Council Assessment Report

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

JRPP No.	2014STH029
DA No.	DA-2014/1510
Proposal	Demolition works and construction of student accommodation - comprising three (3) x 8 storey (part 7 storey) buildings totalling 802 beds, site managers dwellings, communal facilities and courtyards, carparking for 9 visitor spaces, landscaping and site infrastructure works
Property	University of Wollongong (UOW), 2 Northfields Avenue, Keiraville Pt Lot 1 DP 1188267
Applicant	Hutchinson Builders
Responsible Team	Development Assessment and Certification – City Wide Planning Team (AK)

ASSESSMENT REPORT AND RECOMMENDATION

1 Executive Summary

Reason for consideration by Joint Regional Planning Panel

The proposal has been referred to Joint Regional Planning Panel pursuant to Schedule 4A (3) and (5) of the *Environmental Planning and Assessment Act 1979* as the Capital Investment Value (CIV) is greater than $5 (five) Million for the purpose of Crown Development and the development generally has a CIV of greater than $20 (twenty) Million.

Proposal

The development application seeks consent for demolition works and construction of student accommodation - comprising three (3) x 8 storey (part 7 storey) buildings totalling 802 beds, site managers dwellings, communal facilities and courtyards, carparking for 9 visitor spaces, landscaping and site infrastructure works

Permissibility

There are four (4) separate land use zones which relate to the University landholding. The subject development site exhibits the SP2 Infrastructure zone pursuant to Wollongong Local Environmental Plan (WLEP) 2009. The proposal is categorised as student accommodation which is considered to be ordinarily incidental and/or ancillary to the primary use of the site as an Educational Establishment. Educational Establishments are identified as a purpose on the Land Zoning Map and the proposal is therefore considered permissible in the zone with development consent.

Consultation

Exhibition

The proposal was exhibited in accordance with Appendix 1 - Public Notification and Advertising Procedures of Wollongong Development Control Plan (WDCP) 2009 and received 38 (thirty eight) submissions. Following the receipt of additional information including amended plans, the proposal was re-exhibited to the first round respondents and in the Wollongong Advertiser for a 14 day period with 8 (eight) submissions received. A submission has also been received from Neighbourhood Forum 5. The issues raised are discussed at section 3.9 of the report.

External

Consultation has also occurred with relevant external authorities, namely the NSW Rural Fire Service (RFS), NSW Roads and Maritime Service (RMS), NSW Office of Water, Sydney Water, NSW Department of Planning and Environment and Endeavour Energy. In each instance, satisfactory referral advice has been received.

Internal:

Details of the proposal were referred to Council's Geotechnical, Stormwater, Traffic, Environment, SCAT, Strategic, Landscape, Infrastructure and Health Officers for assessment. In each instance, satisfactory referral advice has been received.

Main Issues

The main issues arising from the assessment process include:-

- Car parking and traffic generation.
- Scale and character
- Design matters and locational compatibility
- Section 94A Development Contribution Fee exemption
- Typology of development proposed as relates to relevant statutory provisions and controls.

Further discussion of the issues identified is included throughout the report.

Conclusion

This application has been assessed in accordance with Section 79C (i) of the *Environmental Planning and Assessment Act 1979*, the relevant provisions of State Environmental Planning Policy (Infrastructure) 2007, State Environmental Planning Policy No. 65, WLEP 2009 and WDCP 2009. The proposal is not considered to be in conflict with the objectives sought by these provisions.

The typology of the development with regard to form and function to facilitate student accommodation has guided an approach requiring merit assessment against the relevant statutory provisions and local development controls to inform a position of reasonable compliance, to the extent to which such controls could be considered to reasonably apply in the circumstances, to comparable development.

The preparation of a masterplan for the University landholding and a Keiraville/Gwynneville Access and Movement Strategy have both progressed with commitments of support made by both Council and the University. In terms of preparation of a masterplan the matter has been discussed at executive level and a project brief prepared for future engagement of consultants via a University tender process. The Access and Movement Strategy is currently proposed in Council's Revised Delivery Program to commence in the 2016/17 financial year. Within this process the local community can be actively engaged and ambiguity mitigated with regard to future development intent, thereby assisting development assessment activities and considerations via adopted guidelines and controls. This situation, however, should not prejudice the assessment and determination of this current application on merit.

The exhibition of the proposal has identified two main community concerns – traffic/parking management and the contextual relationship of the proposal in the locality. It is considered that car parking provision for the proposal at the rate of 1 space per 3 students is appropriate as relates to submitted student car ownership data. It is also considered the proposal is not out of context in the University precinct having considered design elements, zoning change transition matters and likely future development intent in the immediate area by the University.

Some of the issues raised in submissions though technically unresolved are considered to be adequately addressed either through design, continued commitment by UOW to strategies and/or management and implementation or by way of conditions of consent. Any remaining issues are not considered to be sufficient to refuse the application.

RECOMMENDATION

It is recommended that development application DA-2014/1510 be approved pursuant to Section 80 and 89 of the *Environmental Planning and Assessment Act 1979* subject to the draft conditions at Attachment 9.

2 APPLICATION OVERVIEW

2.1 PLANNING CONTROLS

The following planning controls apply to the development:

State Environmental Planning Policies:

- SEPP (State and Regional Development) 2011
- SEPP (Infrastructure) 2007
- SEPP No. 55 – Remediation of Land
- SEPP (Building Sustainability Index: BASIX) 2004
- SEPP No. 65 – Design Quality of Residential Flat Development

Local Environmental Planning Policies:

- Wollongong Local Environmental Plan (WLEP) 2009

Development Control Plans:

- Wollongong Development Control Plan (WDCP) 2009

Other policies

- Wollongong Section 94A Development Contributions Plan 2015

2.2 PROPOSAL

The proposal is representative of recent industry trends whereby tertiary institutions are seeking to provide for increased 'on campus' accommodation. The development is intended to complement other existing development in the 'Kooloobong' precinct of the campus.

The development will involve the demolition of fourteen (14) buildings, associated structures and the removal of some trees and other vegetation existing on site. With construction elements consisting of:

- Three (3) buildings of 8 storeys known as building numbers 73, 74 and 75 accommodating a total of 802 student beds in a variety of sizes and layouts. Communal kitchens, dining areas, lounge rooms; computer/study rooms and laundry facilities are located on the two lower levels of each building.
- Two (2) onsite managers' residences located in buildings 73 and 74.
- Ground level visitor car park with 9 spaces.
- Landscaping works, including new tree planting, landscaped courtyards, seating, terraces, pathways and basketball court.
- Site infrastructure works in the form of stormwater management and electrical substations.

The 802 student beds will be arranged in 4 bedroom units each with communal cooking facilities, lounge rooms and balconies.

Pedestrian access to the undergraduate accommodation facility will be via a number of secure access points located in the entry lobby and communal outdoor areas.

This proposal is considered Crown development pursuant to Part 4 Division 4 of the *Environmental Planning and Assessment Act 1979*, as Australian Universities are listed as a 'prescribed person' pursuant to Clause 226(1)(C) of the *Environmental Planning and Assessment Regulation 2000*.

The proposal is considered Integrated Development – Special Fire Protection Purpose land use as defined pursuant to Section 100B of the *Rural Fires Act 1997*.

The proposal is considered to be traffic generating development as defined pursuant to Clause 104 of the State Environmental Planning Policy (Infrastructure) 2007 as the development relates to an Educational Establishment which caters for more than 50 students.

The photomontage at Figure 1 depicts the main entry of the proposed development within the context of the site. The view is looking west towards Robsons Road along Northfields Avenue.

Figure 1 - Perspective looking west

2.3 BACKGROUND

The UOW landholding has had numerous development applications that relate to the current use as a University Campus. Most recently, DA-2014/1474 was conditionally approved by the JRPP for a post graduate student accommodation development located toward the eastern end of Northfields Avenue.

For the current proposal, a prelodgement meeting was held between Council staff and the proponent in October 2014. Matters identified at the meeting have been reasonably addressed within the application submission. Separately the University engaged with the Local Neighbourhood Forum 5 (NF5) via presentations and discussions regarding the proposal prior to lodgement of the application. The Applicant and University also engaged with Council's Design Review Panel during the assessment process which is further discussed at Section 3.1.5.

Customer service actions

The property does not have any outstanding customer service actions.

2.4 SITE DESCRIPTION

The site is located at 2 Northfields Avenue, Keiraville/Gwynneville and the Title reference is Lot 1 DP 1163615. The site is owned by the UOW and is bounded by Illawarra Escarpment lands west of Robson Road, the Botanic Gardens to the South and Mount Ousley Road to the North and East. The total landholding is approximately 89.39 ha. The subject development site is located at the western end of Northfields Avenue as depicted in Figure 2.

Figure 2 - Development Area

The Kooloobong student accommodation facility is currently located on the development site comprising 15 buildings with associated car parking and landscaped areas. The development site generally slopes from the south to the north terminating at an overland flow path and ponds at the northern extremity. Pedestrian pathways linking the main facilities on campus are located along both the northern and southern boundaries of the development site.

The surrounding area consists of campus grounds to the north and east, with Council playing fields and Botanic Gardens to the south. To the west are located open lands which transition into Illawarra Escarpment areas beyond.

Further afield are low density residential areas located to the north, beyond the campus grounds, and to the south west all accessed predominately from Robsons Road.

Property constraints

Council records list the University landholding as being affected by the following constraints:

- Land fill
- Riparian land
- Unstable land
- Acid sulphate soils
- Natural Resource - Biodiversity
- Flood hazard
- Bushfire hazard
- Heritage - Illawarra Escarpment – Conservation Area – Landscape
- Restrictions on the use of land relate to easements for underground cables, padmount substations, drainage, and electricity. It is considered the restrictions on Title do not preclude the proposed development.

Given the extensive area of the University's landholding, the above property constraints are differentiated over the whole site and apply to specific areas only. An investigation of Council's land information system has identified that only the mapped areas for flooding, land fill and unstable land extents apply to the subject development site location.

2.5 CONSULTATION

2.5.1 INTERNAL CONSULTATION

Details of the proposal were referred to Council's Geotechnical, Stormwater, Traffic, Environment, SCAT, Landscape, Strategic, Infrastructure and Health Officers for assessment. Satisfactory referral advice, comment and/or recommended conditions were provided in each instance. Assessment considerations of internal groups as relates to relevant Chapters of the WDCP 2009 are presented at section 3.3.1 of the report.

2.5.2 EXTERNAL CONSULTATION

NSW Office of Water

The proposal was lodged and initially considered as Integrated Development requiring a controlled activity approval pursuant to Section 91 of the *Water Management Act 2000*. A response received on 8 January 2015 identified that the Office does not consider the proposal integrated as the nearby drainage line is piped and the site is not considered waterfront land. Consequently the proposal is exempt from the requirement to obtain a Controlled Activity Approval.

NSW Rural Fire Service

The proposal is considered to be Integrated Development – Special Fire Protection Purpose land use as defined pursuant to Section 100B of the *Rural Fires Act 1997*. A response received on 2 January 2015 contained a Bushfire Safety Authority subject to one condition requiring that the University's Emergency Evacuation Plan be updated to include the proposed additional Student Accommodation facility.

Roads and Maritime Services

The proposal is considered Traffic Generating Development pursuant to Clause 104 of the *State Environmental Planning Policy (Infrastructure) 2007* as the development is proposed in association with a large educational establishment. A response received on 19 December 2014 indicated no objections in principle as the subject development is considered unlikely to have a significant impact on the classified road network. Further, the RMS consider that there are opportunities to better understand the future traffic demands to and around the University which would assist in informing decisions relating to future infrastructure requirements. The RMS provided a number of comments only to Council which were considered by Council's Traffic Officer as part of the assessment process.

The amended proposal was also referred to the RMS for comment who once again raised no objection to the proposed development.

Endeavour Energy

Details of the proposal were referred to Endeavour Energy given the scale of development and proposed new padmount substation. A response received on 17 December 2014 indicated no objections to the proposal and no conditions were recommended in this regard.

Sydney Water Corporation

Given the proposed development would contain up to 802 students and the requirements of Section 78 of the *Sydney Water Act 1994,* the consent authority must give the Corporation notice of the application.

A response received on 22 December 2014 indicated that services are available to the site and requested a condition for a Section 73 Certificate to be included within any consent issued.

NSW Department of Planning and Environment

The Department were consulted in relation to SEPP (State and Regional Development) 2011 as relates to the appropriate statutory determination pathway for the proposal. A response received on 2 June 2014 from a delegate of the Director General identified the JRPP as the appropriate determining authority. This matter is further discussed at section 3.1.1 of this report.

Copies of the responses from the external agencies are provided at Attachment 7.

3. ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 SECTION 79C ASSESSMENT

(1) Matters for consideration—general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

(a) the provisions of:	
(i) any environmental planning instrument, and	See section 2.1
(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and	See section 2.2
(iii) any development control plan, and	See section 2.3
(iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and	See section 2.4
(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates,	See section 2.5
(v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979),	See section 2.6
that apply to the land to which the development application relates,	
(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	See section 2.7
(c) the suitability of the site for the development,	See section 2.8
(d) any submissions made in accordance with this Act or the regulations,	See section 2.9
(e) the public interest.	See section 2.10

3.1 SECTION 79C 1(A)(I) ANY ENVIRONMENTAL PLANNING INSTRUMENT

3.1.1 STATE ENVIRONMENTAL PLANNING POLICY (STATE AND REGIONAL DEVELOPMENT) 2011

State Environmental Planning Policy (State and Regional Development) 2011 applies to certain development that is considered to be of significance to the state. For the purpose of clause 89C of the *Environmental Planning and Assessment Act 1979* development is declared to be of state significance if:

> *8 (1)(a) the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and*
> *(b) the development is specified in Schedule 1 or 2.*

Schedule 1 of SEPP (State and Regional Development) 2011 lists the types of development that are regarded as state significant development. The proposed development is captured by clause 15 of Schedule 1 (below).

15 Educational establishments
Development for the purpose of educational establishments (including associated research facilities) that has a capital investment value of more than $30 million.

The application submitted to Council nominates the capital investment value of the project at $71 million.

However, correspondence received from a delegate of the Director General from the NSW Department of Planning and Environment in June 2014 advised that the appropriate determination pathway for the proposed development to be via a development application submission to Council. Further, the Department do not consider the development to be State Significant Development pursuant to the policy with the understanding that application be referred to the JRPP for determination as the proposal is captured within Schedule 4A of the *Environmental Planning and Assessment Act 1979* as "Crown development over $5 Million" and "Development that has a capital investment value of more than $20 million" generally.

3.1.2 STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007

Division 5 Electricity Transmission or Distribution

Clause 45

Before determining an application a consent authority must advise the electricity supply authority of the application where development proposed is within 5m of an exposed overhead electricity power line. Endeavour Energy advised in writing on the 18 December 2014 that they raised no objection to the proposal.

Division 17 Roads and Traffic

Clause 104 Traffic Generating Development

Clause 104 requires certain traffic generating development to be referred to the NSW Roads and Maritime Services (RMS) for comment within 7 days of the application being made. Schedule 3 of the ISEPP lists an application for a new educational establishment or the enlargement of or extension to an existing educational establishment as requiring referral.

The RMS on 19 December 2014 provided the following comments regarding the application:

> *RMS has reviewed the information provided. RMS will not object to the development application in principle given the subject development is unlikely to have a significant impact on the classified road network due to the relatively low generation rates.*
>
> *Notwithstanding the above, RMS considers there are opportunities to better understand future traffic demands to and around the University. This in turn would help inform decisions relating to future infrastructure requirements.*
>
> *RMS would appreciate the opportunity to continue to work closely with Council and the University to ensure growth at the Wollongong Campus is undertaken in a sustainable manner.*

Following the submission of additional information relating to design, car parking provision and the relationship to the University's Wollongong Campus Transport Strategy – Parking (2014), the proposal was renotified to the RMS with a response received on 11 November 2015 which provided the following comments

> *RMS notes the development application (DA-2014/1510) for the undergrad student accommodation has been lodged concurrently with (DA-2015/1254) for a multi-storey carpark in order to address Council concerns with parking shortfalls with DA-215/1510 previously lodged 2 December 2014.*
>
> *RMS has reviewed both development applications in conjunction. RMS notes a total of 359 spaces (a rate of approximately 1 space per 3 students) have been reserved for the proposed student accommodation facilities to mitigate long term parking impacts on local roads. Based on the information provided, this is likely to result in an additional 21 vehicles per hour in the AM peak and 88 vehicles per hour in the PM utilising the M1 Princes Motorway Ramps. This minor increase is unlikely to have a significant impact on the classified road network. Therefore, RMS does not object to the development applications in principle.*

As such, it is considered the provisions of clause 104 are satisfied in this instance.

3.1.3 STATE ENVIRONMENTAL PLANNING POLICY NO. 55 – REMEDIATION OF LAND

SEPP 55 requires that, when assessing a development application, the consent authority must give consideration to whether the land to which the development application relates is contaminated. If so, consideration must be given to whether the land is suitable (in either its contaminated state or after remediation), for the purpose for which the development is proposed to be carried out.

The SEPP requires the consent authority to consider a preliminary investigation of the land as there may have been previous land uses which may have resulted in contamination. In this case the subject site currently contains 14 detached student accommodation buildings which require demolition.

A Preliminary Contamination Assessment prepared by Coffey Geotechnics Pty Ltd formed part of the application submission. Soil sampling and laboratory testing was undertaken as part of the assessment. The assessment found that, based on available information, the likelihood of contamination was low.

The site is considered to be appropriate for the land use proposed as relates to contamination matters.

3.1.4 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX) 2004

SEPP BASIX applies to the development.

In accordance with Schedule 1 of the Regulations and SEPP 2004 a BASIX Certificate has been submitted in support of the application demonstrating that the proposed scheme achieves the BASIX targets.

3.1.5 STATE ENVIRONMENTAL PLANNING POLICY NO. 65 – DESIGN QUALITY OF RESIDENTIAL FLAT DEVELOPMENT

The proposal is subject to the provisions of State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development (SEPP 65).

> **Note: -** Amendments to SEPP 65, and subsequently the Residential Flat Design Code to the Apartment design guide, came into force on 17 July 2015. However, these changes also included savings provisions for any application lodged prior to 18 June 2015. As this application was lodged on 27 November 2014 assessment of the application has been undertaken against SEPP 65 which was in force at the time of lodgement and subsequently the Residential Flat Design Code.

Clause 3 of the SEPP defines 'Residential flat buildings' as follows:

"Residential flat building" means a building that comprises or includes:

> *(a) 3 or more storeys (not including levels below ground level provided for car parking or storage, or both, that protrude less than 1.2 metres above ground level), and*
>
> *(b) 4 or more self-contained dwellings (whether or not the building includes uses for other purposes, such as shops),*

The SEPP does not provide a definition for 'self-contained dwellings'.

To be deemed as a Residential Flat Building pursuant to this policy, a building must not be classified as a Class 1a or 1b buildings under the Building Code of Australia (BCA).

It is considered the building proposed would be appropriately classified under the BCA as a Class 2 or 3 building. The rooms however, are not considered to be completely self-contained.

> ***Class 2*** *- a building containing 2 or more sole occupancy units each being a separate dwelling.*
>
> ***Class 3*** *- a residential building, other than a building of Class 1 or 2, which is a common place of long term transient living for a number of unrelated persons including – a boarding house, guest house, hostel, lodging house, back-packers accommodation; or the residential part of a hotel or motel; or the residential part of a school; or accommodation for the aged or*

children or people with disabilities; or the residential part of a health-care building that accommodates members of staff; or a residential part of a detention centre.

In this instance, communal laundry facilities and kitchens are proposed. As such, the proposed development may not be considered to include 'self-contained' dwellings and thus would not directly align with the definition of a residential flat building under the SEPP.

Notwithstanding, a merit assessment against this policy has been undertaken demonstrating reasonable compliance with both design principles and relevant controls for a residential flat building, to which the proposed development could be considered as comparable. A copy is provided at Attachment 4.

Clause 50 of the *Environmental Planning and Assessment (EP&A) Regulation 2000* states:

(1A) A development application that relates to a residential flat development, and that is made on or after 1 December 2003, must be accompanied by a design verification from a qualified designer, being a statement in which the qualified designer verifies:

(a) that he or she designed, or directed the design, of the residential flat development, and

(b) that the design quality principles set out in Part 2 of State Environmental Planning Policy No 65-Design Quality of Residential Flat Development are achieved for the residential flat development.

The application was accompanied by a Design Verification Statement. A copy is provided at Attachment 4.

Part 2 Design quality principles

Clauses 9-18 of the SEPP set out ten (10) design quality principles which must be considered in the preparation of the design of the building (Schedule 1(2)(5)(a) EP&A Regulation 2000).

A merit assessment of the proposal against these principles is provided at Attachment 4.

30 Determination of development applications

(1) After receipt of a development application for consent to carry out residential flat development (other than State significant development) and before it determines the application, the consent authority is to obtain the advice of the relevant design review panel (if any) concerning the design quality of the residential flat development.

The Design Review Panel (DRP) utilised at Council (WCC) since 2005 is an independent Panel and is not a Design Review Panel formulated and managed under the terms of SEPP65. The Panel is under autonomous management of Council which enables a high level of discretion, stronger budget management, and more prompt availability of independent professional advisers, whilst still fulfilling many of the aims, objectives and principles of SEPP65.

The proposal was referred to Councils DRP on 19 February 2015. A copy of the DRP comments is provided at Attachment 2. The applicants' response to matters identified by the DRP are included at Attachment 3.

(2) In determining a development application for consent to carry out residential flat development, a consent authority is to take into consideration (in addition to any other matters that are required to be, or may be, taken into consideration):

(a) the advice (if any) obtained in accordance with subclause (1), and

(b) the design quality of the residential flat development when evaluated in accordance with the design quality principles, and

(c) the publication Residential Flat Design Code (a publication of the Department of Planning, September 2002).

A merit assessment of the proposal against the Residential Flat Design Code (RFDC) is provided at Attachment 4.

In summary

As further discussed within section 3.1.6 below, the proposed undergraduate student accommodation is not considered to directly align with the definition of a 'residential flat building' under the SEPP.

Notwithstanding, a merit assessment has been undertaken demonstrating reasonable compliance with the relevant design principles and controls for residential flat buildings, to which the proposed development could be considered as comparable.

The proposed development is not dissimilar to recent student accommodation developments at UOW and other tertiary institutions i.e. Sydney University and Monash University. The proposed development is considered to satisfy the provisions of the SEPP to the extent to which they could be considered to reasonably apply.

Draft condition 124 at Attachment 9 is recommended with regard to the ongoing use of the development for undergraduate student accommodation purposes only.

3.1.6 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

Clause 1.4 Definitions

Educational establishment *means a building or place used for education (including teaching), being:*

(a) a school, or

(b) a tertiary institution, including a university or a TAFE establishment, that provides formal education and is constituted by or under an Act.

Planning Comment:

Due to the proposed building design and use, the typology of the development can lend itself to both a residential flat building and a boarding house when considered in terms of form, function and management of the proposed facility. This combination of uses is considered to be consistent with the definitions contained within WLEP 2009.

> ***residential flat building*** *means a building containing 3 or more dwellings, but does not include an attached dwelling or multi dwelling housing.*
>
> ***Note.*** *Residential flat buildings are a type of* ***residential accommodation****— see the definition of that term in this Dictionary.*
>
> ***boarding house*** *means a building that:*
>
> *(a) is wholly or partly let in lodgings, and*
>
> *(b) provides lodgers with a principal place of residence for 3 months or more, and*
>
> *(c) may have shared facilities, such as a communal living room, bathroom, kitchen or laundry, and*
>
> *(d) has rooms, some or all of which may have private kitchen and bathroom facilities, that accommodate one or more lodgers,*
>
> *but does not include backpackers' accommodation, a group home, hotel or motel accommodation, seniors housing or a serviced apartment.*
>
> ***Note.*** *Boarding houses are a type of* ***residential accommodation****—see the definition of that term in this Dictionary.*

However, permissibility of the proposed development is established under the definition of an ***educational establishment*** which is a permissible use in the prevailing SP2 zone for the specific site area. The University is constituted under the *University of Wollongong Act 1989*. Section 7 of this Act deals with the provision of facilities for students and staff which states:

The University may, for the purposes of or in connection with the exercise of its functions, provide such facilities for its students and staff and other members of the university community as the University considers desirable.

As such, the proposed development is considered to provide facilities for students via on campus accommodation within an ***educational establishment*** as ordinarily incidental or ancillary development to the existing primary land use.

Part 2 Permitted or prohibited development

Clause 2.2 – zoning of land to which Plan applies

There are four (4) separate land use zones which relate to the subject site as follows:

- E2 – Environmental Conservation
- RE1 – Public Recreation
- SP2 – Road
- SP2 – Educational Establishment

The development site is wholly zoned SP2 – Educational Establishment as depicted at Figure 3.

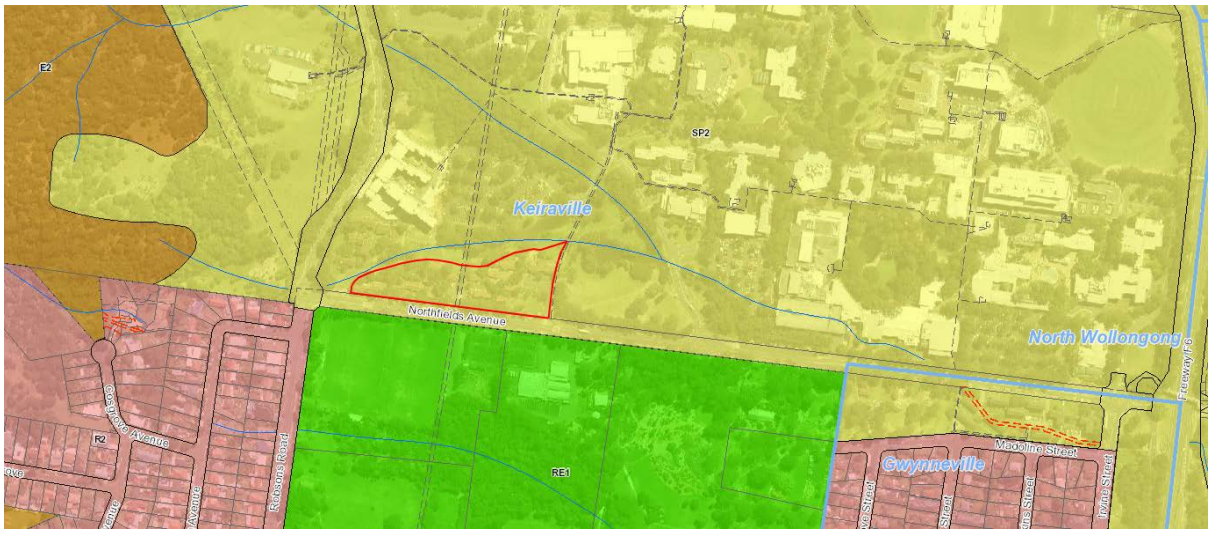


Figure 3: Development Site WLEP 2009 Zoning Map

Clause 2.3 – Zone objectives and land use table

The objectives of the SP2 Infrastructure zone are as follows:

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

The proposal is not considered to be inconsistent with regard to the above objectives as relates to development that is ordinarily incidental or ancillary to an ***Educational Establishment***.

The land use table permits the following uses in the zone.

The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose; *Advertising structures; Business identification signs; Child care centres; Community facilities; Recreation areas; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Respite day care centres; Roads*

The Land Zoning Map identifies the site as for the purpose of an ***Educational Establishment***. The proposed use of the building for student accommodation is considered to be development which is ordinarily incidental or ancillary to the primary use as discussed in Clause 1.4 above.

In this respect, the provision of Student Accommodation is considered desirable by the University and is required to provide for the needs of students and as a response to industry trends.

As such, permissibility of the proposal is considered established.

Clause 4.3 Height of buildings

(1) The objectives of this clause are as follows:

(a) to establish the maximum height limit in which buildings can be designed and floor space can be achieved,

(b) to permit building heights that encourage high quality urban form,
(c) to ensure buildings and public areas continue to have views of the sky and receive exposure to sunlight.

WLEP 2009 Mapping does not identify a height restriction for the site. Notwithstanding, the maximum height of the proposal at 25.9 metres is not considered to be inconsistent with the other buildings within the University campus and the desired future context of the immediate area. The building has been designed with regard to public areas and is considered to provide for adequate sunlight provision. The design of the building is considered to be satisfactory, as relates to high quality urban form and as previously discussed at section 3.1.5 of this report (SEPP 65 considerations) and Attachment 4.

As such, the height of the proposed development is not considered to be inconsistent with the objectives of this clause.

Clause 4.4 Floor space ratio

(1) The objectives of this clause are as follows:
(a) to provide an appropriate correlation between the size of a site and the extent of any development on that site,
(b) to establish the maximum development density and intensity of land use, taking into account the availability of infrastructure to service that site and the vehicle and pedestrian traffic the development will generate,
(c) to ensure buildings are compatible with the bulk and scale of the locality.

WLEP 2009 Mapping does not identify a maximum floor space ratio for the site. The proposed bulk and scale of the building is considered to be appropriate in this instance due to the articulated design, setbacks and the provisions and retention of landscaping which provides an appropriate correlation between the size of the site, being the entire main campus of 53 hectares, and the development footprint of 22,750sqm proposed. The proposed building is not considered to be inconsistent with the bulk and scale of the locality when considering the development within the context of the larger University site, recent developments within the UOW landholding and spatial separation from residential areas.

Part 5 Miscellaneous provisions

Clause 5.9 Preservation of trees or vegetation

(1) The objective of this clause is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation.

Council's Environment and Landscape Officers have considered the submitted Arborists Report for tree removal from the site to accommodate the proposed building. The proposal has been designed to retain the large eucalypts that front Northfields Avenue where possible. Significant landscaping works are proposed within the site area and draft condition 117 is recommended requiring compensatory plantings. The proposal is not considered to be inconsistent with the objectives of this clause in that the development has aimed to preserve the amenity of the area through the preservation of significant trees and other vegetation where possible.

Clause 5.10 Heritage conservation

The University's landholding is identified as containing a heritage item due to the western portion forming part of the Illawarra Escarpment Landscape Area which is identified within Schedule 5 Environmental Heritage of WLEP 2009. The subject development site is approximately 200m from the mapped area and as such, no adverse impacts are expected in this regard. Council's records do not identify other heritage items located in the immediate vicinity of, or visible from the site.

Clause 5.11 Bush fire hazard reduction

The proposal is considered to be Integrated Development – Special Fire Protection Purpose land use as defined pursuant to Section 100B of the *Rural Fires Act 1997*. A response received on 2 January 2015 contained a Bushfire Safety Authority subject to one condition requiring that the University's Emergency Evacuation Plan be updated to include the proposed additional Student Accommodation facility.

It should be noted that the bushfire hazard mapping does not extend to the specific development site within the University landholding.

Any bush fire hazard reduction work that is to be carried out within the site requires consent and is to be authorised by the *Rural Fires Act 1997*.

Part 7 Local provisions – general

Clause 7.1 – Public Utility Infrastructure

Development consent must not be granted on unless the consent authority is satisfied that suitable arrangements can be made for the supply of water, electricity and disposal of sewage. The site is connected to Sydney water and as such has access to water supply and sewage disposal. Electricity is available to the site. Draft conditions are recommended with regard to ensuring that suitable arrangements are in place with the relevant utility provider prior to the issue of the Construction Certificate. This matter was also discussed at section 2.5.2 as relates to external consultations.

Clause 7.3 Flood planning area

The land is identified as being potentially flood hazard affected. The applicant has provided a Flood Study which identifies that the flood affectation mapping of the University landholding does not extend to within the specific development site. Council's Stormwater Officer has assessed the application in this regard and identified no objection to the proposal. Draft conditions are recommended with regard to stormwater and flooding matters.

Clause 7.4 Riparian lands

The Riparian Land Map indicates the University landholding contains riparian land, the nearest being 100m from the subject development site - Category 2 corridor – terrestrial and aquatic habitat.

Council's Environment Officer has reviewed the application in this regard and is satisfied.

The proposal was also lodged and initially considered as Integrated Development requiring a controlled activity approval pursuant to Section 91 of the *Water Management Act 2000*. A response received on 4 December 2014 identified that the Office does not consider the proposal integrated as the nearby drainage line is piped and the site is not considered waterfront land. Consequently the proposal is exempt from the requirement to obtain a Controlled Activity Approval.

Clause 7.5 Acid Sulfate Soils

Whilst the University landholding is mapped as potentially containing Acid Sulfate Soils, the Map does not extend to within the subject development site. Council's Environment Officer has reviewed the application in this regard and is satisfied.

Clause 7.6 Earthworks

The earthworks required for the proposal are considered to be minor in nature. Councils Environment Officer has reviewed the application which included a Site Management Plan in this regard and is satisfied. Draft conditions are recommended with regard to soil erosion and sediment control.

Clause 7.8 Illawarra Escarpment area conservation

The far western portion of the University's landholding is located within the Illawarra Escarpment Area. This area does not extend into the specific development site and as such, has no impact on the proposal. Council's Environment Officer has reviewed the application in this regard and is satisfied.

Clause 7.18 Design excellence in Wollongong city centre and at key sites

The subject development site is not located in the defined Wollongong City Centre area or as being a Key Site on the Key Sites Map. Despite this, considering the scale of the development proposed, it was appropriate for the development to be reviewed by Councils Design Review Panel (DRP) as previously discussed in section 3.1.5.

It is considered a high standard of architectural design and materials have been proposed. The external form and appearance of the development is consistent with that of other University student accommodation developments in the locality and is considered to be satisfactory. Shadow diagrams have been provided with the application submission which demonstrates the proposal will have minimal impacts with regard to overshadowing of adjoining properties.

The proposal is considered to be suitable for the land in the context of the University campus and precinct and may be reasonably expected to result in a positive outcome for the public domain in the locality.

3.2 SECTION 79C 1(A)(II) ANY PROPOSED INSTRUMENT

Not applicable

3.3 SECTION 79C 1(A)(III) ANY DEVELOPMENT CONTROL PLAN

3.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

Section 3.1.6 identified that the proposed student accommodation facility is considered as a use that is ordinarily incidental or ancillary to the primary use of the site as a University (Educational Establishment) as required by clause 2.3 of WLEP 2009 from which permissibility is established.

Notwithstanding, it is considered that the use of the proposed facility is similar to both a '*residential flat building*' and '*boarding house*' pursuant to WLEP 2009 definitions and that it is appropriate the proposal is assessed on merit against the controls in WDCP 2009 as identified below.

CHAPTER D1 – CHARACTER STATEMENTS

Keiraville

Keiraville will remain a leafy suburb with a mix of housing types ranging from detached dwelling-houses, boarding-houses, villas, townhouses and some residential flat buildings. In this regard, additional medium density developments are likely to occur within reasonable walking distance to the University of Wollongong, especially in residential precincts directly to the east and south of the Wollongong Botanic Gardens.

The Keiraville retail and business centre will remain a village centre and will continue to provide for the daily retailing and business service needs of the surrounding residential population and workforce. Higher order retailing and business services will continue to be obtained from Wollongong City Centre and the Fairy Meadow and Figtree town centres.

The proposal is considered to be in keeping with the future desired character for Keiraville when considered in relation to the prevailing SP2 – Educational Establishment zoning of the University landholding pursuant to WLEP 2009. The proposal is located within the UOW landholding and is separated from the nearest residential area by approximately 150 metres and is considered to have a negligible built form impact on residential land uses.

It is also noted that Neighbourhood Forum 5, with the input from the community, UOW, elected Councillors and Council officers have developed a "Keiraville Gwynneville Community Planning Project Report". The report included 10 vision statements for the area which were endorsed by Council in April 2014.

The 10 vision statements as relates to the proposal are as follows:

1. *Keiraville and Gwynneville are villages*
   The proposal is not envisaged to adversely impact the village nature of the area.
2. *Viable shopping centres*
   The development site is located approximately 1 kilometre from both Keiraville and Gwynneville village centres. The proposal is not envisaged to adversely impact on the viability of these centres. No additional commercial premises are proposed as part of this current application.
3. *Building styles to reflect village character*
   The proposed development is considered to be of high quality and appropriately located within the site. The style of the development is not considered to be out of character with the immediate area of the University precinct.
4. *Managing traffic for safety and access*
   Traffic matters are discussed at Chapter E3 below. The proposal is not envisaged to result in unreasonable traffic generation or safety concerns.
5. *Managing parking pressures*
   Traffic and car parking matters are discussed at Chapter E3 below as relates to student car ownership data in combination with the University's sustainable transport initiatives and commitments identified through the report.

6. *A mix of people*
   The proposed building is designed to cater for both domestic and international postgraduate students which are expected to contribute to the mix of people in the locality.

7. *A connected community*
   The efforts of the community with regard to engagement with the University are acknowledged.

8. *Valuing the University while retaining our character*
   The proposed development is not considered to result in adverse impacts upon the village character of the area.

9. *Protected green spaces*
   See Chapter E6 below. The proposal has been designed with regard to retaining significant vegetation where possible with sufficient green space curtilage around the built form.

10. *Protected heritage*
    See Chapter E11 below. No adverse impacts are expected in this regard.

Masterplan / Access and Movement Strategy

The preparation of a masterplan for the University landholding and a Keiraville/Gwynneville Access and Movement Strategy have both progressed with commitments of support made by both Council and the University. In terms of preparation of a masterplan the matter has been discussed at executive level and a project brief prepared for future engagement of consultants via a University tender process as outlined at Attachment 5. The Access and Movement Strategy is currently proposed in Council's Revised Delivery Program to commence in the 2016/17 financial year. Within this process the local community can be actively engaged and ambiguity mitigated with regard to future development intent, thereby assisting development assessment activities and considerations via adopted guidelines and controls.

CHAPTER B1 – RESIDENTIAL DEVELOPMENT

A merit assessment of the proposal against this Chapter has been undertaken demonstrating reasonable compliance with relevant controls and objectives, to which the proposed development could be considered comparable. The assessment is also provided at Attachment 6.

The proposal is not considered to be inconsistent with the objectives of this Chapter.

CHAPTER C3 – BOARDING HOUSES

In addition to the discussion at Chapter B1 above, there is no restriction for a development being considered as both a '*residential flat building*' and a '*boarding house*'.

In this regard, it is considered that the proposal could fall within this definition as each room/dwelling will be wholly or partly let in lodgings and common facilities are provided on the lower ground floor.

A merit assessment of the proposal against this Chapter has been undertaken demonstrating reasonable compliance with relevant controls and objectives, to which the proposed development could be considered comparable. The assessment is provided at Attachment 6.

The proposal is not considered to be inconsistent with the objectives of this Chapter.

CHAPTER E1 - ACCESS FOR PEOPLE WITH A DISABILITY

The proposal has been considered against the requirements of this Chapter and found to be acceptable. A total of 52 of the 802 student accommodation bedrooms are nominated as adaptable and three (3) disabled car parking spaces have been allocated on-site. An Access Consultant has provided an Adaptable Housing Statement of Compliance which confirms that the units can comply with the spatial requirements of AS4299 for Adaptable Housing.

The main parts of the BCA which relate to access, mobility and the provision of sanitary facilities for people with a disability are:

- Part D3 Access and Egress for People with Disabilities;
- Part E Lift Installations; and
- Part F Sanitary Facilities for People with Disabilities.

Draft conditions are recommended at Attachment 9 reinforcing compliance with the National Construction Code (NCC), BCA and relevant Australian Standards in regards to disabled access provisions.

CHAPTER E2 - CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

A CPTED Report has been included with the application submission and reviewed by Council's Safe Community Action Team Officer with satisfactory referral advice received.

The following compliance table relates to the controls within this Chapter:

Control/objective	*Comment*	*Compliance*
3.1 Lighting	Draft condition 24 requires the car parking areas of the site and the entrance points to buildings to be adequately illuminated.	Draft conditions proposed
3.2 Natural surveillance and sightlines	The design of the site provides a clear pedestrian entry point to the site from Northfields Avenue for visitors and from the adjacent visitor car parking area. The proposed entrance, treatment of the building and retention of several large street trees on the Northfields Avenue frontage create an active street frontage. The communal areas proposed between the buildings will allow for casual surveillance of public areas and pedestrian pathways within the university grounds. Fencing and controlled access points are proposed to separate the communal areas of the building from public areas. Draft conditions 25 and 26 are recommended in this regard.	Yes
3.4 Building design	The design of the building is considered to be satisfactory. The entrance to the proposal is clearly defined with access available from Northfields Avenue. The at grade visitor car parking area is also accessible from Northfields Avenue. Opportunities for entrapment are considered to be minimal.	Yes
3.5 Landscaping	The Landscape Concept Plan submitted with the application is considered to be appropriate for the site and does not propose landscaping which has the potential to screen entrances to the building. All surfaces are designed in a way that will allow access for disabled and mobility impaired people. Council's Landscape and SCAT Officers have reviewed the application submission and indicated that they do not object to the proposal. Opportunities for concealment are minimal.	Yes
3.8 Bus stops and taxi ranks	The site is located less than 400m from a major bus stop and taxi rank.	Yes

In response to clarifications requested by Council with regard to the management of the facility, additional information was provided which identified the method of secure access and control, CCTV monitoring and general design aspects. Details of the facilities management arrangements have also been provided. Draft conditions 24-26 inclusive and 122 are recommended at Attachment 9 relating to CPTED provisions including the requirement for an audit report.

CHAPTER E3 - CAR PARKING, ACCESS, SERVICING/LOADING FACILITIES AND TRAFFIC MANAGEMENT

In accordance with part 6 of this Chapter, a Car Parking and Traffic Impact Assessment (TIA) Study was submitted. Modelling of the surrounding intersections and their performance was included within this report. A Construction Traffic Management Plan was also provided with the application submission.

In accordance with part 7 of this Chapter, and as detailed previously in section 3.1.6 the typology of the facility is not considered to directly align with the different land use categories identified within Schedule 1 of the Chapter. Separately car parking and / or other requirements are not defined for a particular land use or in the RTA Guide to Traffic Generating Developments.

During the assessment of the postgraduate student accommodation facility (DA-2014/1474) the JRPP deferred the application for amongst other matters, to consider the cumulative traffic and parking impacts of both lodged student accommodation applications (DA-2014/1474 & DA-2014/1510). The deferral matter in relation to cumulative impact was as follows:

> *1. DA 2014/1474 be deferred so that the Panel can be confident that car parking and cumulative impacts of traffic and parking on the local road network can be resolved in conjunction with DA 2014/1510*

In response to the JRPP deferral the Applicant and UOW proposed a range of strategies and commitments to address the cumulative impact concerns as identified on the updated Transportation Initiatives plan at Attachment 8. One of these strategies was the provision of carparking at a rate of 1 car space per 3 students. This was achieved for DA-2014/1474 with a combination of parking locations nearby the proposed building, whereas the provision of parking for DA-2014/1510 was to be achieved via construction of a new multi-storey carpark containing 275 dedicated car spaces for the intended student residents of buildings 73, 74 and 75. These strategies, including the parking rate of 1 space per 3 students, were considered to adequately address the cumulative impact concerns. Consequently, DA-2014/1474 was approved by the JRPP on 30 July 2015.

Consistent with these commitments, UOW has lodged an application for the required multi-storey carpark (DA-2015/1254) which has been exhibited and is separately recommended for conditional approval. The multi-storey carpark is proposed to contain a total of 359 car spaces and 24 motorbikes, with 275 of the car spaces and 16 motorbike spaces dedicated to DA-2014/1510 as previously committed. This results in a parking rate of 1 space per 3 students consistent with the approval of DA-2014/1474 by the JRPP on 30 July 2015.

