



WORKS APPLICATION

Demolition &
Redevelopment of Bruce Hall

Part Block 1 Section 63
Acton

8 NOVEMBER 2016

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1.0 INTRODUCTION

1.1 Purpose

This Planning Report has been prepared by Purdon Planning Pty Ltd as supporting documentation to a Works Approval (WA) application on behalf of Integrated Property Services Group (IPSG) and the Australian National University (ANU or University) (the Proponent) for the design and construction of a new purpose built student accommodation facility (Hall of Residence) on part Block 1 Section 63 Acton.

The site is the current Bruce Hall student accommodation.

Details of the proposed works are outlined in Section 3.0. In summary, the WA seeks approval for:

- Demolition of existing dining hall building (excluding the Packard Building)
- New structures to accommodate 800 student beds and associated facilities
- New landscaping including earthworks
- Modifications to Daley Road adjacent to the site

Associated infrastructure services are to be undertaken as part of a separate works application approved in October 2016

The new Halls of Residence is part of an ongoing commitment by ANU as part of its wider educational strategy to provide new improved student accommodation on campus.

The proposed Halls of Residence will be sited on land where jurisdiction for planning consent rests with the National Capital Authority (NCA).

This Report should be read in conjunction with a range of plans and supporting information submitted with the Application for Works Approval.



View to one of the existing buildings from Daley Road

2.0 SITE ASSESMENT

The location of the proposed works is wholly within the ANU campus boundary (Figure 2-1).

The site is situated on the existing Bruce Hall site with primary frontage to Daley Road and secondary frontage to Clunies Ross Street. The site is immediately north east of the Burton and Garran Hall, a student residence complex. (Figure 2-2).

Total site area is approximately 29,000m².

The site has a fall from Clunies Ross Street to Daley Road of approximately 9m over 140m. The highest point of the site is at the western property boundary along Clunies Ross Street at RL573. The lowest point is towards eastern part of the site adjacent to Daley Road at RL566.

The site is currently occupied by ANU student residents of the Bruce Hall accommodation building and the associated Packard Building.

The site has been identified by ANU as the most suitable location for a new student residence building as part of their ongoing commitment for new and improved student accommodation. However the age and cultural significance of the building has been acknowledged and certain aspects of the building are to be retained. Refer Section 5.5.2 below for further details.

Adjacent buildings on campus include (Figure 2-2):

- 4 storey Burton and Garran Hall student residences immediately to the south west,
- The Peter Baume Psychology and Physics buildings to the east
- the CSIRO Phytotron Building to the west on the opposite side of Clunies Ross Street.
- Campus surface parking to the north and south

The existing Bruce Hall is a 2 storey complex consisting of 4 different buildings which faces the University Avenue axis.

It is intended that all structures on the site with the exception of the Packard Building will be demolished as part of the proposed works and ground area appropriately remediated.

A tree assessment has been undertaken by ANU (refer separate report). This assessment notes a number of significant trees (native and exotic) have been identified on-site.

The western side of the site contains a number of native plantings along the Clunies Ross Street boundary.

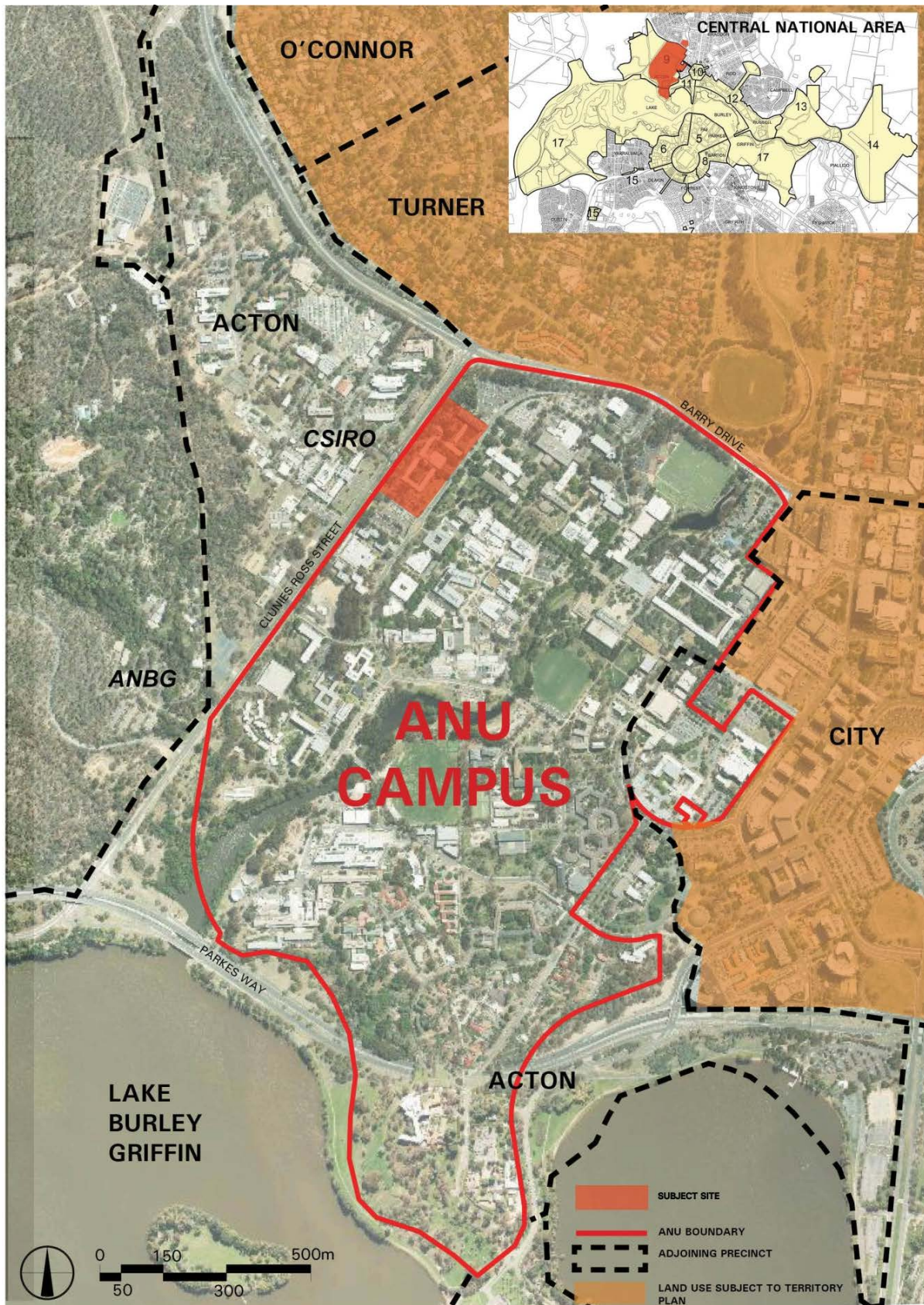
There are no registered utility easements affecting the site.

Existing vehicular access to the site is via Daley Road with a service road off Clunies Ross Street.

A network of existing footpaths and cycle ways, as well as other open space networks (including Sullivans Creek, Lake Burley Griffin and Black Mountain Reserve) are located close to the subject site. A number of different bus services run within close proximity to the subject site. Local networks exist immediately adjacent to the site along Daley Road and Clunies Ross Street. The rapid bus network which provides frequent access to the City Centre and Belconnen, Woden and Tuggeranong Town Centres is located on Barry Drive. The nearest rapid bus stop is approximately 150m north east of the site.

ANU promotes cycling as an efficient and sustainable form of transport and the campus is well serviced by cyclist networks. In addition to this, cycle paths are available on or adjacent to, Barry Drive and provide access to the City from the campus.

