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Lismore Base Hospital Redevelopment Stage 3A Main Building Works

Environmental Impact Statement for a State Significant Development Application Construction of a New Hospital Building and Refurbishment Works

Submitted to the Department of Planning and Infrastructure
On Behalf of NSW Health Infrastructure

JULY 2013

EXECUTIVE SUMMARY

This Environmental Impact Statement ("EIS") relates to proposed development at the Lismore Base Hospital Site in Lismore.

This EIS is submitted to the Minister for Planning and Infrastructure for a State Significant Development ("SSD") Development Application pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* ("EP&A Act") and *State Environmental Planning Policy State and Regional Development 2011* ("SEPP SRD").

The Proponent of this application is NSW Health Infrastructure ("HI").

This EIS relates to Stage 3A of the Lismore Base Hospital redevelopment Masterplan and seeks approval for the construction of a new five (5) level hospital building including a new emergency department, improved facilities for renal services, space for future peri-operative services, plant area and refurbishment works to part of an existing hospital building.

The proposed development has a total Capital Investment Value ("CIV") of \$57,541,508 and is therefore classified as SSD pursuant to Schedule 1 of the SEPP SRD.

A request to issue Director-General's Requirements ("DGRs") for environmental assessment of the Stage 3A redevelopment was sought on the 22 January 2013 and these were issued to NSW Health Infrastructure ("HI") on 26 February 2013.

THE SITE

The Lismore Base Hospital ("LBH") site is located at No. 60 Uralba Street, Lismore.

The LBH site is located in a block that is bound by Uralba Street to the south, Hunter Street to the west, Orion Street to the north and Weaver and Little Uralba Streets to the east.

The LBH site comprises various allotments. The allotments that are the subject of this application are:-

- Lot 1 DP 511444;
- Lot 21 DP 589890;
- Lot 22 DP 589890; and
- Lot 267 DP 755718.

Existing development on the LBH site comprises approximately 32,000m² of clinical and support accommodation within ten (10) buildings over nine (9) levels. Three (3) of these buildings are located within the footprint of the proposed new hospital building, in the south-eastern part of the site. These buildings are known as Building T (pathology), Building J (maternity) and Building H (mortuary). There are also trees located within the footprint of the development site. Separate approval has been granted, following environmental assessment under Part 5 of the EP&A Act for the removal of these trees

and demolition of existing buildings. The development site will therefore be largely cleared for the proposed works.

The hospital has been present on the site the late 1800's and located in what has traditionally been a predominantly residential area. Gradually over time, the surrounding area has experienced a transition from residential uses to an increasing level of health-related uses due to the strong presence of LBH and the University Centre for Rural Health.

PROJECT OBJECTIVE

The overall objective of the proposal is to respond to the most pressing clinical services requirements of LBH, which have been identified within the LBH 2012 Clinical Services Plan.

The proposed new hospital building and refurbishment to existing buildings will result in the provision of a contemporary healthcare facility suited to the current and future needs of the catchment population. Importantly, this proposal strongly aligns with Commonwealth, NSW, and NSW Health strategic objectives for the provision of improved health services to regional, rural and remote communities.

STATUTORY & STRATEGIC PLANNING CONTEXT

The relevant statutory and strategic policy regime and assessment criteria applicable to the development comprise the following:-

- Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth);
- Environmental Planning and Assessment Act 1979;
- Environmental Planning and Assessment Regulation 2000;
- Threatened Species Conservation Act 1995;
- Roads Act 1993;
- NSW State Plan 2010;
- State Environmental Planning Policy (State & Regional Development) 2011
- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy No 33 - Hazardous and Offensive Development
- State Environmental Planning Policy No. 64 - Advertising and Signage
- State Environmental Planning Policy No.55 – Remediation of Land
- Lismore Local Environmental Plan 2012;
- Lismore Development Control Plan 2012;
- Lismore Regional City Plan 2005;
- Lismore Urban Strategy 2005; and
- Lismore Floodplain Management Plan 2002.

An assessment of the proposal against the above legislation and policies is undertaken in **Section 5** of this EIS.

ENVIRONMENTAL IMPACT STATEMENT

The EIS provides an assessment of the environmental impacts of the project in accordance with the Director General's Environmental Assessment Requirements ("DGRs") and sets out the undertakings made by NSW Health Infrastructure to manage and minimise potential impacts arising from the development.

KEY ISSUES

A detailed assessment of the key issues identified in the DGRs and our own identified issues is contained in **Section 6** of this EA.

MITIGATION MEASURES

The EIS identifies appropriate mitigation measures to control the environmental impacts of the proposed development during both the construction and ongoing operation of the facility. The mitigation measures address issues such as traffic, noise, heritage and construction management as well as the management of the hospital and its ancillary components for day to day operations. As part of the environmental impact assessment, specialist technical consultants have been engaged and consulted with to identify the suitable mitigation measures to be implemented to minimise environmental impacts of the proposal. These mitigation measures are set out in **Section 8** of this EIS.

CONCLUSION

The EIS addresses the DGRs issued by the Department of Planning and Infrastructure on 26 February 2013, and demonstrates the environmental impacts of the proposal can be satisfactorily mitigated.

Given the planning merits outlined in the EIS, the proposed development is justified and warrants approval by the Minister for Planning and Infrastructure.

The development results in positive changes to the health services infrastructure for the Northern NSW community with minimal environmental impacts. Accordingly, it is considered that the works to the existing hospital are in the public interest and approval is recommended.

DECLARATION AND CERTIFICATION

I certify that the contents of the Environmental Impact Statement to the best of my knowledge, has been prepared as follows:

- In accordance with *Schedule 2* of the *Environmental Planning and Assessment Regulations 2000*;
- The statement contains all available information that is relevant to the environmental assessment of the proposed development; and
- To the best of my knowledge the information contained in this EIS is neither false nor misleading.

PREPARED BY:



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Note: This document is preliminary unless it is approved by Director of City Plan Strategy and Development Pty Ltd				

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3	Site Surveys	Newton Denny & Chappell
4	Site Analysis Plan	Hassell
5	Phase 1 Environmental Assessment (Contam)	Coffey Geotechnics
6	Geotechnical Investigation Report	Coffey Geotechnics
7	Design Statement	Woods Bagot Architects
8	Architectural Drawings & Materials and Finishes	Woods Bagot Architects
9	Shadow Diagrams	Woods Bagot Architects
10	View Analysis/Photomontages	Woods Bagot Architects
11	Landscape Plans	360°
12	Civil / Stormwater Plans & Report	Taylor Thomson Whitting
13	Integrated Water Management Plan	Donnelley Simpson Cleary
14	Erosion and Sediment Control	Taylor Thomson Whitting
15	ESD Statement	Woods Bagot Architects
16	Acoustic Assessment	AECOM
17	Transport and Accessibility Assessment	Taylor Thomson Whitting
18	Services Statements	Wood & Grieve & DSC
19	Heritage Assessment and Impact Statement	City Plan Heritage
20	Structural Report	Taylor Thomson Whitting
21	Preliminary Construction Waste Management	Aurora Projects
22	Operational Waste Management	NSW Health NNSWLHD
23	Hazardous Materials SEPP 33	AECOM
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12	View looking North along Little Uralba Street (standing further north than the previous photo)

1 INTRODUCTION

1.1 Overview

This Environmental Impact Statement ("EIS") has been prepared for NSW Health Infrastructure (the "Proponent") by City Plan Strategy and Development ("CPSD") in respect of a Development Application ("DA") under Part 4 of the *Environmental Planning and Assessment Act 1979* ("EP&A Act").

This DA relates to the construction of a new hospital building at Lismore Base Hospital, which forms part of Stage 3A of the redevelopment of this site. This DA also relates to refurbishment works at Level 4 of existing Block C.

The proposed development has a Capital Investment Value ("CIV") of \$57,541,508 (refer **Appendix 2**). The development is therefore classified as State Significant Development ("SSD") pursuant to Schedule 1 of the State Environmental Planning Policy State and Regional Development ("SEPP SRD").

A request for the issue of Director General's Environmental Assessment Requirements ("DGRs") was sought by NSW Health Infrastructure by written correspondence on 22 January 2013. The DGRs were issued to NSW Health Infrastructure on February 2013.

This EIS and accompanying appendices forms an application for SSD to the NSW Department of Planning and Infrastructure ("DoPI").

1.2 Phasing of the Project

By way of background, the proposed works form part of Stage 3A of the redevelopment project at Lismore Base Hospital ("LBH"), which is based on a wider Masterplan for the hospital redevelopment. A summary of the staging is as follows:-

- The stage 1 High Dependency Unit was approved in January 2007 by the DoPI; and
- The stage 2 Integrated Cancer Care Centre was approved in October 2008;

Stage 3 (which comprises Stage 3A and Stage 3B) of the redevelopment involves a significant redevelopment of the hospitals' acute services.

1.3 Project Team

The proposal has been designed following detailed design input from the following consultants:-

Discipline	Consultant
Project Manager	Aurora Projects
Architecture	Woods Bagot Architects
Landscape Design	360°

Town Planning	City Plan Strategy and Development
Traffic	Taylor Thomson Whitting
Structural & Civil Engineering	Taylor Thomson Whitting
Ecologically Sustainable Development	Woods Bagot Architects
Mechanical Engineering	AECOM
Hydraulic Engineering / Water Management	Donnelley Simpson Cleary
Electrical Engineering	AECOM
BCA	Blackett Maguire and Goldsmith
Access	Blackett Maguire and Goldsmith
Acoustic Engineering	AECOM
Contamination	Coffey Geotechnics
Geotechnical Engineering	Coffey Geotechnics
Heritage	City Plan Heritage
Aboriginal Heritage & Archaeology	City Plan Heritage
Drainage and Stormwater Management	Taylor Thomson Whitting
Flooding	Taylor Thomson Whitting
Utilities	Wood and Grieve, Taylor Thomson Whitting and Donnelley Simpson Cleary
Noise and Vibration	AECOM
Waste Management	NNSWLHD & Aurora Projects
Hazardous Materials	Noel Arnold & Associates and NNSWLHD
SEPP 33	AECOM
Consultation	NSW Health Infrastructure & Aurora Projects
Cost Analysis	Altus Page Kirkland

1.4 Consultation

This SSD Application and this EIS have been informed by consultation with the local community, Council and other key stakeholders. Details of these consultation processes are outlined in **Section 6.19** of this EIS.

2 SITE ANALYSIS

2.1 Regional Context

Lismore Base Hospital is located within the catchment of the Northern New South Wales Local Health District ("NNSW LHD") which extends from the Clarence Valley in the south to Tweed in the north. The figure below shows the extent of the NNSW LHD.

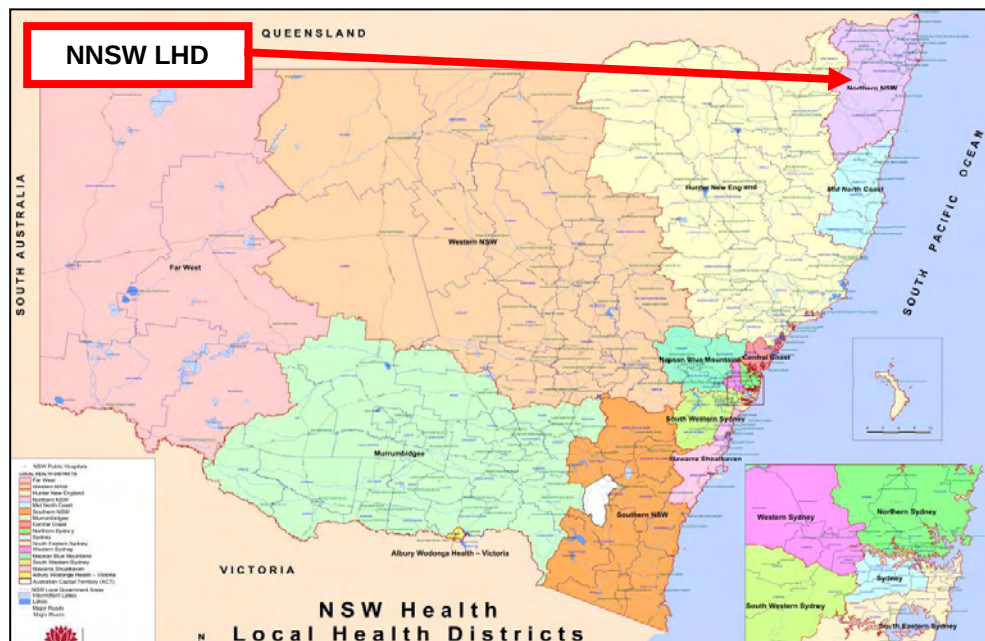


Figure 1 - NSW Health Local Health Districts Map

Source: NSW Health

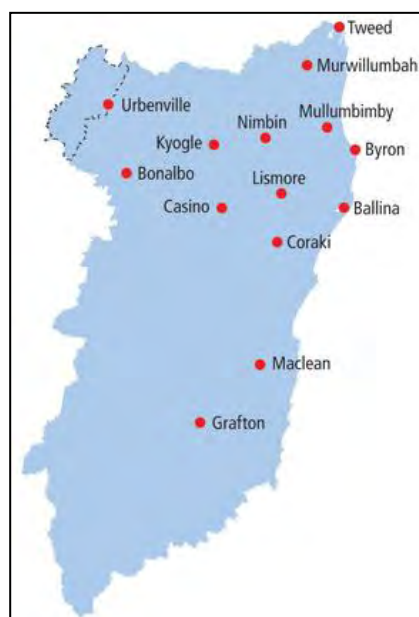


Figure 2 - NSW Health NNSW LHD Map

Source: NSW Health

The NSW LHD comprises two (2) health service groups, being the Byron Tweed group and the Richmond Clarence group. Lismore Base Hospital is located within the Richmond Clarence group and is a major referral hospital in the region.

The high level of specialist services offered by Lismore Base Hospital contributes to its significant role in providing health services on a regional level. Some of these services include:-

- A formalised Retrieval Service
- Specialist Paediatric Medicine
- Critical Care Services
- Specialist emergency and elective surgical services
- Renal Dialysis and Peritoneal Dialysis procedures and training
- Integrated Cancer Care Centre
- Diagnostic Cardiology (with interventional services pending approval)
- Mental Health and Drug and Alcohol Services
- High level Radiology
- Teaching Services

These services are offered to a wide area within the region with patient flows extending from LGAs outside of the Richmond Catchment, including Tenterfield and Byron LGAs.

2.2 Locality

Lismore Base Hospital ("LBH") is located in the town of Lismore and to the east of the Lismore town centre.

The height and location of the hospital means that it is a prominent feature within the surrounding landscape.

The area surrounding the hospital is currently in transition. Traditionally, land surrounding the hospital was predominantly residential. Gradually over time, hospital-related uses have emerged due to the presence of LBH and the University Centre for Rural Health. This has created a more substantial "health" precinct in the locality.

The following diagram shows the location of the existing hospital and the surrounding health-related uses.

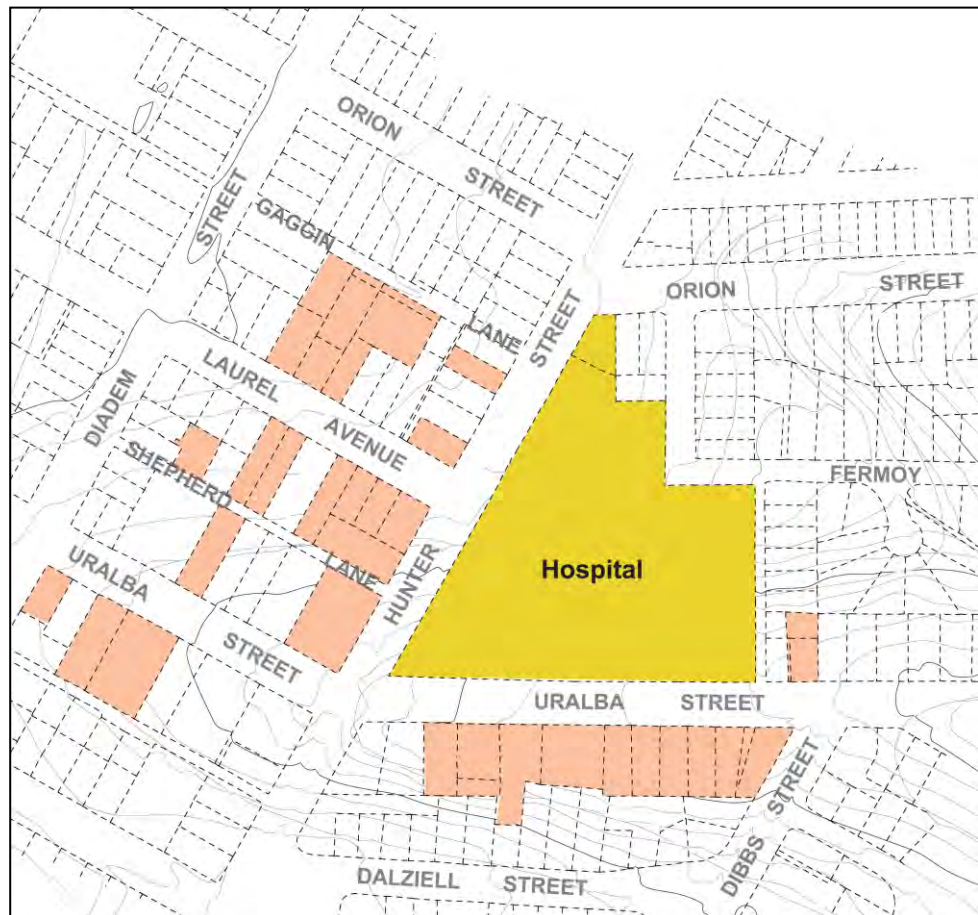


Figure 3 - Hospital and Surrounding Health Uses Shaded

Source: Hassell

In recognising and supporting the transition of the area surrounding the hospital, we understand that Lismore City Council is in the process of reviewing the current planning controls to ensure that the redevelopment of the hospital and surrounding area is supported in strategic and statutory planning terms. The following is an outline provided by Lismore City Council in relation to this process of review:-

"Lismore City Council is committed to assisting Health Infrastructure with the upgrade of the Lismore Base Hospital. To that end it organised and contributed to the Lismore Health Precinct workshop that was conducted in November 2012. This Workshop was conducted over several days and included a wide range of participants.

Included in the recommendations that came from the Workshop was a section titled "Planning to enable transformation". These specific recommendations sought to ensure that the current planning controls embodied in the Local Environmental Plan (LEP) and relevant Development Control Plans (DCP) were updated to ensure that both current plans and future opportunities were not frustrated by inappropriate planning controls.

The Workshop recommended that the review of the LEP be undertaken to:

1. *Enable and promote medium density residential development.*
2. *Ensure zoning allows a range of uses that will support the Hospital and other health uses and medium density housing.*
3. *Enable the development of a multi-story parking building on the southern side of Uralba Street.*
4. *Increase maximum building height to 3 and 4 storeys in parts of the precinct.*
5. *Investigate the use of sub-zones in part of the precinct.*

It was further recommended that a new DCP be prepared for the Health Precinct. The DCP should outline the character sought, in line with the overall vision and goals captured in the Health Precinct Plan."

We understand that the review of Council's LEP will be undertaken in consultation with Health Infrastructure and NNSWLHD.

2.3 Existing Access Road and Transport Conditions

Existing access, traffic and transport conditions have been assessed by TTW in the Traffic and Parking Assessment report which has been prepared to inform this application (refer to **Appendix 17**). A summary of the relevant sections of the report are provided below:-

Access

- The main vehicular access routes to LBH are via Hunter and Uralba Streets. Uralba Street is a major route providing access to the Lismore Town Centre.
- Fermoy Avenue and Weaver Street also provide access to the eastern side of LBH.
- Main access to LBH car parking areas is from Hunter Street and the existing emergency access to the site is from Uralba Street.

Transport

- Bus routes 661, 681, 682 and 684 provide regular bus services to and from LBH.
- Pedestrian footpaths are located along the streets adjacent to, and near LBH. A pedestrian crossing (marked foot crossing) is located opposite the main entry to the hospital on Uralba Street.

Parking Situation

- Currently, a total of some 245 parking spaces are available within the Hospital Campus with a further 56 spaces outside the campus accommodating for fleet cars at Gaggin Lane. Over 649 on street parking spaces also are available in the vicinity of the Hospital (within 350m radius). Most on street parking spaces are unrestricted whilst Uralba Street provides some short term parking along its length including pay parking.

Refer to the Traffic and Parking Assessment prepared by TTW at **Appendix 17** for a more detailed consideration of the existing traffic, parking and access arrangements at LBH.

2.4 Legal Description of the Development Site

The LBH site is located at 60 Uralba Street and comprises various allotments. The allotments that are the subject of this application are:-

- Lot 1 DP 511444;
- Lot 21 DP 589890;
- Lot 22 DP 589890; and
- Lot 267 DP 755718.

The location of these lots can be seen in the figure below, shaded in red.

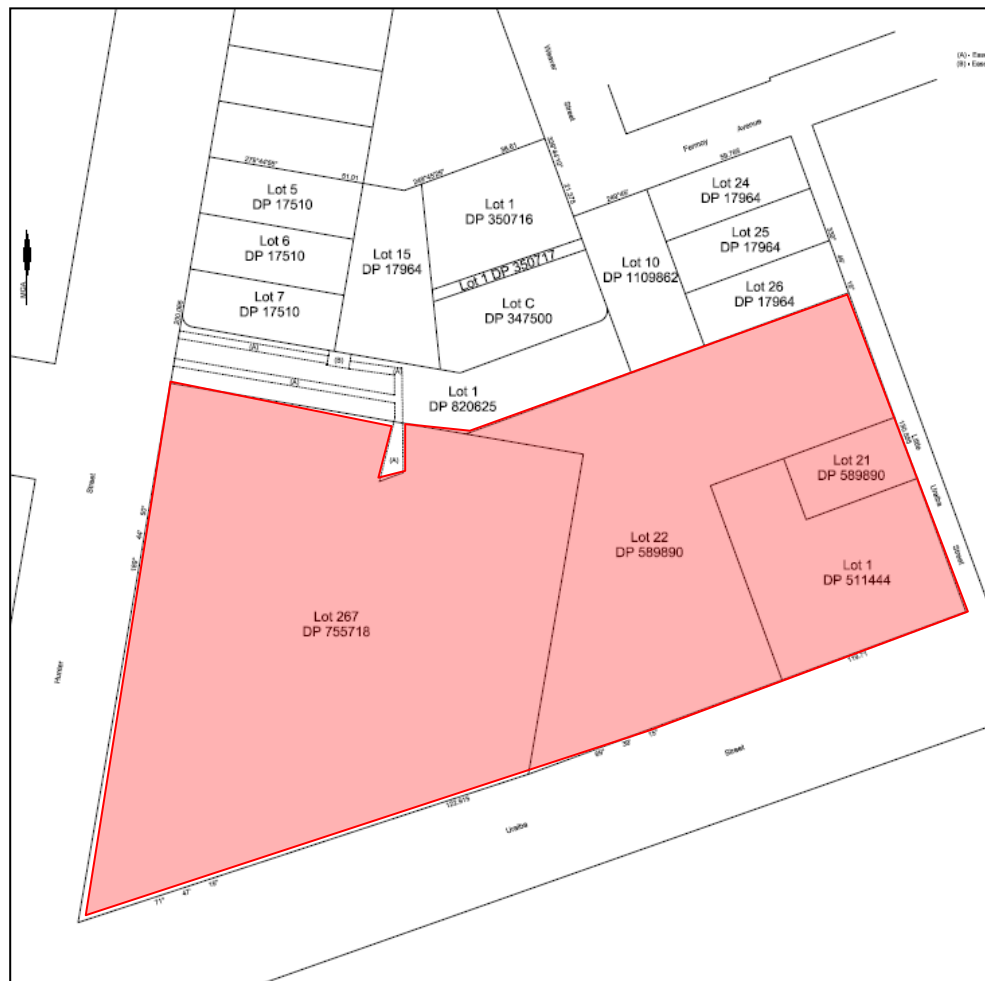


Figure 4 - LBH Site Lot Descriptions

Source: Newton Denny Chapelle

Works are also proposed within the road reserve of Uralba Street, as discussed further in **Section 3** of this EIS.

2.5 Ownership

Ownership of the land that is subject to this proposal is as follows:-

- Lot 1 DP 511444 - The Lismore Base Hospital;
- Lot 21 DP 589890 - The Lismore Base Hospital;
- Lot 22 DP 589890 - The Lismore Base Hospital; and
- Lot 267 DP 755718 - North Coast Area Health Service.

Council is the owner of the Uralba Street Road reserve where works are also proposed.

The Proponent of this application is HI.

2.6 Development Site Description

For the purpose of this application, the development site will be cleared.

The location of the proposed works within the LBH site can be seen in the figure below.