As the undergraduate student accommodation application (DA-2014/1510) relies on the provision of parking provided in the multi-storey carpark application (DA-2015/1254) draft condition 107 is proposed (and agreed to by the applicant and UOW) linking the applications together to ensure the required car parking is provided prior to the operation of the student accommodation facility commencing. As such, the following condition is recommended for DA-2014/1510:

> *107 An occupation certificate must not be granted for Buildings 73, 74 or 75 until the multi-storey car park the subject of DA-2015/1254 has been constructed, an Occupation Certificate has been granted for its use and at least 275 car spaces in the multi-storey car park are made available for residents of Buildings 73, 74 or 75.*

As a result, the parking provisions for DA-2014/1510 are as follows:

- 275 car spaces dedicated to buildings 73, 74 and 75 which are to be located within a nearby multi-storey carpark (DA-2015/1254).
- 16 motorbike spaces dedicated to buildings 73, 74 and 75 which are to be located within a nearby multi-storey carpark (DA-2015/1254).
- An at grade visitor carpark located adjacent to building 73 providing a total of 9 spaces being 3 disabled spaces, 2 car share spaces and 4 visitor spaces.
- 2 bicycle storage (Buildings 73 & 75) facilities with capacity a total capacity for 270 bicycles.

The proposed car share spaces (to be provided by a car share operator) are also likely to reduce car ownership. In case studies carried out by the City of Sydney Council it was found that a single on-

street car share vehicle can replace up to 12 private vehicles that would otherwise compete for local parking.

As provided by the applicant, according to car share provider 'Go Get' a car share space in a residential situation could serve up to 70 residents who would otherwise rely on their own vehicle to make occasional shopping or leisure trips. For this reason the allocation of 2 car share spaces within the development is supported by Councils Traffic Officer.

Should demand grow for car share, additional spaces could be allocated within the development or on-street (subject to Council concurrence) to further reduce traffic and car parking impacts.

As such, it is considered that the 275 dedicated student resident car parking spaces located in the nearby multi-storey carpark, in conjunction with the proposed car share scheme which can replace up to 12 private vehicles, will be sufficient to provide for the needs of the future undergraduate facility.

The proposal is therefore not considered to be inconsistent with the objectives of this Chapter and the ongoing efforts by the University to reduce private car use by encouraging a mode shift to alternate transportation through the implementation of a variety of ongoing strategies and strategic actions into the future.

It should also be noted that at the determination meeting for DA-2014/1474 the JRPP modified a condition of consent to include the addition of wording to condition 132 as follows:

> *The addition of the following wording to Condition 132 "The University is to maintain a register of the number of student accommodation agreements and allocated resident car parking spaces for Building 120. This Register is to be made available to both Council and Neighbourhood Forum 5 annually and/or upon request."*

A similar draft condition to the above has also been included at Attachment 9 as follows:

> *The University is to maintain a register of the number of students and allocated resident car parking spaces for Buildings 73, 74 & 75. This Register is to be made available to both Council and Neighbourhood Forum 5 annually and/or upon request.*

Councils Traffic Officer has reviewed the application submission, comments received from the RMS, additional information submitted along with site/locality conditions and submissions received from exhibition. Satisfactory referral advice has been received subject to conditions as included at Attachment 9.

CHAPTER E6 - LANDSCAPING

A Landscape Concept Plan and Arborist Report have been submitted, considered and found to be conditionally satisfactory by Councils Landscape Officer. The Landscape Plan provides for sufficient planting on the site and the proposal has been designed with regard to integrating and maintaining the existing significant trees fronting Northfields Avenue. Draft condition 117 is recommended requiring compensatory planting.

CHAPTER E7 - WASTE MANAGEMENT

An operational Waste Management Plan formed part of the application submission and identifies the process for the ongoing management of waste generated by the proposed building and recommends waste audit and management strategies to provide support for the building design and promote sustainability. Draft condition 123 is recommended requiring that the recommendations of this report be carried out. Council's Traffic Officer has assessed the application submission and provided satisfactory referral advice subject to conditions for waste servicing arrangements.

CHAPTER E11 - HERITAGE CONSERVATION

The University's landholding is identified as containing a heritage item due to western portion of the site forming part of the Illawarra Escarpment Landscape Area which is identified within Schedule 5 Environmental Heritage of WLEP 2009. The subject development site is approximately one kilometre from the portion of land so labelled and as such, no adverse impacts are expected in this regard.

Council's land information system does not identify other heritage items located in the immediate vicinity of, or visible from the development site.

CHAPTER E12 - GEOTECHNICAL ASSESSMENT

The application submission included a Geotechnical Report which has been reviewed by Council's Geotechnical Officer in relation to site stability and the suitability of the site for the development proposed. Satisfactory referral advice has been received subject to conditions.

CHAPTER E13 FLOODPLAIN MANAGEMENT

The University landholding is identified within Councils land information record system as being located within a low, medium and high flood risk precinct. The application submission included a Flood Study which demonstrates that the flood affectation does not extend to the proposed development area. Councils Stormwater Officer has assessed the proposal and provided a conditionally satisfactory referral response in this regard.

CHAPTER E14 STORMWATER MANAGEMENT

A Concept Drainage Plan incorporating On Site Detention (OSD) was provided with the application submission. Councils Stormwater Officer has assessed the proposal and provided a conditionally satisfactory referral response in this regard.

CHAPTER E15 WATER SENSITIVE URBAN DESIGN

A Water Sensitive Urban Design (WSUD) Report was provided with the application submission and considers the overall management of stormwater quality for the site. MUSIC modelling was used to determine the treatment train so that treated stormwater will achieve the water quality objectives of this Chapter. Councils Environment Officer has reviewed the submitted report and is satisfied .Draft conditions are recommended relating to monitoring and management.

CHAPTER E17 PRESERVATION AND MANAGEMENT OF TREES AND VEGETATION

Council's Environment and Landscape Officers have considered the submitted Arborists Report for tree removal from the site to accommodate the proposed building. The proposal has been designed to retain the large eucalypts that front Northfields Avenue where possible. Significant landscaping works are proposed within the site area and draft conditions are recommended requiring compensatory plantings. The proposal is considered to be consistent with the objectives of this clause in that the development has aimed to preserve the amenity of the area through the preservation of significant trees and other vegetation where possible.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The earthworks required for the proposal are considered to be minor in nature. Councils Environment Officer has reviewed the proposal which included a Site Management Plan. The development site is not identified by Councils land information records as being affected by Acid Sulphate Soils and potential for contamination has been discussed at section 3.1.3 of the report. Draft conditions are recommended with regard to soil erosion and sediment control.

CHAPTER E20 CONTAMINATED LAND MANAGEMENT

See SEPP 55 – Remediation of Land comments in section 3.1.3. No issues were identified and the land is considered suitable for the intended use.

CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL

Council's Environment Officer has considered the application submission which included a Site Management Plan and provided a conditionally satisfactory response.

CHAPTER E23 RIPARIAN LAND MANAGEMENT

The Riparian Land Map indicates the University landholding contains riparian land, the nearest 100m from the subject development site being a Category 2 corridor – terrestrial and aquatic habitat.

Council's Environment Officer has reviewed the application in this regard and is satisfied.

The proposal was also lodged and initially considered as Integrated Development requiring a controlled activity approval pursuant to Section 91 of the *Water Management Act 2000*. A response received on 4 December 2014 identified that the Office does not consider the proposal integrated as the nearby drainage line is piped and the site is not considered waterfront land. Consequently the proposal is exempt from the requirement to obtain a Controlled Activity Approval.

3.3.2 WOLLONGONG SECTION 94A DEVELOPMENT CONTRIBUTIONS PLAN (2015)

The estimated cost of works is $71,414,000.00 and would normally attract a Section 94A levy. However, as this development is for privately funded community infrastructure in the form of facilities for the University of Wollongong, Councils Section 94 Officer has considered a written request and granted an exemption from paying the contribution levy pursuant to Clause 13 (J) of the Contributions Plan.

3.4 SECTION 79C 1(A)(IIIA) ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO UNDER SECTION 93F, OR ANY DRAFT PLANNING AGREEMENT THAT A DEVELOPER HAS OFFERED TO ENTER INTO UNDER SECTION 93F

There are no planning agreements entered into or any draft agreement offered to enter into under S93F which affect the development.

3.5 SECTION 79C 1(A)(IV) THE REGULATIONS (TO THE EXTENT THAT THEY PRESCRIBE MATTERS FOR THE PURPOSES OF THIS PARAGRAPH)

92 What additional matters must a consent authority take into consideration in determining a development application?

The application does involve demolition and draft conditions of consent are recommended at Attachment 9.

The proposal is not located within the coastal zone.

93 Fire safety and other considerations

As the subject development application does not seek consent for a change of use, this clause does not apply.

94 Consent authority may require buildings to be upgraded

As the subject development application does not involve the rebuilding, alteration, enlargement or extension of an existing building, this clause does not apply.

3.6 SECTION 79C 1(A)(V) ANY COASTAL ZONE MANAGEMENT PLAN (WITHIN THE MEANING OF THE COASTAL PROTECTION ACT

There is no Coastal Zone Management Plan currently applicable to the land. The site is not located in the coastal zone.

3.7 SECTION 79C 1(B) THE LIKELY IMPACTS OF DEVELOPMENT

Context and Setting:

In regard to the matter of context, the planning principle in Project Venture Developments v Pittwater Council [2005] NSWLEC 191 is relevant in that it provides guidance in the assessment of compatibility. The two major aspects of compatibility are physical impact and visual impact. In assessing each of these the following questions should be asked:

- Are the proposals physical impacts on surrounding development acceptable? The physical impacts include constraints on the development potential of surrounding sites.
- Is the proposals appearance in harmony with the buildings around it and the character of the street?

In response to the first question, matters such as overshadowing, privacy concerns, bulk, scale and setbacks are relevant. The development will result in minor overshadowing of the Botanic Gardens site to the south; however, this overshadowing only falls within the Council owned depot and playing fields which contain large trees along its northern boundary which already overshadow these areas. This is not considered unacceptable given the circumstances of the case. The development site does not have an applicable height or FSR development standard and as such, a merit and design assessment was undertaken as discussed throughout this report which is considered acceptable with

regard to bulk, scale and setbacks. The design of the proposed development is not considered to be unsatisfactory in this instance.

With regard to visual impact, the development is not considered to be out of context with the character of Northfields Avenue either at present or the desired future character of the University precinct. The proposal is not considered to result in unreasonable impacts on views from surrounding properties. It is also considered that due to the spatial separation of the development from low density dwellings no adverse visual impacts will occur. The design of the buildings has considered the existing large eucalypts and proposes to retain these trees to assist in screening the accommodation buildings where possible.

In summary, the proposal has been assessed with regard to visual amenity impacts, zoning, development standards for the land, the existing and future desired character of the area, and is not considered to be inconsistent with the character of the locality.

Access, Transport and Traffic:

The University of Wollongong has developed a transport strategy relating to the implementation and ongoing funding of sustainable transport alternatives such as buses, bicycle paths and carpooling incentives encouraging mode shift away from private car conveyance to attend the university.

The proposal is not considered to be inconsistent with the objectives of Chapter E3 of WDCP 2009 and the ongoing efforts by the University to reduce private car use by encouraging a mode shift to alternate transportation through the implementation of a variety of ongoing strategies and strategic actions, as identified in the Transportation Initiatives Plan at Attachment 8.

It is considered that the 275 student resident car spaces to be provided in the multi-storey carpark (DA-2015/1254) and the introduction of a car share scheme with supplementary bicycle parking is appropriate in the circumstances.

The proposal is considered Traffic Generating Development pursuant to Clause 104 of the State Environmental Planning Policy (Infrastructure) 2007 as the development is proposed in association with a large educational establishment. An updated response received on 11 November 2015 from the RMS indicated no objections in principle as the subject development is considered unlikely to have a significant impact on the classified road network.

Councils Traffic Officer has reviewed the application submission, comments received from the RMS, additional information submitted along with site/locality conditions, the multi-storey carpark application and submissions received from exhibition. Satisfactory referral advice has been received subject to a number of conditions with regard to on site car parking and traffic management as discussed at section 3.3.1 of this report.

Public Domain:

Upon completion, the proposal is expected to contribute positively to the public domain with the upgrading of pedestrian linkages and landscaping incorporating tree retention and a built form of high visual quality.

Utilities:

Existing utility services are available to the subject site and are adequate or able to be augmented to service the proposal. Sydney Water Corporation and Endeavour Energy have provided satisfactory referral responses as discussed at section 2.5.2 of the report.

Heritage:

The specific development site for the development is not located within the mapped heritage conservation area. Council's land information system does not identify other heritage items located in the immediate vicinity of, or visible from the development site. No heritage items are expected to be adversely impacted by the proposal.

Other land resources:

The proposal is not envisaged to impact upon valuable land resources subject to appropriate

management being employed during construction.

Water:

The site is presently serviced by Sydney Water. It is expected that services can be extended and/or augmented to meet the requirements of the proposed development.

No adverse water quality impacts are expected as a result of approval of the proposed development subject to soil and water management measures being implemented during construction.

A Water Sensitive Urban Design (WSUD) Strategy formed part of the application submission, which has been reviewed by Councils Environment Officer and found to be satisfactory.

The proposal is not expected to involve excessive water consumption. A BASIX Certificate formed part of the application submission. The applicant indicates that rainwater collection and reuse are proposed, and water efficient fixtures will be used to assist in reducing potable water use.

Soils:

No acid sulfate soils mapped in the location of the proposed building. The proposal is not envisaged to result in adverse impacts on the soil characteristics of the site.

The application submission included a Geotechnical Report which has been reviewed by Council's Geotechnical Officer in relation to site stability and the suitability of the site for the development. Satisfactory referral advice has been received subject to conditions.

Air and Microclimate:

The proposal is not expected to result in negative impacts on air or microclimate.

Flora and Fauna:

The proposal requires the removal of a number of trees as recommended by the submitted Arborists report. An Ecological Report was also provided as part of the application submission and included a number of recommendations. Councils Landscape and Environment Officers have reviewed the proposal in this regard and identified no objection to the proposal, noting that the large eucalypts along Northfields Avenue are to be retained where possible to assist in the screening of the completed development. Substantial new landscaping works are proposed as part of the development application. Conditions are recommended with regard to tree removal and retention and the implementation of the recommendations of the submitted Ecological Report. No adverse impacts on fauna are expected.

Waste:

An appropriate receptacle is required to be in place for any waste generated during the construction for the proposal. A waste storage room is proposed at the lower ground floor area with sufficient capacity and loading area. Waste collection arrangements have been reviewed by Councils Traffic Officer and found to be satisfactory. An operational Waste Management Plan formed part of the application submission and identifies the process for the ongoing management of waste generated by the proposed building and recommends waste audit and management strategies to provide support for the building design and promote sustainability. Draft condition 123 is recommended requiring that the recommendations of this report be carried out.

Energy:

The proposal is not expected to involve unreasonable energy consumption. In accordance with Schedule 1 of the Regulations and SEPP 2004 a BASIX Certificate has been submitted in support of the application demonstrating that the proposed scheme achieves the BASIX targets.

Further detail provided in additional information submitted indicates that the proposal has a maximum embodied carbon intensity rate of 680kg/CO2/m2. This measure flows through the full life cycle of the building and is considered a higher standard than the Green Star rating requirements. There does not appear to be any current relevant guidelines on how embodied carbon intensity rates are to be calculated.

The proposal has been reviewed by Council's Environment Officer with satisfactory referral advice received.
Noise and vibration: The proposal is not expected to generate unreasonable noise and vibration impacts during construction. These will be limited in duration and can be mitigated through compliance with regulatory standards via consent conditions. An acoustic report formed part of the application submission. The Noise Impact Assessment Report prepared by Acoustic Logic has determined background noise as per the NSW EPA guidelines and various criteria were considered such as for construction noise, internal living spaces and machinery and equipment on buildings. The report has recommended appropriate glazing for the building to comply with internal living space noise criteria and construction noise and vibration management. Councils Environment Officer has reviewed the submitted report and provided a conditionally satisfactory referral response.
Natural hazards: There are no natural hazards affecting the site that would prevent the proposal. The site is identified as being within a low, medium and high flood risk precinct. The application submission included a Flood Study. Councils Stormwater Officer has assessed the proposal and provided a conditionally satisfactory referral response.
Technological hazards: See SEPP 55 – Remediation Of Land in Section 3.1.3. No contamination issues were identified by the submitted Preliminary Contamination Assessment and the land is considered suitable for the intended use. The proposal has been reviewed by Council's Environment Officer with satisfactory referral advice received There are no technological hazards affecting the development site that would prevent the proposal.
Safety, Security and Crime Prevention: The submitted CPTED Report has been provided and assessed by Council's Safe Community Action Team Officer with satisfactory referral advice received.
Social Impact: The proposal is not expected to result in negative social impacts. A Management Arrangement Plan for Student Accommodation has been submitted which identifies the process for managing student behaviour and the behavioural expectations for students whilst on campus. The new facility could indirectly free up other private rental accommodation in the city for other persons to utilise. Condition 122 is recommended with regard to the ongoing management of the facility.
Economic Impact: The proposal is not expected to result in negative economic impacts. Construction activity and increased student accommodation activity could positively contribute to the local/regional economy.
Site Design and Internal Design: The application does not result in exceptions to development standards of WLEP2009. Council has also considered the relevant Chapters of WDCP2009. Reasonable arrangements appear to have been made in relation to amenity, access/egress, car parking, servicing and waste management for the proposal.
Construction: A condition will be attached to any consent granted that all works are to be in compliance with the National Construction Code (NCC)/Building Code of Australia (BCA).
Cumulative Impacts: The proposal is not expected to result in negative cumulative impacts by way of reasonable

compliance with relevant controls for comparable development as evidenced throughout the report. Related applications DA-2014/1474 and DA-2015/1254 have also been considered in the assessment of this application as evidenced throughout the report.

Ecologically Sustainable Development Considerations

Precautionary principle

Means if there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

The environmental impacts associated with proposed development should be accounted for and quantified to an adequate degree of certainty.

Intergenerational equity

Proposed development should ensure that the local environment is maintained or enhanced for future generations in that:

The proposed development should not produce significant negative impacts on the environment or the surrounding development.

The proposal is an effective use of the site.

Conservation of biological diversity and maintenance of ecological integrity

Maintenance of biological diversity will ensure life support functions and can be considered a 'minimal' requirement for intergenerational equity.

Improved valuation and pricing of environmental resources

Establishes the need to determine economic values for ecosystem services provided by the natural environment such as the atmosphere's ability to receive emissions, cultural values and visual amenity.

The proposed development is not considered to be inconsistent with ESD principles as evidenced by the assessment commentary provided throughout the report.

3.8 SECTION 79C 1(C) THE SUITABILITY OF THE SITE FOR DEVELOPMENT

Does the proposal fit in the locality?

The proposal is considered appropriate with regard to the zoning of the site and is not expected to have negative impacts on the amenity of the locality or adjoining developments.

Are the site attributes conducive to development?

There are no site constraints that would prevent the proposal.

3.9 SECTION 79C 1(D) ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS

The application was notified in accordance with WDCP 2009 Appendix 1: Public Notification and Advertising. 38 submissions were received and the issues identified are discussed below.

The application was notified to adjacent/adjoining land owners and occupiers and in the Wollongong Advertiser from 1 December 2014 to the 7 January 2015 in accordance with Appendix 1: Public Notification and Advertising of WDCP 2009. 38 (thirty eight) submissions were received. Following the receipt of additional information including amended plans, the proposal was re-exhibited to the first round respondents and in the Wollongong Advertiser for a 14 day period with 8 (eight) submissions received. A submission has also been received from Neighbourhood Forum 5.

Submissions from public authorities

See section 2.5.2 within this report.

Concern	*Comment*
1. Traffic and Car Parking Matters – The rate of 1 car parking space per 7.5 beds is too low for the proposed development and will result in an unreasonable spill over of student cars spilling out onto the surrounding streets which are already at capacity as evidenced by the submitted Traffic Impact Report. – No further development should occur until sufficient car parking is constructed to meet the current demand. – A number of surrounding streets are already too narrow to allow for cars to be parked on both sides or are restricted by timed parking. – Suggesting that student's park within a 15-20 min walk from the campus is already unsafe as a number of the key walking routes are not provided with formed car parks, forcing pedestrians to walk on the road. – The submitted traffic impact assessment is restricted only to the area immediately surrounding the campus. No consideration has been given to the impact of the increase in cars travelling to the site from Mount Ousley, the M1 off ramp, University Ave, Mount Keira Road etc. – The submitted strategic transport plan is inadequate. The plan outlines a range of strategies which are proposed to be trialled, however gives no alternate solution if they are found to be unsatisfactory or an expected timeframe for the introduction of the methods for student use. – Encouraging an increased use of cycling as a method of transport should not occur until such a time as formal bike paths or cycle lanes are constructed/established. At present, a number of the routes to the University require cyclists to ride on roads that are highly utilised for parking which is not considered to be safe. Further, the cost for the construction of these facilities should be borne by the University and not Council. – The development should not proceed until the Traffic Impact Assessment for the Keiraville/Gwynneville area is carried out as supported by Council in April 2014. This would allow for a more accurate understanding of the traffic and car parking in the area at present. – The construction of the K2 building was approved at a rate of 1 car parking space for every 5 beds and was completed approximately 2 years ago. Since this time, there has been a significant increase in on street car parking of students cars that live on campus on Robsons Road (adjacent to	See section 3.3.1 commentary for Chapter E3 WDCP 2009 of the report. A Car Parking and Traffic Impact Assessment (TIA) Study was provided with the application submission. Modelling of the surrounding intersections and their performance was included within this report. An amended report has also been provided addressing issues raised. A construction traffic management plan was also provided with the application submission and a number of conditions are recommended in this regard. In accordance with part 7 of this Chapter, and as detailed previously in section 3.1.6 the typology of the facility is not considered to directly align with the different land use categories outlined within Schedule 1 of Chapter E3 and separately car parking and / or other requirements are not defined for a particular land use or in the RTA Guide to Traffic Generating Developments. In conjunction with the TIA the relationship with the Wollongong University's Campus Transport Strategy was presented with survey data of the existing car ownership rates for students living within University accommodation. Councils Traffic Officer previously raised issues relating to car parking provision (1 space provided for every 7.6 beds) and, based on the car ownership levels, identified a likely shortfall in residential car parking which could impact on residential streets. Reference is also made to cl.7.4 of this Chapter, which states that Council has the discretion to waive or reduce the number of car parking spaces required for a particular site based on an empirical assessment of car parking or proximity to public transport nodes, provided the reduction is justified within a car parking and traffic impact assessment. On-street car parking restrictions cannot be altered under this DA. Traffic and parking controls are a matter for Council's Local Traffic Committee. During the assessment of the postgraduate student accommodation facility (DA-2014/1474) the JRPP deferred the application for amongst other matters, to consider the cumulative traffic and parking impacts of both lodged student accommodation applications (DA-2014/1474 & DA-2014/1510). The deferral matter in relation to cumulative impact was as follows:

the development). This is evidence that a reduced rate of 1:5 was inadequate and therefore a rate of 1:7.5 should not be considered appropriate. – A peer review of the traffic study should be undertaken by a completely independent firm. – More weight should be put on encouraging motorcycle rather than car use. – The applicant should provide more details about the parking of workers vehicles during construction. Reliance on the Gong Shuttle and parking at campus east is not considered adequate as the shuttle does not start until 7am, with many work sites starting before or at this time. – The number of cars parked in surrounding streets does not allow sufficient room for two cars to pass. More restrictions and clear signage is required on several nearby residential streets. – Need a Access and Movement Strategy – The further lack of parking will impact visitors accessing the Botanic Gardens. <u>Additional matters identified as a result of re-notification</u> – The K2 building was approved at a rate of 1 car parking space per 3 students by the JRPP and a modification was lodged to reduce this rate to 1 car parking space per 5 students. As such, the 1:5 rate should not be used as a baseline. – The development of K2 has had an impact on surrounding streets with student residents parking permanently on Robsons Rd between Northfields Ave and Dallas St. The submitted surveys demonstrate that cars parking on the street have not increased, but do not distinguish between commuter and resident cars. Resident cars are different and the proposed development could result in additional overflow of these resident cars which will impact on surrounding properties. – The TIA only provides solutions for a 1:5 ratio when it should be considering a 1:3 ratio given the experience at K2 with overflow, and the 1:3 used at campus east. – A rate of 1 space per 3 beds is recommended as the minimum rate. – A broader access and movement study should be completed before any additional development in the area.	1. *DA 2014/1474 be deferred so that the Panel can be confident that car parking and cumulative impacts of traffic and parking on the local road network can be resolved in conjunction with DA 2014/1510* In response to the JRPP deferral the Applicant and UOW proposed a range of strategies and commitments to address the cumulative impact concerns as identified on the updated Transportation Initiatives plan at Attachment 8. One of these strategies was the provision of carparking at a rate of 1 car space per 3 students. This was achieved for DA-2014/1474 with a combination of parking locations nearby the proposed building, whereas the provision of parking for DA-2014/1510 was to be achieved via construction of a multi-storey carpark (DA-2015/1254) containing 275 dedicated car spaces for student residents of buildings 73, 74 and 75. These strategies, including the parking rate of 1 space per 3 students, were considered to adequately address the cumulative impact concerns. Consequently, DA-2014/1474 was approved by the JRPP on 30 July 2015. Consistent with these commitments UOW has lodged an application for the required multi-storey carpark (DA-2015/1254) which has been exhibited separately. This multi-storey carpark is proposed to contain a total of 359 car spaces and 24 motorbikes, with 275 car spaces and 16 motorbike spaces dedicated to DA-2014/1510 as previously committed. This results in a parking rate of 1 space per 3 students, consistent with the approval of DA-2014/1474 by the JRPP on 30 July 2015. The proposed car share spaces (to be utilised by a car share operator) are also likely to reduce car ownership. In case studies carried out by City of Sydney Council it was found that a single on-street car share vehicle can replace up to 12 private vehicles that would otherwise compete for local parking. Draft conditions are recommended with regard to construction management and restricted hours of construction work. Councils Traffic Officer has reviewed the application submission, and additional information submitted along with site/locality conditions. Satisfactory referral advice has been received subject to a number of conditions with regard to on site car parking and traffic management.

– The applicant's responses to the matters identified by WCC are inadequate. – The increase in total enrolments and percentage growth of the University is greater than indicated within the submitted documentation. – Mapping within the TIA incorrectly indicates that a bicycle path currently passes the subject site. However, it is noted as a 'future condition' to be provided by Council. Is this infrastructure to be provided at the time of development? – Mapping in the TIA also identifies a cyclepath west of Robsons Rd which is actually an abandoned bike track used for mountain biking. – The TIA is misleading as it indicates Northfields Ave has footpaths on both sides where only one footpath runs directly adjoining the proposed development. – The University has done the bare minimum to satisfy the requirement to consider cycling and pedestrians in its proposal. – Paved footpaths with pram ramps and street lighting should be provided throughout the nearby streets to enhance pedestrian safety. – The road pavement on Northfields Avenue should be renewed. – The Universities plans to build a multi-storey carpark with 'paid parking' will not address the parking impacts on the surrounding residents. A significant portion of students using the accommodation will not opt to pay for parking when it is freely available on the surrounding streets. – The Universities intention to impose parking fees on residents using the multi-storey carpark should be declared to Council. – The proposed ratio of 1 car space per 3 students for the new buildings is an improvement, but this needs to be subject to conditions to ensure that the cars brought to Wollongong by students in residence, when parked, remain on campus and do not spill onto nearby streets. – A certificate of occupation for the proposed development, by or on behalf of the University, should not be granted by Council until the Access and Movement study has been completed. – Existing long term access issues to the University should have alerted the UOW, WCC and RMS of the need for the University to gain a new access road on its north-east part of the main campus. – The number of visitor spaces (9) is grossly deficient and will generate visitor car parking chaos. The visitor car parking spaces should be much higher and variably timed.	A rate of 1 space per 5 occupants is the applicable rate for boarding houses to which the proposal could be considered comparable. It is difficult to distinguish between student resident cars, student day trip cars and resident vehicles. It is unclear as to what time of the day the surveys were taken. As discussed at section 3.3.1 of the report, the on and off site car parking and strategic actions proposed are expected to be sufficient to cater for the expected student resident requirements. The University is seeking to address student travel behaviour by providing incentives for sustainable travel, such as a generous supply of secure bicycle parking, a free bicycle hire scheme, car share. Transport Planning Best Practice suggests that continuing to provide high levels of on-site car parking will increase the propensity to drive to the University. Council and Neighbourhood Forum 5 have been working with the Keiraville Gwynneville community to prepare the Vision for the Keiraville Gwynneville Area. This has resulted in the Keiraville Gwynneville Community Planning Project, which included 10 vision statements for the area, being presented. Council endorsed the 10 vision statements in April 2014. The vision has been separately addressed in Section 3.3.1. The preparation of a Masterplan for the University landholding and a Keiraville/Gwynneville Access and Movement Strategy have both progressed with commitments of support made by both Council and the University. In terms of preparation of a masterplan the matter has been discussed at executive level and a project brief prepared for future engagement of consultants via a University tender process. The Access and Movement Strategy is currently proposed in Council's Revised Delivery Program to commence in the 2016/17 financial year. Within this process the local community can be actively engaged and ambiguity mitigated with regard to future development intent, thereby assisting development assessment activities and considerations via adopted guidelines and controls. This situation, however, should not prejudice the assessment and determination of this current application on merit. It could be considered unreasonable to withhold the determination of development applications for the University precinct in anticipation for this study to be undertaken. Draft conditions 106 and 120 are recommended to ensure that the commitments made by UOW are met and continued with the occupation of

– The Applicant response that the cumulative impact of traffic and parking is resolved as per the approval of DA-2014/1474 by JRPP is not adequate. Further refinements are required. – One of the strategies of the TIA is to reduce the amount of parking for day visitors. It is a concern that daily parking is to be converted to residential campus parking. What is the impact of this conversion of parking on the surrounding area? What provisions are being put forward to ensure this parking is not reverted back to daily use parking when it suits the University. – The University has failed to devise a strategy to discourage campus residents from bringing their cars to campus. No amount of strategies will deter students who see no other way to get to and from their regional home. There is no discussion on how to reduce students bringing cars in the first place.	the development. The subject application relates to a student accommodation development and is not considered to significantly impact student enrolment numbers. Illegal parking on public streets or road reserve, whilst acknowledged are enforcement and/or police matters and are of limited relevance to the assessment process. The baseline ratio for this development is now proposed at a rate of 1 car space per 3 students and is supported by the proposed construction of a multi-storey carpark as per the previous commitment of the University which is considered to adequately minimise impacts on surrounding streets. Any growth in student numbers is subject to a range of variables which are difficult to quantify. However, it is considered that the implementation of a range of incentives and strategies which continue to improve mode shift on campus can accommodate any movements in student numbers. It is considered that pedestrian pathways and cycle-ways identified in the TIA provide background information generally detailing the available movement and wayfinding of people within and surrounding the main campus areas. It is noted that a variety of pathways are available in close proximity to the proposed development to aid in this movement about the campus and surrounds. Issues raised with regard to the general provision of pathways and associated safety separately within road reserves are considered beyond the scope of the application. Wider traffic matters regarding future access to the UOW landholding are considered beyond the scope of this development application. The provision of visitor spaces servicing the student accommodation is considered adequate for short-term drop off and pickup. These spaces will be signposted as such and will allow efficient use of the parking area. At the meeting of 8 May 2015 the JRPP deferred DA-2014/1474 to amongst other matters review the cumulative impacts of traffic and parking on the local road network in conjunction with this application (DA-2014/1510). The applicant responded to this deferral matter with strategies and commitments which were reported to the JRPP, and DA-2014/1474 was subsequently approved. As such, the proposed rate of 1 space per 3 students and associated parking arrangements is achieved for this application via the

	proposed multi-storey carpark (DA-2015/1254). The provision of parking in the multi-storey carpark will not result in a net loss of parking on campus. The multi-storey will provide a total of 359 car spaces with 275 allocated to the undergraduate student accommodation and 84 to cater for the lost existing 'at grade' spaces. It is considered that the strategies committed to by the University will aid in reducing car dependency for students and provide and promote alternate means of transport when residing on campus.
2. The proposal is an overdevelopment of the site and out of character with the surrounding area – The proposal does not comply with the Wollongong Local Environmental Plan 2009 or Development Control Plan 2009 controls for height or density. – The 8 storey height of the buildings proposed is completely out of character with the surrounding area and other development on the campus. – The application does not give adequate consideration for Council controls – The development proposed is not consistent with the character of the surrounding area, which are predominately single dwelling houses in a low density residential environment. – The development is an overdevelopment of the site. – How can good design result when the site is surrounded by R2 single and double storey developments. – The development is non-compliant with the universities own standards and the general character of other buildings on the campus which are mostly 3-4 storeys high. – The location and height of the proposed development will be a visually obtrusive element and will have an unreasonable impact on the views to the escarpment. – The proposal does not meet the desired future character of the area as defined by Chapter D1 of the WDCP 2009. – The suburb vision statement endorsed by Council in April 2014 has not been adequately considered. – Approval will set an undesirable precedent for further high rise buildings on the northern side of the Botanic Gardens. – The proposal will adversely impact the landscaped grounds of the main	The development site does not have an applicable height or FSR development standard as discussed at section 3.1.6 and as such, a merit and design assessment has been undertaken as discussed throughout this report. The scale of the development proposed is considered appropriate in this instance. The development is not considered to be out of context with the character of Northfields Avenue either at present or the desired future character of the University precinct. Chapter D1 of WDCP 2009 states that additional medium density developments are likely to occur within areas in close proximity to the University and is addressed at section 3.3.1. The 10 Vision Statements outlined within the Keiraville Gwynneville Community Planning Project endorsed and by Council in April 2014 have been considered within the assessment of this application at section 3.1.1. The proposal is not considered to be inconsistent with the vision statements outlined within this document. The University is acknowledged within the project as being important to the character of the area. The Vision Statement also places emphasis on the retention of the leafy green areas and places where people can gather. The proposed development is not considered to be inconsistent with the Vision Statement. The management of parking pressures is also considered to be of high importance and is discussed at point 1 above. Student Accommodation developments on Northfields Avenue are acknowledged within the Vision Statement. Matters of concern in this regard are identified as car parking and traffic generation which are have been discussed at point 1 above.

campus. <u>Additional matters identified as a result of re-notification</u> – The submitted traffic report refers to the campus as a University Town. Concerns have been identified with regard to the development of a town without any master plan or site specific controls. – It is of concern that the premise of this student accommodation is that numbers of residential students will accelerate over the next decade. It is concerning that the plan to permanently erect oversize buildings may be based on considerable extent of hope. – The development is being approved in the absence of any strategic planning for the site. It is more reasonable to wait until master planning is complete to decide if the proposed development fits in with the master planning for the site. The master planning will consider the long term impact of the development on the surrounding area. – The proposed development is being considered without considering the cumulative impacts. The post-graduate accommodation, new carpark, this proposal and future development needs to be considered together not independently. – Are these proposed buildings a single high density area or a sign of a future design style to come? – An additional building on the west side of Robsons Rd, north of the Northfields intersection is shown on plan. It is unclear what this building is, it could be further student accommodation.	The proposal is not expected to result in adverse impacts on views to the escarpment with the scale and bulk proposed comparable to other buildings within the University precinct and few permanent viewing sites being impeded by the proposal. The proposed development is located almost 1km from the Keiraville village centre area. The University site is not identified as a town centre (existing or emerging) within Councils retail and business centre hierarchy. The facilities and services available at the site and the planned future developments are envisaged to cater predominately to the University students and staff only, rather than becoming a 'town centre'. Any decision regarding the development of a student accommodation facility is considered a business decision and is not a relevant consideration under S79C of the EP&A Act 1979. The subject site falls under the provisions of Wollongong Local Environmental Plan 2009 and has been assessed against the relevant controls. The absence of a masterplan for the site is not considered an impediment to the full and thorough assessment of the proposal against the controls of the prevailing planning documents at this time. This application has been assessed in accordance with Section 79C of the EP&A Act 1979 and has considered the cumulative impacts of the development. Assessment has been conducted on what is presented as part of this application. No future designs or concepts within the main campus or west of Robsons road are included as part of this application.
3. Design – The design of the proposal is not consistent with the character of surrounding buildings. – Not enough of the units will receive the required amount of sunlight – Inadequate disabled facilities are proposed. – The proposed waste collection requirements need to be further considered – Some of the proposed tree species are not indigenous and have drawbacks.	The proposal was referred to Councils Design Review Panel and responses have been provided by the Applicant to each identified matter which are included at Attachment 3. The design of the proposed development is not considered to be unsatisfactory in this instance. Adequate accessible facilities are proposed for the development as discussed at section 3.3.1 of the report. Councils Traffic Officer has reviewed the waste collection arrangements proposed and has provided a conditionally satisfactory referral response as

– The ecological assessment and Arborist report are inconsistent with regard to tree species identified. – Further work is required to include sustainable design and associated technology. The proposal just complies with the BASIX requirements where additional effort should be made by the University to set a higher standard. – The proposal will result in unreasonable overshadowing of the Botanic Gardens, important tree specimens and established gardens. – There should be a site specific development control plan developed for the site as there has been for the innovation campus to control development. – The University of Wollongong Masterplan has not been made available for public comment or consultation and therefore should not be considered by Council to be adequate to replace normal controls. – The development applications DA-2014/1474 and DA-2014/1510 should be assessed jointly and impacts considered cumulatively.	discussed at section 3.3.1. Draft conditions 123 and 129 are recommended with regard to operational waste management. Further discussion with regard to the implementation of sustainable technologies within the design of the development is included within the SEPP 65 discussion at Attachment 4. Council records indicate that there are no heritage listed trees located in the area described. The closest heritage item to the site is "Gleniffer Brae" and the surrounding garden which is located more than 300m from the site specific development site. Whilst the Wollongong Campus Notional Masterplan assists in developing an understanding of the potential future developments on campus it has not been relied upon by Council as the basis for all required statutory assessment considerations. Both DA-2014/1474 (approved) and DA-2014/1510 (recommended) have been considered in the assessment process, particularly in regards to traffic and parking matters as identified throughout this report.
4. Section 94A Development Contribution Fees – The University should not be granted an exemption to the payment of S94A fees for the following reasons: o The submitted TIA essentially identifies all the surrounding public roads as car parking designated for the use of University students o The Council already has a huge shortfall in funding for infrastructure and requiring the payment as a condition of this DA would assist in closing this gap. o The University operates as a private business and the development application was not lodged by the University and therefore no exemption should be granted. o The continuing decline in the provision of facilities and infrastructure as a result of a lack of Council resources is evident across the LGA. o The proposal will have a large impact on surrounding utilities and therefore they should be required to pay for this impact.	As this development is for privately funded community infrastructure in the form of facilities for the University of Wollongong, Councils Section 94 Officer has considered a request and granted an exemption from paying the contribution levy pursuant to Clause 13 (J) of the Contributions Plan.
5. Use	A management plan has been submitted detailing code of conduct expectations and complaints handling for the facility. Draft condition 122 is

– The proposal, together with DA-2014/1474 will result in a large increase in student numbers on the campus. – Further detail on the use of the units, particularly during University session breaks is required. Other universities sublet the units during session breaks. – Clarification is required on how the codes of conduct will be enforced. – Further details are required on the procedure for handling community complaints.	recommended regarding the Accommodation Agreement and My Residence Rules. Sublet comments whilst acknowledged, are of limited relevance to the assessment. Draft condition 124 is recommended to ensure that the ongoing use of the development is for undergraduate student accommodation directly associated with the University.
6. Incorrect Descriptions & Errors in documentation – The subject site is stated to be 2 Northfields Ave, however the Traffic Impact assessment references Madoline Street. Re-notification with the correct address is required. – Many of the diagrams and maps provided in the proposal documents are inadequate and misleading. They are poorly designed, contain errors, and do not clearly communicate intent.	The primary address by Councils land information records is 2 Northfields Avenue. The documentation provided in support of the application is considered adequate to enable a full and thorough assessment to be conducted.
7. Noise – The existing on campus accommodation and the surrounding area includes a high density of University age students who regularly throw parties and create noise issues. Further developments would exacerbate this issue. – The submitted acoustic assessment considers construction noise impacts only and not operational. The report should be amended. – Construction hours have not been specified.	An acoustic report formed part of the application submission. The Noise Impact Assessment Report prepared by Acoustic Logic has determined background noise as per the NSW EPA guidelines and various criteria were considered such as for construction noise, internal living spaces and machinery and equipment on buildings. The report has recommended appropriate glazing for the building to comply with internal living space noise criteria and construction noise and vibration management. Councils Environment Officer has reviewed the proposal and the submitted Acoustic Report and provided a conditionally satisfactory referral response. Separately the facility provides for an onsite managers residence and the University has submitted a management plan (See point 5 above). Draft condition 90 is recommended with regard to restricted hours of work and draft condition 74 is recommended to ensure that the recommendations of the submitted acoustic report are implemented as described. Draft condition 122 is recommended regarding the Accommodation Agreement and My Residence Rules.

8. Impacts on the Botanic Gardens – There is already very little parking available surrounding the botanic gardens and the proposal will increase the issue. – The impacts caused by the proposal will result in a lowering of visitor numbers to the garden. – Council has recently constructed a car park at the Madoline street entry to the Botanic Gardens which will be impacted by the proposal. – Madoline and the surrounding streets are not able to cope with two such large traffic generating developments. – The proposed height of the development will result in the Botanic Gardens being surrounded by a wall of buildings.	The proposal is not envisaged to result in unreasonable impacts on the Botanic Gardens. Traffic and Parking issues in the locality have been discussed at point 1 above. The proposal is only considered a traffic generating development as identified at section 2.5.2 of the report by association with the University as an Educational Establishment.
9. Community Consultation – The community consultation undertaken throughout the development of the proposal and the notification period has not been reasonable. – The community should have been involved in the preparation of the proposals. – The notification period over the Christmas/new year period should not have been permitted and should therefore be extended. – Consultation that has occurred with the community has been with a select few whose comments should not be considered a representation of the neighbourhood.	Community exhibition has been undertaken in accordance with the requirements of Chapter A1 of WDCP 2009. Separately the University engaged with NF5 prior to lodgement of the application and during the assessment process. Considerations regarding the re-notification of any development application is discretionary as identified in Appendix 1 of the Wollongong Development Control Plan 2009. More particularly the re-notification as relates to this application considered the important issues already identified by the initial exhibition responses and the likelihood of new issues being identified as a result of the additional information submitted by the applicant. In this instance it was considered that the likelihood was low and the direct re-notification to all first round respondents by way of letter enabling at least 14 days, including a weekend, sufficient to review the material and respond.

Some of the issues raised in submissions though technically unresolved are considered to be adequately addressed either through design, continued commitment by UOW to strategies and/or management and implementation or by way of conditions of consent. Any remaining issues are not considered to be sufficient to refuse the application.

3.10 SECTION 79C 1(E) THE PUBLIC INTEREST

The application is not expected to have unreasonable impacts on the environment or the amenity of the locality. It is considered appropriate with consideration to the zoning and the character of the area and is therefore considered to be in the public interest.

3.11 OTHER LEGISLATIVE REQUIREMENTS

3.11.1 Environmental Planning and Assessment Act 1979 –Crown Development

For the purposes of reviewing this determination, the following matters have been considered pursuant to Section 89 of the Environmental Planning and Assessment Act 1979.

Section 88 of the Act states that:

Crown development application *means a development application made by or on behalf of the Crown.*

(2) A reference in this Division to the Crown:

(a) Includes a reference to a person who is prescribed by the regulations to be the Crown for the purposes of this Division, and

(b) Does not include a reference to:

(i) A capacity of the Crown that is prescribed by the regulations not to be the Crown for the purposes of this Division, or

(ii) A person who is prescribed by the regulations not to be the Crown for the purposes of this Division.

This development application has been submitted by Hutchinson Builders on behalf of a crown authority, being the University of Wollongong. This proposal is considered Crown development pursuant to Part 4 Division 4 of the Environmental Planning and Assessment Act 1979, as Australian Universities within the meaning of the *Higher Education Act 2001* are listed as a prescribed person pursuant to Clause 226(1)(C) of the Environmental Planning and Assessment Regulation 2000.

Schedule 1 of the *Higher Education Act 2001* identity the University of Wollongong as an Australian University.