Figure 2-1: Campus Locality Plan



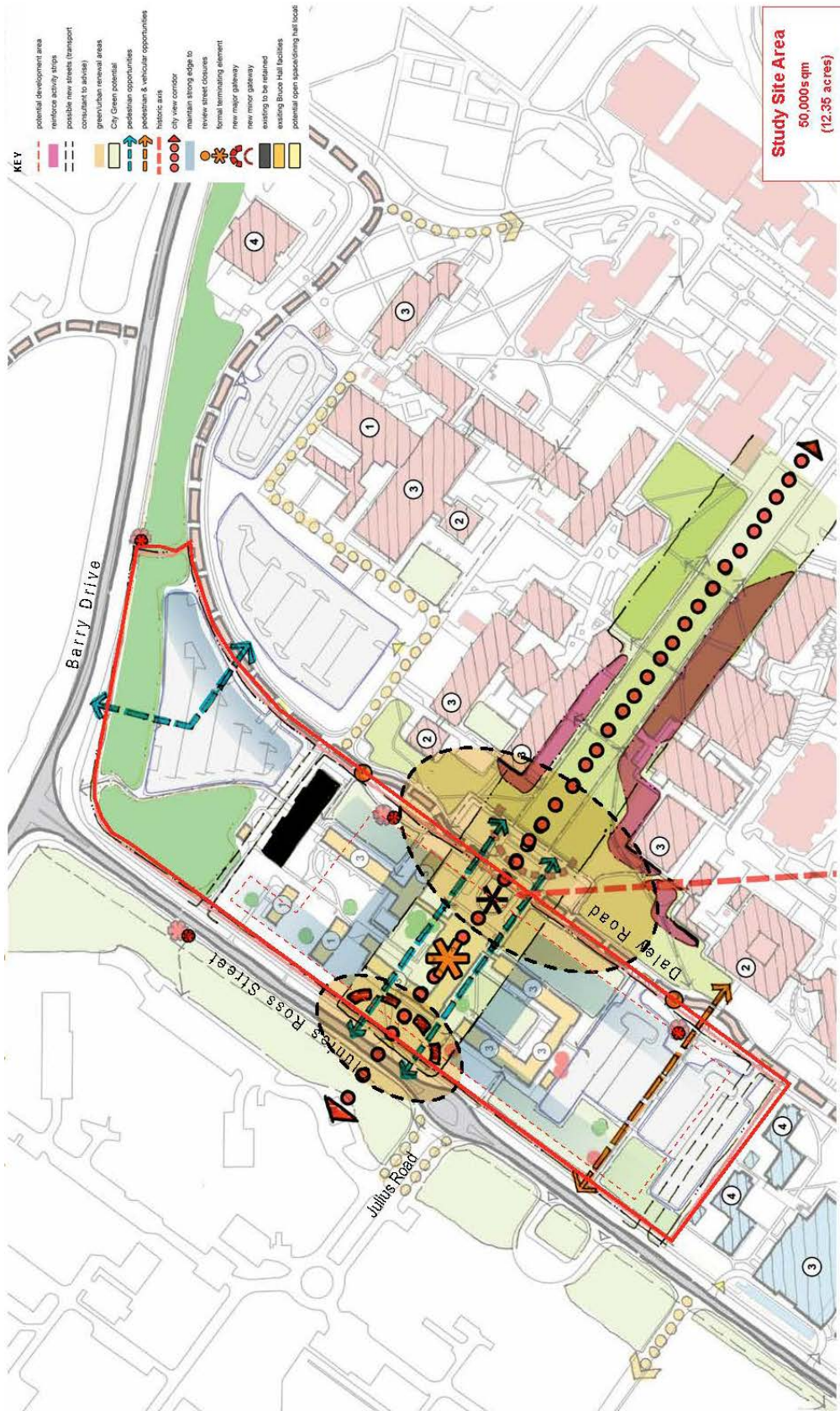
Source: ACTMAPi, 2015

Figure 2-2: Existing Site Plan



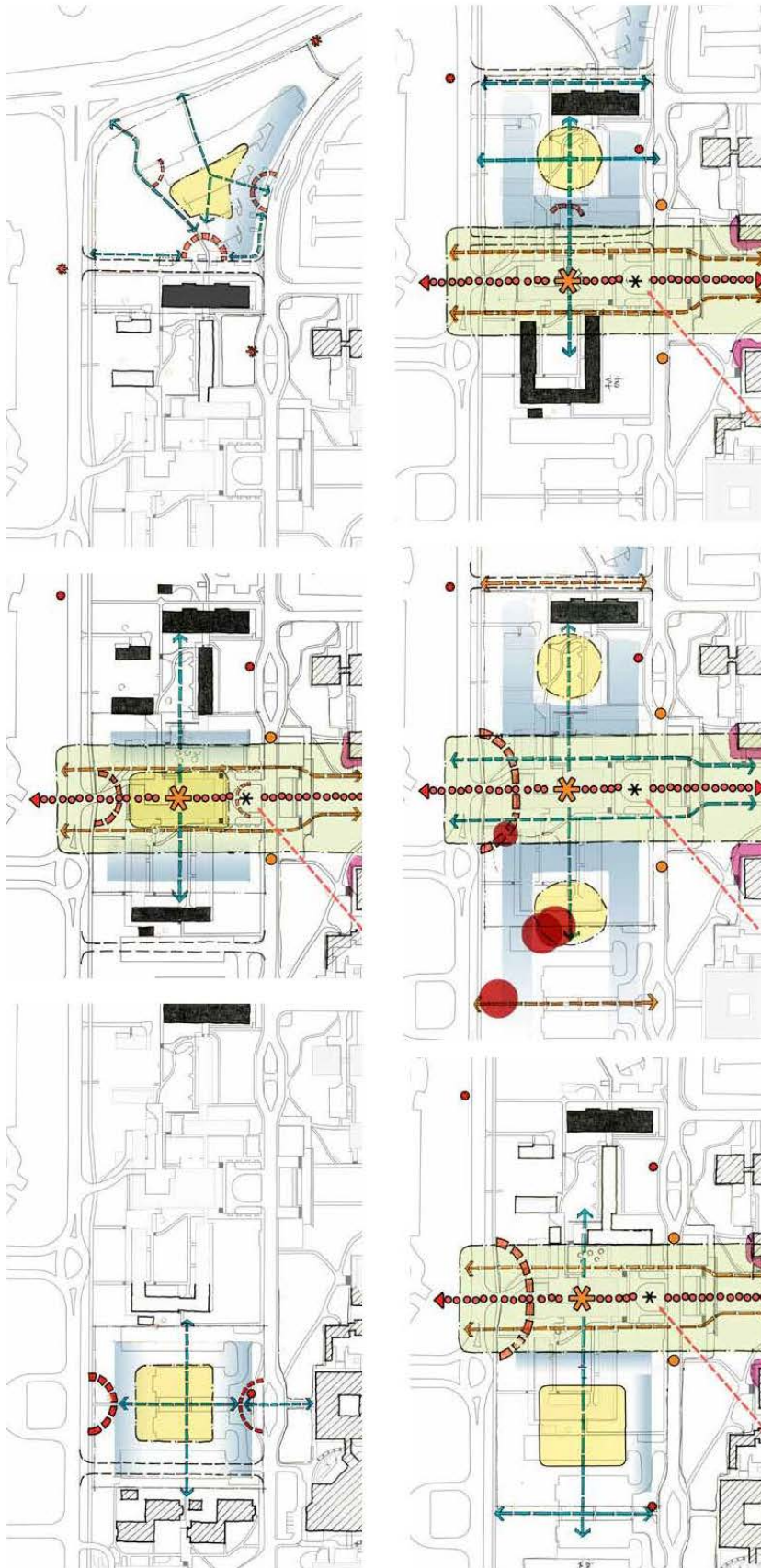
Source: Nettletontribe, 2016

Figure 2-3: Site Analysis



Source: Nettletontribe, 2016

Figure 2-4: Site Options



Source: Nettletontribe, 2016

3.0 PROPOSED DEVELOPMENT

This section describes the proposed development works including the evolution of the concept design and should be read in conjunction with architectural plans submitted by NettletonTribe.

ANU has provided the project team with a design brief to accommodate up to 800 student beds with the continuation and expansion of the existing Bruce Hall communal facilities on the subject site.

The development is to be environmentally sustainable and include an iconic building set in landscaped surrounds with safe and convenient pedestrian and bicycle access.

3.1 Design Options

NettletonTribe identified a number of design options for the project team, and presented site development and massing options to the Campus Development Committee (CDC) and Design Review Sub-Committee (DRSC) on 17 March, 2016. The options addressed possible design responses to site constraints and opportunities in the context of the ANU user brief for student accommodation.

A number of internal design configurations have also been considered by the project team, culminating in a decision to provide a “college” style accommodation offer comprising basic student rooms with communal ablution facilities and meeting spaces in each wing and dining halls designed to provide catered services, communal dining halls and other breakout spaces including roof top amenities in two separate halls with one to retain the name “Bruce Hall”.

3.2 New Hall of Residence

ANU proposes to construct a new 5-8 storey, 800-bed student residence incorporating self-catered dining halls, communal recreation areas, bicycle storage and landscaping.

The following works will be required as part of construction of the new student accommodation:

- site establishment including fencing, demolition of existing structures, tree removal and earthworks
- construction of a new 800-bed student accommodation building with ancillary services (refer images, elevations and site plans by NettletonTribe)
- new site landscaping responding and extending University Avenue to Clunies Ross Street (refer plans by Complete Urban)
- on-site surface parking for disability access
- service vehicle access off Clunies Ross Street via an existing roundabout
- civil works, including utility services
- modification of Daley Road to accommodate new surface parking spaces
- relocation of artworks
- use of an existing temporary car park for construction workforce on the western side of Clunies Ross Street (Part Block 2 Section 2 Acton).

3.3 Architectural Design Statement

3.3.1 Design Brief

The ANU brief was to provide 800 student accommodation modules on a site effectively divided by an extension of University Avenue. In early design discussions it was proposed that reducing the scale of the project into two halls of residence of 400 would be beneficial in providing the desired communal collegiate atmosphere. Early investigations into Bruce Hall, its history and its social environment, determined that the proposed accommodation outcome should replicate its interactive nature through a fully catered service which enhances social interactions through communal dining. It was considered critical to the outcome that the two halls should be symmetrical yet individually distinguishable for the development and a universality of accommodation typology.

Providing a dining hall for each wing located along the edges of University Avenue allows the students to have a physical and visual connection between the respective halls. Given the historic placement of the existing Bruce Hall Dining facility, the proposed placement provides a historic link to the previous hall and the relationship of the diners to University Avenue.

The plan identifies the importance of opening and completing the landscape of University Avenue through to Clunies Ross Street creating a seamless landscape connection through the removal of the existing built form of Bruce Hall. The avenue is activated by the placement of the flanking dining halls and pedestrian entries.

Figure 3-1: Perspectives



Source: Nettleontribe, 2016

The design for the Halls of Residence was derived from a courtyard typology surrounding a private shared space for each. The bulk derived as a response to the University structure diagram (Figure 4-2) which places a height emphasis on the northern and southern edges to University Ave. As the building mass moves away from University Ave and closer to the edge of the existing Packard Wing and the residential community to the south, the scale reduces accordingly. The buildings vary in scale from 5-8 stories. The focal point for each hall is a communal space above the Dining halls providing views from within, back to the University, creating bookends for University Ave at the western edge to frame the view beyond. The built form fronting University Avenue is placed to allow the continuation of the tree lined pathways at ground level. Additionally the space between the built form is 60 m at the Daley Road entrance reducing to 42m at the centre before increasing to 70m on the Clunies Ross Street frontage, in order to respond to the current built form setbacks within the ANU Precinct Code and reduce overshadowing of the landscape space of University Avenue.

The courtyard building forms were generated in response to the existing site conditions. The receding wings manipulated at various points to avoid significant tree groups or individual exceptional trees, and to reduce the perception of building bulk.

Historically the Bruce Hall symbol is Uroboros “the image of a dragon devouring its own tail representing a being containing all life and knowledge”. The architectural design vision interprets this organic form and accentuates the idea of an organic skin.

The façade is derived from the individual student modules faceted around the built form in a structured layering of components, which form the surface/skin of the building. The detail for each module includes an angled wall and a small Juliet balcony, the orientation driven by the particular orientation and view corridors of each façade. Through repetition the modules achieve a pattern of light and shadow which expresses the movement of the form.

Moving around the building the angled wall detail provides texture and depth, the façade changing in direct relationship to the location and angle of the viewer. Significantly the project is designed to not only deliver an increased number of student accommodation places, but to provide to the ANU a public connection and visual link to the surrounding community.

The new buildings form a new western gateway to the ANU on University Avenue.

3.3.2 Built Form

The buildings respond to the ANU masterplan and Precinct Code overlays, which indicate the provision of a significant urban realm as a continuation and reinforcement of University Avenue. The built form provides a strong urban frontage to University Avenue, opening the University to Clunies Ross Street.

The proposal is to re-use the existing courtyard model of the current Bruce Hall facility. The proposed site is divided into two segments by the extension of University Avenue, the living space required to accommodate 800 students is split over the northern and southern components of the site. The creation of two courtyard building forms serves to reduce the overall bulk of the mass and relate both forms to the University Avenue spine. The spaces within, accommodate semi-private landscape spaces.

The built form proposed responds with a strong urban edge to University Avenue to frame the view from the University heart to Black Mountain. Buildings provide a new gateway entrance to the University from the western edge. A small retail space is to be considered on the southern facade of University Avenue at ground floor, activates the western entrance to the University. This public space allows visual and physical connections to be provided from the wider community back into the University. Within both northern and southern residential segments, private landscaped space provides opportunities for social interaction of students. The existing

Packard Building is to be retained and integrated with the new facility. Both north and south residential wings create a courtyard building typology which provides an enclosed common area for semi-public student interactions.

Recreational spaces facilitate students to engage in social connections through extended hours of activity. The existing Dining Hall is to be replaced with a new expanded facility for each building to accommodate the increase in density. The location of the dining halls is placed to activate the University Avenue frontage at the new urban space marking the connection of Daley Road. The position of the Dining Halls allows the landscape to flow through along both edges of University Avenue. Significant communal spaces are located on the eastern facade / University Avenue axis to form the building entrances and define a strong urban marker. Student common spaces and vertical movement are expressed on the eastern corners addressing the educational orientation of the corner and framing the view to Black Mountain from the University core.

3.4 Landscape Design Statement

The following notes have been prepared by Complete Urban as landscape architect for the project, and provide an assessment of site features and development potential.

A site landscape plan is shown at Figure 3-3.