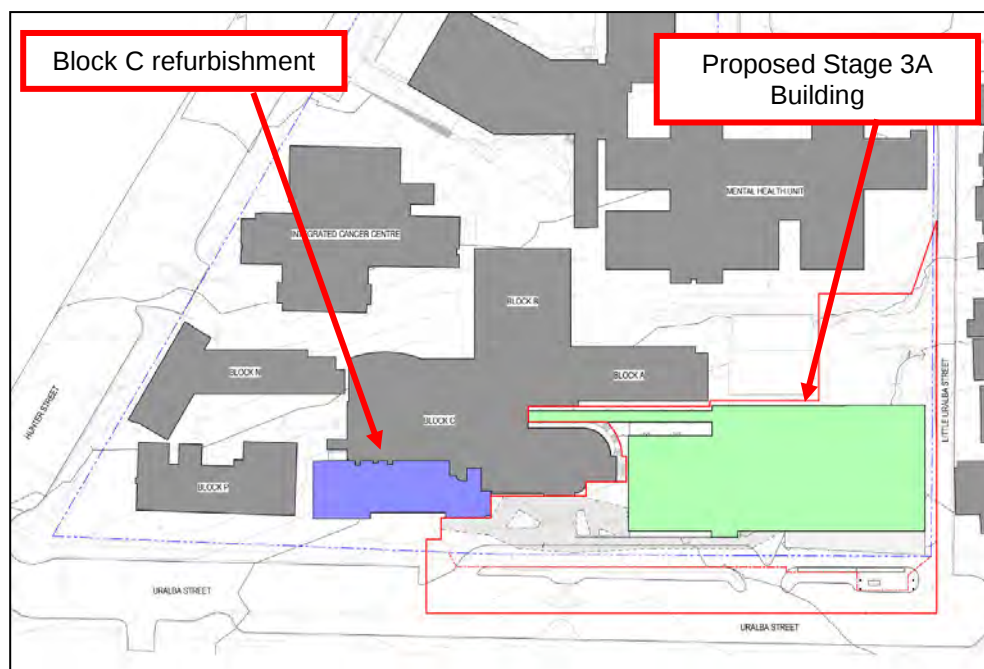


Figure 5 - Scope of Proposed Works

Source: Woods Bagot Architects

An aerial view of the site, taken from the north and looking towards the south, is provided below.

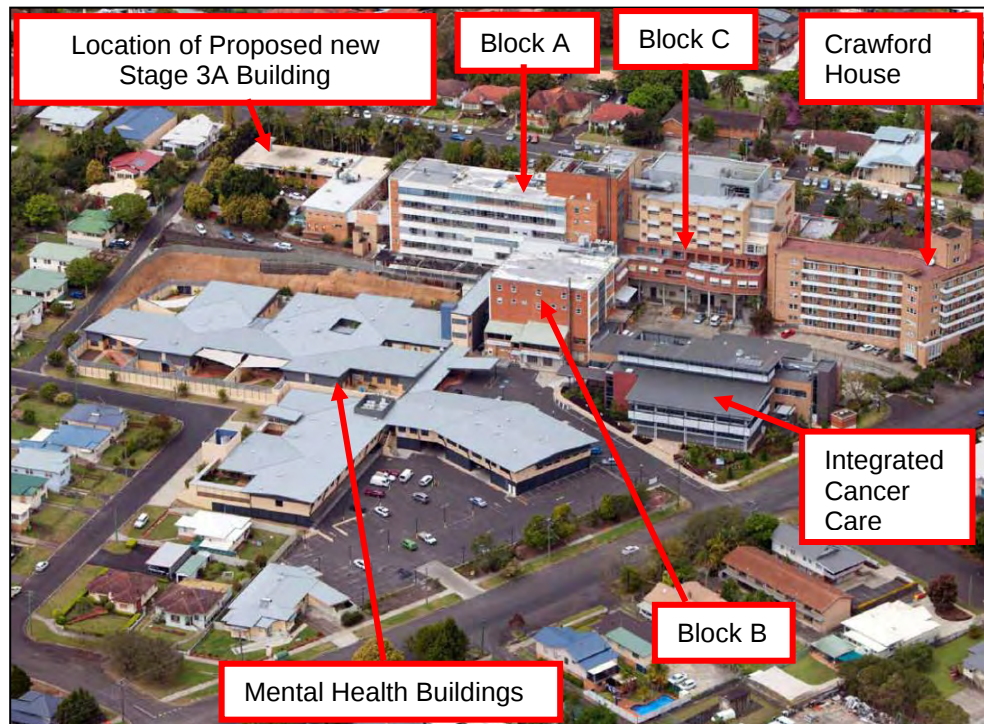


Figure 6 - Aerial View of the Site

Source: Hassell

2.7 Natural Features

The LBH campus sits on a ridge line and falls away to the north. The north-western part of the site is located within the "low risk flood area" which is defined by the limit of the probable maximum floor level contour. The 1:500 year ARI flood level in this area of Lismore is about RL 13.3 and the probable maximum flood level contour is at RL 15.8.

The development site is located in the south-eastern part of the LBH campus and is located at the most elevated point of the site. The development site is not subject to any flood risk area and is above the probable maximum flood level.

The LBH campus also contains a number of trees which comprise a mix of native and exotic species and there is no remnant vegetation on the site. The development site will be cleared of trees for the purpose of this application.

2.8 Adjoining Uses

Section 2.2 of this EIS describes the general locality surrounding the LBH hospital. As noted in that section, the site is located in a transitional precinct, that is historically residential, but is gradually emerging into a mixed-use, and more predominant health-related precinct.

Figure 7 below shows the approximate location of the proposed works in red. The areas in green show the existing health-related uses surrounding the hospital. The yellow shaded site shows the location of the existing local heritage item, "Armstrong House".



Figure 7 - Aerial View of the Site

Blue = LBH Site

Red = Approximate area of proposed works

Green = Health-related uses within the locality

Yellow = Heritage Item, "Armstrong House"

Source: SIX Landviewer

The proposed new hospital building in the south-east corner of the site will directly adjoin health-related uses to the south and residential uses (predominantly) to the east (but for the presence of the respective roads).

2.9 Heritage

There are no buildings or structures on the site that are listed as items of environmental heritage.

There is a heritage item (locally-listed) in the vicinity of the site, which is known as "Armstrong House". This heritage item is located at 86 Uralba Street and is shown in yellow in the figure above in **Section 2.8** and in **Photo 9** below.

2.10 Photos of the Site

Below are some photos of the existing LBH site, taken during the site visit undertaken by CPS&D on 17 April 2013:-



Photo 1 - View of the hospital from the northern part of Hunter Street, looking south/south-east
Source: CPSD



Photo 2 - View of the hospital from Hunter Street, looking south/south-east showing some of the taller buildings on the site.
Source: CPSD



Photo 3 - View of the south-western corner of the site from Uralba Street, looking west

Source: CPSD



Photo 4 - South-eastern corner of the site and location of the proposed new hospital building. Note that the majority of trees shown in this photo will be removed to facilitate the construction of the new Stage 3A building (subject of a separate approval)

Source: CPSD



Photo 5 - Southern part of the site and existing on-street parking on Uralba Street. Looking north-west from the intersection of Uralba and Little Uralba Streets. Note that the development site is on the right hand side of this photo.

Source: CPSD



Photo 6 - Existing Main hospital entrance and emergency department (Block C) on Uralba Street.

Source: CPSD



Photo 7 - Existing emergency department ambulance entrance on Uralba Street

Source: Google Maps



Photo 8 - View of LBH from the northern part of the site (Hunter Street) with the mental health unit in the foreground

Source: Google Maps

2.11 Photos of the Surrounding Locality



Photo 9 - Armstrong House
Source: CPSD



Photo 10 - Existing buildings on the southern side of Uralba Street and opposite the development site.
Source: Google Earth



Photo 11 - View looking North along Little Uralba Street. Existing residential dwellings on the eastern side of Little Uralba and development side on the western side. Whilst the trees shown in this photo will be removed (under a separate approval), a similar vegetative buffer is proposed under this application to ensure appropriate screening of the proposed building.

Source: Google Earth



Photo 12 - View looking North along Little Uralba Street (standing further north than the previous photo).

Source: CPSD

3 THE PROPOSAL

3.1 Background to the Proposal

This EIS has been prepared for the Stage 3A redevelopment of part of the existing Lismore Base Hospital site, which involves the construction of a new hospital building in the south-eastern corner of the site and refurbishment works to Level 4 of Block C.

The overall aims of this project are to:-

- Achieve significant improvements in capacity, thus enabling a higher scope of clinical care to be delivered to local residents;
- Remedy the poor standard of facility environments;
- Implement contemporary models of care to better meet the needs of the community;
- Improve patient flows through ED and expand capacity to respond effectively to projected demand for urgent and immediate care needs;
- Reduce demand for overnight beds and length of stay through the implementation of hospital avoidance models of care;
- Meet the health care needs of the growing aged population now and into the future; and
- Attract and retain a skilled and sustainable workforce at LBH.

The proposed development, along with the previous and future stages of the hospital redevelopment, will seek to provide the physical capacity to support the increasing health service demands and new models of care being driven by a growing and ageing population and also those requirements of the Building Code of Australia.

Planning for the redevelopment of LBH has been informed by the Lismore Base Hospital Clinical Services Plan 2012 and consultation with the community, Lismore Base Hospital stakeholders and Lismore Council.

The proposed new hospital building and refurbishment works to Level 4 of Block C have been designed with the intent to support a larger critical mass of acute, subacute, primary health care, community and ambulatory care service, and clinical support services at a higher role delineation level that will have the capacity to meet the needs of the Lismore community and its broader catchment.

3.2 Proposed New Hospital Building

The construction of a new five (5) level hospital building is proposed under this application, comprising:-

- A new and significantly expanded Emergency department;
- Improved facilities for renal services;
- Shell space for future peri-operative services;
- Emergency Medical Unit;
- Emergency Care / Fast Track zone;
- Expanded Medical Imaging capacity;

- A new ambulance drop-off and bay; and
- A new Hospital Mortuary.

Details regarding the proposal are set out below:-

Site Works

Site works involve excavation, site preparation, stormwater management, erosion and sediment control in accordance with the project documentation accompanying this EIS.

Stage 3A Building

The new Stage 3A building will be constructed on the south-eastern part of the site and in the location of the existing pathology building that will be demolished (subject to separate approval). The new building will commence at "Level 3" to integrate with levels of existing buildings across the site and will comprise five (5) levels in total. Due to the fall of the land, the new building will present as a predominantly three (3) storey building with a five (5) storey component to the south-west.

A description of each of the proposed levels is set out below:-

- Level 3 will comprise a pump room, main switch room, sprinkler alarm valve room, lift lobby, riser, stairs and lifts.
- Level 4 will comprise a lobby, new renal unit, new mortuary unit, emergency department support, lifts, stairs and risers. A new bridge link is also proposed to existing "Block C".
- Level 5 will comprise the new emergency department with a new graded ambulance drop-off and parking area proposed at the frontage of the new building. This level will also comprise stairs, riser, comms room and a lobby in the north-western part of Level 5. A bridge link is proposed to link the lobby to existing "Block C".
- Level 6 will comprise "shell" space to be used for future peri-operative services. Level 6 also includes a lobby area, risers, lifts, stairs, comms room.
- Level 7 will primarily comprise plant rooms, as well as a lobby area, risers, lifts, stairs, comms room and cooling towers on a platform in the south-eastern part of this level.

The maximum height of the building will be RL 51.38 (to the top of the parapet).

A montage of the proposed building is provided below.



Figure 8 - Main Entry Perspective (South-West) - Uralba Street
Source: Woods Bagot

Public Domain / Road

Modifications to the existing road system include:-

- Access from Little Uralba Street to the proposed service yard at Level 3 for service vehicles);
- Access from Little Uralba Street to the proposed mortuary at Level 4;
- A new front entry with ambulance and ambulatory access from Uralba Street; and
- Reconfiguration of on-street car parking within Uralba Street in coordination with Lismore Council.

All of the above works are shown on the architectural and civil plans submitted with this EIS.

The construction of the new emergency department entrance and ambulatory access from Uralba Street will require works to be undertaken outside of the site boundary. These works will be undertaken within the Uralba Street road reserve. On-street parking in Uralba Street in this location will also need to be reconfigured. As detailed in **Section 6.19** of this EIS, this scheme has been discussed in detail with Lismore City Council and the Council has agreed to the works that are required to be undertaken to facilitate the new access and on-street parking in Uralba Street.

Landscaping

Landscaping is proposed throughout the development, including in the proposed courtyard at Level 4, at the entrance and Uralba Street frontage and along the eastern boundary to Little Uralba Street.

The key principles that underpin the basis of the proposed landscaping scheme are set out below and are derived from the design statement accompanying this application:-

Stage 3A aims to create a strengthened boundary treatment and creation of a new identity along Uralba Street. This will become the “front door of the hospital campus”. Treatment of materials and planting will acknowledge the arrival experience at ‘Hospital Square’. The landscape strategy seeks to maximize the usefulness and delight of external spaces. The design builds upon the tropical character of the area and ensures the benefit of public space for all users.

Principles:

1. *Create external spaces around the main building entry points to provide amenity and opportunity for congregation. These spaces will provide an option for all users to be outside in safe, comfortable and inviting spaces.*
2. *Create a main entry and drop-off point that provides improved pedestrian circulation. The space will allow for a significant volume of activity, in a safe and organized manner.*
3. *Create a therapeutic courtyard to provide amenity and delight for patients.*
4. *Create a clear and rational access and circulation strategy for vehicles by introducing a new central dropoff zone protected from the elements.*
5. *Provide for additional on-street parking with safe, legible pedestrian links to hospital entries.*

All new planting proposed will:-

- Will build upon the tropical planting character evident throughout the hospital;
- Will be aligned to strengthen the circulation and open space strategy;
- Will retain existing trees; and
- Utilise native, low maintenance species.

Refer to the landscape plans prepared by 360° at **Appendix 11** for further detail.

Signage

External signage is proposed as follows:-

- "RENAL DIALYSIS" above renal entry. Stainless steel and surface lit.
- "EMERGENCY DEPARTMENT" directional sign. Stainless steel and surface lit.
- "EMERGENCY DEPARTMENT" above emergency department entry. Stainless steel and surface lit.
- "LISMORE BASE HOSPITAL" landmark sign at high level. White painted steel plate and backlit.
- "LISMORE BASE HOSPITAL", totem signage. Stainless steel and surface lit.

Signage will be integrated with the building where appropriate and key signage (such as the ED signage) will be illuminated or backlit where appropriate. The location and scale of the proposed external signage is shown on the elevation plans prepared by Woods Bagot.

Access and Parking

The proposed access arrangements for the development include:-

- Emergency access will be moved to the east along Uralba Street to align with the new emergency department.
- The former emergency access will be converted to a drop-off area for the Community Health refurbishment in Block C.
- A patient drop-off area will be added along the front entry between the proposed Community Health drop-off area and the emergency access.
- Access to the proposed mortuary at Level 4 from Little Uralba Street.

These access arrangements, including loading areas and turning paths, are included in the traffic and parking assessment prepared by TTW.

No additional car parking is proposed on the site and this is discussed in detail in the traffic and parking assessment prepared by TTW and in **Section 6.6** of this EIS. To summarise that discussion, a commitment to provide the additional 110 parking spaces required to meet the additional demand generated by this development is made by HI and this will be able to be conditioned appropriately to ensure the delivery of this additional parking requirement.

Furthermore, the Proponent is currently investigating opportunities as a part of its construction management plan for a temporary car park to be constructed for staff and construction workers, prior to operation of the proposed development.

Operational Details

Due to the nature of the services provided, the majority of the building will operate 24 hours a day, 7 days a week.

The proposal will result in an increase in the number of staff on the site from 850 to 956 and a total increase of 106 additional staff.

3.3 Proposed Refurbishment Works to Level 4 of Block C

Also proposed under this application are refurbishment works to Level 4 of existing Block C form part of this application. The location of this building is shown in **Figure 5** of **Section 2.6** of this EIS.

In detail, the refurbishment works will include the following:-

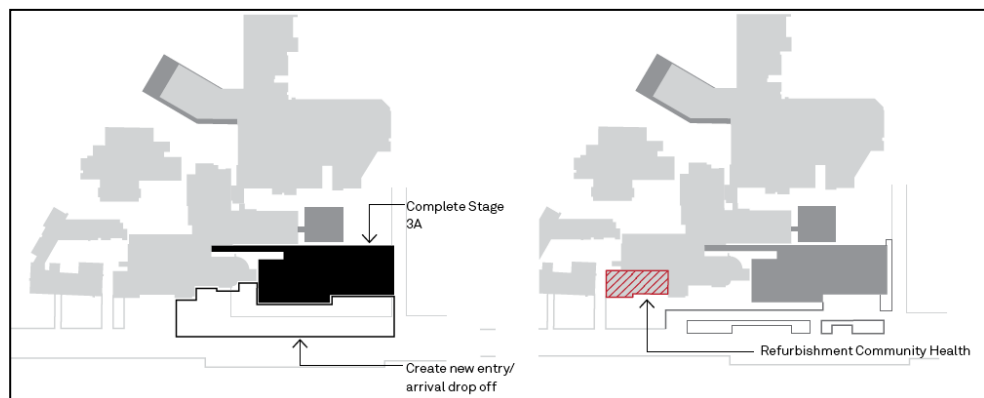
- Internal demolition works including removal of existing walls and partitions and existing emergency department fitout containing resuscitation rooms, utilities rooms, offices, bed rooms, treatment rooms, observation rooms, waiting room, reception, sub-acute rooms, staff rooms and other multi-function rooms;
- Construction of new internal walls and fitout for the purpose of interview rooms, consultation rooms, quiet rooms, workstations, offices, store rooms, utilities rooms, reception for pathology services and general waiting room; and
- Removal of the existing access door at Level 4 of the southern end of the building and infill of this door with brick to remove this access to the building.

The proposed refurbishment works to Level 4 of Block C are set out in detail in the architectural plans prepared by Woods Bagot at **Appendix 8**.

3.4 Phasing of Works

Phasing of the proposed works is as follows:-

1. Complete the proposed Stage 3A building and new entry/arrival drop-off on Uralba Street, followed by;
2. Refurbishment works to Level 4 of existing Block C.



**Figure 9 - Phasing Principles Diagram Extract
Hassell**

3.5 Boundary Adjustment

This application does not seek approval for adjustment of the development site boundary. However, it is the intention of the Proponent to acquire part of the Uralba Street road reserve, which is currently under the ownership of Council, to incorporate into the LBH site and expand the area of the development site.

Works are proposed within this area, to the south of the existing boundary line. As can be seen in the figure below, the blue line shows the location of the existing LBH boundary and the red line shows the approximate location of the future boundary adjustment. The exact location and details of the boundary adjustment will be coordinated with Lismore City Council and will be the subject of a separate approvals process.

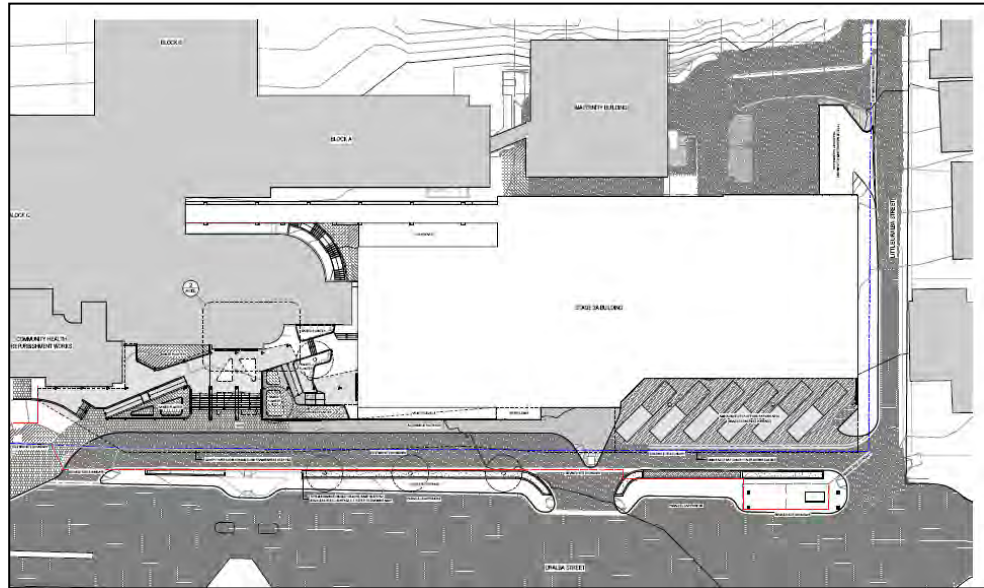


Figure 10 - Site Plan Extract
Source: Woods Bagot

With regard to this matter, we refer to the email correspondence provided by Lismore City Council, which confirms its support for this project and the proposed works in Council's road reserve. An extract of that correspondence is provided below:-

"Lismore City Council is pleased to be able to confirm its overall commitment to supporting Health Infrastructure as it undertakes the upgrade of the Lismore Base Hospital.

In particular it recognised that the proposal seeks to make some significant improvements to the functionality of the Accident and Emergency drop off area in Uralba Street. This work will greatly improve the function of this section of the Hospital. The improvements will maintain the through traffic flow of Uralba street, but will require the loss of some car parking spaces and the construction of hospital vehicular movements and infrastructure on the part of the road that was previously available for car parking. The construction of this part of the hospital infrastructure will require the closure of part of Uralba Street. To facilitate this Council will close the aforesaid part of Uralba Street and transfer some to the Hospital.

It is recognised that the hospital infrastructure is likely to be constructed before the road closure can be finalised. To ensure that this does not delay the hospital upgrades Council will issue the Hospital a lease over the required area of Uralba Street as an interim measure."

3.6 Development Plans

The proposal, as described above, will be in accordance with architectural plans submitted with this application, reduced copies of which are attached to this EIS at **Appendix 8**.

Table 1 - Development Plans

Plan Reference	Plan	Prepared By	Revision	Date
A0000	Cover Sheet and Drawing Register	Woods Bagot	A	12.07.13
A1001	Location Plan	Woods Bagot	A	12.07.13
A1002	Site Plan	Woods Bagot	A	12.07.13
A2203	GA Level 03	Woods Bagot	A	12.07.13
A2204	GA Level 04	Woods Bagot	A	28.06.13
A2205	GA Level 05	Woods Bagot	A	12.07.13
A2206	GA Level 06	Woods Bagot	A	12.07.13
A2207	GA Level 07	Woods Bagot	A	12.07.13
A2208	GA Level 08	Woods Bagot	A	12.07.13
A3001	Elevation - South	Woods Bagot	A	12.07.13
A3002	Elevation - North	Woods Bagot	A	12.07.13
A3003	Elevation - East and West	Woods Bagot	A	12.07.13
A3101	Sections	Woods Bagot	A	28.06.13
A8001	Sun Shadow Diagrams	Woods Bagot	A	12.07.13
A9401	3D Context Model	Woods Bagot	A	12.07.13
ACH2004	Demolition Plan - Level 04	Woods Bagot	A	12.07.13
ACH2204	Community Health Plan	Woods Bagot	A	28.06.13
ACH3001	Community Health Elevation	Woods Bagot	A	28.06.13

3.7 Capital Investment Value

The Capital Investment Value of the project is estimated at \$57,541,508. This figure is confirmed by the Quantity Surveyor Cost Statement prepared by Altus Page Kirkland and attached at **Appendix 2**.

3.8 Analysis of Alternatives

Lismore Hospital redevelopment will be built in stages and Stage 3A responds to the most pressing clinical needs by delivering new emergency, renal and community health services.

A number of development options have been considered for this project, primarily based on the following criteria:-

- Project budget;
- Value for money;
- Compliance with Health and Hospital Funding requirements;
- Continuity of services and operational efficiency; and
- Matters raised during consultation processes and particularly, ongoing consultation with Lismore City Council.

Further to the above, there were a number of configurations for the new Stage 3A building that were tested, all based on developing the southern part of the site with a "hospital street", future expansion strategy to the North and integration with the future Stage 3B development. Whilst there is some projection of the works outside of the site boundary (public domain, landscaping, access etc.), the preferred option which is the subject of this application, maximises the development area for the new building, whilst retaining the footprint of the main building inside the current site boundary.

The principle of a "hospital street", was explored in detail in a schematic design report which was prepared by Hassell (dated March 2013). An extract from this report, explaining the strategy of creating a "hospital street" is set out below:-

"6.2 Development zone options

The long term master plan development strategy is based around the principle of a hospital street. This strategy offers maximum flexibility for future incremental expansion, by developing a multi-level circulation spine through the LBH site which allows future buildings to 'plug-in' over time. The proposed street will be constructed along the northern facade of Stage 3A as part of a future development phase. To ensure maximum flexibility, Stage 3A will also allow for vertical expansion with the sub-structure, structure and circulation cores designed to allow for additional floors to be added above level 7.

Taking into account the constraints and opportunities the LBH campus offered a number of alternative locations for the Stage 3A development. It is important to note that the master plan strategy is for the redevelopment of the whole site, and therefore the development of the clinical services plan is seen as only part of the

overall master plan, and Stage 3A is only part of the overall CSP."

In terms of the Block C (Level 4) refurbishment works, a number of options were considered, including incorporating external changes to the building. Servicing requirements were considered as the first priority and due to the scope of funding available, the refurbishment works will mainly comprise internal works to meet the key service needs.

Further to the above, and as set out in detail in **Section 6.6** of this EIS, a review of parking demand and supply for the site, as it relates to the subject Stage 3A main building works development, has revealed a number of options for car parking provision as part of the LBH redevelopment. A final scheme to accommodate the additional car parking demand generated by the development has not been determined as it is the subject of a business case study that is currently underway. The outcome of this study is critical to determining the preferred option and funding arrangements. A statement of commitment included in this EIS will ensure that the parking demand is addressed prior to occupation of the proposed Stage 3A building.

3.9 Impact of Not Proceeding with the Proposal

Generally, the key impacts of not proceeding with the subject project would be:-

- Limiting of the ability of LBH's health services to meet the healthcare demands of the catchment population;
- Limiting the attraction and retention of health services staff;
- The ongoing hindering of the provision of contemporary models of care in accordance with current Ministry of Health policies and worldwide trends; and
- Limiting the potential for health services to be delivered to levels of quality required by the Ministry of Health's and Northern NSW Local Health District's policies.

Within the previous five (5) years, there has been concern about the ability of the existing emergency department ("ED") environment to provide the level of service and patient safety expected. The ED is already operating at capacity. Projections show that the growth in demand for renal dialysis services cannot be met within the existing number of dialysis chairs. A major shortcoming of the present model for Primary & Community Health Services being located away from the hospital campus is the resultant poor coordination between inpatient services and those Primary & Community Health Services which facilitate and provide support to patients post-discharge, such as the *Hospital In The Home* service.