Section 89 of the Act states the following:

89 Determination of Crown development applications

(1) A consent authority (other than the Minister) must not:

(a) Refuse its consent to a Crown development application, except with the approval of the Minister, or

(b) Impose a condition on its consent to a Crown development application, except with the approval of the applicant or the Minister.

Following finalisation of the assessment, Council provided draft conditions to the applicant. The applicant has agreed to the draft conditions imposed as presented at Attachment 9.

3.11.2 University of Wollongong Act 1989

The University of Wollongong Act 1989 establishes the University and provides guidelines for its governance. Clause 7 of the University of Wollongong Act 1989 allows the following:

"The University may, for the purposes of or in connection with the exercise of its functions, provide such facilities for its students and staff and other members of the university community as the University considers desirable."

In this respect, the provision of Student Accommodation is considered desirable by the University to provide for the needs of students. This further supports that Undergraduate Student Accommodation should be considered to be ordinarily incidental or ancillary to the primary use of the site as a University, which is defined as an Educational Establishment and is included as a purpose shown on the Land Zoning Map for the development site.

The University of Wollongong Act 1989 does not include other provisions that are of reasonable relevance to the statutory planning assessment process considerations.

4. CONCLUSION

This application has been assessed in accordance with Section 79C (i) of the *Environmental Planning and Assessment Act 1979*, the relevant provisions of State Environmental Planning Policy (Infrastructure) 2007, State Environmental Planning Policy No. 65, WLEP 2009 and WDCP 2009. The proposal is not considered to be in conflict with the objectives sought by these provisions.

The typology of the development with regard to form and function to facilitate student accommodation has guided an approach requiring merit assessment against the relevant statutory provisions and local development controls to inform a position of reasonable compliance, to the extent to which such controls could be considered to reasonably apply in the circumstances, to comparable development.

The preparation of a masterplan for the University landholding and a Keiraville/Gwynneville Access and Movement Strategy have both progressed with commitments of support made by both Council and the University. In terms of preparation of a masterplan the matter has been discussed at executive level and a project brief prepared for future engagement of consultants via a University tender process. The Access and Movement Strategy is currently proposed in Council's Revised Delivery Program to commence in the 2016/17 financial year. Within this process the local community can be actively engaged and ambiguity mitigated with regard to future development intent, thereby assisting development assessment activities and considerations via adopted guidelines and controls. This situation, however, should not prejudice the assessment and determination of this current application on merit.

The exhibition of the proposal has identified two main community concerns – traffic/parking management and the contextual relationship of the proposal in the locality. It is considered that car parking provision for the proposal at the rate of 1 space per 3 students is appropriate as relates to submitted student car ownership data. It is also considered the proposal is not out of context in the University precinct having considered design elements and likely future development intent in the immediate area by the University.

Some of the issues raised in submissions though technically unresolved are considered to be adequately addressed either through design, continued commitment by UOW to strategies and/or management and implementation or by way of conditions of consent. Any remaining issues are not considered to be sufficient to refuse the application.

5. RECOMMENDATION

It is recommended that development application DA-2014/1510 be approved pursuant to Section 80 and 89 of the *Environmental Planning and Assessment Act 1979* subject to the draft conditions at Attachment 9.

ATTACHMENTS:

1 Architectural Plans

2 Design Review Panel Comments

3 Applicants Response to Design Review Panel Comments

4 Design Verification Statement, SEPP 65 and RFDC Merit Assessment Considerations

5 Masterplan Status

6 WDCP 2009 Merit Assessment – Chapter B1 Residential Development and C3 Boarding Houses

7 External Referral Responses

8 Updated Transportation Initiatives Plan

9 Draft Conditions

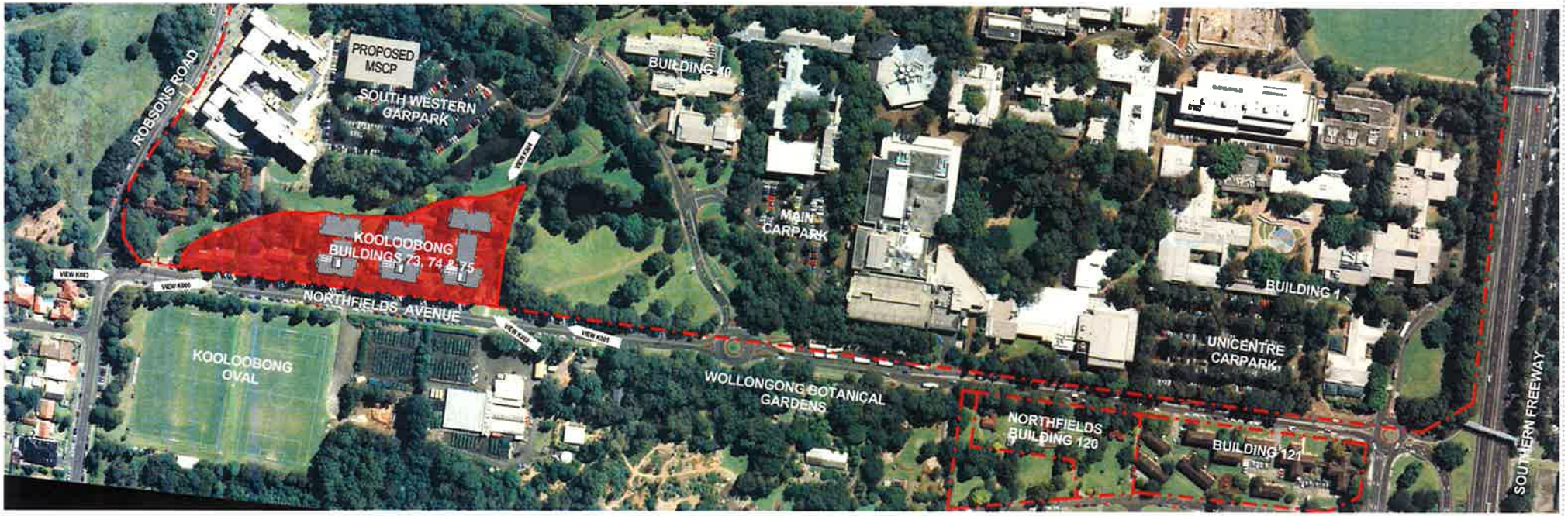
Attachment 1
Architectural Plans

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

UNIVERSITY OF WOLLONGONG STUDENT ACCOMODATION PROJECT
DEVELOPMENT APPLICATION FOR KOOLOOBONG BUILDING 73, 74 & 75
NORTHFIELDS AVE, WOLLONGONG NSW 2522



SHEET LIST		
SHEET NUMBER	SHEET NAME	Current Revision
K0001	TITLE SHEET/LOCATION PLAN	4
K0002	PERSPECTIVE FROM NORTHFIELDS AVE	3
K0003	PERSPECTIVE FROM ROBSONS ROAD	3
K0004	PERSPECTIVE FROM PEDESTRIAN PATHWAY	3
K0005	PERSPECTIVE FROM NORTHFIELDS AVE - LOOKING WEST	2
K0006	PERSPECTIVE FROM NORTHFIELDS AVE - LOOKING EAST	2
0000-0999 - TITLE PAGE/LOCATION PLAN: 6		
K1001	DEMOLITION PLAN	3
1000 - 1099 - DEMOLITION PLANS: 1		
K1101	EXISTING SITE PLAN + ANALYSIS	3
K1102	PROPOSED SITE PLAN	3
K1103	SITE SURVEY - COMPILED	3
K1110	SHADOW DIAGRAM	3
1100 - 1199 - SITE PLANS: 4		
K2001	LOWER GROUND FLOOR PLAN	3
K2002	GROUND FLOOR PLAN	3
K2003	LEVEL 1 FLOOR PLAN	3
K2004	LEVEL 2 FLOOR PLAN	3
K2005	LEVEL 3 FLOOR PLAN	3
K2006	LEVEL 4 FLOOR PLAN	3
K2007	LEVEL 5 FLOOR PLAN	3
K2008	LEVEL 6 FLOOR PLAN	3

SHEET LIST		
SHEET NUMBER	SHEET NAME	Current Revision
K2009	LEVEL 7 FLOOR PLAN	3
K2010	ROOF PLAN	3
2000 - 2199 - FLOOR PLANS: 10		
K3001	SOUTH ELEVATION	3
K3002	NORTH ELEVATION	3
K3003	B73 EAST AND WEST ELEVATIONS	3
K3004	B74 EAST AND WEST ELEVATIONS	2
K3005	B75 EAST AND WEST ELEVATIONS	2
3000 - 3099 - ELEVATIONS: 5		
K3101	SECTION 1 AND SECTION 2	3
3100 - 3199 - SECTIONS: 1		
K8201	EXTERNAL FINISHES SCHEDULE	3
8200 - 8299 - EXTERNAL FINISHES SCHEDULE: 1		

Construction general

Glazing	**Doors / windows:** Aluminium framed, single clear glazing to all units: U-Value (equal to or lower than): 6.57 SHGC (+ or - 10%): 0.74 Given values are NFRC, total window values
Roof / ceiling insulation	**Roof:** Concrete roof, light colour (SA<0.475) with R4.0 bulk insulation to top floor units where roof is above **Ceiling:** Plasterboard with no insulation
Wall / Floor insulation	**External Wall:** Metal cladding with R1.5 bulk insulation **Internal walls within units:** Plasterboard on stud **Inter-tenancy walls:** Fire rated plasterboard on stud with 75mm acoustic insulation (minimum of R1.7) **Floor:** Concrete slab R0.6 bulk insulation to units **73.G.03, 74.G.01, 75G.01 & 75G.04** No floor insulation to any other units **Floor coverings:** Tiles to wet areas carpet elsewhere

NORTH

Amendments		
Issue	Description	Date
1	PREVIOUS DA SUBMISSION	29/11/2013
2	ISSUED FOR INFORMATION	16/05/2014
3	ISSUED FOR INFORMATION	23/05/2014
4	DA SUBMISSION	29/06/2014

Consultants		Consultants	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenico
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shroeve & Associates	Fluid Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J. Hutchinson Builders PTY LTD

Client: Living+Learning Partners

GROUP GSA
Group GSA Pty Ltd ABN 76 002 113 770
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architecture interior design urban design landscape
nom architect M. Shelton 3990

Project Title: **University of Wollongong Student Accommodation Project Development Application for Kooloobong Buildings 73, 74 & 75**

Drawing Title: **TITLE SHEET/LOCATION PLAN**

Drawn by: IG
Checked by: Checker
Drawing Created (date): 10/06/2014

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
1 : 1500 @ A1	13346	K0001	4

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY

BUILDING AND STRUCTURES TO BE DEMOLISHED

EXISTING TREES TO BE REMOVED

EXISTING VIEWS

VIEW 1

VIEW 2

VIEW 3

BUILDING 63

SOUTH WESTERN CARPARK

POND

2 AND 3 STOREYS STUDENT ACCOMMODATION

2 STOREYS BRICK BUILDING TILE ROOF UNITS 26-30 KOOLOOBONG

2 STOREYS BRICK BUILDING TILE ROOF UNITS 24-25 KOOLOOBONG

1 AND 2 STOREYS STUDENT ACCOMMODATION

ROBSONS ROAD

NORTHFIELDS AVENUE

PEDESTRIAN PATHWAY

PARTIAL DEMOLITION & RE-ALIGNMENT OF PEDESTRIAN PATH

SINGLE STOREYS BRICK BUILDING TILE ROOF UNITS 15 KOOLOOBONG

2 STOREYS BRICK BUILDING TILE ROOF UNITS 16-19 KOOLOOBONG

2 STOREYS BRICK BUILDING TILE ROOF UNITS 20-23 KOOLOOBONG

BRICK BUILDING

CARPARK

DRIVEWAY

TO CAMPUS

VIEW 1

VIEW 2

VIEW 3

15 LAND TO BE RELOCATED, REFER TO PROPOSED SITE PLAN ON SHEET K102

SITE PLAN SURVEYS COMPILED FROM:
- JRK SURVEYS
- CRUX SURVEYS
- MASTERS & ASSOCIATES
- OTHER LEASE PLANS FROM UOW

Amendments		
Issue	Description	Date
1	PREVIOUS DA SUBMISSION	29/11/2014
2	ISSUED FOR INFORMATION	05/08/2015
3	DA SUBMISSION	28/09/2016

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GSK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenice
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Ecos Consultant	Efficient Living		

Builder: J Hutchinson Builders PTY LTD

Client: Living+Learning Partners

Group GSA Pty Ltd ABN 76 002 113 778
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nsw architect M Sheldon 3500

Project Title: **University of Wollongong Student Accommodation Project**
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: **DEMOLITION PLAN**

Drawn by: IG
Checked by: Checker
Drawing Created (date):

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As @ A1 indicated	13346	K1001	3

UNIVERSITY TITLE BOUNDARY

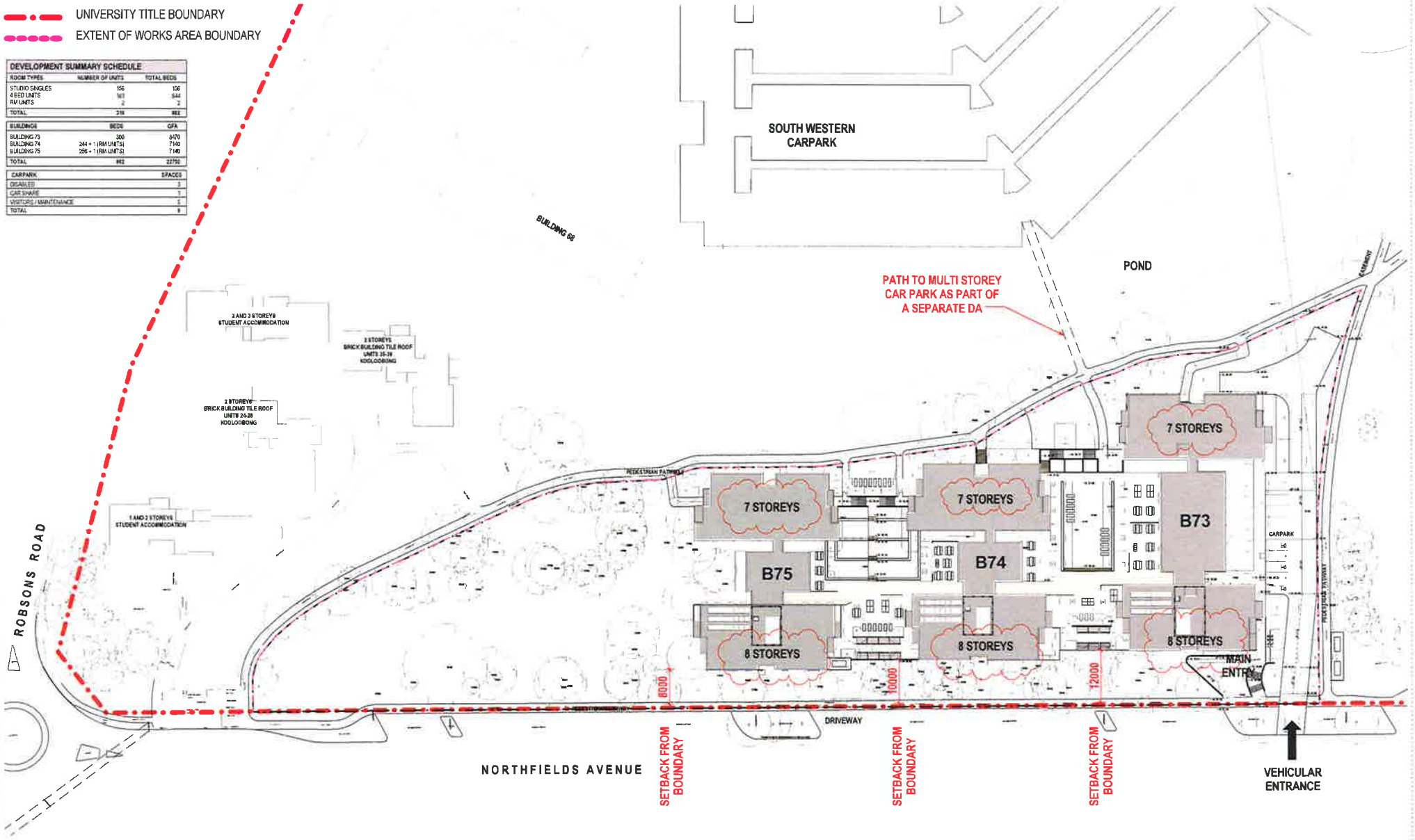
EXTENT OF WORKS AREA BOUNDARY

DEVELOPMENT SUMMARY SCHEDULE

ROOM TYPES	NUMBER OF UNITS	TOTAL BEDS
STUDIO SINGLES	156	156
4 BED UNITS	161	644
RM UNITS	4	2
TOTAL	319	802

BUILDINGS	BEDS	GFA
BUILDING 73	300	8470
BUILDING 74	244 + 1 (RM UNITS)	7140
BUILDING 75	255 + 1 (RM UNITS)	7140
TOTAL	802	22750

CARPARK	SPACES
DISABLED	3
CAR SHARE	1
VISITORS / MAINTENANCE	5
TOTAL	9



Amendments		
Issue	Description	Date
1	PREVIOUS DA SUBMISSION	25/11/2014
2	ISSUED FOR INFORMATION	19/06/2015
3	DA SUBMISSION	21/08/2015
4	ISSUED FOR INFORMATION	28/11/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenice
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J Hutchinson Builders PTY LTD

HUTCHINSON BUILDERS Established 1913

Client: Living+Learning Partners

Living+Learning Partners

UNIVERSITY OF WOLLONGONG

GROUP GSA

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nsw architect M. Sheldon 3699

Project Title: University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: PROPOSED SITE PLAN

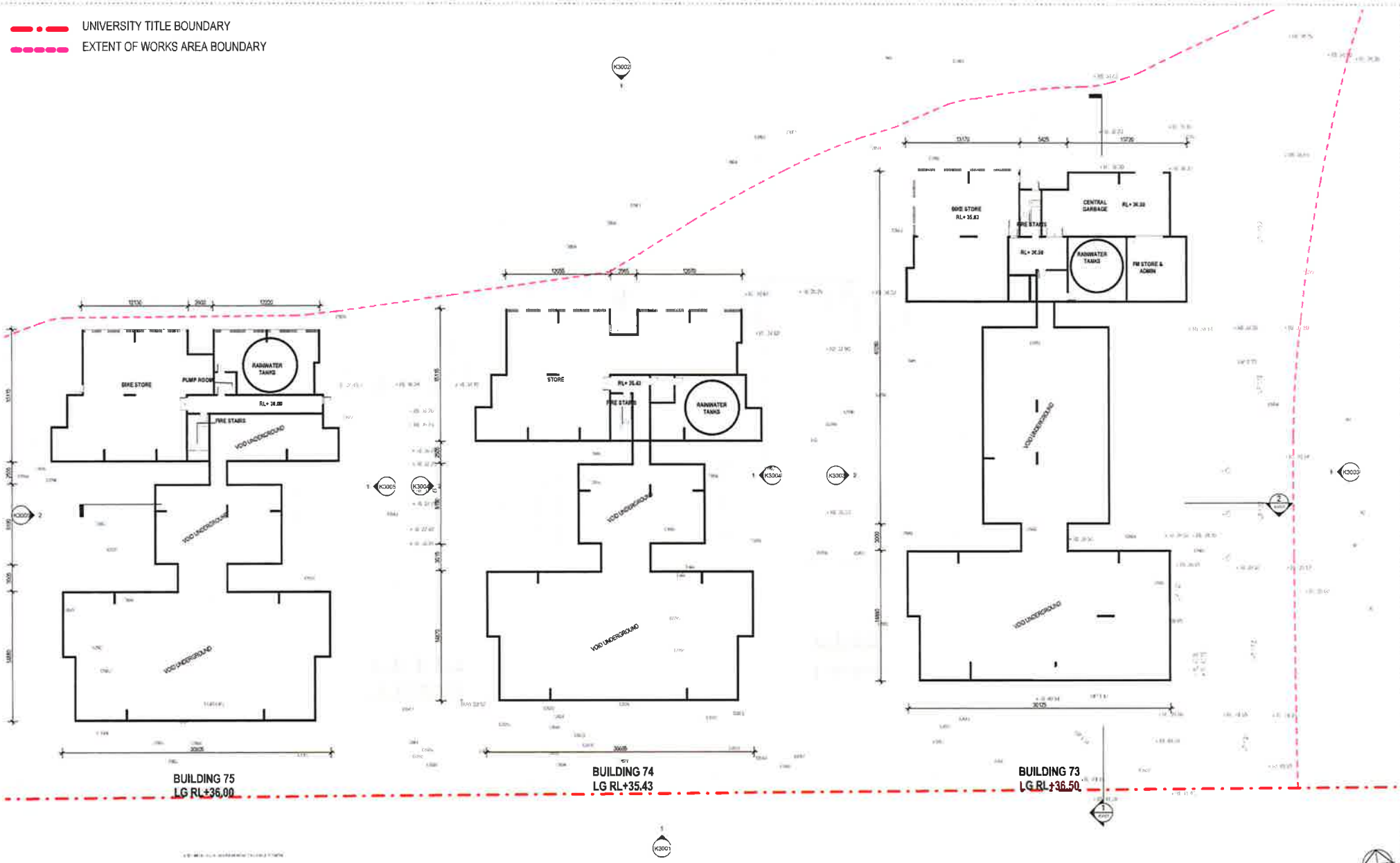
Drawn by: IG
Checked by: Checker
Drawing Created (date):

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As @ A1 indicated	13346	K1102	4

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY



Amendments		
Issue	Description	Date
1	PREVIOUS DA SUBMISSION	25/11/2014
2	ISSUED FOR INFORMATION	17/03/2015
3	DA SUBMISSION	29/06/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenlee
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J Hutchinson Builders PTY LTD

Client: Living+Learning Partners

GROUP GSA
Group GSA Pty Ltd ABN 76 002 113 779
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architecture interior design urban design landscape
nom architect, M Sheldon 3580

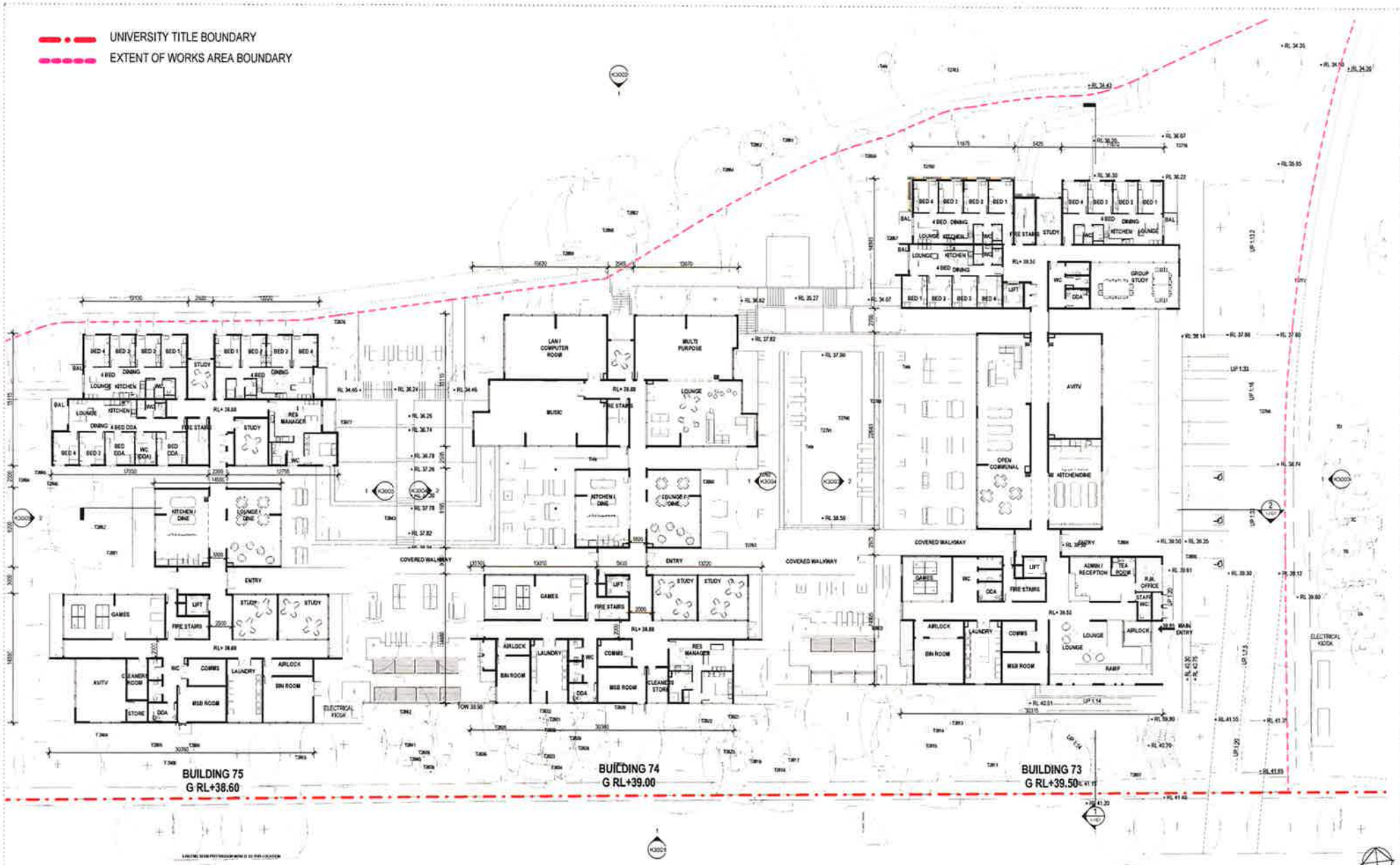
Project Title: University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: LOWER GROUND FLOOR PLAN

Drawn by IG
Checked by Checker
Drawing Created (date) 2/09/15

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As @ A1 unless stated	13346	K2001	3



Amendments		
Issue	Description	Date
1	PRELIMINARY DA SUBMISSION	25/11/2014
2	ISSUED FOR INFORMATION	16/05/2015
3	DA SUBMISSION	29/05/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	DDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenica
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J. Hutchinson Builders PTY LTD

Client: Living+Learning Partners

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nom architect M. Shelton 3090

Project Title: **University of Wollongong Student Accommodation Project**
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: **GROUND FLOOR PLAN**

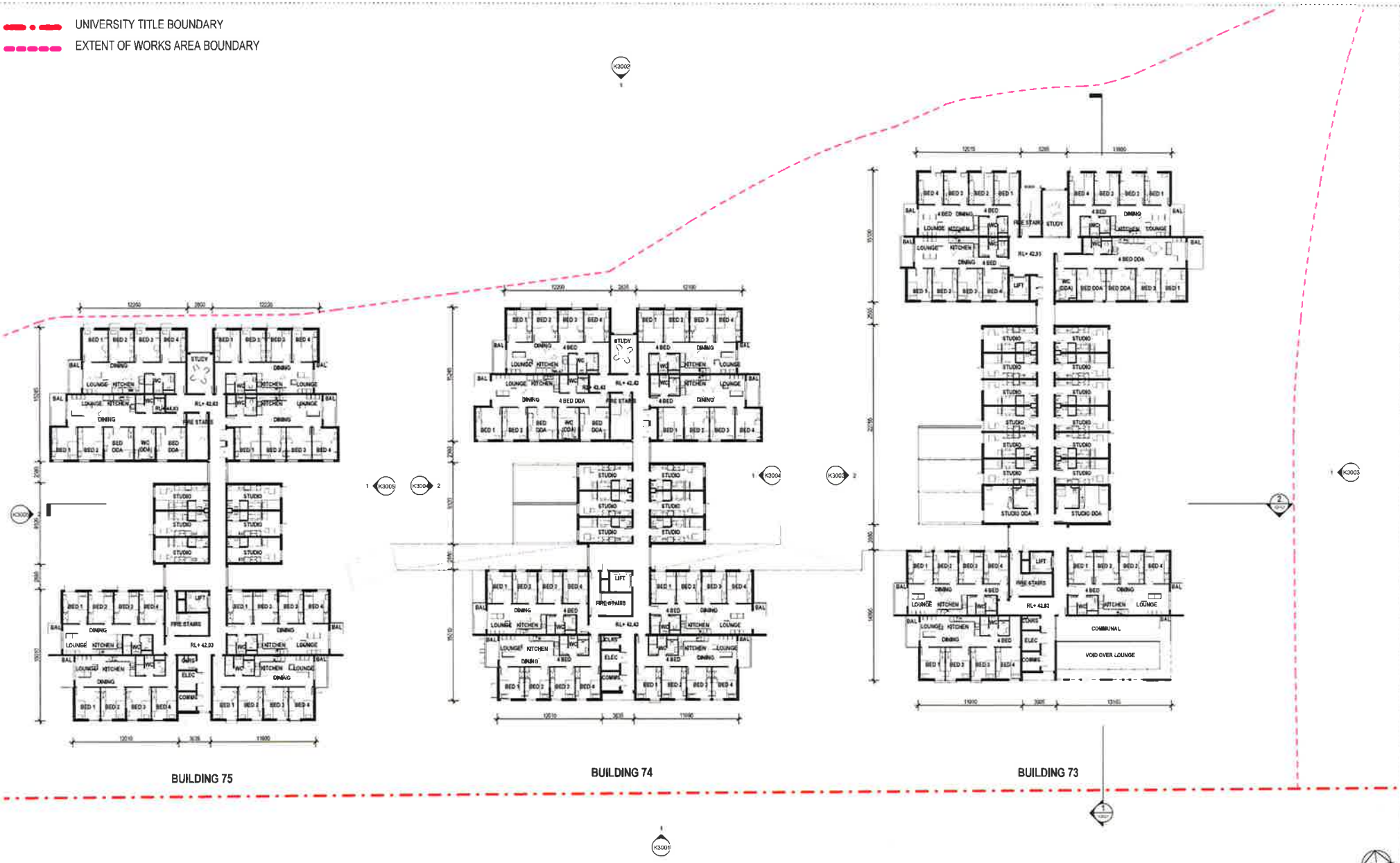
Drawn By: KG
Checked By: Checker JC
Drawing Checked (Date):

Project Status: ISSUE FOR DA

Scale	Project No.	Drawing No.	Issue
As @ A1 unless noted	13346	K2002	3

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY



Amendments		
Issue	Description	Date
1	PREVIOUS DA SUBMISSION	23/11/2014
2	ISSUED FOR INFORMATION	18/05/2015
3	DA SUBMISSION	29/09/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenice
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J. Hutchinson Builders PTY LTD

Client: Living+Learning Partners

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nom architect M. Sheldon 3990

Project Title: **University of Wollongong Student Accommodation Project**
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: **LEVEL 1 FLOOR PLAN**

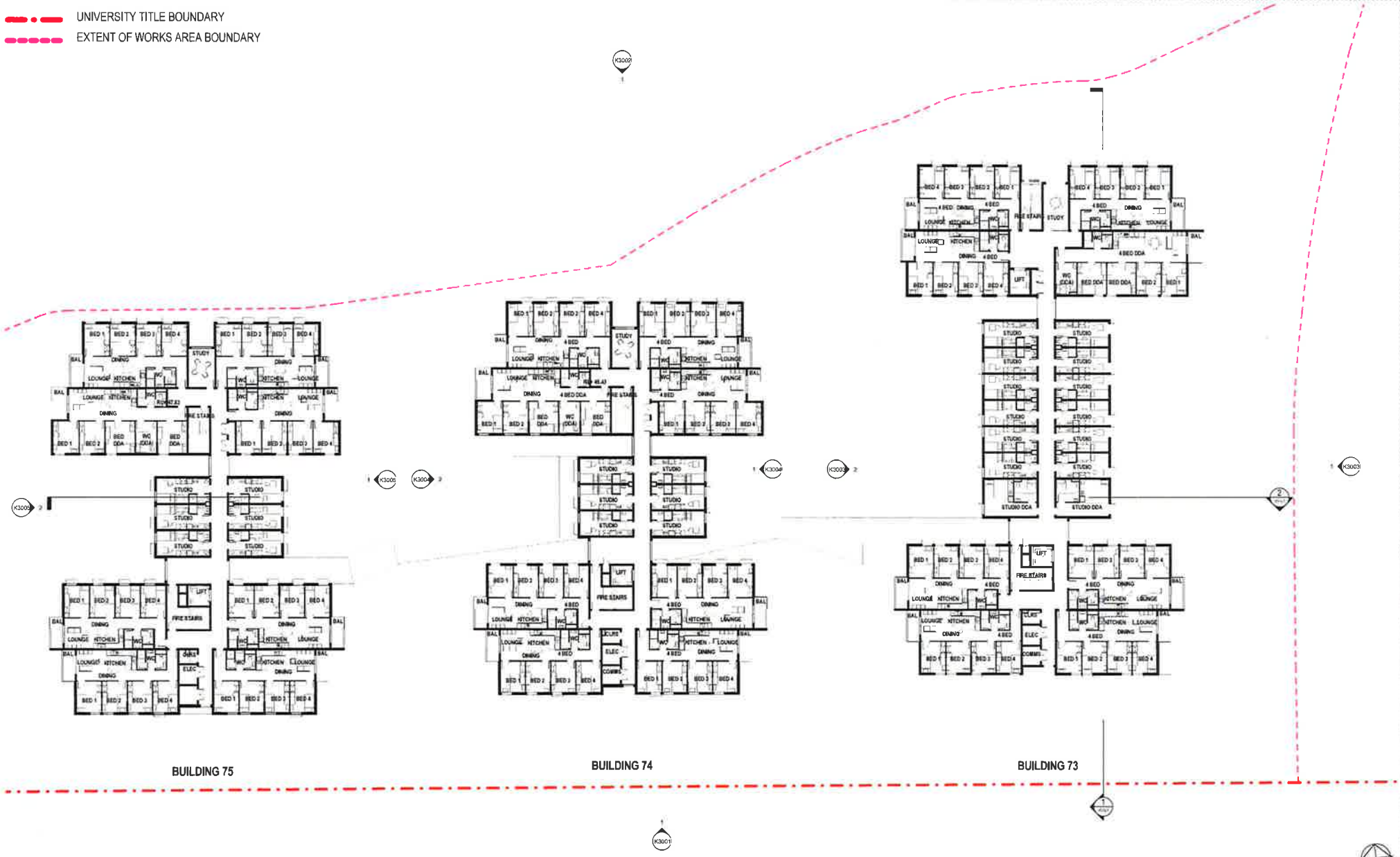
Drawn by: KC | Checked by: Checker | Drawing Created (date)

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As @ A1 included	13346	K2003	3

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY



NORTH

Amendments		
Issue	Description	Date
1	PRELIMINARY SUBMISSION	25/11/2014
2	ISSUED FOR INFORMATION	11/09/2015
3	DA SUBMISSION	29/09/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Accoustic Logic Consultancy	Hydraulics Engineer	DDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lonice
BCA Consultant	City Plan Services	Landscape Architect	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J. Hutchinson Builders PTY LTD

Client: Living+Learning Partners

GROUP GSA

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architecture interior design urban design landscape
nsw architect: M Sheldon 3930

Project Title: **University of Wollongong Student Accommodation Project**
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: **LEVEL 2 FLOOR PLAN**

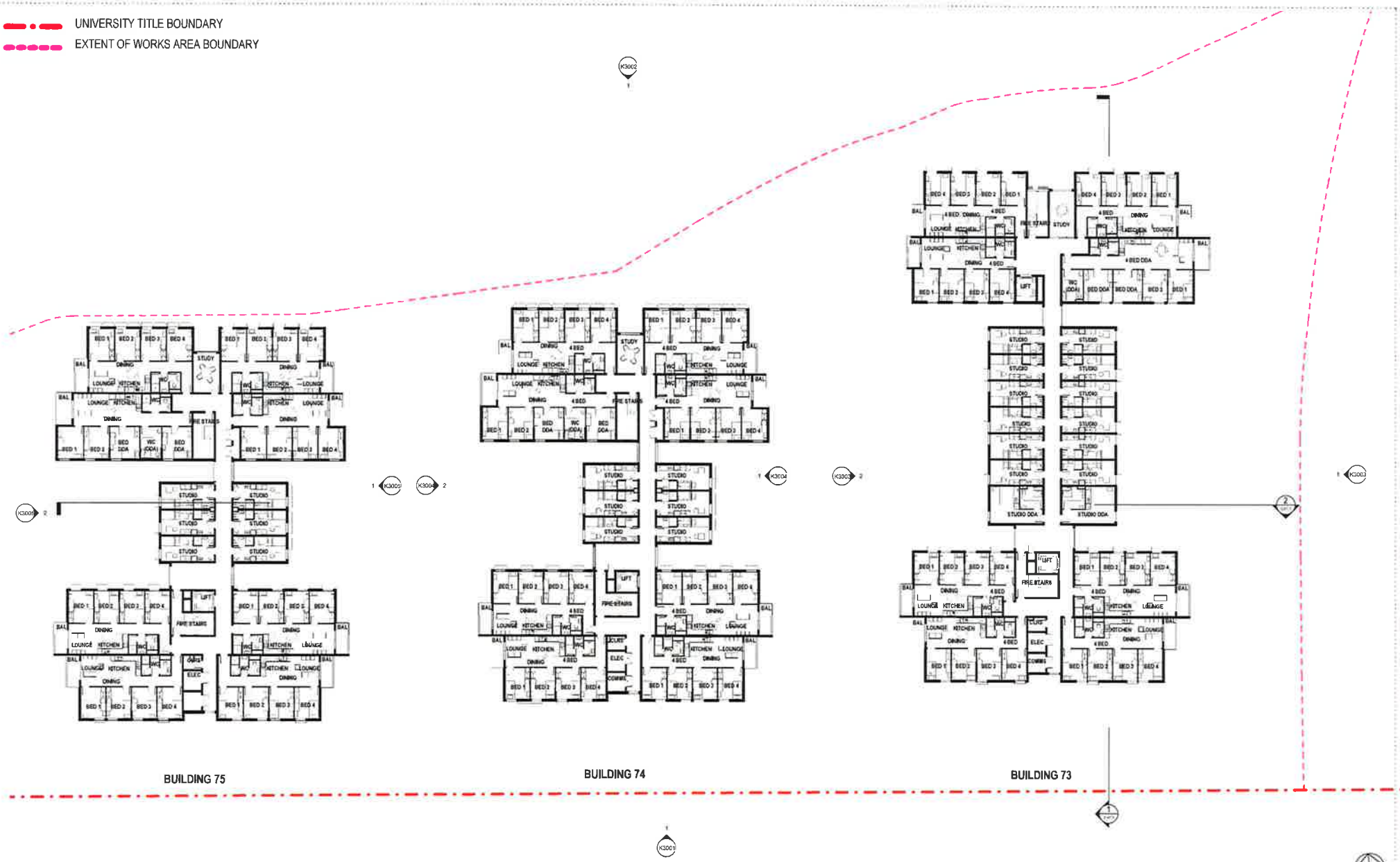
Drawn by: IG
Checked by: Checker
Drawing Created (Date):

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As Indicated @ A1	13346	K2004	3

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY



Amendments		
Issue	Description	Date
1	PREVIOUS DA SUBMISSION	25/11/2014
2	ISSUED FOR INFORMATION	18/05/2015
3	DA SUBMISSION	21/05/2015

Consultant		Consultant	
Director of Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDR Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenice
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J Hutchinson Builders PTY LTD

Client: Living+Learning Partners

Group GSA Pty Ltd ABN 76 002 112 778
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nsw architect M Sheldon 3960

Project Title: University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: LEVEL 3 FLOOR PLAN

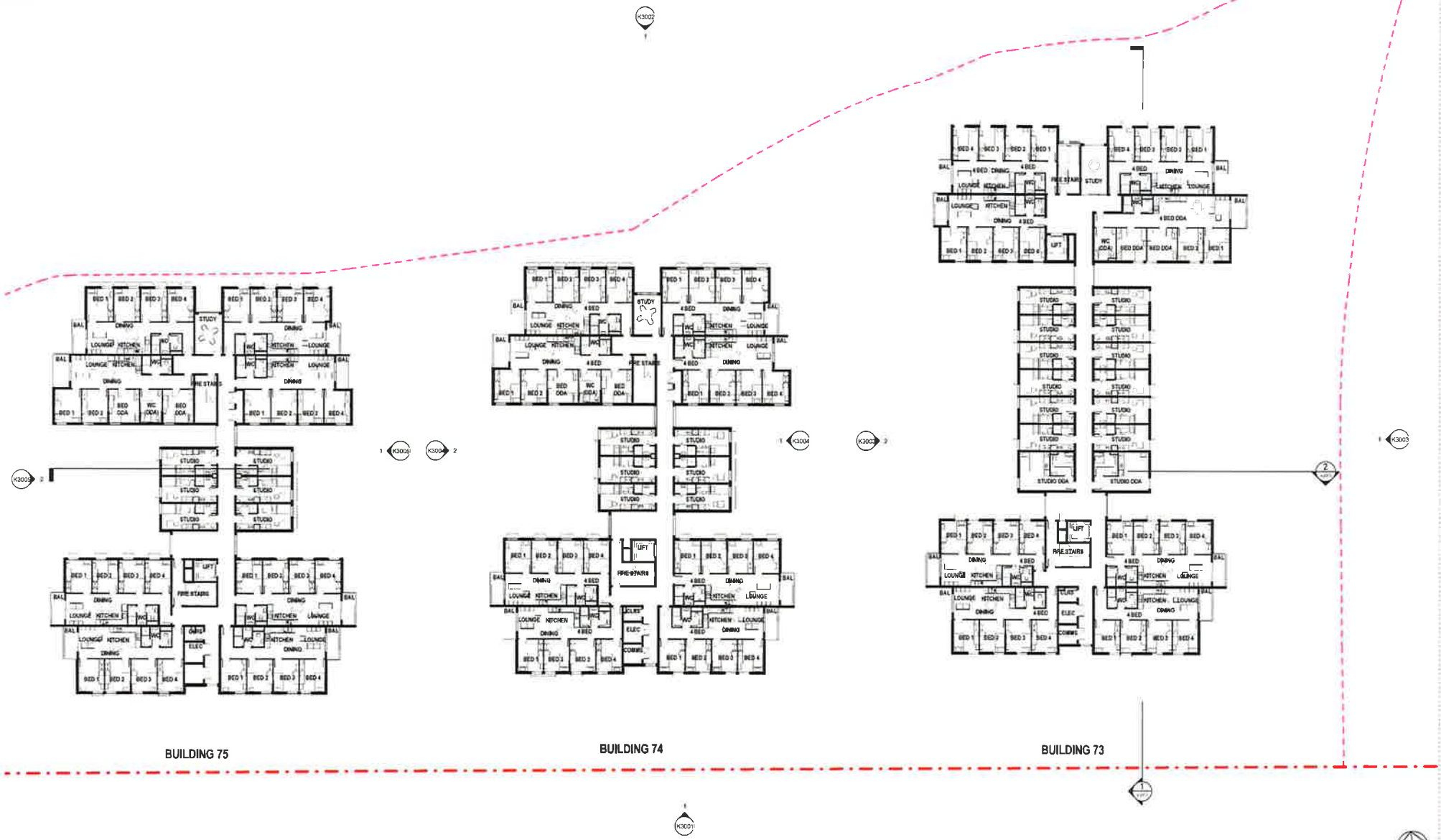
Drawn By: KG
Checked by: Checker
Drawing Created (date):

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As @ A1 indicated	13346	K2005	3

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY



NORTH

Attachments		
Issue	Description	Date
1	PRELIMINARY DA SUBMISSION	20/11/2014
2	FOR RE-ISSUE FOR INFORMATION	18/05/2015
3	DA SUBMISSION	29/05/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenico
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J Hutchinson Builders PTY LTD

Client: Living+Learning Partners

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architecture interior design urban design landscape
nsw architect M Sheldon 3990

Project Title: University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: LEVEL 4 FLOOR PLAN