3.4.1 Concept

The University Avenue axis

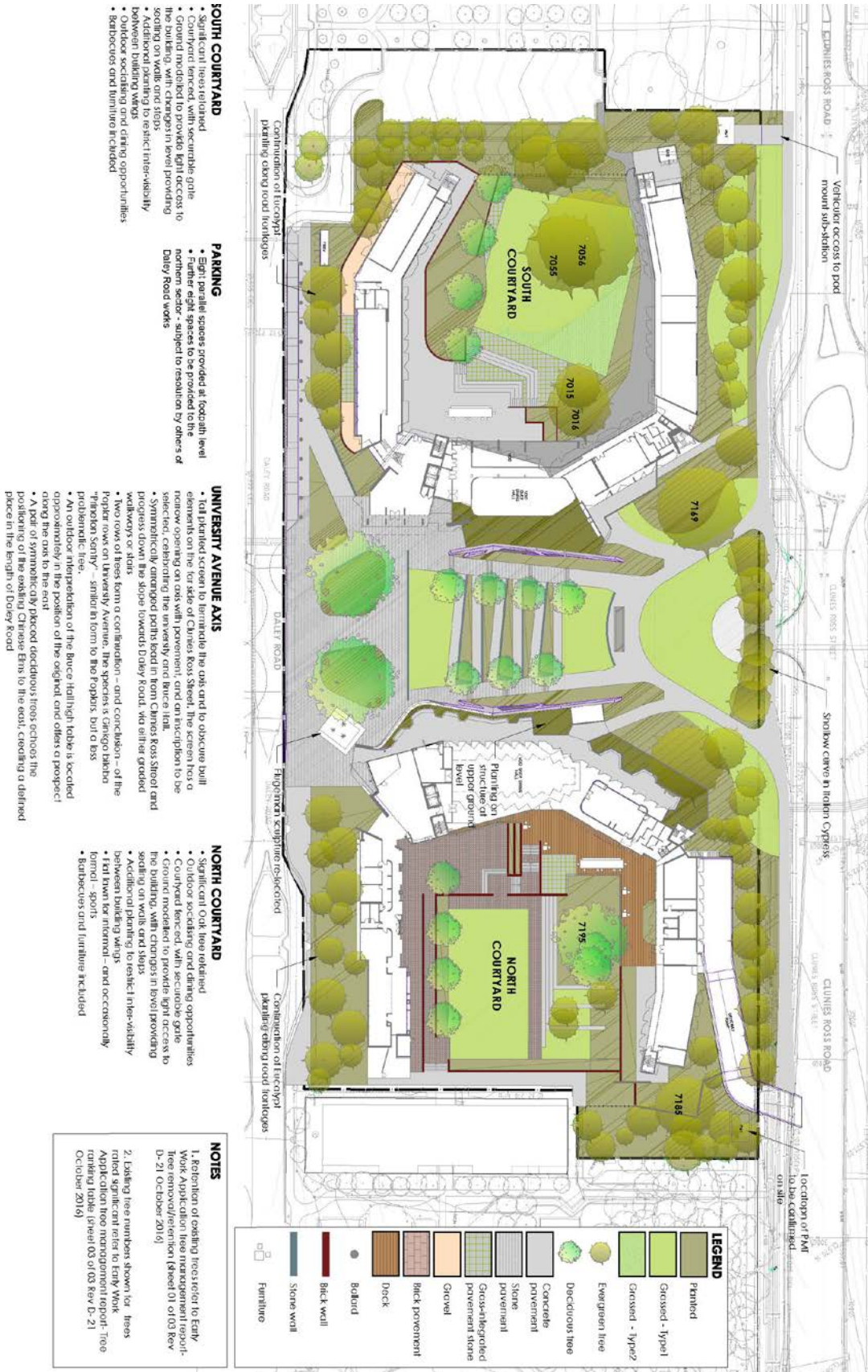
The site has significance beyond the uses which it will accommodate in that it is the western end of University Avenue, one of the structuring axes of the Griffin Plan. The existing landscape of the western end of University Avenue as far as Daley Road, consists of a central lawn with paths and trees to both sides, arranged symmetrically.

The proposed landscape of the new hall continues this approach generally. It repeats the pairing of two broad trees (Chinese Elms) on the opposite side of Daley Road, to suggest a connection and an identifiable space along both the road and the axis. The two lines of narrow, fastigated trees (Lombardy Poplar currently on University Avenue) and the associated paths, will continue to the west, but the alignment tapers slightly to focus on a terminating "wall" of vegetation at the boundary. This vegetation will also provide privacy to the upper area of lawn, encouraging use by the residents.

In keeping with the architectural approach, the landscape leaves the centre line of the axis a void rather than using it as the setting for a terminating structure or object.

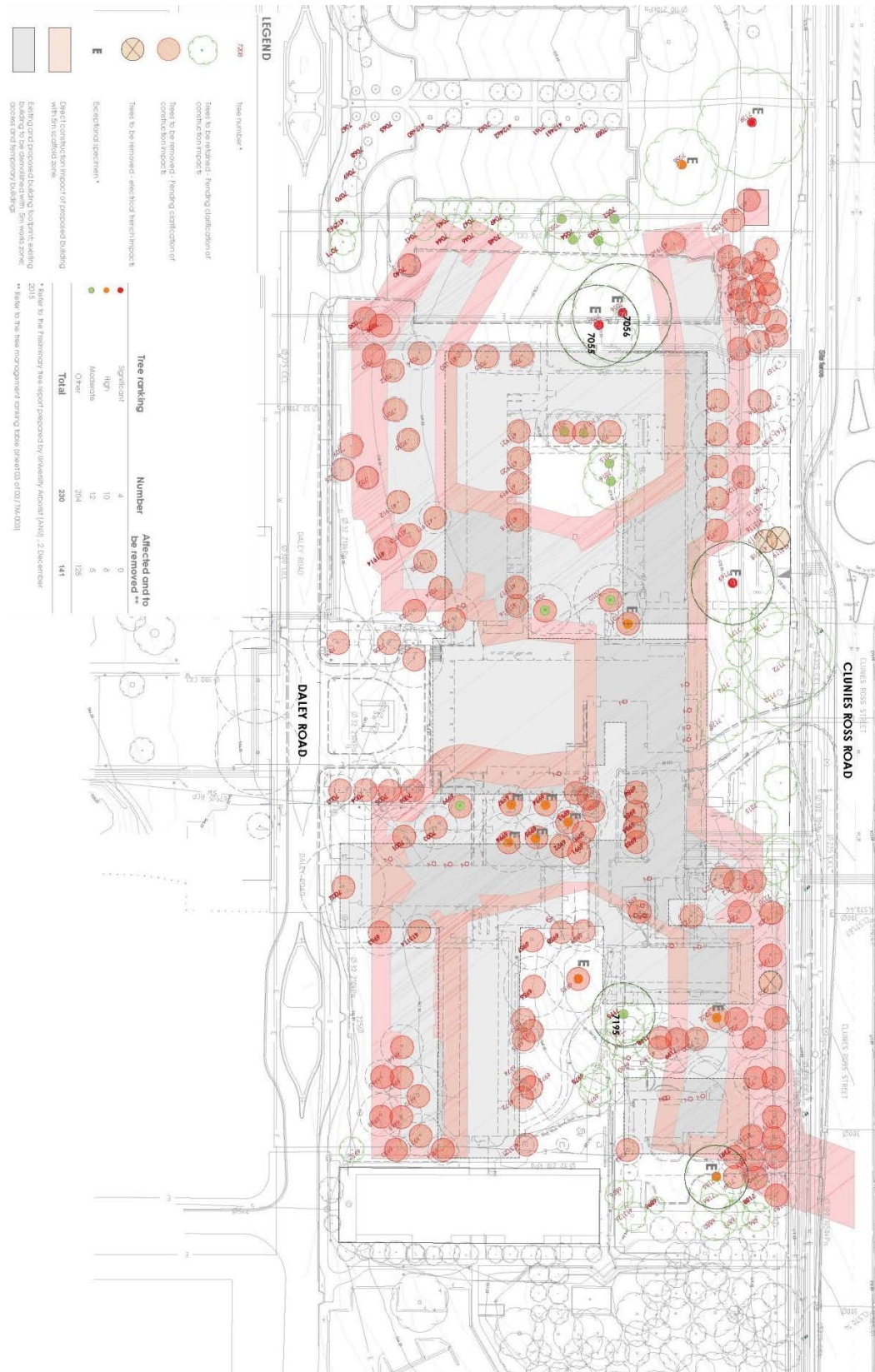
A series of ramps does, however, cut across the axis providing access for those unable to use steps to move between the lower and upper ground floor levels. These ramps are supported by low walls that, while visible from the east, remain very low in keeping with the approach of leaving the axis a void.

Figure 3-2: Landscape Plan



Source: COMPLETE, 2016

Figure 3-3: Tree Retention and Removal



Source: COMPLETE, 2016

The Bruce tradition

Bruce Hall has a long tradition which attracts great loyalty from its residents. The landscape design will support this tradition by providing useful socialising and celebration spaces. It will accommodate the Flugelman sculpture currently located at the Daley Road frontage of the main existing building that is associated with the “fountaining” tradition of the early warden to celebrate birthdays.

The part of the building complex which is specifically identified as the new Bruce Hall will be made distinct through, among other things, use of the colour blue in finishes and lighting, and the inclusion of the Hall’s dragon motif.

3.4.2 Landscape Design Principles

The development of the design follows a number of principles. These are stated briefly below. The manifestation of these principles is shown on the main plan, in the functional diagrams which accompany it, and in the description of the external spaces below.

University Presentation. Because the new halls occur on one of the major public street frontages of the University, it is considered appropriate that the development of the site should provide, among other things, an impressive presence to the street.

Circulation/Access. The design achieves accessibility to the buildings and to the central open spaces for people across a wide range of mobility.

Security/Territoriality. The arrangement of planting is designed to discourage access other than at the designated points of entry on Clunies Ross Street and Daley Road. This will also make a clear definition of public vs private property appropriate to a place of residence set within a public space. This distinction is not however made with a fence, other than the securing of the two courtyards, with the key-controlled secure line occurring at the building entries. It is also considered appropriate that access to the site should be possible for people other than residents, to enable them to use general facilities and to visit friends.

Indoors/Outdoors and microclimate. Design of the open spaces should provide usable space and facilities in places which have winter sun and shade in summer. The landscape design should also support good interior environments by shading western facades and by not impeding the entry of winter sun and light to the buildings.

Heritage. There is natural heritage value in a small number of remnant native trees on the site and in some early exotic plantings. The proposal retains these trees where possible. As above, the Flugelman sculpture is closely associated with the residential college and will be preserved.

Views. The landscape design should provide a sequence of views leading to pleasure and delight generally and to the creation of a legible and safe environment in particular.

3.4.3 Spaces

Main Entrance and Daley Road frontage

The main vehicular and pedestrian entrance to the new halls is from Daley Road. The road at this point is to be re-made as a flush threshold as a means of embracing the adjacent landscape, of slowing traffic and of providing a step-free approach to the buildings.

To either side of the main entry there will be substantial banks of planting to provide privacy between road and residences and to break down the building bulk.

The paved areas are graded to provide a non-discriminatory route for all to the front doors and to the doors of the dining halls, between designated access parking spaces, and from set-down

parking zones. There will be high quality pavement materials, tree and groundcover planting, area and effect lighting, and furniture. The paved areas will also provide close-to-flat pedestrian routes between the two Halls.

Central Space on the University Avenue Axis

The land will grade up to the west at a significant slope, to rise over the underground connection between the two Halls, and on to the Clunies Ross footpath. Paths with steps will run at both sides while in the centre a series of walkways will provide graded access between the two ground floor levels of the buildings.

Above the ramped section and at approximately the upper ground floor level, a gently graded lawn occurs which will be a pleasant recreation and relaxation space. The lawn will be given a sense of privacy and separation from the road via a dense plantation along the boundary.

To either side of the lawn paths are provided which will provide pedestrian access into the campus from Clunies Ross Street.

Clunies Ross Street Frontage.

While the building forms will have considerable presence when viewed from the street, at ground level the landscape will present a densely planted enclosing edge. Large, remnant Eucalypts plus newly planted trees will continue to break the mass of the buildings and continue the sense of connection to the vegetation of Black Mountain.

