



Environmental Impact Statement

State Significant Development Application

SSD 17_8963

Lismore Base Hospital Redevelopment Stage 3C

Submitted to the NSW Department of Planning and Environment
On Behalf of John Holland, for Health Infrastructure NSW



Report Revision History

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01 – Draft	26.04.18	Mel Krzus <i>Associate Director</i>	David Ryan <i>Executive Director</i>
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03 – Final	16.05.18	Mel Krzus <i>Associate Director</i>	David Ryan <i>Executive Director</i>

This document is preliminary unless approved by a Director of City Plan Strategy & Development.

CERTIFICATION

This report has been authorised by City Plan Strategy & Development, with input from a number of other expert consultants, on behalf of the Client. The accuracy of the information contained herein is to the best of our knowledge not false or misleading. The comments have been based upon information and facts that were correct at the time of writing this report.

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Declaration and Certification

I certify that I have prepared the content of this Environmental Impact Statement (EIS) and to the best of my knowledge:

- it is in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000;
- it contains all available information that is relevant to the environmental assessment of the development to which the statement relates; and
- the information contained in the statement is neither false nor misleading.

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Appendices

Appendix	Document	Prepared by
1	SEARs	Department of Planning and Environment (DPE)
2	Capital Investment Value (CIV) Report	Altus Group (AG)
3	Site Survey	Newton Denny Chapelle (NDC)
4	Architectural Plans	Conrad Gargett Architects (CGA)
5	Architectural Design Statement	Conrad Gargett Architects (CGA)
6a + b	Waiver of biodiversity development assessment report under the Biodiversity Conservation Act 2016	Office of Environment and Heritage (OEH) and Department of Planning and Environment (DPE)
7a + b	Services Statements	Wood & Grieve Engineers (WGE) & Donnelley Simpson Cleary (DSC)
8	ESD Principles Statement	John Holland Group (JHG)
9	Accessibility Design Review	McKenzie Group (MG)
10	Stormwater Drainage Plan	DSC
11	External Reflectivity Analysis	Inhabit
12	Structural IFC Design Report	Arcadis
13	Heritage Impact Statement	City Plan Heritage (CPH)
14	Noise Impact Assessment	Acoustic Logic (AL)
15	Transport and Accessibility Impact Assessment	Taylor Thompson Whitting (TTW)
16	Construction Environmental Management Plan	JHG
17	Preliminary Construction Management Plan	JHG
18	Preliminary Construction Traffic Management Plan	TTW
19	Operational Waste Management Statement	Northern NSW Local Health District (NNSW LHD)

1. Executive Summary

This Environmental Impact Statement (EIS) has been prepared by City Plan Strategy and Development Pty Ltd (CPSD) as instructed by John Holland Group (JHG), and on behalf of NSW Health Infrastructure (HI). This EIS is submitted to the Minister for Planning and Environment for a State Significant Development Application (SSDA) pursuant to Part 4 of the *Environmental Planning & Assessment Act 1979* (EP&A Act) and State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD).

This EIS relates to Lismore Base Hospital (LBH), which has been the subject of ongoing redevelopment for some years. The subject proposal relates to Stage 3C of the redevelopment programme at LBH, which comprises a four (4) storey extension to the approved (but not yet constructed) four (4) storey “Stage 3B2” north tower in the south-eastern corner of the LBH campus. The Stage 3B2 north tower was approved by the DPE on 1 May 2015 as a part of Stage 3B of the redevelopment under SSD_6848. This consent has been subsequently modified, as set out in the planning history for the site in Section 2.3 of this EIS. The proposal is herein referred to as the Stage 3C north tower extension (NTX).

Section 4 of this EIS provides a detailed description of the proposed NTX development.

The proposal has a capital investment value of \$32,154,637 (excl. GST) and is therefore classified as State Significant Development (SSD) pursuant to the \$30 million threshold in Schedule 1 of SEPP SRD.

The proposed development at LBH is declared as SSD under SEPP SRD. Division 4.7 of the EP&A Act applies to SSD and requires that an EIS be prepared to accompany SSDAs.

LBH is zoned *SP2 Infrastructure - Health Services Facility* under the Lismore Local Environmental Plan (LLEP) and the hospital is a permissible use in the zone.


This EIS has been prepared to address a range of relevant matters for consideration as required under the EP&A Act and EP&A Regulation 2000 (EP&A Regs), including the following:

- Details of the proposed development, including analysis of feasible alternatives;
- Assessment of potential environmental impacts of the proposed development in accordance with the SEARs;
- Measures proposed to mitigate any adverse impacts on the environment; and
- Justification for the development and recommendation for planning approval.

This EIS has been prepared in accordance with Clauses 6 and 7 of Schedule 2 of the EP&A Regs.

This EIS also responds to the Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning and Environment (DPE) for the proposal on 30 January 2018. In accordance with the SEARs, this EIS provides an assessment of the environmental impacts of the proposed development and sets out the undertakings made by HI to mitigate and manage any potential impacts arising from the development. Implementation of these mitigation measures will ensure any potential environmental risk is ameliorated.

This EIS also considers the economic and social benefits that inform the delivery of this project. LBH is a major referral hospital within the catchment of the Northern NSW Local Health District (NNSW LHD) and the proposed Stage 3C NTX development will provide critical contemporary healthcare services to satisfy the most pressing requirements identified within the LBH 2012 Clinical Services Plan and 2014 Service Statement. 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.



The EIS fulfils the requirements of the EP&A Act, the EP&A Regs and addresses all relevant matters for consideration prescribed by the SEARs.

The EIS demonstrates that the potential impacts of the proposal can be satisfactorily managed and/or mitigated.

In light of the above, and the evident public benefits of the proposal, we recommend that consent be granted to this application.

2. Introduction

2.1 Structure of this EIS

Table 1 below outlines the structure of this EIS.

Table 1: Structure of EIS

Section	Description
1. Executive Summary	Summary of the EIS
2. Introduction	Overview of the EIS and background to the proposal.
3. Site Analysis	Analysis of the development site.
4. Description of the Development	Description of the proposed works.
5. Secretary's Environmental Assessment Requirements	An overview of the SEARs.
6. Consultation	Details consultation undertaken with local and State government agencies and a response to any issue raised.
7. Statutory Planning Considerations	Consideration of the relevant statutory planning considerations including relevant Acts, SEPPs and LEP as they apply to the site and proposed development.
8. Policies	Consideration of the relevant strategic planning considerations as they apply to the site and proposed development.
9. Environmental Impact Assessment	Addresses the key issues identified in the SEARs.
10. Environmental Risk Assessment	In evaluating the assessment undertaken in Sections 7, 8 and particularly, Section 9, an environmental risk assessment is provided in a matrix format.
11. Mitigation Measures	Provides a compilation of recommended mitigation measures for the proposed work.
12. Conclusion	Summarises the key issues and provides a recommendation to approve the proposed development.

2.2 The Site

The Stage 3C NTX development is proposed to be located in the south-eastern portion of the main hospital campus. The legal description of the Stage 3C NTX development site comprises the following allotments:

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

A detailed description of the site is provided in Section 3 of this EIS.

2.3 Relevant Development History

The relevant planning history for LBH is outlined below:

- **Stage 1:** MP 06_0078 was approved on 25 January 2007 for a three (3) storey mental health facility with 48 beds at the northern end of the campus. This building has been

constructed. This approval also included car parking, vehicular access and landscaping.

- **Stage 2:** MP 07_0136 was approved on 29 October 2008 for a three (3) storey integrated cancer centre with links to the main clinical hospital buildings (Block A) and associated infrastructure and landscaping. This centre has been constructed and is located along Hunter Street on the western boundary. This stage also approved parking.
- **Stage 3:** Stage 3 comprises a range of "sub-stages", including the proposed works. The relevant parts of Stage 3 that have been approved are below:

Stage 3A early works.

- "Development without consent" works were approved by HI under Clause 58 of the Infrastructure SEPP for the following:

Demolition of Block H, Block J and Block T;

Demolition of car parking within the undercroft area of the mental health unit building (Block Z) and removal of at grade car parking;

Construction of facilities for the pathology unit within the undercroft of Block Z;

Construction of temporary facilities for the maternity unit to the east of Block A; and

Removal of 95 trees and shrubs surrounding the demolished buildings and within the footprint of the proposed new building.

Stage 3A main building works (SSD 5816).

- This comprised site preparation works, construction of a new five (5) storey hospital building with linkages to the existing hospital, to accommodate the emergency department, renal services, mortuary and peri-operative shell and a level of plant above the "shell". Stage 3A also included refurbishment works to Level 4 of Block C, public domain and road works, landscaping and signage for the new building. These works were approved as SSD by the Minister for Planning and Environment on 13 March 2014. It is understood that construction for this stage was completed in June 2016.
- Lismore City Council issued development consent for the demolition of existing dwellings, structures and vegetation on 9, 11, 15 and 15A Little Uralba Streets on 7 May 2014 under DA 5.2014.46.1.

Stage 3B main building works and new car park (SSD 6848).

- Stage 3B of the redevelopment consists of construction of five additional storeys above the approved five storey Stage 3A building (resulting in a 10-storey building) and a five-storey addition to the north of Stage 3A. The Stage 3B works also include site preparatory works, fit-out and expansion of the upper levels of Stage 3A, partial closure of Little Uralba Street for the new loading dock and driveway and construction of a helipad on the roof of the new hospital building. The project has a capital investment value (CIV) of approximately \$114 million. The south tower construction (Stage 3B1) was completed in September 2017 and we understand that the north tower (Stage 3B2) is due for completion in 2020.
- SSD 6848 has been modified on three (3) occasions (Mod 1, 2 and 3) with a fourth modification application lodged but withdrawn. Mod 1 related to changes to the façade design and materials for the approved carpark and was approved by the DPE on 24 May 2016. Mod 2 related to an administrative error in the plans listed in the original consent and was approved by the DPE on 9 June 2016. Mod 3 related to minor façade amendments to Stage 3B and a reduction in building height. Mod 3 was approved by the DPE on 31 August 2016.

2.4 Project Objectives

The proposed development forms part of a wider program for the delivery of improved healthcare and associated services in the Northern NSW Local Health District (NNSW LHD).

The general aims of this project are to:

- Cater for future service demand created by the Region's ageing population and increased incidence of chronic disease;
- Improve the efficiency and effectiveness of service delivery through better patient flows, integrated care and model of care and elimination of service duplication;
- Provide asset replacement capable of enhancing functionality and capacity;
- Remedy the sub-standard facility environments;
- Develop a facility to enable staff/clinicians to implement contemporary models of care to better meet the needs of the community; and
- Attract and retain a skilled and sustainable workforce at LBH.

Planning for the redevelopment of LBH, including the entire Stage 3 redevelopment programme, has been informed by the LBH Clinical Services Plan 2012 and 2014 Service Statement and consultation with the community, LBH stakeholders and Lismore City Council (LCC). The proposed Stage 3C NTX 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.

2.5 Development for which approval is sought

This SSDA seeks approval for Stage 3C of the redevelopment at LBH.

The Stage 3C proposal generally involves the construction and fit out of four (4) new storeys above the approved, but not yet constructed, four (4) storey north tower (Stage 3B2), and associated works to facilitate efficient connectivity between existing, approved and proposed development on the site. The Stage 3C proposal is referred to as the NTX, being the "north tower extension".

A detailed description of the proposal is provided in Section 4.

2.6 The Proponent and Project Team

This SSDA and EIS are prepared on behalf of HI. The principal consultant team for the project is set out in Table 2 below.

Table 2: Proponent and Project Team

Discipline	Consultant
Town Planner	City Plan Strategy and Development
Project Manager / Construction Management	John Holland Group
Surveyor	Newton Denny Chapelle
Architect	Conrad Gargett Architects
Quantity Surveyor	Altus Group
Contamination	Previously undertaken by Coffey Geotechnics
Geotechnical	Previously undertaken by Douglas Partners
Structural Engineering	Arcadis

Traffic and Parking	Taylor Thompson Whitting
Heritage	City Plan Heritage
ESD	Conrad Gargett Architects
Acoustic	Acoustic Logic
Civil Engineering/Stormwater Management	Donnelley Simpson Cleary
Hydraulic Services	Donnelley Simpson Cleary
Electrical Services	Wood and Grieve Engineers
Accessibility	McKenzie Group
Waste Management (Construction)	John Holland Group
Waste Management (Operational)	NNSW LHD
Secretary's Environmental Assessment Requirements	NSW Department of Planning and Environment
Waiver of biodiversity development assessment report under the Biodiversity Conservation Act 2016	NSW Office of Environmental Heritage and Department of Planning and Environment

3. Site Analysis

3.1 The Regional Context

The site is located within the catchment of the Northern New South Wales Local Health District (NNSW LHD) which extends from Nymboida and Grafton in the south to Tweed Heads in the north. Figure 1 below shows the extent of the NNSW LHD.



Figure 1 NNSW LHD Map (Source: Health.nsw.gov.au)

LBH is a Regional referral, Level 5 base hospital within the NNSW LHD.

The high level of specialist services offered by LBH contributes to its significant role in providing health services on a Regional level. Some of these services include:

- A formalised Retrieval Service
- Maternity Unit
- 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 direct catchment, including the Tenterfield and Byron LGAs.

3.2 Local Context

The site is located in Lismore, approximately 1km east of the town centre.

Figure 2 below is a plan showing the location of the site with regard to Lismore town centre.



Figure 2 Location Plan of the Site. Lismore Town Centre marked by the red star and LBH shaded in green (Source: SIX Landviewer)

3.3 Site and Local Area Description

3.3.1 Overview

This proposal is an extension of the Stage 3B2 north tower, which was approved as part of Stage 3B (SSDA 6848). The location of the approved Stage 3B2 north tower can be seen in Figure 3 on the page over.

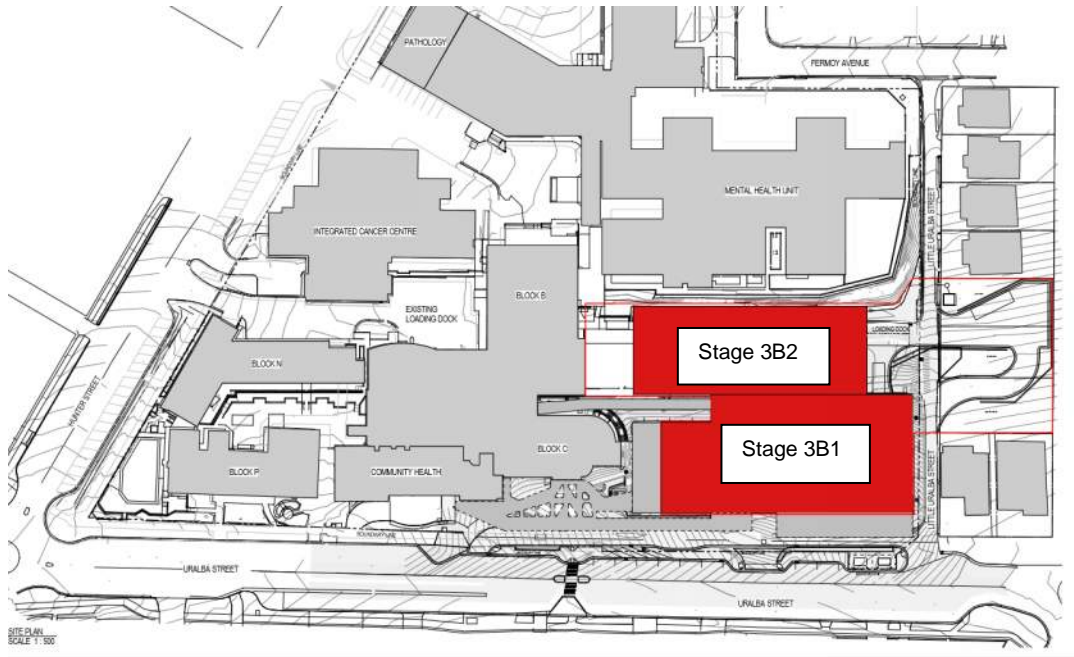


Figure 3 Site Plan showing the specific location of the north tower Stage 3B2 (Woods Bagot Drawing No. DA1000)

3.3.2 Legal Description

The development site for the Stage 3C NTX comprises the following allotments:

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

Figure 4 below shows the location and boundaries of the lots identified above.



Figure 4 Southern extent of LBH, lots within which the NTX will be constructed are outlined in red (Source: SIX maps)

3.3.3 Ownership

LBH is under the ownership of the NSW LHD.

3.3.4 Existing Improvements

Existing site features within LBH include several hospital buildings, internal roads, car parking, loading areas, a helipad (above the Stage 3B1 south tower) and staff amenity facilities.

The south-eastern corner of LBH, where the proposed NTX will be constructed, currently comprises the Stage 3A and 3B1 (southern) buildings and the Stage 3B2 (north) tower is currently under construction.

3.3.5 Existing Access Arrangements

LBH is accessed from all surrounding streets, with primary access obtained from Uralba and Hunter Streets. Secondary access is obtained from Weaver and Little Uralba Streets. A summary of access arrangements relevant to LBH is provided below:

- The main drop off and pick up is accessed via Uralba Street where the front entry to LBH is located.
- Ambulance access is via a separated driveway on Uralba Street.
- Service access from Little Uralba Street is currently under construction (part of the Stage 3B SSSA approval). With this area currently being under construction, loading is currently being undertaken within existing loading areas within LBH, accessed by Hunter Street. There is a separate gas vehicle access via Weaver Street.
- Pedestrian access through the site is provided in the form of covered walkways, marked foot crossings and internal links between buildings. Pedestrian footpaths are provided external to LBH along Uralba Street, Hunter Street and Orion Street. There are no pedestrian footpaths along Fermoy Avenue and Weaver Street. There is a pedestrian footpath along Little Uralba Street adjacent to the constructed Stage 3A building. A pedestrian zebra crossing is located on Uralba Street, opposite the main LBH entrance. The crossing provides a direct, and safe connection between the multi-deck carpark on the southern side of Uralba Street and the main hospital entrance on the northern side of Uralba Street.

The above access arrangements are demonstrated in Figure 5 on the page over.

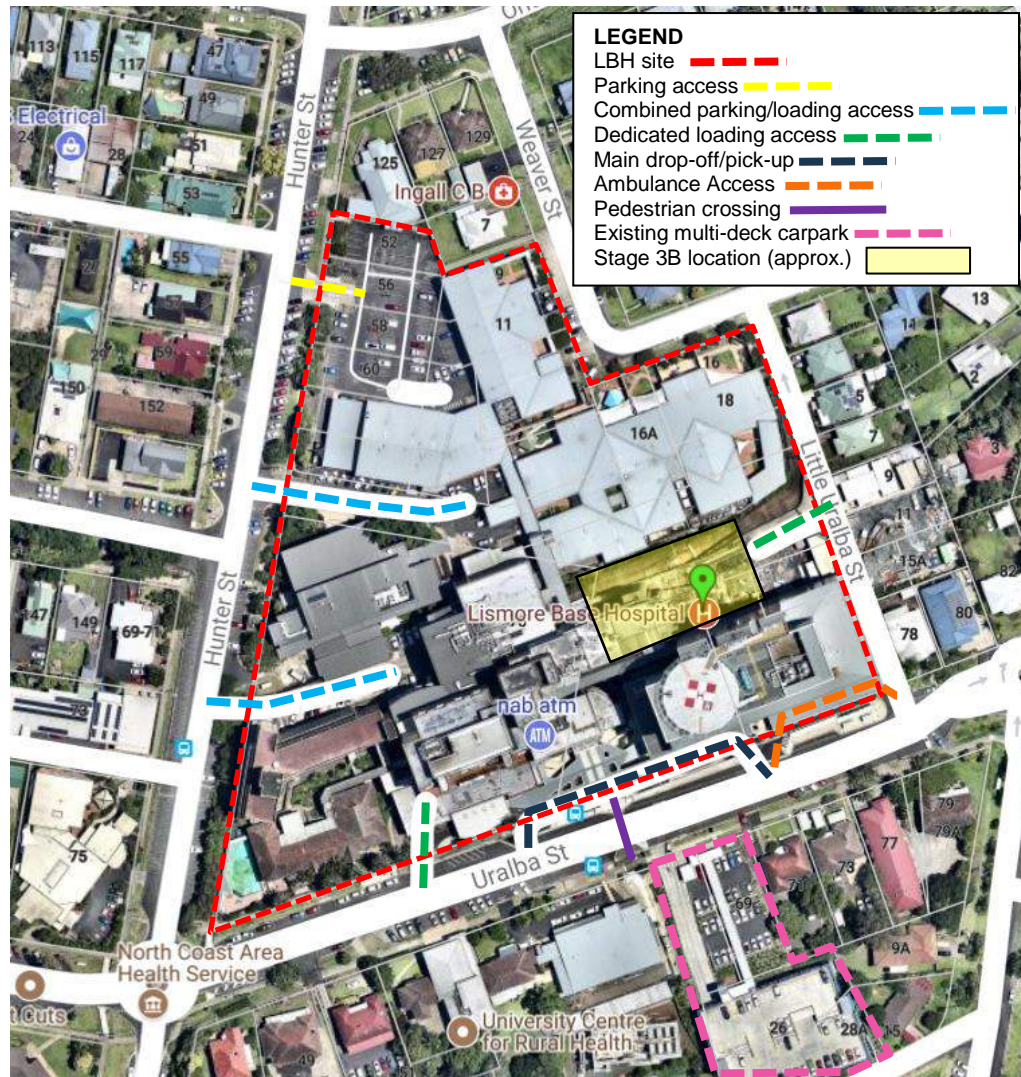


Figure 5 Access Map for LBH (note the location of the access points in and out of the site shown above are approximate) (Source: Nearmap)

3.3.6 Public Transport

The Transport and Accessibility Impact Assessment (TAIA) prepared by TTW provides a clear and succinct overview of public transport options available to LBH. TTW notes that there are a number of regular bus services available on Uralba, Hunter and Dibbs Streets. The bus services operate on a "hail and ride" system, as opposed to formal bus stops. Figure 6 on the page over is an extract from the TAIA, which provides an overview of the routes, locations serviced and frequency of each of the services.

Route Number	Locations Served	Approximate Frequency
682	Lismore Square, Lismore Base Hospital, Southern Cross University, East Lismore, Goonellabah Shops, Chilcotts Grass	Once per hour
683	Lismore Square, Southern Cross University, East Lismore	Once per hour
684	Lismore Square, Lismore Base Hospital, Southern Cross University, East Lismore, Lismore CBD, South Lismore	Every hour and a half to two hours
685	Lismore Square, Lismore Base Hospital, Southern Cross University, Lismore Heights, Goonellabah Heights, James Road	Every hour to two hours
661	Goonellabah, Regatta Estate, Wollongbar, Alstonville, West Ballina	Every thirty minutes to an hour

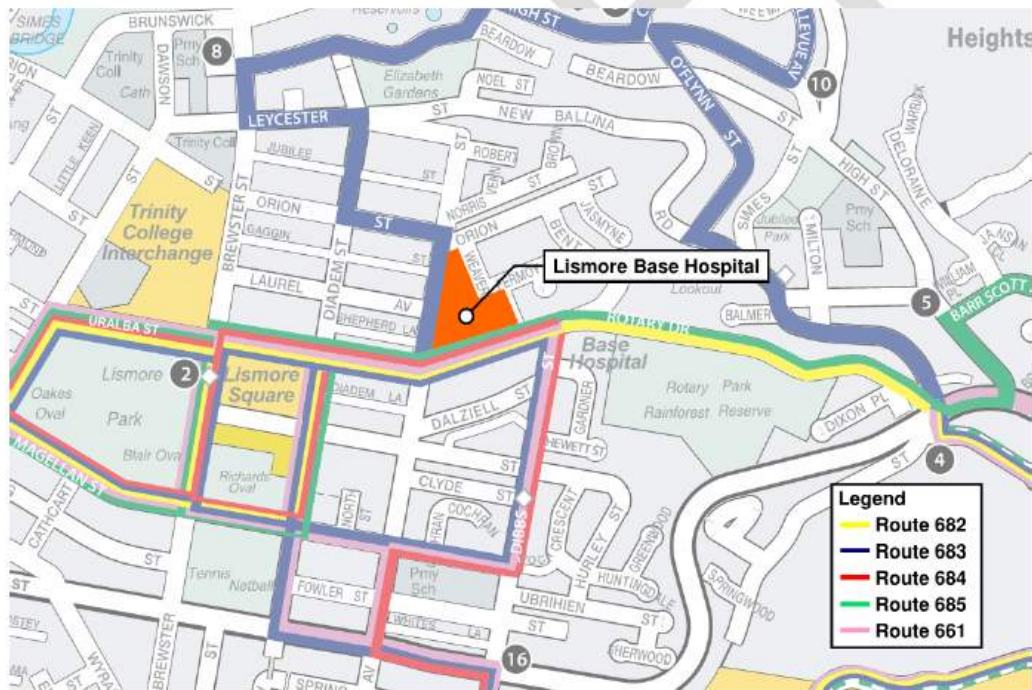


Figure 6 Bus Route Services and Map (Source: TAIA, TTW)

Lismore Railway Station is located approximately 3 kilometres from LBH, a 40-minute walk or a 7-minute drive and is therefore not the most accessible means of transport for users and staff of LBH.