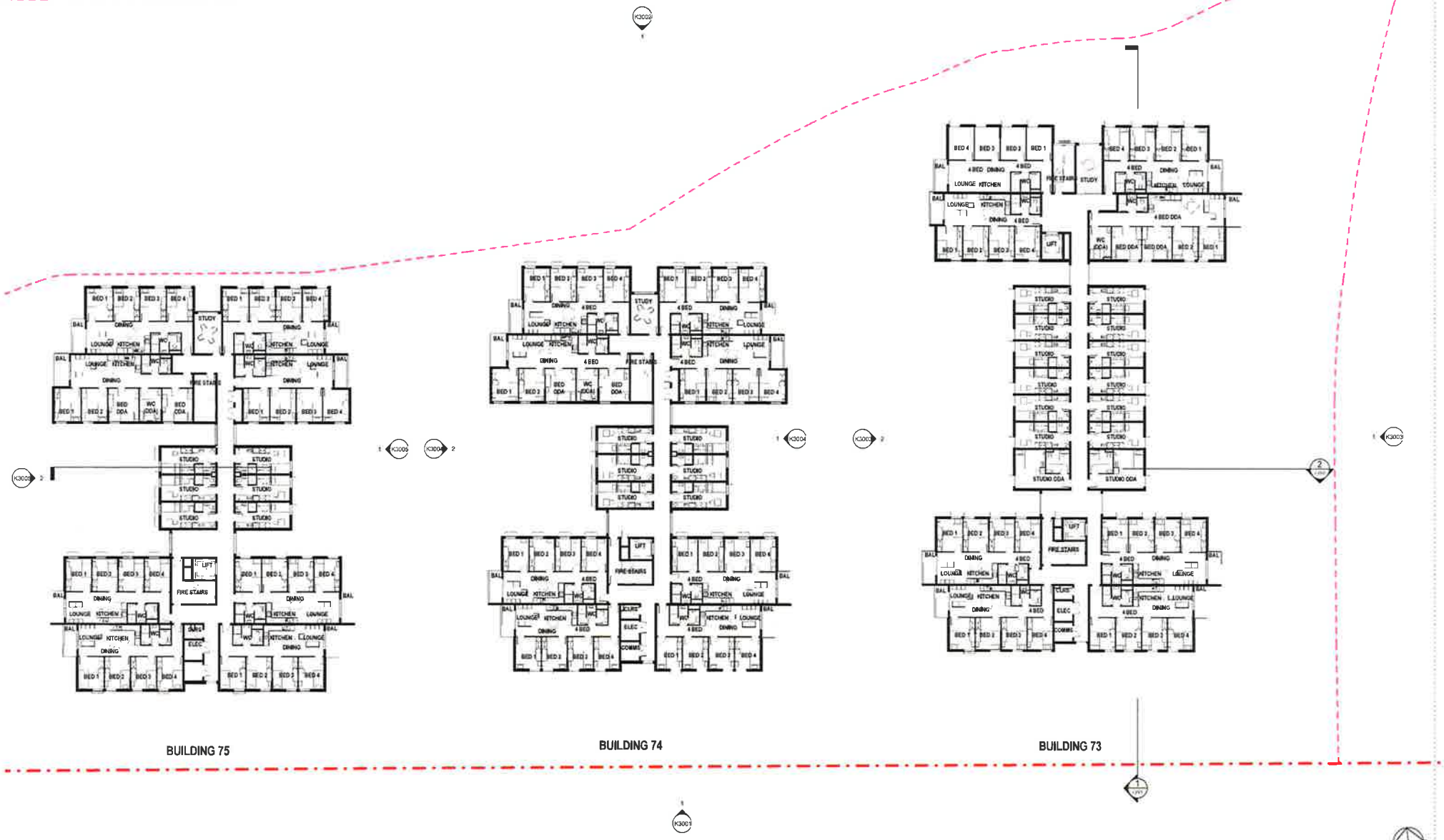
Drawn By: KD
Checked By: Checker
Drawing Checked (date):

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As @ A1 indicated	13346	K2006	3

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY



Amendments		
Issue	Description	Date
1	PREVIOUS DA SUBMISSION	25/11/2014
2	ISSUED FOR INFORMATION	14/05/2015
3	DA SUBMISSION	29/09/2015

Consultant		Consultant	
Electrical Services	Allurion Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenoc
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainable/Ecology Consultant	Efficient Living		

Builder: J. Hutchinson Builders PTY LTD

Client: Living+Learning Partners

GROUP GSA
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Australia 2011
www.groupgsa.com
T +612 9361 4144 F +612 9332 3450
architecture interior design urban design landscape
nsw architect: M. Sheldon 3990

Project Title: **University of Wollongong Student Accommodation Project**
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: **LEVEL 5 FLOOR PLAN**

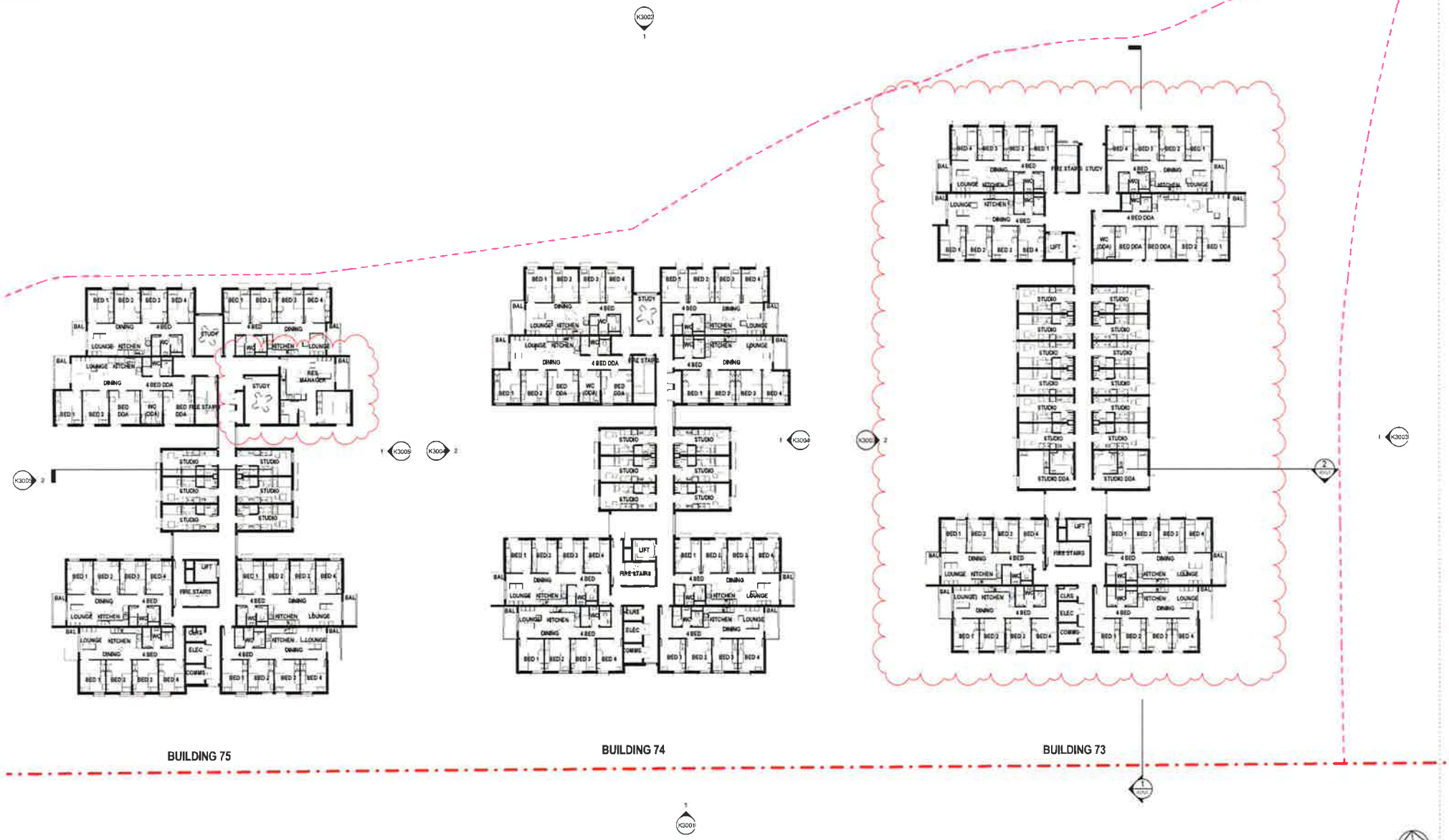
Drawn by: IG
Checked by: Checker
Drawing Checked (date):

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As @ A1 unless noted	13346	K2007	3

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY



Amendments		
Issue	Description	Date
1	PRELIMINARY SUBMISSION	25/11/2014
2	ISSUED FOR INFORMATION	18/05/2015
3	DA SUBMISSION	29/05/2015
4	ISSUED FOR INFORMATION	09/11/2015

Consultant		Consultant	
Electrical Services	Allianoo Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Interior	Landscapes by Lenios
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J Hutchinson Builders PTY LTD

HUTCHINSON BUILDERS Established 1912

Client: Living+Learning Partners

Living+Learning Partners

UNIVERSITY OF WOLLONGONG

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Project Title: **University of Wollongong Student Accommodation Project**
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: **LEVEL 6 FLOOR PLAN**

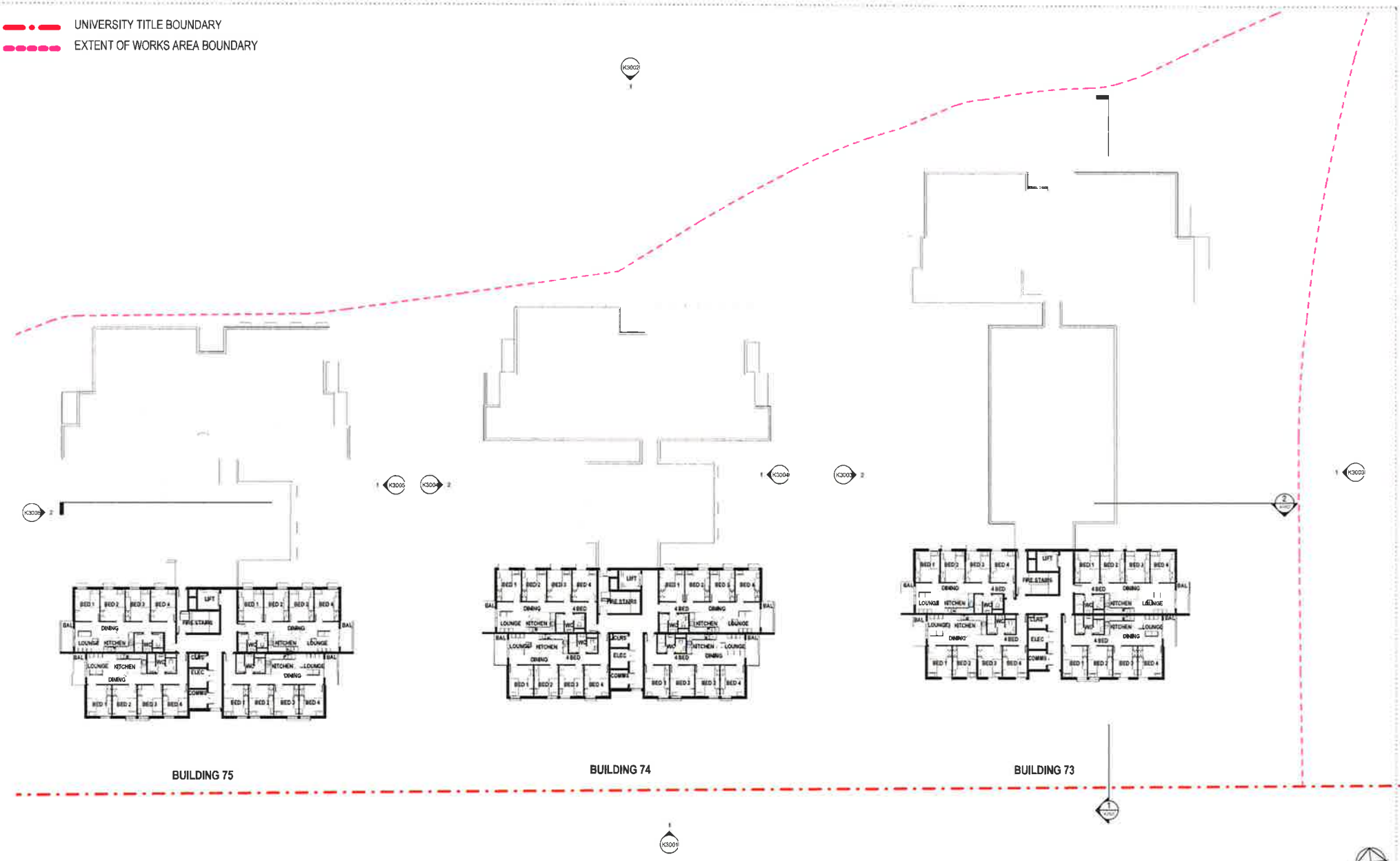
Drawn by: IG
Checked by: Checker JC
Drawing Created (date):

Project Status: ISSUE FOR DA

Scale	Project No.	Drawing No.	Issue
As Q'All indicated	13346	K2008	4

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY



Amendments		
Issue	Description	Date
1	PREVIOUS DA SUBMISSION	21/11/2014
2	ISSUED FOR INFORMATION	16/05/2014
3	DA SUBMISSION	29/05/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Artwork	Landscapes by Lenice
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder: J Hutchinson Builders PTY LTD

Client: Living+Learning Partners

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Project Title: **University of Wollongong Student Accommodation Project**
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: **LEVEL 7 FLOOR PLAN**

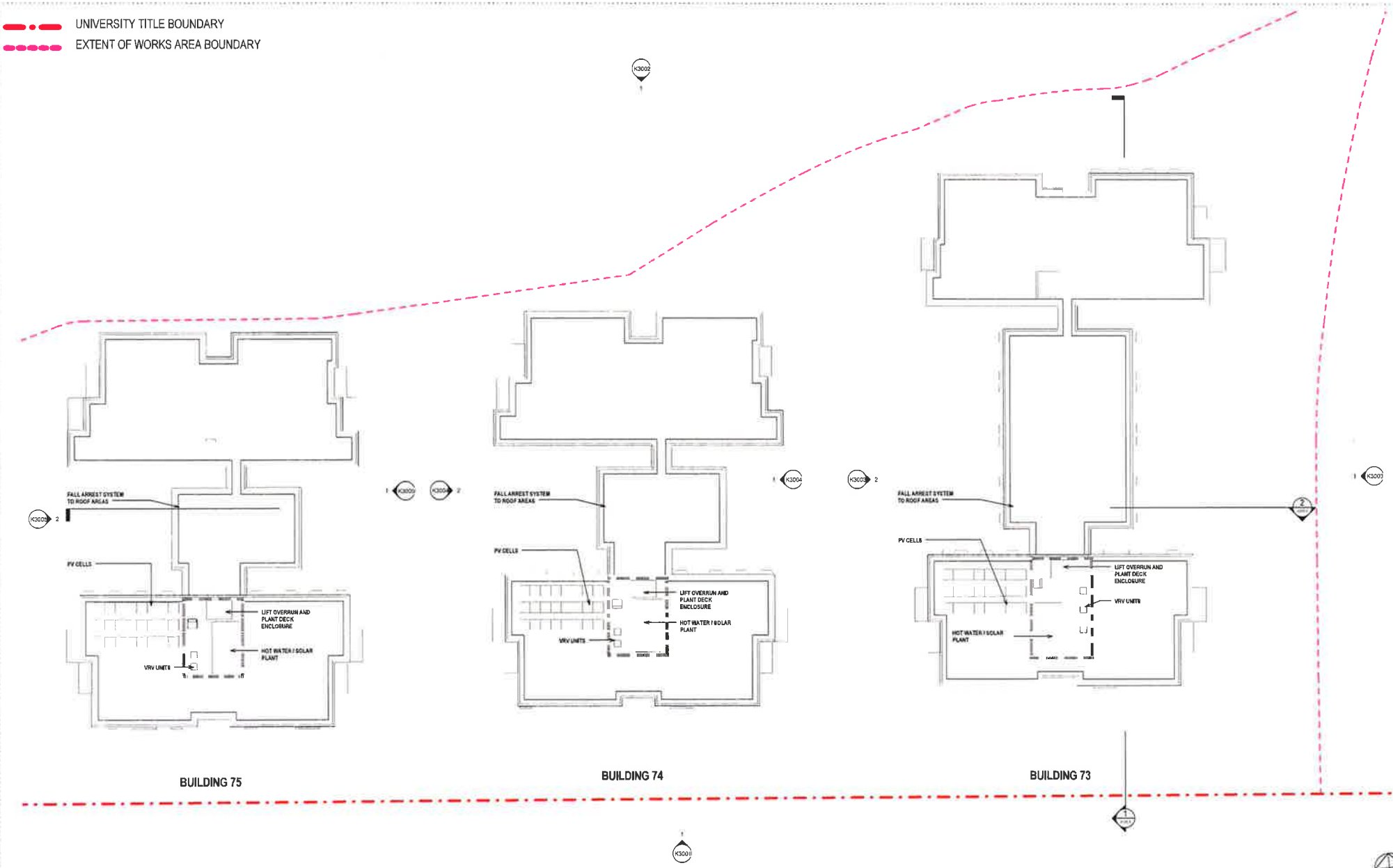
Drawn by IC
Checked by Checker
Drawing Checked (date)

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As @ A1 indicated	13346	K2009	3

UNIVERSITY TITLE BOUNDARY

EXTENT OF WORKS AREA BOUNDARY



BUILDING 75

BUILDING 74

BUILDING 73

NORTH

Amendments		
Issue	Description	Date
1	PRELIMINARY DA SUBMISSION	25/11/2014
2	SUBMISSION INFORMATION	13/02/2015
3	DA SUBMISSION	29/05/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephunt's Food Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenice
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shroeve & Associates	Flood Modelling	Cardno
Sustainability/Ecology Consultant	Efficient Living		

Builder: J Hutchinson Builders PTY LTD

Client: Living+Learning Partners

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Project Title: University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title: ROOF PLAN

Drawn by: IG
Checked by: Checker
Drawing Created (date):

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
As @ A1 indicated	13346	K2010	3

2 SOUTH ELEVATION - ARCHITECTURE - TREES REMOVED FOR CLARITY
1 : 200

1 SOUTH ELEVATION - STREETSCAPE
1 : 200

LEGEND - EXTERNAL FINISHES

Key Value	Keynote Text
BW001	DESIGNER CONCRETE BLOCKWORK
CP001	COMPOSITE ALUMINIUM PANEL WHITE FINISH
CP002	COMPOSITE ALUMINIUM PANEL DARK GREY FINISH
CP003	COMPOSITE ALUMINIUM CLADDING TIMBER LOOK
MC001	METAL CLADDING - LONGLINE 305 PROFILE
MC002	METAL CLADDING - SPANDEK PROFILE

Amendments

Issue	Description	Date
1	PREVIOUS DA SUBMISSION	23/11/2014
2	ISSUED FOR INFORMATION	18/03/2015
3	DA SUBMISSION	29/09/2015

Consultant	
Electrical Services	Alliance Design Group
Acoustics Consultant	Acoustic Logic Consultancy
Traffic Engineer	AECOM
Civil Engineer	BG&E
Structural Engineer	BG&E
Flood Engineer	BG&E
BCA Consultant	City Plan Services
Mechanical Engineer	David Shreeve & Associates
Sustainability Basix Consultant	Efficient Living

Consultant	
Waste Consultant	Elephant's Foot Waste Compactors
Hydraulics Engineer	GDK Hydraulics Consulting
Accessibility Consultant	Morris Goding Accessibility Consulting
Fire Engineering	Olsson Fire & Risk
Planning Consultant	SJB Planning
Artistic	Landscapes by Lenice
Landscape Architects	Group GSA
Flood Modelling	Cardno

Builder
J. Hutchinson Builders PTY LTD

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Project Title
University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75
Drawing Title
SOUTH ELEVATION

Drawn by IG
Checked by Checker
Drawing Created (date)
Project Status ISSUE FOR DA

Scale	Project No	Drawing No	Issue
1 : 200 @ A1	13346	K3001	3

1 NORTH ELEVATION - ARCHITECTURE - TREES REMOVED FOR CLARITY
1 : 200

2 NORTH ELEVATION - LANDSCAPE
1 : 200

Key Value	Keynote Text
BW001	DESIGNER CONCRETE BLOCKWORK
CP001	COMPOSITE ALUMINIUM PANEL WHITE FINISH
CP002	COMPOSITE ALUMINIUM PANEL DARK GREY FINISH
CP003	COMPOSITE ALUMINIUM CLADDING TIMBER LOOK
MC001	METAL CLADDING - LONGLINE 305 PROFILE
MC002	METAL CLADDING - SPANDEK PROFILE

Amendments

Issue	Description	Date
1	PREVIOUS DA SUBMISSION	25/11/2014
2	ISSUED FOR INFORMATION	18/08/2015
3	DA SUBMISSION	28/09/2015
4	ISSUED FOR INFORMATION	09/11/2015

Consultant	
Electrical Services	Alliance Design Group
Acoustic Consultant	Acoustic Logic Consultancy
Traffic Engineer	AECOM
Civil Engineer	BG&E
Structural Engineer	BG&E
Flood Engineer	BG&E
BCA Consultant	City Plan Services
Mechanical Engineer	David Shreeve & Associates
Sustainability Basix Consultant	Efficient Living

Consultant	
Waste Consultant	Elephant's Foot Waste Compactors
Hydraulics Engineer	GDK Hydraulics Consulting
Accessibility Consultant	Morris Goding Accessibility Consulting
Fire Engineering	Olsson Fire & Risk
Planning Consultant	SJB Planning
Arborist	Landscapes by Lenice
Landscape Architects	Group GSA
Flood Modeling	Cardno

Builder
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nom architect Nl Sheldon 3990

Project Title
University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title
NORTH ELEVATION

All levels and dimensions are to be checked and verified on site prior to the commencement of any work. Making of shop drawings or fabrication of components. Do not scale drawings. Use figured Dimensions.

Drawn by KI
Checked by Checker

Project Status
ISSUE FOR DA

Drawing Created (date)

Scale	Project No	Drawing No	Issue
1 : 200 @ A1	13346	K3002	4

1 B73 EAST ELEVATION
1 : 200

2 B73 WEST ELEVATION
1 : 200

LEGEND - EXTERNAL FINISHES

Key Value	Keynote Text
BW001	DESIGNER CONCRETE BLOCKWORK
CP001	COMPOSITE ALUMINIUM PANEL WHITE FINISH
CP002	COMPOSITE ALUMINIUM PANEL DARK GREY FINISH
CP003	COMPOSITE ALUMINIUM CLADDING TIMBER LOOK
MC001	METAL CLADDING - LONGLINE 305 PROFILE
MC002	METAL CLADDING - SPANDEK PROFILE

Amendments		
Issue	Description	Date
1	PREVIOUS DA SUBMISSION	29/11/2019
2	ISSUED FOR INFORMATION	19/08/2019
3	DA SUBMISSION	28/09/2018

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	CDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenica
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/BASIX Consultant	Efficient Living		

Builder
J. Hutchinson Builders PTY LTD

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Project Title
University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75
Drawing Title
B73 EAST AND WEST ELEVATIONS

Drawn by: IG
Checked by: Checker
Drawing Created (date)
Project Status: ISSUE FOR DA

Scale	Project No.	Drawing No.	Issue
1 : 200 @ A1	13346	K3003	3

1 B74 EAST ELEVATION
1 : 200

2 B74 WEST ELEVATION
1 : 200

LEGEND - EXTERNAL FINISHES

Key Value	Keynote Text
BW001	DESIGNER CONCRETE BLOCKWORK
CP001	COMPOSITE ALUMINIUM PANEL WHITE FINISH
CP002	COMPOSITE ALUMINIUM PANEL DARK GREY FINISH
CP003	COMPOSITE ALUMINIUM CLADDING TIMBER LOOK
MC001	METAL CLADDING - LONGLINE 305 PROFILE
MC002	METAL CLADDING - SPANDEK PROFILE

Issue	Description	Date
1	ISSUES FOR INFORMATION	16/09/2015
2	DA SUBMISSION	28/09/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenice
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder
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Project Title
University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title
B74 EAST AND WEST ELEVATIONS

Drawn by IG
Checked by Checker
Drawing Created (date)

Project Status
ISSUE FOR DA

Scale	Project No	Drawing No	Issue
1 : 200 @ A1	13346	K3004	2

1 B75 EAST ELEVATION
1 : 200

2 B75 WEST ELEVATION
1 : 200

LEGEND - EXTERNAL FINISHES

Key Value	Keynote Text
BW001	DESIGNER CONCRETE BLOCKWORK
CP001	COMPOSITE ALUMINIUM PANEL WHITE FINISH
CP002	COMPOSITE ALUMINIUM PANEL DARK GREY FINISH
CP003	COMPOSITE ALUMINIUM CLADDING TIMBER LOOK
MC001	METAL CLADDING - LONGLINE 305 PROFILE
MC002	METAL CLADDING - SPANDEK PROFILE

Issue	Description	Date
1	ISSUED FOR INFORMATION	18/08/2015
2	DA SUBMISSION	25/09/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Goding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Olsson Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenica
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder
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nsw architect M. Sheldon 3990

Project Title
University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75
Drawing Title
B75 EAST AND WEST ELEVATIONS

Drawn by IG
Checked by Checked JC
Drawing Checked (date)

Project Status
ISSUE FOR DA

Scale	Project No	Drawing No	Issue
1 : 200 @ A1	13346	K3005	2

1 SECTION 1 - TREES REMOVED FOR CLARITY
1 : 200

2 SECTION 2 - TREES REMOVED FOR CLARITY
1 : 200

Amendments		
Issue	Description	Date
1	PRELIMINARY DA SUBMISSION	25/11/2014
2	ISSUED FOR INFORMATION	16/09/2015
3	DA SUBMISSION	28/09/2015
4	ISSUED FOR INFORMATION	09/11/2015

Consultant		Consultant	
Electrical Services	Alliance Design Group	Waste Consultant	Elephant's Foot Waste Compactors
Acoustic Consultant	Acoustic Logic Consultancy	Hydraulics Engineer	GDK Hydraulics Consulting
Traffic Engineer	AECOM	Accessibility Consultant	Morris Cloding Accessibility Consulting
Civil Engineer	BG&E	Fire Engineering	Ensign Fire & Risk
Structural Engineer	BG&E	Planning Consultant	SJB Planning
Flood Engineer	BG&E	Arborist	Landscapes by Lenice
BCA Consultant	City Plan Services	Landscape Architects	Group GSA
Mechanical Engineer	David Shreeve & Associates	Flood Modelling	Cardno
Sustainability/Basix Consultant	Efficient Living		

Builder
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Client
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Project Title
University of Wollongong Student Accommodation Project
Development Application for Kooloobong
Buildings 73, 74 & 75

Drawing Title
SECTION 1 AND SECTION 2

Drawn by: IG
Checked by: Checker
Drawing Checklist (date):

Project Status: ISSUE FOR DA

Scale	Project No	Drawing No	Issue
1 : 200 @ A1	13346	K3101	4

Attachment 2
WDRP Comments

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

Wollongong Design Review Panel Meeting
Student Accommodation for the University of Wollongong
Kooloobong Buildings 73, 74 & 75, Northfields Avenue
DA-2014/1510

19th February 2015

Wollongong City Council Administration Building, Level 10 Committee Room 1

Present:

Gary Hudson, University of Wollongong

Bruce Flint, University of Wollongong

Sam Elias, Hutchinson Builders (Applicant)

Stuart McDonald, SJB Planning

John Chia, Group GSA

Lisa Marie Carrigan, Group GSA

Pana Tsironis, Instruct Corp

Jessica Saunders, Wollongong City Council

Andrew Kite, Wollongong City Council

Mark Riordan, Wollongong City Council

John Wood, Wollongong City Council

Vivian Lee, Wollongong City Council

Brendan Randles, Panel member

David Jarvis, Panel member

Project description

The proposal consists of three, eight storey buildings containing accommodation for up to 800 students in a variety of room types ranging from single studios to four bed room units. At grade parking is provided on the eastern and western perimeters of the site.

Context

A Campus Master Plan was tabled by the applicant. The plan provides an analysis of the current campus and outlines potential development opportunities. The proposal is located on the southern edge of the main campus on the north side of Northfield Avenue. This side of the street (between Southern Freeway and Robinsons Road) is fronted solely by the

university. The master plan outlines a strategy to reinforce this side of the street with buildings of up to 8 stories in height to define the edge of the street but still provide space between buildings to allow views through to the landscaped grounds of the university, so as to maintain the landscape character of the campus and the street.

Northfields Avenue is a busy main road and presents as a tree lined Avenue with vistas through to the escarpment. Existing buildings on the university campus read as buildings in a landscaped setting and enhance the quite unique character of the University in this specific context. It is therefore of great concern that proposed buildings are set backing only 5.25 metres from the kerb. The greatly reduced setback necessitates the removal of existing mature trees that contribute to the Avenue's landscaped character and provide continuity right along the University's southern boundary. Once space is allocated for a footpath and vehicle overhangs, there will be very little space left for tree planting or public domain of an acceptable quality. While the proponent has suggested that the trees to be removed are not significant, the reduction of setback will mean that the planting of large trees in the future will not be possible.

At ground floor level each building presents a defensive brick wall (with service areas concealed behind) to the street. As currently configured, a footpath will directly abut these walls, creating a much different interface than what currently exists. In contrast to the existing tree lined Avenue that appropriately represents the university today, a quite hard environment will be created, more urban perhaps, but lacking any ground level connection that could provide activation to the street. Other universities, such as UNSW, have developed thoughtful strategies to engage their adjacent streets, combining both landscape and retail activity, In this case, retail has not been proposed, with the University suggesting that retail activity is planned for areas further east.

Nor is the main entry noticeable or given special prominence along this elevation. When queried about the entry's relative obscure location, the applicant responded that after day one, students will know where to go so legibility or address is of minor importance. The Panel cannot support this view. All streets require some engagement from their host buildings, whether to express landscape quality, major entries, street life or other form of activity or use, the building's response to adjacent public domain is of primary importance – currently and in the future. This is especially true in this case.

Therefore, in consideration of the Campus' unique setting and its existing landscaped setbacks – and the University's plans to locate retail activity to the east - the Panel believes that a significant setback (in the order of 12m.) must be maintained to create an appropriate interface with the street and allow for significant tree planting. Ideally this set back would allow some of the existing mature trees to be maintained.

Scale / density

Both the scale and density of the proposal are potentially acceptable, given the context of this site and the University's master planning process. However increased set backs from the street should be provided, to allow buildings to sit in a landscaped setting, rather than creating a harsh defensive urban edge to the street.

Built form

The northern edge of the site is constrained by the riparian zone running through the centre of the university campus. This creates an irregular shaped site which tapers out to the east. Once an appropriate set back is applied to the street, building forms as currently proposed will not fit within the constraints of the site. As with any development, building forms must be developed to fit within and respond to the constraints of the site.

An existing foot path running along the southern edge of the site connects the proposed student accommodation with the rest of the university campus. The lower ground floor of two of the three buildings (73 and 75), address this path with defensive / inactive elevations containing storage areas. Give that that these areas provide the proposals main interface with the existing campus, this is a very unfortunate outcome.

Ideally entrances to each building should be provided on the northern face of each building, to provide a direct connection back into the existing campus. It is however acknowledged that potential flooding issues highlighted by the applicant place some restrictions on the use of lower ground floor. If the built form proposed were an aggregation of typical U shaped courtyard buildings opening out to the north, the entry and active areas of each building would be clearly visible from the northern path and contribute to the life of the courtyard – as entry as well as social space. The current configuration however, conceals the activity spaces behind building wings, which is unfortunate. Hence, how the buildings are entered, either from the Campus or from the Avenue to its south, remains obscure. For a proposal of this scale, which will house so many students, the Panel is concerned that issues of access and address - as well as activation of adjacent public domain - have not been sufficiently resolved.

The treatment of the lower ground floor of building 74 as music room / multi-purpose room provides an active link to the university that capitalises on the northern outlook over the riparian zone. The lower ground floor of buildings 73 and 75 should also be developed to provide a more active connection to the existing campus.

A linear circulation route has been developed intersecting the courtyards created between buildings and linking the entry point to each of the three buildings. However, entrances are only 2m wide and recessed back with the building, so they are not visible from the existing northern foot path which connects the proposal with the existing campus. If this entry strategy is used, it must be developed to provide more generous, visually prominent entrances to each building.

Considering the shape of the site and its need to incorporate more significant setbacks along Northfields Avenue, it may be better to vary the alignment of the buildings, pushing Building 73 north to create a major entry court - perhaps to its east so at to make the building's major address more prominent form the University's most active heart further east. This entry court could then perhaps communicate directly with a widened east west link, connecting the two courtyards

Amenity

It is commendable that natural light is provided to circulation spaces. However, it is suggested that circulation routes could be more direct if lifts were reorientated to face north.

Lifts lobbies could then face directly down the main north / south running corridors of each building. If a more generous common room were to be provided on the northern face of each building, vistas from the lift lobby back towards the riparian zone could be achieved.

The reorientation of the lift would also help provide clearly defined entry lobbies to each building (at ground floor level) that have a direct connection to the linear circulation path connecting each building. However, as previously stated, these entrances should be made more generous (wider) and visually prominent to optimize the success of this strategy.

Large communal spaces have been provided at ground floor level to service all of the 800 students occupying these building. Though these spaces provide important social spaces for large gathering, they lack the intimacy necessary to help create social bonds between smaller groups of students. To help foster a greater sense of community within the building it is recommended that social spaces / living areas are provided on each floor, increasing the size and configuration of the northern study areas could provide such a space. This will provide areas that are used by much smaller groups of students, helping to form a bond between groups of student occupying the same floor.

As mentioned above, the obscure location of the main entry is not supported by the Panel. Nor is the absence of any activation along Northfields Avenue. The panel recommends that entrances are moved to a more prominent locations as suggested above and the possibility of retail (even as a future proposal) explored further in the vicinity of the entry and major north south link to the Campus.

Environmental

It is not uncommon for student accommodation buildings to generate double loaded corridors, with some units receiving little or no direct solar access. It is acknowledged that given the typology of building and associated economic constrains that compliance with the RFDC rules of thumb for solar access and cross ventilation would be too arduous. However this makes it all the more important that alternative steps to improve the environmental credentials of the building are taken.

The applicant's description of measures taken regarding selection of materials, use of solar panels, water reuse and solar shading are commendable. The applicant is encouraged to get formal assessment and recognition of the proposals environmental credentials by applying for a green star rating.

Aesthetic

While the expression of the various buildings and material composition has been handled competently, the Panel is concerned that the vital social activities at ground floor level, including the entry, social spaces and linking elements have been obscured, under scaled and given almost no expression. This makes the buildings lifeless and blunt, especially against the landscape. The perspective of building 73 for example – a very prominent facade – does not indicate where to enter or how, besides the presence of a very narrow domestically scaled walkway structure. Considering the scale of the proposal, the ground level spaces should be much higher – more expressive, with double height volumes and axes made much clearer. As proposed, this really is a missed opportunity to represent the life of the college and express how it works.

Social dimension

The proposal is appropriately located to provide convenient residential accommodation for Students. However, the potential social implications for some students, who may be overwhelmed by the scale of an environment designed for 800 young adults, should be better recognized in the Proposal. The applicant is encouraged to develop more opportunities for smaller groups of students to socialise.

As noted above, the Panel believes that the proposal needs to be better integrated with both Northfields Avenue (through larger setback, clearer entry and potential street activation) and the pathway to its north (more activation and more legible entry and social spaces) to really form part of the University's existing and future pedestrian and civic networks.

Summary

A fundament part of the design process is to analysis the site and its immediate context to determine the constraints of the site. Whilst it is evident that some analysis has been undertaken, there is not a clear description in the documentation of vital linkages, adjacent developments, existing and proposed landscapes (including setbacks), key desire lines and other essential information required to structure a large proposal such as this. Hence, an inappropriate setback has been proposed that would negatively impact on the urban design quality of Northfields Avenue, diminish the University's representation to the street and create an unpleasant environment at ground level. A typical two storey house in adjacent residential neighbourhoods for example would be set back a minimum of 6m to its street boundary then there would be additional space provided for foot path and a grass verge (around 9m). Clearly, 5.25m is not acceptable for the 8 storey buildings proposed. Once an appropriate setback is determined, the Panel suggests that building forms should be reviewed in the light of a more thorough site analysis so as to sit within the constraints of the site. In developing these revised building forms, consideration should be given to:

- Developing the northern lower levels of the northern elevation to provide an improve interface with existing campus.

- Develop clear and legible entrances to each building.

- Develop communal spaces to each floor that provide opportunities for smaller groups of students to socialise.

- Refine internal circulation areas to provide shorter more direct route to the northern units.

Attachment 3
General Response to WCC & DRP

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

WCC preliminary assessment - Kooloobong

Kooloobong Buildings 73, 74 & 75

DA-2014/1510

Item	code	Heading	Description		Comments		
K.01	1.1	Stormwater Matters	More detailed information is required showing the calculated post-development 100 year ARI and PMF flood levels at the upslope edge of each proposed building level, and the calculated post-development 100 year ARI flood levels and flood velocities in each proposed car parking space, so that Council can assess whether the proposal satisfies minimum habitable floor level, evacuation, and car parking requirements, as stipulated in Chapter E13 of the Wollongong DCP2009.	*1*	An updated report from Cardno (Ref: Flood Study September 2015 version 2) is provided as part of this submission. The revised report reflects the revised site layout and WCC's requirements.		
K.02	1.2	Stormwater Matters	The Flood Study by Cardno indicates that floor areas to be used for storage are below the Flood Planning Level (FPL). Habitable floor areas are defined in Chapter E13 as follows: Habitable floor area means: · In a residential situation: a living or working area, such as a lounge room, dining room, rumpus room, kitchen, bedroom or workroom; · In an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood. Furthermore, Clause 3(e) of Chapter E13 indicates a key objective of the flooding controls is to reduce the risk of damage to property caused by flooding. In this regard, it is considered necessary that areas used to store items/possessions susceptible to flood damage (e.g. store rooms, workshops, etc.) be set above the FPL in order to reduce the risk of damage to property caused by flooding.	*1*	The revised design changes the location of the buildings on the site. There is an improved situation with respect to the flood levels and habitable spaces. Refer revised Carno report (Ref: Flood Study September 2015 version 2)		
K.03	1.3	Stormwater Matters	The development proposes a reduction in floodplain storage on the site without consideration of the cumulative effect of similar filling of other developable sites in the floodplain, and therefore does not satisfy clauses 6.4.2(d) and 7(2) of Chapter E13. The proposal needs to be amended to ensure no net loss of floodplain storage on the site or alternatively (where possible) an analysis is required to demonstrate the cumulative effect of a similar reduction in floodplain storage on other development sites is required to demonstrate compliance with these clauses.	*1*	The revised design results in no reduction in floodplain storage. Refer revised Carno report (Ref: Flood Study September 2015 version 2).		

K.04	2.1	Traffic Matters/ Parking	The Traffic Impact Assessment (TIA) for the proposed student accommodation provides information on commuter travel to the campus, and surveys of student accommodation to inform the proposed car parking rates for residential accommodation and car parking provision.	*1*	The TIA has been address by the University as part of the cumulative impact with DA-2014/1474 (Stage 1). The solution was approved by the JRPP and is set out in AECOM Student Accommodation Parking and Traffic Impact Assessment Supplementary Report Rev B (05 June 15). The revised design is in accordance with the approved cumulative solution.		
K.05	2.1	Traffic Matters/ Parking	Councils Traffic Engineer has identified concerns with regard to the nature of the survey data presented in the report. The majority of the analysis focuses on how students from other areas travel to and from the campus and how their reliance on the private car would be reduced by sustainable options such as increased bus frequencies etc.	*1*	Refer K.04		
K.06	2.1	Traffic Matters/ Parking	Residential travel behaviour is very different and is based on factors such as the proximity of shops and services for household food requirements, doctors' appointments, entertainment, leisure, socialising etc. There are limited shops and essential services available within walking distance of the proposed residential accommodation which would increase reliance on the private car. Without adequate on-site car parking the Councils Traffic Engineer considers that a large proportion of vehicles would be parked in residential streets. As such it is likely that the proposals would result in a loss of amenity for residents living in the area which is considered unacceptable.	*1*	Refer to K.04		

K.07	2.1	Traffic Matters/ Parking	Further analysis of the submitted documents has also identified a number of concerns which are outlined below. · Table 6.1 of the Parking and Traffic Impact Assessment surveyed 185 respondents in Kooloobong and Graduate House which found that 54 of the respondents (29%) did not own a vehicle. Accordingly we would expect the other 71% to own a car. · Section 3.2.3 of the Independent Assessment of the Wollongong Campus Transport Strategy surveyed 489 resident students which found that 316 (65%) owned a motor vehicle. The survey found that of the resident students that owned a vehicle 97% kept their vehicle in Wollongong, 61% parked in a designated permit area car park and a further 32% opted for street parking near to accommodation parking.	*2*	Refer K.04		
K.08	2.1	Traffic Matters/ Parking	Based on the proposed 800 beds/students within buildings 73, 74 and 75 (stage 2) the car ownership rates could be as follows: · Using the survey data with the higher sample rate above - 65% of 800 = 520 vehicles expected to be owned by students in the proposed accommodation. · Using the survey data for Kooloobong and Graduate House only – 71% of 800 = 568 vehicles expected to be owned by students in the proposed accommodation.	*2*	Refer K.04		
K.09	2.1	Traffic Matters/ Parking	Current parking proposed = 116 car parking spaces (including 6 small car spaces, 8 visitor, maintenance, loading and 5 disabled); whereby a total of 108 car parking spaces are proposed to be made available for residents. Visitor car parking is required to be provided in addition to resident car parking.	*2*	Refer K.04		
K.10	2.1	Traffic Matters/ Parking	Therefore the car parking provision rate proposed is 800/108, being 1 car parking space to every 7.4 beds.	*2*	Refer K.04		
K.11	2.1.1	Traffic Matters/ on street car parking	On street car parking: Based on the above figures the proposed development would result in a shortfall of up to 460 car parking spaces (568 – 108). Section 3.2.3 of the Transport Strategy Assessment found that some 32% of respondents chose to park in residential streets. This figure may be related to availability of parking within a convenient walking distance. Based on this figure (if all other factors are equal) the proposed development could result in 147 additional vehicles being parked in surrounding residential streets.	*2*	Refer K.04		

K.12	2.1.2	Traffic Matters/ Permit car parking	Based on the submitted Independent Assessment of the Wollongong Campus Transport Strategy prepared by AECOM, of the 65% of students who are expected to own a motor vehicle, 61% of vehicles park in one of the designated accommodation permit area car parks, 3% do not bring their car to Wollongong and 32% park on the street near the accommodation parking (page 12).	*2*	Refer K.04		
K.13	2.1.2	Traffic Matters/ Permit car parking	It is unclear as to how 61% of vehicles expected to be owned by the future occupants of the development would be able to park in one of the designated accommodation permit area car parks as indicated within the Strategy. In this instance, 318 vehicles would be expected to park in designated accommodation permit area car parks (TIA - 520 vehicles expected to be owned by students in the proposed accommodation).	*2*	Refer K.04		
K.14	2.1.2	Traffic Matters/ Permit car parking	The designated car park for buildings 73, 74 & 75 is proposed to be provided with 108 car spaces only, resulting in a deficiency of 210 cars that would not have access to a designated permit area based on the survey data (61% of 520, minus the 108 proposed car spaces). In addition to the 147 vehicles already expected to be parked on the street (identified above), up to 357 cars may have no option other than to park on surrounding streets as a result of the proposal in its current form.	*2*	Refer K.04		
K.15	2.1.2	Traffic Matters/ Permit car parking	It is Councils understanding that each accommodation precinct has a designated car parking area where students can obtain a parking permit which is allocated a numbered bay when the parking permit is issued. Permits are offered on a “first come, first served basis” and all information issued by the University makes it very clear that the availability of a parking space is not guaranteed. The Universities website also advises that reserved and UOW Entry Permits required for other University car parks are available to staff only.	*3*	Refer K.04		
K.16	2.1.2	Traffic Matters/ Permit car parking	Considering the above assessment of the proposed car parking provision, a revised proposal which includes a significantly increased number of on-site car parking spaces is considered to be required.	*3*	Refer K.04		
K.17	2.1.2	Traffic Matters/ Permit car parking	Therefore, the additional impact on local streets is identified to be between 421 and 357 cars. Further clarification is sought on this matter.	*3*	Refer K.04		

K.18	2.2	Traffic Matters/ Strategic Actions	The university proposes a number of strategic actions to assist in the justification of the low rate of car parking provision. While the Universities aim to continue to reduce car parking usage rates is acknowledged, several of the strategic actions rely on state government agencies, other sites and the implementation of Council plans which have no expected date for implementation and/or completion.	*3*	Refer K.04		
K.19	2.2	Traffic Matters/ Strategic Actions	Of particular concern is the proposed long-term student car parking at the innovation campus (Strategic Action 2) which is linked to the main campus by shuttle bus. Details of the scheme require clarification (costs, security, implementation plan etc.) and there are doubts over the uptake of off-site parking without further information being provided. The use of a number of existing car parking spaces at the innovation campus purely for student purposes is also queried as all car parking areas approved at the innovation campus have been associated with the buildings at the campus.	*3*	Refer K.04		
K.20	2.2	Traffic Matters/ Strategic Actions	However, it was indicated at the Design Review Panel meeting of 19 February 2015 that Strategic Action 2 is already fully subscribed in its trial phase. If so, it must be demonstrated how this strategic action can be relied upon to support the proposed development if it is already fully utilised and where the long term car parking fits in with the existing Innovation Campus Parking situation and how it is to be permanently maintained. Further clarification on future commitments and expansion of this strategic action is required.	*3*	Refer K.04		
K.21	2.2	Traffic Matters/ Strategic Actions	Furthermore, the submitted documentation does not provide any certainty as to the successful implementation of any of the strategic actions and states that each is to be trialled only. Therefore Council does not considered it appropriate to rely on these actions for such a significant deficiency in on site car parking without demonstration of successful implementation.	*4*	Refer K.04		

K.22	2.3	Traffic Matters/ Small Car Parking Spaces	Section 8.2 of the TIA cites an insufficient number of car parking spaces. However within the layout - 6 small car spaces are proposed. This constitutes a variation to Clause 7.7 (3) of Chapter E3 of the DCP which only allows small car spaces when the total quantum of required standard sized spaced have been achieved. Small spaces, if not 'additional', can be used by larger vehicles and result in vehicles overhanging aisles, encroaching on adjacent spaces and restricting manoeuvring/impacting in amenity and safety. Overhanging vehicles could also obstruct waste collection swept paths.	*4*	Refer K.04		
K.23	2.3	Traffic Matters/ Small Car Parking Spaces	It is noted that the 2014 Student Accommodation Parking Survey indicated that 47% of respondents owned small cars. This is considered to be a survey of one point in time and should not be considered justification for a permanent car parking area to be approved in the current arrangement.	*4*	Refer K.04		
K.24	2.3	Traffic Matters/ Small Car Parking Spaces	An amended car parking design is required and/or further justification as to why the existing layout should be considered appropriate is required to be submitted.	*4*	Refer K.04 and updated Aecom report		
K.25	2.4	Traffic Matters/ Visitor Car Park Details	The applicant needs to clarify how visitor parking turnover will be regulated and reserved for drop-off only. Signposting/line marking details are required.	*4*	Refer K.04 and updated Aecom report		
K.26	2.5	Traffic Matters/ Eastern Car Park – Turning Bay	The eastern car park requires a turning bay at the end in order to comply with AS2890.1. This matter must be addressed via amended plans and supporting documentation.	*4*	Refer K.04 and updated Aecom report		
K.27	2.6	Traffic Matters/ Bicycle parking provision	The submitted Traffic Impact Assessment Report advises that 100 bicycle parking spaces (within the storage room) are proposed to be provided. This number is well below WDCP 2009 requirements. Further, no information has been submitted as to the existing modal share of cyclists as requested within the pre-lodgement meeting minutes to support the reduced number. It is considered that the provision of an increased number of bicycle parking in particular is required. This is of particular importance given that it is proposed to increase the number of people cycling to assist in the ongoing reduction in car use (strategic action 8).	*4*	Bicycle storage ratios have been increased to 1:3 or 266 bicycle parking bays.		