A key impact of not proceeding with the development would be compromised patient care and LBH service delivery would become unsustainable, to the detriment of patients and other services within the NNSW LHD that rely on LBH as the Major Referral Hospital for the Richmond Clarence HSG.

4 DIRECTOR-GENERAL'S REQUIREMENTS

This EIS has been prepared to address the issue outlined in *Schedule 2, Part 3, Clause 6 and 7* of the *Environmental Planning and Assessment Regulations 2000* and the Director Generals Environmental Assessment Requirements (DGRs) specifically for the site.

The DGRs were issued by the Department of Planning and Infrastructure on 26 February 2013 and a copy is attached at **Appendix 1**.

The table below summarises the DGRs and includes a reference identifying where each has been addressed in this EIS.

Table 2 - Director General's Requirements

Key Issues	Detailed Requirements	Where Addressed in EIS
1. Statutory and Strategic Context	Address the statutory provisions applying to the development contained in all relevant environmental planning instruments, including: · State Environmental Planning Policy (State & Regional Development) 2011 · State Environmental Planning Policy (Infrastructure) 2007; · State Environmental Planning Policy No 33 Hazardous and Offensive Development · State Environmental Planning Policy No.55 – Remediation of Land · Lismore Local Environmental Plan 2000 · Draft Lismore Local Environmental Plan 2011. <i>Permissibility</i> Detail the nature and extent of any prohibitions that apply to the development. <i>Development Standards</i> Identify compliance with the development standards applying to the site. <i>Contamination</i> Demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. <i>Relevant Policies and Guidelines:</i> · <i>Managing Land Contamination:</i>	Section 5 of this EIS and the appendices referred to therein.

	<i>Planning Guidelines - SEPP 55 Remediation of Land (DUAP)</i>	
2. Policies and Guidelines	Address the relevant planning provisions, goals and strategic planning objectives in the following: · NSW 2021 · NSW Bike Plan · Planning Guidelines for Walking and Cycling · Lismore Development Control Plan, where relevant · Lismore Regional City Plan 2005, where relevant · Lismore Urban Strategy 2005, where relevant · Lismore Floodplain Management Plan 2002, where relevant.	Section 5 of this EIS and the appendices referred to therein.
3. Built Form and Urban Design	· Address the height, bulk and scale of the proposed development within the context of the locality. · Address design quality, with specific consideration of the overall site layout, streetscape, connection with the existing adjacent hospital buildings, axis, vistas and connectivity, open spaces and edges, primary elements, gateways, façade, rooftop, mechanical plant, massing, setbacks, building articulation, materials, choice of colours, including an assessment against the Crime Prevention Through Environmental Design Principles. · Consider activity space on the ground level and create clearly defined paths of travel and legible public entry points.	Section 6.2 of this EIS and the appendices referred to therein.
4. Amenity	· Assess solar access, acoustic impacts, visual privacy, servicing requirements (including but not limited to, waste management, loading zones, mechanical plant), view loss, overshadowing, lighting impacts and wind impacts. A high level of environmental amenity for land uses immediately adjacent and the surrounding residential areas must be demonstrated.	Section 6.3 of this EIS and the appendices referred to therein.
5. Ecologically Sustainable Development (ESD)	· Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design, construction	Section 6.4 of this EIS and the appendices referred to

	and ongoing operation phases of the development. Include a description of the measures that would be implemented to minimise consumption of resources, water and energy, including an Integrated Water Management Plan which details any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.	therein.
6. Noise	- Identify and provide a quantitative assessment of the main noise generating sources and activities at all stages of construction, and any noise sources during operation. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land. <i>Relevant Policies and Guidelines:</i> <i>NSW Industrial Noise Policy (EPA)</i> <i>Interim Construction Noise Guideline (DECC)</i>	Section 6.5 of this EIS and the appendices referred to therein.
7. Transport and Accessibility (construction and operation)	Construction: - Detail access arrangements at all stages of construction and measures to mitigate any associated traffic, pedestrian or cycleway impacts. - Provide details regarding car parking arrangements during construction, including the displacement of visitor and patient car parking. Alternative off-site arrangements should be made for staff and construction workers. Operation: - Detail how the development has taken into consideration travel choices, and how the development contributes to the achievement of transport objectives contained in NSW 2021. - Assess the implications of the proposed development for non-car travel modes (including public transport use, walking and cycling), including the potential for implementing a location-specific sustainable travel plan (eg 'Travelsmart' or other travel behavioural change initiatives), and the provision of facilities to increase non-car mode share for travel to and from the site. This will entail an assessment of the	Section 6.6 of this EIS and the appendices referred to therein.

	accessibility of the site by public transport. · Provide details of the proposed daily and peak vehicle movements likely to be generated by the proposed development, including the impact on nearby intersections, local and state roads, and the need/associated funding for upgrading or road improvement works (if required). This is to include an analysis of the likely impact of the proposal on traffic flow and parking along sections of Uralba Street and Hunter Street directly adjacent to the hospital campus. AUSTROADS standards should be adopted for any necessary upgrading of the surrounding road network. · Detail the proposed access and parking provisions associated with the proposed development, including compliance with any parking codes and compliance with the relevant Australian Standards (ie: turn paths, sight distance requirements, aisle widths, etc). A 'Parking Management Plan' and 'Travel Plan' shall be prepared for the hospital where parking for the proposal is proposed at an off-site location. · Detail the proposed service vehicle movements (including vehicle types and the likely arrival and departure times). <i>Relevant Policies and Guidelines:</i> · <i>Guide to Traffic Generating Development</i>	
8. Flora and Fauna	· 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. · Identify and justify the removal of any mature trees.	Section 6.7 of this EIS and the appendices referred to therein.
9. Sediment, Erosion and Dust controls (Construction and Excavation)	Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles. <i>Relevant Policies and Guidelines:</i> · <i>Managing Urban Stormwater – Soils & Construction Volume 1 2004</i>	Section 6.8 of this EIS and the appendices referred to therein.

	(Landcom) Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)	
10. Utilities	- In consultation with relevant agencies, the EIS shall address the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure through the preparation of an Infrastructure Management Plan. - Prepare an Integrated Water Management Plan detailing any proposed alternative water supply, proposed end users of potable and non-potable water, demonstration of water sensitive urban design and water conservation measures.	Section 6.9 of this EIS and the appendices referred to therein.
11. Staging	Details regarding the staging of the proposed development (if proposed).	Section 6.10
12. Contributions	Address Council's Section 94 Contribution Plan and Section 64 water and sewer developer service charges and/or provide details of any Voluntary Planning Agreement. <i>Relevant Policies and Guidelines:</i> - Lismore City Council Contributions Plan March 2004 - Lismore City Council Development Servicing Plan for Water Supply 2007/08 - Lismore City Council Development Servicing Plan for Wastewater 2007/08	Section 6.11
13. Flooding	An assessment of any flood risk on site (if relevant) and 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.	Section 6.12
14. Bushfire	If relevant, demonstrate compliance with the provisions of Planning for Bushfire Protection (PBP) 2006.	Section 6.13
15. Drainage	Provide details of the drainage associated with the proposal, including stormwater, drainage infrastructure and OSD, which shall be designed in consultation with Lismore City Council and must avoid any	Section 6.14 of this EIS and the appendices referred to

	adverse impacts on downstream properties.	therein.
16. Waste	Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.	Section 6.15 of this EIS and the appendices referred to therein.
17. 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.	Section 6.16 of this EIS and the appendices referred to therein.
18. Aboriginal Heritage	The EIS shall address aboriginal heritage in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC 2005) and Aboriginal Cultural Heritage Consultation Requirements for proponents 2010.	Section 6.16 of this EIS and the appendices referred to therein.
19. Archaeological Impacts	If relevant, an archaeological study is to be carried out on the site to identify any European and/or aboriginal archaeological impacts associated with the proposal.	Section 6.16 of this EIS and the appendices referred to therein.
20. Hazards	The EIS shall include a description of the proposed storage, use and management of any hazardous materials and measures to be implemented to manage hazards and risks associated with the storage.	Section 6.17 of this EIS and the appendices referred to therein.
21. Acid Sulphate Soils	If relevant, prepare a detailed Acid Sulphate Soils Management Plan.	Section 6.18
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: · Lismore City Council; · Roads and Maritime Services;	Section 6.19

	• Office of Environment and Heritage • Environmental Protection Agency; and • Transport for NSW. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	
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In addition, the DGR's sets out the plans and documents that must accompany the Application as set out the following table along with an indication of where they have been provided in this EIS.

Table 3 - Plans and documents accompanying the EIS

Plans and Documents to accompany the Application		
QS	• Prepared by a qualified quantity surveyor. • a detailed calculation of the capital investment value (as defined in clause 3 of the Environmental Planning and Assessment Regulation 2000) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; • an estimate of the jobs that will be created by the development during the construction and operational phases of the development; and • certification that the information provided is accurate at the date of preparation.	Appendix 2 • Approximately 2,775 construction jobs; and • Approximately 106 jobs operationally.
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following:	

	• Architectural drawings; • Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and boundaries; • Site Analysis Plan; • Stormwater Concept Plan; • Shadow Diagrams; • View Analysis / Photomontages (from both directions along Uralba Street and from the north of the site); • Landscape Plan (identifying any trees to be removed and trees to be retained or transplanted); • Preliminary Construction Management Plan, inclusive of a Preliminary Construction Traffic Management Plan; • Geotechnical and Structural Report; • Arborist Report; • Acid Sulphate Soils Management Plan (if required); and • Schedule of materials and finishes.	Appendix 8 Appendix 3 Appendix 4 Appendix 12 Appendix 9 Appendix 10 Appendix 11 Appendix 21 Appendix 6 & 20 N/A N/A Appendix 8
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5 STATUTORY & STRATEGIC PLANNING CONTEXT

5.1 Overview

The Director General's requires the assessment of the SSD Application in relation to the following strategy documents and statutory instruments:-

- Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth);
- Environmental Planning and Assessment Act 1979;
- Environmental Planning and Assessment Regulation 2000;
- Threatened Species Conservation Act 1995;
- Roads Act 1993;
- NSW State Plan 2010;
- State Environmental Planning Policy (State & Regional Development) 2011
- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy No 33 Hazardous and Offensive Development
- State Environmental Planning Policy No.55 – Remediation of Land
- Lismore Local Environmental Plan 2012;
- Lismore Development Control Plan 2012;
- Lismore Regional City Plan 2005;
- Lismore Urban Strategy 2005;
- Lismore Floodplain Management Plan 2002.

These controls and guidelines are addressed in the following sections.

Whilst not specifically requested in the DGR's, consideration of the NSW Department of Planning's Far North Coast Regional Strategy is also considered in this section of the EIS.

STATUTORY PLANNING CONTEXT

5.2 Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) commenced on 16 July 2000. The Act introduced a new assessment and approvals system for:-

- *actions that have a significant impact on matters of national environmental significance;*
- *actions that have a significant impact on the environment of Commonwealth land; and*
- *actions carried out by the Commonwealth Government.*

Under the assessment and approval provisions of the EPBC Act, actions that are likely to have a significant impact on a matter of national environmental

significance are subject to a rigorous assessment and approval process. An action includes a project, development, undertaking, activity, or series of activities.

The Act identifies seven matters of national environmental significance, which are set out below:-

- *World Heritage properties;*
- *National Heritage places;*
- *Ramsar wetlands of international significance;*
- *nationally listed threatened species and ecological communities;*
- *listed migratory species;*
- *Commonwealth marine areas; and*
- *nuclear actions (including uranium mining).*

The Government is considering amendments to the EPBC Act and its regulations to include “greenhouse triggers” and “access to biological resources”.

There are no relevant World Heritage properties, National Heritage places, Ramsar wetlands, Commonwealth marine areas or Commonwealth lands on the site.

It is concluded therefore that there will not be a significant impact on any matters of national environmental significance arising from the development of the site, and consequently the proposed activity is not considered to be a “controlled action” pursuant to the EPBC Act.

5.3 Environmental Planning & Assessment Act 1979

This EIS has been prepared in accordance with the provisions of Division 4.1 of Part 4 of the *Environmental Planning and Assessment Act 1979* (the Act) as outlined below:-

- The Application has been declared a State Significant Development by way of Clause 8 of the *State Environmental Planning Policy (State and Regional Development) 2011*, being development specified in *Schedule 1 State Significant Development - General*.

The proposed development is consistent with Division 4.1 of the EP&A Act, particularly for the following reasons:-

- Promotes the social and economic welfare of the community in delivering modern health facilities to service the Lismore LGA.
- Promotes the utilisation of existing utility services.
- Promotes the orderly and economic use and development of land as the site is of an appropriate size, location and land use zoning to enable the development.
- Will increase employment opportunities on the site.
- The development has been evaluated and assessed against the relevant heads of consideration under section 79C and has been prepared to mitigate environmental impacts of the development.

Further to the above, and with reference to Section 90(2) and Section 91(1) of the Act, the application is not *"integrated development"* pursuant to subclause 1, as it is a SSD application and is made *"by or on behalf of the Crown"*.

5.4 Environmental Planning & Assessment Regulations 2000

Clause 6 and 7 of Schedule 2 of the EP&A Regulations 2000 (*"EP&A Regulations"*) prescribe the requirements for preparing an EIS. This EIS has been prepared in accordance with the EP&A Regulation as set out in the table below:

Table 4 - EP&A Regulations - Schedule 2 Requirements

Schedule 2 Subclause	Comment
4 Integrated development—requirements of approval bodies (1) An application for environmental assessment requirements must, in the case of a development application for integrated development, also include particulars of the approvals that are required.	As works are proposed in a public road, approval is not required under Section 138 of the Roads Act 1993. Refer to Section 5.6 of this EIS for discussion.
6 Form of environmental impact statement An environmental impact statement must contain the following information: (a) the name, address and professional qualifications of the person by whom the statement is prepared, (b) the name and address of the responsible person, (c) the address of the land: (i) in respect of which the development application is to be made, or (ii) on which the activity or infrastructure to which the statement relates is to be carried out, (d) a description of the development, activity or infrastructure to which the statement relates, (e) an assessment by the person by whom the statement is prepared of the environmental impact of the development, activity or infrastructure to which the statement relates, dealing with the matters referred to in this Schedule, (f) a declaration by the person by whom the statement is prepared to the effect that: (i) the statement has been prepared in accordance with this Schedule, and (ii) the statement contains all available	All of these matters have been addressed in the body of this EIS.

information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and (iii) that the information contained in the statement is neither false nor misleading.	
7 Content of environmental impact statement (1) An environmental impact statement must also include each of the following: (a) a summary of the environmental impact statement, (b) a statement of the objectives of the development, activity or infrastructure, (c) an analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure, having regard to its objectives, including the consequences of not carrying out the development, activity or infrastructure, (d) an analysis of the development, activity or infrastructure, including: (i) a full description of the development, activity or infrastructure, and (ii) a general description of the environment likely to be affected by the development, activity or infrastructure, together with a detailed description of those aspects of the environment that are likely to be significantly affected, and (iii) the likely impact on the environment of the development, activity or infrastructure, and (iv) a full description of the measures proposed to mitigate any adverse effects of the development, activity or infrastructure on the environment, and (v) a list of any approvals that must be obtained under any other Act or law before the development, activity or infrastructure may lawfully be carried out, (e) a compilation (in a single section of the environmental impact statement) of the measures referred to in item (d) (iv), (f) the reasons justifying the carrying out of the development, activity or infrastructure in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of	In response to this clause, we comment as follows: a) A summary of the EIS is undertaken in the Executive Summary at the commencement of this EIS; b) A statement of the objectives of the development is also undertaken in the Executive Summary of this EIS; c) An analysis of feasible alternatives and the consequences of not carrying out the development is undertaken in Section 3.8 and Section 3.9 of this EIS. d) An analysis of the development is undertaken in Section 3.0 of this EIS; e) An analysis of the likely impact on the environment is undertaken in Sections 5, Section 6 and Section 7 of this EIS; f) A full description of the measures proposed to mitigate any adverse effects of the development is undertaken in the "recommendations" in Section 6.0 of this EIS; g) a list of any approvals that must be obtained under any other Act or law before the development, activity or infrastructure may lawfully be carried out is undertaken following this table; h) A list of all of the measures referred to in (d)(iv) in Section 8.0 of this EIS; i) The proposed development

ecologically sustainable development set out in subclause (4).

(2) Subclause (1) is subject to the environmental assessment requirements that relate to the environmental impact statement.

(4) The principles of ecologically sustainable development are as follows:

(a) the ***precautionary principle***, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:

(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and

(ii) an assessment of the risk-weighted consequences of various options,

(b) ***inter-generational equity***, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,

(c) ***conservation of biological diversity and ecological integrity***, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,

(d) ***improved valuation, pricing and incentive mechanisms***, namely, that environmental factors should be included in the valuation of assets and services, such as:

(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,

(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,

(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to

is consistent with principles of ESD, as set out in **Section 6.4** of this EIS.

environmental problems.	
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Approvals Required Cl. 7(1)(d)(v)

In relation to Clause 7(1)(d)(v), the following sets out the approvals required before this development may lawfully be carried out:-

Table 5 - Approvals Required

Act	Approval Required?
Legislation that does not apply to SSD (Section 89J of EP&A Act)	
the concurrence under Part 3 of the <i>Coastal Protection Act 1979</i> of the Minister administering that Part of that Act,	N/A
a permit under section 201, 205 or 219 of the <i>Fisheries Management Act 1994</i> ,	N/A
an approval under Part 4, or an excavation permit under section 139, of the <i>Heritage Act 1977</i> ,	N/A
an Aboriginal heritage impact permit under section 90 of the <i>National Parks and Wildlife Act 1974</i> ,	N/A
an authorisation referred to in section 12 of the <i>Native Vegetation Act 2003</i> (or under any Act repealed by that Act) to clear native vegetation or State protected land,	N/A
a bush fire safety authority under section 100B of the <i>Rural Fires Act 1997</i> ,	N/A
a water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the <i>Water Management Act 2000</i> .	N/A
Legislation that must be considered (Section 89K of EP&A Act)	
an aquaculture permit under section 144 of the <i>Fisheries Management Act 1994</i> ,	N/A
an approval under section 15 of the <i>Mine Subsidence Compensation Act 1961</i> ,	N/A
a mining lease under the <i>Mining Act 1992</i> ,	N/A
a production lease under the <i>Petroleum (Onshore) Act 1991</i> ,	N/A
an environment protection licence under Chapter 3 of the <i>Protection of the Environment Operations Act 1997</i> (for any of	N/A

the purposes referred to in section 43 of that Act),	
a consent under section 138 of the <i>Roads Act 1993</i> ,	No. The application is not integrated for the purpose of Section 138 of the Roads Act. Refer to Section 5.6 for discussion.
a licence under the <i>Pipelines Act 1967</i> .	N/A

Owner's Consent

Section 49 of the EP&A Regulation includes provisions regarding owner's consent that are relevant to this application. Discussion is provided below.

The application involves works outside of the LBH boundary and within Uralba Street. As Uralba Street is under the ownership of Lismore City Council, ordinarily, consent would be required from Council in order to lodge this application. However, under Section 49 of the EP&A Regulations, consent in writing from Council is not required for this application, as the application is made by a public authority; providing notice to the Council is given before the application is made. In providing notice to the Council, Council has confirmed its support for the project and the works within Uralba Street.

5.5 Threatened Species Conservation Act 1995

The NSW *Threatened Species Conservation Act 1995* (TSC Act) identifies and protects threatened and endangered native plants and animals.

The purpose of the Act is to:-

- *conserve biological diversity and promote ecologically sustainable development*
- *prevent the extinction and promote the recovery of threatened species, populations and ecological communities*
- *protect the critical habitat of those species, populations and ecological communities that are endangered*
- *eliminate or manage certain processes that threaten the survival or evolutionary development of threatened species, populations and ecological communities*
- *ensure that the impact of any action affecting threatened species, populations and ecological communities is properly assessed, and*
- *encourage the conservation of threatened species, populations and ecological communities through co-operative management.*

The specific requirements of the *TSC Act* must be addressed in the assessment of flora and fauna matters. This requires the consideration of potential impacts on threatened species, populations and ecological communities. The factors to be taken into account in deciding whether there is a significant effect are set out in Section 5A of the *Environmental Planning and Assessment Act 1979* and are

based on a 7 part test of significance. Where a proposed activity is located in an area identified as critical habitat, or such that it is likely to significantly affect threatened species, populations, ecological communities, or their habitats, a Species Impact Statement (SIS) is required to be prepared.

As a result of the continuous development and operation of the hospital facilities on-site for decades, the site is predominantly occupied by buildings and car park areas and any potential habitat is limited to scattered trees and grassed areas, neither of which is likely to support threatened species, populations and endangered ecological communities.

In accordance with the requirements of the TSC Act and Section 5A of the EP&A Act, it can be concluded that the proposed development will not have a significant impact on any threatened species, populations or EECs.

Therefore, a Species Impact Statement is not required for the proposed development.

5.6 Roads Act 1993

The proposed development is of the nature which typically requires consent under Section 138 of the Roads Act 1993 as it seeks approval for works in Uralba Street. Section 138 of the Roads Act states:-

"138 Works and structures

(1) A person must not:

- (a) erect a structure or carry out a work in, on or over a public road, or*
- (b) dig up or disturb the surface of a public road, or*
- (c) remove or interfere with a structure, work or tree on a public road, or*
- (d) pump water into a public road from any land adjoining the road, or*
- (e) connect a road (whether public or private) to a classified road, otherwise than with the consent of the appropriate roads authority."*

The appropriate roads authority for Uralba Street is Lismore City Council.

However, as set out in **Section 5.3** of this EIS, as the development is SSD and is made *"by or on behalf of the Crown"*, pursuant to Section 90(2) and 91(1) of the EP&A Act, the application is not *"integrated"* development for the purpose of Section 138 of the Roads Act.

5.7 State Environmental Planning Policy (State and Regional Development) 2011

The aim of this policy is to identify development that is State Significant Development (SSD). Pursuant to the SEPP SRD a project will be a SSD if it falls into one of the classes of development listed in Schedule 1 of the SEPP. 'Hospitals, medical centres and health research facilities' with a capital investment value (CIV) of \$30 million or more are identified as SSD and are considered to be development of State significance.

The works have a CIV of approximately \$57,541,508 million, and so qualifies as a SSD. A Quantity Surveyors Report by Altus Page Kirkland confirming the total CIV of the proposal is included at **Appendix 2**.

5.8 State Environmental Planning Policy No. 64 - Advertising and Signage

The aim of this Policy is to improve the amenity of urban and natural settings by managing the impact of outdoor advertising. This application seeks consent for signage for the proposed new hospital building, as set out in **Section 3.3** of this EIS. Signage is proposed to provide identification to the hospital, the new emergency department and directional / way-finding signage.

Clause 8 of SEPP 64 states that a consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied:

- (a) that the signage is consistent with the objectives of this Policy as set out in clause 3 (1) (a), and
- (b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 1.

In terms of the objectives in Clause 3(1)(a) we contend the proposed signage:

- is compatible with the desired amenity and visual character of the locality;
- provides effective communication in a suitable location, and
- is of high quality design and finish.

With regards to consistency with the assessment criteria of Schedule 1 of the SEPP we contend that the proposed signage:-

- Is compatible with the character of the area and other signage within the LBH campus;
- Will not result in any obscuring of any views, the skyline or vistas;
- Respects the viewing rights of other advertisers in the area;
- Is of a scale, proportion, form and design that is appropriate for the streetscape;
- Will not result in any visual clutter;
- Will not result in any adverse/excessive illumination or glare. Backlighting and surface lighting is proposed for illumination; and
- Will not reduce the safety for any public road, pedestrians or bicyclists.

The proposed signage is therefore consistent with SEPP 64.

5.9 State Environmental Planning Policy No. 55 - Remediation of Land

State Environmental Planning Policy No. 55 – Remediation of Contaminated Lands (SEPP 55) establishes State-wide provisions to promote the remediation of contaminated land.

Clause 7(1) of the SEPP 55 requires that a consent authority must not grant consent to a development unless it has considered whether a site is contaminated,

and if it is, that it is satisfied that the land is suitable (or will be after undergoing remediation) for the proposed use.

Coffey Geotechnics has undertaken a Stage 1 Environmental Assessment of the site to identify any past or present potentially contaminating activities on the site, provide a preliminary assessment of site contamination and, if necessary, provide a basis for a more detailed investigation.

For the purpose of the assessment, the site was divided into two (2) areas as follows:

- Area A – Pathology, Maternity, and Mortuary Units fronting Uralba Street
Lot 1 DP 511444, Lot 22 DP 589890, & Lot 21 DP 589890
- Area B – Proposed location for new Pathology Unit fronting Hunter Street
Lot 5 DP 17510, Lot 6 DP 17510, Lot 7 DP 17510, Lot 15 DP 17964, Lot 1 DP 350716, Lot 1 DP 350717, & Lot C DP 347500.