3.3.7 Active Transport

As noted in Section 3.7.1 of the TAIA, and as can be seen in Figure 7 on the page over, there is an existing shared bicycle/pedestrian pathway along the Uralba Street frontage of LBH.



Figure 7 LCC Cycle Plan, LBH shaded in yellow (Source: LCC)

Although there are no other cycleways or other active transport infrastructure within the site's immediate vicinity, the surrounding streets are characterised by wide carriageways and may be described as being “bicycle friendly”.

LCC's Sport and Recreation Plan 2011-2021 details priority walking and cycling paths to be constructed. While the identified routes are not near to LBH, the Plan discusses that further cycle and walking paths should be constructed beyond the identified routes which may, in the future, extend further to LBH.

3.3.8 Existing Parking Situation

The TAIA provides a detailed analysis of the existing parking available to LBH, both on-site and off-site.

TTW undertook a study of the existing parking inventory and occupancy on 15th March 2018. The study area of the parking survey extended to surrounding streets (refer to Figure 3.3 in the TAIA). A summary of the findings of the study is provided below:

- There is a multi-deck carpark opposite LBH on Uralba Street (accessed also via Dalziell Street), which was recently constructed (Stage 1 of the two stages approved) as a part of the previous Stage 3B SSDA. This carpark accommodates 270 parking spaces;
- There is a LBH-owned carpark on Gaggins Lane (to the west of LBH) which accommodates 30 fleet car spaces;
- There are various carparking areas within LBH which are accessed via Hunter Street. These carparks accommodate 162 spaces combined. These spaces are a mix of staff, restricted, patient, fleet, disabled and maintenance parking;
- At the Uralba Street main entrance to LBH, there are 10 drop off spaces, 4 public transport only spaces and 1 disabled parking space;

- Based on the above, there are a total of 477 spaces available to LBH within the existing campus and within LBH owned off-site carparks;
- Within the surrounding road network, TTW surveyed a total of 991 on-street parking spaces. There are varying restrictions applying to these spaces as set out in Figure 3.4 of the TAIA; and
- Occupancy rates within the surveyed area can be seen in Figure 8 below, noting that there is spare capacity within the campus and vicinity of the site during the nominated 2pm peak period.

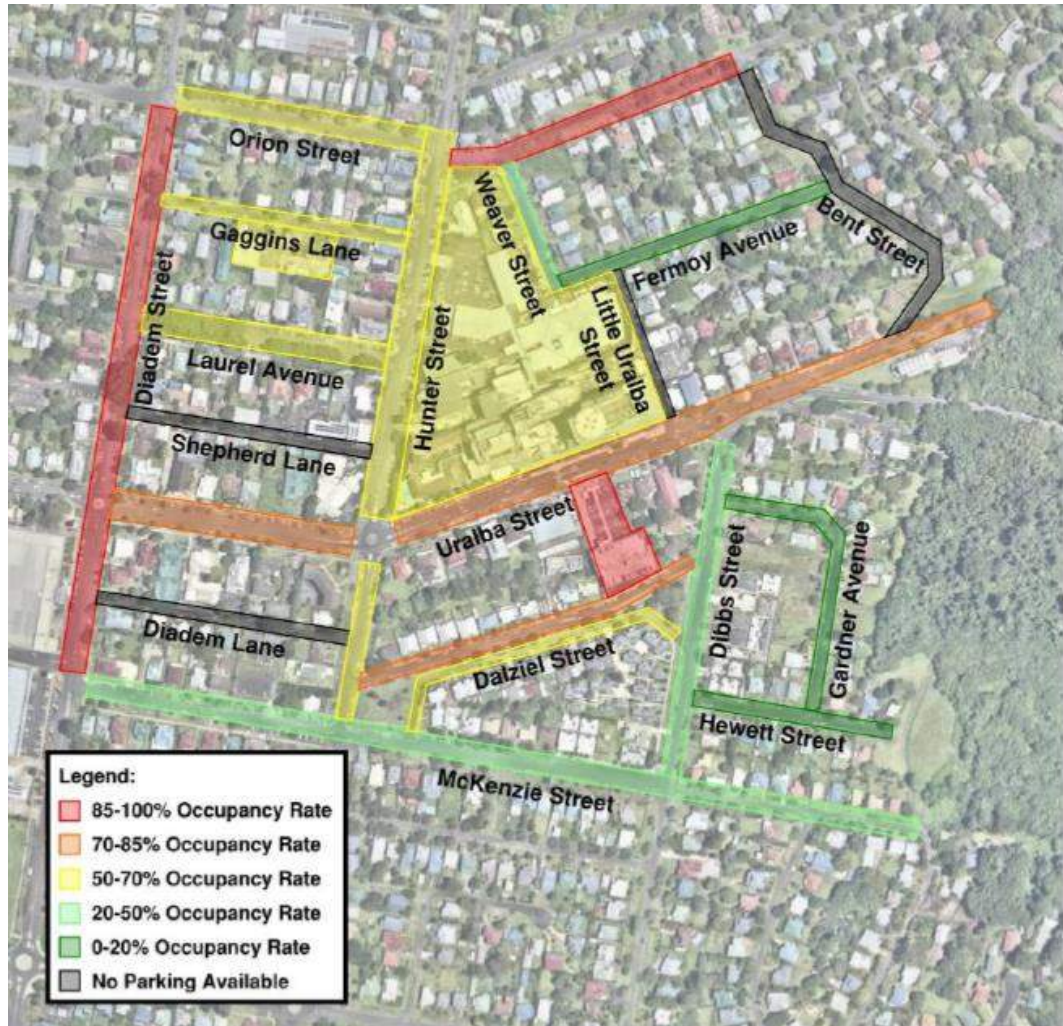


Figure 8 Parking Occupancy During Peak Hour 2pm (Source: TTW)

Parking demand and supply relevant to the Stage 3C NTX will be discussed in Sections 4.7.1 and 9.4 of this EIS. However, we note that the existing parking demand associated with LBH prior to Stage 3 (inclusive of Stage 3A, 3B and proposed 3C) was 820 spaces. Stage 3A and 3B generated an additional demand of 260 spaces which was accommodated within the multi-deck carpark constructed as a result of the approved Stage 3B development.

3.3.9 Heritage

The site does not comprise any heritage or archaeological items and is not within a heritage conservation area. However, as seen in Figure 9 on the page over, the site is located within the vicinity of a local heritage item, being listing I67, known as Armstrong House ("Kiaora") at 83A Uralba Street.

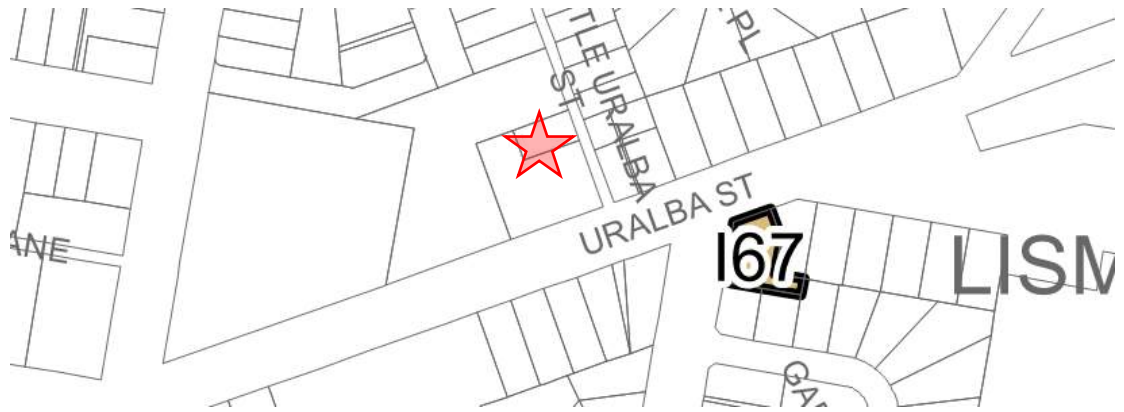


Figure 9: Heritage Map Extract, site marked by the red star (Source: LLEP 2012: Zoning Map Extract, site marked by the red star (Source: LLEP 2012: Land Zoning Map - Sheet LZN_005AB)

3.3.10 Environmental Characteristics

As the site is situated in, and surrounded by, a primarily urban environment, there are no environmental features such as water courses, wetlands, or defined habitat corridors on, or in the immediate vicinity of the site.

3.3.11 Site Photos

Photos of the site and surrounds are provided below.



Figure 9 View of the south-eastern corner of LBH with the newly constructed Stage 3A building in the forefront. The proposed NTX tower will be constructed to the north/behind Stage 3A (Source: JHG)



Figure 10: The new development in the south eastern corner of the LBH site, as viewed from the corner of Uralba and Dalziell Streets. The location of the approved north tower (to be constructed) and proposed north tower extension circled in blue (Source: JHG)



Figure 11 View of the north façade/rear of Stage 3A from Little Uralba Street looking south. The approved Stage 3B2 north tower is yet to be constructed adjacent to Stage 3A and the proposed NTX tower will be constructed above the Stage 3B2 north tower (Source: JHG)



Figure 12: View of the existing Stage 3 development (Stage 3A and 3B1) looking east along Uralba Street. The blue circle indicates the location of the Stage 3C NTX works (Source: Source: JHG)



Figure 13: View of the construction site to the north of the Stage 3A and 3B1 buildings. The Stage 3B2 north tower is currently under construction (Source: JHG)

4. Description of the Development

4.1 Overview

The Stage 3C, NTX proposal generally involves the construction and fit out of four (4) new storeys above the approved, but not yet constructed, four (4) storey north tower (Stage 3B2), and associated works to facilitate efficient connectivity between existing, approved and proposed development on the site. The Stage 3C proposal is referred to as the NTX, being the north tower extension.

More specifically, the proposal will provide:

- Construction of a four (4) storey extension above the existing four (4) storey Stage 3B2 north tower (to be described as Levels 7 - 10);
- A new enclosed plant room at Level 7;
- A new ICU providing 16 rooms at Level 8;
- New in-patient accommodation providing 60 beds across Levels 9 and 10. 30 beds will be provided at each level with an in-patient medical ward at Level 9 and an in-patient surgical ward at Level 10;
- Additional treatment rooms, staff workstations, staff rooms, offices and meeting rooms across Levels 8 - 10;
- New storage facilities (including sterile storage) across Levels 7 - 10; and
- New connections between the north and south towers at Levels 7 - 10 and a stairway connecting the north tower roof to Level 12 of the south tower.

The Stage 3C NTX will result in an additional 18.7 metres of vertical built form above the approved Stage 3B2 north tower. The total height of the north tower, being Stage 3B2 and Stage 3C combined, will be 36.1 metres (maximum height at RL 63.380). An increase of approximately 4006.88m² of gross floor area (GFA) is attributed to the NTX proposal. This figure has been confirmed by CGA, calculated in accordance with the definition of GFA pursuant to the Lismore Local Environmental Plan 2012 (LLEP).

We have been advised as a result of other upgrades within LBH that there will be a net gain of only 21 beds. This is discussed further in Section 4.6.2 of this EIS.

Refer to the architectural plans prepared by CGA at Appendix 4 for further details regarding the scope of works.

4.2 Operational Need for the Stage 3C NTX Proposal

The proposed works, described above and illustrated on the architectural plans prepared by CGA, are driven by a need for rationalised and improved facilities to meet contemporary models for care and increased ICU and inpatient facilities at LBH. This need is closely linked to the continued expansion of LBH as a major referral hospital in the NNSW LHD catchment.

In September 2016, a new emergency department (ED) was opened at LBH, acting as an entry point to inpatient services. The new ED was constructed as a part of the Stage 3A development. The Healthcare Quarterly released by the Bureau of Health Information (BHI) for January to March 2017,¹ indicated that the number of ED presentations at LBH compared with the same quarter last year has increased by almost 10% (refer to Figure 14).

¹ The Healthcare Quarterly released by the Bureau of Health Information provides data relating to "activity and performance measures for emergency department, admitted patient and elective surgery care to include information on ambulance services in NSW".

Figure 3

Change in number of emergency department presentations compared with the same quarter last year, hospitals by peer group, January to March 2017

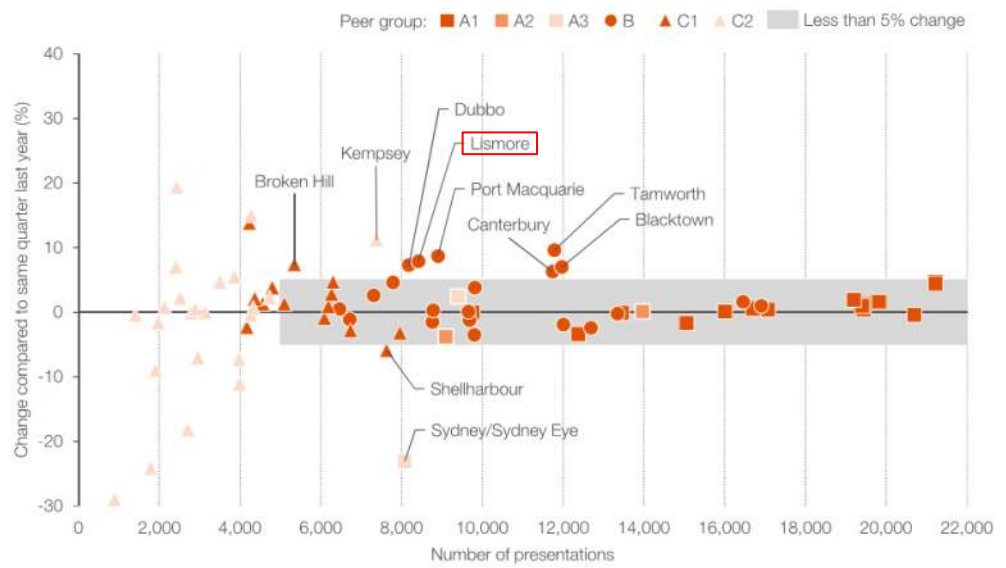


Figure 14 Extract from BHI 'Healthcare Quarterly – January to March 2017' illustrating the "Change in number of emergency department presentations compared with the same quarter last year, hospitals by peer group, January to March 2017". (Source: BHI 2017)

Increased ED presentations at LBH has contributed to a high level of admissions activity. The Healthcare Quarterly for January to March 2017 shows that LBH has the second highest total "episodes" (almost 60% of which were unplanned) and the second highest average length of stay in the NNSW LHD (refer to Figure 15).

Appendix table 1: NSW Hospital admission activity measures by local health district

NSW admitted patient activity by hospital and local health district, January to March 2017.

	All episodes			Acute episodes			Average length of stay (days)
	Total episodes	Planned	Unplanned / other	Same-day	Overnight	Total acute bed days	
Northern NSW Local Health District (NNSWLHD)							
Ballina District Hospital	2,468	1,352	1,116	1,829	483	4,109	1.8
Casino and District Memorial Hospital	600	205	395	258	311	1,593	2.8
Grafton Base Hospital	3,579	1,965	1,614	2,111	1,398	7,169	2.0
Lismore Base Hospital	7,542	3,048	4,494	3,418	3,987	21,943	3.0
Macleay District Hospital	1,243	152	1,091	764	427	2,848	2.4
Murwillumbah District Hospital	1,354	477	877	745	471	2,905	2.4
The Tweed Hospital	8,657	3,054	5,603	3,943	4,551	21,097	2.5
Other NNSWLHD	1,346	189	1,157	497	773	4,051	3.2
Total NNSWLHD	26,789	10,442	16,347	13,565	12,401	65,715	2.5

Figure 15 Extract from "Appendix table 1: NSW Hospital admission activity measures by local health district" from BHI 'Healthcare Quarterly – January to March 2017'. (Source: BHI)

The high level of admissions activity noted above, is accompanied by a large number of elective surgical procedures. In the first quarter of 2017, 34.5% of elective surgeries in the NNSW LHD took place at LBH (refer to Figure 16).

Appendix table 5a: NSW Elective surgery activity measures by local health district
 NSW elective surgery activity, by hospital and local health district, January to March 2017.

	All elective surgical procedures	Urgent ¹	Semi-urgent ¹	Non-urgent ²	Staged ³
Northern NSW Local Health District (NNSWLHD)					
Ballina District Hospital	219	42	91	68	18
Casino and District Memorial Hospital	168	10	52	90	16
Grafton Base Hospital	499	132	158	206	3
Lismore Base Hospital	1,099	308	301	380	110
Maclean District Hospital	29	8	<5	21	0
Murwillumbah District Hospital	364	32	111	191	30
The Tweed Hospital	804	192	289	238	85
Total NNSWLHD	3,182	724	1,002	1,194	262

Figure 16 Extract from "Appendix table 5a: NSW Elective surgery activity measures by local health district" from BHI 'Healthcare Quarterly – January to March 2017'. (Source: BHI)

Accordingly, the subject SSDA is a response to the continued expansion of LBH as a major referral hospital in the NNSW LHD catchment, characterised by a new and growing ED, a high level of admissions activity and high level elective surgical procedures when compared with other hospitals throughout the NNSW LHD. This has created an increase in demand for inpatient beds and ICU facilities at LBH. The Stage 3C NTX proposal seeks to alleviate some of this demand whilst accommodating for inevitable future growth in the use of LBH.

4.3 Proposed Site Plan

A site plan of the proposed works has been prepared by CGA and an extract is provided below.

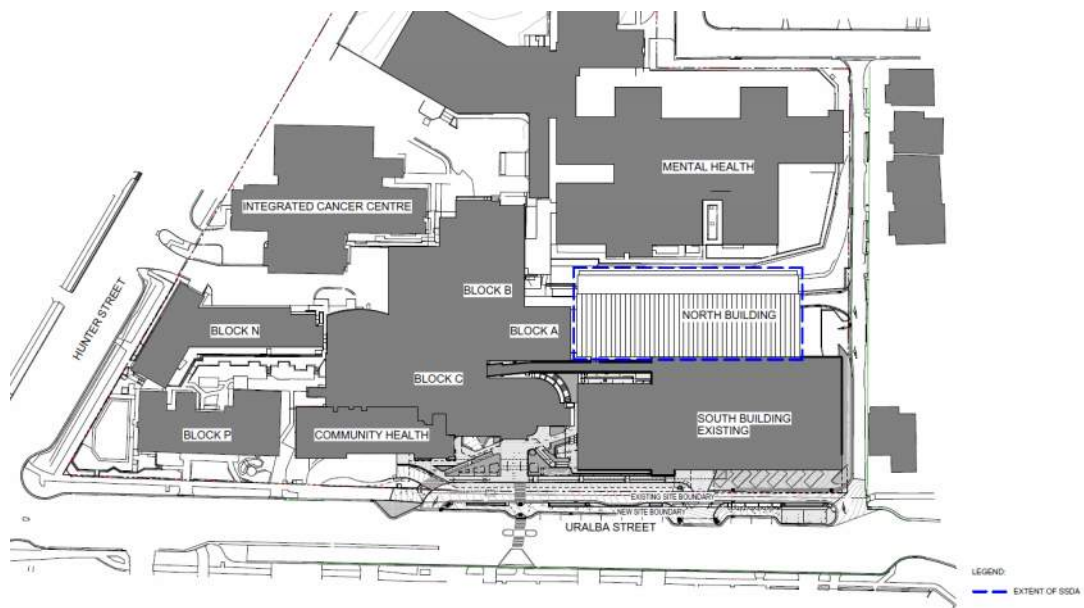


Figure 17 Proposed site plan (Source: CGA)

4.4 Demolition

The proposal relates to the construction of a four (4) storey addition above an approved, but not yet constructed building (Stage 3B2 north tower). No demolition works are required to be undertaken to construct the proposed Stage 3CNTX.

4.5 Excavation, Filling and Tree Removal

No excavation, filling or tree removal is required to be undertaken to facilitate the construction of the proposed Stage 3C NTX.

4.6 Construction

4.6.1 Overview

Key construction elements for the proposal include the following:

- Construction of the new four (4) storey addition above the approved Stage 3B2 north tower (Levels 7-10 inclusive); and
- Integration of the new build with existing/approved buildings (Stage 3A, 3B1 and 3B2) to maintain a link between the existing, approved and new buildings.

The images on the page over provide a comparison between the approved Stage 3 development (Stages 3A and 3B) with the Stage 3 development inclusive of the proposed Stage 3C NTX. The images include a comparison between the approved and proposed northern elevation, eastern elevation (from Little Uralba Street) and comparative photomontages from three (3) vantage points in the vicinity of LBH.

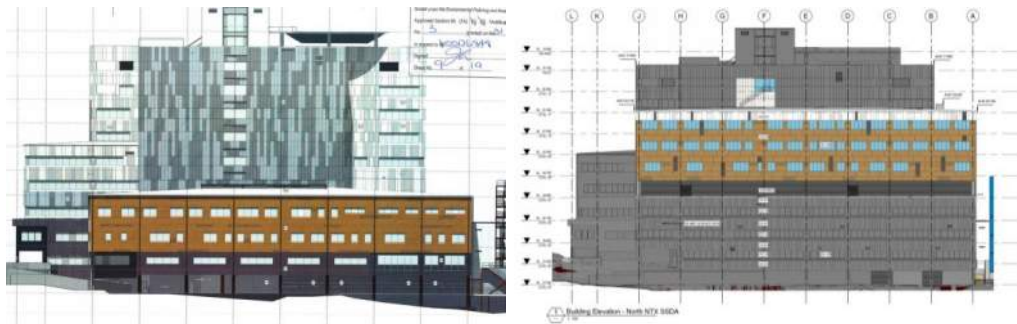


Figure 18 Approved vs Proposed Northern Elevation of Stage 3 (Source: CGA)

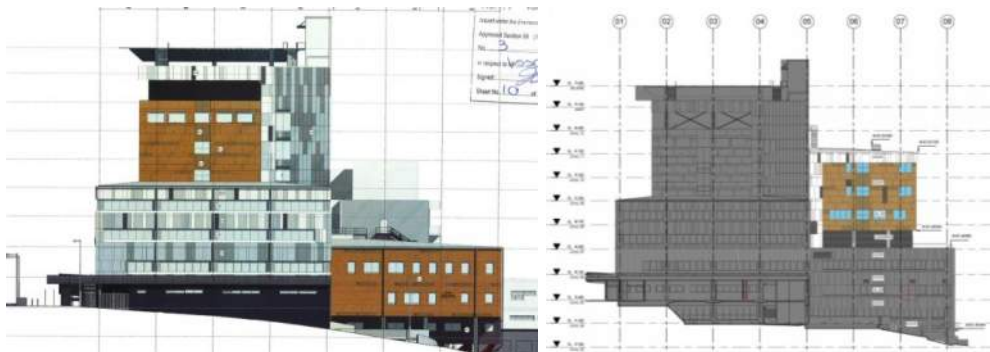


Figure 19 Approved vs Proposed Eastern Elevation of Stage 3 (Source: CGA)



Figure 20 Comparative photomontages. Vantage A (red arrow in legend above) taken from north-west along Hunter Street, Vantage B (blue arrow in legend above) taken from Fermoy Street looking back south-west towards LBH and Vantage C (green arrow in legend above) from the intersection of Rotary Drive and Uralba Street, looking back at the Stage 3 development towards the north-west (Source: CGA)

Construction management is addressed in Section 9.17.1 of this EIS.

4.6.2 Development Statistics - Bed Numbers

With respect to bed numbers, the development is largely a rationalisation of existing space at LBH and will result in 76 beds, but a net increase of only 21 in-patient beds. Refer to Table 3 below.

Table 3 Bed Numbers Pre and Post NTX

Pre NTX		Staff Numbers				
Level	Department	Morning	Afternoon	Night	Bed Numbers	
Level 5 Block B/C	ICU/CCU	8	7	6	13	
Level 7 Block C	Medical Ward	8	7	3	30	
Level 7 Block A	MAU	2	2	2	12	
Total					55	
Post NTX		Staff Numbers				
Level	Department	Morning	Afternoon	Night	Bed Numbers	
Level 5 Block B/C	Staff admin				0	
Lv 7 Block A/B/C	shell	0	0	0	0	
NTX Level 8	ICU/HDU	8	8	6	16	
NTX Level 9	Surgical IPU	10	7	4	30	
NTX Level 10	Medical IPU	12	7	4	30	
Total					76	
Net beds increase					21	

Further to the above, we have been advised by HI the following:

- The proposed development will not increase outpatient services. Therefore, there will be no increase from the previously reported out-patients per day. We have been advised that there will remain an expected 977 out-patients per day as detailed in the Stage 3B documentation (SSD 6848).
- There will be a proposed increase in staff of 8 per day from Stage 3B to support the additional 21 in-patient beds.