Planting along the boundary generally will provide privacy and a counterpoint to the bulk of the buildings.

North and south courtyards

The approach to the landscape of the courtyards is to keep them simple and to provide spaces and facilities which will be useful to the residents. Each will provide paved spaces that can be accessed from the dining halls plus flat areas which will suit a range of active and passive activities. These areas will be surfaced in either natural turf or artificial grass, selected according to the levels of light available and the likely intensity of use.

The courtyards will be enclosed at the open ends away from the surrounding buildings, with fencing integrated with planting. The levels within the courtyards will be arranged to the benefit of the significant existing trees which occur in both.

3.4.4 Landscape Details

Furniture.

Furniture and fittings will be used to make outdoor space attractive for residents to congregate, and it will be of high quality in accordance with precedents already existing on the campus. Furniture items will be seats, tables and benches, refuse receptacles, bollards and bike racks. The courtyards will also house minor sports facilities such as ping pong tables, markings and nets for volleyball and so on.

Walls.

Walls in the central space will be stone – either entirely or as a surface layer. This is in keeping with the high quality approach and importance of the central space. The rough surface will also discourage skaters. Walls in the courtyards will be made with rigid mesh type gabions in keeping with the scale of the space and the domination of vegetation. They are also not easily skated.

Pavement.

Pavement in the central entrance areas will include areas of stone closer into the entrance doors. This will be integrated with high finish concrete pavement, which will also be the material used in the threshold across Daley Road. The same concrete will be the material used in the secondary paths and in the courtyards.

Lighting.

Lighting will be in accordance with relevant standards and will be designed to support security and to create attractive effects in combination with the buildings and trees. Fittings will be compatible with other installations on the campus of high quality and using maximally sustainable energy strategies.

Planting.

The planting selection takes clues from the plants currently found in the area and includes some of the signature species of the campus. Final selections will be discussed and agreed with University grounds personnel. The main character-giving species proposed are as follows.

Major trees, Clunies Ross Street and Daley Road frontages –

- *Quercus canaryensis* (currently on site) Oak
- *Eucalyptus bicostata* Blue Gum (to echo the trees at the SA5 site and to continue the native, Eucalypt character of the campus in this area)
- Other Eucalypts subject to approval of the University arborist

Trees in central axial space -

- *Ginkgo biloba* "Princeton Sentry" (narrow upright habit similar to the Lombardy Poplars, but without the invasive habits)

Trees in courtyards -

- *Fraxinus raywoodii* Claret Ash
- *Pistacia chinense*
- *Carya illinoensis* Walnut
- Others to be determined in consultation with University arborist

Hedge planting along Clunies Ross Street –

- *Cupressus sempervirens* "Glauca" Italian Cypress

3.4.5 Tree Management

A tree management plan has been prepared for the Work Approval by Complete Urban. Refer Figure 3-4 above.

3.5 Development Staging and Timing

It is intended that the development will be completed by early January, 2018 in time for the ANU academic year.

The site will be demolished and developed in a single stage.

4.0 STATUTORY PLANNING PROVISIONS

This section describes the planning context for the subject site and proposed development.

4.1 National Capital Plan (NCP)

The land is within the Designated Central National Area under the National Capital Plan (NCP). The Australian National University is identified as a **Community Facility**, specifically as an **Educational Establishment** under the NCP's land use definitions.

Educational Establishment is defined as the following:

'A building or place used for the purpose of tuition or training, whether or not for the purposes of gain, and includes:

- *a school*
- *a tertiary institution, being a university, a college or advanced education teachers college, technical college or other specialist college providing formal education beyond secondary education*
- *or any other training or education centre including road safety education centres, adult education centres for continuing education, or sheltered workshops; and may include associated residential accommodation'.*

The proposal is to undertake design and construction of two new purpose built Halls of Residence to provide better amenity, services and after hours facilities for university students residing on campus. The proposed development is therefore considered to be permitted development and consistent with the intent for an Educational Establishment under the National Capital Plan.

4.1.1 NCP Central National Area (Acton) – Principles and Policies

The ANU Campus is wholly located within the Central National Area (Acton precinct) of the NCP (Figure 4-1). Under Clause 1.7, Detailed Conditions of Planning Design and Development, any future development of the ANU campus is to achieve locality appropriate quality design outcomes.

Attachment A lists the land use policies and principles relevant to any future development of the campus. It is concluded that the proposed development complies with all relevant NCP principles and policies.

4.2 ANU Campus Master Plan 2030 (CMP 2030)

In 2011, the ANU finalised a Campus Master Plan 2030 (CMP) for the Acton campus which provides an overarching strategic framework intended to guide future development on the campus while protecting and enhancing existing amenity.

The structure of the university campus was again reviewed in 2015 as part of an amendment to the National Capital Plan to designate National Land across the ACT into separate precincts. This process included preparation and formal adaptation of the ANU Precinct Code which sets the statutory parameters for redevelopment of the ANU campus.

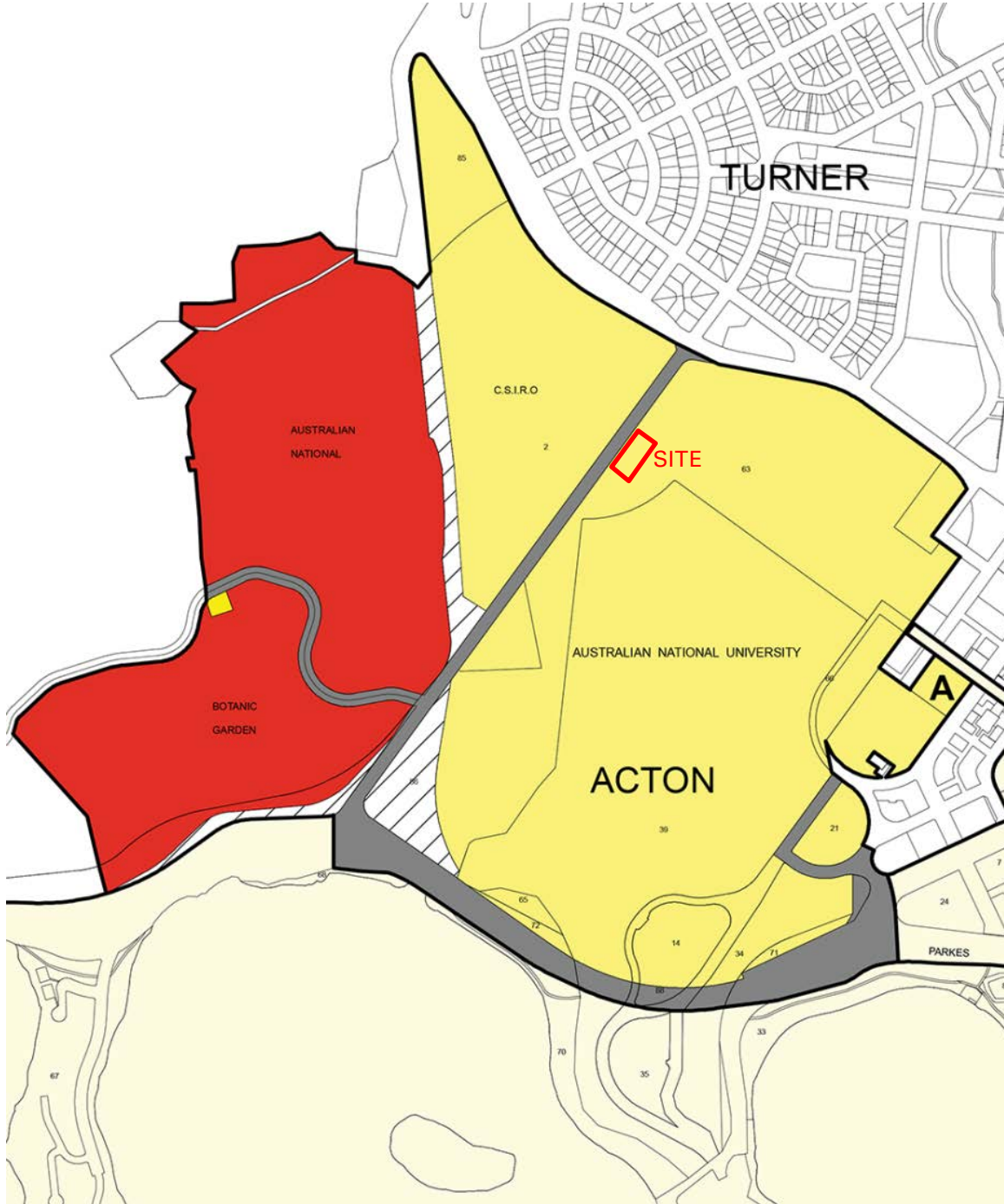
4.3 Australian National University Precinct Code

The Precinct Code was incorporated into the draft National Capital Plan (NCP) by the NCA in 2015 and has been subject to public notification, formal assessment by the NCA and has now been approved.

The key provisions of the Precinct Code that relate to the site are identified in Attachment B.

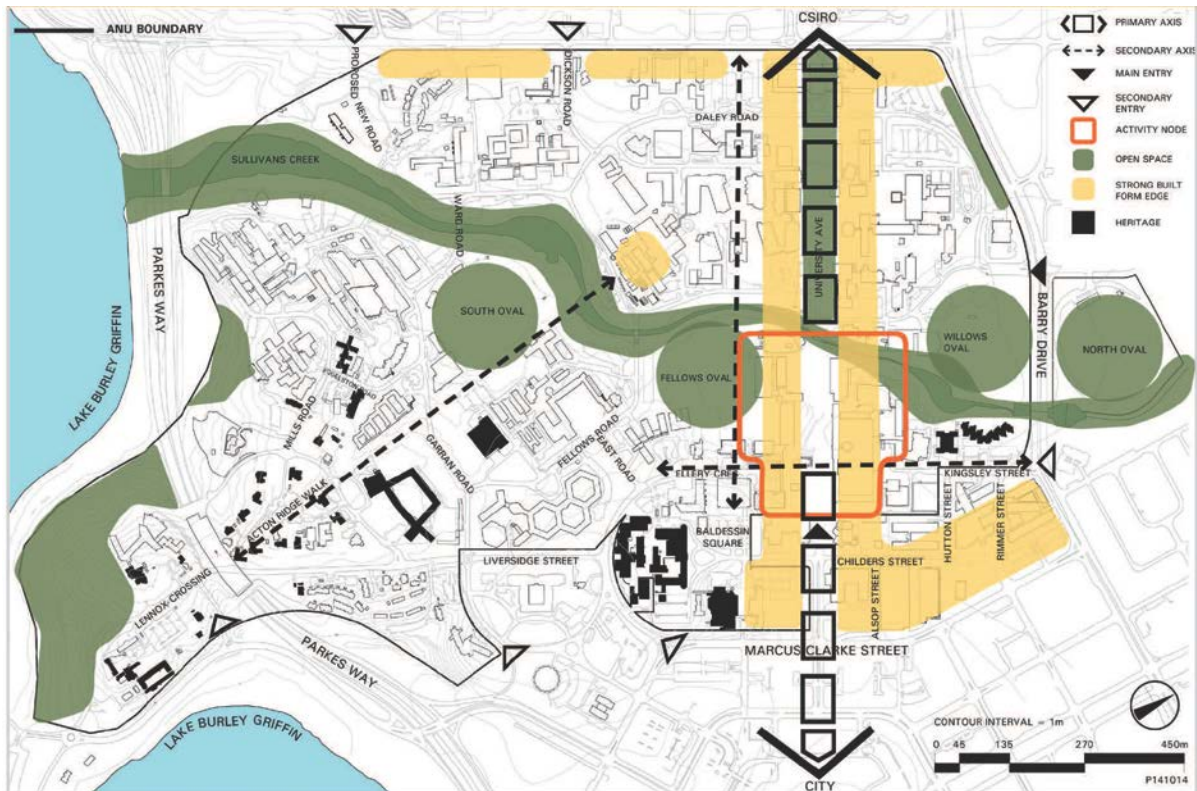
It is concluded that the proposed design is consistent with all aspects of the Precinct Code.