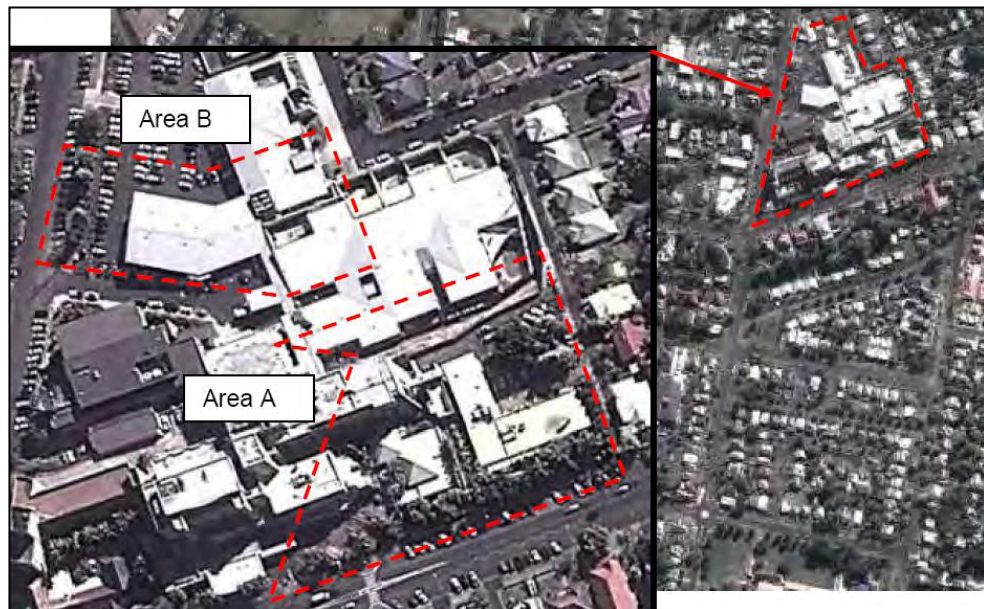


Figure 11 - Study Area for Assessment

Source: Coffey Geotechnics, Figure 1, Appendix 5

The site of the proposed development is located in "Area A".

The conclusion of the assessment is that there are no areas of environmental concern identified in either study areas of the site. The assessment also concludes that *"it is considered that the soils within Area A and B of the LBH site are suitable for the proposed ongoing commercial use"* and that *"additional Phase 2 Environmental Site Assessment is not required"*.

A complete copy of the assessment report prepared by Coffey Geotechnics can be found at **Appendix 5**.

5.10 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

SEPP 33 provides clear definitions of hazardous and offensive industries and aims to facilitate development defined as such and to ensure that in determining developments of this nature, appropriate measures are employed to reduce the impact of the development and require advertisement of applications proposed to carry out such development.

SEPP 33 requires an assessment of hazardous materials, involving a screening method based on the quantities of dangerous goods on a site, to assist in determining if a development is likely to be a potentially hazardous industry,

Whilst the development primarily consists of consolidation of existing services and no new hazardous activities on the site, AECOM has undertaken an assessment of the nature and quantity of dangerous good that will be stored/used at the Lismore Hospital (Stage 3A redevelopment) in accordance with the requirements of SEPP 33, and to identify if the development is considered to be potentially hazardous or offensive using the performance based criteria specified in SEPP 33.

The methodology used to assess the proposed Dangerous Goods store will be that supplied in the document “Applying SEPP33” distributed by the NSW Department of Planning. The methodology includes:-

- Review the products to be stored at the hospital and categorise them by class;
- Review the quantity of each class of Dangerous Goods;
- Compare the quantity of each class of Dangerous Goods to the acceptable limits of SEPP33;
- Determine whether the quantity is acceptable under the terms of SEPP33; and
- Report findings of the SEPP33 screening.

The findings of the assessment are in the report prepared by AECOM at **Appendix 24**.

The SEPP 33 Screening assessment undertaken by AECOM shows that Lismore Hospital is not considered to be potentially hazardous based on the Dangerous Goods stored and so no further assessment is required.

5.11 State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (“*Infrastructure SEPP*”) aims to facilitate the effective delivery of infrastructure across the State and identifies matters to be considered in the assessment of development adjacent to particular types of infrastructure development.

The Infrastructure SEPP aims to ensure that the RMS is made aware of and is given an opportunity to make representations in respect of traffic generating development. The SEPP sets out the types of development which must be referred to it. This affects the current proposal insofar as the SEPP (Schedule 3) requires referral of any proposal regarding a hospital with “*over 200 beds*”; LBH has 210 beds.

The development proposal will therefore be referred to RMS for comment and to assist RMS in its consideration of the proposal, a traffic and parking assessment has been prepared by TTW and is appended at **Appendix 17**.

5.12 Lismore Local Environmental Plan 2012

The DGRs state that the EIS is to address the provision of Lismore Local Environmental Plan 2000 and the Draft Lismore Local Environmental Plan 2011.

The Lismore Local Environmental Plan 2012 (LEP 2012) has come into effect following its notification on the NSW Legislation website on 22 February 2013. The 2000 LEP has therefore been superseded and is not required to be considered in the assessment of this application. Consideration of the LEP 2012 is undertaken below.

Zoning and Zone Objectives

As can be seen in the figure below, the site is zoned SP2 Infrastructure (Health Services Facility).

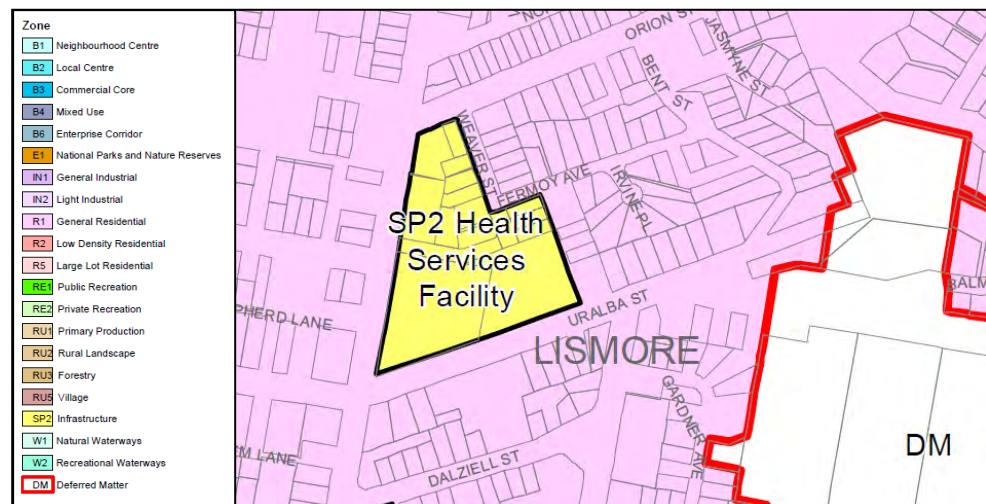


Figure 12 - Zoning Map Extract

Source: LEP 2012

The objectives of the SP2 Infrastructure Zone are:-

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

The proposed development is consistent with these objectives as it relates to the existing hospital use.

Permissibility

In the SP2 Zone, the following is permitted:-

"2 Permitted without consent

Building identification signs; Environmental protection works

3 Permitted with consent

Car parks; Environmental facilities; Flood mitigation works; Helipads; Passenger transport facilities; Roads; Signage; The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose."

As the proposed development relates to the existing hospital ("health services facility" as noted on the zoning map above), the proposal is permitted with consent on the site.

Flood Planning

As can be seen below, the site is not located in a flood planning area.

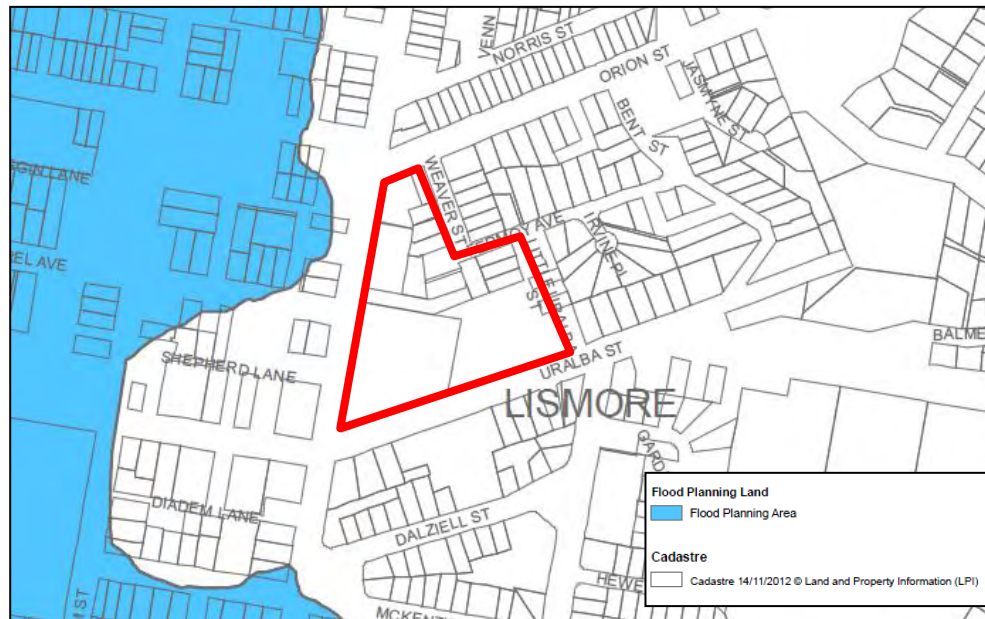


Figure 13 - Flood Planning Map Extract

Source: LEP 2012

Therefore, clause 6.3 of the LEP 2012 does not apply.

Height of Buildings

The site is not subject to any maximum building height under the LEP 2012.

This is confirmed in the figure below.

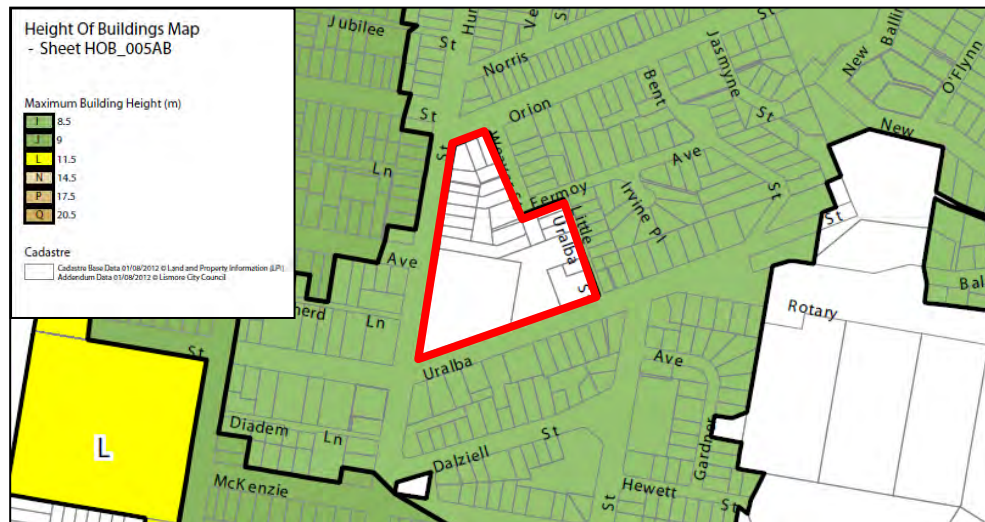


Figure 14 - Height of Buildings Map Extract
Source: LEP 2012

Floor Space Ratio

There is no floor space ratio applicable to the site under LEP 2012.

Heritage

As can be seen in the figure below, the site does not comprise a heritage or archaeological item and is not within a heritage conservation area.

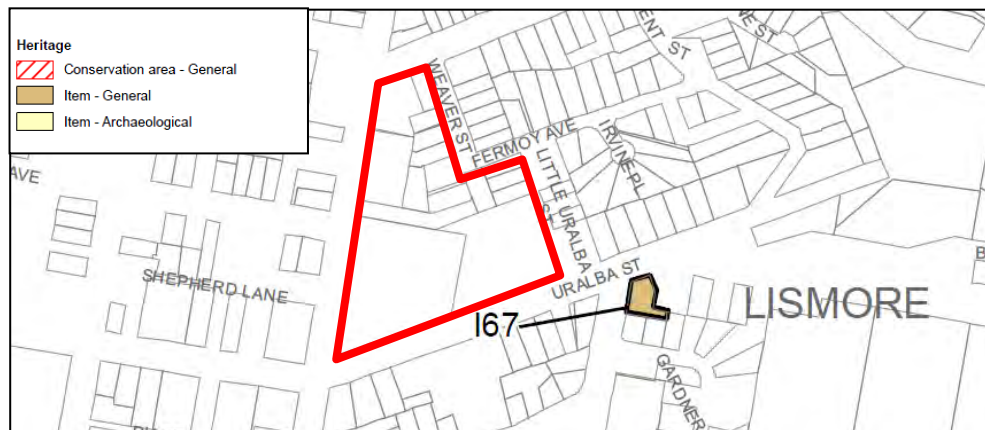


Figure 15 - Heritage Map Extract
Source: LEP 2012

However, the site is located within the vicinity of a local heritage item, being listing I67, known as Armstrong House ("Kiaora") at 83A Uralba Street.

Under the provisions of Clause 5.10 of the LEP 2012, the consent authority may, prior to granting consent, require a heritage management document which assesses the impact of a development on heritage items within the vicinity of the development site. To assess the potential impact of the proposed development on the heritage significance of Armstrong House, a Heritage Impact Statement ("HIS") has been prepared by City Plan Heritage, which concludes that the development is

satisfactory and will not result in any adverse impact on the heritage significance of Armstrong House.

A complete copy of the HIS can be found at **Appendix 19** and further discussion regarding heritage-related matters is undertaken in **Section 6.16**.

Airspace Operations

An Obstacle Limitation Surface ("OLS") is defined for Lismore Airport to ensure flight path and navigation clearance for air traffic.

The maximum height of development at LBH under the OLS is RL 54.5.

Clause 6.5 of the LEP 2012 states that if a development penetrates the OLS, consultation with *"the relevant Commonwealth body"* is required prior to granting consent. In this instance, the relevant body is CASA.

The maximum height of the proposed development is RL 51.38 (to the top of the parapet) and will therefore not penetrate the OLS. Consultation with CASA is therefore not triggered.

Essential Services

Clause 6.9 of the LEP 2012 states that consent must not be granted to development unless the consent authority is satisfied that the following services are available or that adequate arrangements have been made to make them available when required:-

- (a) the supply of water,
- (b) the supply of electricity,
- (c) the disposal and management of sewage,
- (d) stormwater drainage or on-site conservation,
- (e) suitable vehicular access.

Section 6.9 of this EIS provides an assessment of the utilities services demands, requirements and availability.

Conclusion

As demonstrated above, the proposed development is consistent with all relevant provisions of the LEP 2012.

STRATEGIC / POLICY PLANNING CONTEXT

5.13 NSW State Plan 2010

The NSW State Plan was issued in March 2010. The State Plan represented the former State Government's vision for the future of NSW, and at the time of preparing this EIS, remains in place.

The NSW 2021 State Plan provides a 10 year plan for NSW. The subject proposal is aligned with two (2) of the five (5) strategies NSW 2021 and three (3) of the key goals as follows:

- Return quality services, specifically meeting Goal 11 to *"keep healthy people out of hospital"* and Goal 12 to *"provide world class clinical services with timely access and effective infrastructure"*.
- Renovate infrastructure, specifically meeting Goal 19 to *"Invest in critical infrastructure"*.

The investment of the NSW government in the subject proposal will provide modern health services to the Lismore LGA, and wider regional area, providing better equipped and responsive health care needs to the changing local demographic. On this basis, the proposal is considered to support the goals of the NSW State Plan.

5.14 Far North Coast Regional Strategy 2006

The Far North Coast Regional Strategy was produced by the NSW government to develop policies and actions to address the region's projected future population growth in a sustainable manner. The Strategy covers the Lismore LGA and Lismore is identified as a *"Major Regional Centre"* and is therefore relevant to this application.

A summary of the key issues identified in the Strategy that relate to the site and this application are set out below:

- Lismore will continue to have a key role as a major regional centre in the far north coast region. 35% of future housing, for the anticipated 60,400 additional people expected to be living in the region over the next 25 years, will be accommodated with the three (3) major regional centres, including Lismore (and Tweed Heads and Ballina). This increase in population will result in an increase in demand for employment and services and the redevelopment of the LBH will be a key factor in meeting this increased demand.
- The Strategy identifies that the region's population demographic is changing, with the population ageing. This will also result in an increase in the demand for health care services and the proposal will aid in meeting this increased demand.
- One of the key visions for the future of the region is for people to be *"physically healthy"* and high quality, efficient public health services are a key factor in reaching this goal. Again, the proposal will aid in achieving this for Lismore and the wider region.

- Finally, the Strategy identifies major infrastructure projects in the region that will contribute to achieving the key goals and visions and the redevelopment of LBH is identified. There is an expectation that the redevelopment of the hospital (including the subject Stage 3A) will be undertaken to support the projected population increases and ageing population trend in the region.

5.15 Lismore Development Control Plan 2012

The Lismore Development Control Plan 2012 ("DCP 2012") provides more detailed provisions, supplementing the provisions of the LEP 2012.

Under the provisions of Clause 11 of SEPP SRD, Development Control Plans do not apply to State Significant Development. Therefore, strictly speaking, the DCP 2012 does not apply to this application.

However, as the DGR's issued state that consideration of the relevant DCPs should be undertaken, a brief assessment of the proposal with regard to the key provisions of the DCP 2012 is undertaken below.

DCP 2012 is divided into two (2) parts and various chapters, many of which do not apply to the development.

The sections that apply are considered below.

Off Street Parking - Chapter 7

Car parking requirements for hospitals are set out in this section of the DCP to be *"in accordance with RTA guidelines"*.

The traffic and parking assessment undertaken by TTW considers the existing and proposed parking arrangements associated with the proposed development, in accordance with this chapter of the DCP and RMS guidelines. A detailed assessment of this EIS is undertaken in **Section 6.6** of this EIS, and the complete Traffic and Parking Assessment report can be found at **Appendix 17**.

Flood Prone Lands - Chapter 8

As set out in the previous section of this EIS, the part of the site where the proposed development will be constructed is not flood prone. The site is also outside of the 1 in 100 ARI flood level. The north-western corner of the site is identified in DCP 2012 as being *"low flood risk"* but this part of the site is not relevant to this application.

As stated in the Civil Design Report prepared by TTW and **Section 6.12** of this EIS, the proposed Stage 3A development site is located within a higher south-eastern area of the site with a minimum level of RL 25.80m AHD and will not be subject to any flood risk.

Further consideration of this chapter of the DCP is not considered necessary.

Buffer Areas - Chapter 11

The objective of this Chapter is to minimise land use conflicts between potentially incompatible land uses through the establishment of appropriate buffer areas.

The "*Lismore Airport*" section of this chapter is relevant to the site. Consideration of this section is undertaken below.

The Civil Aviation Safety Authority ("CASA") has defined a set of Obstacle Limitation Surfaces for land surrounding Lismore airport, to provide a safe, efficient and predictable environment for aeroplanes which approach, land and takeoff at Lismore Airport. The objective of the OLS is to define airspace around the aerodrome which is to be kept free of structures and obstacles so as to enable aeroplane operations to be conducted safely. No structure or installation is to be erected within the airspace nominated without specific approval of CASA. As the site is located within the inner horizontal surface, as shown in the figure below (an area of 4,000 metres radius from the runway of the airport), the height "trigger" for approval requirements of CASA is RL 54.5 AHD.

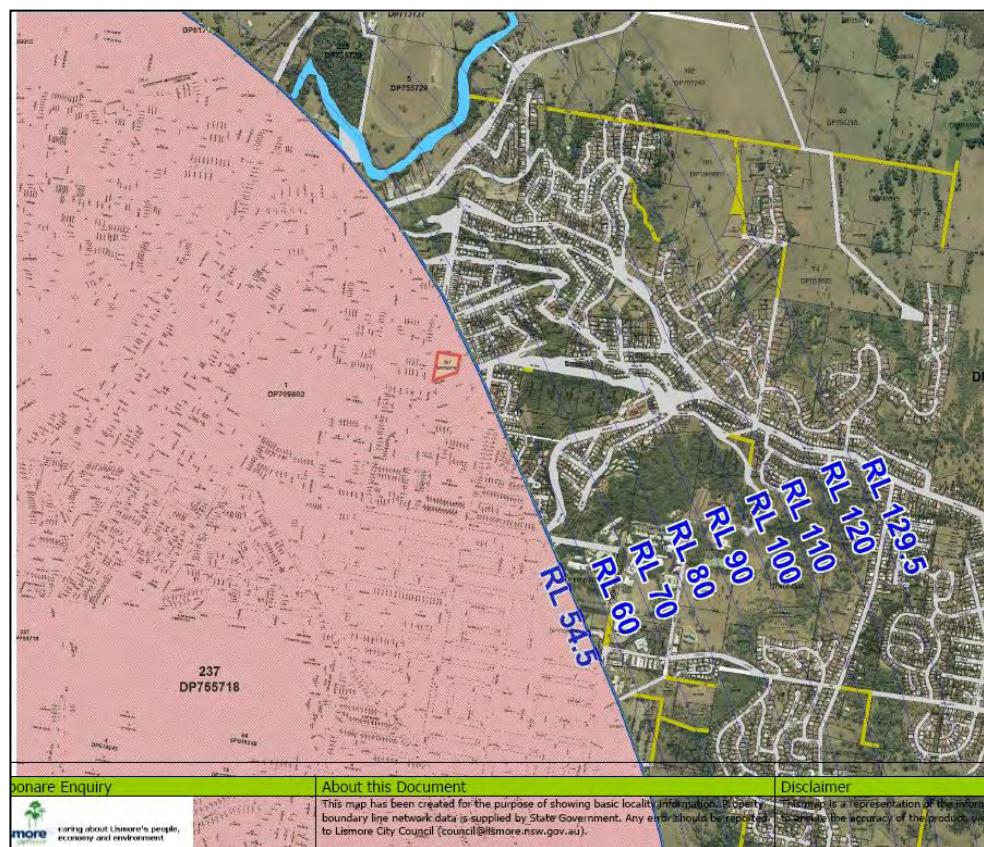


Figure 16 - Lismore Airport OLS, site outlined in red
Source: Lismore City Council

The maximum height of the proposed new Stage 3A building is RL 51.38 AHD and therefore, referral to, and approval by CASA is not required.

This section of the DCP also includes various noise attenuation requirements for land within a certain proximity to the airport.

As can be seen in the figure below, the site is not affected by any of these "airport noise buffer" requirements.

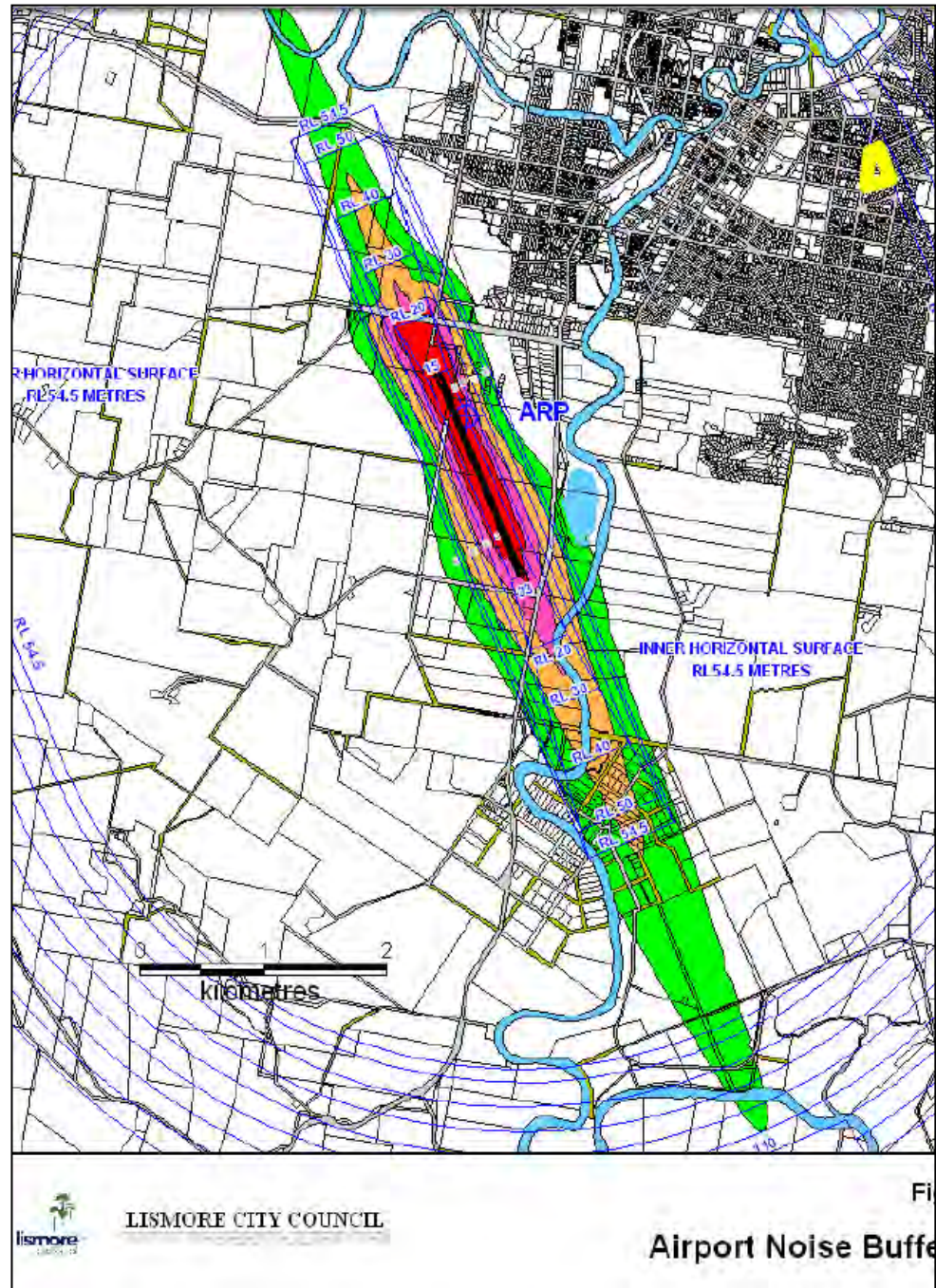


Figure 17 - Lismore Airport Noise Buffers, site outlined in yellow
Source: Lismore City Council

The proposal is consistent with this section of the DCP.