4.6.3 Materials and Finishes and Façade Treatment

The building materials and finishes and façade treatment have been determined by the site's context and the previously approved sub-stages of Stage 3 of the redevelopment programme at LBH. On the page over is an extract of the materials and colours schedule prepared by CGA. Materials comprise a mix of glazing, composite metal cladding, aluminium louvres and the like. The colour scheme is consistent with that which was approved under previous Stage SSDAs for the Stage 3 buildings at LBH.



Figure 21 Proposed materiality for Stage 3C NTX proposal (Source: CGA)

Discussion regarding the appropriateness of the proposed materiality for the NTX proposal is undertaken in Section 9.2 of this EIS.

4.6.4 Landscaping and Public Domain

As the proposal involves a vertical extension to an approved (but not yet constructed) building, no additional landscaping or public domain works are required.

4.6.5 Signage

No new external signage is proposed as a part of the Stage 3C NTX development. Standard wayfinding signage will be incorporated internally within the building.

4.6.6 Architectural Intent

A design statement has been prepared by CGA which explains the intent and principles which underpin the design of the proposed NTX development.

The design statement expresses that the proposed NTX development has been designed to expand upon the design concept of “unity”, employed for previous sub-stages of Stage 3 of the redevelopment programme at LBH. The concept of “unity” has been further developed as the detailed design of Stage 3 progressed from Stage 3A, to Stage 3B and now, to Stage 3C, to “reference the bamboo groves and luscious surroundings that existed on site prior to the construction of previous stages, to define a palette and language for the 3C [NTX] extension form”. The façade treatment for Stage 3C was further developed in line with the concept of a “weave” to ensure the integration and unification of the NTX with the approved elements of Stage 3A and 3B, and particularly, Stage 3B2 below.

As set out in the design statement, the intent for the design of the NTX proposal is to present a “harmonious addition” to the LBH campus.

Refer to the design statement at Appendix 5 of this EIS for a detailed description of the architectural intent which underpins the proposed Stage 3C NTX proposal.

4.7 Access and Parking

4.7.1 Parking

No new carparking is proposed to be provided as a part of the proposed works. As will be discussed in further detail in the assessment in Section 9.4 of this EIS, the net increase in 21 beds as a result of the proposal will generate a demand for an additional 10 parking spaces. The existing LBH multi-deck carpark on Uralba Street has sufficient capacity to accommodate this additional demand.

4.7.2 Vehicular Access

No new vehicular access is required as a result of the works. The service/loading access from Little Uralba Street approved under the Stage 3B SSSA will be retained.

4.7.3 Pedestrian Access

No additional external pedestrian infrastructure is proposed as part of the works. Internal pedestrian connections to the previously approved Stage 3B2 north tower and constructed Stage 3B1 south tower are included as part of the works.

4.7.4 Ambulance Access

The ambulance access constructed as a part of the approved Stage 3A redevelopment will be retained. The existing ambulance access and bays will remain operational during construction and priority will be given to LBH vehicles at all times, in accordance with the Preliminary Construction Traffic Management Plan (CTMP) prepared by TTW at Appendix 18. Construction traffic management is addressed further in Section 9.4 of this EIS.

4.7.5 Service Access and Arrangements

The service/loading access from Little Uralba Street approved under the Stage 3B SSSA will be retained.

4.7.6 Construction Access

Construction access will be undertaken in accordance with the CTMP prepared by TTW at Appendix 18. Construction access arrangements approved as a part of Stage 3B will be retained, with vehicles obtaining access via Little Uralba Street. The approach route will be from the west, along Uralba Street turning left into Little Uralba Street, with the departure route being a left turn out of Little Uralba Street and left onto Uralba Street. As set out in the plan, "access to the Hospital and nearby residential properties on Little Uralba Street will be maintained throughout the construction period", which is envisaged to be from August 2018 (subject to approval) to January 2020.

4.8 Infrastructure and Utility Works

4.8.1 Civil Engineering

Cut, fill, and on-site detention were all addressed as a part of the approved Stage 3B SSSA. In terms of drainage, the proposed system for the proposed development will connect to the existing (part)/approved Stage 3B stormwater drainage system.

4.8.2 Utilities

Utilities are addressed as a part of the response to SEAR 12 (Section 9.11 of this EIS). No augmentation or upgrades are required to facilitate the works.

4.9 Hours of Operation

The Stage 3C NTX will operate 24hrs a day and 7 days a week in accordance with the existing arrangements.

4.10 Jobs Creation

The proposed development will result in the following employment generation:

- **Operational:** We have been advised by HI that the proposal is expected to result in an additional 8 FTE jobs.
- **Construction:** We have been advised by JGH that the proposal will generate an additional 80 jobs per month, and up to 200 at peak construction time.

4.11 Analysis of Alternative Options

4.11.1 Option 1 - Do Nothing

Under the 'do nothing' scenario, health services in the northern region of NSW would be rendered inefficient and would not allow for the effective delivery of key services. Not undertaking the work would not be an appropriate outcome for a project of this nature given the importance of LBH as a major referral hospital, which will facilitate much-needed health infrastructure for the region.

4.11.2 Option 2 - Alternative Designs

HI has explored a number of options for the location and layout of the new facility during the concept design phase for Stage 3. A number of broad options were considered for the expansion of the LBH campus. Out of the options tabled as part of the concept and schematic design assessment process, the proposed option for the NTX was considered to be the most appropriate way of meeting the future needs of the community, with minimal impact (physical and operational) to the remainder of the LBH campus which is currently strained.

Particularly, the chosen option, being a vertical extension of another building within the campus, will assist in minimising the built footprint within the LBH campus and to provide more flexibility for further redevelopment in the future.

4.12 Impact of not proceeding with the proposal

Further to Section 4.11.1 above, generally, the key impacts of not proceeding with the proposal would include:

- Limiting the ability of LBH to meet the healthcare demands of the catchment population and particularly, the ICU and in-patient bed requirements as a result of the growing ED which was redeveloped as a part of the Stage 3A works;
- Limiting the attraction and retention of health services staff within the LBH;
- Preventing the full implementation of contemporary models of care with much of the existing LBH infrastructure not consistent with contemporary standards of health and safety and patient care;
- Increasing the likelihood of recurrent operating costs incurred by the State resulting from a growth in demand of health services;
- Limiting the potential for health services to be delivered to the quality required by Health Infrastructure and the NNSW LHD; and
- Facilitating a substantial long-term undersupply of key clinical services including, ICU and in-patient beds.

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 NSW LHD that rely on LBH as the major referral hospital for the Region.

Further to the above, the Stage 3C NTX development will accommodate a number of relocated services from existing buildings including upgraded and new ICU and in-patient beds, allowing space for refurbishment of existing buildings with appropriate facilities. Not proceeding with the proposal would impact on the detailed staged redevelopment program for LBH that would ultimately only impact on the level of critical health services offered to the community and wider NSW LHD catchment. Furthermore, we have been advised by HI that there are no alternative areas within the LBH campus that can accommodate the services proposed.

The proposal also results in construction efficiencies and less site disruption as a result as the Stage 3B2 north tower and (once approved), the Stage 3C building can be constructed together.

To this end, the impact of "doing nothing" is not considered to be acceptable due to the inability of current infrastructure to meet the current and future health care demands of the local and regional community. A "do nothing" approach would have serious implications for the health and wellbeing of the community.

5. Secretary's Environmental Assessment Requirements

This EIS has been prepared to in accordance with the form and content requirements outlined in Schedule 2, Part 3, Clause 6 and 7 of the Environmental Planning and Assessment Regulation 2000 and the Secretary's Environmental Assessment Requirements (SEARs) specifically for the development.

The SEARS were issued by the Department of Planning and Environment on 30 January 2018 and a copy is attached at Appendix 1.

Table 4 below summarises the SEARS and includes a reference identifying where each requirement has been addressed in this EIS.

Table 4: SEARs

SEAR/Key Issues	Where Addressed in EIS
1. Statutory and Strategic Context	Sections 7 & 8
2. Policies	Section 8
3. Built Form and Urban Design	Section 9.2
4. Environmental Amenity	Section 9.3
5. Transport and Accessibility	Section 9.4
6. Ecologically Sustainable Development (ESD)	Section 9.5
7. Heritage	Section 9.6
8. Biodiversity	Section 9.7
9. Noise and Vibration	Section 9.8
10. Sediment, Erosion and Dust Control	Section 9.9
11. Contamination	Section 9.10
12. Utilities	Section 9.11
13. Contributions	Section 9.12
14. Drainage	Section 9.13
15. Flooding	Section 9.14
16. Waste	Section 9.15
17. Construction Hours	Section 9.16
Plans and Documents	All of the required plans and documentation stipulated in this section of the SEARs (where relevant) accompany this EIS as appendices. Many of these items are also addressed at Sections 9.17.
Consultation	Section 6

6. Consultation

In accordance with the SEARS for the subject SSDA, consultation was undertaken with Lismore City Council (LCC), Transport for NSW (TfNSW), Roads and Maritime Services (RMS) and Lismore Airport/CASA. Consultation has also been undertaken with the surrounding community including adjacent landowners and relevant special interest groups.

The following sections of this EIS provide details of the consultation undertaken.

6.1 Draft Community and Stakeholder Engagement Guidelines

Whilst not specifically referenced in the SEARs for this project, the DPE has circulated a draft of the Community and Stakeholder Engagement guidelines (dated June 2017), which have been reviewed and considered in determining the extent of notification required to be undertaken for this project.

Table 2 in the guidelines includes a series of questions and evaluation scale to determine the extent of communication. Table 5 below provides a response to each of these questions.

Table 5 Evaluation of Consultation Extent Required

Questions to be responded to for the project		Evaluation Scale to be finalised					
		None	Very low	Low	Moderate	High	Very High
1	What is the potential direct impact on the community and other stakeholders i.e. on individual properties, amenity or the availability of services?		X*				
2	What is the potential indirect impact on the community and other stakeholders?		X				
3	What is the potential for community and other stakeholder uncertainty around environmental impacts or their significance?	X					
4	What is the potential current or likely community and other stakeholder interest based on the type of development?		X*				
5	What is the potential current or likely community and other stakeholders interest based on the location of the development?		X				
6	What is the extent of community and other stakeholder involvement historically			X			

	or currently in developments of this kind or other developments in this location?						
7	What is the potential for conflict as a result of differing environmental, economic or social values held by the community and other stakeholders?		X				
8	What is the likelihood that the community and other stakeholders will perceive the potential for significant environmental impacts?		X				
9	What is the current interest level or likely level of interest from recognised community and other stakeholders or interest groups?		X				
10	What is the likely level of involvement that the community and other stakeholders will expect based on previous practice and current activity?		X				
Total number of ticks/crosses in each column		1	8	1			
Multiplier to determine approach to engagement		X 0	X 1	X 2	X 3	X 4	X 5
TOTAL		0	8	2			

* There is a positive (moderate) outcome in the provision of health services as a result of the proposal.

In accordance with the guidelines, based on the final score, projects are to be assigned one of three engagement approaches:

- 0-10: Low level of potential community and other stakeholders impact/interest
- 11-35: Medium level of potential community and other stakeholders impact/interest
- 36-50: High level of potential community and other stakeholders impact/interest

The final score for the Stage 3C NTX based on the table above is “10” and therefore, based on our evaluation, there is a low level of potential community and other stakeholder impact and interest. This is largely due to the ongoing nature of the Stage 3 redevelopment programme at LBH. There has been ongoing consultation with the relevant stakeholders over past years in relation to previous Stages 3A and 3B. Given the proposal is an extension of the much larger Stage 3 development that was subject to fairly extensive consultation, a lesser level of consultation is considered to be appropriate in this instance.

Consultation was undertaken with the relevant stakeholders via mixed methods, including face-to-face meetings, teleconference meetings and letterbox drops.

6.1.1 Consultation with LCC

Consultation with LCC has been ongoing over the years as LBH has been redeveloped under various stages. However, a more formal pre-lodgement meeting was held with LCC on 21 March 2018 whereby CPD was in attendance via teleconference. The purpose of the meeting was to discuss the Stage 3C NTX proposal and the issues that were raised in LCC's letter dated 21 December 2017 in response to the DPE's SEARs. Table 6 below provides a summary of the issues raised and responses, which were confirmed by email from LCC on 29 March 2018:

Table 6: Response to pre-lodgement matters raised

Issue	Response
No. of beds - Council questions how the construction and fit out of four (4) new storeys at the cost of more than 30 million dollars results in an increase of only 21 beds (both in-patients and outpatients). In this regard, Council seeks detailed justification as to how such a large extension result in such a minor increase in beds.	This is addressed in Section 4.6.2 of this EIS.
Height and scale from residential locality to the north	This issue is addressed in detail in Section 9.2 of this EIS.
Colours of materials. Suggests colours to be the same as existing southern tower or propose alternative colours that are complimentary	This issue was discussed during the teleconference and we understand that LCC agreed that a similar colour scheme to that which has already been approved for Stage 3B is an appropriate response and acceptable. Materiality is addressed in Section 9.2 of this EIS.
Parking supply and timing of new hospital facilities coming online over the coming years and any triggers for the construction of the next stage of the carpark.	The TAIA prepared by TTW provides a clear summary of the peak parking demand for all stages of the LBH redevelopment (refer to Table 4.2). The analysis demonstrates that the multi-storey carpark that was completed during the Stage 3B works has the capacity to accommodate the demand generated by the entire Stage 3 redevelopment at LBH, including the subject Stage 3C proposal (refer to Section 4.4.3 of the TAIA). "Triggers" for the construction of the next stage of the carpark are not yet known but would be addressed in any future applications.
If, following a review of the information required in the above point, Stage 2 of the multi-storey car park is not triggered by the initial construction of Stage 3C, then Council requests an appropriately worded condition of consent that a review/survey of the parking supply and demand of the hospital precinct be undertaken at 5 and 10 years post construction completion to determine whether construction of Stage 2 of the multi-storey car park is triggered at those times. Council is happy to provide an appropriately worded condition.	Noted. A mitigation measure has been included in Section 11 of this EIS to this effect.
Request consideration of crash data in proximity to LBH to determine whether any road upgrades are required.	A review of crash data near to LBH has been undertaken by TTW in the TAIA (refer to Section 3.2.1), which does not indicate any current road safety issues.

<p>Safe pedestrian management for crossing Uralba Street and the level of service provided needs to be considered as part of the Stage 3C application (i.e. such things as covered walkways)</p>	<p>The TAIA prepared by TTW provides the findings of an assessment of the existing crossing on Uralba Street and has confirmed that it is sufficient to support the multi-deck carpark on Uralba Street and no further upgrade is required. Refer to Section 4.6.1 of the TAIA for further discussion. TTW also confirms that no further pedestrian upgrades are required due to the negligible increase in pedestrian trips generated from the proposal. Refer to Section 4.6.1 of the TAIA.</p>
<p>Detailed traffic intersection assessment as per previous emails issued by TTW for Hunter St/Uralba and Dibbs St/Uralba are supported.</p>	<p>Noted.</p>
<p>Consolidation of existing allotments</p>	<p>Consolidation of lots is not proposed under the subject SSDA. LCC agreed with this approach.</p>
<p>Traffic report requirements</p>	<p>This issue is addressed in detail in the TAIA prepared by TTW at Appendix 15. The reporting requirements requested by LCC have been addressed in the TAIA.</p>
<p>Sewer capacity</p> <p>While Council's sewerage system in the broader locality has capacity issues, Council considers that the a further 21 beds as part of Stage 3C will not have an unreasonable adverse impact upon the operation of the existing sewerage system. Within the immediate locality, modelling by Council confirms that there is adequate pipe sizing to service the development. In particular, Council's investigations of the receiving sewerage system in the immediate locality (Laurel Avenue) confirmed that the system was compromised with root intrusion in the section of main up to Diadem Street. Council has since repaired this section of main, a length of approx. 74m and as a result the performance and flow of sewage from the Hospital has improved.</p>	<p>LCC previously advised that additional sewer modelling would likely be required to be undertaken to determine capacity. However, during the teleconference, LCC confirmed that due to the limited net increase in beds, there will not be a significant impact on sewer demand and therefore additional modelling would not be required.</p>
<p>Little Uralba Street closure</p> <ul style="list-style-type: none"> • Council is willing to work with Health Infrastructure (HI) regarding the closure of part of Little Uralba Street adjacent to HI properties, however notes the following matters that would need to be addressed as part of any future action: <ul style="list-style-type: none"> a. The part closure of Little Uralba Street would require a Council Resolution, which has not yet been obtained; and b. The management and part closure of Little Uralba Street needs to consider the amenity of the existing 	<p>Not directly relevant to the subject SSDA, however, HI will continue to consult with LCC in regard to the closure of Little Uralba Street.</p>

residents of Little Uralba Street, including issues like garbage and stormwater management.	
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6.1.2 Consultation with RMS and TfNSW

JHG contacted RMS on 6 March 2018 via email correspondence to commence discussions regarding the proposal and specifically, the extent of the traffic study to be completed for the subject SSDA. RMS confirmed by email correspondence on 28 March 2018 that RMS has no objection to TTW using the same methodology for modelling for the TAIA for the subject SSDA as has been used for previous stage SSDAs. RMS further noted the following:

The only additional activity that needs to be addressed in the updated TIA is "Active Transport" (pedestrians & cyclists). The key desire lines, numbers and access arrangements need to be identified. These should be assessed against current NSW guidelines and standards to assess if any improvements are required to manage their safety and to encourage alternative transport modes. It is recommended that any improvements should be designed and constructed in accordance with the current Austroads Guidelines, Australian Standards and Roads and Maritime Supplements.

The TAIA prepared by TTW has addressed the above including a dedicated "active transport" part in Section 4.6 of the report. Active transport is addressed in Section 9.4 of this EIS.

The TAIA prepared by TTW confirms that TfNSW has been consulted separately to confirm acceptability of the methodology for traffic modelling for the subject SSDA.

6.1.3 Consultation with Lismore Airport and Civil Aviation Safety Authority

JHG has been liaising with LCC in relation to Lismore Airport and CASA consultation. JHG issued LCC with the details of the proposal on 22 March 2018 (by email correspondence), which we understand were then forwarded on to Lismore Airport and CASA. A letter was received from CASA on 26 April 2018 which notes the following:

- The Stage 3C NTX building will penetrate the inner horizontal surface by up to 8.88 metres;
- The proposed building is adjacent to the existing south tower which penetrates the inner horizontal surface by 24.19 metres;
- Both towers have been determined to be hazardous object under regulation 139.370(1) of the Civil Aviation Safety Regulations 1998 due to the height and location and lack of obstacle lighting;
- CASA recommends that at the highest level of these towers above 54.5 metres AHD that:
 - *"the highest point is lit with low intensity steady red lights at night as per Section 9.4 of the MOS. Characteristics for low intensity lights are stated in subsection 9.4.6.1;*
 - *the developer needs to provide information to Lismore Aerodrome, the final constructed height of the building; and*
 - *obstacle lighting is to be maintained in serviceable condition and any outage immediately reported to the aerodrome operator".*
- CASA states that it *"is aware that the existing South Tower (Stage B) has an Aviation Obstacle light that is utilised by helicopter operators only when accessing the hospital,*


- Rous Water was consulted on 19 April 2018 and feedback was received by email on 19 April confirming that Rous has no issues or comments in relation to the development. Rous Water also confirmed that it has *“bulk water supply infrastructure in the vicinity of the hospital building however this will not be impacted by the proposed development. Locations of our water mains can be requested through the DBYD service”*.
- The University Centre for Rural Health was consulted on 19 April 2018. Some queries were raised in relation to additional parking requirements, contractor parking during construction and overshadowing to the centre on Uralba Street. Responses are provided below:
 - Parking numbers: JHG confirmed that there are 21 additional beds as a net gain for this Stage 3C. The University were advised by JHG that based on the assessment undertaken by TTW, that the demand generated by the NTX proposal could be accommodated within the existing multi-deck carpark on Uralba Street.
 - Contractor parking: JHG advised that contractors will be required to park one (1) block away from the construction site, that this will be monitored during the construction phase and is specifically included in its site-specific induction process undertaken by all workers on the project.
 - Overshadowing: The shadow diagrams prepared by CGA were sent to the University to confirm that there will be no overshadowing of the centre on Uralba Street as a result of the proposed NTX development.

No further feedback was received from the University in response to the above comments.

- Ngulingah Local Aboriginal Land Council (Land Council): A meeting was held with the Land Council on 20 April 2018 to discuss the proposal. JHG was in attendance at the meeting. A follow up email was sent to a representative of the Land Council to invite feedback regarding the proposal. A letter was received from the Land Council (undated) with a few comments. Each of these are addressed below:
 - Employment: The Land Council requested that employment of Aborigines be focused on local Aboriginal people. The NSW LDH is aware of this request and will progress this direct to the LHD Executive to address as a part of its workforce planning agenda.
 - The Land Council has requested that the local Widjabal language be used as co-signing on internal hospital signage. A mitigation measure has been included in this EIS to address this request.
 - The Land Council has requested that the local Aboriginal community be invited to name one of the new “wings” of the NTX. The NSW LHD has advised that it is not intending on naming any of the wings within this building extension.
 - The Land Council has requested an area of respite for the local Aboriginal community within LBH to grieve, repose and connect when a family member is passing or is very ill. In response, we understand that a respite room has been provided within Level 4 of the Stage 3B2 north tower (to be constructed). The room is referenced as a “relatives lounge/meeting” room. We understand that this room was provided as a result of a previous consultation forum with a local Aboriginal community representative group and that once that building is constructed, this room will be made available, when required, to address the request made by the Land Council.
 - The Land Council has requested that they be invited to participate, and be acknowledged, in the “opening” of the development. This has been included as a commitment by the NSW LHD in the mitigation measures in this EIS.

6.1.6 EPA

The SEARs do not require consultation with the EPA. However, we refer to the letter from the EPA (undated) which was provided by the DPE with the issue of the SEARs. The letter



from the EPA noted reporting requirements for the EIS in terms of air quality, noise, soil and water management and waste. These requirements have been addressed in the SEARs and the accompanying consultant documentation addresses the relevant requirements identified by the EPA.

7. Statutory Planning Considerations

7.1 Overview

The Secretary requires the assessment of the subject SSDA in relation to the following statutory instruments:

- Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth);
- Environmental Planning and Assessment Act 1979;
- Environmental Planning and Assessment Regulation 2000;
- 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; and
- Lismore Local Environmental Plan 2012.

Whilst not specifically referenced in the SEARs, it is also noted that the Biodiversity Conservation Act 2016 applies to the proposed development.

Where relevant, these controls are addressed below.

7.2 Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) commenced on 16 July 2000. The EPBC Act introduced various assessment and approvals systems for:

- (a) *actions that have a significant impact on matters of national environmental significance;*
- (b) *actions that have a significant impact on the environment of Commonwealth land; and*
- (c) *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 EPBC Act identifies seven matters of national environmental significance, which are set out below:

- (a) *World Heritage properties;*
- (b) *National Heritage places;*
- (c) *Ramsar wetlands of international significance;*
- (d) *nationally listed threatened species and ecological communities;*
- (e) *listed migratory species;*

- (f) Commonwealth marine areas; and
- (g) nuclear actions (including uranium mining).

There are no relevant World Heritage properties, National Heritage places, Ramsar wetlands, Commonwealth marine areas, listed migratory species, nationally listed threatened species and ecological communities or Commonwealth lands on the site or surrounding area.

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

7.3 Environmental Planning & Assessment Act 1979

7.3.1 Division 4.7 - State significant development

In accordance with Section 4.36, the proposal is declared State Significant Development pursuant to State Environmental Planning Policy (State & Regional Development) 2011. This is addressed at Section 7.6 of this EIS.

7.3.2 Section 4.15 - Evaluation

The proposed development has been evaluated and assessed against the relevant heads of consideration under Section 4.15 throughout this EIS.

Table 7 below identifies the matters for consideration under Section 4.15(1), that apply to SSD, in accordance with Section 4.40 of the EP&A Act.

Table 7: Section 4.15(1)(A) Matters for Consideration

Section 4.15(1)(A)	Comment
(a)(i) any environmental planning instrument	Consideration of all relevant SEPPs and the LLEP is undertaken in Section 7 of this EIS. The proposal is consistent with all relevant provisions.
(a)(ii) any proposed instrument	Not applicable.
(a)(iii) any development control plan	Pursuant to Clause 11 of SEPP SRD, DCP's do not apply to SSD.
(a)(iiia) any planning agreement	Not applicable.
(a)(iv) the regulations	This SSDA 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 7.4.1 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 Sections 9 and 10 of this EIS. Mitigation measures to manage the impacts identified are discussed in Section 9 and set out in in Section 11 of this EIS.
(c) the suitability of the site for the development	The site supports an existing hospital and is located in an established urban area and with all urban and infrastructure services available or capable of augmentation to meet the needs of the development. Investigations into contamination, geology, access and services show that the site is suitable for the proposed

	<p>development and capable of accommodating development of the intensity proposed.</p> <p>Measures (as set out in Section 11 of this EIS), will be put in place to manage impacts during construction and operation to protect the amenity of adjoining residents and patients, staff and visitors to LBH.</p>
(d) any submissions	This is a matter for the DPE.
(e) the public interest	<p>Having regard to the provisions of the EP&A Act and this EIS, it is concluded that the in the public interest because of the important improvements in health and hospital services resulting from the new hospital facilities to be provided. The social and economic benefits of the proposal are discussed at Section 9.18.</p> <p>Furthermore, this EIS demonstrates that the development does not result in any adverse environmental impacts subject to adopting the recommendations and mitigation measures contained in Section 11. On balance, the proposal is very much in the public interest.</p>
<p>Biodiversity values exempt if:</p> <p>(a) On biodiversity certified land</p> <p>(b) Biobanking Statement exists</p>	Not applicable.