Figure 4-1: Central National Area - Acton



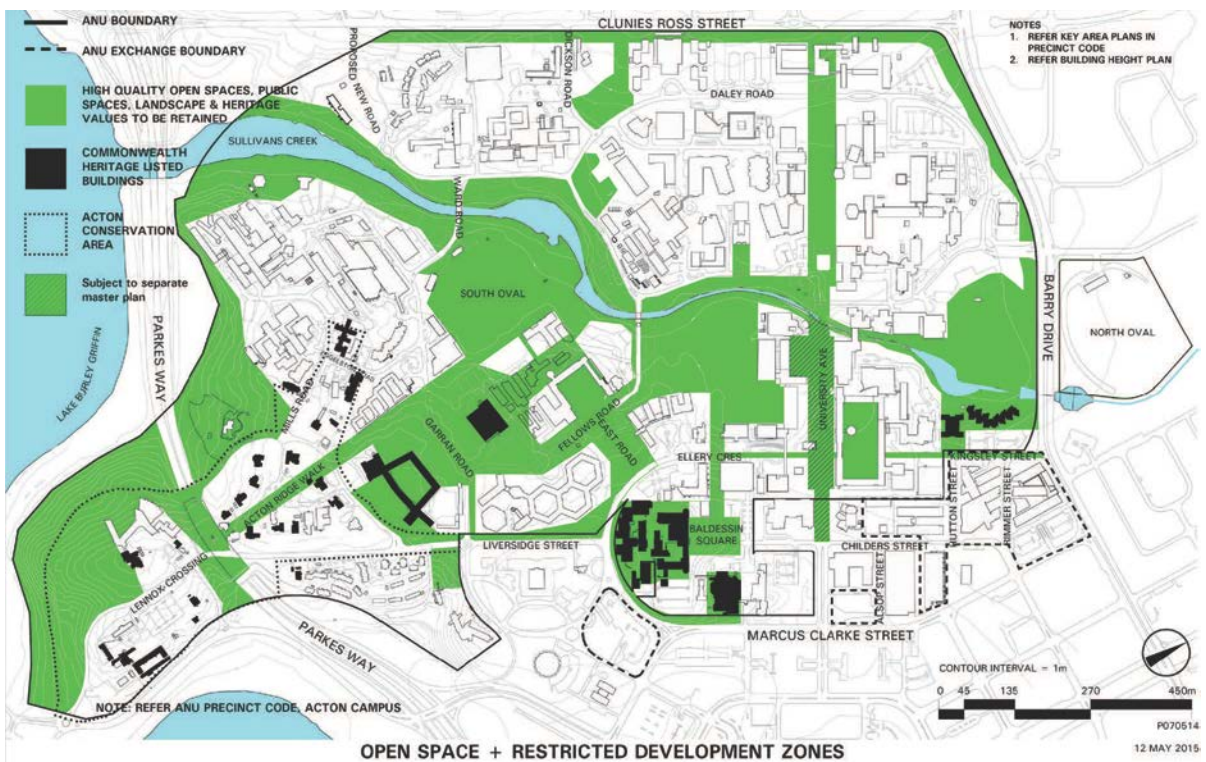
Source: National Capital Plan, 2015

Figure 4-2: ANU Campus Structure (Figure 135)



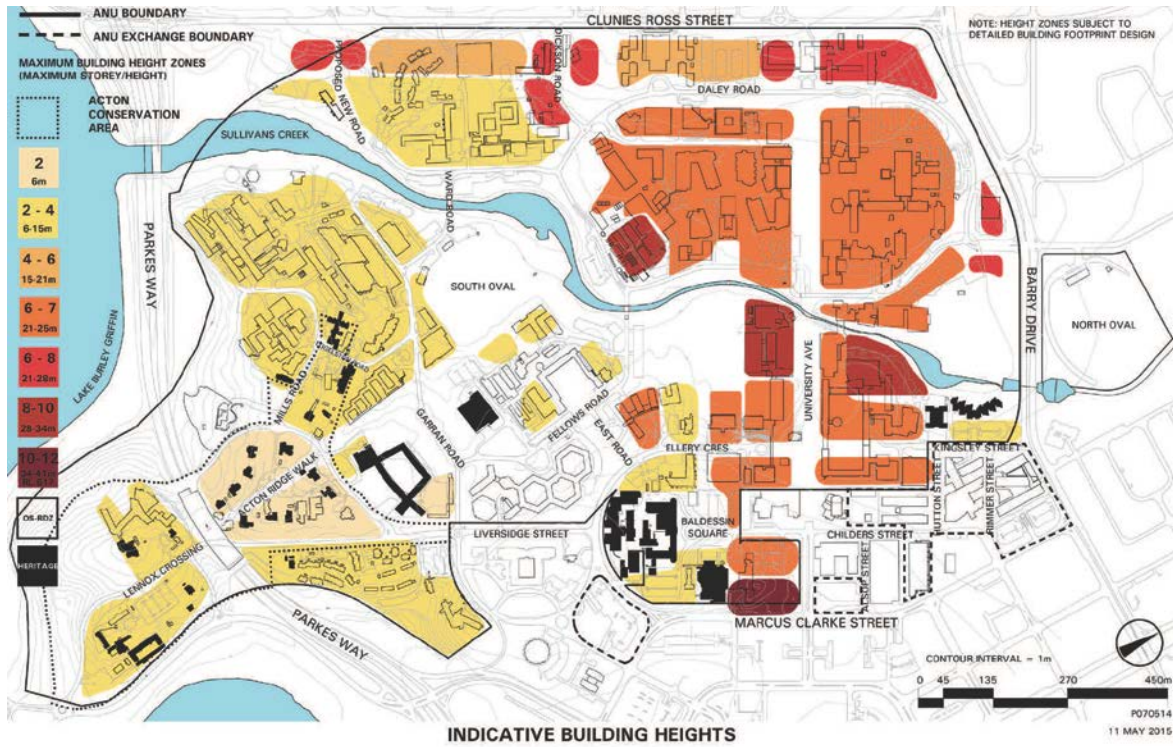
Source: National Capital Plan, 2016

Figure 4-3: ANU Restricted Development Zone (Figure 136)



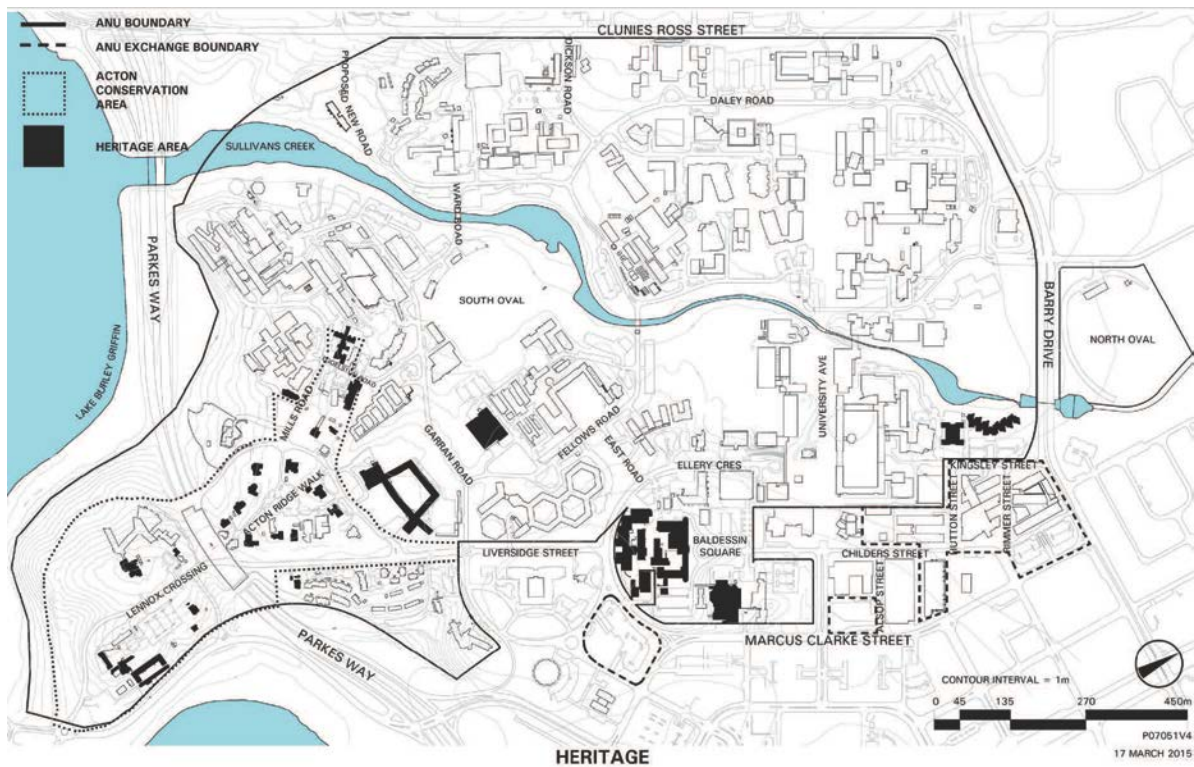
Source: National Capital Plan, 2016

Figure 4-4: ANU Indicative Building Heights (Figure 137)



Source: National Capital Plan, 2016

Figure 4-5: ANU Heritage Items (Figure 138)



Source: National Capital Plan, 2016

5.0 IMPACT ASSESSMENT

This section provides an assessment of the proposed works against a range of urban planning and design criteria relevant to the project.

5.1 Provision of Student Accommodation

Development of new purpose built student Halls of Residence will add approximately 500 beds (plus 300 in existing Bruce Hall) to the existing campus student accommodation offering. This will provide a positive impact on the University's ability to meet the accommodation needs of students from Canberra, Australia and overseas. It will also mean more student activity on campus near the core areas of the campus (e.g. Union Court). More students on campus also facilitates pedestrian and bicycle use rather than dependence on private vehicle use.

5.2 Urban Design Visual Impact

The urban design outcome will create a strong built form statement on Clunies Ross Street and Daley Road. However the building will sit within a landscaped forecourt and backdrop of University Avenue.

The building has a bulk and scale that is consistent with the provisions of the ANU Precinct Code.

The two halls of residence have been designed to provide a degree of architectural harmony whilst maintaining a differentiation in design detail including materials and fenestration.

The scale of the development is softened through the retention of existing landscaped elements and new planting on Clunies Ross Street and University Avenue. The view of the proposed buildings from Daley Road towards the development and Black Mountain beyond will be partly obscured by dominant landscape features, including the built form separation created by the 43m wide University Avenue corridor.

The vehicular entrance for service vehicles will be from Clunies Ross Street (similar to existing arrangements), and will not impact on the building aesthetics from main pedestrian areas or be visible from the University Avenue corridor.

The development will also improve the pedestrian wayfinding experience to other parts of the campus through appropriate site design that addresses legibility, permeability and night-time safety.

There will be no impact on the existing trunk bicycle route along the eastern side of Clunies Ross Street.

