

03 Concept Plan Proposal

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3.7 Staging

Based on the required timing of new floor area and upgrades to the campus, the Concept Plan proposes the development of Strathfield Campus in 4 stages. The first stage will comprise the new north western underground car park and the south eastern precinct - the library and learning commons.

Built form to the central, eastern and western precincts will be established in three subsequent stages.

Stage 1a: North western underground car park (this stage will include the new signalised intersection in the south eastern corner at gate 1)

Stage 1b: South eastern precinct - Library & Learning Commons

Stage 2: Central precinct

Stage 3: Eastern precinct

Stage 4: Western precinct

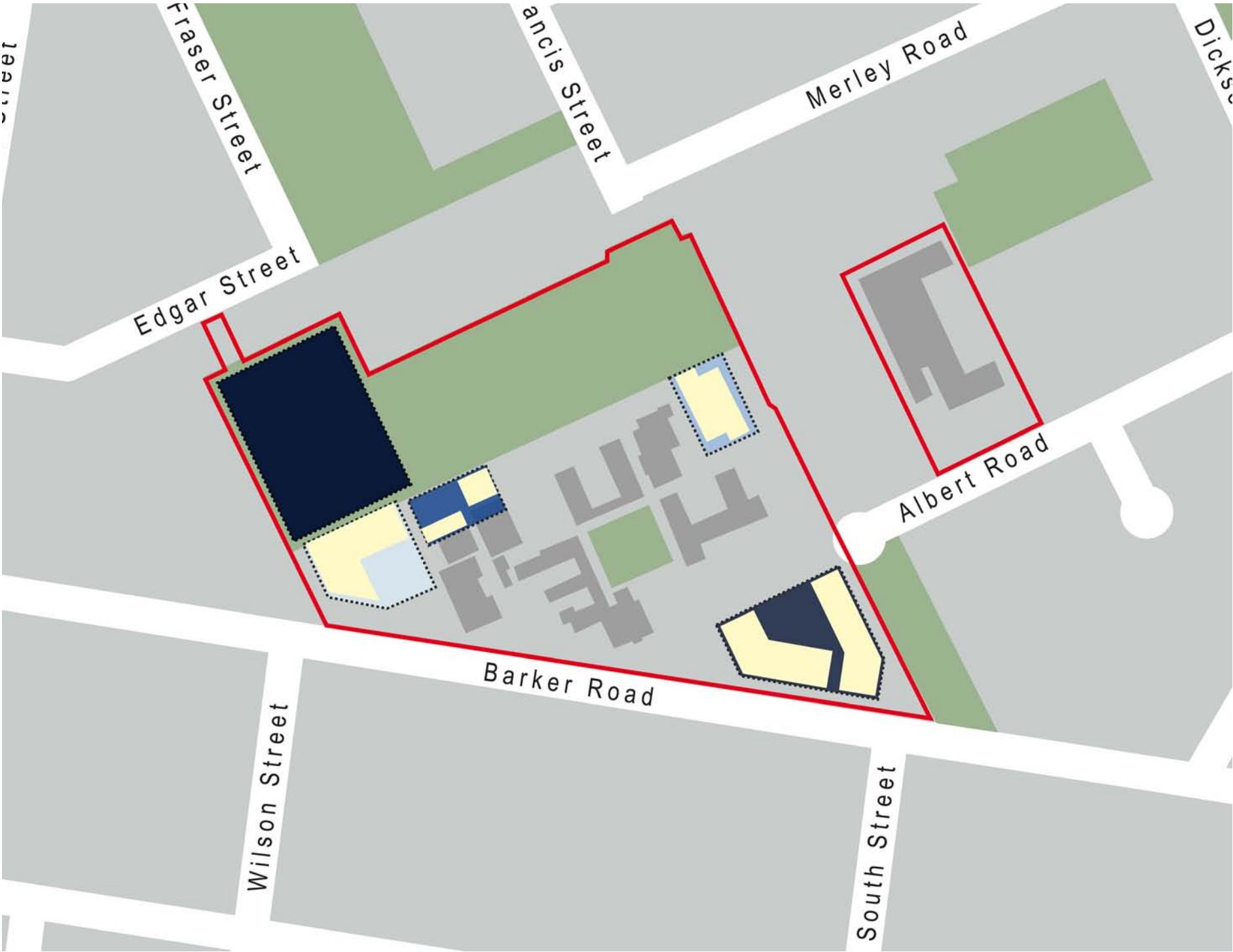
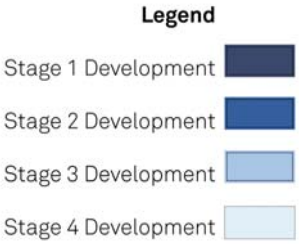


Figure 3.5_Proposed Staging Plan

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3.8 Utilities and Services

All necessary urban infrastructure services are established within the surrounding area and currently provided to the subject site. Figure 3.6 shows the location of proposed infrastructure and services to the Strathfield Campus.

The site will maintain the existing point of connection to the Sydney Water main along Barker Road. Connections to new development within the site will be extended from the reticulation system within the campus.

Future development will discharge to different sewer systems, based on the location of these precincts within the campus. It is expected that the western precinct will discharge to the existing 225mm sewer in Barker Road and the library and learning commons will discharge to the existing 225mm main in Barker Road. New development in the eastern development precinct will discharge to an existing 225mm sewer east around the Clancy Building campus and connect into the north sewer.

Gas services within the surrounding streets will be connected to new development precincts. It is anticipated that new gas services will be provided from the existing service point along Albert Road or from a new connection at Albert Road or Barker Road.



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Illustrative Concept Plan



- 01_ Precinct 1: South Eastern
- 02_ Precinct 2: Eastern
- 03_ Precinct 3: Western
- 04_ Precinct 4: Central
- 05_ New underground car park
- 06_ New Gate 1 access
- 07_ New Gate 4 access
- 08_ New vehicle access on Edgar Street
- 09_ Existing sports field to be retained
- 10_ Edge promenade
- 11_ Outdoor seating area and bleacher steps to sports fields
- 12_ New pedestrian only shaded public space including sculpture park
- 13_ Proposed pedestrian only library commons
- 14_ Existing service area to be retained and enhanced
- 15_ University commons to be retained and enhanced
- 16_ Proposed bus drop off and pick up zone
- 17_ Upgraded 'green rooms'

Figure 3.7_Illustrative Concept Plan

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3.9_Concept Plan

The key features of the Concept Plan are summarised below.

- _Four new development precincts within the campus to provide new library and education buildings. Development controls, such as height and gross floor area are proposed for each of these precincts to ensure new development will respond appropriately to the existing built form and character of the locality.
- _Demolition of the existing handball court building and several temporary buildings in the central western extent of the campus and construction of a new service and storage buildings.
- _New underground car park and two basement parking areas with a minimum of 674 spaces, a more than 100% increase in student off street vehicle parking.
- _Consolidation of main site access and egress into four gates along Barker Road. Staff only access off Edgar Street for St Patrick’s College.
- _New access point from Barker Road at the south eastern corner of the campus. The new intersection will involve use of a small part of a Council road reserve directly adjacent the boundary of the campus, and will also relocate existing traffic signals to form a new intersection with South Street (opposite).
- _Refined internal circulation within the main Campus providing clear separation between service vehicle access, short term parking spaces, internal bus stop and setdown locations and car parking access to reduce impacts on traffic flow.
- _Improved site landscaping and public domain including new pedestrian corridors, open space and landscape improvements. These works will improve pedestrian movement and safety and contribute to amenity and sense of place within the campus.
- _New pedestrian links provided throughout the campus to improve internal site linkages to the north eastern campus and preserve opportunities for further consolidation of the campus in the future.
- _A new Movement Rehabilitation Clinic and new counselling clinic (supporting the existing Institute of Counselling) within the Edward Clancy building (approved under a Local Development Application).
- _Extended atrium space to the Mullens building and a new external deck to the main Edmund Rice building (approved under a Local Development Application).

The additional floor space is to accommodate the increase in student population expected over the next 10 years. This growth will be contained within four new development precincts that have been identified following a comprehensive analysis of the Strathfield Campus including identification of opportunities for new built form.

Additional off-street parking has also been identified in the Concept Plan. A new underground car park is proposed in the north western corner under the existing playing fields with a total of 282 spaces. 30 of these spaces will be allocated to St Patrick’s College for staff parking. New basement parking below the south eastern and western precincts will provide additional off street parking.

A key design consideration for the Concept Plan is the creation of a more pedestrian focussed campus and a reduction in potential conflicts between pedestrians and vehicles. The internal circulation and movement arrangements are therefore rationalised into four gates along Barker Road and separated from primary pedestrian routes through the campus. Internally, the existing access way along the southern frontage of the site will be retained to serve as the primary movement corridor for campus visitors and the shuttle bus pick up and set down.

Service vehicle deliveries and waste collection will continue to be made from the existing facilities in the centre of the campus. Access to this area will be improved through retention of the central campus gate (Gate 3) primarily as a service vehicle access and egress point.

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3.10_Existing consents applying to the site

This Concept Plan also seeks approval to supersede existing limits relating to student and staff numbers, hours of operation and parking arrangements placed on the campus as a result of existing consents applying to the site. The consents and their limits are detailed in the table opposite.

The Concept Plan proposes hours of operation, student and staff numbers and parking across the campus as a whole.

It proposes operating hours of 7.00am – 10.00pm weekdays with teaching activities generally scheduled between 8.00am – 8.00pm with the library open until 9.30pm weekdays. On weekends, the campus including the library will operate from 8.00am – 5.00pm.

Student numbers are proposed at 4,800 by 2016, with an upper limit of 2,400 on the campus at any one time. Staff are proposed at a maximum 260 by 2016.

Of the proposed total 644 parking spaces on site, 504 spaces will be for students and 130 spaces will be for staff.

Table 3.2_Existing consents applying to the site and conditions to be superseded

DA details	Condition(s) to be superseded
DA93/164 was granted consent 16 December 1994 for the erection of a three storey building to be used for lecture rooms and teacher office accommodation at No. 179 Albert Road, Strathfield. This is the main campus site.	Condition 30 Classes should be conducted only between the hours of 8.00am to 9.00pm Monday to Friday. The library shall be open only between the above hours and from 8.00am to 5.00pm Saturday. Condition 31 On days when day classes at the University are followed by evening classes, the time between cessation and commencement of classes shall not be less than 30 minutes. Condition 32 The number of students enrolled at the University at any one time shall not exceed 1,100 by day and 700 by night and the number of teachers employed shall not exceed 190, without the prior approval of council. The number of students in attendance on the site at any one time shall not exceed 510 between the hours of 8.00am and 5.00pm Monday to Friday and 247 between 5.00pm and 9.00pm Monday to Friday.
DA0102/252 was granted consent 15 October 2002 at 163-167 Albert Road, Strathfield to use and carry out alterations and additions to the existing building for the purpose of an 'educational establishment'. This is the Edward Clancy building.	Condition 24 A “Staff Parking Only” plan of management is required to be prepared, submitted and approved by Council prior to occupation and use of the premises. a) The approved plan of management relating to staff only parking and traffic movements shall be implemented an maintained at all times in conjunction with the use of this premise. b) The hours of operation shall be restricted to 8.00am – 9.00pm Monday – Friday. c) The student numbers are not to exceed a maximum of 240 students at any given time.
DA2011/165 was granted consent 21 December 2011 at 167-169 Albert Road, Strathfield for alterations and additions to existing educational establishment. This is the Edward Clancy building.	Condition 9 The proposed expanded Exercise Performance and Resistance Training Gymnasium and new Movement Rehabilitation Clinic on the site shall comply with the hours of operation, maximum capacity and car parking plan of management established under Condition 24 of DA0102/252 which reads as follows: a) A “Staff Parking Only” plan of management is required to be prepared, submitted and approved by Council prior to occupation and use of the premises. b) The approved plan of management relating to staff only parking and traffic movements shall be implemented an maintained at all times in conjunction with the use of this premise. c) The hours of operation shall be restricted to 8.00am – 9.00pm Monday – Friday. d) The student numbers are not to exceed a maximum of 240 students at any given time.

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3.11_Development Precinct Controls

Development controls are outlined for each of the four proposed development precincts. The proposed controls will ensure high quality urban design outcomes, with buildings which respond to the existing built form of the campus and surrounding locality.

- The primary development controls identified are:
- _Maximum gross floor area (GFA) per development precinct
 - _Building Envelopes
 - _Building Height
 - _Active Edges and Public Domain

3.11.1_Floor Area

A maximum GFA is identified for each development precinct. This will ensure an appropriate floor area for future buildings. The GFA will not be transferrable between development precincts.