7.4 Environmental Planning & Assessment Regulation 2000

7.4.1 Requirements for Preparing an EIS - Schedule 2

Schedule 2 of the EP&A Regs prescribes requirements for preparing an EIS. This EIS has been prepared in accordance with the EP&A Regs as set out in Table 8 below.

Table 8: EP&A Regulation - Schedule 2 Requirements

Schedule 2 Subclause	Comment
<p>4 Integrated development—requirements of approval bodies</p> <p>(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.</p>	<p>N/A. Section 4.44(2) of the EP&A Act states that Division 5 Special Procedures for Integrated Development, does not apply to "development the subject of a development application made by or on behalf of the Crown (within the meaning of Division 4), other than development that requires a heritage approval".</p>
<p>6 Form of environmental impact statement</p> <p>An environmental impact statement must contain the following information:</p> <p>(a) the name, address and professional qualifications of the person by whom the statement is prepared,</p> <p>(b) the name and address of the responsible person,</p> <p>(c) the address of the land:</p> <p>(i) in respect of which the development application is to be made, or</p> <p>(ii) on which the activity or infrastructure to which the statement relates is to be carried out,</p>	<p>All of these matters have been addressed in the body of this EIS.</p>

<p>(d) a description of the development, activity or infrastructure to which the statement relates,</p> <p>(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,</p> <p>(f) a declaration by the person by whom the statement is prepared to the effect that:</p> <p>(i) the statement has been prepared in accordance with this Schedule, and</p> <p>(ii) the statement contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and</p> <p>(iii) that the information contained in the statement is neither false nor misleading.</p>	
<p>7 Content of environmental impact statement</p> <p>(1) An environmental impact statement must also include each of the following:</p> <p>(a) a summary of the environmental impact statement,</p> <p>(b) a statement of the objectives of the development, activity or infrastructure,</p> <p>(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,</p> <p>(d) an analysis of the development, activity or infrastructure, including:</p> <p>(i) a full description of the development, activity or infrastructure, and</p> <p>(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</p> <p>(iii) the likely impact on the environment of the development, activity or infrastructure, and</p> <p>(iv) a full description of the measures proposed to mitigate any adverse effects of the development, activity or infrastructure on the environment, and</p> <p>(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,</p> <p>(e) a compilation (in a single section of the environmental impact statement) of the measures referred to in item (d) (iv),</p> <p>(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 ecologically sustainable development set out in subclause (4).</p> <p>(2) Subclause (1) is subject to the environmental assessment requirements that relate to the environmental impact statement.</p>	<p>In response to this clause, we comment as follows:</p> <ul style="list-style-type: none"> ■ A summary of the EIS is undertaken in the Executive Summary at the commencement of this EIS; ■ A statement of the objectives of the development is undertaken in the Introduction of this EIS at Section 2.4; ■ An analysis of feasible alternatives and the consequences of not carrying out the development is undertaken in Section 4.11 and 4.12 of this EIS. ■ An analysis of the development is undertaken in Section 4 of this EIS; ■ An analysis of the likely impact on the environment is undertaken in Sections 7 Section 8, Section 9 and Section 10 of this EIS; ■ A full description of the measures proposed to mitigate any adverse effects of the development is undertaken at Section 11 of this EIS; ■ 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 in Section 7.4.2; ■ A list of all of the measures referred to in (d)(iv) is in Section 11 of this EIS; ■ The proposed development is consistent with principles of ESD, as set out in Section 9.5 of this EIS.

(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.

7.4.2 Approvals Required - Cl. 7(1)(d)(v)

In relation to Clause 7(1)(d)(v), the following Table 9 sets out the approvals required before this development may lawfully be carried out:

Table 9 Approvals Required

Act	Approval Required?
Legislation that does not apply to SSD (Section 4.41 of EP&A Act)	
the concurrence under Part 3 of the Coastal Protection Act 1979 of the Minister administering that Part of that Act,	N/A
a permit under section 201, 205 or 219 of the Fisheries Management Act 1994 ,	N/A
an approval under Part 4, or an excavation permit under section 139, of the Heritage Act 1977 ,	N/A

an Aboriginal heritage impact permit under section 90 of the National Parks and Wildlife Act 1974 ,	N/A
an authorisation referred to in section 12 of the Native Vegetation Act 2003 (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 Rural Fires Act 1997 ,	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 Water Management Act 2000 .	N/A
Legislation that must be considered (Section 89K of EP&A Act)	
an aquaculture permit under section 144 of the Fisheries Management Act 1994 ,	N/A
an approval under section 15 of the Mine Subsidence Compensation Act 1961 ,	N/A
a mining lease under the Mining Act 1992 ,	N/A
a production lease under the Petroleum (Onshore) Act 1991 ,	N/A
an environment protection licence under Chapter 3 of the Protection of the Environment Operations Act 1997 (for any of the purposes referred to in section 43 of that Act),	N/A
a consent under section 138 of the Roads Act 1993,	N/A (applies to previous Stage 3B development only)
a licence under the Pipelines Act 1967 .	N/A

7.5 Biodiversity Conservation Act 2016

Section 7.9 of the Biodiversity Conservation Act 2016 (NSW) outlines the Biodiversity Assessment requirements for State Significant Development (SSD), noting that SSDAs are "to be accompanied by a biodiversity development assessment report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values". This EIS is accompanied by waivers from the Planning Agency Head and the Environment Agency Head which determine that there is no need for the subject SSDA to be accompanied by a BDAR.

A copy of these waivers is at Appendices 6a and 6b of this EIS.

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

The aim of State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD) is to identify development that is 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 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 over \$30 million and as such the proposal is SSD. Refer to the Capital Investment Value Report prepared by Altus Group at Appendix 2.

7.7 State Environmental Planning Policy (Infrastructure) 2007

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

7.7.1 Health Services Facilities

The proposal does not alter the use of the site. The site is defined under the ISEPP as a "hospital", within the meaning of "health services facilities".

LBH is zoned SP2 Infrastructure under the LLEP. The SP2 zone is defined as a "prescribed zone" pursuant to clause 56 of the ISEPP. The use of the proposed building as a "health services facilities" is permissible with consent under the ISEPP.

7.7.2 Traffic Generating Development

The ISEPP 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 ISEPP sets out the types of development which must be referred to the RMS. For hospitals a threshold of 200 beds is identified as the trigger for traffic generating development (unless site with access to classified road or to road that connects to classified road within 90m of the site).

As the proposed development provides only 76 beds (a net gain of 21 additional beds as a result of other site improvements separate to this SSDA), the proposal is not considered to be traffic generating development. Notwithstanding this, consultation has been carried out with the RMS prior to the lodgement of this SSDA and details of this consultation are provided at Section 6 of this EIS.

7.8 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.

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/or no new hazardous activities on the site, an assessment of the nature and quantity of dangerous goods that will potentially be stored/used at LBH in accordance with the requirements of SEPP 33, should be undertaken, with a view to determining if the development is considered potentially hazardous or offensive using the nominated performance criteria.

A SEPP 33 assessment was undertaken by AECOM for the approved Stage 3A development, but that assessment applied to the entire hospital operations. The SEPP 33 Screening Assessment undertaken by AECOM at that time confirmed that LBH is not considered to be potentially hazardous based on the Dangerous Goods stored and so no further assessment is required. The findings and conclusions of that assessment were referred to in the Stage 3B SSDA and the DPE confirmed they were acceptable. In relation to the subject Stage 3C NTX development, the findings and conclusions of the AECOM assessment remain relevant.

With regard to disposal and transporting of clinical or radioactive waste, LBH has existing procedures in place and the Stage 3C NTX redevelopment is not envisaged to increase the quantities. We are therefore satisfied that the storage and disposal of the waste would be

appropriately managed in accordance with currently procedures. This has been verified by the operational waste statement prepared by the NSW LHD at Appendix 19 of this EIS.

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

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) establishes State-wide provisions to promote the remediation of contaminated land. The policy states that land must not be developed if contamination renders it unsuitable for a proposed use. If the land is unsuitable, remediation must take place before the land is developed.

As the development comprises the vertical extension of an approved (but not yet constructed) building on the site, known as Stage 3B, with no ground/site disturbance, it is a reasonable conclusion that there is no contamination risk to the proposal. Despite this, we note that the approved Stage 3B SSDA included a Stage 1 Environmental Site Assessment (February 2013 – Ref: GEOTALST01618AO-AD) prepared by Coffey Geotechnics. This assessment did not identify any areas of environmental concern and concluded that additional assessment was not required. This demonstrates that the site is suitable for the proposed use in accordance with Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land. Therefore, in accordance with Clause 7 of SEPP 55, we are satisfied that the site is suitable for the continued hospital purpose. Any recommendations regarding unexpected finds during excavation works have been addressed in the Stage 3B consent.

7.10 Lismore Local Environmental Plan 2012

The Lismore Local Environmental Plan (LLEP) 2012 is the primary Environmental Planning Instrument (EPI) that applies to the site.

7.10.1 Land Use Zoning

As can be seen in Figure 25 below, the site is zoned SP2 Infrastructure and is surrounded by land zoned R3 Medium Density Residential.

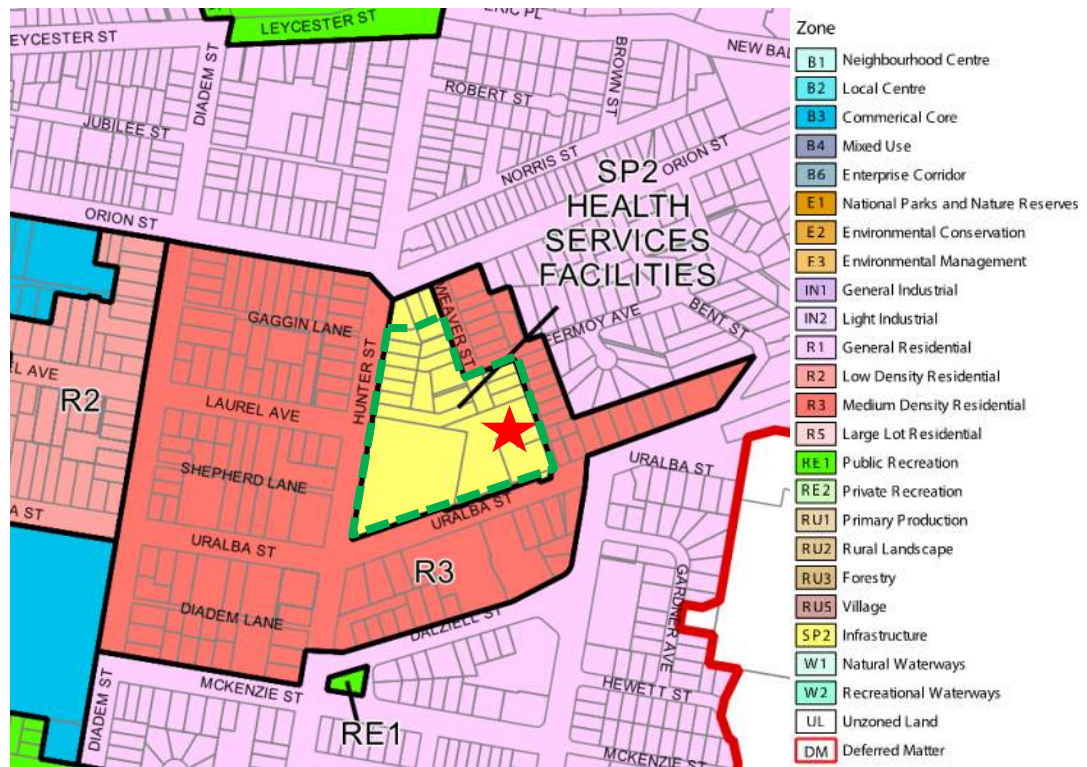


Figure 23 Zoning Map Extract, site outlined in green, approximate NTX location marked by red star (Source: LLEP 2012: Land Zoning Map - Sheet LZN_005AB)

7.10.2 Zone Objectives

Clause 2.3(2) of the LLEP states that the consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.

The objectives of the SP2 zone are below:

- *"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 Stage 3C NTX development aims to enhance the site's existing hospital use at LBH and is therefore consistent with the objectives of the SP2 zone.

7.10.3 Land Use Definition and Permissibility

The LLEP defines a "hospital" within a broader definition of "health services facility". The definitions of these uses are extracted below.

"health services facility means a building or place used to provide medical or other services relating to the maintenance or improvement of the health, or the restoration to health, of persons or the prevention of disease in or treatment of injury to persons, and includes any of the following:

- (a) a medical centre,
- (b) community health service facilities,
- (c) health consulting rooms,
- (d) patient transport facilities, including helipads and ambulance facilities,
- (e) hospital."

"hospital means a building or place used for the purpose of providing professional health care services (such as preventative or convalescent care, diagnosis, medical or surgical treatment, psychiatric care or care for people with disabilities, or counselling services provided by health care professionals) to people admitted as in-patients (whether or not out-patients are also cared for or treated there), and includes ancillary facilities for (or that consist of) any of the following:

- (a) day surgery, day procedures or health consulting rooms,
- (b) accommodation for nurses or other health care workers,
- (c) accommodation for persons receiving health care or for their visitors,
- (d) shops, kiosks, restaurants or cafes or take away food and drink premises,
- (e) patient transport facilities, including helipads, ambulance facilities and car parking,
- (f) educational purposes or any other health-related use,
- (g) research purposes (whether or not carried out by hospital staff or health care workers or for commercial purposes),
- (h) chapels,

- (i) hospices,
- (j) mortuaries."

The proposed Stage 3CNTX is consistent with the uses defined above.

"Hospital" and "Health services facility" are permissible with consent pursuant to the "Land Use Table" of the LLEP as development for the "purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose".

7.10.4 Height of Buildings and Floor Space Ratio

The LLEP does not provide a maximum height or floor space ratio (FSR) for the site. Notwithstanding this, preliminary consideration has been provided to the objectives Clauses 4.3 (Height of buildings) and 4.4 (Floor space ratio) of the LLEP throughout the preliminary design phases. Responses to the relevant objectives are detailed in Table 10 below.

Table 10 Response to height and FSR objectives of CI 4.3 of LLEP

Height Objective	Response
To establish a maximum height for buildings,	Not applicable as no maximum height applies under the LLEP.
To provide for taller buildings in the city centre and to enable a transition in building height in response to varying urban character and function,	Although the boundaries of the "city centre" are unclear, the proposal provides for a bulk and scale that is compatible with the urban character and function of the site.
To protect the amenity of neighbouring properties and public places, with particular regard to visual bulk, scale, overshadowing, privacy and views.	These matters are addressed in detail in Section 9.2 and 9.3 of this EIS. To summarise, the proposed development will not impact the amenity of neighbouring properties with regard to visual bulk, scale, overshadowing, privacy and views.
FSR Objective	Response
To establish the maximum site density for new development,	Not applicable as no maximum FSR applies under the LLEP.
To ensure that the scale and bulk of development does not have an unacceptable or adverse impact on streetscape and the character of the area in which the development is located.	These matters are addressed in detail in Section 9.2 of this EIS. To summarise, the proposed development is of a scale and bulk that will not adversely impact on the streetscape and character of the area.

7.10.5 Heritage

The site does not comprise any heritage or archaeological items and is not within a heritage conservation area. 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 LLEP, 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 LLEP in this regard, a Heritage Impact Statement (HIS) has been prepared by City Plan Heritage. A detailed assessment of the HIS is undertaken in Section 9.6 of this EIS. However, to summarise, the HIS concludes that the proposed development is acceptable and will not result in any adverse impact on the heritage item "Kiaora" within the vicinity of the site.

7.10.6 Infrastructure development and use of existing buildings of the Crown

Clause 5.12 of the LLEP 2012 relates to *"Infrastructure development and use of existing buildings of the Crown"*. Clause 5.12 of the LLEP 2012 states;

- (1) *This Plan does not restrict or prohibit, or enable the restriction or prohibition of, the carrying out of any development, by or on behalf of a public authority, that is permitted to be carried out with or without development consent, or that is exempt development, under State Environmental Planning Policy (Infrastructure) 2007.*
- (2) *This Plan does not restrict or prohibit, or enable the restriction or prohibition of, the use of existing buildings of the Crown by the Crown.*

The clauses extracted above are applicable to the Stage 3C NTX proposal at LBH.

7.10.7 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 LLEP states that if a development penetrates the OLS, consultation with "the relevant Commonwealth body" is required prior to granting consent. The proposed Stage 3C NTX penetrates the OLS as it sits at a maximum height of RL 63.380. Referral of the SSDA to CASA is therefore required. We note that the Stage 3B1 tower was approved at RL 79.48 which is greater than the height of the proposed development and no issue was raised by CASA under the assessment of the previous SSDA for Stage 3B. Consultation has been undertaken with CASA and the outcomes of that consultation is provided in Section 6 of this EIS.

7.10.8 Essential services

Clause 6.9 of the LLEP states that consent must not be granted to development unless the consent authority is satisfied that the services are available or that adequate arrangements have been made to make them available when required. Further consideration of essential services is provided at Section 9.11 of this EIS.

7.10.9 Drinking Water Catchments

As the site is identified as "Drinking Water Catchment" on the Drinking Water Catchments Map. Therefore, this clause (Cl. 6.4) applies to the site. The objective of this clause is to *"protect drinking water catchments by minimising the adverse impacts of development on the quality and quantity of water entering drinking water storages"*. The proposed development will not have any impact on hard surface area and therefore the existing stormwater drainage system will be capable of supporting the development. Furthermore, the construction management measures set out in the project documentation accompanying this EIS and the tailored mitigation measures in Section 11, will ensure that the construction process will be managed so as to not result in any downstream impact by way of dust or sedimentation.

8. Policies

8.1 Overview

The SEARs require the following non-statutory policies be addressed in the subject EIS:

- NSW State Priorities;
- North Coast Regional Plan 2036;
- Northern NSW Local Health District Health Care Services Plan;
- Draft Future Transport Strategy 2056 and supporting plans;
- Crime Prevention Through Environmental Design (CPTED) Principles;
- Planning Guidelines for Walking and Cycling;
- Healthy Urban Development Checklist, NSW Health; and
- Better Placed - An integrated design policy for the built environment of NSW 2017.

These policies are addressed in the following sections of this EIS, where relevant.

8.2 NSW State Priorities

The NSW government has identified a series of state priorities, targeting particular problems and objectives for the growth and development of the state. The NSW Government is currently actioning 18 State priorities, along with 12 "personal" priorities.

The 18 State priorities are divided into the following five headings:

1. Strong budget and economy;
2. Building infrastructure;
3. Protecting the vulnerable;
4. Better services; and
5. Safer communities.

The NSW State priorities that are applicable to this proposal are considered in Table 11 below with reference to the five headings listed above.

Table 11: NSW State Priorities and their applicability to the proposal

Headings	Priorities	Comment
Strong budget and economy	<ul style="list-style-type: none">▪ Making it easier to start a business▪ Encouraging business investment▪ Boosting apprenticeships▪ Accelerating major project assessment▪ Protecting our credit rating▪ Delivering strong budgets	<p>The proposal will assist in strengthening the regional economy of Northern NSW by providing essential health services to support continued growth.</p> <p>Additionally, the proposal will provide valuable employment opportunities throughout both construction and operational phases of the proposed development.</p>
Building infrastructure	<ul style="list-style-type: none">▪ Improving road travel reliability▪ Increasing housing supply	<p>The proposal is not directly relevant to these priorities but is relevant to the objective of building infrastructure. The proposal will provide essential health infrastructure to support the ongoing redevelopment of LBH.</p>

Protecting the vulnerable	<ul style="list-style-type: none"> ▪ Transitioning to the National Disability Insurance Scheme ▪ Creating sustainable social housing 	The proposal will enhance the level of health care offered to sick and vulnerable individuals throughout the region.
Better services	<ul style="list-style-type: none"> ▪ Improving Aboriginal education outcomes ▪ Better government digital services ▪ Cutting wait times for planned surgeries ▪ Increasing cultural participation ▪ Ensure on-time running for public transport 	A key objective of the proposal is to enhance the level of health care provided by LBH and to provide an overall improved level of service to the community. The proposal will also assist in cutting wait times for planned surgeries by enhancing the services available at LBH.
Safer communities	<ul style="list-style-type: none"> ▪ Reducing violent crime ▪ Reducing adult re-offending ▪ Reducing road fatalities 	<p>The building has been designed to take into consideration the established Crime Prevention through Environmental Design (CPTED) principles. These are addressed at Section 8.6 of this EIS.</p> <p>Furthermore, the provision of enhanced and new ICU beds will improve the level of care in the ICU to assist in reducing fatalities, including those associated with road accidents.</p>

As can be seen in the table above, where relevant, the proposal is consistent with the NSW State key priorities.

The Premier's 12 "personal" priorities are as follows:

- Creating jobs
- Building infrastructure
- Reducing domestic violence
- Improving service levels in hospitals
- Tackling childhood obesity
- Improving education results
- Protecting our kids
- Reducing youth homelessness
- Driving Public Sector diversity
- Keeping our environment clean
- Faster housing approvals
- Improving Government services

The proposal will assist in creating jobs, building infrastructure, protecting our kids and most importantly, improving service levels in hospitals.

8.3 North Coast Regional Plan 2036

The North Coast Regional Plan 2036 (NCRP) was finalised in March 2017, providing the NSW Government's strategy for guiding land use planning decisions for the North Coast region. As seen in Figure 26 on the page over, the plan creates four (4) regional cities and focusses on establishing clear inter and intra-regional connections from these regional cities to surrounding centres, strategic centres and regions.

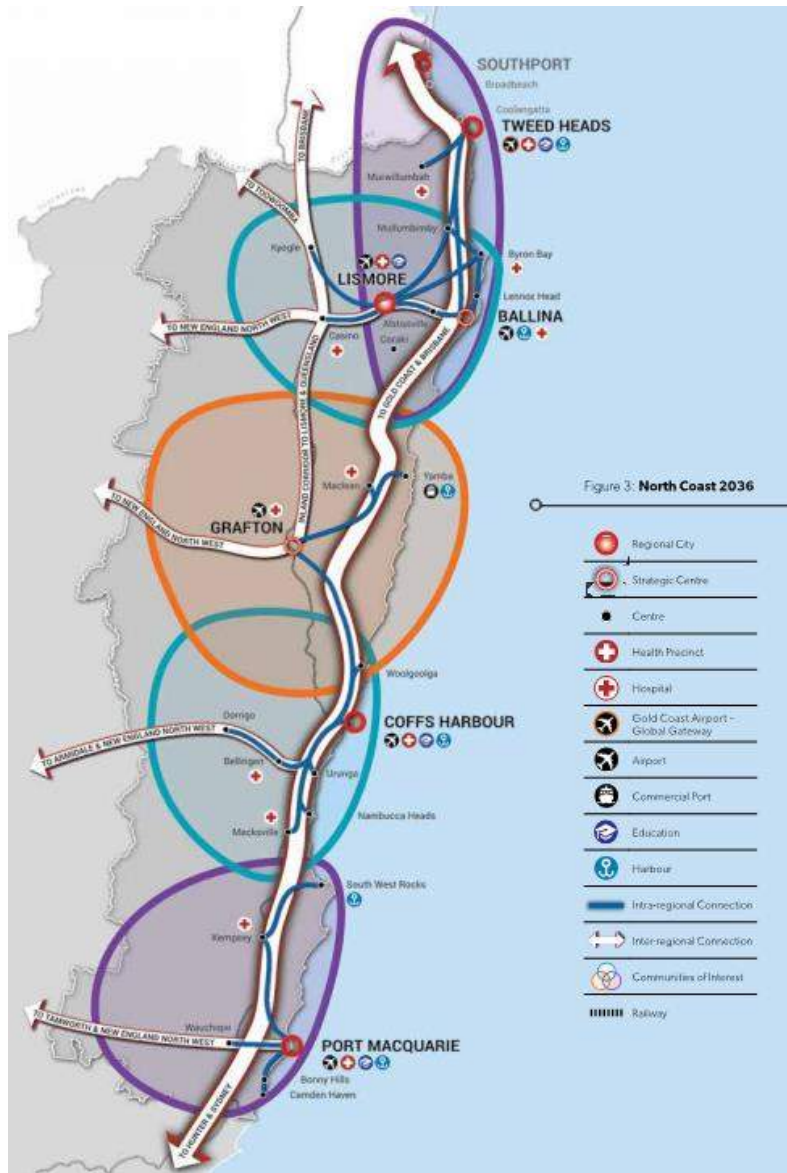


Figure 24 Extract showing North Coast Regional Plan 2036 (Source: North Coast Regional Plan 2036)

The NCRP expressly recognises the role of LBH as a *"catalyst for growth of the health services industry"*. The NTX proposal clearly responds to this function by providing additional ICU and inpatient facilities capable of enabling the efficient long-term function of LBH as a major referral hospital in the RC HSG of the NNSW LHD.