5.3 Environment Protection and Biodiversity Conservation Act (EPBC)

The ANU is a Commonwealth Agency and is situated on Commonwealth Land. It is therefore subject to the provisions under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). Under Section 26 of the Act, actions on Commonwealth land that will have or are likely to have a significant impact on the environment require formal approval. Under Section 523 (1), an action includes a project, a development, an undertaking, or an activity.

The EPBC Act makes provision for a 'self-assessment' process to decide whether or not the proposal is likely to have an adverse or significant impact on identified NES matters including heritage.

A desktop search of the subject site using the Commonwealth Department of Environment's Protected Matters Search Tool did not identify any NES matters on the subject site. However the subject site is within close proximity to the CSIRO Black Mountain Laboratories, which is identified as a Commonwealth Heritage Place under the EPBC Search Tool.

The proposed works will not have any direct or indirect impact on the CSIRO Black Mountain Laboratories either during construction or once the facility is operational.

Demolition of an existing building that is not identified as having Commonwealth heritage significance will be required as part of construction activities, but this will not trigger any impact on NES matters.

The proposed development does not impact on any NES identified vegetation or flora/fauna communities.

5.3.1 National Environmental Significance

Table 5-1 summarises the nine (9) matters National Environmental Significance (NES) that the Commonwealth seeks to protect. Developments that may affect these matters require formal development approval under the Act.

Table 5-1: Matters of National Environmental Significance

Matter of National Environmental Significance	Implications for Site
World Heritage Properties	There are no identified World Heritage Properties located on the subject site.
National Heritage Places	There are no identified National Heritage Places located on the subject site.
RAMSAR Wetlands	There are no RAMSAR wetlands located on the subject site.
Listed Threatened Species and Ecological Communities	There are no Listed Threatened Species or Ecological Communities located on the subject site.
Listed Migratory Species	There are no Listed Migratory Species located on the subject site.
Commonwealth Marine Areas	There are no Commonwealth Marine Areas located on the subject site.
The Great Barrier Reef Marine Park	The Great Barrier Marine Park is not located on the subject site.
Nuclear actions	No nuclear actions are proposed as part of development on the subject site.
Water Resources (coal seam gas and coal mining)	There will be no effect on water resources in relation to coal seam gas and coal mining activities proposed as part of development on the subject site.

5.3.2 Heritage

There are 6 existing brick buildings on the subject site (not including Packard Building), forming the Bruce Hall residence. This residence was constructed over a number of stages from 1959 to 1971.

ANU undertook a self-assessment of the site against Commonwealth Heritage Criteria (under the EPBC Act) to determine whether any of the existing buildings or structures may trigger a referral under Commonwealth heritage legislation.

Bruce Hall is not on the Commonwealth Heritage List (CHL). There is also no evidence to suggest that the complex has been nominated for inclusion on the CHL.

Campbell Dion were engaged to provide a Heritage Impact Statement (refer separate documentation) to assist with the assessment of the heritage values of the subject site.

The Campbell Dion Statement notes that the heritage values of Bruce Hall are limited to its historical background and its significance as 'home' to former students residents. The form and design of the existing buildings do not meet the criteria for any heritage listing. On this basis, it is considered that as the proposed development is continuing and expanding the existing use of Bruce Hall as a student residence, the heritage values of the site will be retained.

The proposed development will retain physical elements of Bruce Hall that hold social/historical value (furniture, artwork) and the building design addresses concerns by the Alumni and NCA for differentiation between the two main structures as well as provision of separate dining halls.

There are also no known Indigenous heritage values in this area which will be impacted by the development, and as the area has been highly disturbed, it is highly unlikely to yield archaeological artefacts.

A desktop search of the subject site using the Department of Environment's Protected Matters Search Tool did not identify any NES matters. Therefore, this application for Works Approval does not trigger a Heritage referral under the EPBC Act. Notwithstanding this, in response to the recent nomination of Bruce Hall the ANU has decided to refer the proposal under the EPBC Act with the Department of Energy & Environment for their consideration.

5.3.3 EPBC Self Assessment

In summary, it is concluded that although the site has historical and social heritage values, the proposed redevelopment and subsequent operation of the facility will have no impact on any of the nine identified matters of National Environmental Significance including heritage or other environmental matters.

Accordingly, it is concluded that a referral to the Commonwealth Department of Environment is not required but has been sought regardless.

5.4 Architects Moral Rights

NettletonTribe have endeavoured to inform the original architect of the proposal. However, their research that the original Architectural firm Bunning and Madden is no longer operating and that both partners are deceased. The ANU Heritage Report required the building to be documented by the ANU Preserve and Protect Committee.

5.5 Parking

The proposed development does not provide for student parking onsite or in adjacent areas, except for 16 spaces on Daley Road.

Pick-up/set-down spaces will also be provided within Daley Road.

The ANU fully manages car parking on campus via a permit system allocated to students who apply. Current data from the ANU indicates that the number of Bruce Hall students applying for car parking permits is reducing based on the data below:

- 2015 – 76 residents had permits including 2 residents with mobility permits.
- 2016 – 57 residents have active permits including 1 resident with a disability permit.

Figure 5-2 shows a total of 1,150 car parking spaces located within 500m of the Bruce Hall site. These spaces are available for staff, students and visitors. These spaces are available on short stay based on pay as you go usage (PYAG).

Figure 5-2 also shows the location of parking currently allocated to students of Bruce Hall. A total of 104 (including 4 disabled) parking spaces are currently allocated to Bruce Hall residents

within the surrounding area. The proposed development will result in the loss of approximately 55 of these spaces, however sufficient parking is provided elsewhere on campus to accommodate the reduction in available parking.

The existing Bruce Hall does not provide staff parking. On this basis, and as a result of the findings of Figure 5-2, staff parking generated by the proposed development can be accommodated within existing parking near to the site.

The building will make provision for a total of 180 secure bicycle parking spaces, in addition to other bicycle parking facilities on campus.

The proposed parking provision is justified on the following basis:

- The site is also well serviced by local public transport services, and an existing network of public footpath and cycle ways radiate from the site to other parts of the campus.
- The number of parking spaces within a 500m radius of the site
- Evidence of declining demand for student parking (in part due to 17 year old intake being higher than normal)
- ANU policy to reduce demand for campus parking.

It should also be noted that ANU is preparing a new campus-wide parking strategy which may result in the consolidation of a number of surface parking areas into multi-storey structures at strategic locations on campus. It is likely this policy will reduce pressure on existing parking demand and will be available to students on a PAYG basis.

5.6 Traffic

A Traffic Report has been prepared by Sellick Consultants for the project (refer separate report).

Proposed vehicular site access will be from a new driveway cross-over at Clunies Ross Street for service vehicles only and is not considered to impact on current traffic flow or safety issues on adjacent streets.

ANU does not promote the use of cars for transport to, through or from the campus to ensure the safety of pedestrians and cyclists. As no additional parking is being provided for students on site it is expected that the development will not increase vehicular traffic on campus.

Consequently the project will not generate additional traffic within the campus because of proposed off-site parking arrangements.

Figure 5-1: Car Parking Within 500m of Bruce Hall



Source: ACTMAPI, 2016

5.7 Crime Prevention Through Environmental Design (CPTED)

CPTED is a key concern for development on campus, and provision of a safe, secure and welcoming environment is paramount. As such, the development has been designed to reduce the risk of entrapment and hiding spots, and increase visibility.

5.8 1.1 Access & Mobility

The development including associated pathways is designed to meet relevant accessibility standards including AS1428 Design for Access and Mobility.

The site can be accessed via elevators from the lower ground level to the upper ground level, or through the meandering pathway which traverses University Avenue.

5.9 Solar Access & Shadowing

The loose arrangement of the built form and stepped massing allows for the optimisation of solar gain into the principal open space areas (Figure 5-1). In addition to the overshadow plans accompanying the architectural plan set, Nettletontribe have prepared an animated depiction of solar access has also been provided with the electronic lodgment.

5.10 Existing Landscape and Trees

A Tree Assessment has been prepared by the ANU Arborist for this project. It notes that four exceptional quality trees in addition to a number of high quality trees are situated on the subject site.

The arborist report recommends the following high quality trees to be retained:

- Quercus canariensis (6955) because it is an excellent, long lived specimen.
- Picea abies (7011) is also a good specimen and the only one on campus.
- The group of Catalpa's (6993 -7) as they are good mature trees that are uncommon.
- The best of the brittle gums (7202 and 7185)
- Remnant yellow box Eucalyptus melliodora (7058) is also significant.

The Arborist also noted that the conifer and oak plantation north of the Packard Wing is a valuable urban forest and should be retained.

The Landscape Plan prepared by Complete Urban has considered the recommendations of the Tree Assessment and retained all trees identified for retention by the ANU Arborist where possible.

5.11 Noise

The building is not located in a noisy environment and will not be a significant noise generator.

5.12 Wind

The building is not in an exposed location and outdoor common areas will be protected from colder westerly/ southerly winds by the building form and surrounding buildings and landscape. Refer Wind Assessment report prepared by Windtech and submitted with the Works Application.

5.13 Bushfire Risk

The building is located within an urban context and is surrounded by public roads providing good fire fighting access and water reserves in the case of an extreme fire event. The buildings will be internally sprinkled and monitored for fire risk and other emergency events.

Figure 5-2: Shadow Diagrams



Source: Nettletontribe, 2016

5.14 Waste

All waste will be stored on site and collected by ANU Waste Services and Recycling. Waste storage and recycling will be fully enclosed. Waste vehicles will enter and leave the site from Clunies Ross Street in a forward direction.

5.15 Site Contamination

An environmental assessment of the site was undertaken in 2016 by WSP Parsons Brinckerhoff. The assessment noted that the potential for contamination to be present on the site as a result of past and present land use activities is moderate.

The report identified three areas of environmental concern and the preparation of a targeted Phase 2 investigation after demolition occurs to adequately assess the risks associated with these. Removal of contaminated materials will be undertaken once demolition of the existing buildings has commenced. This is currently being assessed as part of the concurrent Early Works application.

5.16 Green Initiatives

The proposed development contains a number of green initiatives including:

- access to public transport
- access to bicycle and pedestrian networks
- visitor parking only on Daley Road
- generous bicycle storage onsite
- good solar orientation
- no overshadowing of public or private open spaces during mid-day mid-winter
- natural ventilation
- landscape improvements
- aspirational green star rating, noting that the type of building proposed does not qualify for an official score.

6.0 CONSULTATION

The project team and ANU have consulted widely during the design development phase with a number of relevant stakeholders as outlined below:

- Students and Student Associations regarding accommodation needs.
- The project has also been presented to the ANU Campus Development Committee (CDC) once and the Design Review sub-Committee (DRCS) twice for their endorsement.
- The Bruce Hall Alumni
- The National Capital Plan (containing the ANU Precinct Code) has been finalised in May 2016 and was subject to two rounds of public notification by the NCA during 2015.
- Focus group workshops with existing Bruce Hall student residents. Initial workshops were held on 24 March 2016 and 14 April 2016. Advice was sought from students in relation to an extensive range of issues, including the following:
 - The dining hall
 - Catering service
 - Self-catering facilities
 - Laundries
 - Common rooms/social spaces
 - Bedrooms
 - Bathrooms
 - Outdoor spaces
 - Flugelman structure
 - Building façade
 - Post occupancy evaluations have also been undertaken on other student accommodation projects to inform design of the new project.

The ANU held a further 6 workshops with students between 2 and 10 August 2016. The nature of these workshops was to present the proposed development and advise of student feedback that had been implemented into the design of the buildings.

The NCA has advised that the project will be publicly notified during the Works Approval assessment period in accordance with the NCA's Consultation Protocol 2011.