The Concept Plan will yield approximately 14,850sqm of new floor space within the campus for educational activities. The distribution of this GFA is shown in the table below, and discussed in further detail within each of the proposed development precincts.

Precinct	Maximum GFA
South eastern Precinct	6,700 sqm
Eastern Precinct	3,450 sqm
Western Precinct	3,660 sqm
Central Precinct	1,040sqm
Total	14,850 sqm

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Precinct 1_South eastern

Character Statement

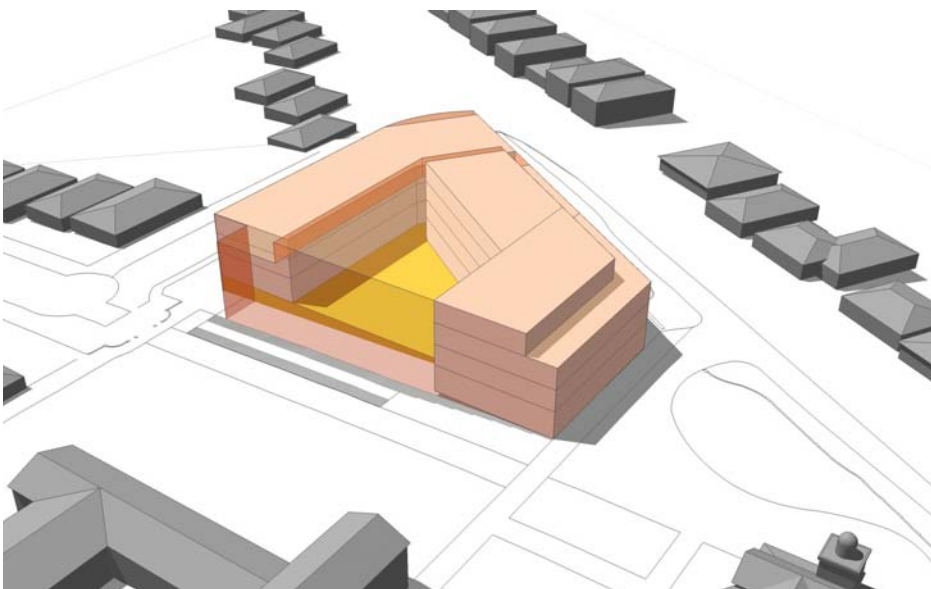
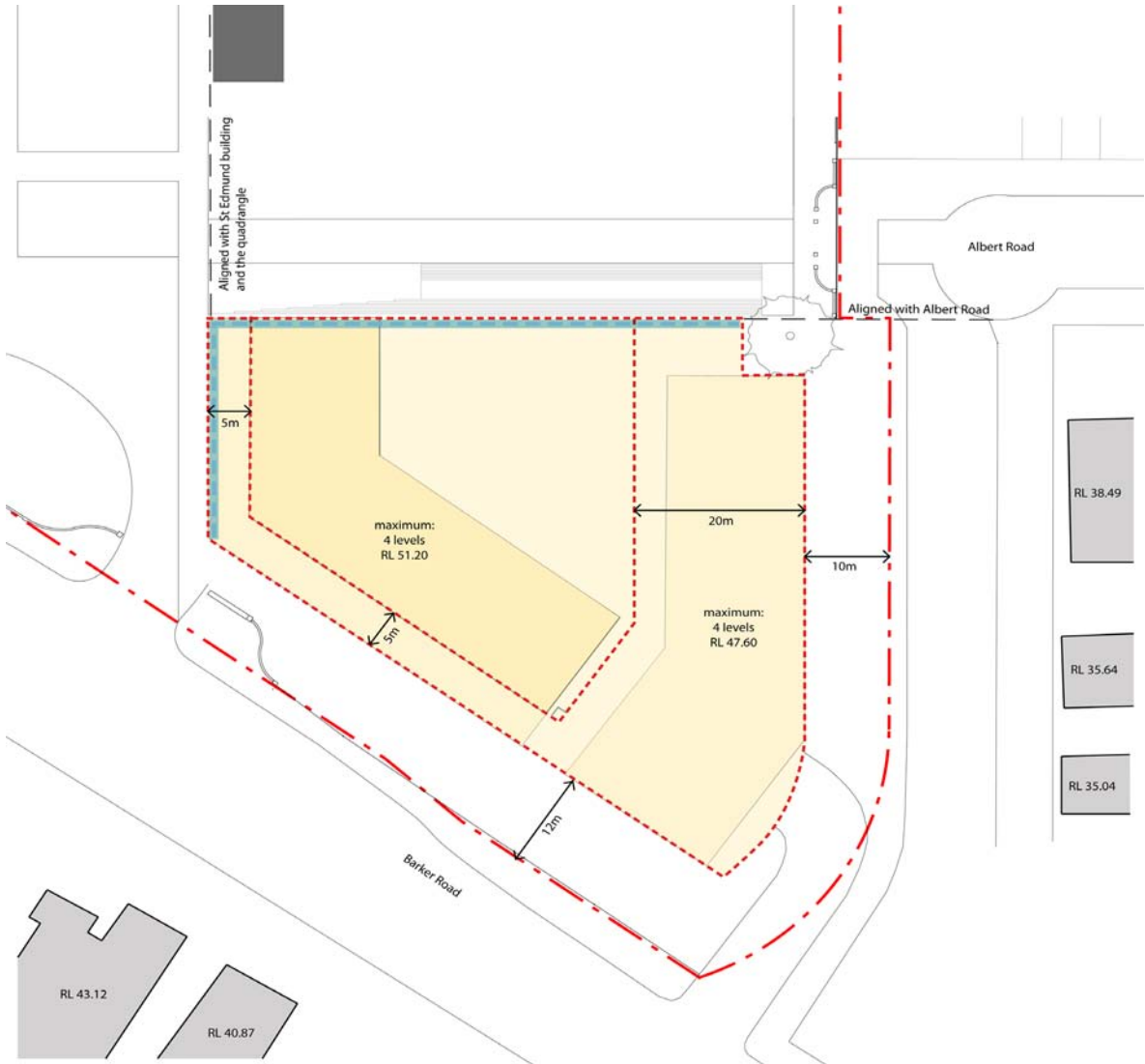
The south eastern precinct will include a new library building to represent the figurehead building of the campus and a destination and meeting point. The new building will be brought to the front of the campus to serve as a gateway to the campus from Barker Road.

The new library building will replace the existing library with a larger space, including modern education technologies and electronic resource and knowledge delivery services. It is anticipated that the new library building may also comprise a small scale shop or retail space to support student activities.

A new internal courtyard and a paved area will provide opportunity for learning activities to spill out onto courtyard or one of the upper level balconies. The courtyard space will serve as an extension of the two buildings providing the opportunity for students to study outside. The paved library commons will be a key pedestrian only hardstand space that will provide for gatherings and events adjacent to the new library space.

Seating will be provided under the trees and to the edge of the space. Stormwater will drain to the two central rows of trees passively irrigating the trees.

Primary Precinct Controls	
Maximum GFA	6,700sqm
Maximum Height	RL 51.20 - excludes plant and lift overruns
Building Uses	_library
	_education
	_research space
	_shop
	_food and drink premises

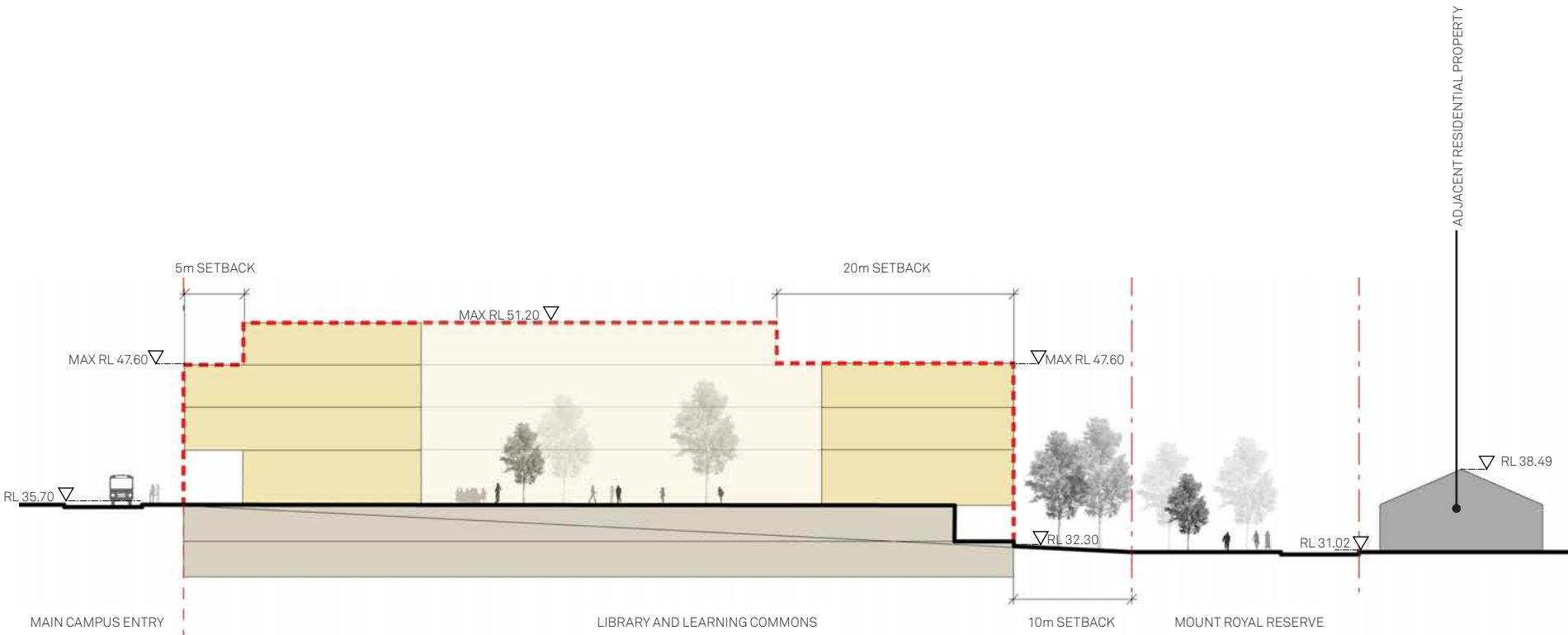
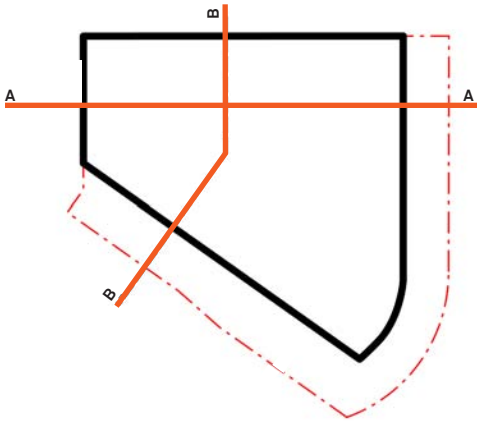


3D Envelope Analysis

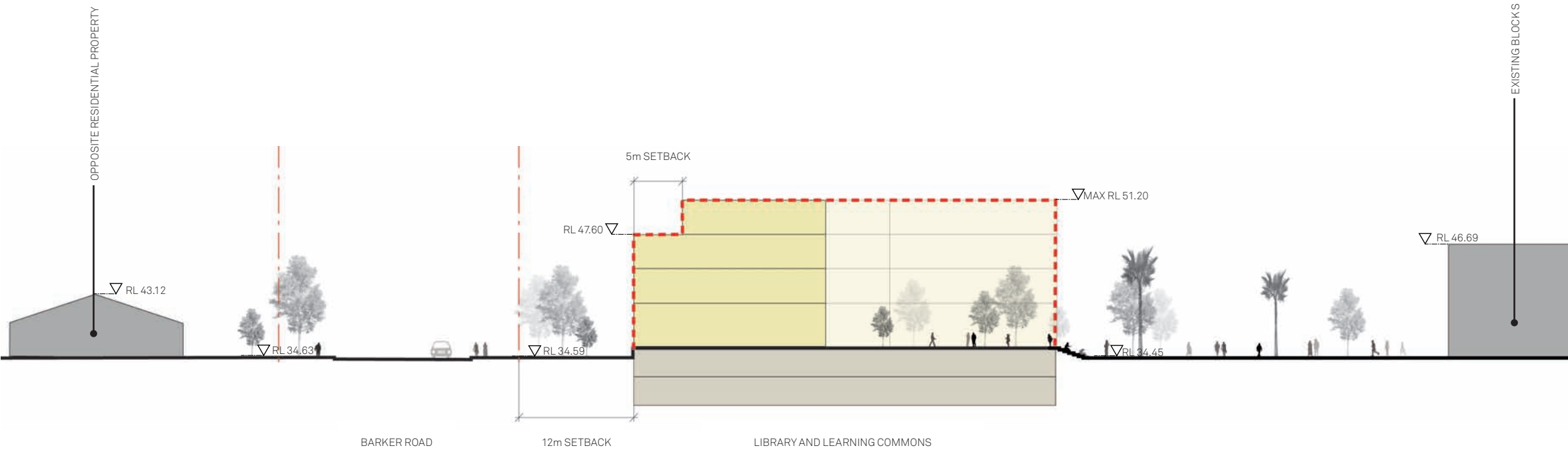


3D Envelope Analysis

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Section A-A
 Note: At detailed development application stage, minor changes to ground level RLs may occur. Maximum height RLs will not change.