K.28		Traffic Matters	Several submissions have been received in relation to the development which indicates that since the construction of the new student accommodation at Kooloobong, known as K2, residents have seen a noticeable increase in the number of cars parked for long periods of time on the adjoining streets. This is a result of the development being approved at a rate of 1 space for every 5 beds. It is therefore not considered reasonable for Council to accept a further reduced rate of 1 space per every 7.4 beds where there appears to have been an increase in overflow parking as a result of a higher rate.	*4*	Refer K.04		
K.29		Traffic Matters	In the notes following a pre-lodgement meeting for this application, Councils Traffic Section advised that the applicant needs to demonstrate that the proposal would have adequate car parking capacity to accommodate the expected car parking demand and not impact on surrounding residential streets. However based on the above, this does not appear to be the case. The effectiveness of the proposed 'strategic actions' are not able to be quantified, and in some cases rely on other agencies i.e. extending public transport routes and the implementation of the recently endorsed Bike Plan by Wollongong City Council.	*4*	Refer K.04		
K.30		Traffic Matters	Overall, it is considered that the traffic and parking outcomes for the proposed development are currently unsatisfactory. As such, detailed justification and amended designs must be provided to adequately address the parking and traffic impacts currently identified in the proposed development as submitted.	*5*	Refer K.04		

K.31	3.1	Planning Matters/SEPP 65	Given, there is no definition of 'Student Accommodation' within the standard instrument, further clarification as to the definition of the use of the facility is requested. It is noted that brief discussions on this matter at the Design Review Panel (DRP) of 19 February 2015 indicated that the University has obtained legal advice as to the use and that the definition could most accurately be described as a 'boarding house'. Council has issued previous advice to the University with regard to student housing in other locations in the past.	*5*	The applicant's representative did not advise that the University has obtained legal advice regarding the definition of boarding house. The comments that were made at the Design Review Panel of 19 February 2015 related to a Land and Environment Court matter in consideration of a specific boarding house application and the relevant application of SEPP 65. The land use is education establishment, with the accommodation ancillary to this use. Assessment against the design principles of SEPP65 is agreed as appropriate as the development may meet the definition of residential flat building under SEPP 65 (not under WLEP 2009). Assessment against the boarding house provisions of WDCP is not of any merit value. Amenity, access, fire safety and car parking requirements are all addressed in the application as submitted. The size of the rooms and allocation of common facilities is specific to the university student needs which has been developed based on University research. Please refer to SJB's statement on land categorisation and the UOW Memorandum dated 24 March 2015 titled "Management Arrangements for Student Accomodation Facilities".		
K.32	3.1	Planning Matters/SEPP 65	In this regard, should the proposal be taken to fall within the definition of a 'boarding house', Council does not consider the applicability of SEPP 65 to be immediately removed.	*5*	Assessment against the design principles of SEPP65 is agreed as appropriate as the development may meet the definition of residential flat building under SEPP 65 (not under WLEP 2009). Please refer to GSA's Design Verification statement		
K.33	3.1	Planning Matters/SEPP 65	A publication issued by the NSW Government Department of Planning & Environment (then Planning & Infrastructure) in May 2011 states that SEPP 65 could apply to development which would be a class 3 building under the BCA, as would be the case for buildings 73, 74 & 75.	*5*	Refer K.32		

K.34	3.1	Planning Matters/SEPP 65	Clause 3 of SEPP 65 also defines residential flat buildings as follows: Residential flat building means a building that comprises or includes: (a) 3 or more storeys (not including levels below ground level provided for car parking or storage, or both, that protrude less than 1.2 metres above ground level), and (b) 4 or more self-contained dwellings (whether or not the building includes uses for other purposes, such as shops), but does not include a Class 1a building or a Class 1b building under the Building Code of Australia. Note. Class 1a and Class 1b buildings are commonly referred to as town houses or villas where the dwelling units are side by side, rather than on top of each other.	*5*	Refer K.32. The Council's Design Review Panel acknowledged that compliance with RFDC rules of thumb is too arduous for the form of development.		
K.35	3.1	Planning Matters/SEPP 65	Each dwelling within the proposal is provided with their own private kitchen, bathroom, and sleeping facilities and are therefore considered to be self-contained. As such, SEPP 65 is considered to reasonably apply to the proposal.	*5*	Refer K.32. The Council's Design Review Panel acknowledged that compliance with RFDC rules of thumb is too arduous for the form of development.		
K.36	3.1	Planning Matters/SEPP 65	As such, consideration of the 10 design quality principles outlined within Part 2 of the SEPP and the Residential Flat Design Code should be undertake.	*5*	Refer K.32		
K.37	3.1	Planning Matters/SEPP 65	It is considered that several matters within the current design require further consideration in particular solar access, private open space provision, crime prevention through environmental design, internal circulation, room sizes, ventilation and sustainable design and resources.	*5*	Refer K.32		
K.38	3.1	Planning Matters/SEPP 65	Council welcomes further discussion and advice on this matter and may revise the above comments following receipt of the comments from the Design Review Panel.	*5*	Note		

K.39	3.2.1	Planning Matters/ Plan of Management	Council requests that an operational plan of management be supplied for the facility. The plan of management should include, at a minimum, the following details: · The management and supervision requirements of the onsite managers · Maintenance and fire safety requirements · Measures to ensure that guest numbers do not exceed those proposed/approved · Measures to mitigate impacts of the development on surrounding properties · Staffing arrangements including the location, contact numbers and contact methods for both the students and wider community · House rules, how they are to be conveyed to the students, where they are to be displayed etc · Waste minimisation and recycling methods · Safety and security measures · Record of all room furnishings · Guidelines for the use of communal open space and communal areas internal of the building · Complaints register and methodology · Operating hours for the administration, manager and UOW security.	*5*	The University operates the accommodation with a range of management arrangements and procedures as outlined in the attached document. This includes : - formal accommodation agreements, - Conduct and Residencies policy's - on-site (live-in) managers - appointed student leaders, - etc. Note that these items seems to be brought out of the boarding house requirements which are not applicable to this DA. The supporting document does not address the WCC requirements as these seem to be relevant to a boarding house. Please refer to the UOW Memorandum dated 24 March 2015 titled "Management Arrangements for Student Accomodation Facilities".		
K.40	3.2.2	Planning Matters/ Plan of Management	A management plan (either separate or in conjunction with 3.2.1) for the allocation of certain car parking spaces to units and further information as to the management of cars entering the restricted area and the use of the visitors and maintenance car park area is also required.	*6*	Refer K.04		
K.41	3.2.3	Planning Matters/ Plan of Management	The submitted Statement of Environmental Effects indicates that a Crime Prevention Through Environmental Design (CPTED) Statement will be prepared at the Construction certificate stage of the development. This is not considered appropriate and it is requested that a CPTED report be submitted as requested within the pre-lodgement meeting notes of 8 October 2014.	*6*	A CPTED report has been prepared by Hutchinson Builders and provided in the additional information package		
K.42	3.2.3	Planning Matters/ Plan of Management	CPTED principles should be considered in conjunction with the overall design of the proposal and it is not considered unreasonable to request the submission of the report for the assessment of the proposal.	*6*	Refer K.41		

K.43	3.3.1	Planning Matters/ WDCP 2009 controls / Boarding House Controls	Discussion at the Design Review Panel meeting of 19 February 2015 indicated that the University had obtained legal advice on the permissibility of the proposal and that the most accurate definition of the proposal would be a 'Boarding House'. As such, an assessment against the applicable boarding house controls, being Chapter C3 of the Wollongong Development Control Plan 2009 is requested.	*6*	The land use is education establishment, with the accommodation ancillary to this use. Assessment against the design principles of SEPP65 is agreed as appropriate as the development may meet the definition of residential flat building under SEPP 65 (not under WLEP 2009). Assessment against the boarding house provisions of WDCP is not of any merit value. Amenity, access, fire safety and car parking requirements are all addressed in the application as submitted. Please refer to SJB's statement on land categorisation and the UOW Memorandum dated 24 March 2015 titled "Management Arrangements for Student Accomodation Facilities".		
K.44	3.3.2	Planning Matters/ WDCP 2009 controls / Access Report	The submitted Access Review Report prepared by Morris-Goding Consulting contains a range of recommendations. It is requested that amended plans be provided which address each of the recommendations made within the report as some recommendations, being the provision of an ambulant toilet within the common area/open to the public, increase to bathroom sizes, door widths and circulations, may result in impacts to the layout of the buildings.	*6*	A detailed review has been workshopped between GSA Architecys and Morris Goding Consulting and the architectural drawings have been updated accordingly.		
K.45	3.3.3	Planning Matters/ WDCP 2009 controls / Use of Kitchen Facilities	Clarification is sought as to the use of the kitchen facilities in the common areas i.e. – private use by the residents only, person employed to prepare meals which will be sold to the students or the area converted into a commercial space for a café or coffee shop etc.	*6*	The proposed kitchen facilities in the common areas are for residents use only.		
K.46	3.3.4	Planning Matters/ WDCP 2009 controls / Plan reference	It is requested that amended plans be provided with the dwellings numbered for ease of reference.	*7*	This will be provided in the revised plans.		
K.47	4.1	Landscape matters	A review of the submitted Landscape Plans indicates that the proposal has a 5m setback from the boundary and hence the landscape bed has been reduced to a 2m wide planting bed with a 1m path against the buildings. As any new trees will be within 3m of the building footprint, they will be exempt from Council's Tree Management Policy and able to be removed at any time which is considered unacceptable in this instance.	*7*	The revised scheme sets the buildings back 12, 10 and 8m respectively for B73, 74 and 75. Subtracting the 2m path gives 10, 8 and 6m planting zones. Note the 1m service path along the buildings has been removed.		

K.48	4.1	Landscape matters	Consequently, as per Council's pre-lodgement notes dated 8 October 2014, it is considered that the development requires a minimum of 3 metre wide landscape strip within the front setback for the majority of the site width (excluding the driveway) from the footpath to accommodate a row of new trees that will be sufficiently clear of the overhead power lines and the building envelopes. This area must also be mulched and planted with appropriate street trees, shrubs and groundcovers.	7	The revised scheme with a wider landscaped strip of 10, 8 and 6m respectively for B73, 74 and 75 is proposed.		
K.49	4.2	Landscape matters	The elevation plans do not indicate where the overhead power lines are located in relation to the proposed tree planting, consequently it is requested that the height and location of the existing aerial cables in relation to the proposed tree planting along Northfields Avenue are indicated on amended elevation plans along with accurate mature tree size and nominated species.	7	The University is reviewing the opportunity to run these overhead powerlines underground. The current images and landscape plans are coodinated with and reflect the powerlines.		
K.50		Landscape matters	All of these requirements must be demonstrated on relevant amended architectural and landscape plans.	7	Noted - revised plans will be submitted as a coordinated package.		
K.51	5	Consistency of Plans and Documents	The Applicant must ensure that all plans and relevant documents are consistent. In this regard, any changes that are made to one plan need to be consistently made across all plans and the supporting documentation.	7	Noted - revised plans will be submitted as a coordinated package.		
K.52		General	Please note that following the submission of additional information/amended plans, the proposal may be required to be renotified in accordance with Appendix 1 of the Wollongong Development Control Plan 2009.	7	Note		
K.53		General	Given that a number of matters are identified and are required to be addressed to enable further consideration of the application, it is envisaged that design changes may be required and you are therefore requested to provide to Council, within 14 days, a timeframe for the resubmission of additional information. Council will then consider the same and further advise.	7	Note		

DRP Comments - Kooloobong

Kooloobong Buildings 73, 74 & 75

DA-2014/1510

Item	Heading	Description	pg	Comments
K.54	Project description	The proposal consists of three, eight storey buildings containing accommodation for up to 800 students in a variety of room types ranging from single studios to four bed room units. At grade parking is provided on the eastern and western perimeters of the site.	1	Parking for residents will relocated to a proposed multi-storey car park to the north of the site. A new pathway and pedestrian bridge over the ponds will link the carpark to the site. There will be a single vehicle access point on the east, beside B73, allows for visitor parking, car hire scheme and disabled parking. The waste collection vehicles will access the garbage room from road.
K.55	Context	A Campus Master Plan was tabled by the applicant. The plan provides an analysis of the current campus and outlines potential development opportunities. The proposal is located on the southern edge of the main campus on the north side of Northfield Avenue. This side of the street (between Southern Freeway and Robinsons Road) is fronted solely by the university. The master plan outlines a strategy to reinforce this side of the street with buildings of up to 8 stories in height to define the edge of the street but still provide space between buildings to allow views through to the landscaped grounds of the university, so as to maintain the landscape character of the campus and the street.	1	The University has commited to the development of a Masterplan, refer to UOW correspondence between WCC and UOW as part of the determination of DA-2015/1474. The University has commenced the Masterplan process. The revised scheme for Buildings 73, 74, and 75 has significantly increased setbacks and maintains the existing landscape character of Northfields Ave.
K.56	Context	Northfields Avenue is a busy main road and presents as a tree lined Avenue with vistas through to the escarpment. Existing buildings on the university campus read as buildings in a landscaped setting and enhance the quite unique character of the University in this specific context. It is therefore of great concern that proposed buildings are set backing only 5.25 metres from the kerb. The greatly reduced setback necessitates the removal of existing mature trees that contribute to the Avenue's landscaped character and provide continuity right along the University's southern boundary. Once space is allocated for a footpath and vehicle overhangs, there will be very little space left for tree planting or public domain of an acceptable quality. While the proponent has suggested that the trees to be removed are not significant, the reduction of setback will mean that the planting of large trees in the future will not be possible.	2	The Revised DA scheme has a number of significant design changes that aligns to the comments of the DRP and JRPP. These changes include: 1. Significantly greater set back allowing retention of a majority of trees along Northfields Ave and maintaining the leafy character of the street. 2. Building 73 will be set back 12m, B74 set back 10m and B75 set back 8m. Additionally, we propose that the existing island on Northfields Avenue be moved to the front of B75 and planted with trees to create a larger green buffer. The combined green frontage to B75 would be closer to 16m. The relocated traffic island would also allow for drainage and flood water diversion works to occur and direct flood water along the west of B75. 3. The majority of car parking will be relocated to the proposed multi-storey facility. This allows the buildings to be shifted towards the east and therefore further north to create the greater setbacks from Northfields Avenue. 4. The majority of car parking will be relocated to the proposed multi-storey facility. This allows the buildings to be shifted towards the east and therefore further north to create the greater setbacks from Northfields Avenue. 5. The enhanced set back allows for planting of more new trees that will, when mature create a dense green zone along the front of the buildings. 6. The previous waste service path across the front of the buildings has been removed and replaced with a route through the buildings. This allows the zone from the back of footpath to building to be planted.

K.57	Context	At ground floor level each building presents a defensive brick wall (with service areas concealed behind) to the street. As currently configured, a footpath will directly abut these walls, creating a much different interface than what currently exists. In contrast to the existing tree lined Avenue that appropriately represents the university today, a quite hard environment will be created, more urban perhaps, but lacking any ground level connection that could provide activation to the street. Other universities, such as UNSW, have developed thoughtful strategies to engage their adjacent streets, combining both landscape and retail activity, In this case, retail has not been proposed, with the University suggesting that retail activity is planned for areas further east.	*2*	The adjustment of the sitting of the buildings has resulted in increased setbacks. These increased setbacks have allowed for the retention of significant existing trees and new planting in front of the buildings which present a soft buildings public edge. By shuffling the allocation of area uses internally and creating more windows along the southern frontage of the ground floor, connection and activation to the street is also enhanced. As noted above the services footpath along the southern frontage of the buildings has been removed and replaced with an alternative internal service route. The ground floor double height entry to B73 gives a prominent entry to the precinct and provides a public landscaped plaza that engages with the pedestrian paths which connect the precinct to the campus.
K.58	Context	Nor is the main entry noticeable or given special prominence along this elevation. When queried about the entry's relative obscure location, the applicant responded that after day one, students will know where to go so legibility or address is of minor importance. The Panel cannot support this view. All streets require some engagement from their host buildings, whether to express landscape quality, major entries, street life or other form of activity or use, the building's response to adjacent public domain is of primary importance - currently and in the future. This is especially true in this case.	*2*	To respond to the pedestrian pathway links to the campus the main entry has been moved to south eastern corner of B73. The prominent double height entry foyer will be surrounded by a public entry plaza giving the precinct a public address that engages with the pedestrian path and the avenue. This will activate and enhance the importance of this pedestrian corridor and provide amenity within a landscaped setting. The visitor parking area is conveniently located adjacent the main entry and will also provide level access for disable users.
K.59	Context	Therefore, in consideration of the Campus' unique setting and its existing landscaped setbacks – and the University's plans to locate retail activity to the east - the Panel believes that a significant setback (in the order of 12m.) must be maintained to create an appropriate interface with the street and allow for significant tree planting. Ideally this set back would allow some of the existing mature trees to be maintained.	*2*	The set backs will be increased to 12m for B73, 10m for B74 and 8m for B75. As discussed above the traffic island on Northfields Avenue will be relocated in front of B75 to further enhance the leafy character. The green zone is capable of supporting mature trees that can potentially grow in excess of 25m in height. With the removal of the 2 large carparks the buildings will sit within a landscaped setting and will be mostly invisible when viewed from Robsons Rd or further east on Northfields Ave.
K.60	Scale/density	Both the scale and density of the proposal are potentially acceptable, given the context of this site and the University's master planning process. However increased set backs from the street should be provided, to allow buildings to sit in a landscaped setting, rather than creating a harsh defensive urban edge to the street.	*2*	The increased setbacks allow the buildings to sit within an appropriate landscaped setting. The landscaped setback will enhance the public amenity and character of Northfields Ave. A majority of trees will be retained. Low life expectancy trees will be removed and replaced with local species. With the retention of the existing trees and on maturity of the new plantings the buildings will largely be covered by the dense foilage.

K.61	Built form	The northern edge of the site is constrained by the riparian zone running through the centre of the university campus. This creates an irregular shaped site which tapers out to the east. Once an appropriate set back is applied to the street, building forms as currently proposed will not fit within the constraints of the site. As with any development, building forms must be developed to fit within and respond to the constraints of the site.	*3*	With the removal of the car parking the buildings are able to shift east towards the deeper portion of the site and thus sit within a greater green zone setback. The eastern portion of the site is not prone to flooding and thus levels across the three buildings can be eased, providing better level access across the courtyards and more usable areas for student amenity. By adjusting the lenght of the buildings the design has flexibility to better fit within the constraints of the site.
K.62	Scale/density	An existing foot path running along the southern edge of the site connects the proposed student accommodation with the rest of the university campus. The lower ground floor of two of the three buildings (73 and 75), address this path with defensive / inactive elevations containing storage areas. Given that that these areas provide the proposals main interface with the existing campus, this is a very unfortunate outcome.	*3*	As discussed previously there are more windows and activity along the ground floor of this facade. The new entry plaza and lobby will also give students and visitors a clearer and welcoming view of the buildings.
K.63	Scale/density	Ideally entrances to each building should be provided on the northern face of each building, to provide a direct connection back into the existing campus. It is however acknowledged that potential flooding issues highlighted by the applicant place some restrictions on the use of lower ground floor. If the built form proposed were an aggregation of typical U shaped courtyard buildings opening out to the north, the entry and active areas of each building would be clearly visible from the northern path and contribute to the life of the courtyard – as entry as well as social space. The current configuration however, conceals the activity spaces behind building wings, which is unfortunate. Hence, how the buildings are entered, either from the Campus or from the Avenue to its south, remains obscure. For a proposal of this scale, which will house so many students, the Panel is concerned that issues of access and address - as well as activation of adjacent public domain - have not been sufficiently resolved.	*3*	Whilst the northern public path is an important pedestrian and cycle route, security of the outdoor communal areas and entry to the buildings is an important factor. There will be two controlled access points from the northern path to the courtyards. One between B73 and 74 and the other between B74 and 75. Uses for lower ground areas to the north include bike stores, FM and services areas. A basket ball half court and some games areas will be provided to activate and connect to the northern path. The footbridge to the proposed multi-storey car park will link with the northern path between B73 and 74. For student security the complex of buildings is design for a single primary entry to ensure that student safety is maintained.
K.64	Scale/density	The treatment of the lower ground floor of building 74 as music room / multi-purpose room provides an active link to the university that capitalises on the northern outlook over the riparian zone. The lower ground floor of buildings 73 and 75 should also be developed to provide a more active connection to the existing campus.	*3*	The music room and multi-purpose room are now located on the ground floor with better connectivity to the majority of student communal areas. As discussed above the lower ground contain mainly bike stores that have been expanded to increase the numbers of bike spaces to 1:3 spaces per student.

K.65	Scale/density	A linear circulation route has been developed intersecting the courtyards created between buildings and linking the entry point to each of the three buildings. However, entrances are only 2m wide and recessed back with the building, so they are not visible from the existing northern foot path which connects the proposal with the existing campus. If this entry strategy is used, it must be developed to provide more generous, visually prominent entrances to each building.	*3*	The revised scheme widens the linked entrances to 3m wide in B73 and 74 as they will be the busiest routes. The covered walkway will also widen appropriately to give a more generous link and visually enhance the entries. B73 will be setback 12m giving the main entry more prominence.
K.66	Scale/density	Considering the shape of the site and its need to incorporate more significant setbacks along Northfields Avenue, it may be better to vary the alignment of the buildings, pushing Building 73 north to create a major entry court - perhaps to its east so at to make the building's major address more prominent form the University's most active heart further east. This entry court could then perhaps communicate directly with a widened east west link, connecting the two courtyards	*3*	The revised scheme addresses these issues directly and provides a 12m setback to B73 allowing a front entry plaza that links the repositioned visitors car park and provides a clear main entry to the precinct.
K.67	Amenity	It is commendable that natural light is provided to circulation spaces. However, it is suggested that circulation routes could be more direct if lifts were reorientated to face north.	*3*	This has been reviewed and the lifts can be reorientated to face north from levels 1 through to level 7. However on the ground floor the lift waiting area will cause a conflict with the major east/west circulation route and on level 8 there is only the southern portion of the building to serve.
K.68	Amenity	Lifts lobbies could then face directly down the main north / south running corridors of each building. If a more generous common room were to be provided on the northern face of each building, vistas from the lift lobby back towards the riparian zone could be achieved.	*4*	As mentioned above lifts positioned to face north will cause a circulation conflict on the ground floor. UOW Accommodation Services have analysed the space requirements for these communal areas and the room areas are provided in a response to the UOW brief.
K.69	Amenity	The reorientation of the lift would also help provide clearly defined entry lobbies to each building (at ground floor level) that have a direct connection to the linear circulation path connecting each building. However, as previously stated, these entrances should be made more generous (wider) and visually prominent to optimize the success of this strategy.	*4*	This has been reviewed and the lifts can be reorientated to face north from levels 1 through to level 7. However on the ground floor the lift waiting area will cause a conflict with the major east/west circulation route and on level 8 there is only the southern portion of the building to serve. The revised scheme widens the linked entrances to 3m wide. The covered walkway will also widen appropriately to give a more generous link and visually enhance the entries.

K.70	Amenity	Large communal spaces have been provided at ground floor level to service all of the 800 students occupying these building. Though these spaces provide important social spaces for large gathering, they lack the intimacy necessary to help create social bonds between smaller groups of students. To help foster a greater sense of community within the building it is recommended that social spaces / living areas are provided on each floor, increasing the size and configuration of the northern study areas could provide such a space. This will provide areas that are used by much smaller groups of students, helping to form a bond between groups of student occupying the same floor.	*4*	UOW Accommodation Services have analysed the space (m2) /student required for communal areas and the mix of facilities to be provided based on a detailed assessment of existing facilities and 'best practice'. It is noted that a number of the 'larger' spaces shown on the drawings will be fitted with pods and other small group activity 'modules'. Small group work areas are provided on the accommodation levels. As part of the interior design flexibility to change the communal spaces either through movable walls or pieces of movable furniture/partition pods will allow for small and large groups to use the space. This arrangement is an economical and provides a future proof solution.
K.71	Amenity	As mentioned above, the obscure location of the main entry is not supported by the Panel. Nor is the absence of any activation along Northfields Avenue. The panel recommends that entrances are moved to a more prominent locations as suggested above and the possibility of retail (even as a future proposal) explored further in the vicinity of the entry and major north south link to the Campus.	*4*	UOW proposes to consolidate and expand retail facilities in a number of key locations on the main campus. Quick, free public bus access is also provided to CBD retail and social venues.
K.72	Environmental	It is not uncommon for student accommodation buildings to generate double loaded corridors, with some units receiving little or no direct solar access. It is acknowledged that given the typology of building and associated economic constrains that compliance with the RFDC rules of thumb for solar access and cross ventilation would be too arduous. However this makes it all the more important that alternative steps to improve the environmental credentials of the building are taken.	*4*	The scheme achieves a layout where the clusters and studios ALL have living areas either facing east, west or north. Whilst some cluster bedrooms do face south their living/dining and balcony areas do not face south. UOW and LLP is committed to delivering a building with low carbon intensity from the materials and construction practices used initially, the energy used throughout the life of the building to the final dismantling of the buildings.
K.73	Environmental	The applicant's description of measures taken regarding selection of materials, use of solar panels, water reuse and solar shading are commendable. The applicant is encouraged to get formal assessment and recognition of the proposals environmental credentials by applying for a green star rating.	*4*	The University has set a high bar in setting the briefed objectives for Ecological Sustainable Design strategies. As student accommodation does not fall easily within the framework of existing rating tools (such as Green star) the University has a maximum Embodies Carbon intensity rate of 680 kg/CO2/m2. This measure flows through the full life cycle of the building and would be considered a higher bar that many of the Green Star requirements.

K.74	Aesthetic	While the expression of the various buildings and material composition has been handled competently, the Panel is concerned that the vital social activities at ground floor level, including the entry, social spaces and linking elements have been obscured, under scaled and given almost no expression. This makes the buildings lifeless and blunt, especially against the landscape. The perspective of building 73 for example – a very prominent facade – does not indicate where to enter or how, besides the presence of a very narrow domestically scaled walkway structure. Considering the scale of the proposal, the ground level spaces should be much higher – more expressive, with double height volumes and axes made much clearer. As proposed, this really is a missed opportunity to represent the life of the college and express how it works.	*4*	The revised scheme acknowledges and addresses the comments raised by the DRP. The ground floor layout has been revisited and now offers more common areas facing Northfields Avenue and a much more prominant double height main entry and plaza at B73. Links between the buildings have been widened and have covered areas and the connecting spine made more prominent. Due to improved flooding conditions the building RL's are closer to one another and the links through the courtyards are level access routes.
K.75	Social dimension	The proposal is appropriately located to provide convenient residential accommodation for Students. However, the potential social implications for some students, who may be overwhelmed by the scale of an environment designed for 800 young adults, should be better recognized in the Proposal. The applicant is encouraged to develop more opportunities for smaller groups of students to socialise.	*5*	The University operates the accommodation with a range of management arrangements and procedures as outlined in the attached document. This includes : - formal accommodation agreements, - Conduct and Residencies policy's - on-site (live-in) managers - appointed student leaders, - etc. Note that this items seems to be raised out of the boarding house requirements which are not applicable to this DA. The supporting document does not address the WCC requirements as these seem to be relevant to a boarding house.The University has a well developed social hierarchy structure and accommodation management history. The complex is split into three buildings which then each will have less students than the recent and very successful Kooloobong 2 student accommodation building (358 students)
K.76	Social dimension	As noted above, the Panel believes that the proposal needs to be better integrated with both Northfields Avenue (through larger setback, clearer entry and potential street activation) and the pathway to its north (more activation and more legible entry and social spaces) to really form part of the University's existing and future pedestrian and civic networks.	*5*	The Revised DA scheme offers greater setbacks to all buildings and the relocation of the main entry and administration from B74 to B73 to better address the street and natural flow students between the site and main campus. In conjunction with the relocation of the main entry, the pedestrian 'spine' linking has been strengthened between 3 buildings with the wider entries and more legible pathways.

K.77	Summary	A fundament part of the design process is to analysis the site and its immediate context to determine the constraints of the site. Whilst it is evident that some analysis has been undertaken, there is not a clear description in the documentation of vital linkages, adjacent developments, existing and proposed landscapes (including setbacks), key desire lines and other essential information required to structure a large proposal such as this. Hence, an inappropriate setback has been proposed that would negatively impact on the urban design quality of Northfields Avenue, diminish the University's representation to the street and create an unpleasant environment at ground level. A typical two storey house in adjacent residential neighbourhoods for example would be set back a minimum of 6m to its street boundary then there would be additional space provided for foot path and a grass verge (around 9m). Clearly, 5.25m is not acceptable for the 8 storey buildings proposed. Once an appropriate setback is determined, the Panel suggests that building forms should be reviewed in the light of a more thorough site analysis so as to sit within the constraints of the site. In developing these revised building forms, consideration should be given to: - Developing the northern lower levels of the northern elevation to provide an improve interface with existing campus. - Develop clear and legible entrances to each building. - Develop communal spaces to each floor that provide opportunities for smaller groups of students to socialise. - Refine internal circulation areas to provide shorter more direct route to the northern units.	*5*	The forms, sitting and layout of the buildings and landscape has been formed in response to the constraints of the site such as easements and overland flood paths. The opportunity to link the riparian zone with Northfields Avenue is realised through a visual link and landscaped corridor through the student courtyards. The layout of the buildings respond to the security issues posed by embracing the communal courtyards. A balance of security, openness and activation is achieved in the current proposal which has come through an in-depth analysis and understanding of the site and satisfies the brief of the UOW. In response to the DRP comments a revised DA scheme is proposed which: Sets B73 back 12m with a landscaped entry plaza and main entry/administration to its ground floor east. Sets B74 back 10m Sets B75 back 8m and relocates a traffic island infront of B75 which provides an opportunity for additional planting to create a combine green buffer of 16m Gives a new double height entry and plaza that is more prominent to Northfields Avenue and the adjacent pathways leading east to the University Relocates the majority of student parking to the multi-storey car park. The buildings shifted east and the area to the west maintained as natural mature treed parkland. Moves the visitors car park to the east and the area it occupied will be landscaped. This provides better links to the main entry and admin for visitors. Service path to the south removed to provide a deeper planted zone. New waste service routes internalised Provides increased visibility to links and entries to each building. The entries will be made wider and more prominent We believe the amendments incorporated into the revised DA scheme satisfy the ideals of the DRP and greatly enhance the facility of the current scheme.

Attachment 4
DVS, SEPP 65 & RFDS Assessment Considerations

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

Attachment 4 – Design Verification Statement, SEPP 65 and RFDC Merit Assessment Considerations

1. Design Quality Principles Assessment

Principle 1: Context

Good design responds and contributes to its context. Context can be defined as the key natural and built features of an area.

Responding to context involves identifying the desirable elements of a location's current character or, in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies. New buildings will thereby contribute to the quality and identity of the area.

Applicant Response:

Development surrounding the site comprises a mix of uses including; multi-storey student accommodation, University of Wollongong land, playing fields, and Wollongong Botanical Gardens. The site is bounded by Northfields Avenue to the south.

To the north of the site are existing 3 storey student housing blocks and the recently built Kooloobong 2 – 5 storey student accommodation buildings. To the east and west are UoW campus parklands. To the south are sports playfields and the Wollongong Botanical Gardens with their service areas fronting Northfields Avenue. The main campus is to the east linked by a network of pedestrian and cycle paths.

The University Masterplan for Northfields Avenue creates a prominent entry to the University with flagship or iconic architectural projects. The landscape and urban design quality of Northfields Avenue will be enhanced and the precinct developed as a higher density hub. Along Northfields Avenue and particularly around our site, the Masterplan facilitates the following:

- Improved public transport hub to promote the use of public transport
- Improved pedestrian and bicycle safety with enhanced shared cycle ways
- Improved pedestrian and vehicular access with the proposal of a new footbridge over Northfields Avenue
- Provides a high level of security for students staff and visitors
- Reinforce the leafy pedestrian friendly campus character with buildings clustered around green landscaped spaces
- Improved support facilities such as a childcare centre

The site slopes down from Northfields Avenue on the south to the riparian zone to the north. The site is triangular in shape with the largest and flattest portion on the east and tapers towards the west. The eastern portion of the site is ideal for a visitors carpark and entry as it responds to the main campus and pedestrian traffic on the path network. The new carpark utilises an existing crossover on Northfields Avenue. The other vehicular access crossover will be demolished as there are no further carparks on this site.

The main entrance on Northfields Avenue provides a secure and prominent entry into the precinct. It is adjacent to the carpark and is also highly visible from Northfields Avenue making wayfinding easier. The administration office is directly behind the entry foyer and provides surveillance of the carpark and the paths. The vibrant northern communal courtyards are visually linked to the avenue but with a deep planted setback and fencing to provide security. The generous setback means we can maintain most of the mature trees that line the avenue and enhance the frontage with more planting in the courtyards and in front of the buildings.

Planning Comment:

The proposed development is not considered to be inconsistent with the existing and future desired context and character of the area. The siting of the student accommodation buildings is considered to reasonably respond to the location, topographic setting and site context. The development is proposed on the main campus within the established Kooloobong student accommodation precinct and is a short distance to UOWs existing main educational and service facilities within the University landholding.

Principle 2: Scale

Good design provides an appropriate scale in terms of the bulk and height that suits the scale of the street and the surrounding buildings.

Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing a transition, proposed bulk and height needs to achieve the scale identified for the desired future character of the area.

Applicant Response:

The buildings are appropriately setback to maintain the leafy character of Northfields Ave. Building B73 is setback 12m, B74 is setback 10m and B75 is setback 8m with an additional relocated traffic island that will be planted to give a denser green frontage. With the signify cant landscape planning the buildings will largely be hidden when viewed from Robson's Road or further down Northfields Avenue.

The 3 buildings range from 7 to 8 storeys and responds to the topography of the site and is articulated to minimise its scale, mass and visual impact. The building mass is broken down vertically with façade splits to further delineate its mass. The introduction of colour and texture adds further to reducing the perception of bulk.

The massing of the buildings have been carefully articulated to respond to the various scales of development within the immediate vicinity of the site. The height and setback of the buildings are comparable to recently completed and nearby campus buildings.

Planning Comment:

The bulk and scale of the development is not considered to be inconsistent with the ongoing redevelopment of the University and the surrounding area, noting that there is no applicable height or floor space ratio development standards for the site. The massing of all three buildings is broken up to allow a site responsive design consistent with the topography of the development area.

Principle 3: Built form

Good design achieves an appropriate built form for a site and the building's purpose, in terms of building alignments, proportions, building type and the manipulation of building elements.

Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

Applicant Response:

The building facade creates a vibrant and innovative image reflective of the University and will sit well with the future developments in the Northfields corridor. The significant setbacks provide a public green zone in front of the buildings. These zones extend between the buildings as green fingered landscaped communal courtyards. Thus the buildings sit within a landscaped arena.

The use of contemporary façade materials, asymmetric elements, use of colour on window shades and balcony elements give the building a functional but sophisticated playful aesthetic. The highly articulated street edge façades not only establish a positive public domain interface but reduces the perceived bulk and length of the building.

Building identity and wayfinding elements will communicate to users a clear and inclusive message through the use of colours and materials, signage, the orientation of the entry and steps. The landscape design and interior design will support this cohesive identity through the choice of planting, the coordinated design of finishes and selection of both indoor and outdoor furniture and fixtures.

Planning Comment:

The proposal was referred to Councils Design Review Panel on 19 February 2015 and minutes provided to the applicant. A response has been provided to each matter identified within the meeting minutes and is included at Attachment 3 of the report.

The built form is not inconsistent with other recent student accommodation development by the University via DA-2009/1189 and DA-2014/1474 approved by the JRPP. The proposal is considered to be appropriate in terms of proportions, building type and alignment.

Principle 4: Density

Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents).

Appropriate densities are sustainable and consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density. Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities and environmental quality.

Applicant Response:

The building accommodates 800 undergraduate students and 2 resident managers. The scale of the building is consistent with surrounding University buildings and will sit comfortably within its built form context.

The density of this development is consistent with the University's other recent student accommodation buildings and typical of other student accommodation across the country. The need for affordable student accommodation drives the requirement for higher densities when compared to other types of residential accommodation. The undergraduate population of this site requires a high proportion of cluster shared accommodation type with fewer studio types. It must be noted the quality the accommodation provided in particular the provision of a balcony to every studio unit and shared cluster accommodation.

Over the site, the three buildings foot prints account for 24% of site area. This means the majority of the site is dedicated to landscaped open space. Students have a choice of secure communal courtyards totalling over 2500m2 or 18% of the site. There are also areas of public landscaped areas totalling over 6000m2 or 44% of the site.

Planning Comment:

Whilst the land use zone does not have a Floor Space Ratio (FSR) density development standard within the WLEP 2009, the proposal is not considered to be inconsistent with the objectives of the SP2 Infrastructure land use zone and is consistent in scale and density of other recent student accommodation developments at the University.

Principle 5: Resource, energy and water efficiency

Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction.

Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water.

Applicant Response:

The development makes use of a site that is being used as low/medium density student. With its close proximity to campus and public transport the site is more suited to the proposal. The existing buildings on the site are constructed of readily recyclable materials such as brick, glass, terracotta tiles and timber.

The development aims to reduce CO2 emissions by applying energy design principles and utilise low or zero carbon technologies to achieve maximum embodied carbon intensity rates in line with the University standards. Wherever possible, use of local subcontractors and locally produced materials will help to achieve lower embodied carbon rates.

Quality materials for the main building elements ensure long lifespans and minimise maintenance over that period. The metal profile cladding provide a façade that is textural and its large spans ensure ease of construction and building airtightness.

The student accommodation and corridors will be naturally ventilated. Rainwater will be harvested for use in toilets flushing. The buildings ongoing energy use will be constantly monitored through a Building Management System to pin point where further enhancements can be made throughout the life span of the building.

Zero irrigation landscaping and minimising the construction impact to surrounding trees will further enhance the student environment and establish a positive sustainable development.

Photovoltaic cells on the roof will take advantage of the building's height and solar aspect.

Planning Comment:

The proposal is considered acceptable with regard to sustainable design. A Water Sensitive Urban Design (WSUD) Strategy and BASIX certification formed part of the application submission. Both documents have been assessed by Councils Environment Officer and found to be conditionally satisfactory.

Principle 6: Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain.

Landscape design builds on the existing site's natural and cultural features in responsible and creative ways. It enhances the development's natural environmental performance by co-ordinating water and soil management, solar access, micro-climate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for streetscape and neighbourhood character, or desired future character.

Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long term management.

Applicant Response:

The landscape design provides secure outdoor space for active and passive recreation. As the University is an 'open campus' the landscaping proposal minimises the use fences or barriers. Use of planting, level changes and other landscape elements reinforce the circulation strategies and pedestrian links to and around the site whilst maintain a 'barrier free' edge. By providing integrated communal facilities which transition from indoor facilities to outdoor courtyards further softens the development and provides improved visual amenity.

The development seeks maximise the retention of trees on site, particularly to the streetscape and integrates new planting with the existing street canopy. New landscaping and native planting is designed to enhance the street edge and follow the University landscaping masterplan being sympathetic to the setback of existing buildings and continues the Over 60% of the site will consist of either public landscaped area or secure student courtyards. Parking has been minimised to the eastern portion. To the west of the site the existing buildings are being demolished and the area will be returned to a natural landscaped setting.