ACT Agency liaison with TCCS, ActewAGL and Icon Water has also been undertaken as part of the design development process.

7.0 CONCLUSION

This planning report has described the proposed demolition and redevelopment of the Bruce Hall student accommodation site on the ANU campus at Acton, and is submitted to the NCA for Works Approval.

The report has assessed the subject site, outlined design principles for the development, and assessed the project against a range of planning and environmental criteria including provision of the ANU Precinct Code of the National Capital Plan and provisions of the EPBC Act.

The new Halls of Residence will address the University's long term strategy for the provision of additional on site accommodation to meet the needs of its resident student population.

The proposed residential use is compatible with the existing ANU campus lease conditions and is consistent with the requirements of the ANU master plan and Precinct Code.

During construction, the project will have only minor impact on the daily activities on campus including traffic movement along Daley Road, and will have no adverse impact on matters of national environment or heritage significance.

Construction of the new student accommodation buildings will also deliver ongoing economic benefits to the ACT through employment opportunities created during construction and investment in new construction works. There would also be multiplier effects for other aspects of the building and construction industry, such as for fit out and the commercial sector through contractual opportunities for to provide student services including catering.

The building will make a positive urban design statement for the campus by the extension of the University Avenue landscaped corridor and the development of a high quality building design that provides articulated frontages from all street frontages.

Landscape plans will enhance the local area and improve pedestrian accessibility throughout the campus and will complement the overall character of University Avenue whilst resulting in a design that distinguishes itself from other sections of the corridor.

It is therefore **recommended** that the NCA approve this application for Works Approval.

Purdon Planning
November 2016

Attachment A: :NCP Relevant Principles and Policies

NCP Central National Area (Acton) – Compliance with Principles and Policies	
<p>The urban design of the Area is to achieve an integrated design of the highest quality by managing building height and bulk, and by encouraging building forms and layouts on consistent building alignments which enhance the structure of Griffin's plan.</p>	<p>The proposed new two 400-bed Halls of residence acknowledges the need to ensure a quality urban design outcome is achieved within the Nation's Capital.</p> <p>Urban design has sought to achieve buildings that are of a compatible scale to surrounding development, with the building beneath adjacent tree height and generally 5 – 8 storeys. It is noted that the proposed buildings are lower than the maximum heights permitted under the Precinct Code.</p> <p>The built form responds with a strong urban edge to University Avenue to frame the view from the University heart to Black Mountain. Buildings provide a new gateway entrance to the University from the Western edge. A significant urban realm is proposed at the connection of University Avenue to Clunies Ross Street. This public space allows visual and physical connections to be provided from the wider community back into the University. Within both northern and southern residential segments, private landscaped space provides opportunities for social interaction of students.</p> <p>The proposed development is therefore considered to be consistent with the relevant Urban Design principles and policies of the NCP Central National Area.</p>
<p>New development should seek to respect the design and character of adjacent buildings in terms of scale, colour, materials, massing and frontage alignment.</p>	<p>The proposed new two 400-bed residences will make a positive architectural statement on the ANU campus' Daley Road precinct.</p> <p>The buildings respect the character of adjacent buildings by framing the University Avenue corridor, and have been set back from the alignment of Clunies Ross Street frontage.</p> <p>The architectural design has considered the need to ensure colours and materials are not detrimental to the colour and material palette of surrounding development.</p> <p>The proposed development is therefore considered to be consistent with the relevant principles and policies of the NCP Central National Area.</p>
<p>Individual development proposals will be assessed on their merits in respect to sunlight penetration, amenity, pedestrian and vehicle access. No buildings taller than RL 617m will be permitted in the Designated Area, but the general building height will be 3-4 storeys except where the Authority determines otherwise.</p>	<p>The design of the new two 400-bed residences has been developed on the basis of the need to provide both current and future students with better amenity and overall student experience than the current structure.</p> <p>The buildings have been designed to maximise solar penetration and provide a high degree of natural ventilation to ensure students living quarters are pleasant areas to live and study within.</p> <p>Courtyards and central open space corridor (University Avenue) have good solar access during mid-winter.</p> <p>The site is highly permeable and legible for pedestrians and provides students with a safe and pleasant environment.</p> <p>Building heights are consistent with ANU Precinct Code and are less than RL617m.</p> <p>The proposed development is therefore considered to be consistent with the relevant principles and policies of the NCP Central National Area.</p>
<p>Buildings in the Area must show an appropriate quality of architectural design consistent with their</p>	<p>The architectural design of the new Halls of Residence demonstrates an appropriate quality of architectural styling, which is consistent with the University's location in the Central National Area.</p>

NCP Central National Area (Acton) – Compliance with Principles and Policies	
location in this area of special national concern.	The proposed development is therefore considered to be consistent with the relevant principles and polices of the NCP Central National Area.
Landscaping is to enhance the visual setting of the Designated Area and integrate the buildings with their landscape setting.	<p>The proposed development acknowledges the importance of its landscape setting.</p> <p>The architectural design has integrated the buildings with the landscape setting to create a development that is softened by the surrounding landscape.</p> <p>The importance of retaining the natural landscape as a feature to soften built form to maintain a sense of place has also been acknowledged through additional planting on the Clunies Ross principal frontage. This assists in maintaining the soft edge between the campus and adjacent development.</p> <p>The proposal includes the extension of University Avenue landscaped open space area from Daley Road to Clunies Ross Street.</p> <p>The proposed development is therefore considered to be consistent with the relevant principles and polices of the NCP Central National Area.</p>

Attachment B: Australian National University Precinct Code Compliance

ANU Campus Precinct Code – Compliance with Provisions	
Academic Intent	
a) A development should incorporate design solutions that address emerging trends in education and delivery of academic services, including improved physical linkages between research, learning and other centres.	The design process has taken into consideration all aspects of studies including research, education and connectivity. Physical linkages have been taken into consideration and actively implemented in the designs. The proposed development includes pedestrian pathways, vehicular access ways, and linkages between the building the campus and the city.
b) All buildings should have clearly identifiable frontages.	The building frontage is clearly identifiable off Daley Road and Clunies Ross Street.
c) Co-location of related functions will be a primary consideration for siting of new development.	The development is for a new student accommodation building at the ANU campus. This use is consistent with the function of the university. The proposed design also allows for an extension of University Avenue to Clunies Ross Street and allows for greater pedestrian connectivity through the campus.
Functional Elements	
a) New buildings must improve functional connections, operational efficiency and access for students, staff and the community within precincts and connect to surrounding networks.	As noted above, this development will result in an extension to University Avenue which will enhance pedestrian connectivity through the site. The University Avenue part of the site will be appropriately landscaped and provide both direct and meandering footpaths through to other sections of the campus.
b) New buildings and major building refurbishments whose primary use is requires active frontages must be designed to provide a welcoming and lively community experience.	<p>The proposed development makes provision for main pedestrian access off Daley Road and University Avenue.</p> <p>The development will add approximately 500 additional students to the site reinforcing pedestrian activity in this precinct.</p>
c) Development proposals must demonstrate that the design and siting will enliven the campus and its sense of identity, and improve spatial qualities and environmental values.	<p>The contemporary architectural design of the buildings will add visual interest and contribute to the campus' overall sense of identity.</p> <p>Activation of the ground floor will assist to enliven and extend the western portion of University Avenue as well as the Clunies Ross Street and Daley Road frontages, particularly at night and on weekends.</p> <p>High site permeability will assist in improving spatial qualities including campus legibility and wayfinding.</p> <p>The development will also positively contribute to improving environmental values and overall student experience through provision of new activated buildings that meet the living and studying needs of the resident student population.</p>
Campus Structure	
a) Siting of new development should create strong linkages, both physical and visual, with	The architectural styling of the proposed development has addressed the need for perimeter streets to incorporate active frontages and ensure strong connectivity to the surrounding area is achieved

ANU Campus Precinct Code – Compliance with Provisions	
the City Centre, CSIRO, Australian National Botanic Gardens, Black Mountain, Lake Burley Griffin and Acton Peninsula.	<p>through establishing a hierarchy of open spaces surrounding the development and providing visual linkages from the Daley Road frontage through to Clunies Ross Street and CSIRO via an extension of University Avenue.</p> <p>The Clunies Ross Street frontage will remain a predominantly landscaped buffer to soften the bulk and scale of the building when viewed from Clunies Ross Street.</p>
b) New development should enhance and activate the campus structure as set out in Figure 135 through the establishment and/or reinforcement of gateways and entrances, movement networks (roads, pathways and shared zones), edges, knowledge clusters and hubs, and key public and ceremonial spaces.	<p>The proposal allows for greater consistency with the referenced figure than the existing Bruce Hall.</p> <p>The Campus Structure (Figure 4.2) notes that the subject site should provide open space where the existing Bruce Hall is located with a strong built form edge on either side of the open space area.</p> <p>The proposal, through the provision of the University Avenue Extension allows for the central part of the site to be used as open space as identified in the Campus Structure figure.</p> <p>The proposed buildings will be built parallel to University Avenue allowing for a strong urban form edge.</p>
c) Core activities of the university, such as teaching and learning spaces, libraries and major venues are to be located to concentrate activity along main pedestrian paths to provide safe access by day and night.	<p>This proposal is for student accommodation and is not considered a 'core activity'. However, the site is located in an area that will be of high activity due to its good connection and access to the central part of the University.</p>
d) Building design must address perimeter streets with active frontages and provide strong connections and linkages to surrounding areas and networks.	<p>The buildings have been designed to address all frontages allowing for greater pedestrian connectivity and linkages to the other parts of the university.</p>
e) Significant development is not permitted within the restricted development zones identified in Figure 136.	<p>No buildings are proposed in the restricted development zone shown in Figure 4-3 (Figure 136 of Precinct Code) (refer below). The proposal utilises the area shown for restricted development for the extension of University Avenue as an open space area.</p>
f) The exact boundary of the hatched development area in Figure 136 along University Avenue between Sullivan's Creek and Childers Avenue will be determined through a separate masterplan process. A student gathering space is to be retained in the precinct.	<p>Not applicable</p>
g) Some structures, such as signage, paths, lighting, a grandstand in conjunction with a sporting oval, may be permitted in the nominated restricted	<p>The extension to University Avenue will be landscaped and include paving for pedestrians and suitable lighting as part of a CPTED strategy.</p>

ANU Campus Precinct Code – Compliance with Provisions	
development zones provided it is considered to be ancillary to and compatible with the main purpose of the area.	
h) Any development within the restricted development zones must not significantly adversely impact on the landscape, environmental and heritage values of the campus.	Not applicable
Built Form and Height	
a) Building form should be configured with a high resolution of the overall design and the design details, and use enduring and enriching building materials.	<p>The overall form of the building has been designed to provide a high level of design with direct access to prominent street frontages (Clunies Ross Street and Daley Road). The design incorporates a central landscaped area which will act as an extension of University Avenue, further emphasising the prominence of the built form as a gateway marker.</p> <p>The design is that of a building set within the landscape, and is softened by landscape buffers on Clunies Ross Street, Daley Road and University Avenue frontages.</p> <p>The physical configuration of external space surrounding the development has been designed to create outdoor spaces that are pleasant during summer and winter and meet CPTED requirements to ensure safe access and movement.</p> <p>The design of the buildings has made full use of a large site in which solar orientation can be maximised and still be configured to deliver the required number of beds.</p> <p>The height of the buildings is in accordance with the ANU Precinct Code (Figure 4-4).</p> <p>The corner site has enabled the building to be designed to be set back from the Clunies Ross Street and Daley Road frontages, while maintaining design integrity to ensure the building is a marker at the western part of the University.</p> <p>The site has also enabled a gateway architectural statement to be made through the building’s form without compromising pedestrian amenity through the Daley Road precinct. The siting of buildings and implantation of an extension of University Avenue will increase pedestrian activity in this part of the campus.</p> <p>The site will remain unfenced once completed.</p>
b) Building design must respect and contribute positively to the landscape setting of the campus.	The building is consistent with the building height requirements under the revised National Capital Plan. Buildings have been designed in order to respond to both the built and natural setting of the university campus.
c) Building edges are to address and define external open spaces to enclose courtyards and overlook movement corridors.	The proposed buildings have been designed to address the extended University Avenue open space area as well as Daley Road. The upper levels of the buildings will provide passive surveillance of the pedestrian areas below.
d) Building should orientated to allow maximum solar access.	Buildings achieve a high level of solar access and do not excessively shadow the extended University Avenue area during mid-winter.