Heritage Conservation - Chapter 12

The site is not located in a heritage conservation and does not contain any heritage

items. However, the site is located within the vicinity of a local heritage item ("Armstrong House"). A Heritage Impact Statement ("HIS") has been prepared by City Plan Heritage, which considers all relevant heritage controls and provisions. The HIS concludes that the proposal will not impact on the significance of this heritage item.

Crime Prevention Through Environmental Design - Chapter 13

The proposed development promotes the principles of CPTED as set out in detail in 6.2 of this EIS.

Preservation of Trees or Vegetation - Chapter 14

As all of the tree removal has been approved under a separate approval and consent is not sought for the removal of any additional trees on the site under the subject application, this chapter of the DCP is not relevant.

Waste Minimisation - Chapter 15

This chapter of the DCP stipulates provisions and requirements in relation to the management of demolition, construction and ongoing operational waste.

The submission of construction and operational waste management plans with this EIS (refer to **Appendices 23 and 24**) satisfies these requirements of this chapter of the DCP.

Acid Sulfate Soils - Chapter 17

Map 16 of this Chapter of the DCP and the acid sulfate soils map in the LEP 2012 does not identify the land as comprising acid sulfate soils.

For this reason, and pursuant to the provisions of Clause 17.3.5 of this chapter of the DCP, a preliminary acid sulfate soils assessment and/or soil management plan is not considered to be necessary or required.

Water Sensitive Design - Chapter 22

Provisions regarding water sensitive urban design have been considered in the civil design report prepared by TTW at **Appendix 12**. The report considers the provisions of this chapter of the DCP and recommends WSUD measures to be incorporated into the final development. These recommendations are included in the mitigation measures in **Section 8** of this EIS.

Urban Area - Chapter 1 (Part 2)

The site is located within the "urban area" of the LGA and chapter 1 of Part B therefore applies.

The key objectives of this chapter are:-

1. *"To ensure that subdivision design takes into account the particular constraints and characteristics that apply to land in Lismore such as slope,*

bush fire hazard and urban bushland.

2. *To integrate the future road network servicing the DCP area with the existing surrounding road network.*
3. *To ensure that sufficient neighbourhood parks are provided to service the needs of residents in new release areas."*

These objectives aren't strictly relevant to the proposed development.

This chapter of the DCP also sets out constraints that apply to land throughout the urban area of the LGA. Consideration of these provisions is undertaken below.

Koala Habitat

As can be seen in the figure below, the site does not comprise any koala habitat.

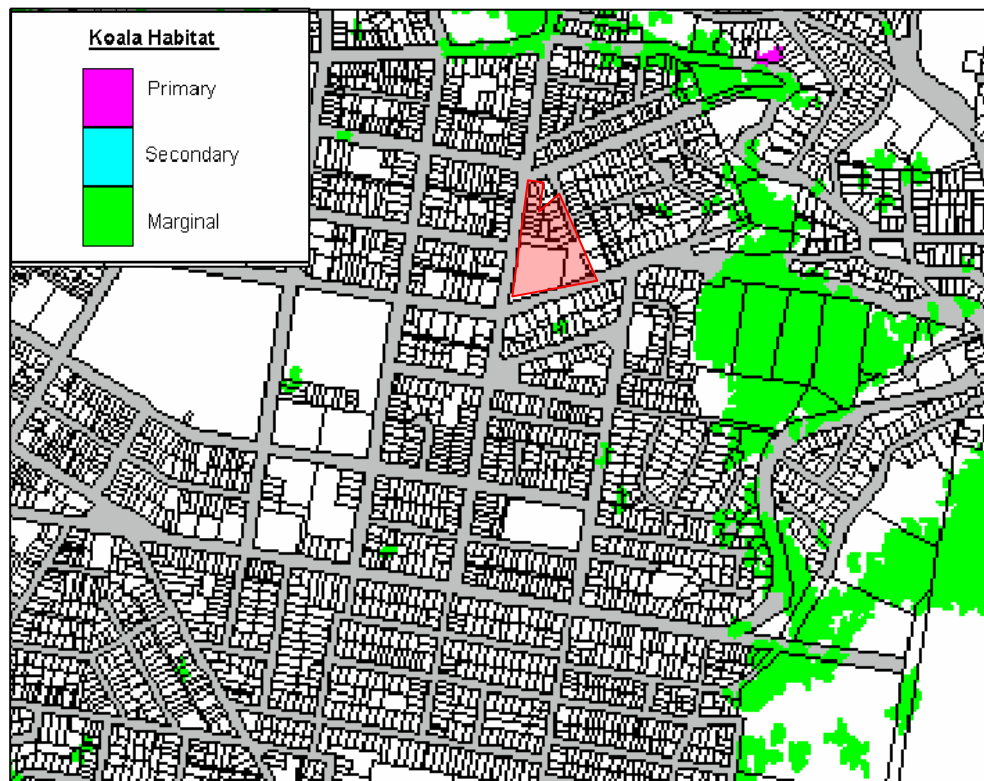


Figure 18 - Koala Habitat Map Extract, site shaded in red

Source: Lismore City Council

5.16 Lismore Regional City Plan 2005

The primary purpose of the Regional City Plan is to give expression to Council's vision for the future development of Lismore and the road and open space infrastructure that will be required to service new development.

Whilst not located directly within the Lismore CBD, the LBH site is located within the CBD precinct as identified in the maps in this Plan.

Most of the provisions in this Plan are not directly relevant to the site or the proposed development. However, generally, the proposal will be consistent with

the goals for the CBD area as it will aid in creating a more liveable city by improving public health-care and will result in the use of part of the LBH site to achieve its best potential.

The proposal is consistent with this Plan.

5.17 Lismore Urban Strategy 2005

A primary aim of the Lismore Urban Strategy is to *"reinforce Lismore's regional role and status by facilitating the City's growth through the identification of appropriate areas for new residential, commercial and industrial development"*. Achieving this will also require investing in the higher order services offered within Lismore, including extensive shopping facilities, two major hospitals, a university and a number of Commonwealth and State Government offices and legal services. Continued investment in, and redevelopment of, LBH is critical to achieving this goal, to ensure that the health-services requirements of the community are met.

The proposal is consistent with the Strategy in this regard.

5.18 Lismore Floodplain Management Plan 2002

The State Government's Flood Policy is directed towards flood hazard reduction in developed areas and to ensuring that new development is compatible with the flood hazard and does not create additional flooding problems.

The Lismore Floodplain Management Plan is aligned with the State Government's flood policy and proposes management strategies to be incorporated into a plan for the future management of flood liable land in Lismore.

As the development site is not identified as being flood prone or subject to any flood risk, consideration of this Plan is not necessary.

6 ENVIRONMENTAL IMPACT ASSESSMENT

6.1 Overview

In addition to the statutory controls addressed in **Section 5** of this EIS, the Director-General's Requirements ("DGR's") state that the environmental impacts of the proposal must be assessed, and specify key issues be considered. These relate to built form and urban design, environmental and residential amenity, transport and accessibility, contributions, contamination, heritage, Aboriginal heritage, ecologically sustainable development, drainage and stormwater, flooding, utilities, staging, flora and fauna, noise and vibration, waste, hazards and consultation. This section contains the assessment of those and other relevant considerations and includes recommended mitigation measures where necessary.

6.2 Built Form and Urban Design (DGR 3)

DGR

DGR 3 requires the application to consider:

- *"Address the height, bulk and scale of the proposed development within the context of the locality.*
- *Address design quality, with specific consideration of the overall site layout, streetscape, connection with the existing adjacent hospital buildings, axis, vistas and connectivity, open spaces and edges, primary elements, gateways, façade, rooftop, mechanical plant, massing, setbacks, building articulation, materials, choice of colours, including an assessment against the Crime Prevention Through Environmental Design Principles.*
- *Consider activity space on the ground level and create clearly defined paths of travel and legible public entry points."*

Assessment

The Lismore Local Environmental Plan 2012 does not prescribe any building height, floor space ratio or setback standards for development on the subject site. This is typical for sites zoned for "special" uses.

Any new development at LBH is therefore required to be designed in accordance with the surrounding locality, the desired future character of the area and also the character of the LBH campus. Consideration also needs to be given to the masterplan that has been prepared for the campus.

A design statement has been prepared by Woods Bagot, which explains the concept underpinning the design of the proposed new building and provides some background as to how the masterplan for LBH has informed the design of the Stage 3A building. The following is a series of extracts from the design statement.

Masterplan Overview

The proposed scheme design responds to the draft 2012 clinical services plan, functional briefs, scheme design user group process, and relevant guidance, and forms part of the sustainable master plan strategy for the future of LBH as described in the Concept Design Report.

The Concept Design Report includes details of a sustainable master plan for the future development of the Lismore Base Hospital.

The Architectural Design Principles in support of this master plan are:

- _Provision of improved entry conditions with clear legibility.*
- _Improving the clarity of access and way finding.*
- _Providing a healthy environment for all involved in healthcare.*
- _Maximising the site opportunities for natural light, views to natural vegetation.*
- _Green space, maintaining and utilising for the benefit of all.*
- _The new building will reflect best practice in terms of engineering services and will therefore require a greater floor to floor height than the existing buildings.*

Stage 3A is the first step along the path towards delivering the sustainable master plan and as such it is important that this development establishes appropriate parameters for future developments.

Stage 3A Design Overview

Stage 3A development unifies and integrates with the existing hospital building fabric by invoking a 'campus' model which will improve patient wellbeing and overall experience.

The architectural approach to the design, planning and overall methodology draws on unity as a concept. This unification can be seen in the entry design where access has been simplified and amalgamated, the new canopy structure links the new building with the existing structures to create cohesion, (with a reference back to the surrounding native flora – forest of columns) and the proposed façade design is a continuous weave from one level to the next as a unified design solution.

Stage 3A development of the hospital campus incorporates a new drop-off area for the emergency department and will define the future strategy for the redevelopment of Uralba Street as the main public arrival area.

Generous drop-off space will be provided with under cover access to the building entry for arrivals, plus the inclusion of a number of seating options for comfortable waiting.

New signature trees within the street and drop-off space reference the existing cultural trees and clearly identify drop off facility for those arriving by car and on foot.

The future stages of development will incorporate this drop off area into the broader green space strategy. In particular future improvements to Uralba streetscape will consider the link into the 'Hospital Square' reinforcing this area as an orientation point and community gathering space.

The site boundaries are Uralba Street to the South, little Uralba Street to the East, the existing Mental Health Unit and associated retaining structures to the North and the existing acute services buildings to the West.

The choice of site was based on constructing a new acute services building of approximately 10,000 sqm (over the longer term) and the refurbishment of Blocks C, as well as the partial demolition and refurbishment of Block A, delivering the clinical services required by the 2012 CSP.

The development will be built in stages and Stage 3A responds to the most pressing clinical needs by delivering new emergency, renal and community health services.

Planning for the overall Stage 3 redevelopment of LBH must be mindful of the current LBH physical infrastructure, to ensure that existing hospital assets are best utilized, adapted or decommissioned to maximize the priority health services provided by LBH now and into the future.

Height, Bulk and Scale

Despite the low density built-form context surrounding the site, the existing LBH buildings are visually prominent within the local area and the site has an existing character of taller buildings. The existing context of the site provides the opportunity to more easily integrate taller buildings on the site but the height and scale of the proposed building is still a matter that was considered in the design of the proposed scheme. Specific regard has been given to maintaining a balance between meeting the services needs outlined in the draft 2012 clinical services plan and functional briefs, and ensuring that the building is appropriately sited and scaled to minimise impacts on the surrounding locality and specifically, the low density residential dwellings opposite the site on Little Uralba Street. Some further discussion is provided below.

As can be seen in the figure below, the building predominantly presents as a part two (2), part three (3) storey building with a small portion of the building (western-most extent) presenting as four (4) storeys above ground. The uppermost level (Level 7) has been set back from the levels below, to provide a height transition and "tapering" to the Little Uralba "residential street" (to the east of the site).



Figure 19 - Southern Elevation 1

Source: Woods Bagot

This results in a design that converts the mass of the building to a humanistic scale by giving it the impression of a building containing fewer storeys than it has and allowing for variations in fenestration that are appropriate for a health facility.

The reduction in the height of the building at the eastern-most extent is an adopted design response to the low density residential context on the opposite side of Little Uralba Street. The proposed massing of the eastern elevation, the use of a variety of building materials and glazing and the proposed landscaped "buffer" to the eastern site boundary, will collectively aid in mitigating visual bulk and scale of the proposed building when viewed from the east and south-east.

In terms of the southern elevation of the building and its presentation to, and relationship with Uralba Street, the width of Uralba Street (approximately 19 metres) and the presence of health service buildings opposite the proposed building, create an opportunity to enhance the prominence of the hospital's street front and main entrance to the proposed new building. The proposed zero setback to the southern site boundary and design of the new hospital entrance, creates a stronger streetscape character and presence within the public domain. The proposed landscaping along the Uralba Street frontage will provide an appropriate level of "*softening*" to the frontage of the building. Reinforcement of the landscape treatment to both street frontages will achieve this and will enhance the visual appearance of the development and create a positive "arrival experience" for visitors and staff.

Materiality

The following is an extract from the design statement which sets out the principles underpinning the materials and finishes choice for the proposed Stage 3A building.

The proposal for the new building is to use materials that are fit for purpose and will provide cost effective solutions for the various requirements.

The palette is drawn from nature and the surrounding local vernacular architecture with reference to the more neutral materials within the existing campus. The material decisions are conceived as a direct response to the practical need and context of the facility. The need for openings and windows are directly related to clinical needs and planning responses. Given the location of the facility and local rural town context, we have endeavored to include a reference to the historical building materials and local industry.

The Lismore basalt bedrock has been incorporated into the palate using a basalt

coloured brick at the podium level where the building touches the ground, light weight compressed fibre cement in dark tones as we step up the building, then lightening as the building heads up and allowing for this to continue to weave up the future tower.

In addition to the above, materials and finishes has been driven by the following considerations:-

- Low or zero maintenance
- Ready availability
- Proven technologies
- Low carbon footprint and high sustainability
- Buildability and on site practicality
- A connection with nature and soft material palette
- Shade and shelter for building occupants and users
- Graffiti proof
- A sense of light and delight through a mixture of reflective and non reflective materials
- The need to provide robust and tough materials to areas where vehicles are manoeuvring and in high pedestrian traffic areas
- Have association with the existing buildings/historic context
- Insulated walls only to areas that have the requirement under Part J of BCA.

Specifically, materials chosen for the proposed development comprise a mix of:-

- CFC (compressed fibre cement) cladding in grey, light grey/off white, off white;
- Concrete off form with "copper patina" staining;
- Colourback glass in dark grey;
- Colorbond in "surfmist";
- Performance glazing;
- Aluminium plant room louvres;
- Brick in "bowral blue"; and
- Exposed blockwork.

Signage

External signage is proposed for the main entrance, emergency department, traffic signage / directional indicators, ambulance traffic signage, renal department entrance and all other signage to meet statutory requirements. Signage will be integrated with the building where appropriate and key signage (such as the ED signage) will be illuminated. The materials for signage is intended to be stainless steel plating, backlit or surface lit for day and night-time identification. The location and scale of the proposed external signage is shown on the elevation plans prepared by Woods Bagot.

Connectivity

Internal connectivity and street activation / connectivity are key features of the proposed new building. The development achieves the following:-

- Provides the mechanism for a future north-south pedestrian link to connect through the campus following future redevelopment;
- Creates the opportunity for a new internal east-west internal connection that will be established between the proposed Stage 3A building and the future Stage 3B development.
- Creates a new arrival experience and street activation and connectivity through the proposed new hospital entrance on Uralba Street. The new connection direct to the emergency department at Level 5 and from Uralba Street will link in with the existing main hospital entry at Level 4, both externally via a covered way/colonnade and also internally via an elevated link; A new access is also provided at Level 4 from Little Uralba Street, to the proposed mortuary; and
- Establishes new entries whilst still recognising the need to maintain and build upon existing connections.

All paths of travel from the proposed building to the public domain and other areas and buildings within the LBH site are clearly shown on the plans prepared by Woods Bagot. Activity space on the ground level is promoted, with an active and strongly defined building entrance and drop-off at the Uralba Street frontage.

Crime Prevention Through Environmental Design

The planning, layout and proposed materials of the building have taken into consideration the principles of Crime Prevention Through Environmental Design ("CPTED"). CPTED outlines four key principles, and the building has been designed in accordance with these, as assessed below.

Natural Surveillance

The proposed building will maintain good sightlines to pedestrian entries and walkways surrounding the site and to the building. The pedestrian entries will be appropriately lit and are situated in areas with a high level of hospital use. Lighting will be installed to meet the minimum Australian and New Zealand Lighting Standards that will not only provide wide and even spread of illumination but will also be adequate to meet operational requirements. In addition, appropriate signage will be installed to reinforce the building's main entrance and other secondary entrances.

The landscape design has been selected to ensure its placement, size and shape ensures safety and visibility for pedestrians.

Access Control

The key public access points to the building will be clearly defined using appropriate way-finding signage and through visual building form and landscape design.

Territorial Reinforcement

The building design and orientation clearly defines the public entries and back of house operations, including the services to the building. The separation of uses, signage and landscaping will ensure a clear distinction between the public and private domain.

Space Management

The proposed development will not result in the creation of space that would compromise the safety of users or surrounding residents. The street will offer a naturally illuminated space for the main building entrance, which will improve levels of safety, passive surveillance and provide identifiable way-finding.

Recommended Mitigation Measures

Not applicable.

6.3 Amenity (DGR 4)

DGR

DGR 4 requires the application to:-

"Assess solar access, acoustic impacts, visual privacy, servicing requirements (including but not limited to, waste management, loading zones, mechanical plant), view loss, overshadowing, lighting impacts and wind impacts. A high level of environmental amenity for land uses immediately adjacent and the surrounding residential areas must be demonstrated."

Assessment

One of the key principles of this development is to ensure levels of amenity are preserved for surrounding properties and also, for the future residents, staff and visitors of the new facility. Discussion is provided below.

Solar Access & Overshadowing

With reference to the shadow diagrams prepared by Woods Bagot, on 22 June and 22 December, all surrounding residential properties and particularly the residential dwellings on the eastern side of Little Uralba Street, will receive a minimum of three (3) hours solar access to living areas and private open space. Solar access for properties on the south side of Uralba Street are protected largely by the significant width of the street and retain high levels of solar access. Refer to the extract below from the Woods Bagot shadow diagram.

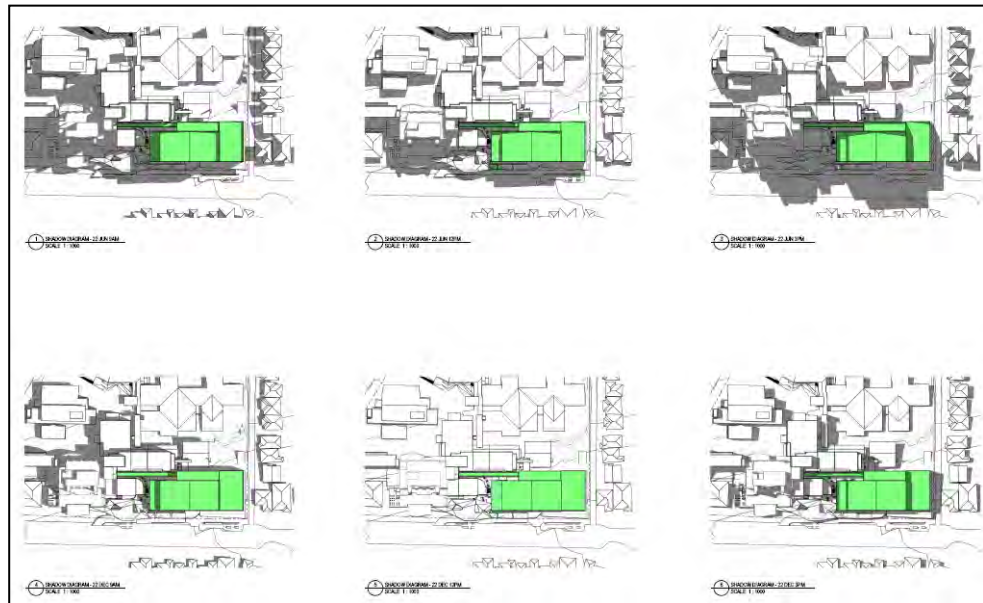


Figure 20 - Sun Shadow Diagram at 22 June and 22 December

Source: Woods Bagot

The proposed development is therefore consistent with the commonly applied overshadowing controls.

With regard to the above, the overshadowing impacts of the development are considered to be reasonable, with no adverse impact on the amenity of nearby residents.

Acoustic Impacts

The acoustic impacts of the development have been considered by AECOM in the report at **Appendix 16**. Further, **Section 6.5** of this EIS provides a summary of the findings of the assessment undertaken by AECOM. The conclusion of the assessment undertaken by AECOM is that subject to adopting the recommendations of the report, the proposed development will not generate any adverse construction or operational noise impacts within the site and externally.

Visual Privacy

The main area of consideration in terms of visual privacy is the potential for overlooking by the development to the residential properties to the east of the site and on Little Uralba Street. Windows are proposed in the eastern elevation of the building to maximise natural daylight and to "break up" the facade of the building, but given the residential properties on Little Uralba Street have an east-west orientation and their private open space is to the rear / west, there is little potential for overlooking from the proposed new building. The potential for overlooking is further mitigated by separation distances of the development from the primary rear open space of these dwellings which is assisted by the presence of Little Uralba Street between the subject site and these residential properties.

Visual Impact

As discussed in **Section 6.2** of this EIS, the proposed development has been designed to achieve a balance between responding to the functional needs of the hospital along with consideration of its low density setting and site characteristics. Achieving this balance is a difficult task, particularly as the site of the proposed new building is located at one of the highest parts of the site due to the natural topography of the land. Any new building on this part of the site will be visible. However, given the existing character of the site is that it comprises taller buildings, this sets a precedent for higher density and larger scale buildings on the site that currently exists on the land surrounding the hospital. It is also important to note that the relationship of the proposed new building and emergency (and other) services provided to LBH requires it to have a strong presence for external users and be easily defined and identifiable. To this end, while at the same time recognising the surrounding low density built form context of this part of the site, one of the key objectives of this development is to create a clearly defined, arrival experience for visitors and high levels of street activation and connectivity.

The design of the building, use of setbacks to the eastern site boundary, "stepping" the upper level of the building (Level 7) from the "sensitive" receivers (residential dwellings) to the east, use of a variety of materials and finishes (non-reflective), reinforced boundary landscaping and the opportunities offered by the presence of Uralba and Little Uralba Streets for natural separation and buffering to surrounding residential uses, are all factors that aid in reducing visual bulk and scale impacts.

Servicing Requirements

Waste Management

Waste Management Plans for both construction and ongoing operation has been prepared by Aurora Projects and NNSWLHD (respectively) and are submitted with this EIS.

Loading Zones

Access arrangements, turning paths and loading areas are shown on the plans at Appendix E of the traffic and parking assessment prepared by TTW (**Appendix 17**).

Mechanical Plant

Cooling towers and mechanical plant rooms are located at Level 7 and the roof top level. The Noise and Vibration Impact Assessment undertaken by AECOM and provided at **Appendix 16** of this EIS includes a series of recommendations to be adopted for mechanical services to mitigate any adverse noise emission to surrounding sensitive receivers. In summary, compliance with the relevant noise criteria can be achieved by using standard cooling tower noise mitigation measures and the recommended attenuators for the southern wall of the generator room, as set out in detail in the report at **Appendix 16**. These recommendations are included as mitigation measures in **Section 8** of this EIS.

View Loss

The proposed new building is positioned at one of the most elevated locations on the LBH campus. There will be no loss of views resulting from the proposal.

Lighting Impacts

Lighting is to be installed to meet the minimum Australian and New Zealand Lighting Standards that will not only provide wide and even spread of illumination but will also be adequate to meet operational requirements. In addition, appropriate signage will be installed to reinforce the building's main entrance and other secondary entrances, integrated with the building and illuminated or backlit for day and night-time identification.

A mitigation measures is included in **Section 8** this EIS to ensure that there will be no light spill or other lighting-related impacts resulting from the development.

Wind Impacts

The development site and proposed building is not located in a high density context with surrounding high storey buildings. Therefore, it is considered that the development is unlikely to have any adverse wind impact on the surrounding environment.

Recommended Mitigation Measures

All external lighting will be installed to meet the minimum Australian and New Zealand Lighting Standards that will not only provide wide and even spread of illumination but will also be adequate to meet operational requirements. In addition, appropriate signage will be installed to reinforce the building's main entrance and other secondary entrances. External lighting will be installed so as to not result in any light spill or other lighting-related impacts on the surrounding locality.

As set out in **Section 6.5** and **Section 8** of this EIS, the recommendations of the Noise and Vibration Impact Assessment undertaken by AECOM (**Appendix 16**) are included as mitigation measures to ensure that any adverse noise impact it managed and mitigated appropriately.

6.4 Ecologically Sustainable Development (DGR 5)

DGR

DGR 5 requires the application to:

- *"Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design, construction and ongoing operation phases of the development.*
- *Include a description of the measures that would be implemented to minimise consumption of resources, water and energy, including an Integrated Water Management Plan which details any proposed alternative*

water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design."