Planning Comment:

The proposal provides suitable landscaped areas and communal open space. Councils Landscape Officer has assessed the proposal and provided a satisfactory referral response. Draft conditions are recommended with regard to tree retention and removal, compensatory planting, tree protection and construction works.

Principle 7: Amenity

Good design provides amenity through the physical, spatial and environmental quality of a development.

Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook and ease of access for all age groups and degrees of mobility.

Applicant Response:

All the student accommodation in the development will be naturally ventilated with large operable windows. The large windows maximise the solar opportunities and views of the campus and surrounding parklands. Sunshades ensure solar gain is minimised during summer and the use of colour on these elements enhance the wayfinding for each building.

The buildings have a mix of self-contained Studio accommodation and 4 Bed Clusters. The 4 Bed Clusters will have access to a private balcony. Generous communal areas will link to secure landscaped courtyards catering to active and passive recreation and socialisation. The communal facilities and range of outdoor spaces aim to support the social and development of undergraduate students.

The development also supports the functional aspects of student life with communal amenities such as laundry facilities that link to outdoor clothes lines, secure bicycle stores that in total can accommodate 270 bicycles, and convenient garbage and waste facilities. The proximity of the site to the campus should also be noted and the amenities provided on the campus suits the lifestyle of the undergraduate student. The main campus faculties, libraries and student facilities are a short walk away. The campus has retail facilities and is expanding its retail offer to increase the convenience of living on campus. Parks and sports facilities are also on campus or nearby.

On campus living promotes the role of the on site Resident Managers who provide not only practical support but also can provide pastoral care and they arrange a myriad of social and developmental activities that create a colligiate bond and is a primary reason why students choose to embrace an on campus experience.

The design uses as a guideline the rules of thumb in SEPP 65. For solar access 84% of the accommodation receives a minimum of 3 hours solar access to living areas between 9am and 3pm in mid-winter. For cross ventilation the student accommodation with its predominantly single orientation utilises mechanical assistance to achieve cross ventilation. With this method 100% of the accommodation achieves cross-ventilation and 0% of the accommodation are single orientation south facing.

Planning Comment:

The amenity of the dwellings within the proposed development is considered to be acceptable. The accommodation design and double loaded corridors is characteristic of recent student accommodation developments. Further discussion with regard to solar access and dwelling amenity is outlined within the Residential Flat Design Code Assessment Table included below and WDCP 2009 assessments included at Attachment 6.

Principle 8: Safety and security

Good design optimises safety and security, both internal to the development and for the public domain.

This is achieved by maximising overlooking of public and communal spaces while maintaining internal privacy, avoiding dark and non-visible areas, maximising activity on streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and clear definition between public and private spaces.

Applicant Response:

The design of the building and its surroundings optimises safety and security, both internal to the development and for the public domain. Overlooking of communal spaces and public areas is achieved from the circulation routes and stairs. Splits in the building mass allow corridors to have external views and natural ventilation. The accommodation overlooks the courtyards and pathways while maintaining internal privacy through the use of

balcony screening. The layout of the external circulation and entries to the site and building are highly legible and enhance the wayfinding experience of users.

The landscape design is in line with the University standards of Safer by Design and avoids use of low hedges with the potential of hiding spots. Path and car parks are clearly defined and well lit at night.

In addition the University's grid of CCTV will be extended to cover the site and the surrounding network of pedestrian paths for added surveillance and security. There are 2 full time Resident Managers on site to provide assistance and care for the students.

Planning Comment:

The proposal is considered satisfactory with regard to safety and security. A CPTED Report and Management Plan has been provided outlining the methods employed across the University and for the proposed development to ensure the safety and security of the future occupants and outlining the procedure for dealing with complaints and managing residents. Details have been provided which identify the method of security access and control, electrical and CCTV monitoring and general design. Details of the management arrangement have also been provided. Draft conditions 24-26 inclusive and 122 are recommended in this regard. Councils Landscape and SCAT Officers have reviewed the application submission and indicated no objections to the proposal, subject to draft conditions relating to site security. Opportunities for concealment and entrapment are considered minimal in the building and landscape designs respectively.

Principle 9: Social dimensions

Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities.

New developments should optimise the provision of housing to suit the social mix and needs in the neighbourhood or, in the case of precincts undergoing transition, provide for the desired future community.

New developments should address housing affordability by optimising the provision of economic housing choices and providing a mix of housing types to cater for different budgets and housing needs.

Applicant Response:

The student accommodation provides students with an affordable means of accommodation close to campus and enhances the student lifestyle experience whilst studying at Wollongong. By providing for all their needs, students have very little housing setup costs.

The facilities promotes a collegiate environment and lifestyle supporting the social and development needs of the students through a range of communal facilities include study rooms for seminars and organised groups, cinema facilities with operable walls for multiple use, open planned dining areas with kitchens for parties and functions. The planning of the facility considers the formal areas supporting a range of communal and group activity and also areas where informal interaction can be encouraged such as lift lobbies, corridors and stairways. This not only increase casual interaction but increases security through casual surveillance of the site.

Planning Comment:

The proposal provides a mix of unit sizes and layouts appropriate to the University to cater for undergraduate students. Communal facilities are available on

the ground floor of the building, whilst study rooms are provided on each accommodation level. Large communal open space areas are also available throughout the main campus.

Principle 10: Aesthetics

Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development. Aesthetics should respond to the environment and context, particularly to desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area.

Applicant Response:

The design of the building utilises a palette of textures, colours and forms to express a vibrant and innovative image reflective of the University. The design is appropriate for the site and sympathetic to its surroundings allowing for and enhancing pedestrian access through the site.

The materials and colours chosen for the exterior flow through to the interior design creating a cohesive and unified design. The landscape design is also worked in closely with the architecture and interiors conveying the same aesthetics throughout the development creating a sense of community and harmony.

Planning Comment:

A mixture of materials and finishes is proposed and the development is considered to be suitably articulated. The proposal was referred to Councils Independent Design Review Panel on 19 February 2015 and minutes provided to the applicant. A response has been provided to each matter identified within the meeting minutes and is included at Attachment 3 of the report.

Conclusion

The proposed development is not considered to be inconsistent with the 10 design quality principles as outlined above.

2. Residential Flat Design Code Assessment		
	Required	Comment
Part 1.0 Local Context		
Residential Flat Building Type	Suitable for the site context	The proposed student accommodation complex is considered to be compatible with the site context. The height of the development is comparable to several other recent developments at the University including the newly constructed Smart Building and the Postgraduate Student Accommodation located at the eastern end of Northfields Avenue. The location of the proposed building is not envisaged to obstruct views of the escarpment from the surrounding area. The proposed development is considered to positively address the streetscape.
Amalgamation + Subdivision	Encouraged	The subject development site has been consolidated with the larger University landholding into one Title.
Building Envelopes	Establish a three-dimensional form that limits the extent of building in any direction. Based on height, FSR and setback controls.	As the site has no applicable height, FSR or setback controls, the establishment of an appropriate building envelope is difficult in the circumstance. It is however, considered that the development proposed is adequately setback from Northfields Ave, and adjoining properties and of an appropriate height and scale in the context at the locality.
Primary Development Controls		
Building Height	Test height against FSR to ensure the proposal is a good fit.	The site has no applicable FSR or height controls. The development is considered to be comparable in size to other recent development at the University site and not inconsistent with the desired future character of the local area. The proposal has a maximum height of 26m above natural ground level. Each of the buildings are proposed in three individual towers linked via walkways broken into 7 and 8 storeys.
Building Depth	In general, an apartment depth of 10-18m is appropriate. Developments wider than 18m must demonstrate how satisfactory daylight and natural ventilation are to be achieved.	Each individual building tower has a maximum depth of approximately 16m which is considered to be appropriate. The building envelope for the proposed development is considered to adequately address the requirements of this clause and provide for a reasonable amenity to the future occupants of the units.

Building separation	Separation requirements: Five to eight storeys/up to 25 metres • 18 metres between habitable room /balconies • 13 metres between habitable rooms/balconies and non-habitable rooms • 9 metres between non-habitable rooms	There is no building height control applicable to the subject land. The proposal has a maximum height of 26m and 8 storeys. The height of the proposal is not considered to be inappropriate. The proposal does not result in any significant overshadowing of adjoining properties. The proposed development is located greater than 35m to the nearest existing student accommodation building and a significant distance from any related side or rear boundary. The separation proposed between buildings 73, 74 and 75 is greater than 14m at its closest point which is considered appropriate. The proposed separation is not envisaged to result in unreasonable privacy or acoustic impacts on adjoining properties. An Acoustic Report was provided as part of the application submission and has been assessed by Councils Environment Officer. Conditionally satisfactory referral advice has been received with regard to acoustic impacts and mitigation measures to be employed to achieve BASIX requirements.
Street Setbacks	Identify the desired streetscape character, the common setback of buildings in the street, the accommodation of street tree planting and the height of buildings and daylight access controls.	There is no site specific Development Control Plan for the site and as such no defined street setback controls. The streetscape character for Northfields Avenue is considered to be defined by the University buildings at the southern end of Northfields Avenue and the existing student accommodation buildings located along Robsons Road. Student accommodation Building 68 is setback approximately 6m from Robsons Road. The University buildings on the northern side of the Northfields Avenue are setback approximately 20m. The existing Kooloobong development, proposed for demolition, is setback approximately 4m at its closest point. The proposed setbacks for the student accommodation complex are as follows: Building 73 – 12m Building 74 – 10m Building 75 – 8m These setbacks are considered appropriate in this instance having regard to the retention of mature trees along the Northfields frontage, addition of further trees, and the relocation of a traffic island in front of building 75 including additional planting.

		The application proposes to retain several large street trees on Northfields Ave in conjunction with additional landscaping works which is considered to be appropriate for the streetscape.
Side and rear setbacks	Establish primary and secondary setback lines. Test side and rear setbacks with building separation, open space and deep soil zone requirements. Test side and rear setbacks for overshadowing of other parts of the development and/or adjoining properties and POS.	It is considered that Northfields Avenue would be the primary setback and Robsons Road the secondary setback lines. Setbacks to the two streets and surrounding development are considered acceptable. The proposal will have minimal overshadowing impacts upon adjoining properties.
Floor Space Ratio	Test the desired built form against FSR to ensure consistency with other building envelope controls.	As discussed above, there is no applicable FSR control for the site. The proposed GFA of the development is not considered to be out of character with the scale of development on the University campus. The proposal is considered to meet the objectives of the control in being to ensure that the development is in keeping with the optimum capacity of the site and local area. The proposal is not inconsistent with other existing student accommodation building envelope controls as discussed above.
Part 2.0 Site Design		
Site Configuration		
Deep Soil Zones	A minimum of 25% of the open space area should be a deep soil zone; more is desirable.	Greater than 4500sqm of the development site is to be provided as additional open space owing to the demolition of the original Kooloobong development as well as landscaped areas being provided throughout the remaining student accommodation complex. As the site forms part of the wider University campus, it is considered that the landscaping proposed is appropriate. Councils Landscape Officer has provided a conditionally satisfactory referral response in this regard.
Fences and Walls	Fences should define the edges between public and private land without compromising safety, respond to the architectural character of the street, enhance open spaces and contribute to the amenity, beauty and useability of private and communal spaces.	The proposed student accommodation complex is proposed as a secure space to allow safe use of the secure open spaces accessed from the communal ground floor areas of each building which is consistent with other recently approved student accommodation for the UOW landholding. Use of landscaping features assist in defining communal open space areas and pedestrian thoroughfares.

Landscape Design	• Improve the amenity of open space • Contribute to street character and public domain • Improve energy efficiency and solar efficiency of dwellings and private open spaces. • Landscape to contribute to the sites characteristics. • Contribute to water and stormwater efficiency • Provide sufficient depth of soil above slabs to enable growth of mature trees. • Minimise maintenance.	The Landscape Concept Plan submitted with the application is considered to be appropriate for the site and does not propose landscaping which has the potential to screen entrances to the building. All surfaces are designed in a way that will allow access for disabled and mobility impaired people. The retention of large mature street trees on Northfields Avenue maintains street character. The design of the building incorporates rainwater capture and reuse within the site. Councils Landscape and SCAT Officers have reviewed the application submission and indicated no objection to the proposal. Opportunities for concealment are considered minimal. Draft condition 25 is recommended with regard to landscape design and treatment.
Open Space	The area of communal open space (including landscaping) should generally be at least between 25 and 30% of the site area. Larger sites and brownfield sites may have potential for more than 30%.	A number of secure open spaces are provided for the exclusive use of building residents. These open spaces consist of both active and passive areas. It should be noted that the University campus has been designed as an 'open campus' with numerous open space and courtyard areas spread throughout which will be available for the use of the future occupants of the proposal.
Orientation	Plan the site to optimise solar access by: – positioning and orienting buildings to maximise north facing walls (within 30 degrees east and 20 degrees west of north) where possible – providing adequate building separation within the development and to adjacent buildings (see Building Separation, Side and Rear Setbacks). Select building types or layouts which respond to the streetscape while optimising solar access. Where streets are to be edged and defined by buildings, design solutions include: – align buildings to the street on east-west streets – use courtyards, L-shaped configurations and increased setbacks to northern (side) boundaries on north-south streets. Optimise solar access to living spaces and	The design of the buildings, broken into three components, does not result in unreasonable overshadowing impacts and is considered acceptable. Shadow diagrams have been submitted and demonstrate that the proposal is unlikely to result in any overshadowing of adjoining properties on June 21 between 9am and 3pm. As the design of each building is predominately north south in orientation, overshadowing of the south facing units will occur on June 21 as demonstrated by the submitted shadow diagrams. This arrangement with double loaded corridors is not inconsistent with other student accommodation developments and not dissimilar to the recently constructed K2 building or the recently approved postgraduate student accommodation building. All 4 bedroom clusters are provided with balcony areas and will have access to the ground floor communal facilities and courtyards. The proposed orientation is not considered to be inappropriate in this case. A schedule of external finishes has been provided with the application submission and is considered appropriate and of high quality.

	associated private open spaces by orienting them to the north.	
Planting on Structures	An increasingly common scenario in urban areas is the establishment of landscape areas on top of basement car parks, on podiums, and/or on roofs.	No plantings are proposed on the structure.
Stormwater Management	*Objectives* - To minimise the impacts of residential flat development and associated infrastructure on the health and amenity of natural waterways. - To preserve existing topographic and natural features, including watercourses and wetlands. - To minimise the discharge of sediment and other pollutants to the urban stormwater drainage system during construction activity.	Councils Stormwater Officer has reviewed the application submission and considers the proposal to be satisfactory subject to draft conditions. A Water Sensitive Urban Design (WSUD) Report was provided with the application submission and considers the overall management of stormwater quality for the site. MUSIC modelling was used to determine the treatment train so that treated stormwater will achieve the water quality objectives of Chapter E15 of WDCP 2009. Councils Environment Officer has reviewed the submitted report and is satisfied. Draft conditions are recommended relating to monitoring and management. A Site Management Plan has been submitted detailing construction activity, mitigation measures and conditions are recommended with regard to the control of soil erosion and sediment runoff during construction works.
Site Amenity		
Safety	*Objectives* – To ensure residential flat developments are safe and secure for residents and visitors. – To contribute to the safety of the public domain.	Details of the application submission were referred to Council's SCAT Officer who has reviewed the application and provided a conditionally satisfactory referral advice. An assessment against Chapter E2 Crime Prevention Through Environmental Design of the Wollongong Development Control Plan 2009 is provided within the report. A CPTED report and Management Plan for the building has been submitted as discussed within the report. Documentation has also been provided which identified the method of security access and control, electrical and CCTV monitoring and general design. Details of the management arrangement have also been provided. Draft conditions 24-26 inclusive and 122 are recommended in this regard.
Visual Privacy	*Objectives* – To provide reasonable levels of visual privacy externally and internally, during the day and at night. – To maximise outlook and views from principal rooms and private open space	The building layout has been designed to minimise opportunities for direct overlooking. The balconies have been designed such that direct overlooking between units is minimised.

	without compromising visual privacy.	
Site Access		
Building Entry	*Objectives* – To create entrances which provide a desirable residential identity for the development. – To orient the visitor. – To contribute positively to the streetscape and building facade design.	The main entry point for the building complex is defined by landscaping and the proposed access stairway adjoining building 73. The stairs proposed allow for a direct link between Northfields Avenue and the building entry. Disabled access is proposed to the facility and the courtyard area. Access ramps are proposed from the disabled car parking spaces to the foyer area. Conditions are recommended requiring compliant disabled access to Australian Standards. Entry to the building is to be controlled via a key card/swipe system.
Parking	*Objectives* – To minimise car dependency for commuting and recreational transport use and to promote alternative means of transport-public transport, bicycling, and walking. – To provide adequate car parking for the building's users and visitors, depending on building type and proximity to public transport. – To integrate the location and design of car parking with the design of the site and the building.	The proposal has been designed with regard to minimising car dependency and sustainable travel methods in line with the University's Transport and Traffic Implementation Plan 2014 and overall Sustainable Transport Strategy. At grade visitor car parking is proposed to the east of the proposed building. Landscaping has been incorporated into the design of the car park. The proposed student accommodation development is proposed within the University of Wollongong main campus and in close proximity to a major bus interchange and taxi rank. Further discussion in this regard is provided at section 3.3.1 (Chapter E3) of the report.
Pedestrian Access	*Objectives* – To promote residential flat development which is well connected to the street and contributes to the accessibility of the public domain. – To ensure that residents, including users of strollers and wheelchairs and people with bicycles, are able to reach and enter their apartment and use communal areas via minimum grade ramps, paths, access ways or lifts. Identify access requirements from the street or car parking area to the apartment entrance. Compliance with AS 1428 (parts 1 and 2) as a minimum.	Pedestrian access is available from both Northfields Ave and within the main campus grounds It is considered that the proposal allows for adequate access to all units and the communal courtyard area for all potential residents. Access from the visitor car parking area to the units is via ramps, lifts or fire stairs. Barrier free access appears to be available to all dwellings and courtyard areas. Draft condition 6 is recommended with regard to compliance with AS 1428 (parts 1 and 2) as called up by the NCC and BCA.

	Provide barrier free access to at least 20% of the units.	
Vehicle Access	*Objectives* – To integrate adequate car parking and servicing access without compromising street character, landscape or pedestrian amenity and safety. – To encourage the active use of street frontages. – Generally limit the width of driveways to a maximum of six metres. – Locate vehicle entries away from main pedestrian entries and on secondary frontages.	Vehicular access for visitor parking is proposed off Northfields Avenue whilst student resident parking is proposed within a nearby multi-storey carpark. Councils Traffic Officer has reviewed the proposal with regard to vehicular access and provided a conditionally satisfactory referral response.
Part 3.0 Building Design		
Building Configuration		
Apartment Layout	– Single-aspect apartments should be limited in depth to 8 metres from a window. – The back of a kitchen should be no more than 8 metres from a window. – The width of cross-over or cross-through apartments over 15 metres deep should be 4 metres or greater to avoid deep narrow apartment layouts.	A number of single aspect units are proposed. All have a depth of not more than 10m from a window. All kitchens are proposed within 8m of a window. No apartments are proposed with a depth over 15m. The size and layout of the dwellings is not considered to be inappropriate in the circumstances and is similar in design to another recent on campus student accommodation development and other Universities including the University of Sydney and Monash University which are currently considered to be the benchmark for Student Accommodation developments.
Apartment Mix	– Provide a variety of apartment types between studio-, one-, two-, three- and three plus-bedroom apartments, particularly in large apartment buildings. Variety may not be possible in smaller buildings, for example, up to six units. – Refine the appropriate apartment mix for a location by: o Considering population trends in the future as well as present market	A variety of single studio, 4 bedroom clusters and DDA dwellings are proposed. The apartment mix is considered appropriate as relates to being part of the University Campus student facilities.

	demands o Noting the apartment's location in relation to public transport, public facilities, employment areas, schools and universities and retail centres.	
Balconies	– Provide primary balconies for all apartments with a minimum depth of 2 metres. Developments which seek to vary from the minimum standards must demonstrate that negative impacts from the context-noise, wind-can not be satisfactorily mitigated with design solutions. – Require scale plans of balcony with furniture layout to confirm adequate, useable space when an alternate balcony depth is proposed.	All 4 bedroom cluster units are provided with a balcony, whilst single studios are provided with large openable windows. The applicant has provided correspondence outlining that as a University Policy, large balcony areas are discouraged as they provide gathering areas for students which can cause acoustic impacts to surrounding properties and result in an increased risk for the University. A table and chair/chairs are included on the balcony of each unit on the submitted architectural plans demonstrating that adequate furniture to reasonably cater for the students demands can be provided in the space. The balconies proposed are considered reasonable in the circumstance.
Ceiling Heights	In general, 2.7 metre minimum for all habitable rooms on all floors, 2.4 metres is the preferred minimum for all non-habitable rooms, however 2.25m is permitted.	2.7m ceilings are proposed throughout the residential habitable rooms and 3.4m ceilings are proposed on the lower ground floor with the double height entry of building 73 having a height of 6.4m.
Flexibility	*Objectives* – To encourage housing designs which meet the broadest range of the occupants' needs possible. – To promote 'long life loose fit' buildings, which can accommodate whole or partial changes of use. – To encourage adaptive re-use. – To save the embodied energy expended in building demolition.	The applicant has advised that the development has been designed with regard to future adaptive reuse. The construction is by way of structural columns and concrete slabs rather than load bearing walls which allows for future fit out options. 2.7m ceilings are proposed, however the floor to floor height of 3m allows for flexibility in future use. Further detail provided in the additional information submitted indicates that the proposal has a maximum embodied carbon intensity rate of 680kg/CO2/m2. This measure flows through the full life cycle of the building and is considered a higher standard than the Green Star rating requirements.
Ground Floor Apartments	– Optimise the number of ground floor apartments with separate entries and consider requiring an appropriate percentage of accessible units. This relates to the desired streetscape and topography of the site.	No units are proposed with direct access at Ground Level as these areas are allocated for communal space and activities.

	– Provide ground floor apartments with access to private open space, preferably as a terrace or garden.	
Internal Circulation	In general, where units are arranged off a double-loaded corridor, the number of units accessible from a single core/corridor should be limited to eight. Exceptions may be allowed: – for adaptive reuse buildings – where developments can demonstrate the achievement of the desired streetscape character and entry response – where developments can demonstrate a high level of amenity for common lobbies, corridors and units, (cross over, dual aspect apartments).	It is not uncommon for student accommodation developments to be provided with double loaded corridors. It is acknowledged that given the typology of building and associated economic constrains that compliance with the RFDC rules of thumb in this regard would be unreasonable. Dual aspect 4 bedroom cluster dwellings are proposed on the corners of each building pod.
Mixed Use	Complementary uses Consider building depth and form in relation to each uses requirement for servicing and amenity Design legible circulation systems which ensure safety. Ensure that the building positively contributes to the public domain Address acoustic requirements. Recognise ownership/lease patterns and separate requirements for BCA assessment.	The proposed building includes different uses such as kitchen and laundry facilities, bicycle storage, kitchen and dining facilities, flexible study areas, service rooms and administrative areas. All uses are considered to directly relate to the primary use of the site as student accommodation. It is not expected that the ground floor areas would be leased out separate to the University use, but would have the capability to be adapted in the future if desired.
Storage	In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates: - studio apartments 6m3 - one-bedroom apartments 6m3 - two-bedroom apartments 8m3 - three plus bedroom apartments 10m3	Adequate storage areas are proposed within each dwelling.
Building Amenity		
Acoustic Privacy	– Utilise the site and building layout to maximise the potential for acoustic privacy by providing adequate building separation within the development and from neighbouring buildings. – Arrange apartments within a development	The building is considered to be adequately separated from surrounding uses. An Acoustic Report formed part of the application submission. The Noise Impact Assessment Report prepared by Acoustic Logic dated 31 October 2014 has determined background noise as per the NSW EPA guidelines and various criteria were considered such as for construction noise, internal living spaces and

	to minimise noise transition between flats. – Design the internal apartment layout to separate noisier spaces from quieter spaces by: – Resolve conflicts between noise, outlook and views by using design measures including.\Reduce noise transmission from common corridors or outside the building by providing seals at entry doors.	machinery and equipment on buildings. The report has recommended appropriate glazing for the building to comply with internal living space noise criteria and construction noise and vibration management. Councils Environment Officer has reviewed the proposal and the submitted Acoustic Report and provided a conditionally satisfactory referral response. Draft condition 74 is proposed to ensure that the recommendations of the submitted acoustic report are implemented as described.
Daylight access	– Living rooms and private open spaces for at least 70 percent of apartments in a development should receive a minimum of three hours direct sunlight between 9 am and 3 pm in mid-winter. – Limit the number of single-aspect apartments with a southerly aspect (SW-SE) to a maximum of 10 percent of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed (see Orientation and Energy Efficiency).	Private Open Space (POS) areas in the form of balconies are proposed for all units. Solar access is not able to be provided to 70% of all units as required by the code. This however is considered acceptable given the building typology and precedent set by other student accommodation developments. Further discussion in this regard is provided at Attachment 6 – WDCP 2009. It has also been noted by Councils Design Review Panel that compliance with this control would be too arduous for the development (see Attachment 2).
Natural Ventilation	– Building depths, which support natural ventilation typically range from 10 to 18 metres. – Sixty percent (60%) of residential units should be naturally cross ventilated. – Twenty five percent (25%) of kitchens within a development should have access to natural ventilation. – Developments, which seek to vary from the minimum standards, must demonstrate how natural ventilation can be satisfactorily achieved, particularly in relation to habitable rooms.	The development is not able to provide natural ventilation to 60% of units as required by the code. All units are however proposed with large operable windows or balcony doors which would allow reasonable ventilation to each unit. It has also been noted by Councils Design Review Panel that compliance with this control would be too arduous for the development (see Attachment 2). Mechanical ventilation is proposed to assist in assuring that adequate ventilation is provided to each dwelling.
Building Form		
Awnings and Signage	– To provide shelter for public streets. – To ensure signage is in keeping with desired streetscape character and with	The building does not include an awning or signage.

	the development in scale, detail and overall design.	
Facades	– Consider the relationship between the whole building form and the facade and/or building elements. – Compose facades with an appropriate scale, rhythm and proportion, which respond to the building's use and the desired contextual character.	The external design is considered to be of a reasonably high standard urban quality. External finishes are considered appropriate.
Roof Design	– Relate roof design to the desired built form. – Design the roof to relate to the size and scale of the building, the building elevations and three dimensional building form. This includes the design of any parapet or terminating elements and the selection of roof materials.	A flat roof is proposed in this instance and is reasonable in terms of building height and this is considered appropriate. The roof is proposed to be used for solar panels installations.
Building Performance		
Energy Efficiency	– Incorporate passive solar design techniques to optimise heat storage in winter and heat transfer in summer – Improve the control of mechanical space heating and Cooling – Provide or plan for future installation of photovoltaic panels – Improve the efficiency of hot water systems – Reduce reliance on artificial lighting – Maximise the efficiency of household appliances	A BASIX certificate has been submitted for the proposal demonstrating that the proposal meets the requirements of the BASIX SEPP. The certificate requires that energy efficient appliance be used. Further detail provided in the additional information submitted indicates that the proposal has a maximum embodied carbon intensity rate of 680kg/CO2/m2. This measure flows through the full life cycle of the building and is considered a higher standard than the Green Star rating requirements.
Maintenance	– Design windows to enable cleaning from inside the building, where possible. – Select manually operated systems, such as blinds, sunshades, pergolas and curtains in preference to mechanical systems. – Incorporate and integrate building maintenance systems into the design of the building form, roof and facade.	Windows will be accessible either from inside the building or the balcony areas. The communal open space area is expected to be connected to water and drainage. Maintenance of this area is expected to be carried out by the University maintenance team in conjunction with other similar areas within the campus.

	– Select durable materials, which are easily cleaned and are graffiti resistant. – Select appropriate landscape elements and vegetation and provide appropriate irrigation systems (see Landscape Design). – For developments with communal open space, provide a garden maintenance and storage area, which is efficient and convenient to use and is connected to water and drainage.	
Waste Management	Supply waste management plans as part of the development application submission as per the NSW Waste Board.	A waste storage and collection areas are proposed on the lower ground floor and ground floor levels, with servicing arrangements acceptable to Council's Traffic Officer. An operational Waste Management Plan formed part of the application submission and identifies the process for the ongoing management of waste generated by the proposed building and recommends waste audit and management strategies to provide support for the building design and promote sustainability. Draft condition 123 is proposed requiring that the recommendations of this report be carried out.
Water Conservation	Rainwater is not to be collected from roofs coated with lead- or bitumen-based paints, or from asbestos-cement roofs. Normal guttering is sufficient for water collections provided that it is kept clear of leaves and debris.	Colourbond metal cladding is proposed for the roof. The submitted BASIX certificate makes provision for rainwater collection and reuse on the site.

Attachment 5 Wollongong Campus Masterplan Letter

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

UNIVERSITY OF WOLLONGONG
AUSTRALIA

30 September 2015

Mr David Farmer
General Manager
Wollongong City Council
Locked Bag 8821
Wollongong DC NSW 2500

Dear David

Wollongong Campus Master Plan

Further to the Vice-Chancellor's letter of 4 June 2015, I write to confirm the progress being undertaken for UOW's Wollongong Campus Master plan.

A project brief was prepared in July and went to tender in August / September. Organisations invited to tender had demonstrated national and international Campus Master Plan experience. A tender review panel is currently reviewing submissions with the aim of engaging the successful planning consultant in October 2015.

The Master Plan delivery will involve the following key strategic steps:

Stage 1 - Inception and familiarisation
Stage 2 - Issues and opportunities
Stage 3 - Master plan concepts
Stage 4 - Draft master plan
Stage 5 - Final master plan

The programme and consultation strategy will be refined on the engagement of the successful candidate. We envisage that the Master Plan will be undertaken over a 12 month period, and involve consultation with the following key stakeholders at various stages throughout the project:

- Wollongong City Council
- Illawarra community stakeholders, including Neighbourhood Forum 5
- Roads and Maritime Services (RMS)
- Utility Providers
- Transport for NSW
- NSW Planning
- NSW Department of Industry, Skills and Regional Development
- Illawarra Business Chamber
- Property Council of Australia

The Master Plan is to be developed in close consultation with WCC, RMS and the regional community and provide a framework for the future development of the Wollongong Campus. Further, recently an initial briefing has been provided to key representatives of Neighbourhood Forum 5 on UOW's approach to the preparation of the Master Plan.

Melva Crouch CSM
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We trust the above assures WCC of the University's commitment in delivering a comprehensive Master Plan that will include examination of the interfaces between UOW, the surrounding community, and the overall development of the Illawarra Region.

Please do not hesitate to contact me if you require further information on this project.

Yours sincerely

Melva Crouch CSM
Chief Administrative Officer

Attachment 6
WDCP

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

Attachment 6: Wollongong Development Control Plan (WDCP) 2009 Merit Assessment – Chapter B1 Residential Development and C3 Boarding Houses

CHAPTER B1 – RESIDENTIAL DEVELOPMENT

Control	*Comment*	*Reasonable Compliance*
4. General Residential Controls		
4.12 Fire Brigade Servicing	Draft conditions 4 and 45 are recommended with regard to fire brigade servicing, namely that a hydrant be provided in accordance with AS2419 (2005).	Yes
4.13 Services Applicants shall contact service authorities early in the planning stage to determine their requirements regarding conduits, contributions, layout plans, substations and other relevant details.	All required services are available at the site and are expected to be capable of augmentation to meet the needs of the development. Referrals have also been undertaken as part of the development assessment process to the relevant external authorities including Endeavour Energy and Sydney Water, with no objections to the development being identified in either instance.	Yes
4.15 View Sharing	The proposed development is not envisaged to result in unreasonable view loss from any surrounding property. The submission of a visual impact assessment was not considered necessary in this instance.	N/A
4.16 Retaining Walls	A number of retaining walls are identified on the submitted Landscape Concept Plan. Draft conditions 19 and 115 are recommended in this regard.	Yes
4.18 Development near railway corridors and major roads. (Noise and Vibration)	The development site is not located in adjacent to any railway corridors or classified roads. ISEPP has been considered at Section 3.1.2 of the report as relates to Traffic Generating Development.	N/A
6. Residential Flat Buildings		
6.1 General · Development of Residential Flat Buildings is guided through SEPP 65 Design Quality of Residential Flat Development see Attachment 4		
6.2 Minimum Site Width The WLEP 2009 requires a minimum site width of 24 metres is required for residential apartment buildings.	The development site has a minimum width of more than 24m.	Yes
6.3 Front setbacks For residential flat buildings the following setback requirements apply from the front property boundary to the front façade of the building: a) The same distance as one or other of the adjoining	Northfields Avenue is considered to be the primary frontage for the development. The proposed front setbacks for Buildings 73, 74 & 75 are as follows: Building 73 – 12m	Yes

<table>
<tr>
<td>buildings, provided the difference between the setbacks of the two adjoining dwellings is less than 2.0m.
b) The average of the setbacks of the two adjoining buildings, if the difference between the setbacks of the buildings is greater than 2.0m.
c) A minimum front setback of 6m applies to residential apartment buildings where calculations of a) or b) result in a front setback of less than 6m.</td>
<td>Building 74 – 10m
Building 75 – 8m

The setbacks above for each building allow retention mature trees and additional planting to occur along the Northfields Avenue frontage. This will act to further screen the development.

It is also noted that the 8m setback for building 75 is further screened with landscaping owing to the relocation of the existing traffic island further west in front of the building.

The proposed setback is not considered to be inconsistent with the objectives of the clause and is considered to be consistent with the context and character of the area.</td>
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<td>6.4 Side and Rear Setbacks/Building Separation
<table><tr><th colspan="2">Side and Rear Setbacks Residential Apartment Buildings</th></tr><tr><th>Building Height</th><th>Minimum Side and Rear Setback</th></tr><tr><td>Buildings of 5 to 8 storeys (up to 25 metres)</td><td>9 metres where a habitable room/balcony faces an adjacent property

4.5 metres where a non-habitable room/blank wall faces an adjacent property</td></tr></table></td>
<td>The proposed development is located greater than 35m to the nearest existing student accommodation building. The proposed development is located a significant distance from any related side or rear boundary. The separation proposed between buildings 73, 74 and 75 is greater than 14m at its closest point which is considered appropriate.

The proposed separation is considered to assist, in conjunction with the gradient of the land, in mitigating the potential for amenity, privacy and/or acoustic impacts on adjoining properties.</td>
<td>Yes</td>
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<td>6.5 Built Form
1. All residential flat buildings must be designed by a qualified designer in accordance with State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development. A Design Verification Statement must accompany the Development Application.
2. The design, height and siting of the development must respond to its context, being both the natural and built features of an area. The Site and Context Analysis must be utilised as the process by which the opportunities and constraints of the site are identified and the character of a local area defined.
3. The appearance of new development must be in harmony with the buildings around it and the character of the street. New development must contain or respond to the essential</td>
<td>An updated design verification statement certifying that the proposal was designed by a qualified designer in accordance with the requirements of SEPP No. 65 was submitted with the development application. See Attachment 4.

The design, height and siting of the development is considered to respond to the context of the University site and the surrounding area. A site and context analysis was submitted with the development application and is considered appropriate.

The appearance of the development is consistent with other recent development at the University site. The development is appropriately located with regard to nearby residential properties and is not expected</td>
<td>Yes</td>
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elements that make up the character of the surrounding urban environment. This character is created by elements such as building height, setbacks, architectural style, window treatment and placement, materials and landscaping. 4. The following elements must be incorporated into the building design: a) Define a base, middle and top related to the overall proportion of the building. b) Articulate all building elevations in both plan and section to reduce monotonous flat facades. c) Highly reflective finishes and curtain wall glazing are not permitted above ground level. d) Avoid expanses of any single material. e) Utilise high quality and durable materials and finishes. f) Avoid blank or solid walls and the use of dark or obscured glass on street frontages. g) Air conditioning units must be screened and not be visible from the street. h) For those dwellings adjacent to the street frontage, the habitable rooms must face the street. i) The main pedestrian entrance or a foyer must be 1.2m or less above natural ground level. j) Entrances must be visible at eye level from the street and well lit. Ensure entrances can accommodate the movement of furniture.	to result in unreasonable impacts in terms of noise, privacy or overshadowing. The architectural style of the proposal is consistent with other recent student accommodation developments at the University. Due to amendments to the design during the assessment process larger areas of landscaping and mature trees are now retained along the Northfields Avenue frontage and landscaped areas to the west of the proposed development are now provided. The overall proportions of the proposed buildings are considered appropriate. The building elevations are articulated. The materials proposed to be used are not considered to be reflective. The design does not include expanses of a single material. Materials proposed are considered to be of a high standard. No blank or solid walls are proposed on the front façade. Air conditioning units are expected to be located within the plant rooms located on the roof enclosure. A number of rooms within the 4 bedroom clusters have been designed to overlook Northfields Avenue. The entry foyer is appropriately designed with regard to natural ground levels and street frontage. Stairs and compliant disabled ramps are proposed to ensure that access is available for all future residents. Draft conditions 24-26 inclusive have been recommended with regard to the lighting of the entrance and access control. The proposed built form is not considered to be inconsistent with the provisions of this clause.	
6.6 Visual Privacy 1. New buildings should be sited and oriented to maximise visual privacy between buildings through compliance with minimum front, side and rear setback / building separation requirements. 2. The internal layout of buildings should be designed to minimise any direct overlooking impacts occurring upon habitable rooms and private balcony / open space courtyards, wherever possible by separating communal open space and public domain areas from windows of rooms, particularly sleeping room and living room areas.	The proposed buildings are considered to be appropriately designed and sited with regard to visual privacy. The proposal is compliant with setback controls as discussed above and is not envisaged to result in unreasonable overlooking to nearby dwellings owing to the significant distance. Visual privacy between proposed buildings 73, 74 and 75 are also considered appropriate as a minimum separation between these buildings of 14m is proposed with predominately common balcony areas, accessed from living spaces, facing each other.	Yes