ANU Campus Precinct Code – Compliance with Provisions	
<p>e) All new development should incorporate design elements to achieve a high standard of sustainability, biodiversity, green recreation, and open space.</p>	<p>The proposed development is considered to be sustainable due to the following:</p> <ul style="list-style-type: none"> ▪ Walking distance to campus, City Centre and public transport ▪ Provision for bicycles ▪ Discourage private car usage ▪ Green space and landscape ▪ Proximity to trunk bicycle paths <p>Refer Section 5.16 of the Planning Report</p>
<p>f) Building heights shall be in accordance with Figure 137. Where a height range is provided, suggests indicative permitted height limits (for example, a height limit of 4-6 storeys requires development to be a minimum of four storeys and a maximum of six storeys). Some discretion is permitted where funding for new works from bequest or other sources are not sufficient to achieve the desired height range.</p>	<p>Proposed building heights are in accordance with the Precinct Code requirements. Refer Figure 4-2.</p>
<p>g) Built form along key walkways such as University Avenue must ensure that adequate sunlight is available for pedestrian and cyclist movement and should limit overshadowing, especially during mid-winter mid-day period.</p>	<p>Adequate sunlight is available for pedestrian and cyclist movement through the extended University Avenue area during mid-winter. The architectural package prepared by NettletonTribe includes shadow diagrams. A video depicting overshadowing impacts has also been provided to the NCA.</p>
<p>h) Buildings along Clunies Ross Street must not be designed to create a continuous wall of development, but must be separated and orientated to permit views into and from the campus, and variable in height to create visual interest and gateway markers.</p>	<p>Varying heights are proposed for the Clunies Ross Street frontage to provide visual interest. The building form has been designed in a way that does not create a continuous built frontage. This is further reduced by the extension to University Avenue through to Clunies Ross Street and which separates the two buildings.</p>
<p>i) Where taller buildings are located to provided gateway elements or visual markers, there should be no loss of pedestrian amenity in public spaces.</p>	<p>The proposal does not result in loss of pedestrian amenity in public spaces. The proposal increases the provision for public spaces via the extended University Avenue area. The buildings have been proposed in a way that maximises solar access and minimises wind impact on this part of the site.</p>
<p>j) Buildings adjacent to heritage places must reflect, respect and interpret the character of the heritage place.</p>	<p>Not applicable</p>
<p>k) Buildings along Liversidge</p>	<p>Not applicable.</p>

ANU Campus Precinct Code – Compliance with Provisions	
Street are to be configured to protect the landscape character of the campus as seen from important vantage points at ground level, such as Commonwealth Avenue Bridge.	
Heritage	
a) The design of new buildings will respond to the heritage context, in terms of landscape setting, bulk, form, scale, colour, texture and materials. Architectural imitation will be avoided and new work will be readily identifiable as such, but contextually respectful.	Not applicable
b) Where a proposal has the potential to affect a heritage place or the Acton Conservation Area as identified on Figure 138, a Heritage Impact Assessment should be undertaken to identify possible impacts upon heritage values of a place and recommend mitigation measures.	<p>The proposed development does not impact on any areas of heritage significance shown in Figure 138 of the Precinct Code.</p> <p>A Heritage Impact Assessment (Campbell Dion, 2016) has been prepared for the development and concludes that the proposed development is not inconsistent with the historical significance of the site, and that a number of mitigation measures have been proposed to further support this assessment.</p>
c) New development must be integrated sensitively within the campus and enhance important natural development features.	The proposed development will be integrated with the adjacent campus precinct and enhance the principal campus axis by an extension of University Avenue.
Landscape	
a) The overall natural and open landscape setting of the campus is to remain the major defining element. Development proposals shall demonstrate that the building design achieves this aim.	<p>The site has significance beyond the uses which it will accommodate, in that it is the western end of University Avenue, one of the structuring axes of the Griffin plan. The existing landscape of the western end of University Avenue as far as Daley Road consists of a central lawn with paths and trees to both sides arranged symmetrically.</p> <p>The proposed landscape of the new hall continues this approach generally. It repeats the pairing of two broad trees (Chinese Elms) on the opposite side of Daley Road, to suggest a connection and an identifiable space along both the road and the axis. The two lines of narrow, fastigiated trees (Lombardy Poplar currently on University Avenue) and the associated paths, will continue to the west, but the alignment tapers slightly to focus on a terminating “wall” of vegetation at the boundary. This vegetation will also provide privacy to the upper area of lawn encouraging use by the residents.</p> <p>In keeping with the architectural approach, the landscape leaves the centre line of the axis a void, rather than using it as the setting for a terminating structure or object.</p> <p>A series of ramps does, however, cut across the axis providing access for those unable to use steps to move between the lower and upper ground floor levels. These ramps are supported by low walls</p>

ANU Campus Precinct Code – Compliance with Provisions	
	that, while visible from the east, remain very low in keeping with the approach of leaving the axis a void.
b) Landscape design for the spaces surrounding buildings should be compatible with the character of the immediate precinct. Landscape design shall frame legible pedestrian linkages and attractive spaces between buildings.	The proposed landscape plans shows the landscaped University Avenue area to include pedestrian footpaths, grassy areas and tree planting in accordance with other sections of the corridor. Refer landscape summary under Section 3.5 of this report.
c) Landscaping for the new development near Sullivans Creek will reinforce its significance as a green spine through the campus and enhance the biodiversity and visual character of the creek line.	Not Applicable
d) Key open spaces and landscaped corridors are to be retained without significant development to protect their role as important open space 'lungs' and habitat areas on campus. The landscape character around the periphery of the campus, which provides a distinctive sense of place that announces the University, is to be retained and reinstated as part of any planning and construction for new development.	The proposal will result in an extension to University Avenue west of Daley Road, resulting in an additional landscaped open space corridor on campus. The proposed buildings will frame the landscaped corridor resulting in a distinctive urban character that is complementary to the existing development on campus.
e) Proposed landscaping must reflect the intended landscape structure for the university as shown in Figure 136.	The proposal will result in a landscape structure that is consistent with Figure 136 as it will facilitate the desired University Avenue corridor extension.
Transport and Movement	
a) New development must accommodate circulation systems to ensure that campus users can move safely about the campus, with priority given to pedestrians, cyclists and public transport access.	The proposal will not impact on major or minor vehicular entries to the site. There will also be no impact on traffic flow along Clunies Ross Street or Daley Road as the proposal is not considered to be a major traffic generating activity. Pedestrian access and movement through the campus will be enhanced by the site design and extension to University Avenue.
b) All new development will address parking generated by the development as well as any parking spaces removed by the development.	The proposed development does not contain on-site parking, but new residents and staff will have access to adjacent campus parking spaces (1,150 within 500m of the site). The site is close to existing public transport services and is in easy walking distance of all key areas on campus as well as the City Centre.
c) Extra provision of cycle lock up facilities will be required to support development that removes existing parking	The development will provide 180 bicycle spaces on site.

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spaces.	
d) Design measures are to be adopted which separate different traffic modes providing safe and consistent surface standards where the pavement width clearly identifies the function and hierarchy of the path/road.	The landscaped area of the proposed development will incorporate pedestrian footpaths which can also accommodate bicycle usage. No additional roads are proposed other than a relocation of the existing service access road off Clunies Ross Street.
e) New roads and road upgrades are to integrate with adjacent landscape areas by including design measures such as swales rather than hard edge kerbs and gutters.	Not applicable
f) Principal, Major and Minor Entries to the campus are to be well defined, and internal connections are to be legible and accessible.	Not applicable. The development will not create a new campus access for vehicles.
Infrastructure	
a) New and upgraded physical infrastructure including utility and communication services must be provided on campus to meet improved service standards and changing user requirements.	Utility and communication services will be provided where necessary to service the proposed development. Refer documentation prepared by Sellick Consultants lodged with the Works Application.
b) Street lighting must be designed and sited to improve pedestrian, bicycle and vehicle safety on campus, and avoid increased light pollution.	Street lighting will be provided in a manner that improves and emphasises pedestrian safety.
c) General campus lighting must provide aesthetic interest and accentuate key structural elements of the campus (for example, University Avenue). New buildings are to make provision to support solar and wind generation systems, and incorporate efficient energy and water systems. Roof-top solar and wind generation systems are permitted.	As above
A Living Campus	
a) New residential development is permitted on campus to increase levels of activation.	The proposal is to construct two 400-bed student Halls of Residence on campus at the western part of the campus fronting both Clunies Ross Street and Daley Road. An additional 500 beds (300 existing) will assist to increase the level of use and as a result lead to further activation in this precinct.

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	<p>The ground floor of the new Halls of Residence will seek to provide a range of safe outdoor spaces for resident use, including the extension of University Avenue which will enhance the urban aesthetic of the campus and improve pedestrian movement through the university.</p> <p>CPTED is a key consideration for developments on campus and the provision of a safe, secure and welcoming environment is paramount. As such, the development has been designed to reduce the risk of entrapment and hiding spots and increase visibility.</p> <p>The development including associated pathways is designed to meet relevant accessibility standards including AS1428 Design for Access and Mobility.</p>
b) Where possible and appropriate, the new student accommodation will be accompanied by a range of personal, commercial and safe outdoor spaces at ground level of these buildings.	As above
c) New development must incorporate Crime Prevention Through Environmental Design principles to encourage a campus that is safe, secure and welcoming for all users and visitors day and night.	As above
d) New development must incorporate design measures which recognise the value of existing cultural facilities and social spaces.	As above
e) New development involving health, social welfare, child care and student services facilities is to be sited in the core areas of the campus in close proximity to transport services and parking, and where possible, be co-located with other administrative or services functions.	As above
f) All new development must incorporate 'equity of access' as a fundamental planning and design objective. This will include pathways designed to Australian Standards for disability access, and building entries facing major walkways.	As above
g) Artwork associated with new buildings or individual placements is to be encouraged in the public realm.	As above

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Sustainability	
<p>a) New buildings and other works on the University campus must incorporate measures to reduce energy use and greenhouse gas emissions, reduce total water use, and encourage use of sustainable transport. Measures may include solar and wind energy generation systems, grey and black water systems, cycling and pedestrian facilities and amenities.</p>	<p>Complies – refer Section 5.16 of the Planning Report.</p> <p>The proposal seeks an aspirational green star rating, noting that the type of building proposed does not qualify for an official score.</p>
<p>b) To assist in maintaining the landscape character of the campus, vegetation losses must be balanced with new assets such as protection zones and plantings.</p>	<p>Trees have been retained where possible. Refer to Landscape Master Plan prepared by Complete Urban and lodged with the WA for further details on tree planting.</p>