Section B-B
 Note: At detailed development application stage, minor changes to ground level RLs may occur. Maximum height RLs will not change.

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Precinct 2_Eastern

Character Statement

The eastern precinct will provide a new education building which integrates with the existing Mullens building to the west and St Edmunds building to the south. The new building will occupy a vacant area of the main campus on the eastern boundary improving the built edge to the northern playing field, as well as strengthening the main pedestrian spine through the campus.

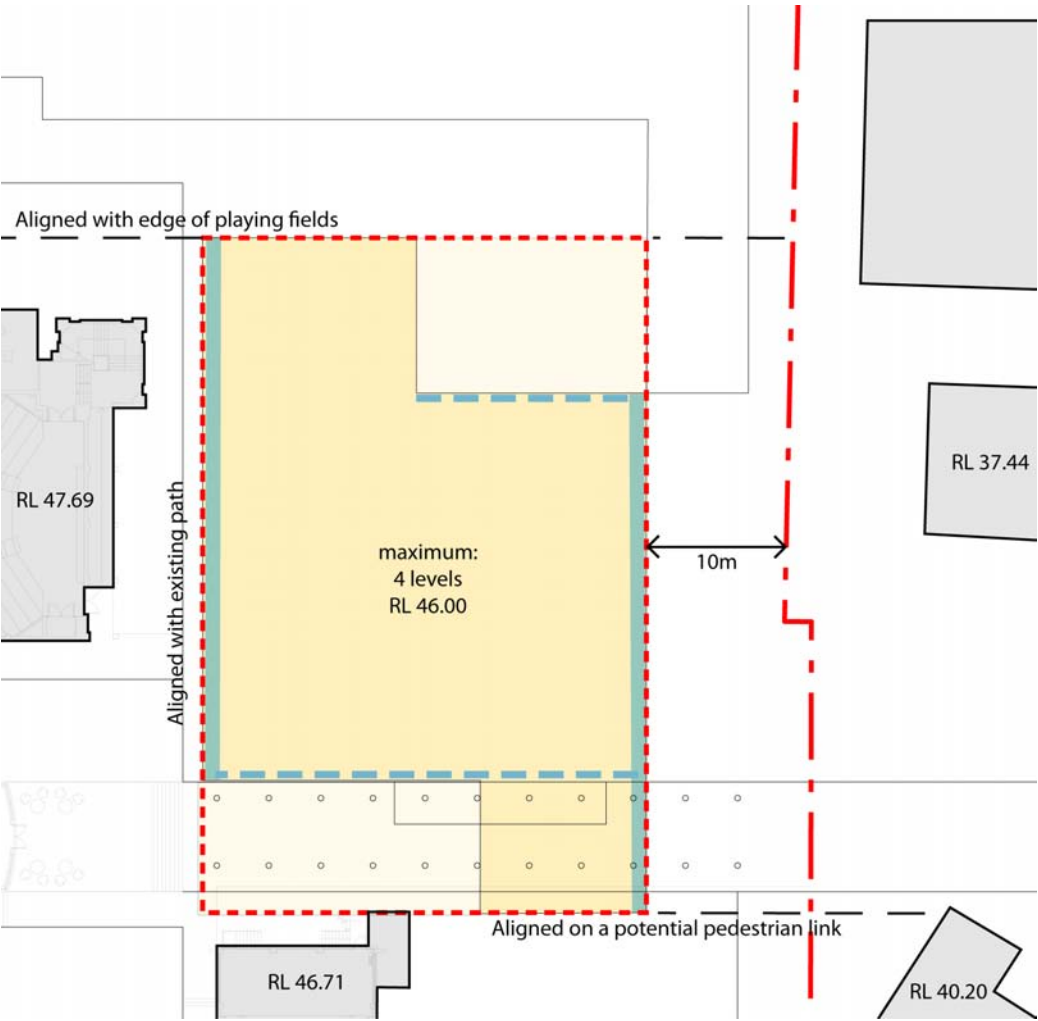
The southern edge of the new precinct will provide an active frontage, with activity opening onto a new pedestrian spine.

The northern extent of the building will address the existing oval with a new promenade along the playing field edge.

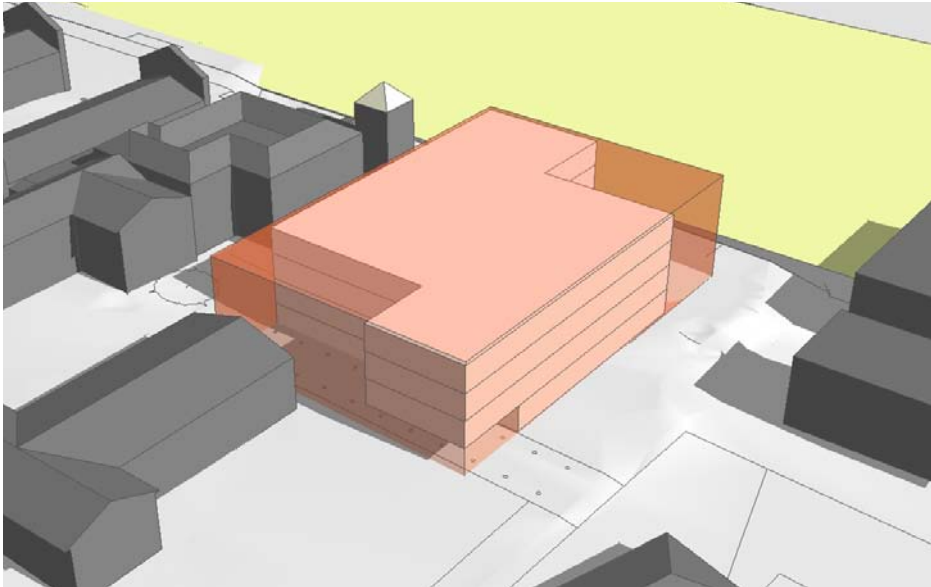
A new courtyard will be created between the existing Mullens building and the new education building, with a northern orientation. This space will provide for student congregation and activity, as well as a passive location for outdoor study.

Primary Precinct Controls

Maximum GFA	3,450sqm
Maximum Height	RL 46.00 - excludes plant and lift overruns
Building Uses	_education _lecture theatres _research space



- Site boundary
 - Building envelope
 - Hard built edge
 - Active edge
- Built Form Controls

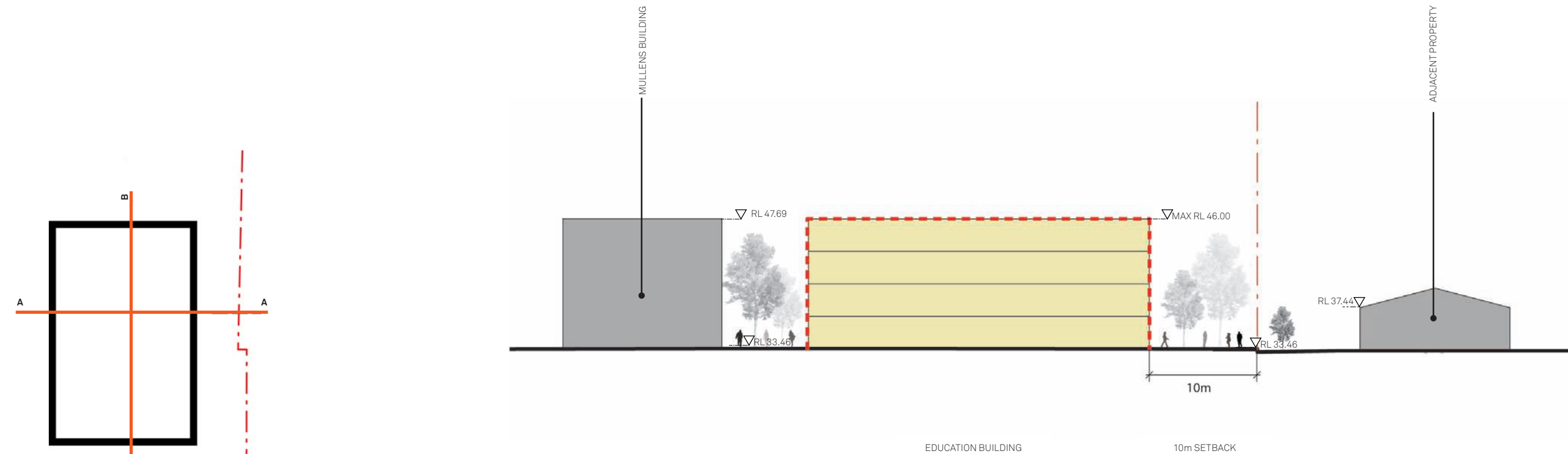


3D Envelope Analysis

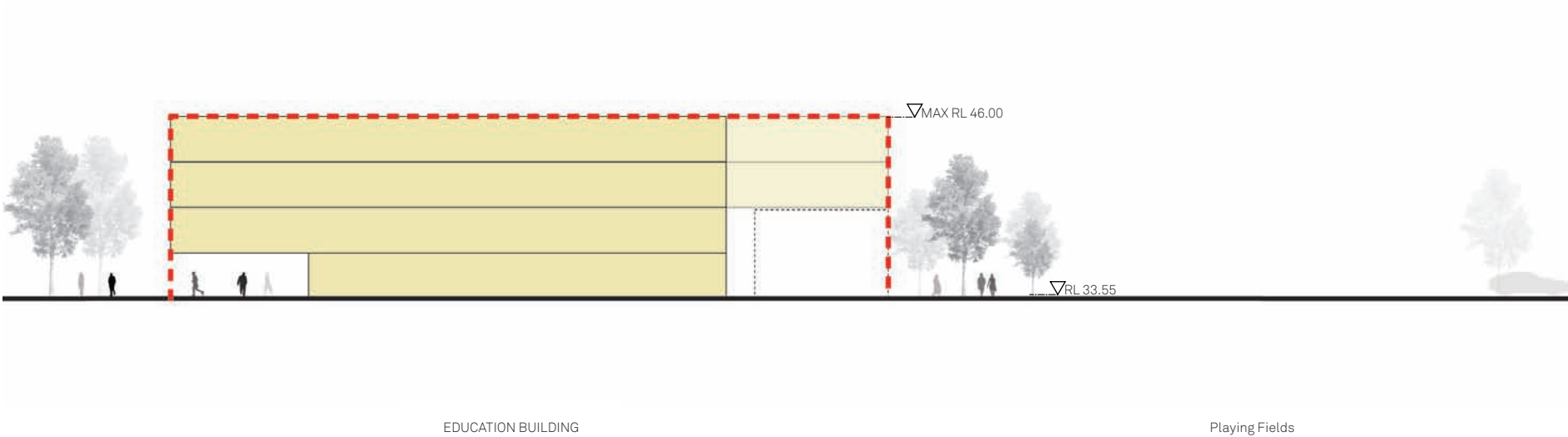


3D Envelope Analysis

03
 Concept Plan Proposal



Section A-A
 Note: At detailed development application stage, minor changes to ground level RLs may occur. Maximum height RLs will not change.



Section B-B
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Precinct 3_Western

Character Statement

The western precinct will comprise a new Arts and Sciences building. This precinct will allow a dual aspect building facing a new courtyard to the south east and the playing field to the north.

The precinct will comprise tutorial spaces, a visual arts studio and specialist teaching labs such as the photography lab.

The precinct is at the western end of one of the primary pedestrian promenades through the campus and will strengthen the pedestrian connections through the campus.

The south western interface of the new precinct will include a new paved courtyard space which is to be activated by a cafe or small retail space to support student activities.