Assessment

The principles of ESD are defined by Clause 7(4) of Schedule 2 of the EP&A Regulation:-

"Schedule 2 Environmental impact statements

7 Content of environmental impact statement

(4) The principles of ecologically sustainable development are as follows:

*(a) the **precautionary principle**, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*

(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and

(ii) an assessment of the risk-weighted consequences of various options,

*(b) **inter-generational equity**, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*

*(c) **conservation of biological diversity and ecological integrity**, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*

*(d) **improved valuation, pricing and incentive mechanisms**, namely, that environmental factors should be included in the valuation of assets and services, such as:*

(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,

(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,

(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems."

The Precautionary Principle has been applied to the proposal through the careful evaluation of a range of options for the delivery of this critical piece of public health infrastructure. The proposal will not result in serious and irreversible damage to the environment and is therefore considered to comply with the Precautionary Principle.

With the redevelopment of the existing facilities on the site and construction of a new contemporary and high quality health facility, the proposal will promote inter-generational equity by ensuring that the present and future generations are provided with an enhanced level of public health care services.

The site for the proposed development is not considered to be of high ecological integrity. The proposed landscaping scheme for the site will incorporate tree planting that enhances the biodiversity value of the site.

The principles of improved valuation, pricing and incentive mechanisms have been considered in the weighting of value on the options considered for this project. The principles established in the design phase of this project look to minimise costs in the life of the project as well as using long life cycle materials to avoid unnecessary waste and maintenance.

Further to the above, we note that this project has been designed to ensure that consumption of resources, water and energy is minimised. The following are a series of extracts from the ESD statement prepared by Woods Bagot Architects:-

Environmental Concept Design

"Measures will be incorporated to minimise consumption of resources, water and energy. Due to the nature of the building, certain limitations exist in terms of the built form and building services strategy. This has been a consideration when determining the most suitable ESD initiatives."

As a NSW health project it is also required that the project complies with the NSW Health Engineering Services and Sustainable Development Guidelines (Technical Series TS 11). The proposed ESD initiatives for the development are intended to assist in achievement of these requirements, and facilitate high environmental outcomes. A holistic approach to ESD has been taken. Strategies in environmental management, passive design, energy, water and transport have been considered."

ESD Strategies

Environmental Management:

Environmental Management will ensure that the best outcomes are achieved.

- *Commissioning and building tuning will be performed in accordance with relevant codes to ensure that the building operates efficiently.*
- *A building users guide will be made available to the occupants and staff with information on environmental features of the building, including how to occupy the building correctly.*

Passive Design

Incorporating passive design principles is an effective method of reducing energy consumption and increasing quality of the indoor environment. It is imperative that the form of the building manages the impact of the external environment to reduce the requirement for space heating, cooling and lighting. Through the implementation of appropriate passive design, it will be possible to mitigate the impact of external weather conditions on the internal spaces to provide a comfortable internal environment with minimum energy consumption.

- *Maximised daylight to increase the quality of the indoor environment and reduce reliance on artificial lighting: The building has high levels of glazing*

to the facades. This will assist in providing daylight to the perimeter spaces. Lighting controls such as daylight sensors in perimeter zones should be incorporated to reduce the lighting demand.

- *Passive solar shading features to reduce discomfort from glare, solar loads and comfort cooling demand: The shading design and window orientation seek to balance adequate daylight to the space with visual privacy for the occupants as well as solar control to reduce heat gain in summer and promote passive solar heating in winter.*
- *Thermal mass to stabilise indoor air temperatures: The building has a high thermal mass, with floor and wall extents made from concrete. By allowing sun to warm the mass in winter and shading it in summer, more stable indoor air temperatures can be achieved, reducing the space heating and comfort cooling, and improving thermal comfort for the occupants.*
- *High performance materials to prevent thermal losses and gains through the building envelope: Roof R Value to comply with section J as a minimum, walls R Value to comply with section J as a minimum, double glazed windows and high performance glazing where required. Insulation will mitigate the impact of external weather conditions on the indoor environment.*

Services:

Electrical Services:

Efficient lighting control strategies and effective monitoring will reduce electrical demand for the building:

- *Efficient lighting – for external and internal purposes.*
- *Lighting zoning and sensors –Ensure that lighting is not on when it is not required e.g. in an empty room or space. Inclusion of motion sensors in rooms other than patient bedrooms will enable adequate control of lighting.*
- *Connection to a BMS – a BMS will collate the meter readings for easy interpretation and analysis.*
- *Services including security, access control, intercom, nurse call, distress alarm, etc to all comply with TS11 and required Australian and legislative requirements/standards.*

Mechanical Services:

- *The system proposed is based on the requirement to provide economical capital and running cost options, as well as simple maintenance (via level 7 plant) including future proof technologies.*
- *New Building Management Control System is proposed to be included and connect to the existing Hospital system.*
- *The mechanical services have been selected to be of the highest efficiency within the restrictions imposed by the nature of the facility.*

Hydraulic Services:

Reduce water demand with water efficient practices and efficient fittings.

Quality of Indoor Environment and Places of Respite:

As part of the holistic approach to sustainability, the indoor environment will be maintained to a high quality. This enhances the comfort and wellbeing of occupants. In addition to increasing the daylighting to the building, the following initiatives will be implemented:

- Noise control – Ensure that noise levels from building services are not excessive, or disruptive to occupants*
- High frequency ballasts – Ensure that uncomfortable flickering does not disturb occupants*
- External views – Allow occupants to feel connected to the outside environment*

Materials:

Material selection will aim to reduce the environmental impact of the building's construction through the use of sustainable materials in construction, recycling and waste minimisation (construction and operation).

Adequate storage will be provided within the building to allow for storage of recyclable waste. This encourages good management of waste streams from the building.

Materials selection can also have a significant impact on the quality of the indoor of the building.

- Sustainable materials will be sourced where practical.*
- Products will be selected which contain low levels of VOC's - Paints, adhesives, sealants, flooring, wall and ceiling coverings and mattresses.*
- Flooring, joinery, furniture, ceilings, walls and partitions will be selected that are environmentally sensitive in their design and production. This includes recycled content, design for disassembly, longevity, and product stewardship."*

In addition to the above, and with reference to the Integrated Water Management Plan prepared by Donnelley Simpson Cleary (**Appendix 13**), the following strategies are proposed to aid in water minimisation and appropriate management:-

- Direct connection to the authorities watermain in Uralba Street via a water meter located adjacent to the Uralba street frontage*
- Water storage tank to ensure a water supply (limited time period) to the facility should the water main fail*
- Installation of a water storage tank will also reduce "peaks" in water draw-off with a slower more steady draw-off*
- To reduce contamination of the potable water supply backflow prevention devices will be installed as per the requirements of AS3500*
- The installation of water saving taps and outlets to reduce water consumption will be adopted*

On the basis of the above, the proposal is considered to be consistent with principles of ESD.

Recommended Mitigation Measures

Incorporate all of the ESD principles and measures set out in the Integrated Water Management Plan prepared by Donnelley Simpson Cleary (**Appendix 13**) and the ESD Statement prepared by Woods Bagot (**Appendix 15**) in the detailed design of the development.

The design is to comply with the energy efficiency requirements of Section J of the National Construction Code (NCC 2012, previously known as the Building Code of Australia).

6.5 Noise (DGR 6)

DGR

DGR 6 requires the application to:

- *"Identify and provide a quantitative assessment of the main noise generating sources and activities at all stages of construction, and any noise sources during operation. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.*

Relevant Policies and Guidelines:

- *NSW Industrial Noise Policy (EPA)*
- *Interim Construction Noise Guideline (DECC)"*

Assessment

A Noise and Vibration Impact Assessment has been undertaken by AECOM to address DGR 6. The scope of the assessment is as follows:-

- Establish the existing background noise levels in the vicinity of the Lismore Base Hospital;
- Establish the environmental noise and vibration management levels that would apply within the study area during the construction and operational phases from the proposed development;
- Predict external noise levels at nearby residential receivers due to the construction of the development;
- Predict external noise levels at nearby residential receivers due to the operation of the development;
- Predict noise levels from additional traffic generated by the development;
- Review any sources of vibration that may have effects on buildings and human comfort; and
- Provide mitigation measures where necessary to reduce noise emission and vibration propagation from the redevelopment to comply with established noise and vibration limits.

The assessment was undertaken in accordance with the following key criteria:-

- Environment Protection Authority (EPA) NSW Industrial Noise Policy (INP);
- EPA NSW Road Noise Policy (RNP); and

- EPA NSW Interim Construction Noise Guideline (ICNG).

The conclusions of the assessment undertaken by AECOM is set out below.

Construction Noise Generation

The assessment of potential construction noise generation from the Stage 3A redevelopment by AECOM concludes:-

Since a detailed construction plan has not been provided, typical construction scenarios have been assumed which include three phases; excavation and earthworks, road works and construction. Plant equipment was also assumed for these phases. These phases and plant lists were assumed through AECOM's experience with similar projects.

Temporary hoarding 2.4 m high has been recommended along the eastern side of the construction zone to reduce noise levels at receivers located along Little Uralba Street. The results presented in Appendix D are based on 'worst-case' scenarios, where all equipment is operating continuously during a 15 minute period.

Upon beginning construction of this redevelopment, the contractor should be required to develop a CNVMP that feasibly and reasonably mitigates noise to affected receivers.

Construction traffic has been assessed on a worst case basis and would result in a maximum increase in noise of 1.1 dB during any AM or PM peak period.

Traffic Noise Generation

The assessment of potential traffic noise generation from the Stage 3A redevelopment by AECOM concludes:-

Noise generated from additional traffic by the redevelopment has been assessed against the NSW Road Noise Policy. The increase in traffic is less than 2 dB(A) increase allowance and would comply with the NSW Road Noise Policy requirements.

Based on the above, no mitigation measures are required to address any noise generated from additional traffic resulting from the proposed development.

Construction Vibration Assessment

The assessment of potential vibration impacts resulting from construction of the Stage 3A redevelopment by AECOM concludes:-

The assumed construction equipment includes vibration intensive equipment. As such, a vibration management strategy should be created before commencing construction of this redevelopment. Table 11 should be referred to in determining the safe working distances to structures and their occupants.

Recommendations have been provided in Section 5.5 to mitigate the effects of vibration intensive activities.

Mechanical Services Noise Emission

The assessment of potential operational noise impacts resulting from mechanical services in the Stage 3A redevelopment by AECOM concludes:-

The operation of the redeveloped hospital was assessed against the most stringent night-time criteria in accordance with the NSW Industrial Noise Policy. Exceedances of up to 4-7 dB were predicted at nearby noise sensitive receivers, including residential receiver numbers 28, 31, 32, and 34 (refer to Figure 1). However compliance would be achieved by using standard cooling tower noise mitigation measures.

The assessment identified that attenuators are required for the southern wall of the generator room. With these design recommendations in place, noise associated with the use of the emergency generators was assessed against a relaxed environmental noise emission criterion, the predicted noise levels indicate compliance with the criterion.

A complete copy of the Noise and Vibration Impact Assessment prepared by AECOM is provided at **Appendix 16** of this EIS.

Recommended Mitigation Measures

The Noise and Vibration Impact Assessment prepared by AECOM concludes that there will be no adverse construction or operational noise and vibration impact, providing the recommendation of the report are adopted. To this end, these recommendations are included as mitigation measures in **Section 8** of this EIS.

6.6 Transport and Accessibility (DGR 7)

DGR

DGR 7 requires the application to:

- *"Detail access arrangements at all stages of construction and measures to mitigate any associated traffic, pedestrian or cycleway impacts.*
- *Provide details regarding car parking arrangements during construction, including the displacement of visitor and patient car parking. Alternative off-site arrangements should be made for staff and construction workers.*
- **Operation:**
- *Detail how the development has taken into consideration travel choices, and how the development contributes to the achievement of transport objectives contained in NSW 2021.*
- *Assess the implications of the proposed development for non-car travel modes (including public transport use, walking and cycling), including the potential for implementing a location-specific sustainable travel plan (eg*

'Travelsmart' or other travel behavioural change initiatives), and the provision of facilities to increase non-car mode share for travel to and from the site. This will entail an assessment of the accessibility of the site by public transport.

- *Provide details of the proposed daily and peak vehicle movements likely to be generated by the proposed development, including the impact on nearby intersections, local and state roads, and the need/associated funding for upgrading or road improvement works (if required). This is to include an analysis of the likely impact of the proposal on traffic flow and parking along sections of Uralba Street and Hunter Street directly adjacent to the hospital campus. AUSTROADS standards should be adopted for any necessary upgrading of the surrounding road network.*
- *Detail the proposed access and parking provisions associated with the proposed development, including compliance with any parking codes and compliance with the relevant Australian Standards (ie: turn paths, sight distance requirements, aisle widths, etc). A 'Parking Management Plan' and 'Travel Plan' shall be prepared for the hospital where parking for the proposal is proposed at an off-site location.*
- *Detail the proposed service vehicle movements (including vehicle types and the likely arrival and departure times).*

Relevant Policies and Guidelines:

- *Guide to Traffic Generating Development"*

Assessment

A traffic and parking assessment has been prepared by TTW to address this DGR and the detailed requirements above. A summary of the findings of that assessment is provided below:-

Construction Access

A comprehensive Construction Traffic Management Plan ("CTMP") will be prepared prior to the commencement of works. Construction access routes will be in line with Council and RMS requirements and all vehicular movements to and from the site will be in a forward direction. Refer to Section 4.7 of the report prepared by TTW for preliminary arrangements for construction access.

Further to the above and with reference to pedestrian access during construction, the report prepared by TTW states:-

The public domain on the northern side of Uralba Street is proposed to be upgraded as part of the proposed works. During the upgrade, pedestrians will be directed onto the roadway (parking area) around the works area. Appropriate signage and safety barrier systems as required will be installed to ensure public safety.

Public pedestrian access to the main hospital entrance will be via alternative entrances within the hospital buildings. Appropriate way finding signage will be erected to provide direction the hospital reception area.

Construction Parking Arrangements

Parking for construction workers will be located off the hospital site within walking distance. Workers will be instructed not to park in Hunter and Uralba Streets.

Site employees will be directed to make use of car pooling and public transport options where possible as part of being inducted into the site upon works commencement. Refer to Section 4.7 of the report prepared by TTW for further information.

Parking Implications of the Development

Section 1.1 of the report prepared by TTW provides a review of parking demand and supply for the site and based on this review, TTW conclude that the proposed development will generate demand for an additional 110 car parking spaces.

The proposed development does not include the provision of any additional parking under this application. However, as detailed in **Section 4.2.1** of the report prepared by TTW (**Appendix 17**), the Proponent has confirmed that additional parking in excess of the additional 110 spaces required to cater for this demand will be provided within walking distance, and adjacent, to the hospital site. These works are the subject of a separate business case study and the final chosen option for the provision of car parking will be based on the outcomes of this study and availability of funding. However, to ensure that the car parking demand generated by this development is addressed and catered for, a mitigation measure is included in **Section 8** of this EIS to ensure that this additional car parking is carried out prior to the occupation of the subject Stage 3A development.

Traffic Implications of the Development

Section 4.4.2 of the TTW report assesses the potential traffic impact of the development. The findings of that assessment are that the proposed development will have a minimal impact on the surrounding road system and its intersections operation. TTW also concludes that considering the spare capacity along streets surrounding the hospital site, it is clear that street operation will continue to be satisfactory once the project is completed.

Service Vehicle Movements

The access arrangements to the site and its loading areas have been demonstrated by turning paths and are included in Appendix E of the report prepared by TTW.

Transport Management Strategy

Section 5 of the report prepared by TTW sets out a transport management strategy for the development, which draws on key transport objectives of a number of key planning documents (including the NSW State Plan).

To address the objectives in these documents, and as a part of the proposed redevelopment plan for the Hospital, we refer to the following extract from Section 5 of the TTW report:-

It is vital to take into account the future level of population increase within the region and to provide solutions that are complementary to State, regional and local transport plans.

Therefore, following measures are put forward for consideration and implementation in order to achieve the desired goals and targets as outlined above and detailed in relevant planning documents:

- *Preparation of Travel Plan for the Hospital.*
- *Preparation of Transport Access Guide for the Hospital.*
- *Provision of incentive schemes among staff e.g. subsidised bus tickets.*
- *Negotiation with bus agencies for provision of frequent bus services with faster and more direct destinations e.g. shuttle bus between city centre/shopping areas and the Hospital.*
- *Establishment of a waiting list for parking space for new Hospital staff. This means that any new staff will not have a parking space until one becomes available.*
- *Introduction of parking fees for new Hospital staff, possibly combined with provision of subsidised public transport tickets.*
- *Provision of better, safer (in terms of route alignment as well as security) bicycle and pedestrian routes. This measure should be devised in consultation with Council and other authorities.*
- *Promotion of the merits of walking and bicycle riding in order to encourage staff living near the Hospital to leave their cars at home.*
- *Provision of bicycle parking within the campus.*
- *Provision of safer and higher quality bus shelters or waiting areas.*

Recommended Mitigation Measures

As the Proponent has advised that it is committed to providing at least 110 additional car parking spaces for the proposed Stage 3A building, within walking distance of the existing Hospital entrance, a mitigation measure is proposed to recommend that this is carried out prior to the occupation of the building.

All construction related traffic and parking management measures are to be incorporated into a comprehensive Construction Management Plan ("CMP"), to be prepared by the Appointed Contractor. This CMP is to incorporate a comprehensive Construction Traffic Management Plan ("CTMP") and is to be prepared prior to the commencement of works.

The recommendations of the report prepared by TTW (**Appendix 17**) in relation to transport management are to be implemented, including, but not limited to, the preparation of a Travel Plan and Transport Access Guide for the hospital. These plans are to be prepared prior to occupation of the proposed Stage 3A building.

6.7 Flora and Fauna (DGR 8)

DGR

DGR 8 requires the application to:

- *"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.*
- *Identify and justify the removal of any mature trees."*

Assessment

The LBH site has been used for hospital and healthcare purposes for decades and presents a developed urban environment.

The development will not have an impact on threatened species, populations or ecological communities. A comprehensive landscaping scheme is proposed for the development and this will improve the ecological integrity of this part of the LBH site.

Recommended Mitigation Measures

Implementation of the proposed landscape strategy prepared by 360° in accordance with the plans at **Appendix 11**.

6.8 Sediment, Erosion and Dust Controls (DGR 9)

DGR

DGR 9 requires the application to:

- *"Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles.*

Relevant Policies and Guidelines:

- *Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom)*
- *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)"*

Assessment

In the first instance, we note that the site is not located in an area of land that is subject to any key constraint in terms of land slope, land slip or erosion.

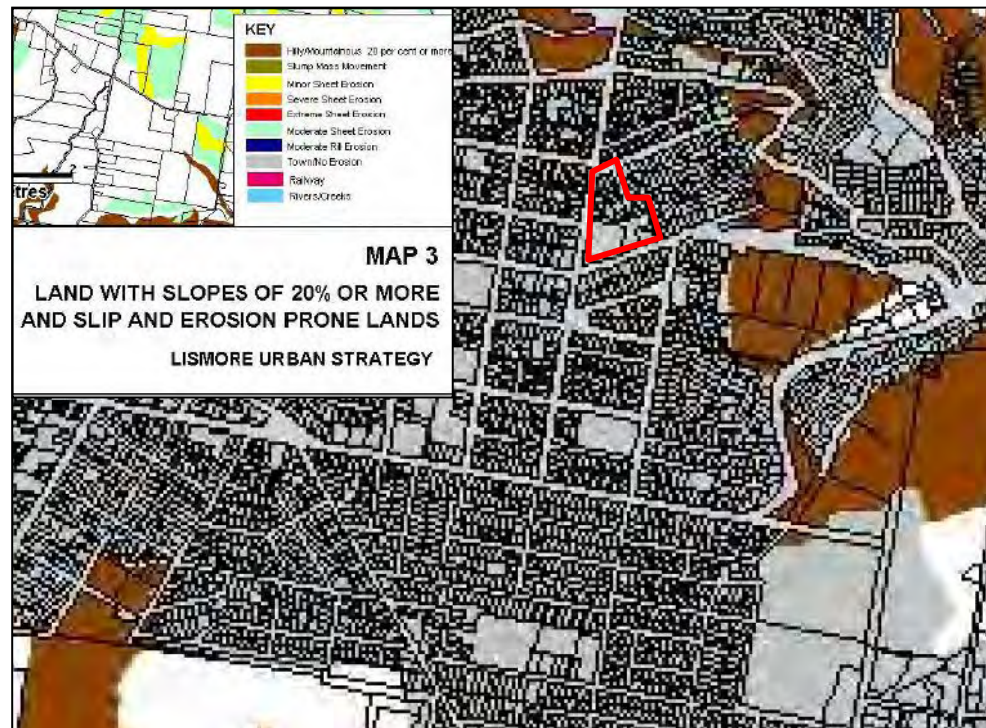


Figure 21 - Map extract of land with slopes of 20% or more and slip and erosion prone lands

Source: Lismore Urban Strategy

Notwithstanding this, erosion and sediment control measures will be undertaken for the excavation and construction works required for this project. These measures will be undertaken generally in accordance with "The Blue Book". These measures are detailed in the erosion and sediment control plan prepared by TTW at **Appendix 14**.

A detailed soil and sedimentation plan will be prepared in accordance with The Blue Book prior to construction and will be included in the Construction Management Plan.

Recommended Mitigation Measures

Preparation of a comprehensive soil and sedimentation plan generally in accordance with the preliminary plan prepared by TTW at **Appendix 14**.

6.9 Utilities (DGR 10)

DGR

DGR 10 requires the application to address the following:

- "In consultation with relevant agencies, the EIS shall address the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure through the preparation of an Infrastructure Management Plan.*
- Prepare an Integrated Water Management Plan detailing any proposed*

alternative water supply, proposed end users of potable and non-potable water, demonstration of water sensitive urban design and water conservation measures."

Assessment

An assessment of the existing capacity and any augmentation requirements for the provision of utilities for the development has been undertaken by the project team and is summarised below:-

Power

Wood and Grieve confirm that the relevant supply authority for the region is Essential Energy. The existing LBH site is served by the following Essential Energy supplies:

- 2x1,000kVA chamber substation located within the existing Block B.
- 1x1,000kVA pad-mount substation located adjacent to the existing Cancer Care building.
- 1xthree phase overhead low voltage (LV) from the Essential Energy 300kVA transformer located on Hunter Street.

The existing substations have insufficient spare capacity to serve the Stage 3A Redevelopment.

A new 1,500kVA pad-mount substation will be required to serve the building. The new substation will be located to the south of the Stage 3A building. New Essential Energy underground high voltage cabling will be provided to the new substation.

Wood and Grieve confirm that this arrangement has been approved by Essential Energy and the correspondence attached to the services statement confirms this. New underground low voltage consumers mains cabling will be provided from the new substation to the new Stage 3A building.

Refer to the services statement prepared by Wood and Grieve at **Appendix 9** for confirmation of the above.

Telecommunications

Wood and Grieve confirm that the existing site is served by the following telecommunications carriers (lead-in services):

- Telstra
- Australia's Academic and Research Network (AARNET)
- Nextgen (TPG)

Telecommunications carrier upgrades are not required to serve the new development. Diversions of existing telecommunications carrier plant will be undertaken as required to facilitate the new development.

Refer to the services statement prepared by Wood and Grieve at **Appendix 9** for confirmation of the above.

Sewer

Donnelley Simpson Cleary confirm that sanitary plumbing and drainage from the proposed development will connect into the existing hospital's 150mm sewer, located in a north-westerly direction from the Stage 3A site. Donnelley Simpson Cleary confirms that initial discussions with authorities have indicated that existing infrastructure should be adequate to support the Stage 3A development.

Refer to the services statement in the Integrated Water Management Plan prepared by Donnelley Simpson Cleary at **Appendix 13** for confirmation of the above.

Water

As set out in the services statement prepared by Donnelley Simpson Cleary at **Appendix 13**, water to the redevelopment will extend from the authorities watermain in Uralba Street via a water meter located adjacent to the Uralba street frontage. Water will initially supply an onsite water storage tank with water from this tank supplying domestic cold water fixtures and fittings as well as hot water plant, mechanical plant. Cold water will feed the fire storage tanks located in the bottom of the building.

As with the existing hospital sewer, Donnelley Simpson Cleary note that initial discussions with authorities confirm that existing water infrastructure will be adequate to cater for the redevelopment.

Gas

As set out in the services statement prepared by Donnelley Simpson Cleary at **Appendix 13**, gas to the redevelopment will extend from the authorities Liquefied Petroleum Gas (LPG) main located in Uralba Street. Gas will supply domestic hot water plant, future "back of House" facilities and mechanical heating plant via a gas meter located adjacent to the Uralba street frontage.

As with the existing sewer and water infrastructure, DSC note that initial discussions with authorities confirm that existing gas infrastructure will be adequate to cater for the redevelopment.

Integrated Water Management Plan

The measures incorporated within the Integrated Water Management Plan with regard to implementations to minimise water and energy and water sensitive urban design measures are set out in the reports prepared by TTW (**Appendix 12**) and DSC (**Appendix 13**). A summary is set out below.