6.7 Acoustic Privacy 1. Residential apartments and / or serviced apartments should be arranged in a building, to minimise noise transition between apartments by: a) Locating busy, noisy areas next to each other and quieter areas, next to other quieter areas (eg living rooms with living rooms and bedrooms with bedrooms); b) Using storage or circulation zones within an apartment to buffer noise from adjacent apartments, mechanical services or corridors and lobby areas; and c) Minimising the amount of party (shared) walls with other apartments. 2. All residential apartments and / or serviced apartments within a building should be designed and constructed with double-glazed windows and / or laminated windows, solid walls, sealing of air gaps around doors and windows as well as appropriate insulating building elements for doors, walls, roofs and ceilings etc; to provide satisfactory acoustic privacy and amenity levels for occupants within the residential and / or serviced apartment(s). 3. Appropriate sound attenuation measures should be considered between each floor in the development, to minimise potential sound transmission into any residential apartment below. 4. The Statement of Environmental Effects (SEE) may include an acoustical impact assessment study which outlines alternative acoustic treatment measures for residential apartment(s) and / or serviced apartment(s) in the development. The acoustic impact assessment study must be carried out by a suitably qualified and experienced acoustic consultant (ie a person who is a Member of the Australian Acoustical Society, the Institution of Engineers or the Association of Australian Acoustical Consultants).	The building is considered to be adequately separated from surrounding uses. An Acoustic Report formed part of the application submission. The Noise Impact Assessment Report prepared by Acoustic Logic dated 31 October 2014 has determined background noise as per the NSW EPA guidelines and various criteria were considered such as for construction noise, internal living spaces and machinery and equipment on buildings. The report has recommended appropriate glazing for the building to comply with internal living space noise criteria and construction noise and vibration management. Councils Environment Officer has reviewed the proposal and the submitted Acoustic Report and provided a satisfactory referral response subject to conditions. Draft condition 74 is recommended to ensure that the recommendations of the report are implemented.	Yes
6.8 Car Parking Requirements Refer to E3 Car Parking, Access, Servicing/Loading Facilities and Traffic Management.	See discussion at section 3.3.1 of the report.	Considered acceptable in the circumstances
6.9 Basement Car Parking	No basement car parking is proposed as part of this development	N/A

	application	
6.10 Access Requirements 1. The development proposal must provide access to the site which is compliant with the following controls: a) Provide driveways to parking areas from lanes and secondary streets rather than the primary street, wherever practical. b) Locate driveways taking into account any services within the road reserve, such as power poles, drainage inlet pits and existing street trees. c) All driveways must be located a minimum of 6 metres from the perpendicular of any intersection of any two roads. d) Any driveway servicing a residential development is to be setback a minimum of 1.5m from any side property boundary. e) Driveways are to be a maximum of 6m in width. f) The design of driveway crossovers must be in accordance with council's standard vehicle entrance designs. 2. All vehicles within a residential apartment building must provide vehicular manoeuvring areas to all parking spaces so vehicles do not need to make more than a single point turn to leave the site in a forward direction.	Vehicular access is proposed off Northfields Avenue for visitor parking which is considered acceptable in this instance. The proposed driveway location does not appear to be in conflict with services within the road reserve and is more than 6m from the intersection of Northfields Avenue and Robsons Road. The driveway crossover will be required to be constructed in accordance with Councils entrance designs and AS requirements. Vehicular manoeuvring within the car parking area is considered appropriate. Councils Traffic Officer has assessed the proposal against the provisions of this clause and Chapter E3 of the WDCP2009 and provided a conditionally satisfactory referral response. Further comments in this regard are provided at section 3.3.1 of the report.	Yes
6.11 Landscaping Requirements 1. A minimum of 30% of the total site area must be provided as landscaped area. Landscaped area is defined as 'is any part of the site which is not occupied by any building, basement or hard surface such as driveways, parking areas or paved areas of courtyards, decks, balconies or terraces. 2. Any landscaped or grassed areas within the front setback area will be included in the landscaped area calculations. Landscaping in this area must be in context with the scale and height of the residential flat building.	More than 30% of the total site area will be maintained as landscaped area. The landscaping and tree retention proposed are considered to be in the context of the scale and height of the building. Councils Landscape Officer has assessed the proposal in this regard and provided a conditionally satisfactory referral response.	Yes
6.12 Deep Soil Zone	The proposed development is located within the University's landholding which contains large areas of open space. Councils Landscape Officer has assessed the proposal in this regard and is satisfied.	Yes
6.13 Communal Open Space 1. Developments with more than 10 dwellings must incorporate communal open space. The minimum size of this open space	A number of communal courtyard and activity areas are proposed on the northern side of the building for exclusive use by student residents. This	Considered acceptable in the

is to be calculated at 5m2 per dwelling. Any area to be included in the communal open space calculations must have a minimum dimension of 5 metres. 2. The communal open space must be easily accessible and within a reasonable distance from apartments, be integrated with site landscaping, allow for casual social interaction and be capable of accommodating recreational activities. 3. The communal open space area must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on June 21.	is in addition to the landscaped campus. The communal open space areas will receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on June 21. It should be noted that the university campus has been designed as an 'open campus' with numerous open space and courtyard areas spread throughout the campus which will be available for the use of the future occupants of the proposal. The proposal is not considered to be unreasonable and is not inconsistent with the objectives of the clause. The proposal is considered to provide for a reasonable amount of communal open space when the University landholding is considered in its entirety.	circumstances
6.14 Private Open Space 1. Private open space must be provided for each dwelling within a residential apartment building in the form of a balcony, courtyard, terrace and/or roof garden. 2. Private open space for each dwelling within a residential apartment building must comply with the following: a) The courtyard/terrace for the ground level dwellings must have a minimum area of 25m2 and width of 2 metres. This area must be separated from boundaries by at least 1.5m with a vegetated landscaping bed and must not encroach upon deep soil zone landscaping areas. b) The primary private open area of at least 70% of the dwellings within a residential apartment building must receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21. c) Private open space areas (courtyards) must not extend forward of the front building setback by greater than 900mm. d) Private open space should be sited in a location which provides privacy, solar access, and pleasing outlook and has a limited impact upon adjoining neighbours. e) Design private open spaces so that they act as direct extensions of the living areas of the dwellings they serve. 3. Where private open space is provided in the form of a balcony, the following requirements must also be met:	No ground level units are proposed POS areas in the form of balconies are proposed for all 4 bedroom clusters whilst the single studios will utilise the communal areas. The balconies proposed do not meet the provisions of this clause. This has been discussed with the applicant who has advised that the design proposed is consistent with the design of other recent University student accommodation developments and has been developed in response to the brief provided by the University. In this regard, providing large balcony areas for each dwelling is undesirable as it provides a gathering space for people which can cause impacts to surrounding neighbours. The balconies proposed are an appropriate size to allow adequate outdoor furniture to cater for the needs of the future occupants. The proposal is not considered to be unreasonable with regard to the abovementioned control and is not inconsistent with the objectives of the clause. The proposal is considered to provide for a reasonable amount of private open space for each unit.	Considered acceptable in the circumstances

a) Avoid locating the primary balconies where they address side setbacks. b) The balcony must have a minimum area of 12m2 open space and a minimum depth of 2.4 metres. c) The primary balcony of at least 70% of the dwellings within a multi dwelling housing development shall receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21. d) Balconies must be designed and positioned to ensure sufficient light can penetrate into the building at lower levels.		
6.15 Adaptable Housing 1. Within a residential apartment building, 10% of all dwellings (or at least one dwelling) must be designed to be capable of adaptation for disabled or elderly residents. Dwellings must be designed in accordance with the Australian Adaptable Housing Standard (AS 4299-1995), which includes "preadaptation" design details to ensure visitability is achieved. 2. Where possible, adaptable dwellings shall be located on the ground floor, for ease of access. Dwellings located above the ground level of a building may only be provided as adaptable dwellings where lift access is available within the building. The lift access must provide access from the basement to allow access for people with disabilities. 3. The development application must be accompanied by certification from an accredited Access Consultant confirming that the adaptable dwellings are capable of being modified, when required by the occupant, to comply with the Australian Adaptable Housing Standard (AS 4299-1995).	The development does not intend to provide 10% of adaptable units as required by this clause. 52 units, comprising single studios and 4 bedroom clusters units are proposed as adaptable units. An Access Consultants Report has been provided to Council which details that the building design is considered accessible and meets the requirements of this clause. All units are accessible via a lift and ramps are proposed to provide compliant access to the site from Northfields Ave and the car parking area. 3 disabled car parking spaces are proposed.	Considered acceptable in the circumstances
6.16 Access for People with a Disability	See Chapter E1 discussion within the main report	Considered acceptable in the circumstances
6.17 Apartment Size and Layout Mix for Larger Residential Flat Building Developments 1. A mix of apartment sizes and layouts is required for larger residential apartment buildings involving ten (10) or more dwellings. This could include both variation in the number of	A mix of single studios and 4 bedroom clusters are proposed which is considered to be a reasonable mix of apartment sizes. Apartment sizes and layouts have been based on market needs.	Yes

bedrooms and gross floor areas of apartments, variety in the internal design or Incorporating single and two level apartments to accommodate various resident requirements. 2. The selection of the number of bedrooms within developments shall be determined having regard to the site's context, geographic location and anticipated market demands. For residential apartment buildings having ten (10) or more dwellings, a minimum of 10% of the apartments must be one bedroom and/or studio apartments, to provide for housing choice. 3. Ceiling heights of apartments must be selected to encourage the penetration of natural sunlight into all areas of the building. Provide the following minimum floor to ceiling heights, for residential flat buildings: a) 2.7m minimum for all habitable rooms on all floors;	The proposal complies with the minimum ceiling height controls as discussed within the Residential Flat Design Code.	
6.18 Solar Access *Solar Access into Residential Apartment Buildings* 1. Residential apartment buildings must aim to maximise their level of northern exposure to optimise the number of dwellings having a northern aspect. Where a northern aspect is available, the living spaces and balconies of such apartments must typically be orientated towards the north. 2. The development must maximise the number of apartments with a dual orientation. Single aspect, single storey apartments should preferably have a northerly or easterly aspect and a reduced depth to allow for access of natural light to all habitable spaces. 4. The living rooms and private open space of at least 70% of apartments should receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm. 5. The number of single aspect apartments with a southerly aspect (south-westerly to south-easterly) is limited to a maximum of 10% of the total number of apartments proposed. *Solar Access into Living Areas and Private Open Space Area of Adjoining Properties* 1. The design of the development must have regard to the existing and proposed level of sunlight which is received by living areas and private open space areas of adjacent dwellings. Sensitive design must aim to retain the maximum	The proposed layout and number of single aspect, south facing dwellings is non-compliant with the provisions of this clause. However, these south facing dwellings still have access to communal balconies which are considered to have adequate solar access. This is considered acceptable given the building typology and precedent set by other student accommodation developments. The proposal is not considered to be unreasonable with regard to the abovementioned control and is not inconsistent with the objectives of the clause. The proposal is considered to provide for reasonable solar access for the future occupants. It has also been noted by Councils Design Review Panel (See Attachment 2) that compliance with this control would be too arduous for the development to achieve. The proposal is not expected to result in overshadowing impacts on adjoining properties.	Considered acceptable in the circumstances

amount of sunlight for adjacent residents. Council will place greatest emphasis on the retention of sunlight within the lower density residential areas. 2. Windows to living rooms and private space areas in adjacent residential buildings must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on June 21.		
6.19 Natural Ventilation 1. All residential apartment buildings shall have a building depth of between 10 and 18 metres. The depth is measured across the shortest dimension of the building. Dwellings should be a maximum depth of 21 metres, measured from the outside of the balcony. Variation to this standard will only be considered where it can be demonstrated that apartments will achieve the minimum requirements with regard to natural ventilation. This may be achieved where apartments have a wider frontage, or increased ceiling and window height to allow for greater penetration of natural light. The building depth is measured across the shortest access, excluding the depth of any unenclosed balconies. 2. A minimum of sixty percent (60%) of all residential apartments shall be naturally cross ventilated. 3. Twenty five (25%) of kitchens within a development must have access to natural ventilation. Where kitchens do not have direct access to a window, the back of the kitchen must be no more than 8 metres from a window. 4. Single aspect apartments must be limited in depth to 8 metres from a window.	Natural ventilation is not able to be provided to 60% of units as required by this clause. All dwellings are however proposed with large operable windows or balcony doors which would allow reasonable ventilation to each unit. It has also been noted by Councils Design Review Panel (See Attachment 2) that compliance with this control would be too arduous for the development to achieve. Mechanical ventilation is proposed to assist in assuring that adequate ventilation is provided to each dwelling. The proposal is not considered to be unreasonable with regard to the abovementioned control and is not inconsistent with the objectives of the clause. The proposal is considered to provide for reasonable ventilation opportunities for each dwelling.	Considered acceptable in the circumstances

CHAPTER C3 – BOARDING HOUSES

Control	*Comment*	*Compliance*
3.2 State Environmental Planning Policy (Affordable Rental Housing) 2009	The SP2 Infrastructure Land Use Zone is not listed as land to which division 3 of the Policy applies. As such, parts 4-11 of this Chapter only are considered below.	
4. Development Controls for Boarding Houses		
4.1 Location of Boarding Houses Boarding houses should be generally located within 400 metres of	The proposed development is located less than 300m from the University	Yes

a railway station or bus stop.	Bus Interchange	
4.2 Front Building Line Setbacks 1. The front building line setback shall be consistent with the prevailing front building alignment of directly adjoining buildings or with a minimum of 6 metres from the primary street frontage whichever is the greater. 2. For corner lots, the minimum secondary frontage setback shall be 3 metres. However, all garages shall be setback at least 6 metres from either the primary street frontage or the secondary street frontage.	The front building line setback for each proposed building is considered appropriate as it is greater than the minimum 6m required.	Yes
4.3 Side and Rear Setbacks 1. The rear boundary setback for a boarding house shall be 6 metres. 2. The side setback for a boarding house shall be a minimum 900 millimetres from the property boundaries for a single storey building and at least 3 metres for a two storey building plus an additional 0.5 metre setback for every additional storey above two storeys.	The proposed development is located greater than 35m to the nearest existing student accommodation building. The proposed development is located a significant distance from any related side or rear boundary. The separation proposed between buildings 73, 74 and 75 is greater than 14m at its closest which is considered appropriate. The proposed separation is considered to assist, in conjunction with the gradient of the land, in mitigating the potential for amenity, privacy and/or acoustic impacts on adjoining properties.	Yes
5. Minimum Facilities for Boarding Houses		
The proposed development would be considered a Class 3 Building.		
5.1.3 Minimum Requirements for Bedrooms and other facilities <u>Bedroom Only:</u> 12m2 for the first person or 16m2 for two people Max number of people per bedroom: 2 adult lodgers <u>Bathrooms:</u> Where ensuite bathroom facilities are provided within bedrooms, additional floor space is required to be provided at the following rate: Hand basin, wc and shower - 3m2 <u>Kitchen Facilities:</u> All bedrooms shall contain kitchenette facilities containing a fridge,	Single studio rooms excluding WC are proposed with an area of 15sqm. 4 bedroom cluster rooms having an area of 10sqm. Adequate space for each WC is provided within each unit. All rooms are proposed with kitchenettes as indicated on the submitted plans to contain the required facilities. Communal laundry facilities are proposed on the lower ground floor.	Yes

adequate cupboards and shelves and a microwave. (For fire safety reasons no other cooking appliances are permitted) <u>Laundry and Clothes Drying Facilities:</u> One (1) washing machine and washing tub is required for every 10 rooms plus One (1) clothes dryer or a Min. 30 metres of clothesline for every 10 rooms is required.		
6. Landscaping Requirements 1. Landscaping should aim to soften the built form of the boarding house and maintain the visual amenity of the surrounding locality. 2. The landscaping plan for a boarding house development must include the following: (a) The provision of a minimum of 1.5 metre wide landscaped bed along the full length of both side property boundaries between the front building alignment and the front property boundary line. The landscaped beds shall be mulched and planted with evergreen trees, shrubs and groundcovers. A minimum of two (2) semi mature (45 litre pot size) small to medium evergreen trees shall be provided within each of the side property boundary landscaped beds. (b) The provision of a minimum two (2) small to medium evergreen trees within the rear open space area. (c) The driveway to the car parking area shall be separated from any side property boundary by at minimum 1.5 metre landscaped bed. (d) The landscaped areas must be integrated with the drainage design. The location of drainage lines, pits and detention areas should not conflict with landscaped areas including proposed and existing trees. (e) The provision of a minimum of one (1) semi mature (45 litre pot size) street tree for each street frontage. The provision of street trees shall be in accordance with the requirements of Chapter E6: Landscaping in Part E of the DCP. 3. All landscaping works shall be designed in accordance with the requirements of Chapter E6: Landscaping in Part E of the DCP.	A Landscape Concept Plan and Arborist Report have been submitted, considered and found to be conditionally satisfactory by Councils Landscape Officer. The landscape plan provides for sufficient planting on the site and the proposal has been designed with regard to integrating and maintaining the existing significant trees. The proposal complies with the minimum requirements of this clause.	Considered acceptable in the circumstances
7. Car Parking Requirements		Considered

1. Any Development Application for a boarding house shall make satisfactory provision for on-site car parking for residents, the resident manager / property owner and visitors. 2. All car parking spaces shall be constructed of an all-weather, hard-standing sealed pavement and be maintained to the satisfaction of Council, at all times.	See discussion at Chapter E3 within the main report	acceptable in the circumstances
8. Management Plan 1. A management plan is required to be lodged with the Development Application for any proposed boarding house. The management plan is required to outline the proposed management practices to be implemented, in order to ensure that the boarding house operates in a way that maintains the existing amenity of the surrounding locality. 2. The management plan shall provide the following information: (a) The 24 hour contact details of the manager / caretaker (including phone number and mobile phone number); (b) Proposed staffing arrangements during the daytime and at night-time; (c) Proposed measures to ameliorate any potential noise or amenity impacts within the building and upon the surrounding locality; (d) Proposed safety and security measures to be employed within the boarding house including prominent display boards within the building of emergency telephone numbers and other essential telephone numbers; and (e) Proposed management practices to prevent the use of outdoor common open space areas between 10.00 pm and 7.00 am.	A Management Plan has been provided detailing expected conduct of students and complaints handling procedures. Information has been provided which identifies the method of security access and control, electrical and CCTV monitoring and general design. Details of the management arrangement have also been provided. Draft conditions 24-26 inclusive and 122 are recommended in this regard. Separately an two onsite manager residences are provided within the facility. It is considered that the provisions of this clause are satisfied.	Yes
9. Disabled Access Requirements 1. All new boarding houses or major alterations and additions to existing boarding houses will be required to provide suitable disabled access arrangements into and within the boarding house pursuant to Australian Standard AS 1428 – Design for Access and Mobility and the Access for People with a Disability chapter in Part E of the DCP.	52 residential units are nominated as being capable of adaptation and the subsequent car parking spaces have been allocated to the adaptable units designed in accordance with applicable standards. An Access Consultant has provided an Adaptable Housing Statement of Compliance which confirms that the units can comply with the spatial requirements of AS4299 for Adaptable Housing. Draft conditions are recommended requiring compliance with the NCC/BCA and relevant Australian Standards in regards to access. Draft condition 4 is recommended requiring compliance with the BCA and draft condition 108 requires	Yes

	access certification prior to the issue of the Occupation Certificate.	
10. Fire Safety 1. A copy of the annual fire safety statement and current fire safety schedule for the building must be prominently displayed in the front entrance (lobby area) of the building. 2. A floor layout plan of the building must also be affixed to the inside of the door for each bedroom within the boarding house to indicate the emergency evacuation routes from the respective sleeping room.	Draft conditions 4, 20, 45 and 114 are relevant in this regard.	Future provisions by way of conditions of consent
11. Annual Fire Safety Certification 1. Any approved boarding house will require appropriate annual certification for essential fire safety measures.	Draft conditions 4, 20, 45 and 114 are relevant in this regard.	Future provisions by way of conditions of consent

Attachment 7 External Referral Responses

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

Department of Primary Industries
Office of Water

Contact: Jeremy Morice
Phone: 02 4224 9736
Fax: 02 4224 9740
Email: jeremy.morice@dpi.nsw.gov.au

Our ref: 10 ERM2014/1160
File No: 9057736-3
Your Ref: DA-2014/1510

The General Manager
Wollongong City Council
Locked Bag 8821
WOLLONGONG DC NSW 2500

Attention: Andrew Kite

8 January 2014

Dear Sir

Re: Integrated Development – University Accommodation – Pt Lot 1 DP 1188267 2 Northfields Avenue Keiraville

The Office of Water has reviewed documents for the above development application and considers that, for the purposes of the *Water Management Act 2000* (WM Act), a controlled activity approval is not required and no further assessment by this agency is necessary.

A review of the information provided indicates the mapped watercourse adjacent to the proposed works is piped and therefore exempt from the need to obtain a Controlled Activity Approval.

Further information on controlled activity approvals under the WM Act can be obtained from the Office of Water's website:
www.water.nsw.gov.au Water licensing » Approvals » Controlled activities

Please direct any questions regarding this correspondence to Jeremy Morice, jeremy.morice@water.nsw.gov.au.

Yours sincerely

Jeremy Morice
Water Regulation Officer
Water Regulation Group | Sydney & South Coast
NSW Department of Primary Industries | NSW Office of Water

All communications to be addressed to:

Headquarters
15 Carter Street
Lidcombe NSW 2141

Telephone: 1300 NSW RFS
e-mail: csc@rfs.nsw.gov.au

Headquarters
Locked Bag 17
Granville NSW 2142

Facsimile: 8741 5433

The General Manager
Wollongong City Council
Locked Bag 8821
WOLLONGONG DC NSW 2500

Your Ref: DA-2014/1510
Our Ref: D14/3650
DA14121094979 PE

ATTENTION: Andrew Kite

2 January 2015

Dear Sir/Madam

Integrated Development for 1//1188267 2 Northfields Avenue Keiraville NSW 2500

I refer to your letter dated 2 December 2014 seeking general terms of approval for the above Integrated Development in accordance with Section 91 of the 'Environmental Planning and Assessment Act 1979'.

This response is to be deemed a bush fire safety authority as required under section 100B of the 'Rural Fires Act 1997' and is issued subject to the following numbered conditions:

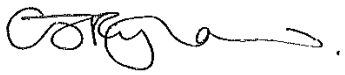
Evacuation and Emergency Management

The intent of measures is to provide suitable emergency and evacuation (and relocation) arrangements for occupants of special fire protection purpose developments. To achieve this, the following conditions shall apply:

1. The University's Emergency and Evacuation Plan be updated to include the proposed additional student accommodation.

For any queries regarding this correspondence please contact Peter Eccleston on 1300 NSW RFS.

Yours sincerely



Catherine Ryland
Team Leader Development Assessment and Planning

The RFS has made getting information easier. For general information on 'Planning for Bush Fire Protection, 2006' , visit the RFS web page at www.rfs.nsw.gov.au and search under 'Planning for Bush Fire Protection, 2006'.

Our Ref: STH08/02153/04
Contact: Hala Sattouf 4221 2769
Your Ref: DA-2014/1510

Transport Roads & Maritime Services

The General Manager
Wollongong City Council
Locked Bag 8821
Wollongong NSW 2500

Attention: Andrew Kite

DEVELOPMENT APPLICATION 2014/1510 – LOT 1 DP 1188267, 2 NORTHFIELDS AVENUE, KEIRAVILLE – KOOLABONG UNDER GRADUATE STUDENT ACCOMMODATION – BUILDINGS 73, 74 & 75 TOTALLING (802 BEDS), CAR PARKING (116 SPACES), COMMUNAL AREA, LANDSCAPING AND INFRASTRUCTURE WORKS.

Dear Sir/Madam

Roads and Maritime Services (RMS) refers to your letter dated 25th November 2014 regarding the subject development application.

RMS has reviewed the information provided. RMS will not object to the development application in principle given the subject development is unlikely to have a significant impact on the classified road network due to the relatively low generation rates.

Notwithstanding the above, RMS considers there are opportunities to better understand the future traffic demands to and around the University. This in turn would help inform decisions relating to future infrastructure requirements. In this regard, RMS offers the following comments for your consideration:

- RMS notes the scale of the subject development (802 beds of 2500 beds in total) and (116 car park spaces of 142 spaces in total) warrants RMS concurrence under Schedule 3 of State Environmental Planning Policy (Infrastructures) 2007.
- RMS recognises the proposed accommodation expansion and transport initiatives aim to reduce the number of students and staff travelling by car to and from the campus. RMS supports initiatives which achieve more sustainable modes of transport proposed by the university.
- RMS notes that the University's Notional Master Plan referenced in the Independent Assessment of the Wollongong Campus Transport Strategy prepared by AECOM, dated 25th September 2014, anticipates a 50% increase in effective full time student load enrolments (EFTLS), 41% increase in ground floor area (GFA) and 20% car parking increase. RMS does not have a copy of the University's Notional Master Plan and has not had the opportunity to comment on the plan. RMS is concerned that the ultimate level of development of the campus remains unclear and the continued growth

Level 4, Southern Regional Office, 90 Crown Street, Wollongong NSW 2500 | PO Box 477 Wollongong East NSW 2520
T 02 4221 2460 | **F** 02 4221 2777 | **www.rmservices.nsw.gov.au** |

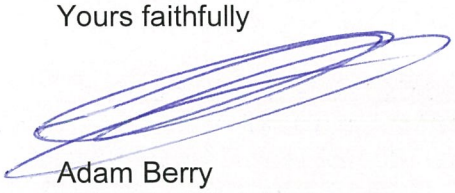
on campus may potentially out weigh the positive impacts of the transport and parking initiatives.

- RMS notes a growth rate of 0.37% per annum was applied in the Parking and Traffic Impact Assessment prepared by AECOM dated 21st October 2014. RMS considers that a more appropriate way to estimate growth would be to determine the relationship between previous campus building expansions, increased enrolments and surveyed traffic growth on the network (or known student journey methods). Such a relationship could then be used to understand the effectiveness of sustainable transport measures and the likely traffic generation rates per full-time equivalent student.
- In addition, RMS notes off site parking at the innovation campus has been proposed to supplement the student accommodation parking. However, the impacts of this facility have not been considered in the Parking and Traffic Impact Assessment.

RMS would appreciate the opportunity to continue to work closely with Council and the University to ensure growth at the Wollongong Campus is undertaken in a sustainable manner.

If you have any questions please contact Hala Sattouf 4221 2769.

Yours faithfully



Adam Berry
Network & Safety Manager
Network Management, Southern Region

Our Ref: STH08/02153/06
Contact: Hala Sattouf 4221 2769
Your Ref: DA-2014/1510 & DA-2015/1254

Transport Roads & Maritime Services

Andrew Kite
Wollongong City Council
council@wollongong.nsw.gov.au

DEVELOPMENT APPLICATIONS 2014/1510 & 2015/1254 – LOT 1 DP 1188267, NORTHFIELDS AVENUE, KEIRAVILLE – KOOLABONG UNDER GRADUATE STUDENT ACCOMMODATION RENOTIFICATION & MULTI-STOREY CARPARK

Dear Sir

Roads and Maritime Services (RMS) refers to your letters dated 7th and 13th October 2015 regarding the subject development applications.

RMS notes the development application (DA-2014/1510) for the undergrad student accommodation has been lodged concurrently with (DA-2015/1254) for a multi-storey carpark in order to address Council concerns with parking shortfalls with DA-2014/1510 previously lodged 2 December 2014.

RMS has reviewed both development applications in conjunction. RMS notes a total of 359 spaces (a rate of approximately 1 space per 3 students) have been reserved for the proposed student accommodation facilities to mitigate long term parking impacts on local roads. Based on the information provided, this is likely to result in an additional 21 vehicles per hour in the AM peak and 88 vehicles per hour in the PM utilising the M1 Princes Motorway Ramps. This minor increase is unlikely to have a significant impact on the classified road network. Therefore, RMS does not object to the development applications in principle.

If you have any questions please contact Hala Sattouf 4221 2769.

Yours faithfully

11/11/2015

Chris Millet
Manager Land Use
Southern Region

Lauren Wilson

From: Jennie Saban <Jennie.Saban@endeavourenergy.com.au>
Sent: Thursday, 18 December 2014 9:49 AM
To: Records
Subject: FW: DA-2014/1510

Andrew,

Thank you for the notice re DA-2014/1510 which is for the demolition and construction of student accommodation at the above address.

Endeavour Energy has no issues with the construction. It is note that we have a pad mount as marked on diagram below. Please ensure that access is retained to this structure for maintence.


MYF2
MYF2
MYP2
29797
93238
93245
93244
29796
MYQ2
42564
2T0652
228062
795534
7021
MYQ2
2T0655
2T0656
272085
Northfields Ave
2T0657
MYQ2
2T0658
4218
endeavour energy feeder MYQ 11kV overhead

Regards,
Jennie Saban
Easement Officer
Southern Region
F: 61 2 4255 4031
M: 61 0417 484 402
T: 131 081
E: jennie.saban@endeavourenergy.com.au

191-195 Five Islands Rd
Unanderra NSW 2526

www.endeavourenergy.com.au

Sydney WATER

22 December 2014

Mr Andrew Kite
Development Project Officer
Wollongong City Council
Locked Bag 8821
Wollongong DC NSW 2500

Re: 2 Northfields Avenue, Keiraville DA 2014/1510 & 2014/1474

Dear Mr Kite,

Thank you for your letter notifying Sydney Water of the proposed development referenced above. We have reviewed the application and provide the following comments for your consideration.

Water

- For the proposed development, the drinking water main available for connection is the 200mm main on the southern side of Northfields Avenue.
- Detailed requirements will be provided at Section 73 phase.

Wastewater

- The wastewater main available for connection is the 225mm main constructed under WO 41849.
- Where proposed works are in close proximity to a Sydney Water asset, the developer may be required to carry out additional works to facilitate their development and protect the wastewater main. Subject to the scope of development, servicing options may involve adjustment/deviation and or compliance with the Guidelines for building over/adjacent to Sydney Water assets.
- Detailed requirements will be provided at Section 73 phase.

Further advice and requirements for this proposal are at attachment 1 (overleaf). If you require any further information, please contact Hannah Gilvear of the Urban Growth Branch on 02 8849 5296 or e-mail hannah.gilvear@sydneywater.com.au.

Yours sincerely,

Greg Joblin
A/Manager, Growth Strategy

Sydney WATER

Attachment 1

Sydney Water Servicing
A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water.

Make an early application for the certificate, as there may be water and wastewater pipes to be built that can take some time. This can also impact on other services and buildings, driveways or landscape designs.

Applications must be made through an authorised Water Servicing Coordinator. For help either visit www.sydneywater.com.au > Plumbing, building and developing > Developing > Land development or telephone 13 20 92.

Sydney WATER

Attachment 2

Requirements for Business Customers for Commercial and Industrial Property Developments

If this property is to be developed for Industrial or Commercial operations, it may need to meet the following requirements:

Trade Wastewater Requirements

If this development is going to generate trade wastewater, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. You must wait for approval of this permit before any business activities can commence.

The permit application should be emailed to Sydney Water's Business Customer Services at businesscustomers@sydneywater.com.au

It is illegal to discharge Trade Wastewater into the Sydney Water sewerage system without permission.

A **Boundary Trap** is required for all developments that discharge trade wastewater where arrestors and special units are installed for trade wastewater pre-treatment.

If the property development is for Industrial operations, the wastewater may discharge into a sewerage area that is subject to wastewater reuse. Find out from Business Customer Services if this is applicable to your development.

Backflow Prevention Requirements

Backflow is when there is unintentional flow of water in the wrong direction from a potentially polluted source into the drinking water supply.

All properties connected to Sydney Water's supply must install a testable **Backflow Prevention Containment Device** appropriate to the property's hazard rating. Property with a high or medium hazard rating must have the backflow prevention containment device tested annually. Properties identified as having a low hazard rating must install a non-testable device, as a minimum.

Separate hydrant and sprinkler fire services on non-residential properties, require the installation of a testable double check detector assembly. The device is to be located at the boundary of the property.

Before you install a backflow prevention device:

1. Get your hydraulic consultant or plumber to check the available water pressure versus the property's required pressure and flow requirements.
2. Conduct a site assessment to confirm the hazard rating of the property and its services. Contact PIAS at NSW Fair Trading on **1300 889 099**.

Sydney WATER

For installation you will need to engage a licensed plumber with backflow accreditation who can be found on the Sydney Water website:
http://www.sydneywater.com.au/Plumbing/BackflowPrevention/

Water Efficiency Recommendations

Water is our most precious resource and every customer can play a role in its conservation. By working together with Sydney Water, business customers are able to reduce their water consumption. This will help your business save money, improve productivity and protect the environment.

Some water efficiency measures that can be easily implemented in your business are:

- Install water efficiency fixtures to help increase your water efficiency, refer to WELS (Water Efficiency Labelling and Standards (WELS) Scheme, http://www.waterrating.gov.au/
- Consider installing rainwater tanks to capture rainwater runoff, and reusing it, where cost effective. Refer to http://www.sydneywater.com.au/Water4Life/InYourBusiness/RWTCalculator.cfm
- Install water-monitoring devices on your meter to identify water usage patterns and leaks.
- Develop a water efficiency plan for your business.

It is cheaper to install water efficiency appliances while you are developing than retrofitting them later.

Contingency Plan Recommendations

Under Sydney Water's **customer contract** Sydney Water aims to provide Business Customers with a continuous supply of clean water at a minimum pressure of 15meters head at the main tap. This is equivalent to 146.8kpa or 21.29psi to meet reasonable business usage needs.

Sometimes Sydney Water may need to interrupt, postpone or limit the supply of water services to your property for maintenance or other reasons. These interruptions can be planned or unplanned.

Water supply is critical to some businesses and Sydney Water will treat vulnerable customers, such as hospitals, as a high priority.

Have you thought about a **contingency plan** for your business? Your Business Customer Representative will help you to develop a plan that is tailored to your business and minimises productivity losses in the event of a water service disruption.

For further information please visit the Sydney Water website at:
http://www.sydneywater.com.au/OurSystemsandOperations/TradeWaste/ or contact Business Customer Services on **1300 985 227** or businesscustomers@sydneywater.com.au

From: David Gibson [mailto:David.Gibson@planning.nsw.gov.au]
Sent: Monday, 2 June 2014 1:23 PM
To: Gary Hudson
Subject: RE: University of Wollongong - Student Accommodation Project - State Significant Inquiry

Afternoon Gary,

The appropriate approval pathway is via a development application to council. The proposal as described in your letter is not considered by the department to be State significant development as per the State and Regional Development SEPP.

Regards,
David.

David Gibson
Team Leader
Industry, Key Sites & Social Projects
Department of Planning & Environment
GPO Box 39 | SYDNEY NSW 2001
T 02 9228 6241 E david.gibson@planning.nsw.gov.au

From: Gary Hudson [mailto:ghudson@uow.edu.au]
Sent: Wednesday, 28 May 2014 2:14 PM
To: David Gibson
Subject: University of Wollongong - Student Accommodation Project - State Significant Inquiry

David,

Our Planning Consultant, Site Plus Pty Ltd, has made an enquiry into the Department of Planning around the issue of an Student Accommodation Project the University is proposing and what is the approval pathway.

This issue was raised with the Planning Dept. of Wollongong City Council, who advised us we should seek confirmation from Dept. of Planning.

We have prepared the attached letter which provides some details of the proposed Project and questions / clarifications sought around the SEPP approval path.

If you have any questions or would like to discuss this matter please do not hesitate to contact me.

We look forward to your advice on this matter.

Regards

Gary Hudson
Accommodation Project Co-ordinator

University of Wollongong NSW 2522
T + 61 2 4221 3391
F + 61 2 4221 4970
M + 61 4 0114 8004
http://www.innovationcampus.com.au

GLOBAL / INNOVATIVE / COLLABORATIVE
CONNECT: UOW

Attachment 8 Correspondence – Transport Initiatives Plan

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

UNIVERSITY OF WOLLONGONG

COMMITMENT 4

Construction of a new multi-story carpark (DA-2015/1254). Carpark to be constructed and operational by December 2017. Minimum spaces to be provided;

1. 270 secure spaces for Blg's 73, 74 & 75 student residents, and
2. Maintain existing 361 P3 spaces for Pay & Display ticket & UOW Permits.
3. Displaced spaces during construction (approx. 150) will be provided in an alternative temporary location.

DA-2014-1311
79 additional spaces
Completed (open in 3rd Quarter 2015)

Sports & Fitness Hub
URAC

COMMITMENT 5

Continuation of Off Campus Parking Surveys

KOOLOOBONG PRECINCT (Undergraduates)

NORTHFEILDS PRECINCT (Postgraduates)

Retail & Student Services
UNICENTRE

Public Transport Interchange

Proposed Buildings
73, 74 & 75
Kooloobong

Additional Parking-10 Spaces (enforced)
-2 x Car Share
-3 x Pickup / Drop Off
-3 x Visitors
-2 x Maintenance

Proposed Building 120
Northfields

COMMITMENT 1

Specific Student Resident Transport Information Pack

COMMITMENT 2

Free Bike Hire
Operated by University
15 Bicycles

COMMITMENT 3

Car Hire Scheme
GoGet or similar
2 Vehicles

STUDENT ACCOMMODATION
BLD'S 73, 74 & 75 - Kooloobong
TRANSPORTATION INITIATIVES

Date: 29 May 2015 | Drawing No. UOW-SK-004 | Issue C

Attachment 9
Draft Conditions

2014STH029 (DA-2014/1510)

Student University Accommodation

2 Northfields Ave, Keiraville

wollongong
city of innovation

WOLLONGONG CITY COUNCIL

Address 41 Burelli Street Wollongong **Post** Locked Bag 8821 Wollongong DC NSW 2500
Phone (02) 4227 7111 • **Fax** (02) 4227 7277 **Email** council@wollongong.nsw.gov.au
Web www.wollongong.nsw.gov.au **ABN** 63 139 525 939 • GST Registered

Attachment 9 – Draft Conditions

Consent has been granted subject to the following conditions:

The development proposed is integrated development and approval is required from the approval bodies listed below:

NSW Rural Fire Service
The recommendations contained in the letter from the NSW Rural Fire Service dated 2 January 2015 and attached to this consent at Attachment 1 shall form part of the conditions of consent for this application.

Conditions imposed by Council as part of this Integrated Development Consent are:

Approved Plans and Specifications

1 To be inserted by Council

General Matters

2 **Water Cycle/Stormwater Quality Management**
The water cycling management treatment nodes shall be constructed as per the WSUD Strategy prepared by BG&E reference No. s14036-REP-C-0001 dated 18th September 2015 to achieve the treatment goals for the removal of pollutants and nutrients which shall be: Gross Pollutants (GP) – 99%, Total Suspended Solids (TSS) – 85%, Total Phosphorus (TP) – 70% and Total Nitrogen (TN) – 45%.

The minimum treatment goals for the removal of pollutants and nutrients shall be GP – 90%, TSS – 80%, TP – 60% and TN – 45%.

It is the developer's/owner's responsibility to maintain the water cycle management infrastructure and undertake regular servicing of gross pollutant traps.

3 **Tree Removal**
This consent permits the removal of trees as indicated on the Landscape Site Plan, Dwg. No 73_75L- 11000 Issue for Development Application by Group GSA dated 17.8.15 and numbered and described in arborist report prepared by Landscape By Lenice dated 11 September 2015. No other trees shall be removed without prior written approval of Council.

4 **Building Work - Compliance with the Building Code of Australia**
All building work must be carried out in compliance with the provisions of the Building Code of Australia.

5 **Construction Certificate**
A Construction Certificate must be obtained from Council or an Accredited Certifier prior to work commencing.

A Construction Certificate certifies that the provisions of Clauses 139-148 of the Environmental Planning and Assessment Amendment Regulations, 2000 have been satisfied, including compliance with all relevant conditions of Development Consent and the Building Code of Australia.

Note: The submission to Council of two (2) copies of all stamped Construction Certificate plans and supporting documentation is required within **two (2)** days from the date of issue of the Construction Certificate, in the event that the Construction Certificate is not issued by Council.

6 **Disability Discrimination Act 1992**

This consent does not imply or confer compliance with the requirements of the Disability Discrimination Act 1992.

It is the responsibility of the applicant to guarantee compliance with the requirements of the Disability Discrimination Act 1992. The current Australian Standard AS1428.1 (2009) – Design for Access and Mobility is recommended to be referred for specific design and construction requirements, in order to provide appropriate access to all persons within the building.

7 **Protection of Public Infrastructure**

Council must be notified in the event of any existing damage to any of its infrastructure such as the road, kerb and gutter, road shoulder, footpath, drainage structures and street trees fronting the development site, prior to commencement of any work.

Adequate protection must be provided for Council infrastructure prior to work commencing and during building operations.

Any damage to Council's assets shall be made good, prior to the issue of any Occupation Certificate or commencement of the operation.

8 **Occupation Certificate**

A final Occupation Certificate must be issued by the Principal Certifying Authority prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifying Authority must be satisfied that the requirements of Section 109H of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

Prior to the Issue of the Construction Certificate

9 **Minimisation and Management of Construction Waste**

Details (using Council's Site Waste Minimisation and Management Plan Template contained in Chapter E7: Waste Management of Wollongong Development Control Plan 2009) of the proposed minimisation and management of construction waste shall be provided to the Principal Certifying Authority prior to issue of the Construction Certificate.

10 **Site Management Plan (Construction Plan)**

The Site Management Plan (Construction Plan) prepared by Hutchinson Builders shall include all noise and vibration control methods recommended by the acoustic report and must be signed by the project director and site manager. Principal Certifying Authority shall site sight the signed copy of site management plan (construction plan) prior to issue of the Construction Certificate.

11 **Northfields Avenue – Detailed Civil Engineering Design**

A detailed civil engineering design shall be provided for the proposed works within Northfields Avenue and associated drainage modifications including proposed overflow path. The detailed civil engineering design shall be prepared by a suitably qualified practicing civil engineer in accordance with the relevant Council engineering standards. The detailed civil engineering design plans shall include:

- Levels and details of existing and proposed infrastructure such as kerb and gutter, public utility, pits, poles, stormwater drainage, road carriageway, footpath, and shall extend a minimum of 10 metres beyond the limit of works.
- Road, footpath, and drainage longitudinal sections and cross-sections at regular intervals demonstrating compliance with the latest versions of AS 1428.1, AS/NZS 2890.1, the Disability Discrimination Act and the AUSTROAD road design standards.
- Details of the proposed modifications to the existing stormwater drainage system, finished surface levels, and proposed stormwater overflow path including, but not be limited to, the following:
    - Plan showing the total catchment area contributing to the overflow path (i.e. sag in Northfields Avenue).
    - Hydrologic calculations showing the maximum 100 year ARI flow rate contributing to the overflow path.

- Hydraulic calculations and plans showing the existing and proposed finished surface levels and maximum 100 year ARI water level and extent of inundation within Northfields Avenue and adjacent footpath.
- Details and longitudinal section of all proposed drainage structures and existing drainage structures proposed to be modified (incl. pits, pipes, inlets, outlets, etc.).

- Where any adjustments to public utilities are proposed the applicant shall submit documentary evidence that they have the consent of the owner of the public utility authority.

- All construction must be in accordance with the requirements of Council's Subdivision Code. Evidence that this requirement has been met must be detailed on the engineering drawings.

The detailed civil engineering design and supporting documentation shall be submitted to and approved by Wollongong City Council's Development Engineering Manager for approval prior to the issue of any Construction Certificate.

12 **Landscaping within Overflow Path**
There shall be no planting of trees within the flood diversion channel conveying stormwater overflows from Northfields Avenue. This requirement shall be reflected on the Construction Certificate plans prior to the release of the Construction Certificate.

13 **Detailed Drainage Design**
A detailed drainage design for the proposed development shall be prepared by a suitably qualified civil engineer in accordance with Chapter E14 of the Wollongong DCP 2009 and conditions listed under this consent. This requirement shall be reflected on the Construction Certificate plans and supporting documentation.

14 **Existing/Proposed Levels**
Existing and proposed levels to Australian Height Datum (AHD), including floor, ground, grate, pipe inverts and pavement levels shall be shown on the detailed drainage design. This requirement shall be reflected on the Construction Certificate plans and supporting documentation.

15 **Scour Protection**
All overland flow paths and stormwater outlets shall incorporate appropriate scour/erosion protection measures in accordance with good engineering practice. The final details of the proposed scour/erosion protection measures shall be reflected on Construction Certificate plans.

16 **Structural Soundness Design Criteria**
The proposed buildings shall be designed to withstand the forces of floodwater, debris and buoyancy up to and including the adjacent Probable Maximum Flood (PMF) level plus 0.5 metres freeboard. This requirement shall be reflected on the Construction Certificate plans and supporting documentation prior to the issue of the Construction Certificate.

17 **Stormwater Disposal**
Stormwater from the development shall be piped to existing stormwater drainage system within the site. This requirement shall be reflected on the Construction Certificate plans and supporting documentation prior to the release of the Construction Certificate.

18 **Protection of Buildings from Ingress of Stormwater Runoff**
Detailed design of the development shall ensure that there will be no ingress of surface stormwater runoff into the proposed buildings. Finished surface levels shall be graded away from building entrances. These requirements shall be reflected on the Construction Certificate plans and supporting documentation prior to the release of the Construction Certificate.

19 **Flood Mitigation Wall and Diversion Channel**
An engineered flood mitigation wall and flood diversion channel shall be provided within the development to intercept, divert, and convey floodwater and stormwater overflows from Northfields Avenue around the proposed buildings in a controlled manner. The flood mitigation wall and flood diversion channel shall be generally in accordance with the plan titled 'Siteworks Plan Sheet 1' by Hutchinson Builders (Project No. S14036, Drawing No. 73-75-C-1010, Revision 2) except as amended by the requirements listed in this condition. The detailed design of the

flood mitigation wall and diversion channel shall be undertaken by a suitably qualified civil engineer and shall achieve the following outcomes:

- Ensure no increase in the depth of ponding within Northfields Avenue in any storm event as a result of the works.
- Ensure no entry of surface water into the proposed buildings in any storm event as a result of stormwater overflows from Northfields Avenue.
- The flood diversion channel shall be sufficiently sized to convey the contributing 100 year ARI flow rate from Northfields Avenue. This shall be demonstrated with detailed hydrologic and hydraulic calculations provided in conjunction with the detailed drainage design.
- A minimum 0.3 metre freeboard shall be provided from the maximum 100 year ARI overflow water level to the adjacent top of wall/ground levels outside the overflow path.
- The flood mitigation wall shall be designed to withstand the forces of floodwater, debris, and buoyancy up to and including the adjacent 100 year ARI water level plus 0.5 metres freeboard.
- The flood diversion channel shall extend down-slope beyond the proposed buildings.
- Appropriate engineering measures shall be incorporated into the design to ensure no scour/erosion as a result of the diversion/concentration of water flows.

Engineering details of the flood mitigation wall and flood diversion channel demonstrating compliance with the above requirements shall be prepared by a suitably qualified civil engineer and submitted with Construction Certificate application prior to the release of the Construction Certificate.

20 **Fire Safety Schedule**

When issuing a Construction Certificate, a certifying authority must attach a Fire Safety Schedule specifying all of the fire safety measures required for the building to ensure the safety of persons in the building in the event of fire.

21 **Present Plans to Sydney Water**

Approved plans must be submitted online using Sydney Water Tap in, available through www.sydneywater.com.au to determine whether the development will affect Sydney Water's sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met.

The Certifying Authority must ensure that Sydney Water has issued an approval receipt prior to the issue of a Construction Certificate.

Visit www.sydneywater.com.au or telephone 13 20 92 for further information.

22 **Endeavour Energy Requirements**

The submission of documentary evidence from Endeavour Energy to the Principal Certifying Authority is required confirming that satisfactory arrangements have been made with Endeavour Energy for the provision of electricity supplies to the development, prior to the release of the Construction Certificate.

Note: Applications should be made to Customer Connections – South Coast, Endeavour Energy PO Box 811 Seven Hills NSW 1730.

23 **Telecommunications**

The submission of documentary evidence from an approved telecommunications carrier to the Principal Certifying Authority confirming that underground telecommunication services are available for this development is required prior to the issue of the Construction Certificate.

24 **Crime Prevention through Environmental Design (CPTED) - Lighting**

All areas of the subject site which can be accessed by the public must have lighting provided in accordance with AS1158 (1999). This requirement shall be reflected on the Construction Certificate plans.

25 The development shall incorporate appropriate design measures to minimise any crime risk to patrons or staff and motor vehicles within the car parking areas, including (but not limited to) the following:

25.1 Landscape treatment which allows visibility from the road way and other public areas;
25.2 Landscaping at ground level provided which is difficult or uncomfortable to hide in or traverse,
25.3 Provide clearly marked and sign posted visitor car parking signs (including security/intercom system);
25.4 Ensure that fire rated doors in the car park have a clear glass panel located no more than 1.5 m from the floor. The panel shall have a minimum dimension of 300 mm x 300 mm to allow visual surveillance within the stairwell and/or next room/space.

This requirement shall be reflected on the Construction Certificate plans.

26 The preparation of a safety audit report for the internal and external operation of the approved development in general accordance with the Department of Infrastructure, Planning and Natural Resources (now Department of Planning) "Crime Prevention Through Environmental Design" Guidelines/NSW Police Service "Safer by Design" Guidelines and in conjunction with any other requirements of the NSW Police Service, prior to the release of the Construction Certificate. This report shall address specific design features to minimise crime and safety related matters such as theft, graffiti, vandalism, undesirable activities etc and be supported by appropriate plans. The recommended strategies contained in the safety audit report shall be implemented, prior to the occupation or use of the development.

27 **Car Parking and Access**
The development shall make provision for a total of 9 car parking spaces (including 3 disabled car parking spaces, 4 visitor/maintenance spaces and 2 car share spaces), and 266 bicycle parking spaces. This requirement shall be reflected on the Construction Certificate plans. Any change in above parking numbers shown on the approved DA plans shall be dealt with via a section 96 modification to the development. The approved parking spaces shall be maintained to the satisfaction of Council, at all times.