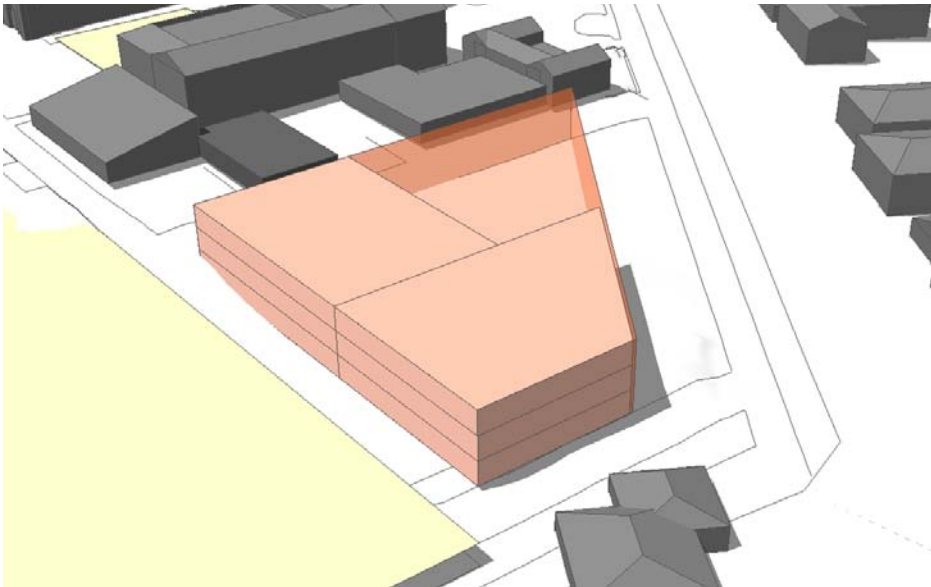
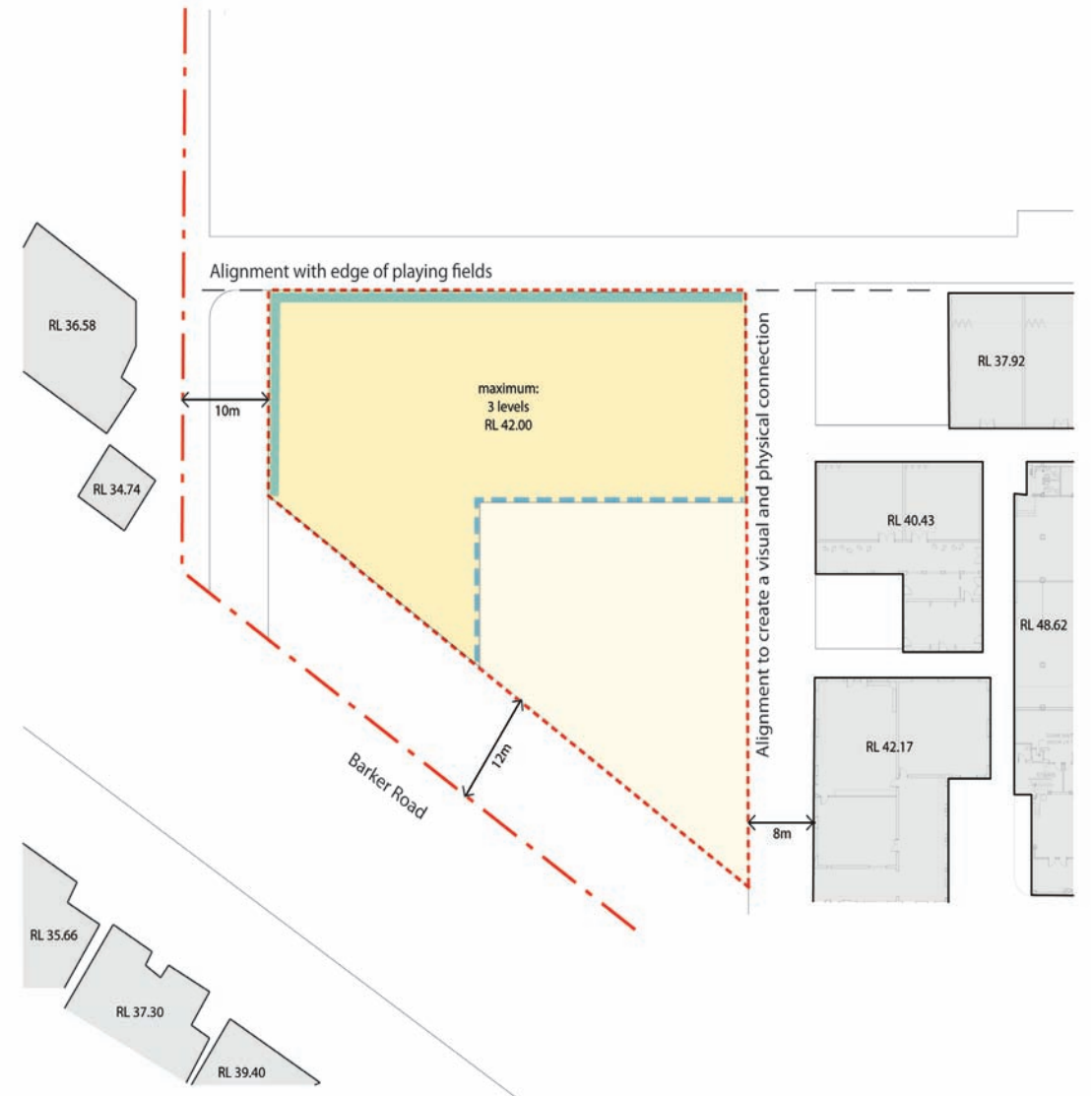
Primary Precinct Controls	
Maximum GFA	3,660sqm
Maximum Height	RL 42.00 - excludes plant and lift overruns
Building Uses	_education _specialist laboratories _arts studio _food and drink premises _shop

- Site boundary

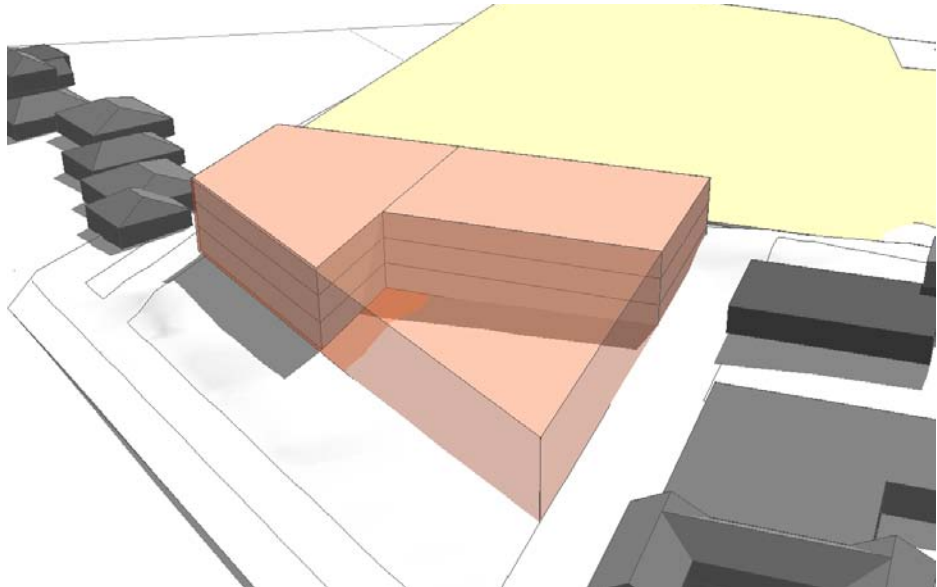
Building envelope

Hard built edge

Active edge
- Built Form Controls

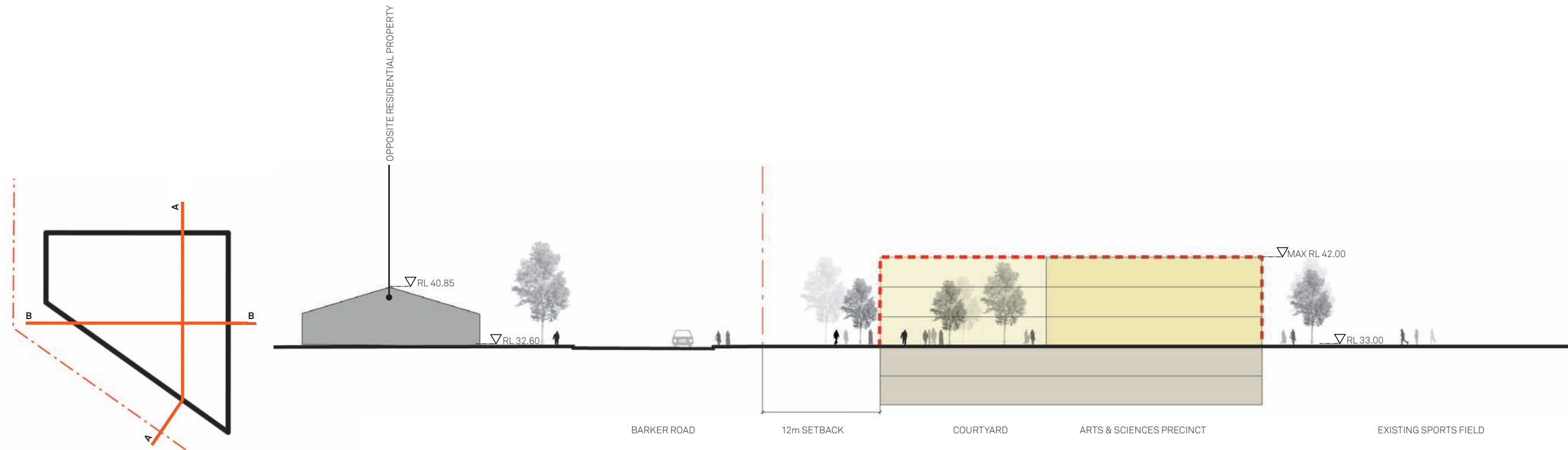


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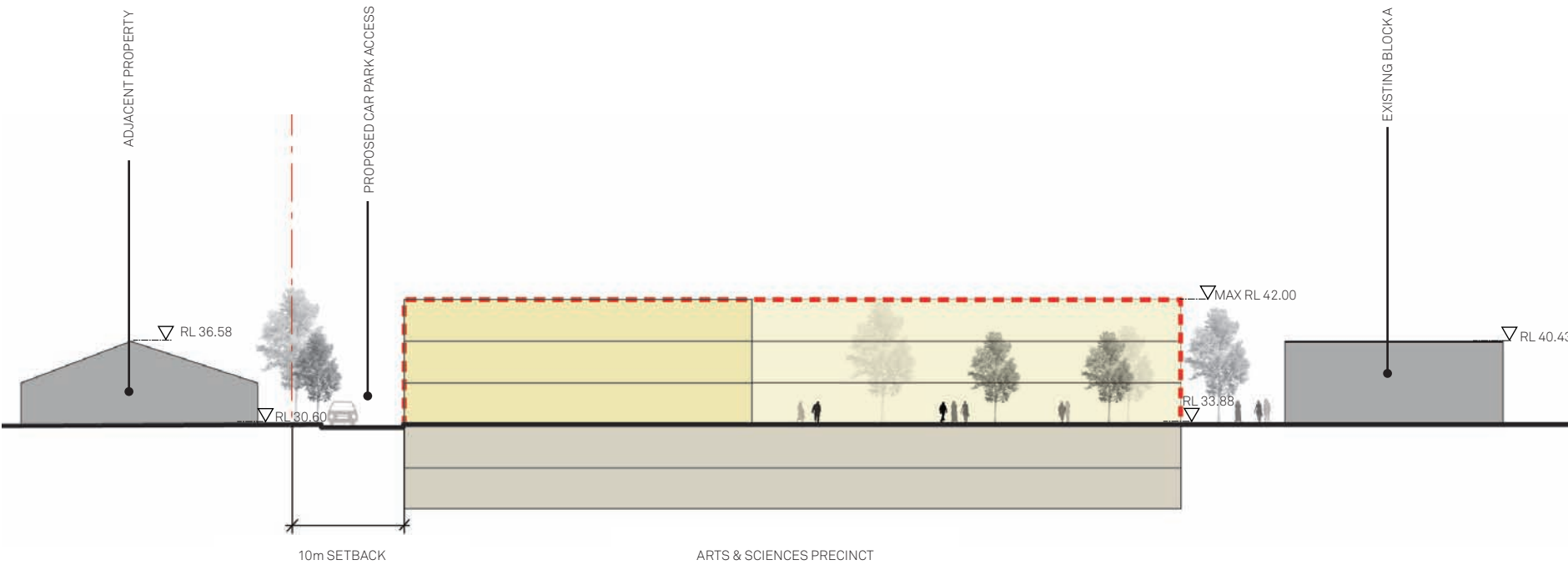


3D Envelope Analysis

03
 Concept Plan Proposal



Section A-A
 Note: At detailed development application stage, minor changes to ground level RLs may occur. Maximum height RLs will not change.