The key measures set out by Donnelley Simpson Cleary for integrated water management include:-

- *"Direct connection to the authority's watermain in Uralba Street via a water meter located adjacent to the Uralba street frontage;*

- *Water storage tank to ensure a water supply to the facility should the water main fail;*
- *Installation of a water storage tank will also reduce “peaks” in water draw-off with a slower more steady draw-off;*
- *To reduce contamination of the potable water supply backflow prevention devices will be installed as per the requirements of AS3500; and*
- *The installation of water saving taps and outlets to reduce water consumption will be adopted.”*

The civil report prepared by TTW sets out recommendations to address principles of water sensitive urban design, as set out below:-

"3.4 Water Sensitive Urban Design

In addition to stormwater detention, stormwater quality control filtering such as oil and silt traps will be required prior to discharge from impervious areas. As compared to baseline, Council’s Water Sensitive Design DCP requires the following reduction in mean annual pollutant loading:

- *75% reduction in Total Suspended Solids (TSS)*
- *65% reduction in Total Phosphorus (TP)*
- *40% reduction in Total Nitrogen (TN)*
- *90% reduction in Gross Pollutants (GP)*

Council’s “Deemed to Comply” water quality treatment solution in the DCP is 1.8% of the site area to be set aside for bio retention. This would be about 600 sq.m for the hospital site. To maximize developable area on the hospital site, TTW recommend a treatment train of on-site detention tank, trash rack, Humeceptor secondary treatment device and three Spelfilter tertiary treatment units. TTW has prepared MUSIC modelling has been carried to design the treatment train and confirm the Council required pollutant load reductions will be met by the proposed treatment train. See the attached Stormwater Management Plan for additional detail.”

Recommended Mitigation Measures

Compliance with the requirements of the relevant public authorities in regard to the connection to, relocation and/or adjustment of services affected by the construction of the proposed development is included as a recommendation of this EIS.

Furthermore, the recommendations set out in the TTW civil design report and the Integrated Water Management plan prepared by Donnelley Simpson Cleary are to be employed within the detailed design and ongoing operation of the development.

6.10 Staging (DGR 11)

DGR

DGR 11 requires details regarding the staging of the proposed development, if applicable.

Assessment

The redevelopment of LBH is based on a staged Masterplan. The subject application forms part of Stage 3A (main building works).

Phasing of Stage 3A works is set out in **Section 3.4** of this EIS.

Recommended Mitigation Measures

Not applicable.

6.11 Contributions (DGR 12)

DGR

DGR 12 requires the application to:

- *"Address Council's Section 94 Contribution Plan and Section 64 water and sewer developer service charges and/or provide details of any Voluntary Planning Agreement."*

Relevant Policies and Guidelines:

- *Lismore City Council Contributions Plan March 2004*
- *Lismore City Council Development Servicing Plan for Water Supply 2007/08*
- *Lismore City Council Development Servicing Plan for Wastewater 2007/08."*

Assessment

Where a proposed development will, or is likely to, require the provision of or increase the demand for public amenities and public services within the area, the consent authority may, under Section 94 of the EP&A Act 1979, grant the development consent subject to a condition requiring dedication of land free of cost, payment of a monetary contribution or both.

Section 94 Contributions

The levy / contribution sought in Contributions Plan is calculated on the basis of an estimated contribution of the development as a proportion of total predicted traffic increases across Lismore. The Contributions Plan predicts that hospitals and universities (collectively) only account for 1% of local traffic increases. This is compared to the 60% contribution from residential developments. As set out in the traffic and parking assessment report prepared by TTW (**Appendix 17**), LBH's impact in this context would be negligible.

Whilst the development will result in some minor increases in local traffic, given the substantial public benefit flowing to the local community from this development and given the minor traffic implications of the proposal, it is considered that the payment of Section 94 contributions in this instance is not appropriate.

Section 64 contributions for water and sewerage headworks

An application has been made to Council in relation to the required headworks charges applicable to the development.

Recommended Mitigation Measures

For the reasons set out above, we recommend that no Section 94 contribution be imposed for the development as it will contribute to providing a significant social and health benefit to the community.

With regard to Section 64 contributions, an application has been made to Council to determine the levy payable.

6.12 Flooding (DGR 13)

DGR

DGR 13 request the application to provide the following:

"An assessment of any flood risk on site (if relevant) and 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."

Assessment

As can be seen in the map extracts below, the site is:-

- Not in a flood planning area;
- Is above the 1 in 100 Average Recurrence Interval flood level; and
- A very small part of the site is identified as being within the "low flood risk" hazard category. However, this occurs in the north/north-western part of the site and not within the area of the proposed development.

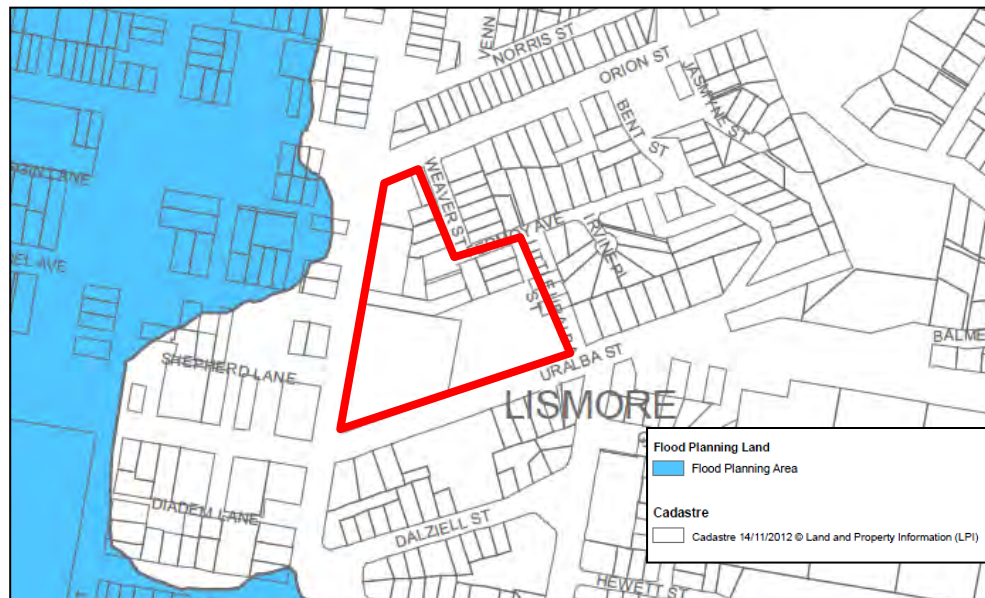


Figure 22 - Flood Planning Map Extract
Source: LEP 2012

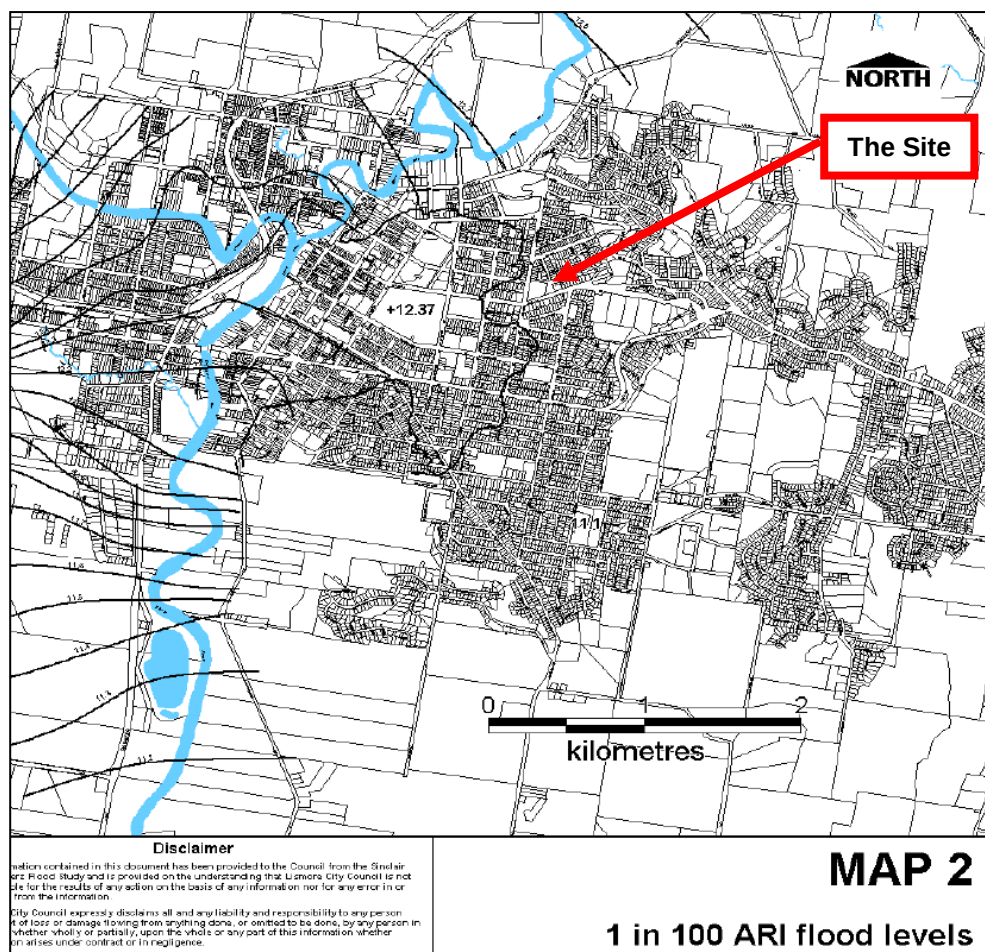


Figure 23 - 1 in 100 ARI Flood Levels Map
Source: DCP 2012

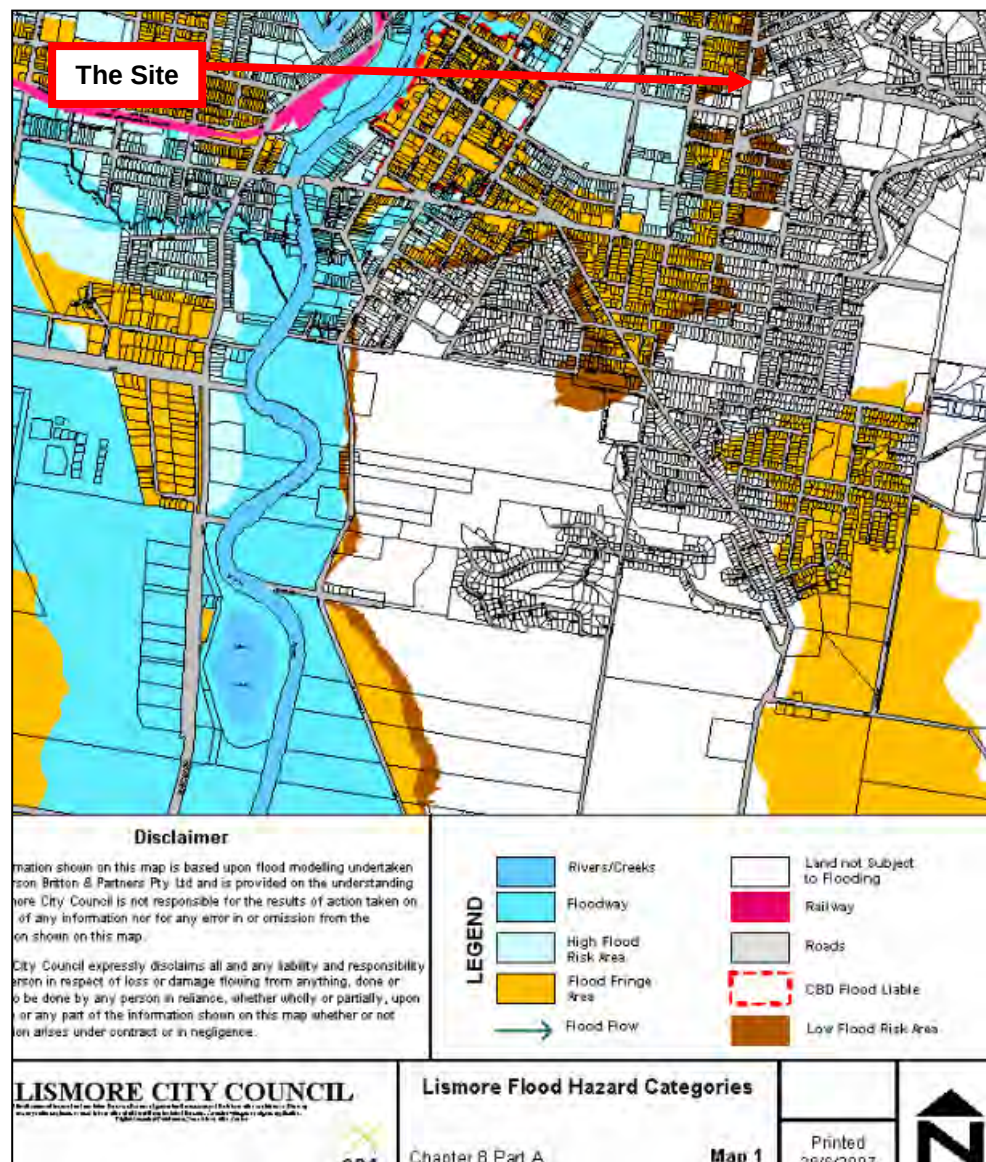


Figure 24 - Lismore Council Flood Hazard Categories Map
Source: DCP 2012

The majority of the LBH site is located outside of the Lismore City Council Flood Risk Area, but the northeast corner of the site (existing car park at grade and under the Mental Health Unit) is located within the Low Flood Risk Area which is defined in Chapter 8 – Flood Prone Lands of the Council Development Control Plan (DCP) as area within the limits of the Probable Maximum Flood (PMF), but outside of the limits of the 1 in 100 year Annual Recurrence Interval (ARI) flood level.

The proposed Stage 3A development area is outside of the Council mapped Flood Risk Area as shown on the maps above. We are therefore satisfied that there is no flood risk to the proposed development.

Recommended Mitigation Measures

As there is no flood risk to the proposed development, no recommendations / mitigation measures are required.

6.13 Bushfire (DGR 14)

DGR

DGR 14 states that:-

"if relevant, [the application is to] demonstrate compliance with the provisions of Planning for Bushfire Protection (PBP) 2006".

Assessment

The site is not classified as being bushfire prone. This is confirmed in the Section 139 Certificates for the site and in Council's bushfire prone land map as below.

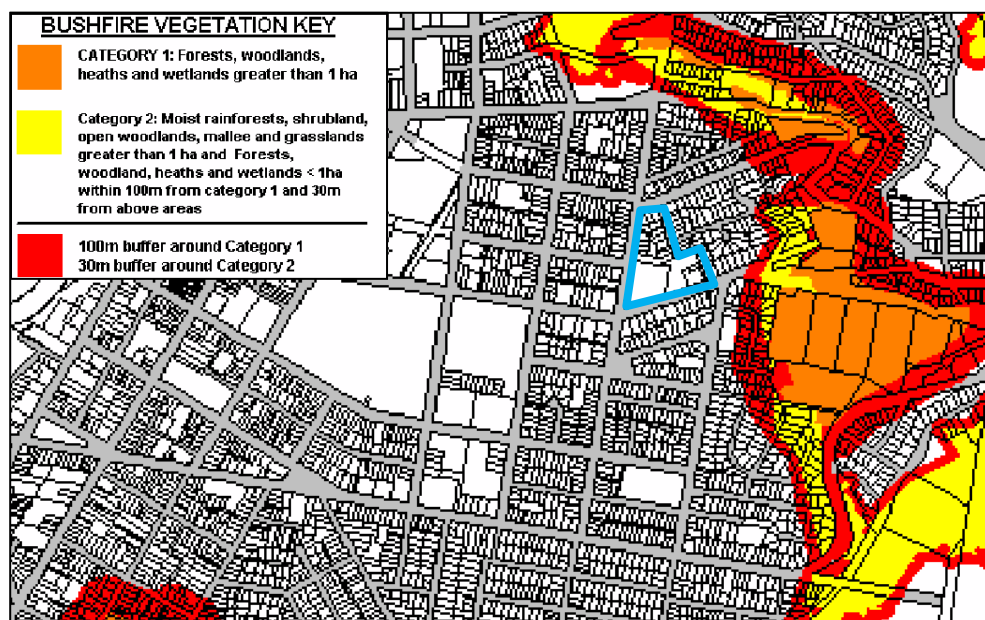


Figure 25 - Bushfire Prone Lands Map Extract, Site outlined in blue.
Source: Lismore City Council Bushfire Prone Lands Map

Recommended Mitigation Measures

As the site is not bushfire prone, no mitigation measures are required.

6.14 Drainage (DGR 15)

DGR

DGR 15 requires the application to:

"Provide details of the drainage associated with the proposal, including stormwater, drainage infrastructure and OSD, which shall be designed in consultation with Lismore City Council and must avoid any adverse impacts on downstream properties."

Assessment

TTW has prepared schematic drainage design in accordance with Lismore City Council DCP, Northern Rivers Local Government Handbook of Stormwater Drainage Design, AS3500, and Australian Rainfall and Runoff and to address the requirements of DGR 15. As set out in the civil design report prepared by TTW at **Appendix 12**, correspondence and discussions have taken place with Council regarding stormwater and civil issues associated with the redevelopment of the Hospital since June 2012 and a copy of TTW's civil report and associated drawings have been provided to Council for review.

As set out in the report prepared by TTW, the proposed hospital redevelopment will reduce or maintain stormwater flows for the 1-year through to the 100-year ARI storm events and will have no negative downstream impact. Refer to Sections 3.3 and 3.4 of the report prepared by TTW and drawing C05 attached to the report for additional detail and below for some key extracts from those sections of the report:-

Storm Water Design

"The site falls from southeast to northwest and can be divided into five catchments.

The Block H/T catchment currently drains via a 450m diameter pipe under Mental Health Block X and an overland flow path around the south and east sides of Block X to the intersection of Fermoy Avenue and Weaver Street. The other four hospital catchments have pipe connections to the Council system in Hunter Street with overland flow to Uralba Street and Hunter Street.

Stormwater detention is required in accordance with Council's Development Control Plan (DCP) where the impervious area is increased to maintain existing stormwater runoff flow rate peaks. Subject to Council review, stormwater detention and water quality treatment will be required for the Stage 3A development due to the proposed increase in impervious area. The detention storage required is about 88 cu.m. Council's "Deemed to Comply" water quality treatment solution is 1.8% of the site area to be set aside for bio-retention. This would be about 600 sq.m for the hospital site.

To maximize developable area on the hospital site, TTW recommend a treatment train of on-site detention tank, trash rack, Humeceptor secondary treatment device and three Spelfilter tertiary treatment units. TTW has prepared MUSIC modelling has been carried to design the treatment train and confirm the Council required pollutant load reductions will be met by the proposed treatment train. See the attached Stormwater Management Plan for additional detail."

Refer to the civil design report and attached stormwater management plan for further detail.

The recommendations of the civil design report in regards to civil engineering and the proposed stormwater management for the site are included in the mitigation measures in **Section 8** of this EIS.

Water Sensitive Urban Design

TTW has prepared a preliminary MUSIC model for the proposed design demonstrating that the proposed development is capable of complying with Lismore Council WSUD requirements. See Section 3.4 of the report prepared by TTW at **Appendix 12** for additional detail.

Recommended Mitigation Measures

The recommendations of the civil design report prepared by TTW at **Appendix 12** are to be implemented, as set out in the mitigation measures in **Section 8** of this EIS.

6.15 Waste (DGR 16)

DGR

DGR 16 requires the application to:

"Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site."

Assessment

Construction Waste

A preliminary construction waste management plan has been prepared by Aurora Projects and accompanies this EIS at **Appendix 21**. This plan sets out the likely waste streams to be generated during construction and principles to be incorporated in the final construction waste management plan, to be prepared by the appointed contractor. These principles are set out below:-

- Store excess materials appropriately (i.e. in a secure and weatherproof area) so that it is available for re-use on site.
- Establish a designated waste compound (area) to avoid rubbish being placed in unacceptable areas of the site.
- Store waste separately to building materials to avoid the loss of materials with value through accidental damage or disposal.
- Use a waste contractor who can provide a waste collection, separation, recycling and reporting service. Alternatively, provide separate bins on site for the collection of metal, plasterboard, timber, cardboard, PET (drink bottles), aluminum cans, clean office paper and general waste.
- Use only approved waste management contractors to collect and transport waste and recycling to licensed facilities.
- Place signage on/near all waste and recycling bins to encourage correct waste separation and disposal.
- Provide suitable receptacles for waste paint and other liquids and arrange recycling.

- Provide and maintain impervious storage bunds for all liquid materials (bunds must be constructed in accordance with Australian Standards, WorkCover and DECC (EPA) requirements).
- Remove, stockpile, test and dispose of all hazardous or intractable wastes (including asbestos) and contaminated materials in accordance with the requirements of WorkCover and DECC.
- Recycle packaging and consult with suppliers to identify opportunities to return excess or damaged materials and reduce packaging requirements (where this can be achieved without loss of product).
- Purchase products with a recycled component where available and cost effective.
- Consider the use of pre-fabricated components to minimise waste.

Operational Waste

A series of operational waste management guidelines and statements are attached at **Appendix 24** which are to be implemented for all NSW Health North Coast Area health facilities. The purpose of these guidelines is to ensure that waste management is undertaken in a manner that promotes waste minimisation and the appropriate management of waste resources to mitigate adverse environmental impact.

Operational waste for the proposed development will be managed in accordance with these existing guidelines and policies at LBH. There will be no significant increase in operational waste that would cause an adverse impact on the existing LBH management procedures.

Recommended Mitigation Measures

Preparation of a final Construction Management Plan incorporating construction waste management measures by the appointed head contractor to ensure that construction waste can be appropriately managed with minimal impacts to the environment.

6.16 Heritage (DGR 17), Aboriginal Heritage (DGR 18) and Archaeological Impacts (DGR 19)

DGR

DGR 17 requires the application to provide:

"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."

DGR 18 requires the application to address the following:

"The EIS shall address aboriginal heritage in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC 2005) and Aboriginal Cultural Heritage Consultation Requirements for proponents 2010."

DGR 19 requires the application to address the following:

"If relevant, an archaeological study is to be carried out on the site to identify any European and/or aboriginal archaeological impacts associated with the proposal."

Assessment

A comprehensive Heritage Assessment and Impact Statement has been prepared by City Plan Heritage to address DGR's 17, 18 and 19.

The Statement has been prepared in accordance with the NSW Heritage Office 'Archaeological Assessment Guidelines' and 'Assessing Heritage Significance' guidelines and has been guided by the Australia ICOMOS *Burra Charter 1999*. Furthermore, the Statement assesses the proposal in relation to the controls and provisions contained in the Lismore Local Environment Plan 2012 and the Lismore Development Control Plan 2012.

The aboriginal heritage assessment has been prepared in accordance with the Office of Environment & Heritage guidelines regarding the assessment and management of Aboriginal cultural heritage in New South Wales, and the *(Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (2010), and Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (2005))*, the *National Parks and Wildlife Act* and the *Environmental Protection and Biodiversity Act*.

The aboriginal archaeological assessment has also included the following components:-

- A NSW Office of Environment and Heritage Aboriginal Heritage Information Management System (AHIMS) site search to determine whether or not previously recorded sites are present on the proposal area and to give consideration to the type of sites known to be present within the local area.
- A review of local archaeological reports and other relevant documents in order to provide a contextual framework to the study and heritage management process.
- A site significance assessment, as applicable.

The purpose of the Statement is to determine the extent, nature, integrity and significance of the resource and the impact of the excavation on both identified and potential heritage values of the site and, where appropriate, strategies to mitigate that impact. The work fulfils statutory requirements of the Lismore LEP and the DGR's for the Assessment of Environmental Impact regarding heritage-related matters.

A complete copy of the report is appended at **Appendix 19** and an extract of the conclusions of the report is provided below:-

"In addressing Aboriginal Heritage in accordance with the legislation and guidelines and in fulfilment of the Director General's Requirements, it is

considered by City Plan Heritage that there is no potential for sites or places of Aboriginal Heritage Cultural Significance or archaeological deposits (both Aboriginal or European), to be located within the Lismore Base Hospital Site.

*The required AHIMS search for any previously recorded Aboriginal sites and places located within the advised lot numbers for the site also included a buffer zone of 200 metres. The results of the searches – see Attachment A – were for **no previous sites or places recorded**. The assessment of the development history of the site, combined with an appraisal of the environment and landscape, and an appraisal of the types of Aboriginal cultural heritage sites likely to be in the area also resulted in the area not being considered a likely location for sites or places relating to Aboriginal cultural heritage significance.*

It further considered by City Plan Heritage that the proposed redevelopment will have negligible and no adverse impact on the assessed heritage significance of the existing hospital buildings, streetscape views, or to Armstrong House. The increased height of the buildings have been suitably setback and articulated as not to dominate or otherwise negatively impact the streetscape.

The proposed new height of the development, although would make a notable difference to the present day streetscape presentation and character of its immediate streetscapes, considers the visual impact on the general character of the area, including Armstrong House. There will be no additional impact on the identified significant views and vistas of this heritage item.

The redevelopment will allow for the improved health care facilities that would respond to the current needs of its residents and the operational requirements of the NSW Health. The existing buildings within the site have been assessed as being of little heritage value and their demolition will have no detrimental impact to the identified cultural heritage values of Lismore as a whole. The new development provides an economically feasible and operationally efficient health care facility offering a continuum of hospital services to the community."

Further to the above, the Statement provides a series of recommendations:-

- *Stop Work Provision: Although this baseline assessment has not identified the subject allotment and the development area as an area of potential for Aboriginal cultural heritage, once ground clearance commences if something is discovered that could be an Aboriginal object, work must be stopped and City Plan Heritage contacted. City Plan Heritage will notify the Office of Environment and Heritage (OEH) for advice regarding the finds and the appropriate management options. If human remains are found, work must be stopped, the site secured, and the NSW Police must also be notified in addition to the OEH. Likewise, although there is low potential to any remnant non-Indigenous heritage to survive, should be taken into consideration when excavation works are carried out within the site. In the case of any finds that could be considered as relics (e.g. brick foundations, old drainage) the works in the immediate area must stop and the heritage consultants are notified for appropriate actions.*
- *An archival recording of the whole site should be undertaken in accordance*

with the NSW Heritage Council guidelines for Photographic Recording Of Heritage Items Using Film or Digital Capture. prior to the commencement of any work within the site. The recording should also include streetscapes around the site showing its relationship with Armstrong House and the neighbouring properties

Recommended Mitigation Measures

The recommendations of the Heritage Assessment and Impact Statement (as above) are included in the mitigation measures in **Section 8** of this EIS.

