February 1927, comprising 23 allotments, extending Fox Street and creating Donnelly and Cox Streets [commemorating John Donnelly and Jon Cox, both of whom had been active in the establishment of Mount Erin Convent in 1874. The new Lewisham [Calvary] Hospital was opened and blessed on 30 March 1930. Calvary Hospital [so named in 1954] was controlled by the Order of the Little Company of Mary.*

#### DESCRIPTION

*Central Wagga, south of Edward Street and north of railway line, between Dobney Avenue and Baylis Street.*

#### BROOKONG AVENUE

*Named 1920s for Brookong Station. This street is part of the existing conservation area, and there is a high degree of integrity to the extant development, with it being of similar scale and era and mostly intact.*

*Places which exhibit a high to moderately high degree of intactness and make a strong contribution to the character of Wagga Wagga's inner residential areas include:*

*[\* denotes within existing conservation area]*

- 9 Brookong Avenue \*
- 11 Brookong Avenue \*
- 12A Brookong Avenue \*, 'Stonehenge'  
*Originally built 1872, and later modified in keeping with surrounding development.*
- 13 Brookong Avenue \*
- 15 Brookong Avenue \*
- 17 Brookong Avenue \*
- 19 Brookong Avenue \*
- 21 Brookong Avenue \*
- 22 Brookong Avenue \*
- 25 Brookong Avenue \*
- 27 Brookong Avenue \*
- 28 Brookong Avenue \*
- 29 Brookong Avenue \*





WAGGA WAGGA CITY COUNCIL  
URBAN HERITAGE STUDY  
INVENTORY

CENTRAL AREA NORTH OF THE RAILWAY LINE [TO EDWARD STREET]

□ 30 Brookong Avenue\*



8 Brookong Avenue



9 Brookong Avenue

- 31 Brookong Avenue\*
- 32 Brookong Avenue\*
- 33 Brookong Avenue\*
- 34 Brookong Avenue\*
- 36 Brookong Avenue\*
- 38 Brookong Avenue\*
- 40 Brookong Avenue\*
- 41 Brookong Avenue\*
- 44 Brookong Avenue\*
- 48 Brookong Avenue\*
- 50 Brookong Avenue\*
- 52 Brookong Avenue\*
- 53 Brookong Avenue\*
- 54 Brookong Avenue\*
- 56 Brookong Avenue\*
- 59 Brookong Avenue\*
- 60 Brookong Avenue\*
- 61 Brookong Avenue\*
- 62 Brookong Avenue\*
- 64 Brookong Avenue\*
- 65 Brookong Avenue\*
- 67 Brookong Avenue\*
- 69 Brookong Avenue\*
- 71 Brookong Avenue\*



WAGGA WAGGA CITY COUNCIL  
URBAN HERITAGE STUDY  
INVENTORY

CENTRAL AREA NORTH OF THE RAILWAY LINE [TO EDWARD STREET]

- 73 Brookong Avenue \*
- 75 Brookong Avenue \*
- 77 Brookong Avenue \*
- 79 Brookong Avenue \*



17 Brookong Avenue



23 Brookong Avenue



26 Brookong Avenue [Jill Morrow photograph]



31 Brookong Avenue

*Places which make a positive contribution to the character of Wagga Wagga's inner residential areas include:*

- 7 Brookong Avenue \*
- 8 Brookong Avenue \*
- 23 Brookong Avenue \*
- 24 Brookong Avenue \*
- 35 Brookong Avenue \*
- 37 Brookong Avenue \*
- 42 Brookong Avenue \*
- 43 Brookong Avenue \*
- 45 Brookong Avenue \*



WAGGA WAGGA CITY COUNCIL  
URBAN HERITAGE STUDY  
INVENTORY

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CENTRAL AREA NORTH OF THE RAILWAY LINE [TO EDWARD STREET]

- 46 Brookong Avenue \*
- 47 Brookong Avenue \*
- 49 Brookong Avenue \*
- 55 Brookong Avenue \*
- 57 Brookong Avenue \*
- 66 Brookong Avenue \*





WAGGA WAGGA CITY COUNCIL  
URBAN HERITAGE STUDY  
INVENTORY

CENTRAL AREA NORTH OF THE RAILWAY LINE [TO EDWARD STREET]

- 68 Brookong Avenue\*
- 70 Brookong Avenue\*
- 72 Brookong Avenue\*
- 74 Brookong Avenue\*
- 76 Brookong Avenue\*
- 81 Brookong Avenue\*
- 83 Brookong Avenue\*



33 Brookong Avenue



36 Brookong Avenue



38 Brookong Avenue

**CHASTON STREET**

*Named 1949 for John Henry Chaston, Municipal Engineer with the Council from 1923 to 1947.. previously known as Coleman Street West. Street planting is Plane trees to both sides however planting is irregular, and to the west end it includes some paperbarks. To the east end of the street there is residential to the north side and industrial uses to south side, including Willis Bricks and the former gasworks; to the west end there are commercial/industrial uses to both sides. Housing development is a mix of materials and styles.*

*Places which exhibit a high to moderately high degree of intactness and make a strong contribution to the character of Wagga Wagga's inner residential areas include:*

- 7 Chaston Street