8.4 Northern NSW Local Health District Health Care Services Plan

The Northern NSW (NNSW) Health Care Services Plan *"is the highest level clinical service planning document for the LHD"*, outlining future directions for clinical service development and key priorities that need to be implemented over the next 5 years". The Health Care Services Plan identifies the following key challenges for the NNSW LHD:

- *"Utilising clinical networking to ensure that services are organised in an optimal fashion to make best use of the available clinical staff and infrastructure resources"*
- *Working in partnership with other providers of health and community support services"*
- *Managing the cost of providing health services to ensure the provision of quality and accessible services from within available resources"*

- *Providing an effective response to the needs of the population with conditions that are amenable to ambulatory care*
- *Reducing the number of unplanned hospital admissions and readmissions*
- *Providing an effective response to the needs of older people across all health services and in particular providing for the needs of those with a cognitive impairment*
- *Introducing new models of care that utilise latest evidence and best practice in the delivery of healthcare*
- *Ensuring a sustainable health workforce*
- *Ensuring best use of information communication technology."*

The Stage 3C NTX proposal directly responds to these key challenges for the NNSW LHD.

8.5 Future Transport Strategy 2056

The Future Transport Strategy 2056 (strategy) provides a framework for delivery of integrated and modern transport systems. The strategy acknowledges the vital role transport plays in the land use, tourism, and economic development of towns and cities. It includes issue-specific and place-based supporting plans that shift the focus away from individual modes of transport, toward integrated solutions. The strategy is the first plan to define how rapid advancements in technology and innovation can be harnessed to transform the customer experience and boost economic performance across NSW.

The strategy provides a range of six State-wide outcomes to guide investment, policy, reform and service provision. These outcomes are extracted below:

1. Customer focused;
2. Successful places;
3. A strong economy;
4. Safety and performance;
5. Accessible services; and
6. Sustainable.

The proposed development, which is the latest stage of the wider Stage 3 programme for redevelopment at LBH, seeks to address all of the above outcomes. Specifically relevant to LBH and regarding transport, we note that the predominant mode of travel to and from LBH by staff, visitors and out-patients is via private vehicles. Notwithstanding this, LBH is accessible by regular "hail and ride" bus services and there is an existing, and potential future planned cycleways (shared) in the vicinity of the hospital, which provide opportunities to promote sustainable transport options. As noted earlier, LBH currently benefits from a Green Travel Plan (GTP) and Transport Access Guide (TAG) which were prepared as a part of the Stage 3B works. As Stage 3C is an extension of Stage 3B, these plans remain relevant. These plans include a series of actions aimed at promoting use of public transport, cycling and walking, carpooling, and other matters. Continued implementation of these plans will promote the use of sustainable transport options at LBH.

Based on the above, the proposal is considered to be consistent with this strategy.

8.6 Crime Prevention Through Environmental Design (CPTED) Principles

Crime Prevention through Environmental Design (CPTED) is a recognised model which provides that if development is appropriately designed it can reduce the likelihood of crimes being committed. Introducing CPTED measures in the design of this development is

anticipated to assist in minimising the incidence of crime and contribute to perceptions of increased public safety.

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 NTX has been designed in accordance with these, as assessed in Table 12 below.

Table 12 Response to CPTED principles

CPTED Principle	Response
Surveillance: This principle provides that crime targets can be reduced by effective surveillance, both natural and technical	Camera surveillance will be used in key entry and exit areas internally within the NTX. Surveillance at key entries has been addressed in previous stage SSDAs as there are no new public entrances proposed as a part of this SSDA. Accidental or relational surveillance is promoted through design of the NTX due to wide open corridors and straight visual lines through the gathering and meeting areas. Adequate lighting will be provided to prevent any opportunities for concealment.
Access Control: This principle provides that barriers to attract/restrict the movement of people minimises opportunities for crime and increases the effort required to commit crime	The subject SSDA does not alter the existing absence of barriers and fences at the site's boundary given the proposal relates to a vertical extension to an approved (but not yet constructed) building. The absence of any such barriers and fences has not resulted in adverse impacts with respect to safety and security in the past and is consistent with the existing and future character of the surrounding locality. Card access will limit public access to safe areas of the hospital. After-hours access will also be controlled by the same system. Wayfinding signage will also be included internally within the building for enhanced access control.
Territorial Reinforcement: This principle provides that well-used places reduce opportunities for crime and increase risk to criminals	The internal areas have been designed to provide a clear delineation between departments of the hospital and zones within that are public or for medical staff only.
Space Management: This principle provides that space which is appropriately utilised and well cared for reduces the risk of crime and antisocial behaviour	This principle is less relevant to the proposal as it comprises a vertical building extension with no direct interface with any public spaces. This principle has been addressed in previous stage SSDAs through the design of the interface of buildings and landscape with public areas.

Based on the discussion above, the proposal is consistent with CPTED principles and the safety or security of patients and staff resulting from this proposal are appropriately managed.

8.7 Healthy Urban Development Checklist

The purpose of the Healthy Urban Development Checklist (HUDC) is to assist health professionals to provide advice on urban development policies, plans and proposals. It is intended to ensure that the advice provided is both comprehensive and consistent. The HUDC provides a useful mechanism for upfront guidance in the identification of key health issues, relevant supporting evidence and recommendations, also suggesting how positive effects can be maximised and negative health effects minimised.

The HUDC is structured into ten chapters, each one focused on a characteristic that is important for healthy urban development. The proposal is consistent with the relevant provisions of the HUDC as follows:

- The proposed development will provide for new hospital facilities that will be co-located with existing health and medical facilities;
- The proposed development will generate additional employment during construction and operation;
- As noted previously, a Green Travel Plan (GTP) has been prepared for LBH which will apply to and support the proposed Stage 3C development. The GTP includes sustainable travel choices and details of programs for implementation, consistent with the HUDC objectives regarding encouragement of physical activity and reduction on car dependency;
- As set out in Section 8.6 of this EIS, the proposed development promotes principles of Crime Prevention Through Environmental Design (CPTED);
- The proposed development promotes a high standard of architectural design which complements recent developments at LBH and provides an appropriate response to the streetscape; and
- A detailed consultation process has been undertaken with relevant stakeholders to encourage stakeholder involvement in planning for the expansion of LBH.

With regard to the above, the proposal is consistent with the relevant provision of the HUD checklist.

8.8 Planning Guidelines for Walking and Cycling

The NSW Planning Guidelines for Walking and Cycling (“guidelines”) was released by the (former) NSW Department of Planning and Environment in December 2004. These guidelines aim to assist land-use planners and related professionals to improve consideration of walking and cycling in their work. The guidelines include a checklist which can be used to develop locally-relevant checklists for a variety of planning purposes. The provisions and checklist contained within the guidelines ultimately seek to improve the walking and cycling environment for future development.

Given the proposed development relates to an “infill” vertical extension of a previously approved building within a densely developed site, there are few opportunities to promote an improved walking and cycling environment for LBH. However, we note that LBH currently benefits from a Green Travel Plan (GTP) and Transport Access Guide (TAG) which were prepared as a part of the Stage 3B works. As Stage 3C is an extension of Stage 3B, these plans remain relevant. These plans include a series of actions aimed at promoting use of public transport, cycling and walking, carpooling, and other matters. Continued implementation of these plans will assist in continuing to reduce car dependency amongst staff and users of LBH and promote, where practical, walking and cycling.

8.9 Better Placed - An integrated design policy for the built environment of NSW 2017

Better Placed - an integrated design policy for the built environment of NSW” (“Better Placed”) was published by the NSW Government Architects Office in 2017 as is described as follows:

Better Placed is a policy for our collective aspirations, needs and expectations in designing NSW. It is about enhancing all aspects of our urban environments, to create better places, spaces and buildings, and thereby better cities, towns and suburbs. To achieve this, good design needs to be at the centre of all development processes from the project definition to concept design and through to construction and maintenance.

Better Placed is an integrated design policy for the built environment of NSW which advocates for sharing the responsibility in delivering good processes and outcomes for NSW, with a focus on "good design".

Better Placed identifies seven Design Objectives for NSW including, better fit, better performance, better for community, better for people, better working, better value & better look and feel.

The design process for the entire Stage 3 programme for LBH, including the design development of Stage 3C, pre-dates the issue of Better Placed. Notwithstanding this, it is important to consider whether the development is consistent with the policy to ensure that it achieves a “good design” outcome for LBH and the Lismore community. Consideration of the seven (7) Design Objectives is undertaken below:

- **Better Fit**

- The design of the proposed NTX seeks to integrate with previously approved and largely constructed buildings of the Stage 3 programme at LBH. Combined with Stage 3A and 3B (3B2 and 3B1), the Stage 3C NTX proposal will appropriately respond to the site’s context, which comprises a mix of built forms and land uses. The appropriateness of the proposal with regard to its context is addressed further in Section 9.2 of this EIS.

- **Better Performance**

- This EIS provides a comprehensive environmental assessment of the potential impacts of the development, which subject to adopting the mitigation measures in Section 11, are minimal and acceptable.
- The proposed development will incorporate measures to create positive environmental benefits, including measure for water and energy conservation (Refer to Section 9.5 of this EIS) and waste management (through existing hospital policies to minimise operational waste generation).
- The design promotes maximisation of daylight to reduce reliance on artificial lighting and incorporates a high thermal mass. These design responses will enhance thermal comfort for occupants.

- **Better for Community**

- The proposal ultimately aims to enhance the health of the community, which promotes the outcome “better for community”.
- The development will promote access to employment at LBH, which will provide a direct benefit back to the community through jobs generation (through construction and operation).
- Whilst the development is a vertical extension of a building (approved, but not yet constructed), it is part of the much larger Stage 3 development incorporating Stages 3A and 3B. Stage 3A in particular provides a new main entrance and emergency department for LBH. The design of Stage 3A provides a high quality, inclusive and equitable (accessible) and welcoming environment. The design principles which underpin the Stage 3C NTX are consistent with previous sub-stages of Stage 3 and therefore provide a continuation of a high quality, equitable and welcoming outcome for LBH.

- **Better for People**

- The design of the Stage 3C NTX seeks to rationalise existing services within LBH to meet contemporary models for care. Safety and comfort for users (patients, visitors and staff) are primary considerations in the design of the internal areas of the NTX.
- Improved health services at LBH will result in a “better” outcome for “people” accessing those services.

- **Better Working**

- The design of the Stage 3C NTX proposal seeks to provide a high quality internal outcome for all occupants, but with a particular focus on enhancing the working environment for staff of LBH. This includes a design outcome that is not only

contemporary, but responds to the functional requirements of the spaces, consistent with the ongoing redevelopment programme at LBH.

- **Better Value**

- The development promotes “good design” and high-quality materiality for construction which will enhance value by maintaining appearance and useability of the building over time.
- Plant, equipment and building materials have been selected with a view to delivering value for money and in consideration of total life cycle cost benefits (in relation to building operations regarding energy and waste consumption).

- **Better Look and Feel**

- The design of the NTX proposal seeks to integrate with other sub-stages of the Stage 3 programme at LBH. This design response is positive in that it provides a visually appropriate outcome for development on the site, particularly given the prominence of previous sub-stages of Stage 3 development at LBH.
- High quality and durable materiality will be incorporated into the facades of the NTX proposal to ensure longevity of a good design outcome for LBH and the surrounding community.

Further to the above, the proposal makes a wider contribution to the LBH campus and Stage 3 redevelopment programme and will contribute to the creation of an improved, contemporary and equitable environment where the design focuses on the safety, comfort and requirements of staff, users and visitors, as encouraged in the Better Placed Design Objectives.

9. Environmental Impact Assessment

9.1 Overview

In addition to the statutory and strategic controls addressed in Section 7 and 8 of this EIS, the SEARs state that the environmental impacts of the proposal must be assessed, and specify key issues be considered throughout the assessment of any such impacts. This section contains the assessment of environmental impacts, other relevant considerations and includes recommended mitigation measures where necessary. Each matter raised within the SEARs is addressed separately below.

9.2 Built Form and Urban Design (SEAR 3)

9.2.1 SEAR

SEAR 3 requires that the application:

- (a) *Address the height, density, bulk and scale, setbacks of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces.*
- (b) *Address design quality, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours and Crime Prevention Through Environmental Design Principles.*
- (c) *Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.*

9.2.2 Assessment

Site Analysis

A site analysis plan has been prepared by CGA, which has informed the design development of the proposed Stage 3C NTX development. An extract of the site plan is on the page over in Figure 27.

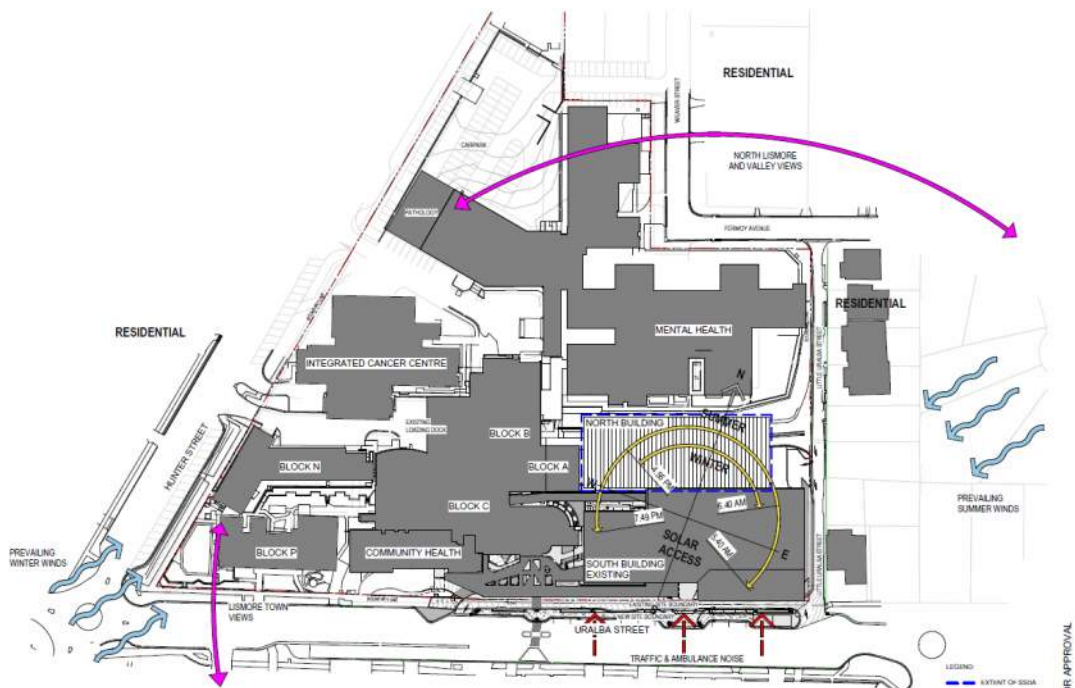


Figure 25 Site Analysis Plan Extract (Source: CGA, Sheet DA10000)

Height, Density, Bulk and Scale

LBH is not subject to a maximum FSR or building height under the LLEP. Therefore, the height, density, bulk and scale for the proposal has been determined based on the context of the site and previous relevant Stage 3 development at LBH.

Located in the south-eastern corner of LBH, the Stage 3C development site faces a series of challenges, but also benefits from the existing built form that was approved and subsequently constructed under Stages 3A and 3B1 of the redevelopment programme at LBH.

In considering the site’s context, during design development, particular consideration needed to be given to the low-density precinct to the east and north-east of the site, which primarily comprises detached residential dwellings, with some emerging allied health uses. This precinct represents the most sensitive interface within proximity to the proposed Stage 3C NTX proposal. Development directly to the north, west and south comprises existing buildings within LBH and on the southern side of Uralba Street, an emerging “hospital precinct” with a more “institutional” feel to it.

In considering the context of the site and its surrounds, the height, density, bulk and scale of the proposal is considered to acceptable for the following reasons:

- The Stage 3 NTX will result in an additional 18.7 metres of vertical built form above the approved Stage 3B2 north tower. The total height of the north tower, being Stage 3B2 and Stage 3C combined, will be 36.1 metres (maximum height at RL 63.380).
- The Stage 3C NTX sits well below the maximum height of the adjacent Stage 3B1 south tower (RL 79.48, 52.2 metres). The Stage 3B1 south tower therefore partly “screens” the view of the proposed NTX, when viewed from the south-east (review “Vantage Point C” below) and south-west and almost entirely screens the NTX when viewed from the south. When viewed from the north-west, the NTX provides an improved visual outcome by providing a more graduated “step” in built form to follow the fall of the land away from the ridgeline (refer “Vantage Point A” below). The photomontages prepared by CGA are extracted on the page over, which demonstrate the appropriateness of the proposed NTX when viewed from the north-west and south-east.

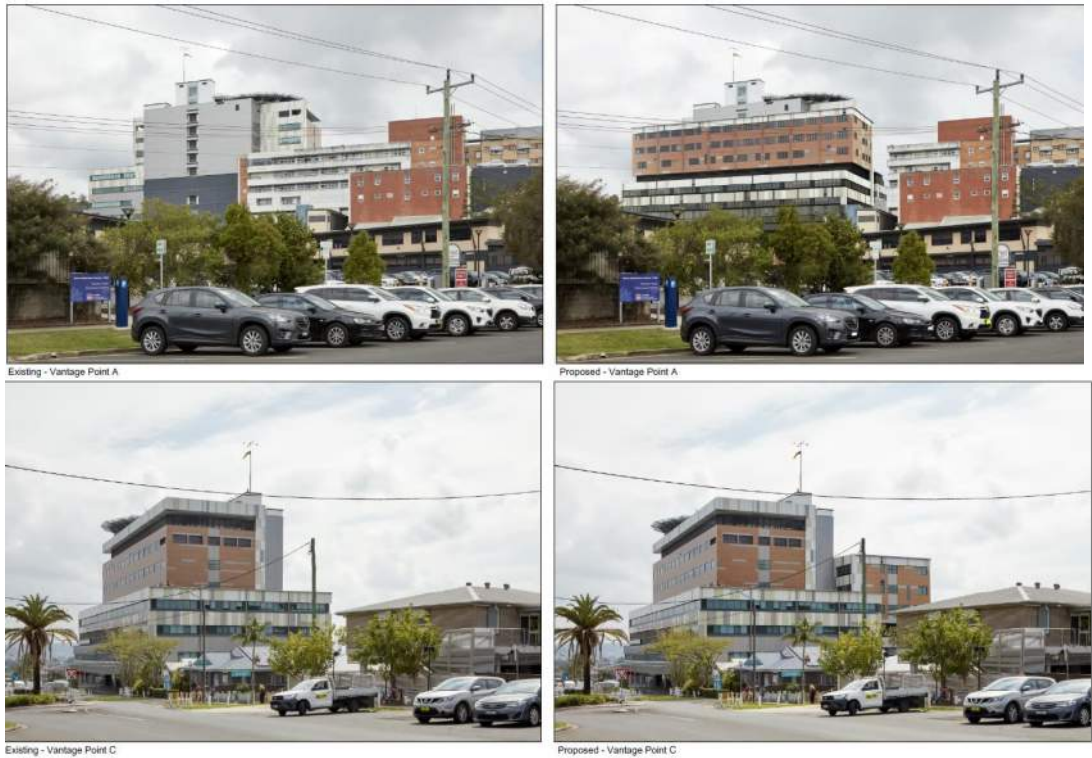


Figure 26 Comparative photomontages of development (existing and proposed) when viewed from the north-west (Vantage Point A) and south-east (Vantage Point C) (Source: CGA)

- With regard to the low-density precinct to the east and north-east, again, the NTX proposal provides a more graduated “step” in built form towards the north, to better respond to the fall in topography away from the ridgeline. Furthermore, the NTX is setback from the Stage 3B2 north tower below, which provides a further improved visual outcome when viewed from the surrounds. The section plan below in Figure 29 demonstrates the appropriateness of the graduation in building height down from the Stage 3B1 tower to the south, to the proposed NTX and the Stage 3B2 north tower below.

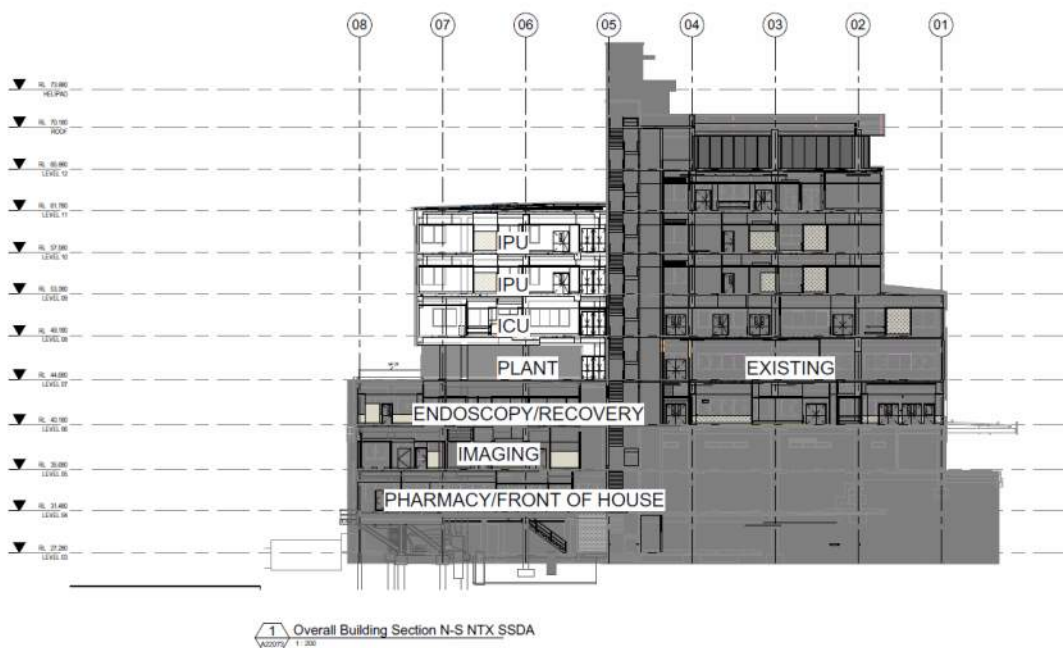


Figure 27 North-south section cut through the Stage 3 development (Source: CGA)

The photomontage below in Figure 28 prepared by CGA provides a comparative view of the existing, versus the proposed Stage 3C development at LBH, viewed from the eastern extent of Fermoy Street which is at the core of the low-density residential precinct to the east and north-east of LBH.



Figure 28 Comparative photomontages of development (existing and proposed) when viewed from eastern most extent of Fermoy Avenue (Source: CGA)

- Whilst the NTX is visible from the adjacent low-density residential precinct, its siting and massing with respect to the bulk and scale of the Stage 3A and 3B buildings is complementary, articulated through varied materiality and presents as a series of separate built forms to promote modulation and reduced visual bulk.
- The previous Stage 3B development was assessed by the DPE as being acceptable with regard to height, density, bulk and scale. The incorporation of the NTX provides additional bulk, but in an appropriate and modest form, which in our view, improves the transition in built form between the Stage 3B1 south tower and the approved (but not yet constructed) Stage 3B2 north tower. Importantly, this will improve the visual outcome when viewed from the “sensitive” low-density precinct to the north-east and east and particularly, when viewed from the adjacent Little Uralba Street.

The appropriateness of the height, bulk and scale of the proposed Stage 3C NTX is addressed further in the design statement prepared by CGA at Appendix 5.

Setbacks and Topography

Setbacks are addressed in the discussion above in the context of the appropriateness of the bulk and scale of the proposal. A particular emphasis is made on the setback of the NTX from the northern edge of the Stage 3B2 north tower below, to provide an appropriate “step” in built form to following the topography of the site and fall away from the ridgeline.

Streetscape

Streetscape is addressed in the discussion above in the context of the appropriateness of the bulk and scale of the proposal. In summary, the NTX is largely screened by the Stage 3A and Stage 3B1 south tower buildings when viewed from the south, south-east and south-west. Therefore, when viewed from Uralba Street and surrounding streets to the south of LBH, the impact on streetscape is limited and acceptable. When viewed from streets to the north, east and west, the NTX is visible and this is largely due to the positioning of the development on the ridgeline. As discussed earlier in this section of the EIS, the NTX provides additional bulk in the south-eastern corner of LBH, but a more appropriate result for the Stage 3 buildings as it provides a better graduation of height to follow the fall of the land away from the ridgeline and towards the north.

Impact of Development on Public Open Spaces

There are no “public open spaces” in the near vicinity of the site.

Façade and Materiality

The overall design of the façade and materiality was developed along with the design of the previous Stage 3B2 north tower. The materiality of facades of the NTX comprises a mix of glazing and composite metal cladding which is consistent with the materiality of previous Stages 3A and 3B and considered appropriate for this reason.