28 The parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking areas are to be in conformity with the current relevant Australian Standard AS2890.1, except where amended by other conditions of this consent. Details of such compliance are to be reflected on the Construction Certificate plans.

29 Each disabled person's parking space must comply with the current relevant Australian Standard AS2890.6 – Off-street parking for people with disabilities. This requirement shall be reflected on the Construction Certificate plans.

30 The designated loading/unloading facility shall be kept clear for that purpose at all times. The designated loading/unloading facility shall be shown on the Construction Certificate plans.

31 The provision of suitable barriers, line-marking and painted signage delineating vehicular flow movements within the car parking areas. These details shall be reflected on the Construction Certificate plans.

32 The car parking areas shall incorporate 'low impact' floodlighting to ameliorate any light spillage and/or glare impacts upon surrounding properties. The final design details of the proposed floodlighting system shall be reflected on the Construction Certificate plans. The erection of the floodlighting system shall be in accordance with the approved final design.

33 A change in driveway paving is required at the entrance threshold to clearly show motorists they are crossing a pedestrian area. The developer must construct the paving in accordance with the conditions, technical specifications and levels to be obtained from Council's Manager Works. This requirement shall be reflected on the Construction Certificate plans and any supporting documentation.

34 Any proposed structures adjacent to the driveway shall comply with the requirements of the current relevant Australian Standard AS2890.1 to provide for adequate sight distance. This includes, but is not limited to, structures such as signs, letterboxes, retaining walls, dense planting etc. This requirement shall be reflected on the Construction Certificate plans.

35 Habitable floor levels must be constructed no lower than the adjacent 100 year ARI flood level plus 0.5 metres freeboard. This requirement shall be reflected on the Construction Certificate plans, prior to the release of the Construction Certificate.

36 Any portion of the building or structure below the adjacent 100 year ARI flood level plus 0.5 metres freeboard should be built from flood compatible materials. Where materials are proposed and not listed in Appendix B of Chapter E13 of the Wollongong DCP2009, relevant documentation from the manufacturer shall be provided demonstrating that the materials satisfy the definition of 'flood compatible materials' as stated in Chapter E13 of the Wollongong DCP2009. These requirements shall be reflected on the Construction Certificate plans prior to the release of the Construction Certificate.

37 Overflow paths must be provided to allow for flows of water in excess of the capacity of the pipe/drainage system draining the land. Blocked pipe situations with 1 in 100 year ARI events must be incorporated in the design. Overflow paths must also be provided in low points and depressions. Each overflow path shall be designed to ensure no ingress of stormwater into any building. Details of each overflow path shall be provided on the detailed drainage design. These requirements shall be reflected on the Construction Certificate plans prior to the release of the Construction Certificate.

38 The depth and location of all services (ie gas, water, sewer, electricity, telephone, traffic lights, etc) must be ascertained and reflected on the Construction Certificate plans and supporting documentation.

39 The submission of a final Landscape Plan to the Principal Certifying Authority, prior to the release of the Construction Certificate. The final Landscape Plan shall address the following requirements:

39.1 planting of indigenous plant species native to the Illawarra Region such as : *Syzygium smithii* (syn *Acmena smithii*) Lilly pilly, *Archontophoenix cunninghamiana* Bangalow palm, *Backhousia myrtifolia* Grey myrtle, *Elaeocarpus reticulatus* Blueberry ash, *Glochidion ferdinandii* Cheese tree, *Livistona australis* Cabbage palm tree, *Syzygium paniculatum* Brush cherry.
A further list of suitable suggested species may be found in Wollongong Development Control Plan 2009 – Chapter E6: Landscaping;

39.2 a schedule of proposed planting, including botanic name, common name, expected mature height and staking requirements as well as number of plants and pot sizes;

39.3 the location of all proposed and existing overhead and underground service lines. The location of such service lines shall be clear of the dripline of existing and proposed trees; and

39.4 any proposed hard surface under the canopy of existing trees shall be permeable and must be laid such that the finished surface levels match the existing level. Permeable paving is to be installed in accordance with the manufacturer's recommendations.

The completion of the landscaping works as per the final approved Landscape Plan is required, prior to the issue of Occupation Certificate.

40 The provision of common tap(s) and/or an irrigation system is required to guarantee that all landscape works are adequately watered. The location of common taps and/or irrigation system must be indicated on the Landscape Plan for the Construction Certificate, as detailed in the Wollongong City Council Landscape Technical Policy No 98/4. This requirement shall be reflected on the Landscape Plan prior to the release of the Construction Certificate.

41 The submission of certification from a suitably qualified and experienced landscape designer and drainage consultant to the Principal Certifying Authority prior to the release of the Construction Certificate, confirming that the landscape plan and the drainage plan are compatible.

42 The implementation of a landscape maintenance program in accordance with the approved Landscape Plan for a minimum period of 12 months to ensure that all landscape work becomes well established by regular maintenance. Details of the program must be submitted with the Landscape Plan to the Principal Certifying Authority prior to release of the Construction Certificate.

43 **Tree Protection and Management**
The existing trees are to be retained upon the subject property and any trees on adjoining properties shall not be impacted upon during the excavation or construction phases of the development. This will require the installation and maintenance of appropriate tree protection measures, including (but not necessarily limited to) the following:

43.1 Installation of Tree Protection Fencing - Protective fencing shall be 1.8 metre cyclone chainmesh fence, with posts and portable concrete footings. Details and location of protective fencing must be indicated on the architectural and engineering plans to be submitted to the Principal Certifying Authority prior to release of the Construction Certificate.

43.2 Mulch Tree Protection Zone: Areas within a Tree Protection Zone are to be mulched with minimum 75 mm thick 100% recycled hardwood chip/leaf litter mulch.

43.3 Irrigate: Areas within the Tree Protection Zone are to be regularly watered in accordance with the arborist's recommendations.

44 All site offices must be located on-site plan and are to be located in already cleared areas outside the canopy of any existing trees to be retained. Details of the location of the site offices shall be submitted to the Principal Certifying Authority, prior to release of the Construction Certificate.

45 **Provision of a Fire Hydrant**
The provision of a fire hydrant in accordance with AS2419 (1994) Fire Hydrant Installations and any requirements of the NSW Rural Fire Service and/or NSW Fire Brigades. The final details of the location of the fire hydrant shall be reflected on the Construction Certificate plans prior to the issue of the Construction Certificate.

46 **Engineering Plans and Specifications - Retaining Wall Structures**
The submission of engineering plans and supporting documentation of all proposed retaining walls to the Principal Certifying Authority for approval prior to the issue of the Construction Certificate. The retaining walls shall be designed by a suitably qualified and experienced civil and/or structural engineer. The required engineering plans and supporting documentation shall include the following where applicable:

46.1 A plan of the wall showing location and proximity to property boundaries;

46.2 an elevation of the wall showing ground levels, maximum height of the wall, materials to be used and details of the footing design and longitudinal steps that may be required along the length of the wall;

46.3 details of fencing or handrails to be erected on top of the wall;

46.4 sections of the wall showing wall and footing design, property boundaries and backfill material. Sections shall be provided at sufficient intervals to determine the impact of the wall on existing ground levels. The developer shall note that the retaining wall and footing structure must be contained wholly within the subject property;

46.5 the proposed method of subsurface and surface drainage, including water disposal;

46.6 reinforcing and joining details of the bends in the wall at the passing bay of the accessway;

46.7 the assumed traffic loading used by the engineer for the wall design.

47 **Dust Suppression Measures**
The submission of details of the proposed dust suppression measures for the demolition, excavation and construction phases of the development to the Principal Certifying Authority, prior to issue of the Construction Certificate.

48 Approved plans must be submitted online using Sydney Water Tap in, available through www.sydneywater.com.au,to determine whether the development will affect Sydney Water's sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met.

The Certifying Authority must ensure that Sydney Water has issued an approval receipt before the issue of a Construction Certificate (prior to works commencing - in the case of a combined DA/CC or complying development).

Visit www.sydneywater.com.au or telephone 13 20 92 for further information.

49 Bicycle parking facilities must have adequate weather protection and provide the appropriate level of security as required by the current relevant Australian Standard AS2890.3 - Bicycle Parking Facilities and Austroads Guide to Traffic Management Part 11: Parking (Commentary 9: C9.2). This requirement shall be reflected on the Construction Certificate plans.

Prior to the Commencement of Works

50 **Section 73 Compliance Certificate**
A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water Corporation. Application must be made through an authorised Water Servicing Coordinator. Please refer to the Building Developing and Plumbing section of the web site www.sydneywater.com.au then refer to "Water Servicing Coordinator" under "Developing Your Land" or telephone 13 20 92 for assistance.

Following application, a "Notice of Requirements" will advise of water and sewer infrastructure to be built and charges to be paid. Please make early contact with the Coordinator, since building of water/sewer infrastructure can be time consuming and may impact on other services and building, driveway or landscape design.

The Notice of Requirements must be submitted to the Principal Certifying Authority prior to issue of the construction certificate.

51 **Dilapidation Report**
The developer shall provide Wollongong City Council's Development Engineering Manager with a dilapidation report, identifying the condition of all Council assets and land within the vicinity of the proposed works, prior to the commencement of works within Northfields Avenue.

52 **Appointment of Principal Certifying Authority**
Prior to commencement of work, the person having the benefit of the Development Consent and a Construction Certificate must:

52.1 Appoint a Principal Certifying Authority (PCA) and notify Council in writing of the appointment irrespective of whether Council or an accredited private certifier is appointed; and
52.2 notify Council in writing of their intention to commence work (at least two days notice is required).

The Principal Certifying Authority must determine when inspections and compliance certificates are required.

53 **Sign – Supervisor Contact Details**
Before commencement of any work, a sign must be erected in a prominent, visible position:

53.1 stating that unauthorised entry to the work site is not permitted;
53.2 showing the name, address and telephone number of the Principal Certifying Authority for the work; and
53.3 showing the name and address of the principal contractor in charge of the work site and a telephone number at which that person can be contacted at any time for business purposes.

This sign shall be maintained while the work is being carried out and removed upon the completion of the construction works.

54 **Temporary Toilet/Closet Facilities**
Toilet facilities are to be provided at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.

Each toilet provided must be:

54.1 a standard flushing toilet; and
54.2 connected to either:
  54.2.1 the Sydney Water Corporation Ltd sewerage system or
  54.2.2 an accredited sewage management facility or
  54.2.3 an approved chemical closet.

The toilet facilities shall be provided on-site, prior to the commencement of any works.

55 **Hoardings (within any Public Road Reserve)**
The site must be enclosed with a suitable hoarding (type A or B) or security fence of a type in accordance with the Works and Services Division Design Standard, and must satisfy the requirements of the Occupational Health and Safety Act, the Occupational Health and Safety Regulations and Australian Standard AS 2601. This application must be submitted to Council's Works and Services Division, and a permit obtained, before the erection of any such hoarding or fence.

56 **Enclosure of the Site**
The site must be enclosed with a suitable security fence to prohibit unauthorised access, to be approved by the Principal Certifying Authority. No building work is to commence until the fence is erected.

57 **Demolition Works**
All demolition works shall be carried out in accordance with Australian Standard AS2601 (2001): The Demolition of Structures or any other subsequent relevant Australian Standard and the requirements of the NSW WorkCover Authority.

No demolition materials shall be burnt or buried on-site. The person responsible for the demolition works shall ensure that all vehicles leaving the site carrying demolition materials have their loads covered and do not track soil or waste materials onto the road. Any unforeseen hazardous and/or intractable wastes shall be disposed of to the satisfaction of the Principal Certifying Authority. In the event that the demolition works may involve the obstruction of any road reserve/footpath or other Council owned land, a separate application shall be made to Council to enclose the public place with a hoarding or fence over the footpath or other Council owned land.

58 **Consultation with NSW WorkCover Authority**
Prior to any work commencing on the site it is the responsibility of the owner to contact NSW WorkCover Authority in writing in respect to any demolition or use of any crane, hoist, plant or scaffolding.

59 **Demolition Notification to Surrounding Residents**
Demolition must not commence unless at least 2 days written notice has been given to adjoining residents of the date on which demolition works will commence.

60 **Notification to Surrounding Property Owners/Occupants Prior to Commencement of Demolition Works**
At least five (5) days notice must be given in writing to any residence or business within 100 metres of the premises to which this consent pertains of the impending demolition works. The written notice must include at least the following information:

60.1 a summary of the work plan and method for the demolition and a timetable for completion of works, including hours of operation, transport routes etc;
60.2 details of the primary contractor and/or company conducting the demolition works;
60.3 the name and telephone number for a person supervising the works to which residents can direct questions, comments and/or concerns about the works for the duration of the works.

61 **Hazardous Material Survey**
At least one week prior to demolition, the applicant must prepare a hazardous materials survey of the site and submit to Council a report of the results of the survey. **Hazardous materials** includes, but are not limited to, asbestos materials, synthetic mineral fibre, roof dust, PCB materials and lead based paint. The report must include at least the following information:

61.1 the location of hazardous materials throughout the site;
61.2 a description of the hazardous material;
61.3 the form in which the hazardous material is found, eg AC sheeting, transformers, contaminated soil, roof dust;
61.4 an estimation (where possible) of the quantity of each particular hazardous material by volume, number, surface area or weight;

61.5 a brief description of the method for removal, handling, on-site storage and transportation of the hazardous materials, and where appropriate, reference to relevant legislation, standards and guidelines;

61.6 identification of the disposal sites to which the hazardous materials will be taken.

62 **Consultation with WorkCover NSW – Prior to Asbestos Removal**

A licensed asbestos removalist must give written notice to WorkCover NSW at least five (5) days before licensed asbestos removal work is commenced.

63 **Contaminated Roof Dust**

Any existing accumulations of dust in ceiling voids and wall cavities must be removed prior to any demolition work commencing. Removal must take place by the use of an industrial vacuum fitted with a high efficiency particulate air (HEPA) filter.

64 **Supervision of Works and Notification to Council of Works in Road Reserve**

The work shall be supervised by a suitably qualified and experienced Civil Engineer, Registered Surveyor or Civil Engineering Foreman. The supervisor's name, address and contact details (including telephone number) shall be submitted to the Principal Certifying Authority and Council prior to the commencement of any works.

The submission of a written construction program and anticipated duration of the construction to Council is required prior to the commencement of any works within any public road reserve.

65 **Erosion and Sediment Control Measures**

Erosion and sediment control devices are to be installed prior to the commencement of any demolition, excavation or construction works upon the site. These devices are to be maintained throughout the entire demolition, excavation and construction phases of the development and for a minimum three (3) month period after the completion of the project, where necessary.

66 **All-weather Access**

An all-weather stabilised access point must be provided to the site to prevent sediment leaving the site as a result of vehicular movement. Vehicular movement should be limited to this single accessway.

67 **Erosion Controls – Vehicular Entry/Exit Points**

The vehicular entry/exits to the site must be protected from erosion and laid with a surface material which will not wash into the street drainage system or watercourse.

68 **Supervising Arborist – Tree Inspection and Installation of Tree Protection Measures**

Prior to the commencement of any demolition, excavation or construction works, the supervising arborist must certify in writing that tree protection measures have been inspected and installed in accordance with the arborist's recommendations and relevant conditions of this consent.

69 **Footpath Levels**

Footpath levels must be obtained from Council's Works and Services Division prior to works commencing. This can be achieved by filling out an application form and payment of the relevant fee.

All such structures and internal driveways shall be constructed to these approved levels.

The longitudinal grade of the footpath must be parallel to the top of kerb level and all building entrance adjustments for level access to building floor levels must be developed within the private property of the building in accordance with the requirements of the latest versions of AS1428.1 (2009), the Building Code of Australia and the Disability Discrimination Act. No adjustments to the uniform and even longitudinal grade of the footpath at the boundary line will be permitted for access points to buildings.

A copy of the approved levels shall be submitted to the Principal Certifying Authority prior to works commencing.

70 **Notification to Council of any Damage to Council's Infrastructure**

Council must be notified in the event of any existing damage to any of Council's infrastructure including, but not limited to the road, kerb and gutter, road shoulder, footpath, drainage

structures and street trees fronting the development prior to the commencement of work. Adequate protection must be provided to Council infrastructure prior to work commencing and during the construction period. Any damage to Council's assets shall be restored in a satisfactory manner prior to the issue of the Occupation Certificate.

71 **Application for Occupation, Use, Disturbance or Work on Footpath/Roadway**

Any occupation, use, disturbance or work on the footpath or road reserve for construction purposes, which is likely to cause an interruption to existing pedestrian and / or vehicular traffic flows requires Council consent under Section 138 of the Roads Act 1993. An application must be submitted and approved by Council prior to the works commencing where it is proposed to carry out activities such as, but not limited to, the following:

(a) Digging or disruption to footpath/road reserve surface;
(b) Loading or unloading machinery/equipment/deliveries;
(c) Installation of a fence or hoarding;
(d) Stand mobile crane/plant/concrete pump/materials/waste storage containers;
(e) Pumping stormwater from the site to Council's stormwater drains;
(f) Installation of services, including water, sewer, gas, stormwater, telecommunications and power;
(g) Construction of new vehicular crossings or footpaths;
(h) Removal of street trees;
(i) Carrying out demolition works.

72 **Site Management, Pedestrian and Traffic Management (Where Works are Proposed in or from a Public Road Reserve**

The submission, as part of an application for a permit under Section 138 of the Roads Act 1993, of a Site Management, Pedestrian and Traffic Management Plan to Council's Development Assessment and Certification Team for approval is required, prior to works commencing on the site. This plan shall address what measures will be implemented for the protection of adjoining properties, pedestrian safety and traffic management and shall be in compliance with the requirements of the latest versions of Australian Standard AS1742 - Traffic Control Devices for Works on Roads and the RTA Traffic Control at Worksites Manual.

This plan is required to maintain public safety, minimise disruption to pedestrian and vehicular traffic within this locality and to protect services, during demolition, excavation and construction phases of the development. This plan shall include the following aspects:

a) proposed ingress and egress points for vehicles to/from the construction site;
b) proposed protection of pedestrians, adjacent to the construction site;
c) proposed pedestrian management whilst vehicles are entering/exiting the construction site;
d) proposed measures to be implemented for the protection of all roads and footpath areas surrounding the construction site from building activities, crossings by heavy equipment, plant and materials delivery and static load from cranes, concrete pumps and the like;
e) proposed method of loading and unloading excavation machines, building materials formwork and the erection of any part of the structure within the site;
f) proposed areas within the site to be used for the storage of excavated material, construction materials and waste containers during the construction period;
g) proposed traffic control measures such as advanced warning signs, barricades, warning lights, after hours contact numbers etc are required to be displayed where works are in progress in any road reserve and shall be in accordance the latest versions of the NSW Roads and Traffic Authority's Specification - "Traffic Control at Work Sites Manual" and the Australian Standard AS1742. – "Manual of Uniform Traffic Control Devices" and accompanying field handbooks (SAA HB81);
h) proposed method of support of any excavation, adjacent to adjoining buildings or the road reserve. The proposed method of support is to be certified by an accredited certifier in Civil Engineering; and

i) proposed measures to be implemented, in order to ensure that no soil/excavated material is transported on wheels or tracks of vehicles or plant and deposited on the roadway.

The approved plan shall be implemented, prior to the commencement of any works upon the construction site.

Note: Any proposed works or placement of plant and equipment and/or materials within any road reserve will require the separate approval of Council, prior to the commencement of such works, pursuant to the provisions of the Roads Act 1993.

73 The arrangements and costs associated with any adjustment to a public utility service shall be borne by the applicant/developer. Any adjustment, deletion and/or creation of public utility easements associated with the approved works are the responsibility of the applicant/developer. The submission of documentary evidence to the Principal Certifying Authority which confirms that satisfactory arrangements have been put in place regarding any adjustment to such services is required prior to any works commencing on site.

During Demolition, Excavation or Construction

74 **Implementation of Recommendations of Noise Impact Assessment Report**
All the recommendations stated in section 4.2 for building compliance with the internal living space noise guidelines and section 6 for construction noise and vibration management plan of the Noise Impact Assessment Report prepared by Acoustic Logic dated 31 October 2014 Document Reference No. 20141212.1/3110A/R0/BW shall be implemented as described.

75 **Implementation of Recommendations of Ecology Assessment Report**
All the recommendations stated in the Ecology Assessment Report prepared by Applied Ecology Pty Limited dated September 2015 shall be implemented as described.

76 **Pipe Connections**
All pipe connections to existing pits within Northfields Avenue shall be constructed flush with the pit wall in accordance with good engineering practice. The developer shall ensure that the condition of the pit is not compromised and that the service life of the pit is not reduced as a result of the connection.

77 **Flood Compatible Materials – Electrical**
All power service (metering) equipment, power outlets, switches etc. shall be located above the adjacent 100 year ARI flood level plus 0.5 metres freeboard. All electrical wiring installed below this level should be suitable for continuous underwater immersion and should contain no fibrous components. Earth leakage circuit breakers shall also be installed. Any equipment installed below or partially below the adjacent 100 year ARI flood level plus 0.5 metres freeboard should be capable of disconnection by a single plug and socket assembly.

78 **Protection of Council Infrastructure**
The developer shall provide adequate protection to all Council assets prior to work commencing and during construction. Wollongong City Council's Development Engineering Manager shall be notified immediately in the event of any damage to Council's assets. Any damage to Council's assets shall be restored to the satisfaction of Council, with all associated costs borne by the developer.

79 **Fences**
Any new fences constructed on the site and located in the flood plain shall be of a type that will not obstruct the free flow of floodwaters and not cause damage to surrounding land in the event of a flood.

80 **Survey Report for Floor Levels**
A Survey Report must be submitted to the Principal Certifying Authority verifying that each ground floor level accords with the floor levels as approved under this consent. The survey shall be undertaken after the formwork has been completed and prior to the pouring of concrete for each respective ground floor level of the building. Where a timber/steel frame supports the floor, the survey shall be undertaken after the piers have been installed and prior to the laying of the

bearers/joists and installation of the wall frames for each respective ground floor level of the building. All levels shall relate to Australian Height Datum.

81 **Supervision of Engineering Works**
All engineering works associated with the development are to be carried out under the supervision of a practicing engineer.

82 **No Adverse Run-off Impacts on Adjoining Properties**
The design of the development shall ensure there are no adverse effects to adjoining properties or upon the land as a result of flood or stormwater run-off. Attention must be paid to ensure adequate protection for buildings against the ingress of surface run-off.

83 **Re-direction or Treatment of Stormwater Run-off**
Allowance must be made for surface run-off from adjoining properties. Any redirection or treatment of that run-off must not adversely affect any other property.

84 **Redundant Crossings**
Any existing vehicular crossings rendered unnecessary by this development must be removed and the footpath and normal kerbing and guttering must be restored. This work shall be carried out by a Council recognized concrete contractor at the developer's expense.

85 **Protection of Public Places**
If the work involved in the erection or demolition of a building involves the enclosure of a public place or is likely to cause pedestrian/vehicular traffic in a public place to be obstructed or rendered inconvenient, or have the potential for conflict between pedestrians and vehicles:

85.1 A hoarding or fence must be erected between the work site and the public place;
85.2 an awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling into the public place;
85.3 the work site must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in a public place;
85.4 safe pedestrian access must be maintained at all times;
85.5 any such hoarding, fence or awning is to be removed when the work has been completed.

86 **Prior approval from Council for any works in Northfields Avenue**
Approval must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road caused by the construction of this development. A traffic control plan prepared and implemented by a suitably qualified person must be submitted for approval and the appropriate fees paid a minimum of five working days prior to the expected implementation. The traffic control plan shall satisfy the requirements of the latest versions of Australian Standard AS1742 – Traffic Control Devices for Works on Roads and the RTA Traffic Control at Worksites Manual.

Note: This includes temporary road closures for the delivery of materials, plant and equipment, concrete pours etc.

87 **Copy of Consent to be in Possession of Person carrying out Tree Removal**
The applicant/developer must ensure that any person carrying out tree removal/vegetation clearance is in possession of this development consent and/or the approved landscape plan, in respect to the trees/vegetation which have/has been given approval to be removed in accordance with this consent.

88 **Restricted Washing of Equipment or Disposal of Materials on any Tree Dripline Area**
No washing of equipment and or the disposal of building materials such as cement slurry must occur within the drip line of any tree which has been nominated for retention of the site and adjacent property.

89 **Treatment of any Tree Damage by a Supervised Arborist**
Any damage inflicted on a tree during the construction phase which has been nominated for retention shall be treated by an approved arborist at the developer's expense.

90 **Restricted Hours of Work (not domestic residential scale)**
The developer must not carry out any work other than emergency procedures to control dust or sediment laden runoff outside the hours of 7.00 am to 5.00 pm, Monday to Friday and 7 am to 1.00 pm Saturdays without the prior written consent of the Principal Certifying Authority and Council.

No work is permitted on public holidays, Sundays or the Saturday adjacent to public holidays on Mondays or Fridays.

Any request to vary these hours shall be submitted to the **Council** in writing detailing:

a the variation in hours required;
b the reason for that variation;
c the type of work and machinery to be used.

Note: The developer is advised that other legislation may control the activities for which Council has granted consent including but not limited to the Protection of the Environment Operations Act 1997. Developers must note that consistent with the Environment Protection Authority's Interim Construction Noise Guideline (July, 2009), the noise from construction ($L_{Aeq\ (15\ min)}$) must not exceed the background noise level ($L_{A90\ (15\ min)}$) plus 10 dB(A), and a $L_{Aeq\ (15\ min)}$ of 75 dB(A) when measured at the residential property boundary that is most exposed to construction noise, and at a height of 1.5 metres above ground level. If the property boundary is more than 30 metres from the residence, the location for measuring noise levels is at the most noise-affected point within 30 metres of the residence.

91 The developer must carry out work at all times in a manner which will not cause a nuisance, by the generation of unreasonable noise, dust or other activity, to the owners and/or occupiers of adjoining and adjacent land.

92 The lighting of the premises must be directed so as not to cause nuisance to the owners or occupiers of adjoining premises or to motorists on adjoining or nearby roads.

93 **Site Management**
Stockpiles of sand, gravel, soil and the like must be located to ensure that the material:

93.1 Does not spill onto the road pavement and
93.2 is not placed in drainage lines or watercourses and cannot be washed into these areas.

94 Should during construction any waste material or construction material be accidentally or otherwise spilled, tracked or placed on the road or footpath area without the prior approval of Council's Works Division this shall be removed immediately. Evidence that any approval to place material on the road or road reserve shall be available for inspection by Council officers on site at any time.

95 Vehicle access is to be controlled so as to prevent tracking of sediment onto adjoining roadways, particularly during wet weather or when the site has been affected by wet weather.

96 Drains, gutters, access ways and roadways must be maintained free of sediment and any other material. Gutters and roadways must be swept/scraped regularly to maintain them in a clean state.

97 Building operations such as brick cutting, the washing of tools or paint brushes, or other equipment and the mixing of mortar must not be carried out on the roadway or public footpath or any other locations which could lead to the discharge of materials into the stormwater drainage system or natural watercourse.

98 **Dust Suppression Measures**
Activities occurring during the construction phase of the development must be carried out in a manner that will minimise the generation of dust.

99 Trucks which are entering and leaving the premises and carrying loads must be sealed or covered at all times, except during loading and unloading.

100 **Asbestos – Removal, Handling and Disposal Measures/Requirements Asbestos Removal by a Licensed Asbestos Removalist**
The removal of any asbestos material must be carried out by a licensed asbestos removalist if over 10 square metres in area of non-friable asbestos, or if any type of friable asbestos in strict accordance with WorkCover NSW requirements (http://www.workcover.nsw.gov.au).

101 **Asbestos Waste Collection, Transportation and Disposal**
Asbestos waste must be prepared, contained, transported and disposed of in accordance with WorkCover NSW and NSW Environment Protection Authority requirements. Asbestos waste must only be disposed of at a landfill site that can lawfully receive this this type of waste. A receipt must be retained and submitted to the Principal Certifying Authority, and a copy submitted to Council (in the event that Council is not the Principal Certifying Authority), prior to commencement of the construction works.

102 **Provision of Waste Receptacle**
The developer must provide an adequate receptacle to store all waste generated by the development, pending disposal. The receptacle must be regularly emptied and waste must not be allowed to lie or accumulate on the property other than in the receptacle. Consideration should be given to the source separation of recyclable and re-usable materials.

103 The building site must be kept free of rubbish at all times. All refuse capable of being windblown must be kept in a suitable waste container.

104 **BASIX**
All the commitments listed in each relevant BASIX Certificate for the development must be fulfilled in accordance with Clause 97A(2) of the Environmental Planning & Assessment Regulation 2000.

A relevant BASIX Certificate means:

- A BASIX Certificate that was applicable to the development when this development consent was granted (or, if the development consent is modified under section 96 of the Environmental Planning & Assessment Act 1979, a BASIX Certificate that is applicable to the development when this development consent is modified); or
- if a replacement BASIX Certificate accompanies any subsequent application for a construction certificate, the replacement BASIX Certificate; and
- BASIX Certificate has the meaning given to that term in the Environmental Planning & Assessment Regulation 2000."

105 **Excess Excavated Material – Disposal**
Excess excavated material shall be classified according to the NSW Environment Protection Authority's Waste Classification Guidelines – Part 1: Classifying Waste (2014) prior to being transported from the site and shall be disposed of only at a location that may lawfully receive that waste.

Prior to the Issue of the Occupation Certificate

106 **Car Share Scheme**
Documentary evidence indicating that the car share scheme, as outlined in the University Of Wollongong Commitment Letter, dated 1 April 2015, has progressed to a legal contract and two (2) x car parking spaces secured is to be submitted to Council prior to the issue of the Occupation Certificate.

107 **Provision of Parking – Multi-storey Carpark**
An Occupation Certificate must not be granted for Buildings 73, 74 or 75 until the multi-storey car park the subject of DA-2015/1254 has been constructed, an Occupation Certificate has been granted for its use and at least 275 car spaces in the multi-storey car park are made available for residents of Buildings 73, 74 or 75.

108 **Access Certification**
Prior to the occupation of the building, the Principal Certifying Authority must ensure that a certificate from an "accredited access consultant" has been issued certifying that the building complies with the requirements of AS 1428.1.

109 **Drainage WAE**

The developer shall obtain written verification from a suitably qualified civil engineer, stating that all stormwater drainage and related work has been constructed in accordance with the approved plans. In addition, full works-as-executed plans, prepared and signed by a Registered Surveyor shall be submitted. These plans shall include levels and location for all drainage structures and works, buildings (including floor levels), and finished ground and pavement surface levels. This information shall be submitted to the Principal Certifying Authority prior to the issue of the final occupation certificate.

110 **Drainage WAE (Northfields Avenue)**

The developer shall obtain written verification from a suitably qualified civil engineer, stating that the construction of the drainage related works (including engineered overflow path) within Northfields Avenue has been undertaken in accordance with the detailed civil engineering design approved by Council's Development Engineering Manager. In addition, a full works-as-executed plan, prepared and signed by a Registered Surveyor shall be submitted. This plan shall include the location and levels of the drainage lines, structures and finished surface levels. This information shall be approved by Wollongong City Council's Development Engineering Manager prior to the issue of the final Occupation Certificate and commencement of use.

111 **Structural Soundness Certification**

The submission of a report from a suitably qualified and experienced structural engineer to the Principal Certifying Authority is required, prior to the issue of the final Occupation Certificate and commencement of use. This report is required to verify that each building can withstand the forces of floodwater, debris and buoyancy up to and including the adjacent Probable Maximum Flood (PMF) plus 0.5 metres freeboard and that the flood mitigation wall can withstand the forces of floodwater, debris and buoyancy up to and including the adjacent 100 year ARI flood level plus 0.5 metres freeboard.

112 **Post Dilapidation Report**

The developer shall provide Wollongong City Council's Development Engineering Manager with a post construction dilapidation report identifying the condition of Council assets and land within the vicinity of the works, at the completion of works within Northfields Avenue.

113 **Restriction on use – Flood Mitigation Wall and Diversion Channel**

The applicant must create a restriction on use under the Conveyancing Act 1919 over the engineered flood mitigation wall and flood diversion channel designed to convey floodwater/stormwater overflows from Northfields Avenue. The following terms must be included in an appropriate instrument created under the Conveyancing Act 1919 for approval of Council:

"The registered proprietor of the lot burdened must not make or permit or suffer the making of any alterations to the flood mitigation wall and/or any alterations to ground/surface levels within the flood diversion channel. Name of the authority having the power to release, vary or modify the restriction referred to is Wollongong City Council."

The instrument, showing the restriction, must be submitted to the Principal Certifying Authority for endorsement prior to the issue of the final Occupation Certificate and the use of the development.

114 **Fire Safety Certificate**

A Fire Safety Certificate must be issued for the building prior to the issue of an Occupation Certificate. As soon as practicable after a Fire Safety Certificate is issued, the owner of the building to which it relates:

114.1 Must cause a copy of the certificate (together with a copy of the current fire safety schedule) to be given to the Commissioner of New South Wales Fire Brigades, and

114.2 must cause a further copy of the certificate (together with a copy of the current fire safety schedule) to be prominently displayed in the building.

115 **Retaining Wall Certification**

The submission of a certificate from a suitably qualified and experienced structural engineer or civil engineer to the Principal Certifying Authority is required, prior to the issue of the

Occupation Certificate or commencement of the use. This certification is required to verify the structural adequacy of the retaining walls and that the retaining walls have been constructed in accordance with plans approved by the Principal Certifying Authority.

116 **Occupation Certificate**
A final Occupation Certificate must be issued by the Principal Certifying Authority prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifying Authority must be satisfied that the requirements of Section 109H of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

117 The developer must make compensatory provision for the trees required to be removed as a result of the development. In this regard, twenty (20) 100 litre container mature plant stock shall be placed in appropriate locations within the property boundary of the site. The suggested species are *Syzygium smithii* (syn *Acmena smithii*) Lilly pilly, *Archontophoenix cunninghamiana* Bangalow palm, *Backhousia myrtifolia* Grey myrtle, *Elaeocarpus reticulatus* Blueberry ash, *Glochidion ferdinandii* Cheese tree, *Livistona australis* Cabbage palm tree, *Syzygium paniculatum* Brush cherry.

118 **BASIX**
A final occupation certificate must not be issued unless accompanied by the BASIX Certificate applicable to the development. The Principal Certifying Authority must not issue the final occupation certificate unless satisfied that selected commitments have been complied with as specified in the relevant BASIX Certificate. NOTE: Clause 154B of the Environmental Planning and Assessment Regulation 2000 provides for independent verification of compliance in relation to certain BASIX commitments.

119 The submission of documentary evidence to the Principal Certifying Authority from the NSW Fire Brigade, NSW Ambulance Service and the NSW Police Service is required verifying that each of the emergency service authorities are able to override the security system, in the event that a security intercom system is to be installed within the development, prior to the issue of the Occupation Certificate.

Operational Phases of the Development/Use of the Site

120 **UOW Commitment Letter**
The terms identified within the commitment letter prepared by the University of Wollongong, dated 1 April 2015 as attached to this consent at Attachment 2 shall form part of the conditions of consent for this application.

121 **Use of Kitchen**
The communal kitchen facilities proposed on the lower ground floor of the development are to be used for domestic purposes by the residents of the building only.

This consent does not permit the commercial use of the kitchen areas within the proposed building under any circumstances.

122 **Accommodation Agreement & Residence Rules**
All residents of the development must comply with the University Accommodation Agreement and My Residence Rules (or equivalent documents) at all times.

A general copy of the Accommodation Agreement and My Residence Rules (or equivalent documents) must also be located in a prominent location within a public area of the building.

Should these documents be amended, a copy of the amended document/s is to be provided to Council upon request.

123 **Waste Management**
The management of waste generated by the proposal is to be carried out generally in accordance with the submitted Waste Management Plan dated 23 September 2015 prepared by Elephants Foot Recycling Solutions or equivalent document.

Should this document be amended, a copy of the amended document is to be provided to Council upon request.

124 **Use of Facility**

The development is to be used for the primary purpose of undergraduate student accommodation or University visitor accommodation directly in association with the University of Wollongong's operation as a tertiary education provider (University).

This consent does not permit the separate use of the facility as general residential dwellings or permanent residences without the prior consent of Council.

125 **Provision of Parking**

The parking provision (1 student resident dedicated car space per 3 student residents) for the approved development must be maintained at all times. There is to be no net loss of car parking spaces at the University Campus as a result of the development.

The University is to maintain a register of the number of students and allocated resident car parking spaces for Buildings 73, 74 & 75. This Register is to be made available to both Council and Neighbourhood Forum 5 annually and/or upon request.

126 **Fire Safety Measures**

All new and existing fire safety measures shall be maintained in working condition, at all times.

127 **Clothes Drying on Balconies/Terrace Areas Prohibited**

A small fixed clothes hanging rail, no higher than the balcony handrail height on the side wall and which is not visible from adjoining streets or public areas is permitted on each balcony for clothes drying purposes. The installation of other larger clothes lines on the balconies/terrace areas which exceed the height of the hand rail are strictly prohibited.

128 **Loading/Unloading Operations/Activities**

All loading/unloading operations are to take place at all times wholly within the confines of the site.

129 **Waste Management Plan**

Garbage containers, containers for recyclable materials and compacters must be stored in an external area or in a room specifically for that purpose (AS4674-2004 – Section 2.4).

Attachment 1 – NSW Rural Fire Service Correspondence

All communications to be addressed to:

Headquarters
15 Carter Street
Lidcombe NSW 2141

Telephone: 1300 NSW RFS
e-mail: csc@rfs.nsw.gov.au

Headquarters
Locked Bag 17
Granville NSW 2142

Facsimile: 8741 5433

The General Manager
Wollongong City Council
Locked Bag 8821
WOLLONGONG DC NSW 2500

Your Ref: DA-2014/1510
Our Ref: D14/3650
DA14121094979 PE

ATTENTION: Andrew Kite

2 January 2015

Dear Sir/Madam

Integrated Development for 1//1188267 2 Northfields Avenue Keiraville NSW 2500

I refer to your letter dated 2 December 2014 seeking general terms of approval for the above Integrated Development in accordance with Section 91 of the 'Environmental Planning and Assessment Act 1979'.

This response is to be deemed a bush fire safety authority as required under section 100B of the 'Rural Fires Act 1997' and is issued subject to the following numbered conditions:

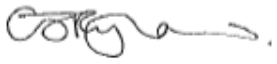
Evacuation and Emergency Management

The intent of measures is to provide suitable emergency and evacuation (and relocation) arrangements for occupants of special fire protection purpose developments. To achieve this, the following conditions shall apply:

1. The University's Emergency and Evacuation Plan be updated to include the proposed additional student accommodation.

For any queries regarding this correspondence please contact Peter Eccleston on 1300 NSW RFS.

Yours sincerely



Catherine Ryland
Team Leader Development Assessment and Planning

The RFS has made getting information easier. For general information on 'Planning for Bush Fire Protection, 2006' , visit the RFS web page at www.rfs.nsw.gov.au and search under 'Planning for Bush Fire Protection, 2006'.

Attachment 2 – UOW Commitment Letter

UNIVERSITY OF WOLLONGONG

1 April 2015

Mr David Farmer
General Manager
Wollongong City Council
Locked Bag 8821
Wollongong DC NSW 2520

Ref: oltr_wcc_Transport_Accomm_010415

Dear David

UOW Student Accommodation – Transport Initiatives
DA's 2014-1474 and 2014-1510

We refer to recent discussions and meetings with Wollongong City Council (WCC) staff concerning Transport Strategies and Initiatives proposed to support the Student Accommodation development outlined in Development Applications 2014-1474 and 2015-1510.

As WCC is aware, the University has been very successful in the implementation of a Strategic Sustainable Transport Model which has seen a modal shift of commuters moving to public transport. Currently 42% of commuters now come to the Wollongong Campus without using a car compared to 31% in 2007.

The Student Accommodation expansion project will see a net increase of approximately 900 students living on campus by 2018. The additional beds will replace old and unsuitable beds both on-campus (95) and in other Wollongong locations (178).

The new accommodation will be beneficial in moving existing students to an on-campus location resulting in a reduction in peak period traffic and parking generation rates. It is, however, recognised that additional on-campus student residents will create different challenges associated with car ownership and parking.

The University has developed a considered and appropriate approach to the provision of parking for the student residents with our Transport Planning Consultant AECOM. Their report, prepared to support the Development Applications, details the proposed solution in response to issues raised by Council in our meeting on 18th March 2015. The solution contains a number of strategies and initiatives that are committed and supported by the University. These are detailed below:

Chief Administrative Officer
University of Wollongong NSW 2522 Australia
Telephone +61 2 4221 3933 **Facsimile** +61 2 4221 5871
melva_crouch@uow.edu.au www.uow.edu.au CRICOS PROVIDER No. 00102E

UNIVERSITY OF WOLLONGONG

Commitment 1: Student Resident Transport Information Pack

To complement the existing sustainable transport information and strategy already in place the University will develop and implement a tailored and specific Student Resident Transport Information Pack. This Pack will be developed to promote the benefits of living on campus and detail the alternative transportation options available, such as bicycle hire, car hire and public transport. Awareness of such schemes will reduce the need for students to bring private vehicles to campus. The Pack would be issued to all students applying to live on campus, before they arrive, and be updated yearly.

Commitment 2: Free Bicycle Hire

The University, via its Accommodation Services Division, would provide, maintain and operate a fleet of bicycles for student resident use free of charge. Numbers will depend on demand, however, initially on building occupation we propose to provide 8 bicycles at Building 120, and for Buildings 73, 74 & 75 a fleet of 15 bicycles. In the second year of operation the size of the fleet will be assessed and adjusted according to demand.

Commitment 3: Car Hire

The University will dedicate 3 car spaces directly adjacent to the proposed buildings (Bldg. 120 – 1 space and Bldgs. 73, 74 & 75 – 2 spaces) for the operation of a car hire scheme for students. Prior to building(s) operation (2017 and 2018 respectively) the University will engage with a commercial operator (such as GoGet or similar) to provide the service.

The introduction of a commercial operator to Wollongong is anticipated to present wider opportunities for the region and we will seek to work with the WCC in the future to promote and widen the service.

Commitment 4: Off-Site Long Term Parking

The University will ensure that off-site long term parking is provided to support the developments. The commitment of spaces will be:

- **2015-2016** – Trial of 50 spaces at iC
- **2017** – 75 spaces at iC
- **2018** – 125 spaces at iC

As discussed (at our recent meetings) the 50 spaces currently allocated to the trial uses spare capacity of iC Parking, that is, spaces built in advance of building construction (in this case the iAccelerate project which will become operational through 2016).

The University will prepare and lodge a specific Development Application for the committed spaces (required by 2017 and 2018) with a construction program to ensure the spaces are available.

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UNIVERSITY OF WOLLONGONG

For the medium to long term the iC may not have the capacity to accommodate the parking spaces. The University will commit to ensure a permanent off-site parking solution is available at this time.

The University will continue to operate the recently introduced free shuttle bus service to the off-site parking site and to its other student accommodation facilities around Wollongong.

Commitment 5: Off Campus Parking Survey

It is understood that the ultimate test of the success of the University's overall Sustainable Transport Strategy and the specific initiatives for the Student Accommodation is the impact of parking in the local streets surrounding the University.

The University will commit to continue to undertake the local street parking survey, each year, and continue to share the results with WCC and Roads and Maritime Services. The results of the survey will be used by UOW to inform, develop and update the UOW Transport Strategy on an ongoing basis.

Further, UOW committed in 2014 to be an active participant and financial contributor to WCC's proposed Keiraville/Gwynneville Local Area Transport Management study, which would include addressing neighbourhood parking concerns.

We trust the above undertakings will assure WCC of the University's commitment to an appropriate sustainable transportation solution for the proposed Student Accommodation developments.

Please do not hesitate to contact me if you require further information on any of the initiatives proposed.

Regards

Melva Crouch CSM
Chief Administrative Officer

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