Section B-B
 Note: At detailed development application stage, minor changes to ground level RLs may occur. Maximum height RLs will not change.

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Precinct 4_Central

Character Statement

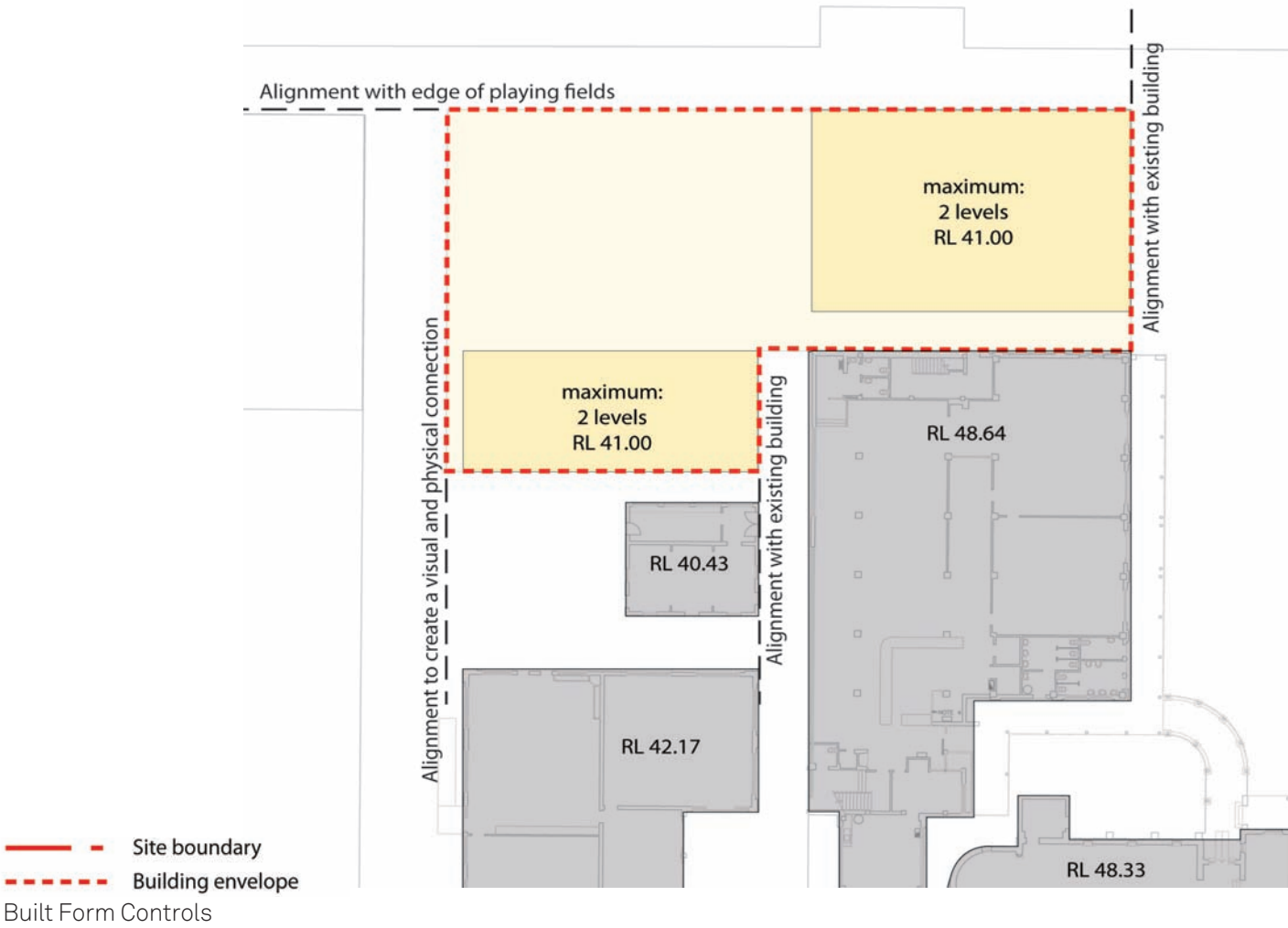
The central precinct contains the existing handball court building which is presently used as a storage space. The surrounding area also comprises a number of existing portable structures utilised as classrooms.

These existing buildings will be removed and/or demolished to allow construction of new permanent buildings with associated landscaped courtyard space. It is anticipated that one building will be utilised for campus facilities and storage, including landscape maintenance equipment and furniture.

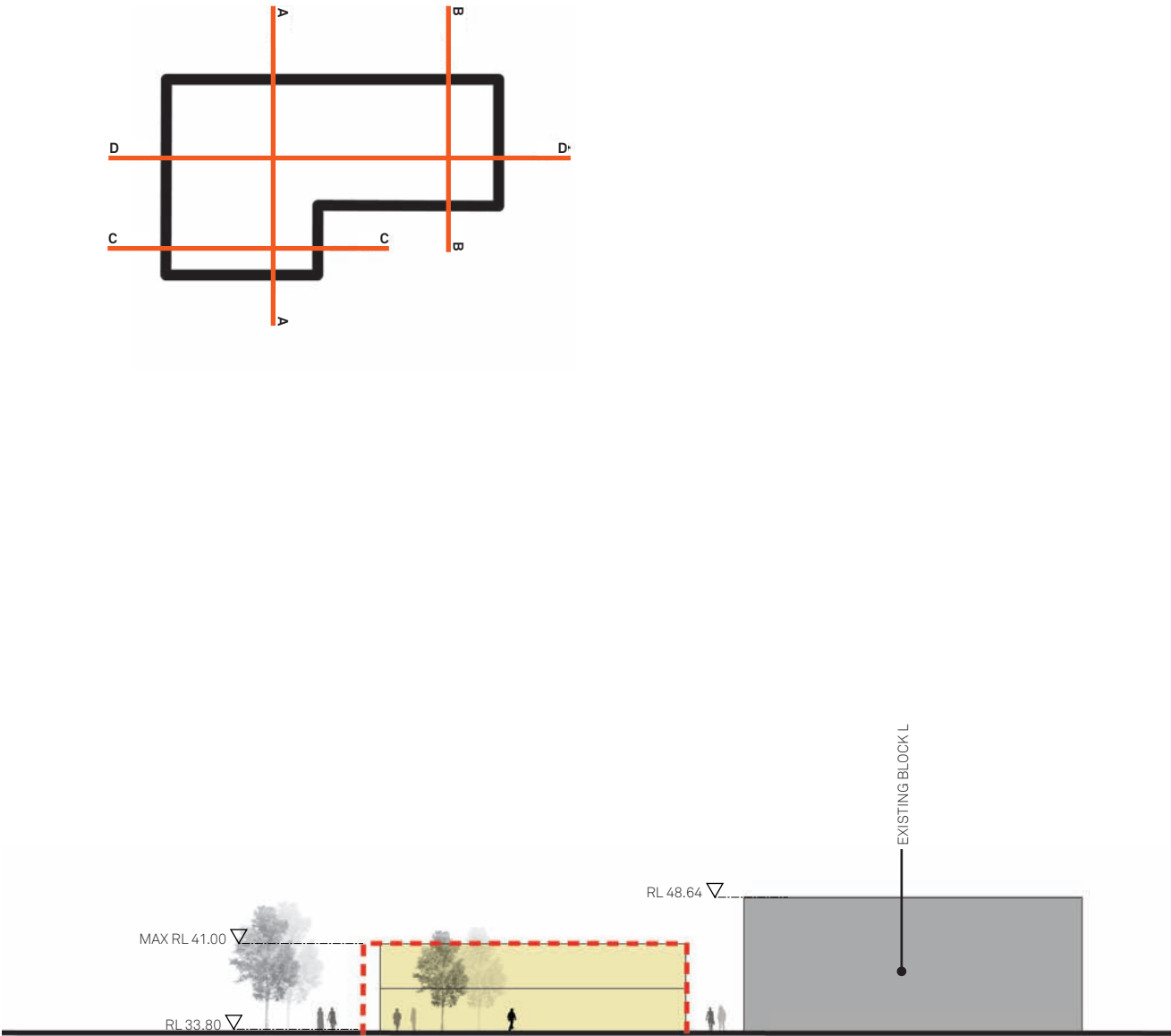
The other building will be constructed for educational uses. The specific activities will be determined under future detailed applications, however it is anticipated that this space may be used in association with the adjacent arts and sciences activities.

Work within this precinct will also include the reuse of the existing library.

Primary Precinct Controls	
Maximum GFA	1,040 sqm
Maximum Height	RL 40.50 - excludes plant and lift overruns
Building Uses	_Campus Facilities _Storage _Educational uses _Reuse of the existing library

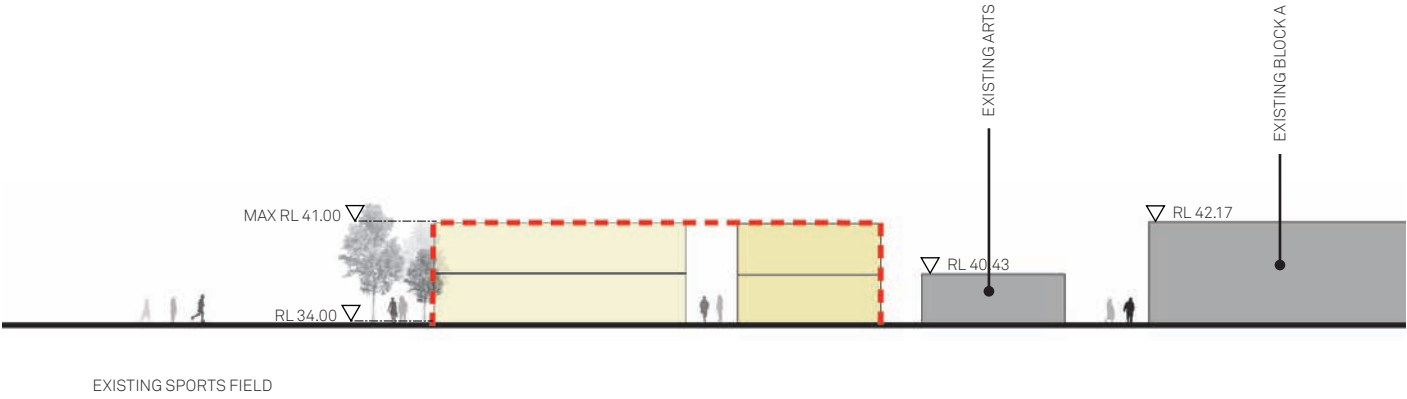


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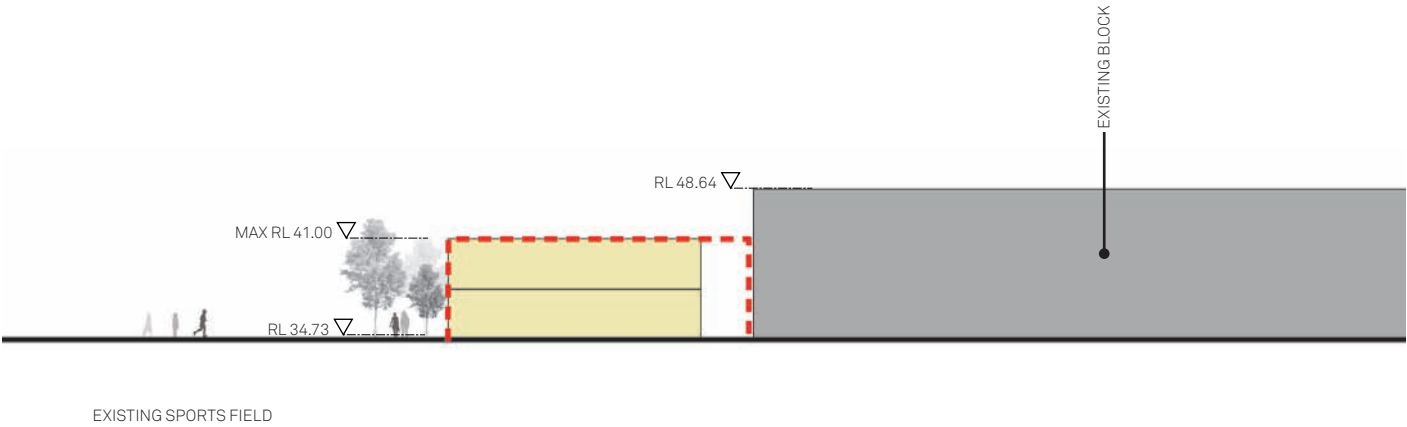
Section C-C

Note: At detailed development application stage, minor changes to ground level RLs may occur. Maximum height RLs will not change.