Design Quality

As set out in this SEAR, design quality requires consideration of a range of matters, with each of these addressed in Table 13 below.

Table 13 Consideration of design quality items

Design Item	Response
Site Layout	<p>The location of the NTX proposal responds directly to the layout of the existing and approved Stage 3A and 3B developments in the south-western corner of the LBH campus.</p> <p>With most of the LBH campus comprising built upon land (with the exception of internal roads, parking and pedestrian links), the vertical extension to the Stage 3B2 north tower was considered to be the most appropriate outcome for the site. The vertical extension also allows for easy internal connections into the Stage 3B1 south-tower. Further, the “vertical stacking” of services, as opposed to further impact to the ground level plane, maximises opportunities within the LBH campus for potential future expansion.</p>
Streetscape	Addressed earlier in this section of the EIS under “streetscape”
Open Spaces	As the proposal is for a vertical building extension, there will be no public or communal open space incorporated into the development.
Façade	Addressed earlier in this section of the EIS under “façade and materiality”
Rooftop	The integration of services within the design of the roof of the development is discussed in the section “Services” following this table
Massing	Addressed earlier in this section of the EIS under “bulk and scale”
Setbacks	Addressed earlier in this section of the EIS under “setbacks and topography”
Building Articulation	This is addressed earlier in this section of the EIS in the context of the discussion regarding bulk and scale
Materials and Colours	Addressed earlier in this section of the EIS under “façade and materiality”
CPTED	Addressed in Section 8.6 of this EIS.

Design quality is addressed further in the design statement prepared by CGA at Appendix 5 of this EIS.

Services

A new loading dock for waste management and service deliveries was approved as a part of the previous SSDA for Stage 3B. The approved loading dock will service the NTX and is integrated at Level 3 of the Stage 3B2 building. The appropriateness of the loading dock was assessed under the previous Stage 3B SSDA.

Mechanical plant is largely integrated internally within the proposed NTX (at Level 7), but there will be some air handling plant and exhaust fans on the roof of the proposed NTX. Due to the overall height of the NTX, any rooftop plant is unlikely to be visible from surrounding streets. Notwithstanding this, care has been taken to ensure that any rooftop plant is well

setback from the northern and eastern roof edge so as to minimise visual (and acoustic) impact to the residential uses in closest proximity to the site. The southern edge of the NTX is screened by the existing Stage 3B1 south tower. As the western edge of the NTX sits internally within the LBH campus with no sensitive uses in direct proximity, there is unlikely to be any adverse visual impact from rooftop plant when the development is viewed from the west.

With regard to the above, we are satisfied that plant and services will be well integrated within the design of the building so as to minimise any adverse visual impact.

9.2.3 Recommended Mitigation Measures

Not applicable.

9.3 Environmental Amenity (SEAR 4)

9.3.1 SEAR

SEAR 4 requires that the application:

Detail amenity impacts including solar access, acoustic impacts, visual privacy, view loss, overshadowing, reflectivity from building facades and wind impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.

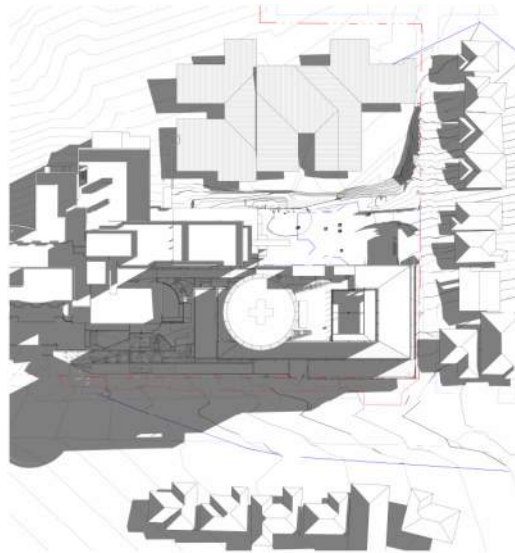
9.3.2 Assessment

Solar Access/Overshadowing

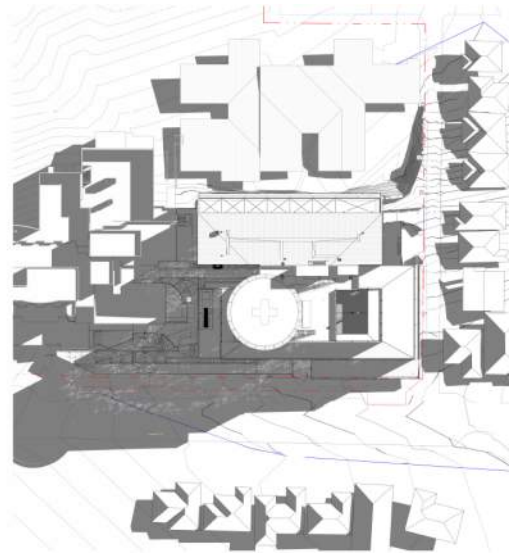
A series of mid-winter shadow diagrams have been prepared by CGA demonstrating the impact of the proposed development compared with the existing situation².

On the page over is an extract of the comparative shadow diagrams prepared by CGA.

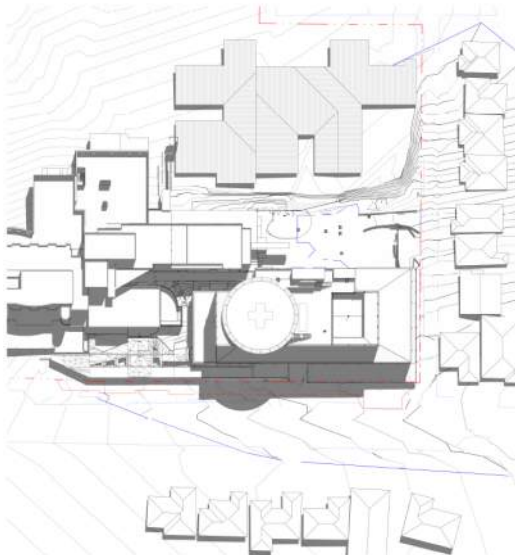
² By existing, we refer to the shadow impact cast by all elements of the Stage 3 redevelopment approved to-date at LBH, noting that the full extent of Stage 3B has not yet been constructed.



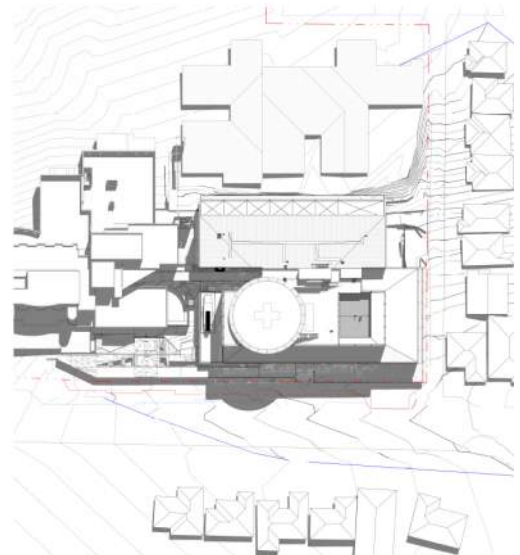
1 Sun Diagram Existing 9am Mid Winter



2 Sun Diagram 9am Mid Winter



3 Sun Diagram Existing 12pm Mid Winter



4 Sun Diagram 12pm Mid Winter



5 Sun Diagram Existing 3pm Mid Winter



6 Sun Diagram 3pm Mid Winter

DVAL

Figure 29 Mid-winter Shadow Diagrams, existing and proposed at 9am, 12pm and 3pm (Source: CGA)

As can be seen above, there will be limited additional overshadowing as a result of the proposed Stage 3C NTX development and importantly, no additional overshadowing to the residential dwellings on the eastern side of Little Uralba Street. There will be very limited additional overshadowing of properties on the southern side of Uralba Street (which are predominantly commercial/allied-health in nature) as they are protected by the south adjacent tower (Stage A & 3B1) and significant width of Uralba Street.

Acoustic Impacts

The acoustic impacts of the Stage 3C development have been considered by Acoustic Logic in the Noise Impact Assessment accompanying this EIS. Further, Section 9.8 of this EIS provides a summary of the findings of the assessment undertaken by Acoustic Logic. The conclusion of the assessment undertaken by Acoustic Logic 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 existing residential properties to the north-east and east of the site, predominantly on Little Uralba Street.

Windows are to be located in the northern and eastern elevations of the proposed building to maximise natural daylight and to "break up" the facade of the building. However, 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 NTX. 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. Furthermore, as set out in the design statement prepared by CGA, the incorporation of internal fittings to in-patient bed windows will provide screening to further mitigate any potential for overlooking and to preserve privacy for internal occupants of the NTX building.

View Loss

The proposed development is positioned at the most elevated location on the LBH campus. There will be no loss of views resulting from the proposal.

Lighting

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.

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

Reflectivity from Building Facades

An External Reflectivity Analysis report has been prepared by Inhabit, which accompanies this EIS at Appendix 11. The purpose of the report is to present the findings of an external glare study which was undertaken to determine the risk of direct solar reflection from the building facade and onto traffic surrounding LBH. The study considered five (5) critical views around the proposed Stage 3C extension that were identified to have a high risk of glare. The results of the study, as set out in the report, confirm that the proposed facade will have a minimal glare issue (1% in a year). There are a few occurrences in the study where there were some glare issues at two (2) of the five (5) views. However, in the context of the study, this is considered to be minimal and not of any material consequence. All other glare issues identified were due to direct sunlight being the field of vision and not as a direct result of reflection of the glazed facade.

We note that the assessment undertaken in the external glare study for the Reflectivity Analysis report has done so on the basis of specified material or materials with similar properties (and stated material application ratios). These are set out in Section 4.6 of that report. A mitigation measure has been included in Section 11 of this EIS requiring the materiality of the proposed development comply with these requirements to ensure the findings regarding glare risk remain unchanged.

Wind Impacts

Environmental wind strategies for the comfort of users around the extension for Stage 3C have been developed in parallel with the Stage 3A and 3B design. Given the width of surrounding streets and low-density context of surrounding development, the potential for wind tunnelling is considered to be limited. Notwithstanding this, as was identified in previous stage SSDAs, the most significant environmental effects for occupant comfort relates to local wind effects from downwash off the approved tower and proposed tower extension. This has been previously addressed through the construction of a canopy which runs the full length of the Stage 3A building along Uralba Street. This canopy shields occupants from direct downwash and we understand that it has been designed to accommodate the increased pressures from Stage 3C.

Given the above, it is anticipated that any potential impacts of adverse wind conditions on pedestrian comfort will be minimised through strategies employed for previous sub-stages of the Stage 3 development at LBH.

9.3.3 Recommended Mitigation Measures

Environmental amenity has been a primary consideration throughout the preliminary design phases of this proposal. Therefore, potential issues have been mitigated through the design development stages. To this end, no further mitigation measures are considered necessary, with the exception of those related to glare/reflectivity as set out in the “reflectivity from building facades” section of the assessment above.

9.4 Transport and Accessibility (SEAR 5)

9.4.1 SEAR

SEAR 5 requires the SSDA to include a transport and accessibility impact assessment, which details a range of matters relevant to traffic, parking and accessibility.

9.4.2 Assessment

A detailed Transport and Accessibility Impact Assessment (TAIA) report has been prepared by TTW for the proposed development. Each of the individual requirements set out in SEAR 5 are addressed in the TAIA, with a concise summary provided in Section 2.0 of the TAIA.

Table 14 provides a list of each individual requirement set out in SEAR 5, a response giving reference to the TAIA and where appropriate, further and more detailed discussion following the table.

Table 14 Response to SEAR 5

SEAR 5 Requirement	Response
accurate details of the current daily and peak hour vehicle, public transport, pedestrian and cycle movement and existing traffic and transport facilities provided on the road network located adjacent to the proposed development;	Section 3.9 of the TAIA provides details of the current daily and peak hour vehicle movements. The average annual daily traffic volumes (AADT) for Uralba Street is 8,100 vehicles, for Hunter Street it is 1,000 vehicles and for Dibbs Street it is 800 vehicles. Pedestrian volumes are addressed in Section 3.6.2 of the TAIA, with the highest volumes

	<p>encountered at the Uralba Street pedestrian crossing directly at the frontage of LBH.</p> <p>Cyclist volumes are addressed in Section 3.7.2, noting a low incidence of cyclist travel.</p> <p>Existing traffic and transport facilities provided in the road network in the vicinity of LBH are addressed in Section 3.4 (parking), Section 3.6.1 (pedestrian facilities), Section 3.7.1 (cyclist facilities) and Section 3.8 (public transport facilities).</p>
<p>an assessment of the operation of existing and future transport networks including the bus network and their ability to accommodate the forecast number of trips to and from the development;</p>	<p>An assessment of the operation of existing and future transport networks is undertaken in Section 4.5 of the TAIA. A summary is below.</p> <p>The TAIA confirms that the increase in peak trips post development is expected to be 10 vehicles. Future traffic conditions are assessed in Section 4.5.4 of the TAIA, accounting for the additional 10 vehicle trips post-development. The impact is considered to be negligible, noting no change to the level of service of intersection operation post-development (existing and proposed Level of Service "A").</p> <p>In terms of pedestrian facilities, in Section 4.6.1 of the TAIA, TTW confirms that existing pedestrian infrastructure is to be retained and considered sufficient for future operations following completion of the proposal given there will be a negligible increase in additional pedestrian trips. TTW notes that pedestrian facility upgrades have been addressed in previous stage SSDAs.</p> <p>In terms of cyclist facilities, in Sections 4.6.2, TTW confirms that based on the limited cyclist use by LBH visitors and staff, the minor increase in intensity at LBH will result in a negligible increase in cyclist trips. Therefore, the existing network and facilities will support the development and no upgrade is required.</p> <p>In relation to public transport, including bus services, in Section 4.7 TTW confirms that the proposed development will not result in any impact and therefore, existing services will be adequate.</p>
<p>details of estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips;</p>	<p>The total and daily peak hour vehicular trips is discussed in Section 4.5 and summarized above.</p> <p>TTW confirms in the TAIA that the increase in public transport, pedestrian and bicycle trips is expected to be negligible due to the minor increase in staff and visitors anticipated.</p>
<p>the adequacy of public transport, pedestrian and bicycle networks and infrastructure to meet the likely future demand of the proposed development;</p>	<p>The travel mode survey undertaken by TTW confirms that public transport, walking and bicycle travel to and from LBH is limited and therefore, existing demand on these services is also limited. The TAIA confirms that the proposed development will not generate any demand on active transport infrastructure near to the site and therefore, the existing network and associated infrastructure is adequate.</p> <p>Successful implementation of LBH's Green Travel Plan (GTP) may result in an increase in demand on active transport infrastructure but this will be a matter for consideration in any future stage applications for further redevelopment works at LBH.</p>

<p>the impact of the proposed development on existing and future public transport infrastructure within the vicinity of the site in consultation with Roads and Maritime Services and Transport for NSW and identify measures to integrate the development with the transport network;</p>	<p>The development will not impact the operation of public transport near to LBH. Bus zones located adjacent to LBH will be maintained. Refer to Sections 3.8 and 4.7 of the TAIA for detailed discussion.</p>
<p>details of any upgrading or road improvement works required to accommodate the proposed development;</p>	<p>The proposed development does not necessitate the upgrading or improvement of any road infrastructure to accommodate the proposed development due to the limit increase in the net number of beds and minimal associated traffic generation.</p>
<p>details of travel demand management measures to encourage sustainable travel choices and details of programs for implementation;</p>	<p>LBH currently has a current Green Travel Plan that was prepared to support the Stage 3B works. As Stage 3C is an extension to the approved North Tower this Plan is considered appropriate to apply to Stage 3C.</p> <p>This has been discussed in Section 4.9 of the TAIA.</p>
<p>the impact of trips generated by the development on nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for upgrading or road improvement works, if required (note: traffic modelling is to be undertaken with scope to be agreed by TfNSW and RMS in advance);</p>	<p>The TAIA confirms that the increase in peak trips post development is expected to be 10 vehicles. Future traffic conditions are assessed in Section 4.5.4 of the TAIA, accounting for the additional 10 vehicle trips post-development. The impact is considered to be negligible, noting no change to the level of service of intersection operation post-development (existing and proposed Level of Service "A").</p>
<p>the proposed active transport access arrangements and connections to public transport services;</p>	<p>Due to the nature of the development being a vertical extension to an approved building, no change to the existing active transport access arrangements is proposed, nor considered to be required/warranted.</p> <p>The existing active transport and public transport facilities available to LBH are discussed in Sections 3.6, 3.7 and 3.8 of the TAIA. The future impact of the development on these facilities, which is negligible, is discussed in Sections 4.6 and 4.7 of the TAIA.</p>
<p>the proposed access arrangements, including car and bus pick-up/dropoff facilities, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks, including pedestrian crossings and refuges and speed control devices and zones;</p>	<p>Due to the nature of the development being a vertical extension to an approved building, no change to the existing transport access arrangements is proposed, nor considered to be necessary.</p> <p>The TAIA confirms that the increase in peak trips post development is expected to be 10 vehicles. Future traffic conditions are assessed in Section 4.5.4 of the TAIA, accounting for the additional 10 vehicle trips post-development. The impact is considered to be negligible, noting no change to the level of service of intersection operation post-development (existing and proposed Level of Service "A").</p> <p>Impacts on "active transport" are addressed in Section 4.6 of the TAIA. A summary is below:</p>

	<ul style="list-style-type: none"> ▪ All existing pedestrian infrastructure is to be retained and considered sufficient to accommodate the development; ▪ There is a negligible increase in additional pedestrian trips as a result of the development; ▪ The pedestrian crossing review undertaken by TTW confirms that the increase in pedestrian and vehicle volumes as a result of Stage 3C are therefore not expected to result in a requirement for the existing crossing on Uralba Street to be upgraded to a signalised mid-block crossing; and ▪ The proposed development will not result in any impact on existing public transport infrastructure.
measures to maintain road and personal safety in line with CPTED principles;	There is no change to pedestrian access proposed external to the Hospital as part of the development given it relates to a vertical extension to an approved building only.
the proposed car and bicycle parking provision, including end-of-trip facilities, which must be taken into consideration of the availability of public transport and the requirements of Council's relevant parking codes and Australian Standards;	<p>The increase in car parking demand can be accommodated within the multi-deck carpark constructed as part of previous Stage 3B. Refer to Section 4.4 of the TAIA and following this table for further detail.</p> <p>No additional bicycle facilities are proposed as there is anticipated to be a negligible increase in cyclist trips (see Section 4.6.2 of the TAIA).</p>
proposed bicycle parking facilities in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance;	<p>Provision of additional bicycle parking and associated facilities is not warranted for the following reasons:</p> <ul style="list-style-type: none"> ▪ Increased bicycle parking and end of trip facilities were provided as a part of previous redevelopment stages at LBH to encourage cycling as a mode of travel; ▪ The proposed Stage 3C development will result in a negligible increase in cyclist trips; and ▪ The development is a vertical extension above an approved building and there is no appropriate and highly accessible location to provide any such additional facilities. <p>Refer to Section 4.6.2 of the TAIA for further discussion.</p>
details of the proposed number of car parking spaces and compliance with appropriate parking codes and justification for the level of car parking provided on-site (including the provision of an updated parking study);	Detailed discussion regarding this matter is provided following this table.
details of emergency vehicle access arrangements;	New emergency vehicle access was constructed as a part of Stage 3A of the development at LBH. This new access will not

	<p>need to be altered as a result of the proposed development. See Section 4.2 of the TAIA for confirmation.</p>
<p>an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures;</p>	<p>TTW confirms that a review of available crash data near to LBH does not indicate any current road safety issues (refer to Section 3.2.1 of the TAIA).</p> <p>An assessment has been conducted by TTW of the existing crossing on Uralba Street that determined it was sufficient to support the multi-storey car park and that no upgrade would be required. This is based on the minor increase in staff and visitors and the low incidence of active transport usage and the associated negligible increase in additional pedestrian trips. Refer to Section 4.6.1 of the TAIA for further information.</p>
<p>service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times);</p>	<p>The approved/existing service and loading requirements and arrangements for LBH will remain unchanged. This includes the service yard accessed by Little Uralba Street that is currently under construction as a part of the approved Stage 3B works, which will also service the proposed Stage 3C development. Therefore, there will be no increase in service vehicle movements as a result of the proposal. Refer to Sections 3.3.3, 4.2 and 4.3 of the TAIA for detailed discussion.</p>
<p>in relation to construction traffic:</p> <ul style="list-style-type: none"> o assessment of cumulative impacts associated with other construction activities; o an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity; o details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process; o details of anticipated peak hour and daily construction vehicle movements to and from the site; o details of access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicle; o details of temporary cycling and pedestrian access during construction; o details of proposed construction vehicle access arrangements at all stages of construction; and o traffic and transport impacts during construction, including cumulative impacts associated with other construction activities, and how these impacts will be mitigated for any associated traffic, pedestrian, cyclists, parking and public transport, including the preparation of a draft Construction Traffic Management Plan to 	<p>A detailed Preliminary Construction Traffic Management Plan (PCTMP) has been prepared by TTW, which accompanies this EIS at Appendix 18. The PCTMP addresses each of the points raised by the DPE in the SEARs. A mitigation measure has been included in Section 11 of this EIS requiring that the PCTMP inform the preparation of a final CTMP prior to works commencing on-site for Stage 3C.</p>

demonstrate the proposed management of the impact (which must include vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures for all demolition/construction activities).

Parking Provision

The parking provision at LBH has been the source of much discussion over the years with supply being a key issue. However, as a part of the Stage 3B redevelopment works, a new multi-deck carpark was approved, that would be constructed in two (2) stages to address additional demand generated by ongoing development at LBH. The initial stage of the approved carpark, which has been constructed and is operational, provides a total of 270 spaces for use by LBH and five (5) spaces for the adjacent University (as discussed further below).

During the construction of multi-deck carpark, there were eight (8) on-street parking spaces and five (5) University parking spaces that were lost during the works. TTW has addressed this in the TAIA for the current proposal, notwithstanding the fact that the loss of parking relates to a previous consent. TTW notes that in addition to the 270 parking spaces provided within Stage 1 of the multi-deck carpark, that five (5) spaces are available for use by the University. The parking survey undertaken in March 2018 by TTW identifies that the occupancy in Uralba Street during the peak hour was 76% (66% across the entire survey extent), clearly showing that there is sufficient capacity within the street network to cater for the previous, modest loss of eight (8) on-street spaces.

The assessment undertaken by TTW in the TAIA in relation to parking requirements (Section 4.4.1) and demand (Section 4.4.2) for the proposed Stage 3C development confirms that the expected increase in parking demand directly associated with the proposal has been conducted using the same methodology as adopted for Stage 3A and Stage 3B. The expected increase in parking demand for previous Stages 3A and 3B and for the proposed Stage 3C NTX development, is provided in Table 4.2 of the TAIA and is extracted on the page over in Figure 32.

Stage	Number of Staff	Number of Spaces	Number of Outpatients	Number of Spaces	Number of Visitors	Number of Spaces	Total Spaces	Increase
Prior to Stage 3	850/day	650	550/day	120	50	50	820	-
Stage 3A	956/day	730	650/day	140	60	60	930	+110
Stage 3B	1089/day	833	977/day	177	70	70	1080	+150
Stage 3C	1097/day	839	977/day	177	74	74	1090	+10

Figure 30 Summary of Peak Parking Demand for the Stages of Redevelopment at LBH (Source: TAIA Table 4.2, TTW)

We note that the demand figure of +150 spaces for Stage 3B does not include the aforementioned loss of 13 on-street spaces due to the carpark construction works. However, this has been discussed above, and in detail in the TAIA, noting that part of the demand is accommodated within the multi-deck carpark and the residual demand can be accommodated comfortably on-street. Furthermore, we note that as a part of the consent conditions for Stage 3B, 150 spaces were required to be provided as a part of the works to supply the demand of that development.

As can be seen in the table on the previous page, the proposed NTX development will only generate a demand for an increase of 10 parking spaces.

Section 4.4.3 of the TAIA notes that the additional parking demand for the whole of Stage 3, inclusive of the proposed Stage 3C NTX development, equates to 270 spaces. Therefore, the additional 10 spaces generated by the development can be readily accommodated within the existing parking provision in the multi-deck carpark on Uralba Street. The parking survey undertaken by TTW confirms that there is adequate off-street parking within the multi-deck (as well as within the surrounding street network) during the peak hour to accommodate the demand for an additional 10 spaces.

To conclude, the analysis undertaken by TTW has confirmed that the multi-storey carpark (Stage 1) will meet the demand generated as a result of the constructed Stage 3A (110 spaces), partially constructed Stage 3B (150 spaces) and proposed Stage 3C (10 spaces) works. The parking occupancy survey by TTW confirms that there is sufficient capacity within the existing carpark to accommodate the anticipated increase of 10 spaces. The impact of the loss of 13 on-street carparking spaces as a result of previous works (the subject of a separate, and previously determined SSDA) has been addressed by TTW in the TAIA and summarised above. Again, we note that five (5) of the lost spaces for the University are accommodated within the existing multi-deck carpark (in addition to the 270 spaces for LBH) and the additional eight (8) spaces can be readily accommodated on-street.