6.17 Hazards (DGR 20)

DGR

DGR 20 requires the application to address the following:

"The EIS shall include a description of the proposed storage, use and management of any hazardous materials and measures to be implemented to manage hazards and risks associated with the storage."

Assessment

Hazardous Materials in Existing Buildings

As the proposal will involve internal demolition works at Level 4 of Block C, consideration of any potentially hazardous materials is necessary.

In July 2012, a desktop study of Hazardous Materials Survey to WHS Regulations 2011 was undertaken by Noel Arnold and Associates for HI. This study provides the following:-

- *"Review all existing documentation,;*
- *Provide thorough information on the identified and presumed hazardous materials:*
- *Provide recommendations for future works;*
- *Provide indicative costs and timescales for removal of known hazardous materials;*
- *Provide any risk control strategies for the known hazardous materials within the proposed work areas until removal can take place; &*
- *Provide generic information on hazardous material management and work procedures."*

With regard to the findings for Building C, Noel Arnold and Associates note that there are no hazardous materials known to be present within this building. However, the report states that:-

*"where no hazardous material has been identified, it should **not** be presumed that no asbestos-containing materials, or other hazardous materials, are present. Due to the knowledge and identification of other buildings through previous*

surveys, their presence should be assumed until proven otherwise."

The report provides recommendations for future works, including future investigations and hazardous materials testing. The report also provides methodology for future the Hazmat survey(s). As such, further hazardous materials testing is required and this will need to inform the preparation of the demolition management measures in the final Construction Management Plan.

Storage of Hazardous Materials

Further to the above, and in relation to the DG's requirement to provide a description of the proposed storage, use and management of any hazardous materials, we refer to the Hazardous Materials Storage Policy Statement prepared by NNSWLHD at **Appendix 24**.

In summary this statement sets out the key existing LBH management processes for clinical waste, cytotoxic waste, pharmaceutical waste, chemical waste and radioactive waste. This statement also confirms that in relation to the proposed development there will be no change to these current policies and procedures for the management of such hazardous waste materials.

Recommended Mitigation Measures

Undertake further investigation of potential hazardous materials at Level 4 of Block C in areas that are proposed to be demolished.

Continued implementation of the existing LBH management processes for hazardous waste.

6.18 Acid Sulphate Soils (DGR 21)

DGR

DGR 21 states that the following is to be addressed in the application:

"If relevant, prepare a detailed Acid Sulphate Soils Management Plan."

Assessment

The LEP 2012 and DCP 2012 includes mapping and provisions relating to acid sulphate soils. As stated in **Section 5.13** of this EIS, the LEP 2012 acid sulfate soils map does not identify the land as containing any acid sulfate soils. Furthermore, the DCP 2012 shows that the location of acid sulfate soils in the LGA is predominantly in the southern areas of the LGA and to the south of Ballina Road. Furthermore, the geotechnical report prepared by Coffey Geotechnics at **Appendix 6**, does not identify that the land is subject to any acid sulfate soils: a phenomenon which we understand is typically associated with alluvial soils. As set out in the report prepared by Coffey Geotechnics, the site is formed on basalt.

To this end, we consider that the land is unlikely to comprise any acid sulfate soils and consider that the preparation of a detailed acid sulfate soils management plan is not necessary.

Recommended Mitigation Measures

No recommendations proposed.

6.19 Consultation

In accordance with the DGRs for this project, consultation was undertaken with relevant public authorities, Council and the Northern NSW Local Health District. A summary of the consultation undertaken to-date with Council and Agencies is provided below. Further to this, several consultants have undertaken consultation with relevant parties as part of the preparation of their reports.

Lismore City Council

Consultation with Lismore City Council ("LCC") commenced July 2012.

In recognition of the project team needing close and ongoing contact with LCC over the redevelopment planning phase, the Executive Director established the Strategic Property Project Manager as LCC's first point of contact for the project team.

A number of proactive consultations with LCC have occurred since July 2012 in both a formal and informal manner.

The following outlines the key issues that to date have been progressed in close consultation with LCC with respect to this development application:-

- Broader Traffic and Car Parking impacts and strategy.
- Proposed site boundary adjustment along Uralba Street.

Lismore City Council have progressed consideration and resolution of related Broader Traffic and Car Parking issues through their established Traffic Committee (which includes Roads and Maritime Services representatives) to formally progress associated issues, and provide guidance to the project team.

The redevelopment of Lismore Base Hospital provides a number of opportunities for both LCC and other local government agencies to coordinate and ensure collective urban planning strategies guide the redevelopment project.

In November 2012 a three-day Inquiry By Design Health Precinct Workshop was held at Lismore City Council chambers facilitated by Urbanismplus Ltd, on behalf of Lismore City Council. The primary focus of the workshop was to investigate development options for the area known as the Health Support Precinct located approximately 2km north-east of the Lismore City Centre. The workshop provided a collaborative opportunity for numerous representatives (LCC, NNSWLHD, LBH, NSW Housing, Health Infrastructure etc. including Community Representatives) to collectively consider and identify opportunities that LCC can take into consideration to promote amendments to current Development Control Plans and Local

Environmental Planning policy that will be beneficial to the broader Lismore community and region.

The above consultation have promoted positive collaboration with Lismore City Council to ensure this development application is consistent with its requirements.

Lismore Base Hospital Staff and the Lismore LGA Community

The planning phase for the redevelopment project commenced in February 2012. Since this time intensive consultation with LBH stakeholders and staff, including communication with the local community.

The below outlines the key committees, methods and or presentations which have been established or occurred during the redevelopment planning phase.

- Commencing in April 2012, monthly Executive Steering Committee (ESC) meetings have been held, to provide strategic direction and decision making authority and oversight for the LBH Stage 3A Redevelopment. The ESC is responsible for delivering the project within the agreed scope.
- Commencing in May 2012, four rounds of User Group Meetings (UGM) were held with appropriate representatives from all LBH clinical and support service areas and NSW LHD representatives to inform the Functional Briefing and Concept Planning process. Upwards of 120 user group meetings have been held.
- Commencing in May 2012, monthly Planning and Development Committee (PDC) meetings have been held, to oversee project planning and provide operational leadership. The PDC is responsible for monitoring the project objectives, planning inputs and key deliverables for endorsement, driving the development of the operational policy and workforce strategy, while managing overall program and project requirements within budget, time and scope.
- Commencing in June 2012, fortnightly Project Planning Team (PPT) meetings have been held, to coordinate the consultation process, review planning, and provide advice for all clinical issues to facilitate, coordinate, guide and advise the project as required.
- In July 2012, a Value Management Study (VMS) workshop was held with representatives from NSW MoH, HI, NSW LHD, LBH, and a range of consultants involved in project management, cost planning, and architecture and design, to assess Masterplan and facility options to address all LBH's service needs, and in particular the high priority services nominated by the HHF to be addressed under the Stage 3A Redevelopment.
- Commencing October 2012, User Group Meetings resumed with representatives of Emergency Department, Medical Imaging, Renal Services, Primary & Community Care, Pathology, Maternity and Mortuary to inform schematic design process for the Stage 3A Scheme Design Report, Business Case and Project Definition Plan.
- Three presentations were made to the Medical Staff Council between June 2012 and December 2012.
- LBH Staff Forum presentations were held in December 2012, February 2013 and May 2013.
- A form Community Forum presentation was held at the Lismore Workers Club in April 2013. The consultation forum was promoted in both the local papers and local radio to encourage attendance.

- A Resident Information Session and presentation was arranged and held with Little Uralba Street residents in April 2013, to inform nearby residents of the development location, general scale and how the redevelopment is being planned to help minimise the impact on Little Uralba Street properties during construction and operational phases.
- Redevelopment website <http://www.lbhredemption.health.nsw.gov.au/> established April 2013 with further details/content to be added in due course. This includes a feedback loop for keys stakeholder and members of the public to provide feedback and or commentary to the project team.

Local Aboriginal Community

A strategy for community consultation and consultation with indigenous stakeholders was implemented early in the planning phase.

Below is a summary of key related consultation which has occurred.

- An Aboriginal community specific newsletter regarding the project was issued in December 2012.
- The first presentation to the local Aboriginal Community was held in April 2013 giving a formal opportunity for the LHD and community to interact on the redevelopment plans. In addition, the NNSW LHD has established the Community Engagement Advisory Council (CEAC). The CEAC provides input and advice on community engagement across the NNSW LHD and advises the NNSW LHD regarding community communication strategies and support required for community representatives to more effectively engage with the LHD. The CEAC will provide input to communication strategies around the Stage 3A Redevelopment. Membership of CEAC includes local government, the education sector, key stakeholders, carers and consumer and community representation.
- In addition, the The Ngayundi Aboriginal Health Council provides a forum for members of the Bundjalung and Yaegl Nations in the NNSW LHD, and for Aboriginal people from other Nations who reside in the LDH, to participate in and provide advice on health service planning, development, delivery, evaluation and prioritisation with a view to attaining equality of health status and life expectancy for Aboriginal communities. The Aboriginal Health Council will be an integral part of communication and consultation activities undertaken throughout the LBH Stage 3A Redevelopment.
- Ongoing consultation with the Aboriginal community regarding the project is being coordinated by the Aboriginal Health Unit who will act as liaison between the project team and local Aboriginal community.

In recognition of the above, the preparation of the redevelopment proposal has been widely consulted.

Office of Environment and Heritage

Consultation with the Heritage Branch of the Office of Environment and Heritage has been made in accordance with the Director General's Requirements and by City Plan Heritage. City Plan Heritage provide the following information regarding consultation undertaken with OEH:-

"Consultation was made partially in person and over the phone with the Heritage Officer Claudine Loffi who was the assessing officer for the previous EIS, on 30 May 2013. The layout and contents of the current study as well as its findings were explained by Kerime Danis. Ms Loffi [was] satisfied with the contents of the report and in principle confirmed that the report covers their requirements as noted in the letter dated 15 February 2013. It is anticipated the Director General will forward this report to the Office of Environment and Heritage for their records. Due to the findings of this study, which [conclude] that there is no Aboriginal and Archaeological potential within the site, the Heritage Branch most likely will not make further comment

Council - Engineering Department

As set out in the civil design report prepared by TTW at **Appendix 12**, TTW has consulted with Council since June 2012 to establish criteria for stormwater design for this project and to work through stormwater and civil issues associated with the redevelopment of LBH. Consultation with Council's engineering department is ongoing.

Environment Protection Authority

Consultation with the North Coast Environment Protection Authority has not been undertaken as a part of the comprehensive consultation process. Following a review of the correspondence from the EPA to the DoPI following the issue of the draft DGR's, and the EPA's comment that they do not have any specific requirements to be addressed by the Proponent for this project, further consultation was not considered to be necessary. A copy of that correspondence is attached to the DGR's at **Appendix 1**.

Transport for NSW

As set out in the traffic and parking assessment prepared by TTW, consultation had not directly been made with Transport for New South Wales (TFNSW) as it is not deemed necessary. Consultation has been made with Council which refers matters to the Roads and Maritime Services and TFNSW. No issues are foreseen, however, should any arise, then a meeting would be arranged to resolve them.

6.20 Geotechnical and Structural Matters

The DGR's require the submission of geotechnical and structural studies, to accompany this EIS. This is set out in the *"plans and documentation"* section of the DGR's.

Geotechnical

A series of geotechnical studies have been undertaken across the LBH site by Coffey Geotechnics. The most recent investigations were undertaken in January 2013 and Coffey Geotechnics have presented their findings in the Geotechnical Investigations Report at **Appendix 6**. The report relates to the proposed Stage 3A development.

Ground conditions as determined by Coffey Geotechnics, are summarised below:-

- A variable depth soil and fill profile, over an underlying rock material of two basalt flow layers separated by a soil layer.

The upper basalt layer is up to 12m thick, and is distinctly weathered and fractured.

Deep cuts in this material will require shoring or stabilising.

The report provides a series of recommendations regarding excavation, site filling, foundations for the proposed building and earthquake design.

The report also recommends that additional geotechnical work be undertaken so adequate management of construction risk of excavations, retention and the building foundations can be ensured.

Structural

A structural report for this project has been prepared by TTW (**Appendix 22**) which sets out the key structural items to be considered for the Phase 3A building works:-

- Bulk excavation and shoring
- Foundations
- Structural systems
- Building phasing.

The geotechnical and environmental site investigations undertaken by Coffey Geotechnics have been considered in the preparation of the structural report. On this basis, the preferred option for the structural elements of the design are set out in the report. The structural elements of the development will be finessed as a part of the construction documentation for this project.

Recommended Mitigation Measures

Adopt and satisfy the recommendations of the geotechnical report prepared by Coffey Geotechnics (**Appendix 6**) and the structural report prepared by TTW (**Appendix 22**).

6.21 Construction Management

The DGRs require the preparation of a preliminary construction management plan ("CMP") inclusive of a preliminary construction traffic management plan.

The objectives of CMP are typically to:-

- Minimise inconvenience to the public and adjoining properties during the constructions stages;
- Maintain effective communication with the developer and the community;
- Maintain a safe working environment; and
- Ensure the requirements of relevant approvals, licenses codes or standards are met.

To implement such objectives, a CMP will usually address the following matters:-

- An overall construction management framework;
- Construction traffic management;
- Construction zones;
- Pedestrian management;
- Hoardings;
- Dust management;
- Hours of work;
- Materials handling;
- Waste Management and recycling;
- Construction program; and
- Specific matters nominated within the consent notice.

The key principles that will form the basis of the CMP for this project are as follows:-

- A construction 'drop off / loading' zone is proposed to be located on the north side of Uralba Street fronting the subject site, extending westwards from Little Uralba Street. The extend of the zone along Uralba Street will be determined by detailed site and construction phases.
- Construction zones and works on Uralba Street (road works, main entry upgrades, drop-off zones and kerbing realignments) will be staged to maintain ready access to LBH to maintain all critical hospital operations.
- Construction hoarding will be provided to maintain public and pedestrian safety external to the construction site boundary.
- Traffic management will be provided on Uralba street during all periods of construction activity.
- Key construction material deliveries will be scheduled (where possible/practical) to occur during selected periods of the day to minimise the impact on Uralba Street public vehicle and pedestrian movements.

In addition to the above, Section 4.7 of the traffic and parking assessment prepared by TTW at **Appendix 17** provides additional principles that will be incorporated into the traffic management section of the detailed CMP.

Recommendation

Preparation of a comprehensive CMP, incorporating a construction traffic management plan and the other matters set out in the mitigation measures in **Section 8** of this EIS.

7 SECTION 79C EVALUATION SUMMARY

In addition to the assessment undertaken in **Section 6** of this EIS, this section provides an evaluation of Section 79C of the EP&A Act.

The table below, identifies the matters for consideration under Section 79C, that apply to SSD, in accordance with Section 89H of the EP&A Act.

Table 6 - Section 79C(1) Matters for Consideration

Section 79C	Comment
(a)(i) any environmental planning instrument	Consideration of the Lismore Local Environmental Plan 2012 is undertaken in Section 5.13 of this EIS. The proposal is consistent with all relevant provisions.
(a)(ii) any proposed instrument	Not applicable.
(a)(iii) any development control plan	Under Clause 11 of SEPP SRD, DCP's do not apply to SSD. Notwithstanding this, consideration of the key relevant provisions of the Lismore Development Control Plan is undertaken in Section 5.15 of this EIS. The proposal is consistent with all of these relevant provisions.
(a)(iiia) any planning agreement	Not applicable.
(a)(iv) the regulations	The subject application is considered to satisfactorily meet the relevant requirements of the EP&A Regulations relating to applications and the requirements for EIS's in Schedule 2. Refer to Section 5.4 of this EIS.
(a)(v) any coastal zone management plan	Not applicable.
(b) the likely impacts of that development	The likely impacts of the development have been considered in Section 6 of this EIS. Mitigation measures to manage these impacts are set out in the "recommendations" section of Section 6 and the mitigation measures summarised in Section 8 of this EIS.
(c) the suitability of the site for the development	Refer below.
(d) any submissions	This is a matter for Council.
(e) the public interest	Refer below.
Biodiversity values exempt if: (a) On biodiversity certified land (b) Biobanking Statement exists	Not applicable.

Suitability of the Site

The suitability of the site for the proposed development can be justified as follows:-

- The proposal is permissible under the Lismore Local Environmental Plan 2012;
- The proposal will utilise part of a site already used for hospital purposes;
- The site is physically capable of sustainably accommodating the proposed development;
- The proposed building will be of a more contemporary building and more functionally efficient than the buildings it will replace;
- The proposal will not increase any "impact" in the locality, subject to adopting the recommended mitigation measures in **Section 8** of this EIS;
- The proposal will continue the modernisation, integration and expansion of the services at the LBH in accordance with NNSWLHD directives and the Masterplan for the site;
- The proposal will result in the provision of greater, and more contemporary and efficient services which will better meet the community needs and save considerable costs to the community in accessing public health treatment.

Public Interest

The proposed development is considered to be in the public interest in that:-

- It is consistent with the objectives of the Environmental Planning and Assessment Act 1979 of encouraging the economic and orderly development of land;
- The new hospital building will provide a facility which addresses increasing demand for its services arising from population increases and demographic changes;
- The development represents a significant capital investment in the infrastructure of Lismore and the greater Northern rivers region;
- The new facility has been designed to minimise the impact on the natural and built environment;
- It will be the first part of the third stage of a three stage master plan which will provide the community with a state of the art healthcare facility.
- The design approach has been developed to be consistent with principles of ecological sustainability;
- The development is in keeping with the requirements of Lismore City Council;
- In providing a greater level of access to improved emergency and clinical (renal) services for the community, the development will promote the physical health of the community and therefore results in a significant social benefit; and
- This EIS demonstrates that the development does not result in any adverse environmental impacts and therefore, on balance, is very much in the public interest.

8 MITIGATION MEASURES

The following measures have been compiled based on the EIS undertaken in the preparation of this EIS and following review and consideration of the issues raised in consultation with government agencies.

They provide a commitment by HI and indicate the responsibilities required to implement measures to prevent potential environmental impacts that have been identified through the assessment.

This will ensure that the project is environmentally, socially and economically sustainable.

Schedule 2 of the Environmental Planning and Assessment Regulation 2000 requires a full description of the measures proposed to mitigate any adverse effects of the development on the environment.

Table 7 - Mitigation Measures

Issues	Action
General	The development will be undertaken accordance with the Environmental Impact Statement dated July 2013 prepared by City Plan Strategy and Development (including accompanying Appendices) and drawings.
Building Code of Australia	The development will comply with the statutory energy efficiency requirements of Section J of the BCA. The development will also generally comply with the "deemed to satisfy" provisions of the BCA and where required, 'alternative solutions' complying with the performance objectives and requirements of the BCA will be employed to address any deviations from DTS provisions.
Erosion and Sediment Control	A detailed soil and sedimentation plan will be prepared in accordance with The Blue Book prior to construction and will be included in the Construction Management Plan. The plan will be prepared in accordance with the preliminary erosion and sediment control plan prepared by TTW at Appendix 14 .
Hazardous Materials	A limited destructive Hazardous Materials (Hazmat) Survey is to be undertaken prior to the commencement of any demolition and refurbishment works, in accordance with the recommendations of the Preliminary Desktop Study of Hazardous Materials (July 2012) prepared by Noel Arnold and Associates. Other recommendations of the study, including the methodology for the Hazmat Survey and risk control measures for the removal of hazardous materials (if found present) are to be observed and implemented. This detail is to be included in the final Construction Management Plan.
Asbestos Removal and	If future hazardous materials investigations determine that there is asbestos present in Block C, asbestos removal

Management	and management work must be carried out in accordance with the following documents published by the NOHS Commission in August 1988, as in force from time to time (clause 259): • Guide to the Control of Asbestos Hazards in Buildings and Structures [NOHSC: 3002 {1988}], and, • Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002 (1988)] .
Hazardous Waste	The Proponent commits to the continued implementation of the existing LBH management processes for hazardous waste.
Geotechnical	In accordance with the findings of the Geotechnical Assessment undertaken by Coffey Geotechnics at Appendix 6 , the additional geotechnical investigations recommended will be undertaken prior to construction. All other recommendations of the geotechnical report will be satisfied.
Contamination	The Stage 1 Environmental Assessment indicated that there is unlikely to be significant contamination on site. However, should any new information come to light during demolition or construction works which has the potential to alter previous conclusions about site contamination then the Managing Contractor must be immediately notified and works must cease. Works must not recommence on site until the site is remediated in accordance with an approved Remedial Action Plan, and a Validation and Monitoring Report together with a notice of completion of remediation pursuant to Clause 18 of State Environmental Planning Policy No 55 - Remediation of Land (as if that Policy applied) has been submitted to and approved by Office of Environment and Heritage.
Services	The Proponent will comply with the requirements of the relevant public authorities in regard to the connection to, relocation and/or adjustment of services affected by the construction of the proposed development.
Accessibility	The design of the facilities will permit effective, appropriate, safe and dignified use by all people, including those with disabilities and will be in accordance with the relevant NSW Health Facility Guidelines for access and mobility and relevant accessibility standards.
Drainage	All of the recommendations of the civil design report prepared by TTW at Appendix 12 will be satisfied and all final civil documentation will be prepared generally in accordance with the plans prepared by TTW at Appendix 12 . Water Sensitive Urban Design measures identified in the civil design report prepared by TTW will be implemented into the detailed design of the development.
Parking	Subject to the outcome of the business case study being prepared for additional car parking for LBH, a minimum of

	110 car parking spaces will be provided to cater for the demand generated by the proposed development. These car parking spaces will be provided within walking distance of the existing hospital entrance on Uralba Street and will be facilitated under a separate approval. This will be implemented prior to the occupation of the proposed new Stage 3A building.
Transport Management	The recommendations of the traffic and parking assessment report prepared by TTW (Appendix 17) in relation to transport management are to be implemented, including, but not limited to, the preparation of a Travel Plan and Transport Access Guide for the hospital. These plans will be prepared prior to occupation of the proposed Stage 3A building.
Noise and Vibration	The recommendations of the Noise and Vibration Impact Assessment prepared by AECOM at Appendix 16 are to be implemented to ensure that any potential adverse construction and operational noise and vibration impacts are adequately managed and mitigated.
Heritage	The recommendations of the Heritage Assessment and Impact Statement prepared by City Plan Heritage (Appendix 19) are to be implemented. In summary, these recommendations relate to "stop work" provisions during site works if something is discovered that would be an Aboriginal object and also, undertake an archival recording of the LBH site.
Ecologically Sustainable Development	The detailed design of the development will incorporate all of the ESD principles and measures set out in the Integrated Water Management Plan prepared by Donnelley Simpson Cleary (Appendix 13) and the ESD Statement prepared by Woods Bagot (Appendix 15) in the detailed design of the development. The development will comply with the energy efficiency requirements of Section J of the National Construction Code (NCC 2012, previously known as the Building Code of Australia).
External Lighting	All external lighting will be installed to meet the minimum Australian and New Zealand Lighting Standards that will not only provide wide and even spread of illumination but will also be adequate to meet operational requirements. In addition, appropriate signage will be installed to reinforce the building's main entrance and other secondary entrances. External lighting will be installed so as to not result in any light spill or other lighting-related impacts on the surrounding locality.
Construction Management	Prior to commencement of construction, a detailed Construction Management Plan will be prepared which addresses (but is not limited to) the following:

	• Construction noise and vibration; • Construction traffic management (incorporating the relevant recommendations set out in the traffic and parking assessment prepared by TTW at Appendix 17); • Dust management and air pollution monitoring; • Odour control; • Removal and management of hazardous materials; • Soil and erosion control; • Tree protection (where relevant); • Site management in accordance with legislative requirements; • House of construction work; • Waste management; • Implementation of Groundwater Policy Framework and Groundwater Quality Protection Policies; • Community safety plan; • Arrangements for temporary pedestrian and vehicular access; and • Contact and complaints handling procedures.
Operational Management	An operational environmental management plan will be prepared prior to the opening of the hospital to the public, a copy will be submitted to the Department of Planning and Infrastructure for information. The plan will address, but will not be limited to, the following matters: - Minimisation of anti-social behaviour. - Visitor safety. - Site security. - Noise management. - Traffic and pedestrian management. - Storage of materials. - Emergency and evacuation procedures. - Fire safety. - Waste management and ESD initiatives. - Lighting. - Signage.

9 CONCLUSION

This Environmental Impact Statement ("*EIS*") has been prepared to assess the environmental, social and economic impacts of the proposed Stage 3A main building works at LBH.

This EIS addresses the matters for consideration outlined in the Director-General's Requirements issued by the DoPI on 26 February 2013.

This EIS accords with the requirements of Schedule 2 of the EP&A Regulation with regard to consideration of relevant statutory and strategic instruments, built form and social and environmental impacts.

Subject to the mitigation measures outlined in **Section 8** of this EIS, we recommend approval of this application for the following reasons:-

- The site is capable of accommodating the proposed development by virtue of its capacity, size and location.
- The design has emerged from a detailed analysis of the existing site, having regard for the streetscape, environmental effects, heritage and urban form.
- The proposed building represents a scale and form that is consistent with the context of development across the LBH campus and responds to the low to medium residential density nature of the surrounding locality.
- The potential environmental impacts identified at **Section 6** and **Section 7** of this EIS are able to be ameliorated by the mitigation measures recommended within the various consultant reports and as set out in **Section 8** of this EIS.
- The provision of a new and contemporary hospital building will further support and improve the medical services provision in Northern NSW.

The proposed application will result in significant social benefits for the local community and in the absence of any adverse environmental (and other) impacts, the proposed development is in the public's interest.