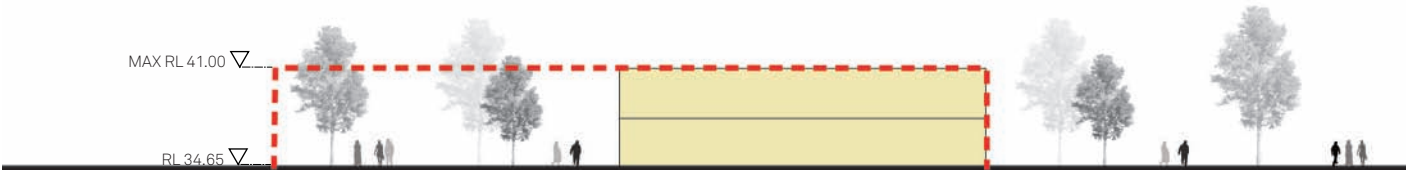
Section A-A

Note: At detailed development application stage, minor changes to ground level RLs may occur. Maximum height RLs will not change.



Section B-B

Note: At detailed development application stage, minor changes to ground level RLs may occur. Maximum height RLs will not change.



Section D-D

Note: At detailed development application stage, minor changes to ground level RLs may occur. Maximum height RLs will not change.

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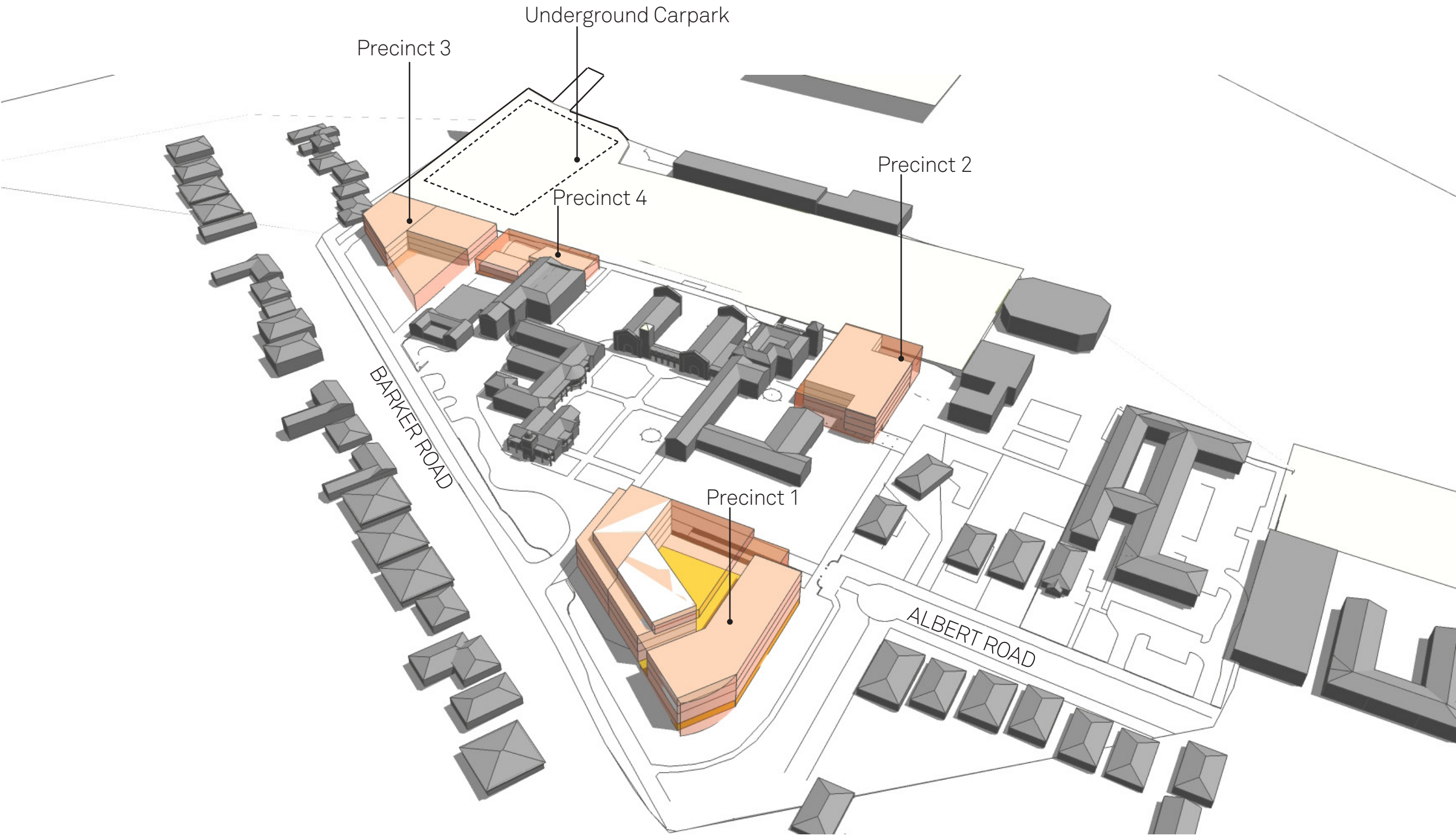


Figure 3.8_Proposed Aerial View

04

04_____Environmental Assessment

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4.1_Application of Part 3A

This Concept Plan sets out a future development framework for the Australian Catholic University Strathfield Campus. The proposal represents a substantial redevelopment of the campus, with an estimated total Capital Investment Value in excess of \$30 million.

A request for declaration was sought from the Department of Planning and Infrastructure in December 2010. The Director General subsequently declared the ACU Strathfield Concept Plan to be a project to which Part 3A of the Act applied and the Director General’s Requirements were issued on 17 February 2011.

Under the now repealed Clause 6 of State Environment Planning Policy (Major Development) (Major Development SEPP), those projects to which Part 3A of the Act applied were detailed. The also repealed Schedule 1, Group 7 Clause 20 of the Major Development SEPP referred to educational facilities, and stated the following:

Development for the purpose of teaching or research (including universities, TAFE or schools) that has a capital investment value of more than \$30 million.

As a result, the proposal was considered to represent a kind described in the repealed Schedule 1, Group 7, Clause 20 of the Major Development SEPP. As a result of recent changes to the EP&A Act the proposal has status as a Transitional Part 3A project.

Regardless of those changes, under Schedule 1 of the State and Regional Development SEPP 2011, development of educational establishments that have a capital investment value of more than \$30 million are considered to be of State significance for which the Minister is the consent authority.

The proposal is also supported by the principles and objectives of the Sydney Metropolitan Strategy and the draft Draft Inner West Subregional Strategy.

4.2_Objects of the EP&A Act

The objects of the EP&A Act are addressed below:

(a)(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment

The proposal seeks approval for a conceptual framework for the Strathfield Campus, including rationalised built form, parking and access arrangements within an improved and integrated public domain structure.

(a)(ii) the promotion and co-ordination of the orderly and economic use and development of land

The proposal seeks to expand the existing campus in terms of student numbers and facilities within the existing site having regard to the residential surroundings.

(a)(iii) the protection, provision and co-ordination of communication and utility services

No such facilities form part of the proposal.

(a)(iv) the provision of land for public purposes
The proposal does not include land for public purposes.

(a)(v) provision and co-ordination of community services and facilities
Some of the services and facilities will be accessible to the community, eg the library for research purposes.

(a)(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats
No threatened species, populations and ecological communities, or their habitats are present on site.

(a) vii) ecologically sustainable development
ESD measures are proposed, see Section 4.10.

(a)(viii) the provision and maintenance of affordable housing
No housing forms part of the proposal.

(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State
The process of approval of a Concept Plan involves consultation with State and Local Government.

(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.
The Concept Plan will be placed on public exhibition enabling public involvement and comment. Public comment was sought as part of the preparation of this document.

4.3_Environmental Planning Instruments

Under clause 75R(3) of the EP&A Act, environmental planning instruments (other than State environmental planning policies) do not apply to or in respect of an approved Major Project. However the policies should be taken into account and the relevant objectives respected.

The following planning instruments are applicable to the subject site:

- _State Environmental Planning Policy (Major Development) 2005
- _State Environmental Planning Policy (Infrastructure) 2007
- _State Environmental Planning Policy No. 33 - Hazardous and Offensive Development
- _State Environmental Planning Policy No. 55 - Remediation of Land
- _Strathfield Planning Scheme Ordinance 1969
- _Strathfield Development Control Plan 2005
- _Strathfield Council Stormwater Management Code

The Strathfield Planning Scheme Ordinance 1969 (SPSO) represents the primary local planning instrument applicable to the site. The SPSO identifies 179 Albert Road as being zoned No. 5(a) Special Uses (Ecclesiastical), and 167–169 Albert Road and 2 Edgar Strret as being zoned No. 5(a) Special Uses (School).

Strathfield Council are currently preparing a new comprehensive Local Environmental Plan consistent with the NSW Government’s Standard Instrument – Principal Local Environmental Plan. The draft Strathfield Local Environmental Plan 2008 (draft LEP) will supersede the existing SPSO once gazetted. The proposal is also considered

against the draft LEP, as it has been the subject of a public exhibition under Section 57 of the EP&A Act.

Strathfield Development Control Plan 2005 (DCP 2005) includes detailed controls specifically for educational establishments.

The table below summarises the key planning controls applicable to the campus.

04_____Environmental Assessment

Control	Comment
State Environmental Planning Policy (Major Projects) 2005	
Identification of Major Projects	Repealed Clause 6 set out the framework to identify projects to which Part 3A applied. The proposal was considered to represent a kind described in the repealed Schedule 1, Group 7, Clause 20.
State Environmental Planning Policy (Infrastructure) 2007	
Traffic Generating Development	The proposal is classified as traffic generating development pursuant to Schedule 1 of the Infrastructure SEPP. Consequently, the proposal must be referred to the RTA.
State Environmental Planning Policy No. 33 - Hazardous and Offensive Development	
Potentially Hazardous or Offensive Development	The proposed ongoing use of the land as an educational establishment is likely to generate some additional noise, primarily through traffic associated with use of the campus. An Acoustic Assessment has been prepared for the Concept Plan and concludes that the proposal will not result in noise generation which will have a significant impact upon the residential amenity of the surrounding area. As such, it is not considered that the proposal represents a potentially offensive development by way of noise generation.
State Environmental Planning Policy No. 55 - Remediation of Land	
Contaminated Land	SEPP 55 relates to the remediation of land for sensitive uses. A Phase 1 Environmental Site Assessment has been prepared given that there is possibility of contamination on the site within those areas proposed for future development. Future development applications for new works will require more comprehensive contamination testing in accordance with the requirements of SEPP 55.
Strathfield Planning Scheme Ordinance 1969	
Zoning	Under Strathfield Planning Scheme Ordinance 1969 (the SPSO), the land at 179 Albert Road is zoned 5(a) Special Uses (Ecclesiastical), the land at 167–169 Albert Road is zoned part 5(a) Special Uses (School) and part 2 Residential A and 2 Edgar Street (St Patrick’s College) is zoned (School). Permissible uses under the 5(a) zone are identified as: <i>The particular purpose indicated by scarlet lettering on the scheme map.</i> In this instance, that part of the land at 179 Albert Road is identified as ‘ecclesiastical’, with that part of the land at 167-169 Albert Road identified ‘school’. Permissible uses under the 2 Residential A zone are identified as: <i>Attached dual occupancies which are not subdivided; bed and breakfast establishments; child care centres; churches; detached dual occupancies which are not subdivided; educational establishments; home industries; home occupations; open space; places of public worship; professional consulting rooms; roads; single dwellings; utility installations other than gas holders or generating works.</i>
	The Concept Plan represents ongoing use of the site as an ‘educational establishment’, being a place for tertiary education. The zoning of the site as ‘ecclesiastical’ is not defined under the Strathfield Planning Scheme Ordinance nor is ecclesiastical defined under either the former Model Provisions or Local Government Act 1993. In the absence of any definition under a relevant environmental planning instrument, the dictionary definition of ecclesiastical under the Macquarie dictionary states: <i>... of or relating to a religious organisation, especially the Christian church or the clergy; churchly; clerical; not secular; not lay:</i>
	The subject site is owned by the Sydney Archdiocese and the campus operated by the Australian Catholic University, which represents an ecclesiastical organisation. Having regard to the above definition, the particular activities of the campus, being ‘educational establishment’ are not be precluded by the definition above. In addition, the proposed activities of the campus will be consistent with the existing educational uses previously approved.