Based on the above and the detailed discussion in the TAIA, we are satisfied that the parking demand generated by the proposed Stage 3C NTX development can be accommodated within the existing parking provision for LBH.

Further to the above, we note that a Carparking Management Strategy was developed by the LHD for LBH, in consultation with LCC. The purpose of the Strategy was to consider overall demand and supply with regard to operations of LBH and to:

- Ensure parking is available and accessible for visitors to LBH;
- Encourage staff and visitors to use off street parking, including the multi-level car park; and
- Reduce the impact of long stay worker parking, and free up parking for residents and their visitors in front of their homes.

As set out in the TAIA, LCC commissioned an audit of the effectiveness of the Strategy in June 2017, which included consideration of occupancy and turnover surveys. We understand that the audit identified that the above objectives were being satisfied by the current implementation of the Strategy. TTW has confirmed that the results of the on-street parking occupancy survey discussed in the audit largely align with the results of the parking occupancy survey that was conducted by TTW in March 2018. The audit did not include consideration of off-street parking, but TTW notes that the results of the 2018 survey indicate that there is spare parking capacity within LBH (currently at 82% during the peak hour). Whilst the audit determined that the Strategy is being successfully implemented, TTW recommends that a further review be undertaken once the Stage 3B2 and Stage 3C developments have been constructed and are operational.

9.4.3 Recommended Mitigation Measures

In accordance with the TAIA, the following mitigation measures are noted for the development from a transport perspective:

- Continued implementation of the Green Travel Plan and Transport Access Guide by LBH. These plans should be updated on a regular basis including once Stage 3B and 3C are in operation;
- Preparation of a comprehensive Construction Traffic Management Plan (CTMP) based on the preliminary CTMP prepared by TTW, prior to the commencement of construction; and

- Continued implementation of Condition D2 of the consent for SSD 6848 in relation to the car parking management strategy.

9.5 Ecologically Sustainable Development (SEAR 6)

9.5.1 SEAR

SEAR 6 requires that the application:

- (a) *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 and ongoing operation phases of the development.*
- (b) *Demonstrate that the development has been assessed against a suitably accredited rating scheme to meet industry best practice.*
- (c) *Include a description of the measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.*

9.5.2 Assessment

The principles of ESD are defined by Clause 7(4) of Schedule 2 of the EP&A Regulation. Each principle is set out in Table 15 with a description of how they have been incorporated in the proposal.

Table 15 Principles of ESD

ESD Principle	Means of Incorporation
(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,	The construction of a new tower extension at LBH presents no threats of serious or irreversible environmental damage. The proposal serves an important public purpose and is not inconsistent with this principle.
(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,	The proposal will not have an adverse effect on the health, diversity or productivity of the environment. Rather, it will provide valued community services for current and future generations.
(c) conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,	The proposal will have a negligible effect on biological diversity and ecological integrity given there will be no impact on vegetation as a result of the works.
(d) improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as:	The proposal relies on utility services that are already priced in accordance with these principles. Accordingly, the proposal has been designed to conserve energy and water at levels that are greater than the minimum benchmarks

(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."

in order to reduce the ongoing operating costs of LBH and improve environmental performance.

Environmental Sustainable Design (ESD) initiatives have been categorised under the following sustainable building design categories:

1. Environmental Concept Design and Environmental Management
2. Passive Design
3. Energy Conservation
4. Water Conservation
5. Quality of Indoor Environment
6. Sustainable Materials

An ESD Principles Statement has been prepared by JHG which describes the ESD strategies identified for LBH, how the ESD principles will be incorporated into the design of the development and the measures to be incorporated to minimise consumption of resources. The intent of this Statement is to ensure that a high environmental outcome is facilitated for the development. A copy of the Statement is at Appendix 8, and a summary is provided in Table 16 below, with regard to the categories identified above.

Table 16 ESD Strategies

ESD Strategy	Proposal
Environmental Concept Design	The project will comply with the NSW Health Engineering Services Guidelines (August 2016).
Environmental Management	Compliance with the relevant codes to optimise operational efficiency. A user's guide will be made available to occupants and staff with information on how to occupy the building correctly with regard to its environmental features.
Passive Design	Glazing to facades will assist in providing natural daylight internally within the building. Combined with daylight sensors in appropriate spaces, this will reduce demand for artificial lighting. The proposed building extension has a high thermal mass, allowing for improved stabilisation of indoor air temperatures and reducing the need for artificial heating and cooling. Building materials have a high-performance value, with all complying with section J of the BCA as a minimum.
Energy Conservation	Implementation of efficient lighting control strategies and effective monitoring to reduce electrical demand, such as though incorporation of daylight sensors. Lighting zoning and sensors.

	<p>All sensors to comply with the NSW Health Engineering Services Guidelines (August 2016) and relevant Australian and legislative requirements/standards.</p> <p>Mechanical system has been designed based on need to reduce running costs and for minimal maintenance and inclusion of future proofing technologies.</p> <p>Inclusive of a new Building Management Control System, to connect with the existing hospital system. The system will collate the meter readings for services for easy interpretation and analysis.</p>
Water Conservation	Reduced water demand with water efficient practices and fittings.
Quality of Indoor Environment and Places of Respite	<p>Improve daylight access and enhanced views promoted through external façade glazing for enhanced occupant amenity.</p> <p>High frequency ballasts to ensure uncomfortable flickering does not disturb occupants.</p> <p>Noise control to ensure that noise levels from building services are not disruptive to occupants.</p>
Sustainable Materials	<p>Use of sustainable materials in construction, recycling and waste minimisation (construction and operation).</p> <p>Products used to contain low levels of VOCs (i.e. paints, adhesives, sealants, flooring, wall and ceiling coverings and mattresses).</p> <p>Incorporation of storage for waste management and recycling.</p>

The design measures outlined above (and discussed in detail throughout the ESD Statement) demonstrate the way in which ESD is entrenched into the design of the development. Through the incorporation of these ESD measures, CSPD is satisfied that the proposal has been designed in accordance with recognised best practice principles, which are capable of being applied throughout the design and ongoing operation phases of the development.

9.5.3 Recommended Mitigation Measures

ESD has been a primary consideration throughout the preliminary design phases of this proposal. However, the following mitigation measures are to be included to ensure that ESD is applied throughout the detailed design and ongoing operation phases of the development:

- The proposal is to demonstrate compliance/consistency with the targets identified in NSWHI Engineering Services Guidelines, specifically those relating to:
 - Sustainability and Energy (Principle 2.5.8);
 - Potable Water (Principle 2.5.9); and
 - Materials (Principle 2.5.10).

9.6 Heritage (SEAR 7)

9.6.1 SEAR

SEAR 7 requires that the application:

Include a Heritage Impact Statement that addresses the significance of and provides an assessment of the impact on the heritage significance of any heritage items on the site and in the vicinity, and/or conservation areas and/or potentially archaeologically significant areas, in accordance with the guidelines in the NSW Heritage Manual.

9.6.2 Assessment

City Plan Heritage (CPH) has prepared a Heritage Impact Statement (HIS) to address SEAR 7 and assess the impact of the proposal on the heritage significance of the site. A copy of the HIS is at Appendix 13 of this EIS and a summary of the key findings is provided below:

- LBH is not listed as a heritage item but is located within proximity to the heritage item 'Armstrong house, "Kiaora"', located at 83A Uralba Street (item no. I67), listed under Schedule 5 of the Lismore Local Environmental Plan (LEP) 2012;
- LBH is not located within a Heritage Conservation Area;
- As no further excavation works are proposed, an updated archaeological assessment is not considered necessary;
- A Conservation Management Plan (CMP) has not been prepared for the heritage item Armstrong House 'Kiaora'. As such, a view analysis has been undertaken by CPH in the HIS in order to create an understanding of the significant views to and from the heritage item and the impact of the proposed works on these significant views. A total of six (6) views were considered in the report in the vicinity of the proposed development within LBH. Section 6.3.7 provides a conclusion of the view assessment noting that as the proposed development is a vertical addition to the rear of the existing taller southern tower, the significant views identified to the heritage item will not be impacted. Views to LBH from the heritage item are impacted, but CPH does not identify these to be views of any significance to the heritage item; and
- The HIS concludes that whilst the proposed development will be somewhat visible from the surrounding area, with regard to the heritage significance of "Kiaora", the works *"will not detract, dominate or impact on the streetscape value of the heritage item. In addition, the works will not impact on any significant views identified in Section 6.3"*.

With regard to the above and the detailed assessment contained in the HIS, we are satisfied that the proposed development will not result in any adverse impact on the nearby heritage item.

9.6.3 Mitigation Measures

Not applicable.

9.7 Biodiversity (SEAR 8)

9.7.1 SEAR

SEAR 8 requires the application to consider:

Biodiversity impacts related to the proposal and the preparation of a Biodiversity Development Assessment Report are to be addressed in accordance with the requirements of the Biodiversity Conservation Act 2016.

9.7.2 Assessment

The Biodiversity Conservation Act 2016 has been addressed in Section 7.5 of this EIS. This EIS is accompanied by waivers from the Planning Agency Head and the Environment Agency Head which determine that there is no need for the subject SSDA to be accompanied by a BDAR. A copy of these waivers is at Appendices 6a and 6b of this EIS.

Given the site is not mapped as comprising any biodiversity values and given the proposal does not seek to remove any trees or other vegetation, further consideration of biodiversity impacts is not considered to be necessary.

9.7.3 Recommended Mitigation Measures

Not applicable.

9.8 Noise and Vibration (SEAR 9)

9.8.1 SEAR

SEAR 9 requires that the application:

Identify and provide a quantitative assessment of the main noise and vibration generating sources during construction and operation and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.

Relevant Policies and Guidelines:

- (a) NSW Industrial Noise Policy (EPA)*
- (b) Interim Construction Noise Guideline (DECC)*
- (c) Assessing Vibration: A Technical Guideline 2006*
- (d) Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008)*

9.8.2 Assessment

Acoustic Logic has prepared a Noise Impact Assessment (NIA) which assesses the potential for noise and vibration impacts to surrounding receivers as a result of the proposed development.

The NIA identifies that the main noise and vibration sources, as a result of the proposal, relate to the following:

- Noise from mechanical plant;
- Noise from additional traffic movements; and
- Noise and vibration from construction.

Noise associated with the helipad and ambulance sirens was considered in previous stage SSDAs. There will be no change to helipad and ambulance operations as a result of the proposed Stage 3C development.

The NIA sets out the results of the background noise survey, and the relevant noise emissions and vibration criteria to be satisfied in considering the impact of the above. The noise controls and guidelines that determine the relevant emission criteria are as follows:

- EPA Noise Policy for Industry;
- EPA Interim Construction Noise Guidelines;
- Assessing Vibration: A technical guideline; and
- NSW Road Noise Policy.

Unattended noise monitoring was undertaken via installation of a logger on Little Uralba Street. This location was identified as being the most representative of the background noise levels of the nearest sensitive receiver. Refer to Figure 33 on the page over.



Figure 31 Unattended Noise Monitor Location, Figure 1 from NIA (Source: Acoustic Logic)

Unattended noise monitoring was conducted over a ten-day period between 16 and 23 March 2018, with additional attended noise measurements made on 16 March to further verify the levels measured by the loggers.

A summary of the noise emission assessment is provided below:

- The NIA considers the initial design of primary plant, noting that a further review will be required once plant selection has been made during the detailed design phase of the project.
- Primary plant items considered in the assessment include air handling plant, pumps and chillers, noting that the plant associated with the proposal is *“supplementary plant...[with the] main noise generating items [having] been installed as per previous stages (ie diesel generators)”*.
- The rooftop plant will need to be acoustically attenuated to ensure that the relevant noise criteria is satisfied to mitigate noise impacts to residents on Little Uralba Street. Recommendations for acoustic attenuation are below:

- Where possible, for major fans with a sound power over 90(A), it is recommended that axial (as opposed to roof mounted fans) are to be used as this will enable acoustic treatment to be incorporated within ductwork running to atmosphere.
- Any air handling plant, chillers and pumps on the roof will need to be accommodated within a rooftop plant room, which should not be open on the eastern side. *“If air is to be drawn in from these parts of the façade, it should be drawn in via ducting connected to individual units, as opposed to the plant room being open to atmosphere”.* Any residual louvres on this façade should be blanked off using sheet metal.
- Within any rooftop plant room, any chiller will need to be partitioned off to prevent excessive noise emission.

Subject to adopting the recommendations above, Acoustic Logic confirms that the EPA acoustic criteria set out in the NIA will be achievable, subject to a detailed acoustic review of plant at detailed design/plant selection stage and adoption of any further recommendations that may result from the detailed review.

- With regard to construction noise, as there is no excavation or piling works to be undertaken for Stage 3C, the main noise source will result from construction works close to the eastern boundary of LBH and potential impact to residents on Little Uralba Street. The use of hand tools is identified as the activity attributed to having the highest noise emission. Acoustic Logic notes that noise levels will unlikely exceed EPA “Noise Management” levels and once the shell is complete, noise from hand tools will be low with the building shell providing noise attenuation. Vehicle and crane noise will also result from construction activities but will be temporary and will need to be managed as follows:
 - Static plant (concrete pumps, cranes etc) is to be located as far away from the eastern boundary as practicable.
 - Residents in Little Uralba Street should be notified in advance of any significant works outside the line of the eastern façade.
- Acoustic Logic confirms that construction vibration is unlikely to be a concern given the separation of the development for the nearest residential buildings on Little Uralba Street. The NIA anticipates that construction vibration will not exceed EPA guidelines. Vibration impacts internally within LBH will be managed through internal management by the LHD.
- Acoustic Logic recommends that a detailed construction noise and vibration management plan be prepared for the proposal prior to works commencing.
- Acoustic Logic confirms in the NIA that the additional travel movements resulting from the development during its operation will be minimal and fully compliant with the NSW Road Noise Policy.

With regard to the findings of the NIA, as summarised above, and adoption of the recommendations contained therein, we are satisfied that the proposed development will not result in any adverse noise and vibration impact.

A complete copy of the NIA is at Appendix 14 of this EIS.

9.8.3 Recommended Mitigation Measures

Implementation of the recommendations of the NIA prepared by Acoustic Logic.

9.9 Sediment, Erosion and Dust Controls (SEAR 10)

9.9.1 SEAR

SEAR 10 requires that the application:

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

Relevant Policies and Guidelines:

- (a) Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom)*
- (b) Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)*
- (c) Guidelines for development adjoining land and water managed by DECCW (OEH, 2013)*

9.9.2 Assessment

Given the proposal involves the construction of additional levels above an approved building, the potential for off-site transmission of sediment, dust and fine particles is considered to be limited. The Construction Environmental Management Plan (CEMP) prepared by John Holland Group identifies the risks to largely be associated with the material handling area on Little Uralba Street during construction. The CEMP details precautionary measures to mitigate *any* potential for such impacts, as summarised below:

- Project specific Water Quality, Erosion and Sediment Control Plan will be developed to capture run off and mitigate any potential erosion or dirt water issues
- Regular inspections and reviews of the SEP effectiveness and implementation of additional measures and controls if required
- Implement methods to manage dust to mitigate impact on operational LHD areas / departments or adjacent neighbours and business, particularly during demolition works
- Minimise dust created and leaving site (including wet during wet weather) via appropriate and reasonable control methods
- Monitor air quality as required and implement appropriate and reasonable control measures, including asbestos air monitoring during demolition activities

The CEMP also:

- lists a series of obligations, approvals and licences in a register (table 15). Under erosion and sediment control, the table states that the project will ensure that soil erosion and sediment control measures will be undertaken in accordance with Managing Urban Stormwater – Soils & Construction Volume 1 (2004).
- includes a Dust and Air Quality Plan which sets out detailed responsibilities, environmental control measures/safeguards, monitoring, and reporting requirements.
- Includes a Water Quality, Erosion and Sediment Control Plan which details legislative and regulatory compliance, performance criteria, objectives and controls, site specific strategies and site-specific control measures to manage any potential risk for impacts to water quality from erosion and sediment transmission offsite.

9.9.3 Recommended Mitigation Measures

It is recommended that the CEMP prepared by JHG for the proposal be implemented throughout construction.

9.10 Contamination (SEAR 11)

9.10.1 SEAR

SEAR 11 requires that the application:

Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55.

Relevant Policies and Guidelines:

- (a) Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP)*

9.10.2 Assessment

SEPP 55 has been addressed at Section 7.9 of this EIS. The assessment undertaken in Section 7.9 of this EIS confirms that "in accordance with Clause 7 of SEPP 55, we are satisfied that the site is suitable for the continued hospital purpose". Any recommendations regarding unexpected finds during excavation works have been addressed in the Stage 3B consent.

9.10.3 Recommended Mitigation Measures

Not applicable.

9.11 Utilities (SEAR 12)

9.11.1 SEAR

SEAR 12 requires that the applicant:

Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure.

Prepare an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and nonpotable water, and water sensitive urban design.

9.11.2 Assessment

Gas

A services statement has been prepared by DSC which addresses gas services. The statement confirms that the gas supply to the development will extend from the existing adjacent Stage 3A building which connects to the Elgas gas main located in Uralba Street.

DSC has consulted with Elgas who has confirmed that there is sufficient capacity to accommodate the proposed development.

Sewer

A services statement has been prepared by DSC which addresses sewer capacity. The statement confirms that sanitary plumbing and sewer drainage from the proposed development will connect into the adjacent Stage 3B sewer drainage system. The Stage 3B system is connected to the hospital's sewer pipe. DSC has consulted with Council and confirmed that due to the minimal net increase in beds, there will be limited impact on sewer demand from the site and that the existing authority sewer system can accommodate the additional demand.

Hydraulic Services

A services statement has been prepared by DSC which addresses water supply. The statement confirms that the proposed development will connect to the existing adjacent Stage 3A building which connects to the authority's watermain in Uralba Street. DSC confirms that *"given the demand on the authority water supply will not be significant and the use of water storage to minimise the peak demand of water supply required from the Council watermain to service the development, the existing Council water supply is considered suitable to support the Stage 3C – North Tower Extension"*.

Electricity

A services statement has been prepared by Wood & Grieve Engineers which addresses electrical services. The statement confirms that a series of new substations have been installed as a part of early stages of the redevelopment at LBH to address capacity inefficiencies (Stages 3A and 3B). The substation installed as a part of Stage 3B was done so on the basis that it would also service future Stage 3C (including the approved north tower and the proposed north tower extension). New underground low voltage cabling will need to be installed to connect the development to the aforementioned substation. Wood and Grieve has confirmed that the additional load of Stage 3C can be accommodated within the capacity of the substation, without the need for any additional easements or Essential Energy LV network augmentation.

Telecommunications

A services statement has been prepared by Wood & Grieve Engineers which addresses telecommunications services. The statement confirms that the site benefits from the lead-in services from the following carriers:

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

The statement notes that additional carrier services may be provided for the sole basis of providing service redundancy (backup).

Integrated Water Management

Integrated water management has been addressed in the services statement prepared by DSC. The Integrated Water Management Plan contained within the services statement confirms the following:

- Water supply and stormwater discharge for the proposal will be supported by the existing infrastructure established for previous stages 3A and 3B;
- The proposal will be supplied from the existing adjacent Stage 3A development via a direct connection to the watermain in Uralba Street;

- In the event of a water main fail, there is a water storage tank contained within the high-level plantroom at Level 12 of the south tower (Stage 3B) that will provide water supply to the entire Stage 3 development (including proposed Stage 3C) for a limited period of time. This tank will also reduce “peaks” in water draw-off from the main supply;
- Backflow prevention devices will be installed to reduce contamination of the potable water supply;
- Water saving taps and outlets will be installed to reduce overall water consumption within the development; and
- DSC notes that rainwater/wastewater reuse has not been considered for the entire Stage 3 development (including proposed Stage 3C due to “*the potential risks associated with contamination and susceptibility of patients to health issues arising from potential contamination. Similarly there is no intention to provide recycled water for any water supply in Stage 3C - North Tower Extension.*”

9.11.3 Recommended Mitigation Measures

Implementation of the recommendations in the Integrated Water Management Plan prepared by DSC (contained within the services statement) to ensure reduction in contamination of the potable water supply and reduction in water consumption within the development.

9.12 Contributions (SEAR 13)

9.12.1 SEAR

SEAR 13 requires that the application:

Address Council’s Section 94A Contribution Plan and/or details of any Voluntary Planning Agreement, which may be required to be amended because of the proposed development.

9.12.2 Assessment

Pursuant to Section 2.15 of the LCC Section 94 Contributions Plan 2014, as the proposal is for the purpose of public infrastructure (hospital) provided by or on behalf of the State Government, the development will be excluded from the requirement to make a monetary contribution towards provision or improvement of facilities or services. This has been confirmed by LCC in its response to the SEARs dated 21 December 2017.

Voluntary Planning Agreement

A VPA is not considered to be necessary or appropriate in this instance given the material public benefit that will flow to the community through the provision of high quality public health services.

9.12.3 Recommendation

Not applicable.

9.13 Drainage (SEAR 14)

9.13.1 SEAR

SEAR 14 requires that the application:

Detail drainage associated with the proposal, including stormwater and drainage infrastructure.

Detail measures to minimise operational water quality impacts on surface waters and groundwater.

Relevant Policies and Guidelines:

(a) Guidelines for development adjoining land and water managed by DECCW (OEH, 2013).

9.13.2 Assessment

The Services Statement prepared by DSC confirms that the water supply, stormwater discharge and on-site detention for the proposed Stage 3C development at LBH will be supported by the existing infrastructure established for previous Stages 3A and 3B. As the proposed Stage 3C development comprises a vertical extension of Stage 3B and does not have any impact on hard surface area, the existing drainage system is capable of supporting the development and there will be no impact on surface waters or groundwater as a result of the proposal.

A drainage plan has been prepared by DSC, which accompanies this EIS at Appendix 10.

9.13.3 Recommended Mitigation Measures

Not applicable.

9.14 Flooding (SEAR 15)

9.14.1 SEAR

SEAR 15 requires that the application:

Assess any flood risk on site (detailing the most recent flood studies for the project area) 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.

9.14.2 Assessment

The site is not identified as being flood prone pursuant to the LLEP. Refer to the figure on the page over.

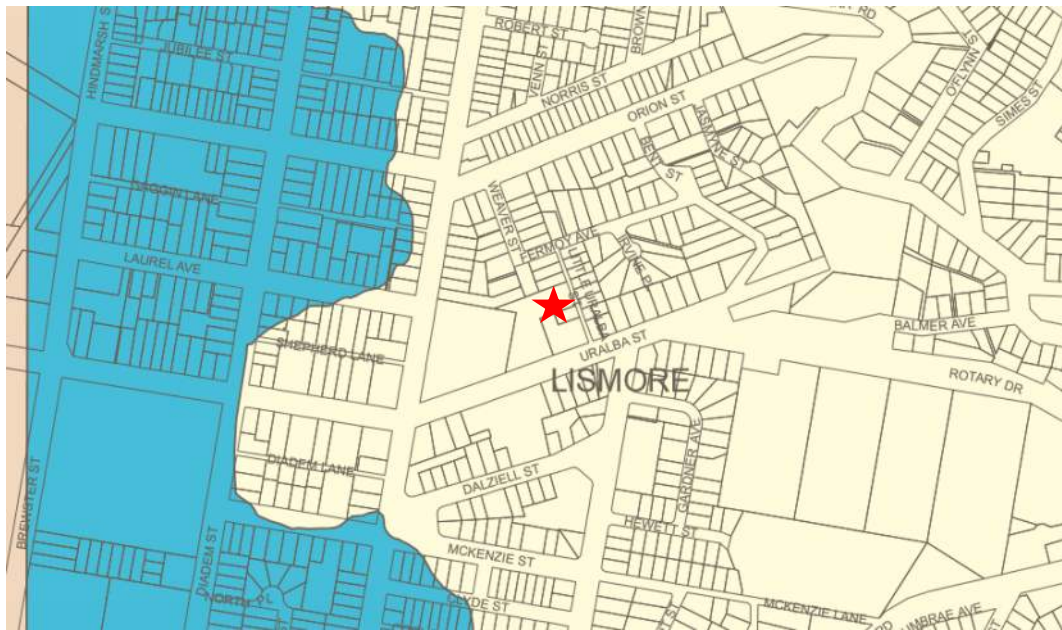


Figure 32 LLEP Flood Map Extract, location of the development marked by the red star (Source: Sheet FLD_005AB)

With regard to the above, further consideration of flood risk is not considered to be necessary.

9.14.3 Recommended Mitigation Measures

No mitigation measures required.

9.15 Waste (SEAR 16)

9.15.1 SEAR

SEAR 16 requires that the application:

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.

9.15.2 Assessment

Construction Waste

JHG has prepared a preliminary Construction Management Plan (CMP) and a preliminary Construction Environmental Management Plan (CEMP) for the development, both of which accompany this EIS at Appendices 17 and 16 respectively. Both of these documents include details regarding likely waste streams to be generated and measures to manage and dispose of waste.

Operational Waste

There are existing operational waste management guidelines and statements for LBH which are 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.

Whilst the Stage 3C NTX development will result in an increased capacity within LBH for operational waste storage and management, the existing waste guidelines and policies for LBH will generally remain unchanged and will continue to be implemented. This has been verified in the operational waste management statement prepared by the NSW LHD at Appendix 19.

Hazardous Waste

A statement has been prepared by the NSW LHD in relation to hazardous materials waste management. The statement addresses the management and disposal of clinical, cytotoxic, pharmaceutical, chemical and radioactive waste. The statement confirms that the Stage 3C development will not result in any change to the existing hazardous waste management procedures currently employed at LBH. A copy of this statement can be found at Appendix 19.

9.15.3 Recommended Mitigation Measures

Preparation of a final Construction Management Plan for the development incorporating construction waste management measures by the appointed principal contractor(s) to ensure that construction waste can be appropriately managed with minimal impacts to the environment. The adopted measures should be consistent with those identified in the preliminary Construction Management Plan (CMP) and preliminary Construction Environmental Management Plan (CEMP) prepared by JHG, which accompany this EIS.

Operational waste management will be undertaken in accordance with LBH's existing guidelines and policies. Operational waste management should continue to be monitored and audited through LBH Work Health and Safety Meetings.

9.16 Construction Hours (SEAR 17)

9.16.1 SEAR

SEAR 17 requires that the application:

Identify proposed construction hours and provide details of the instances where it is expected that works will be required to be carried out outside the standard construction hours.

9.16.2 Assessment

In accordance with the Construction Environmental Management Plan (CEMP) prepared by JHG, construction hours, including delivery of materials to and from the site, will be restricted as follows:

- a) Between 7:00am and 6:00pm, Mondays to Fridays inclusive
- b) Between 8:00am and 1:00pm, Saturdays
- c) No work on Sundays or Public Holidays
- d) Works may need to be undertaken outside these hours where:
 - The delivery of materials is required outside these hours by the Police or other authorities;

- Large scale critical tasks are required to be completed in one shift (e.g. tower crane erection and dismantle);
- It is required in an emergency to avoid the loss of life, damage to property and/or prevent environmental harm;
- A variation is approved in advance in writing by the Director-General or his nominee.

9.16.3 Recommended Mitigation Measure

Implementation of the construction hours contained within the CEMP prepared by JHG.

9.17 Plans and Documents

The "Plans and Documents" section of the SEARs provides a list of "Plans and Documents" to be submitted as part of the SSDA. All of the plans and documents identified in this section of the SEARs have been provided where necessary. Refer to Table 17 below.

Table 17: "Plans and Documents"

Plan and Documents	Prepared by	Found at Appendix
Architectural drawings (dimensioned and including RLs)	Conrad Gargett Architects	4
Site Survey Plan	Newton Denny Chapelle	3
Site Analysis Plan	Conrad Gargett Architects	4
Stormwater Concept Plan	Newton Denny Chapelle	10
Sediment and Erosion Control Plan	John Holland Group, contained in Construction Environmental Management Plan	16
Shadow Diagrams	Conrad Gargett Architects	4
View Analysis / Photomontages	Conrad Gargett Architects	4
Landscape Plan	N/A - no ground works proposed.	N/A
Preliminary Construction Management Plan, inclusive of a Preliminary Construction Traffic Management Plan detailing vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures	John Holland Group (Construction Management) TTW (Construction Traffic Management)	17 18
Geotechnical and Structural Report	Arcadis	12
Accessibility Report	Mackenzie Group	9
Schedule of materials and finishes	Conrad Gargett Architects	4

Further detailed commentary is provided below with respect to construction management, geotechnical matters and structural matters.

9.17.1 Construction Management

The SEARs require the preparation of a preliminary CMP. The objectives of a 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 and parking arrangements,
- 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 objectives and specific items identified above are addressed in the preliminary CMP that has been prepared by JHG for the proposed development. A copy of the preliminary CMP accompanies this EIS at Appendix 17. A separate Construction Environmental Management Plan has also been prepared by JHG which accompanies this EIS at Appendix 16. A final CMP, incorporating environmental management as set out in Appendix 16, will be prepared by the principal contractor once known and prior to the commencement of construction.

It is recommended that a comprehensive CMP be prepared for the proposed development, incorporating a CTMP which aligns with the preliminary measures set out in the TTW CTMP at Appendix 18 and the other matters set out in the mitigation measures in Section 11 of this EIS.

9.17.2 Geotechnical and Structural Matters

A Structural Design Report has been prepared by Arcadis for the proposed development to assess the additional load of the vertical addition to the approved north tower and to set out the relevant structural requirements for the development. The report also identifies at the forefront the geotechnical conditions of the site, which have been previously investigated by Coffey Geotechnics and more extensively and recently by Douglas Partners. A concise summary of these previous investigations can be found in Section 3 of the report. The conditions remain unchanged from those addressed in the previous SSDA for Stage 3B.

The report notes that structurally, the development will use bored piles, that will need to be drilled through the tephra layer. The bored piles "will be sleeved permanently through the upper section of the slope...so that they do not transmit downward forces into the soil nailed slope". The stability of the piling rig has been considered and determined to achieve an "adequate factor of safety...under short term surcharge loading".

The report continues to set out the structural design criteria for the development, with a summary provided below:

- Structural design is to be carried out in accordance with the codes and specifications set out in Section 5.2 of the report;
- The load criteria in Section 5.3 (and Appendix A) are to be complied with. The report confirms that the structural plans have been designed to accommodate the required design loads;

- The wind loading requirements (Section 5.4), earthquake loading requirements (Section 5.5), deflection criteria (Section 5.6) and durability requirements (Section 5.7) are to be complied with;
- Section 6 of the report addresses requirements for the structural framing system of the development. Section 6.1 confirms that the approved north tower was designed to structurally allow for the additional floors proposed under the subject SSDA. The remainder of Section 6 confirms that the foundations, reinforced columns, lateral resistance from building shear walls, the structural floor system and hydraulic services have all been designed to accommodate the relevant structural design criteria.

Whilst the structural design of the development appears to comply with the relevant criteria set out in the report, a mitigation measure has been included in this EIS requiring compliance with these criteria for due caution.

9.17.3 Accessibility

An Accessibility Design Review of the proposal has been undertaken by McKenzie Group. The purpose of the review is to assess the proposal to ensure that "visitors, staff and patients, have independent, equitable and dignified use". The report reviews an earlier set of plans prepared by CGA, but we note that the plans have not changed substantially, and it is our view that an updated access review is not required. The review concludes that the proposal is capable of complying with the relevant legislative requirements for access. A mitigation measure has been included in this SSDA to require compliance with the access requirements set out in the access review.

9.18 Social and Economic Benefits

A range of social and economic benefits that will result from the proposed development are addressed generally throughout this EIS. This section of the EIS consolidates those "benefits" as follows.

The **social impacts** that will result from the proposal are set out below:

- Upgrade and expansion of out-dated hospital infrastructure and enhanced capacity to provide a wide range of medical services;
- The increasing ED presentations at LBH and associated high level of admissions activity as a result of previous substages of Stage 3 of the redevelopment, has resulted in an increasing need for ICU and inpatient beds. The Stage 3C development will provide a direct benefit to LBH in this regard;
- The project will provide contemporary healthcare facilities addressing clinical services suited to the current and future needs of the NSW LHD's catchment population;
- Achieve critical mass of allied health staffing enabling more specialised allied health services to be provided to inpatients;
- More effective and efficient use of available clinical staff, improved staff satisfaction and greater capacity to attract and retain staff;
- Greater capacity to meet the health care requirements of the growing aged population now and into the future;
- Integrated care and new models of care, including clinical redesign and service innovation;
- Improved patient safety through reduced clinical errors and infection;
- Improved amenity for patients, their families and staff; and
- Identify benefits to the NSW LHD health network including support to LBH.

The **economic impacts** that will result from the proposal are set out below:

- Direct and indirect increase in employment opportunities during construction and operational phases of the development (refer Section 4.10 of this EIS). This will result in a positive contribution to the local economy.
- A range of economic benefits for LBH including:
 - Increased outcome efficiency;
 - Increased output or cost efficiency. The development results in a value for money outcome which addresses the specific objectives for the redevelopment and incorporates efficient future flexibility for redevelopment at LBH;
 - Maximisation of capital investment provides the opportunity to further reduce service fragmentation and continue to improve continuity of care, to ensure safe and effective service delivery;
 - Better staff attraction and retention; and
 - Higher workforce productivity.
- The redevelopment will continue to support change within LBH, support the development and enhancement of integrated services that maintain and improve the reliability and quality of patient care, as well as improve patient outcomes.

Further to the above, the proposed development will result in more than \$32 million investment in public health and related services for Lismore and the NNSW LHD. This is a significant level investment in public health in the region and will directly benefit the local and regional community.

9.19 Cumulative Impacts

This EIS has assessed the cumulative impacts of the proposed development and the matters for consideration nominated within the SEARs. Subject to the mitigation measures outlined in Section 11 of this EIS, the proposal is considered to have a net positive impact on the environmental and operational amenity of LBH and the surrounding locality.

10. Environmental Risk Assessment

Based on the environmental assessment in Section 9 of this EIS, the following Environmental Risk Analysis assesses the significance of the identified impacts and the ability to manage those impacts to establish a residual risk rating. Refer to the figure below.

Significance of Impact	Manageability of Impact					Residual Impact
	5 Complex	4 Substantial	3 Straightforward	2 Standard	1 Simple	
1 - Low	6 (Medium)	5 (Low-Medium)	4 (Low-Medium)	3 (Low)	2 (Low)	
2 - Minor	7 (High-Medium)	6 (Medium)	5 (Low-Medium)	4 (Low-Medium)	3 (Low)	
3 - Moderate	8 (High-Medium)	7 (High-Medium)	6 (Medium)	5 (Low-Medium)	4 (Low-Medium)	
4 - High	9 (High)	8 (High-Medium)	7 (High-Medium)	6 (Medium)	5 (Low-Medium)	
5 - Extreme	10 (High)	9 (High)	8 (High-Medium)	7 (High-Medium)	6 (Medium)	

Significance of Impacts:

5 Extreme	E1 - Undisturbed receiving environment E2 - Type or extent of impacts unknown E3 - Substantial level of community concern
4 High	H1 - Sensitive receiving environment H2 - Type or extent of impacts not well understood H3 - High level of community concern
3 Moderate	Mo1 - Resilient receiving environment Mo2 - Type or extent of impacts understood Mo3 - Community interest
2 Minor	Mi1 - Disturbed receiving environment Mi2 - Type or extent of impacts well understood Mi3 - Some level of local community interest
1 Low	L1 - Degraded receiving environment L2 - Type or extent of impacts fully understood L3 - Negligible level of local community interest

Manageability of Impacts:

5 Complex	C1 - Extensive/complicated range of mitigation measures required C2 - Safeguards or technology are unproven C3 - Adaptive management not appropriate
4 Substantial	Sub1 - Significant mix of mitigation measures required Sub 2 - Limited evidence of effectiveness of safeguards Sub 3 - Adaptive management feasible
3 Straightforward	Str1 - Straightforward range of mitigation measures required Str2 - Good understanding of effectiveness of safeguards Str3 - Adaptive management readily applicable
2 Standard	Sta1 - Simple range of mitigation measures required Sta2 - Substantial evidence for effectiveness of safeguards Sta3 - Adaptive management unlikely to be required
1 Minimal	Min1 - Minimal/no mitigation measures required Min2 - Safeguards are standard practice Min3 - Adaptive management not required

Figure 33 Environmental Risk Assessment Values

The significance of identified environmental impacts is assigned a value between 1 (Low) and 5 (Extreme) based on:

- The receiving environment;
- The level of understanding of the type and extent of impacts; and
- The likely community response to the environmental consequence of the project.

The manageability of environmental impact is assigned a value between 1 (simple) and 5 (complex) based on:

- The complexity of mitigation measures;
- The known level of performance of the safeguards proposed; and

- The opportunity for adaptive management.

The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented.

Refer to Table 18 below for the complete environmental risk analysis.

Table 18 Environmental Risk Analysis

Issue	Phase C- construction O - operation	Identified Environmental Impact	Risk Assessment		
			Significance of Impact	Manageability of Impact	Residual Impact
Built Form and Urban Design	O	The height, bulk and scale of the new building extension will be greater than that of the existing surrounding developments to the north and east but not to the south (existing Stage 3B1 tower).	3 Moderate	2 Standard	5 Low-Medium
Environmental Amenity	O	Potential impacts on pedestrian wind comfort of occupants.	1 Low	1 Simple	2 Low
		Overshadowing	1 Low	1 Simple	2 Low
		Light spill	1 Low	1 Simple	2 Low
		Potential impact on amenity of existing hospital buildings (noise, overshadowing, privacy).	2 Minor	2 Standard	4 Low-Medium
		For noise and vibration, refer to below relevant point in table.	N/A	N/A	N/A
Safety and Security	O	Surveillance of activities in proposed building extension be mitigated through incorporation of CCTV.	1 Low	2 Standard	3 Low-Medium
Transport and Accessibility	C	Construction traffic impacts on road network.	3 Moderate	2 Standard	5 Low-Medium
	O	Impact of traffic generation and operation of road network.	1 Low	2 Standard	3 Low-Medium
Ecologically Sustainable Development (ESD)	All	The proposed ESD measures will have a positive impact on the environment. Hence,	N/A	N/A	N/A

		there is no environmental risk identified.			
Noise and Vibration	C	Noise generated and potential impact on nearby sensitive residential receivers during construction works	3 Moderate	3 Straightforward	6 Medium
	O	Noise generated by mechanical plant and traffic noise and potential impact on residential receivers.	2 Minor	3 Straightforward	5 Low-Medium
Biodiversity	O	No identified impact	N/A	N/A	N/A
Heritage	O	Minor impact identified but not of any consequence	1 Low	1 Simple	2 Low
Sediment, Erosion and Dust Controls	C	Potential sediment pollution as a consequence of construction activities.	2 Minor	1 Simple	3 Low
Utilities	All	Existing capacity within services to accommodate demand of proposal	1 Low	1 Simple	2 Low
Flooding	O	No identified impact	N/A	N/A	N/A
Drainage	All	No change to imperviousness of the site and drainage to connect with existing system.	2 Minor	1 Simple	3 Low
Servicing and Waste	C	Environmental impacts associated with the disposal of construction and hazardous waste.	2 Minor	1 Simple	3 Low
	O	Health risks associated with Contaminated Waste (including clinical waste and sharps).	2 Minor	1 Simple	3 Low
Hazards	C	Potential spills or leaking of hazardous substances.	2 Minor	1 Simple	3 Low
	O	Potential spills or leaking as a consequence of handling, use and storage of hazardous substances.	2 Minor	1 Simple	3 Low
Hazardous Materials	C	No identified impact	N/A	N/A	N/A

Contamination	O	No identified impact	N/A	N/A	N/A
Air and Water Quality	C	Potential for reduced air and water quality during construction	2 Minor	2 Standard	4 Low-Medium
Aviation Risk	C	Potential impact of cranes and the like during construction – potential penetration of OLS	3 Moderate	3 Straightforward	6 Medium
	O	Potential risk to aviation operations by Lismore Airport due to penetration of tower through OLS.	3 Moderate	3 Straightforward	6 Medium

11. Mitigation Measures

The following measures have been compiled following review and consideration of the issues raised in consultation with government agencies and input from various subconsultants in response to the SEARs (Section 9).

Schedule 2 of the EP&A Regs requires a full description of the measures proposed to mitigate any adverse effects of the development on the environment. The mitigation measures in Table 19 below provide a commitment by HI and indicate the responsibilities required to prevent potential environmental impacts arising from the proposed works. This will ensure that the project is environmentally, socially and economically sustainable.

Table 19: Mitigation Measures

Issues	Action
General	<p>The development will be undertaken in accordance with the Environmental Impact Statement prepared by CPSD (including relevant accompanying Appendices) and drawings prepared by CGA (Appendix 4 of this EIS).</p> <p>All construction documentation and building work will be certified in accordance with Section 6.28 of the Environmental Planning and Assessment Act 1979.</p>
Reflectivity	<p>The building materials used on the facades of all buildings will be designed so as not to result in glare that causes discomfort or threatens the safety of pedestrians or drivers.</p> <p>The recommendations in the External Reflectivity Analysis prepared by Inhabit at Appendix 11 of the EIS will be adopted.</p> <p>A report/statement demonstrating consistency with this requirement will be submitted to the satisfaction of the Certifying Authority prior to the commencement of above ground works.</p>
Maintenance of vehicular access	<p>At all stages of construction, construction vehicle access to the site will be provided from Little Uralba Street, with the exception of crane operations from Uralba Street.</p>
Hours of Work	<p>The proposed working hours are as follows:</p> <p>Monday to Friday: 7am to 6pm</p> <p>Saturday: 8am to 1pm</p> <p>Sundays and public holidays: No work.</p> <p>No work will be carried out outside of standard construction hours, due to the nature of the Hospital services and the surrounding residential properties, unless works are required in accordance with the Interim Construction Noise Guidelines, extracted below.</p> <p>"The five categories of works that might be undertaken outside the recommended standard hours are:</p> <ol style="list-style-type: none"> 1. The delivery of oversized plant or structures that police or other authorities determine require special arrangements to transport along public roads 2. Emergency work to avoid the loss of life or damage to property, or to prevent environmental harm 3. Maintenance and repair of public infrastructure where disruption to essential services and/or considerations of worker safety do not allow work within standard hours 4. Public infrastructure works that shorten the length of the project and are supported by the affected community 5. Works where a proponent demonstrates and justifies a need to operate outside the recommended standard hours."

	<p>Other exceptions relate to those set out in Section 5.1 of the Construction Environmental Management Plan prepared by JGH.</p> <p>The out of hours works are to be justified and approved in advance in writing by the relevant Certifying Authority.</p>
Building Code of Australia	<p>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" (DTS) 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.</p>
Approvals	<p>The Proponent will obtain all necessary approvals required by State and Commonwealth legislation in undertaking the development.</p> <p>The Proponent will continue to liaise with the Lismore City Council during the development process, particularly with regard to any proposed road closure or impact on Council infrastructure.</p>
Erosion and Sediment Control	<p>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 is to be prepared in accordance with the preliminary erosion and sediment control plan contained within the Construction Environmental Management Plan prepared by JHG at Appendix 16 of this EIS.</p>
Structural	<p>The detailed structural design of the development is to comply with the recommendations of the Structural IFC Design Report prepared by Arcadis at Appendix 12 of this EIS.</p>
Hazardous Waste	<p>The Proponent commits to the continued implementation of the existing LBH management processes for hazardous waste in accordance with the waste management statement prepared by the NNSW LHD at Appendix 19 of this EIS.</p>
Operational Waste Management	<p>The Proponent commits to the continued implementation of existing operational waste management policies at LBH. Operational waste management should continue to be monitored and audited through LBH Work Health and Safety Meetings.</p>
Services	<p>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.</p>
Accessibility	<p>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.</p>
Drainage	<p>All final civil documentation will be prepared generally in accordance with the drainage plan prepared by DSC at Appendix 10.</p>
Integrated Water Management	<p>The recommendations in the Integrated Water Management Plan prepared by DSC (contained within the services statement at Appendix 7b of this EIS) will be implemented to ensure reduction in contamination of the potable water supply and reduction in water consumption within the development.</p>
Transport and parking Management	<p>The recommendations of the Traffic and Accessibility Impact Assessment prepared by TTW at Appendix 15 in relation to transport management will be implemented.</p>
Carpark	<p>A survey of parking supply and demand at LBH will be undertaken at five (5) years. The purpose of this survey will be to determine occupancy levels of the multi-storey car park as part of the larger parking strategy for</p>

	LBH and to determine the most appropriate strategy related to the outcome.
Sustainable Transport Strategies	The existing Green Travel Plan and Travel Access Guide that have been prepared for LBH will continue to be implemented during the operation of Stage 3C. These plans will be updated regularly in accordance with the Traffic and Accessibility Impact Assessment prepared by TTW at Appendix 15 of this EIS.
Construction Traffic Management Plan	Prior to the commencement of construction, a Final Construction Traffic Management Plan will be prepared, generally in accordance with the preliminary plan prepared by TTW at Appendix 18 of this EIS.
Noise and Vibration	The recommendations of the Acoustic Report prepared by Acoustic Logic at Appendix 14 will be implemented to ensure that any potential adverse construction and operational noise and vibration impacts are adequately managed and mitigated.
Ecologically Sustainable Development	<p>The detailed design of the development is to incorporate all of the ESD principles and measures set out in the ESD Statement prepared by JHG at Appendix 8.</p> <p>The proposal is to demonstrate compliance/consistency with the targets identified in NSWHI Engineering Services Guidelines, specifically those relating to:</p> <ul style="list-style-type: none"> - Sustainability and Energy (Principle 2.5.8); - Potable Water (Principle 2.5.9); and - Materials (Principle 2.5.10). <p>The development 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).</p>
External Lighting	Any external 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. External lighting will be installed so as to not result in any light spill or other lighting-related impacts on the surrounding locality.
CPTED	Lighting, way finding (signage) and CCTV, where appropriate, should be provided to ensure safety and security for the patients and visitors to the site once operational.
Construction Management	<p>Prior to commencement of construction, a detailed Construction Management Plan (CMP) will be prepared which addresses (but is not limited to) the following:</p> <ul style="list-style-type: none"> ▪ Construction noise and vibration ▪ Construction traffic management ▪ 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 ▪ Contact and complaints handling procedures

	<p>The detailed CMP is to be generally in accordance with the preliminary CMP prepared by JHG at Appendix 17 and is to incorporate the construction traffic management measures set out in the plan prepared by TTW at Appendix 18 and the environmental management measures set out in the CEMP prepared by JHG at Appendix 16 of this EIS.</p>
<p>Aviation – CASA consultation outcomes</p>	<p>I. the highest point of the approved Stage 3B1 south tower will be lit with low intensity steady red lights at night as per Section 9.4 of the CASA Manual of Standards. Characteristics for low intensity lights are stated in subsection 9.4.6.1;</p> <p>II. the developer needs to provide information to Lismore Aerodrome, the final constructed height of the building; and</p> <p>III. obstacle lighting is to be maintained in serviceable condition and any outage immediately reported to the aerodrome operator.</p>
<p>Ngulingah Local Aboriginal Land Council Consultation outcomes</p>	<p>Co-signing of internal signage within the NTX development will the local Widjabal language will be considered (and at the discretion of the NNSW LHD).</p> <p>The Land Council will be invited to attend, and will be acknowledged during, the official opening of the NTX development.</p>

12. Conclusion

This Environmental Impact Statement (EIS) is submitted to the Minister for Planning and Environment to accompany a SSDA for Stage 3C of the redevelopment of Lismore Base Hospital (LBH).

In accordance with the requirements of Schedule 2 of the EP&A Regulation, this EIS considers the relevant statutory instruments and strategic documents, built form and social and environmental impacts. Further, this EIS provides an assessment of the environmental risks of the proposed development in accordance with the SEARs issued by the Department of Planning and Environment on 30 January 2018 and sets out the undertakings made by HI to manage and minimise potential impacts arising from the development.

Subject to the mitigation measures outlined in Section 11 of this EIS, we recommend approval of this application for the following reasons:

- The redevelopment will be critical in supporting and improving the medical services provision to the Lismore LGA and the surrounding Region.
- It will enhance the provision of modern healthcare facilities for the NNSW LHD;
- The completion of Stage 3C of the Masterplan for LBH through the construction of the NTX will further support and improve the medical services provision to the Lismore LGA and the wider Northern NSW catchment;
- The site is capable of accommodating the proposed development by virtue of its capacity, size and location;
- The design of the proposal has emerged as a part of the ongoing Stage 3 redevelopment programme at LBH and appropriately responds to, and complements, the design of previous Stages 3A and 3B;
- The design of the NTX responds to the streetscape, environmental effects, heritage, urban form, amenity of the surrounding area (particularly to the low-density precinct to the east and north-east) and the desired future character of the locality which is emerging as a “health precinct”;
- The potential environmental impacts of the proposal as outlined in this EIS are able to be satisfactorily mitigated subject to implementing the recommendations of the technical supporting documentation accompanying this EIS; and
- The proposal will result in the generation of employment during construction and operation which will benefit the site and wider LGA.

The proposal will result in significant social benefits for the local community as outlined in this EIS and in the absence of any unacceptable environmental (and other) impacts, the proposed development is in the public interest.

The EIS fulfils the requirements of the EP&A Act and EP&A Regulation and addresses all relevant matters for consideration prescribed by the SEARs, demonstrating that the potential impacts of the proposal can be satisfactorily managed or mitigated. In light of the above, and the significant public benefits of the proposal, we recommend that the proposal be approved.