Control	Comment
Zoning (cont.)	The Catholic Archdiocese of Sydney purchased the property of Strathfield (Mount Saint Mary) Campus for ecclesiastical uses. Such uses are encompassed in the three-fold responsibility of the Church to proclaim or teach the Word, celebrate the sacraments and engage in the ministry of charity. These three responsibilities and purposes both pre-suppose each other and are inseparable (Benedict XVI, Deus Caritas Est). Hence while at times one may focus upon the educational purpose of the Church, in this case as Australian Catholic University, the expression of that educational purpose does of necessity encompass both celebration of the sacraments and community engagement based upon charity. These three responsibilities are presented by the Church as being integral to the mission of service of a Catholic University (John Paul II, Ex Corde Ecclesiae). It is anticipated that future buildings will also comprise smaller service activities such as cafes and smaller retail spaces. These uses would be ancillary to the overall tertiary education activities of the campus.
Heritage	The SPSO requires consent for any alterations, demolition or development involving a heritage item. In addition, the consent authority is required to consider the extent to which the carrying out of the proposed development would affect the heritage significance of the item and any stylistic or horticultural features of its setting. The main campus is identified by the SPSO as a local heritage item. It is not identified by the State Heritage Register as a State Heritage Item. Development within the vicinity of a heritage item also requires consideration by the consent authority. A comprehensive Heritage Impact Statement which accompanies this Concept Plan, assesses the likely impact upon the heritage significance of Strathfield Campus. A Conservation Management Plan has also been prepared for the campus, which sets out the future preservation and management of the heritage aspects of the campus.
Strathfield Development Control Plan 2005	
Waste Management	Part H of the Strathfield DCP 2005 refers to waste management services for new development. A Waste Management Plan prepared for the proposal outlines expected future waste generation, as well as measures for storage, collection and disposal of waste from the campus.
Off-Street Parking	Part I of the Strathfield DCP 2005 refers to provision of off-street car parking facilities. The DCP does not specify any parking requirements for educational uses. The provision of parking has been determined based on an assessment of the campus and transport needs within a Transport and Accessibility Study by Arup.
Strathfield Development Control Plan 2005, Part M Educational Establishments	
Design Principles	The Concept Plan is considered to respond to the existing character of the campus and the surrounding locality through an appropriate scale, height and landscape setting. New development within the campus is proposed with a height generally consistent with that of existing campus buildings, and which responds to adjoining residential development by minimising visual impact, overshadowing and overlooking. Setbacks to boundaries have also been increased to maintain consistent alignments with existing buildings, and establish adequate buffers between the campus and the surrounding context. The heritage features of the campus are also retained and supported by an improved landscaped setting.
Site Analysis & Design	The Concept Plan has been informed by a detailed site analysis, outlined in Section 2 of this Environmental Assessment. The site analysis has been used as a basis to formulate the Concept Plan.
Site Requirements	The design of the Concept Plan includes setbacks to all boundaries which reflect existing setback distances, and also allow adequate transition space between the campus and sensitive land uses surrounding the campus. Landscaping and fencing will be retained and enhanced along all boundaries to reduce potential amenity impacts to adjoining properties.
Building Design and Envelope	The Concept Plan sets development parameters for new development within the campus. The precincts have been proposed on vacant or under utilised areas of the campus, that will assist in improving internal function, movements and operation. The particular built form elements for each precinct have been developed with regard to the existing built form of the campus and the surrounding residential properties, as discussed below.

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Control	Comment
Bulk, Scale and Site Coverage	The Concept Plan provides a scale of development which is considered to be compatible with the adjoining residential properties. Building forms are to align north south, consistent with adjacent residential properties and existing buildings within the campus. While the height of the development precincts ranges between 2 to 4 storeys, development precincts are adequately set back from boundaries and will be articulated to ensure an appropriate transition between the campus and adjacent residential land. The Concept Plan will result in a total site coverage of 55%, which is considered to be appropriate given the surrounding residential context.
Height	The campus adjoins land zoned residential, and is therefore subject to a maximum height of 2 storeys or 9.5 metres. The Concept Plan proposes building forms between 2 and 4 storeys, which is in excess of the 2 storey limit. Existing buildings within the campus range up to 3 storeys in height, which is in excess of the 2 storey requirement. The increased height proposed by the Concept Plan is not substantially greater than the existing building heights on-site, and will result in a generally consistent scale across the site. In addition, the Concept Plan includes substantially greater setback distances than required under the Strathfield DCP, which will ensure that future buildings do not result in any overshadowing or overlooking to adjacent properties.
Setbacks	The DCP requires minimum front setbacks of 9 metres for primary frontages and side setbacks of 4 metres for two storey buildings. The Concept Plan responds to the average front setback along Barker Road, with all new buildings along Barker Road to have a minimum front setback of 12 metres. New buildings of between 3 and 4 storeys are proposed along side boundaries, and setbacks to these interfaces have been increased to 10 metres. Buildings within those precincts adjoining residential properties will be setback at least 10 metres from the side boundary, which recognises the sensitive character of surrounding residential properties.
Visual Privacy and Views	The new development precincts ensure that visual privacy of residential land surrounding will not be impacted. Activity areas of the campus are proposed to be located internal to the campus, and avoid orientation toward side boundaries. Windows of future buildings will also be designed to ensure potential overlooking to adjacent properties is minimised through facade elements and site landscaping.
Acoustic Privacy and Noise	An Acoustic Assessment has been completed to determine the potential noise impacts generated by the Concept Plan. New development within the campus will ensure building entries, active interfaces and noise generating elements do not directly address a residential boundary.
Overshadowing and Solar Access	A Solar Access Study has been undertaken and demonstrates that the Concept Plan will not result in any significant overshadowing to adjoining residential properties. The new development precincts under the Concept Plan encourage building alignments generally north south, which assist in creating new north facing courtyards to maximise solar access to open space and internal spaces of future buildings.
Environmentally Sustainable Development	The Concept Plan ensures future development of the campus can respond to ESD principles through encouraging future development to incorporate high quality urban design, including passive solar design, water and energy saving features as well as promotion of sustainable transport modes.
Heritage and Conservation	A Heritage Impact Assessment and Conservation Management Plan form part of the Concept Plan. The future development precincts have had regard to the location of existing heritage buildings within the campus, and will not have any detrimental impact on the heritage significance of the campus.
Safety by Design	The Concept Plan is considered to be consistent with the principles of Crime Prevention Through Environmental Design (CPTED). The campus will have adequately lit central courtyards and pedestrian paths overlooked by proposed and existing buildings. The Concept Plan also minimises potential hiding places within the campus and seeks to maximise passive surveillance opportunities.

Control	Comment
Traffic, Parking and Access	A Transport and Accessibility Report has been prepared by Arup. Main access to the campus from Barker Road will be consolidated into four gates and internal circulation will be improved to ensure vehicle movements do not conflict with pedestrian movements. On campus parking spaces will be increased from 346 spaces to a minimum of 674 spaces, including a new underground car park in the north west of the campus. In the absence of any specific parking guideline, the car parking provision for the campus has been determined having regard to the reasonable rate of parking expected at peak periods of the campus.
External Impacts Management Plan	An ACU Neighbourhood Policy has been prepared as part of the Concept Plan application. It details initiatives that ACU will implement to improve the integration of the expanded campus within the surrounding residential context.
Outdoor areas	The existing landscaping and public domain of the campus will be retained and improved under the Concept Plan with new plantings along pedestrian routes, and new courtyards in association with new development.
Hours of operation	The campus will operate within the normal hours of 7.00am to 10.00pm during weekdays. This operational period includes all activities across the campus, however not all buildings will be in use or occupied during this period. Teaching staff, service and support staff generally arrive on campus from 7.30am during the weekday periods, however teaching activities are only be scheduled between 8.00am and 8.00pm. The new library building will operate until 9.30pm on weekdays. Given no campus accommodation is provided, access to the library outside the normal operation hours are anticipated to be infrequent, however would be available via use of a student card to prevent unauthorised access, and the campus will be monitored by security services. On weekends the campus will operate from 8.00am to 5.00pm. Most student activity will involve use of the new library and learning commons.

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4.4_Strategic Planning and Policies

The Strathfield Campus is located within a mostly suburban part of inner western Sydney and as such has a limited strategic planning framework supporting the growth and development of the campus. Despite this, the Concept Plan is considered to be consistent with the key strategic planning documents applicable to the Strathfield locality.

4.4.1_NSW State Plan

The NSW State Plan was developed by the NSW State Government in March 2010 to guide the delivery of services and programs in line with seven priority areas. The priority areas provide detailed information on actions and local delivery plans.

The Concept Plan is considered to support the ‘Clever State’ priority area, through increasing and improving the tertiary education services and facilities at ACU Strathfield.

The Concept Plan is consistent with the objectives of the ‘Clever State’ priority area and supports the actions by:

- _Additional floor space with the existing ACU Strathfield campus to support additional future students.
- _Increasing the potential places for tertiary students at Strathfield, as well as offering greater choice and variety of tertiary education opportunities.
- _Improving the delivery of tertiary education through provision of modern teaching and learning facilities.

4.4.2_Sydney Metropolitan Plan

The Metropolitan Plan for Sydney 2036 (Metropolitan Plan) is an integrated, long-term planning framework that aims to sustainably manage Sydney’s growth and strengthen its economic development to 2036. One of the key challenges facing Sydney is the expected population increase to 6 million by 2036, an increase of 1.7 million from 2006 which will require 770,000 new homes and 760,000 jobs.

To assist with implementation of the Metropolitan Plan, a series of ‘subregional strategies’ were prepared. These subregional strategies focus on implementation of the key objectives and strategies at a local level. The ACU Strathfield site is included in the Draft Inner Western Subregion.

The Concept Plan supports the objectives of the Metropolitan Plan and the Draft Inner Western Subregional Strategy through the following.

- _There will be an increase in the provision of educational floor space within an established University campus, and a greater offering of educational services for current and future tertiary level students.
- _The Concept Plan encourages greater use of public facilities within the surrounding area, including rail and bus services, as well as additional pedestrian and bicycle traffic.
- _Additional students and floor space within the Strathfield Campus are likely to have a flow-on effect to surrounding commercial and retail centres such as Strathfield and Burwood, with additional demand for retail and community service facilities.

4.4.3_Metropolitan Transport Plan: Connecting the City of Cities

The Metropolitan Transport Plan: Connecting the City of Cities (the Metropolitan Transport Plan) was produced by the NSW Government to support the Metropolitan Plan. The Metro Transport Plan aims to integrate transport planning considerations for the Sydney metropolitan area with the land use planning framework developed under the Metropolitan Plan.

The Metro Transport Plan aims to encourage public transport wherever possible, and increase the patronage of public transport networks.

The Concept Plan is considered to support a number of objectives of the Metro Transport Plan through the following.

- _ACU are committed to continuing discussion with the State Transit Authority to investigate potential new or modified bus routes to provide direct access the campus and options to increase frequency of bus services in the surrounding area.
- _Ongoing promotion to students and staff of the availability of public transport services within the surrounding area through information distributed on campus, in partnership with Strathfield Council and Transport NSW.
- _Provision of a private shuttle bus service offering frequent connections between the Strathfield Campus and Strathfield railway station to increase the number of students travelling to the campus by public transport.

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4.5_Built Form and Urban Design

4.5.1_Structure and Character

The proposal includes four new development precincts across the existing campus as identified in Section 3. The development precincts respond to the alignment of the existing campus and opportunities to consolidate campus activities.

The surrounding context is characterised by single dwellings on generally larger allotments. Residential buildings range in height and scale up to two and three storeys, however are predominantly single storey. Building alignments are generally north-south, which correspond to the surrounding road structure.

The Concept Plan proposes a structure which corresponds to the surrounding character through a predominant north south orientation and envelopes which reflect a consistent size and scale of the existing campus buildings. The Concept Plan also ensures an appropriate transition to adjacent residential properties through larger setbacks and landscaping to side boundaries.

4.5.2_Building Form

The proposed built form of the Concept Plan responds to the height, scale and form of existing development within the existing campus and surrounding locality through a consistent height, scale and alignment of buildings. The maximum height for new buildings will be 2-4 storeys, which is generally consistent with the scale of development within the existing campus, which ranges between 2-3 storeys.

Given the proposal includes future building heights of 2-4 storeys, setbacks to new building envelopes are increased to eliminate impacts to adjoining residential properties. Setbacks from side boundaries are a minimum of 10 metres, and from the street frontage, a minimum of 12 metres. These setbacks ensure the proposed development precincts maintain a consistent building pattern and scale within the campus.

The position of building envelopes within the campus ensures that new buildings can be aligned in a generally north south orientation, which retains the alignment of buildings within the campus and adjoining residential properties.

4.5.3_Open Space and Public Domain

The Concept Plan builds on the provision of quality open space throughout the campus by linking these spaces along axial pedestrian corridors, and introducing new central north facing courtyards within the new development precincts.

The main internal courtyards within the campus are to be retained and enhanced to maximise northern orientation. The Concept Plan also provides a variety of open space areas, including formal courtyards surrounding the Mount Royal Building (now known as Edmund Rice Building), paved pedestrian spaces surrounding the new library and education buildings, as well as 'green rooms' which provide passive opportunities for students to gather and study outdoors.

The playing fields in the northern portion of the campus will be retained for active recreational activities by the University and the adjacent St Patrick's College. The interface of the playing fields will also be improved through a paved pedestrian

promenade along the southern edge. Bleacher seating and steps are also proposed to be integrated into the existing slope between the promenade and the playinf fields.

4.5.4_Safety and Security

The Concept Plan has been designed in accordance with the principles of CPTED. Specifically, this is achieved through strong sight lines along the key pedestrian routes and through open space areas, as well as passive surveillance opportunities from surrounding buildings.

The primary pedestrian routes through the campus will be visible from a range of vantage points with buildings addressing the pedestrian paths providing ground level activity and surveillance. Lighting will also be applied along key pedestrian routes through the campus, as well as surrounding all buildings to ensure a high level of safety and surveillance.

Lighting will be provided within the new north western parking area to ensure the space is well lit and secure.

4.6_Landscaping

The Concept Plan Application includes the landscape concept plan (shown at Figure 3.7) which will improve the overall landscape character of the campus and support the proposed development precincts.

The landscape concept for the campus will strengthen the pedestrian corridors between buildings and key parking and transport locations. The campus boundary will also have an improved landscaped buffer to assist in the transition between the campus and adjoining residential properties.

Courtyard spaces between buildings will be linked by new and upgraded pedestrian paths. Trees will also be provided to provide shading opportunities for passive outdoor use and pedestrian movement. Water Sensitive Urban Design features will also be implemented within internal courtyards.

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4.7_Environmental and Residential Amenity

The proposed built form takes into to account the existing residential uses surrounding the site, particularly to the east and west of the campus. As demonstrated in the shadow diagrams, new development within the campus will not result in any increased overshadowing impacts to adjoining properties.

This Concept Plan considers the impact upon surrounding properties created by the overall building envelope. The proposed envelopes set maximum limits for future built form, however future buildings will be further refined within this envelope. Through future detailed design, new buildings will be designed to reduce any external impacts on surrounding land.

4.7.1_Solar Access

Built form controls established by the Concept Plan ensure internal open space areas and buildings within the campus will have adequate solar access during the winter solstice, and that adjacent residential properties are not affected by overshadowing.

As demonstrated in the solar access study provided at Appendix C, new development in the identified development precincts will not result in any significant overshadowing impacts to adjoining residential properties.

Internally, the development precinct building separation ensures solar access is maximised to existing and proposed buildings. North facing courtyards are encouraged within the development precincts to provide solar access.

4.7.2_Acoustic Privacy

Principal noise generators from the campus will be from vehicle movements to and from the site, as well as student movement throughout the campus grounds. Noise from campus activities is expected to occur at its peak generally during the hours of 9.00 am to 5.30 pm weekdays. In the evening and weekend periods, a smaller number of students and staff will be present on campus therefore minimising noise generation.

The majority of access points to the campus are to be consolidated to Barker Road, to ensure vehicle access and egress is made to an arterial road. Staff only, swipe access is proposed from Edgar Street. A new access point and internal access way will be provided along the eastern boundary of the campus adjacent to a road reserve.

Vegetation screening in the form of existing and proposed trees and shrubs is proposed along the eastern, southern and western boundaries. This screening will assist in reducing light glare to adjacent residential properties from traffic within the campus.

Student activities will be wholly contained within the existing campus boundaries, and generally within buildings. Courtyards and external spaces within the campus are generally directed inwardly to avoid increased noise generation to adjoining residential uses.

4.7.3_Visual Privacy

The Concept Plan sets a framework for new development within the campus which will retain the existing built form character and scale of development within the existing campus. The scale of development within each precinct will ensure no overlooking to

adjacent properties through adequate setbacks, provision of screening landscape along site boundaries and upper level setbacks to buildings.

Greater front and side setbacks are proposed for the development precincts that adjoin residential development to ensure overlooking opportunities to adjacent properties are minimised. In addition, future buildings within the development precincts will be articulated to reduce apparent height of walls to adjacent properties.

4.7.4_Views

The controls set by the Concept Plan ensure new development within the campus will be consistent with the existing scale of development within the campus, and appropriately respond to the surrounding residential area.

A view analysis has been undertaken to demonstrate the impact of new development on views along Barker Street, and from site boundaries having interfaces to residential properties. The view analysis demonstrates that there will be no significant loss of views from surrounding properties, nor will the future development have a significant visual impact to surrounding properties.

Figures 5.1 and 5.2 identify the proposed new envelopes from key street level locations along Barker Road. As final building details have not been finalised, these views show the total envelopes proposed by this Concept Plan. Future buildings will have further facade articulation and upper level setbacks which will break up the bulk of the building. Detail on building design will be provided under subsequent detailed development applications to Strathfield Council.

4.7.5_Wind Impacts

The Concept Plan proposes adequate separation distances between new building precincts and existing buildings within the campus. Given the scale of the future development, it is not expected that Concept Plan will result in any significant wind impacts within the campus or adjoining properties.

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Figure 5.1_View east along Barker Road showing proposed envelope in Precinct 3



Figure 5.2_View west along Barker Road showing proposed envelope for the new Library and Learning Commons (Precinct 1)

4.8_Staging

The development works identified in this Concept Plan are proposed to be developed within four stages to respond to the demand for new floor space and infrastructure on the campus. Figure 3.5 outlines the proposed staging of future development within the Strathfield campus.

Future development approval will be sought through subsequent detailed development applications to Strathfield Council.

The proposed staging of the main development works is:

Stage 1: Precinct 1 South eastern + car park

- Key features:
- _North western underground car park
 - _Signalised intersection in the south eastern corner (Gate 1)
 - _Main entry (Gate 2)
 - _Library and learning commons and basement car parking

Stage 2: Precinct 4 Central

- Key features:
- _Demolition of existing handball courts
 - _Reuse of existing library
 - _New services/storage and/or education buildings

Stage 3: Precinct 2 Eastern

- Key features:
- _New building for educational uses, lecture theatres and research space

Stage 4: Precinct 3 Western

- Key features:
- _New educational building to accommodate arts and sciences and basement car parking

4.9_Transport and Accessibility

A Transport and Accessibility Study has been prepared by Arup as part of the Concept Plan (see Volume 2). The report considers the existing and proposed traffic, parking and transport needs for the Strathfield Campus.

4.9.1_Bicycle and Pedestrian Traffic

The campus is accessible via footpaths along both Barker Road and Albert Road. The paths provide opportunity for either pedestrian and bicycle use, however they are not identified as a shared pathway. At present, travel to the campus by bicycle or as a pedestrian are low.

4.9.2_Sustainable Transport

A number of sustainable transport measures are proposed for the campus to promote greater use of public and active transport modes. In partnership with Strathfield Council, a number of opportunities to improve pedestrian and bicycle infrastructure will be investigated, including:

- _Targeting students living within close proximity of the campus to walk;
- _Working in partnership with Strathfield Council to improve pedestrian routes and provide comfortable and safe pedestrian access between the campus and Strathfield station.
- _Encouraging the “10,000 steps a day to improve health initiative” for all students and staff of the university.
- _Encouraging a pedestrian orientated campus through new pedestrian crossings, pathways and speed limits.
- _Establishing a consistent on campus speed limit of 10 km/h.

It is also intended to promote greater use of public transport through encouraging students within close proximity of rail stations to utilise rail services to Strathfield station, as well as shuttle bus services linking Strathfield station and the campus. General promotion of public transport services will also be undertaken, such as ‘National walk, ride or catch public transport to University day’ as well as opportunities for staff and employees to purchase interest free loans from ACU for annual travel passes. Further discussions with the STA will also be held to investigate opportunities to increase bus services and frequencies to the Strathfield Campus directly.

ACU will also investigate the introduction of a car share scheme , such as GoGet or Flexicar, to be made available to staff and students.

Implementation of these methods would be undertaken through continued promotion of surrounding public transport and alternative transport by ACU. The Concept Plan Implementation Committee will oversee the implementation and promotion of these activities.

4.9.3_Traffic Generation

The Transport and Accessibility Study identified that the existing campus generates approximately 225 vehicles during the AM peak period, and 120 vehicles during the PM peak. It is forecast that the proposed Concept Plan will generate an increase in traffic movements of 250 vehicles during the AM peak and 130 vehicles during the PM peak.

The total daily traffic volume on Barker Road is also estimated to increase from 7,500 vehicles at present, to 8,250 vehicles per day at full development of the campus. This total daily volume is considered to be below the RTA’s recommended traffic volume range for a collector road.

The Concept Plan proposes no additional parking within the eastern campus, or any access to the main campus from Albert Road. Consequently, there will be no additional traffic increase to Albert Road.

4.9.4_Access and Circulation

Primary access to the campus will be retained from Barker Road, with four gates to be provided along Barker Road. Staff only access from Edgar Street is also proposed for St Patrick’s College staff who are being allocated 30 parking spaces. This access will be controlled with a boom gate/security swipe control system.

The main access to the campus will be via new Gate 1 to Barker Road at the south eastern corner of the campus. Existing traffic signals will be relocated to this new gate forming a signalled intersection with Barker Road and South Street directly opposite the site (refer to Figure 5.2). A new internal road will extend along the eastern boundary to provide access to basement parking below the library and learning commons.

A signalled intersection is considered to be the most appropriate response to address new access arrangements at this location given the expected traffic generation. Traffic signals will ensure safe and efficient operation of the street network. Right and left turning bays on Barker Road are also proposed to service the new access point and avoid queuing or traffic conflicts along Barker Road. Existing crossing opportunities will also be relocated to the new signalled intersection, approximately 50 metres north of its existing location. Completion of the intersection is expected in the first or second quarter of 2013.

Establishing new access will require use of a small part of Council owned road reserve directly adjacent the campus boundary, known as Mount Royal Reserve. The part of the road reserve to be used is directly south of the campus boundary and will not affect use of the existing reserve as a small park and pedestrian movement corridor.

Use of part of the road reserve will ensure the new internal access within the campus will be directly opposite the existing alignment of South Street south of Barker Road. Discussions have been held with Council regarding use of part of the land during preparation of this application, with detailed design and discussions to be held prior to lodgement of future development applications.

The existing main gate from Barker Road will be retained as Gate 2 and will serve predominantly as the access point for the ACU shuttle bus services and short stay campus visitors. Movement through the main campus interface will be one way, with access via Gate 2, and egress via Gate 3.

The central access location will be retained as Gate 3 and will serve principally as an egress point from the internal access way and as the primary access and egress point for service vehicles. The service and delivery area will be retained adjacent to Gate 2, with a several short stay parking spaces adjacent to the existing waste storage area to allow for courier deliveries.

The existing loading dock will be retained, and will be serviced by a large circulation space beyond the Gate 2 access. The loading dock will be designed to accommodate a Medium Rigid Vehicle with swept paths in accordance with AS 2890.2 – 2002 – Part 2: Off-street commercial vehicle facilities. Delivery vehicles will be able to enter and exit the site in a forward direction.

Waste will continue to be collected from the designated waste storage area adjacent to Gate 2. Waste collection vehicles will enter and exit the campus via Gate 2 to avoid conflict with internal traffic.

Gate 4 at the western end of the campus frontage will provide access and egress to the basement parking area below the new arts and sciences building (Precinct 3) and the underground car park in the north west. Due to the expected in the number of vehicles via this access, a detailed traffic assessment has been undertaken to determine the appropriate configuration for the driveway.

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4.9.5_Parking

The future on-campus parking provision has been estimated based on the number of future students and staff at the campus at any one time. The following number of students and staff are predicted on the campus in the future:

Students:	4,800, with an upper limit of 2,400 students (50%) on the campus at any one time.
Staff:	260

As stated earlier, Strathfield Council's DCP 2005 (Part I) does not provide any parking rate for tertiary institutions. The RTA Guide to Traffic Generating Developments, October, 2002 also does not provide any specific parking code for the tertiary institutions.

The proposal includes a substantial increase in car parking, representing a 100% increase in off-street parking spaces for students, in comparison to a 30% increase in student numbers. As such, a far greater number of off-street parking spaces will be provided to absorb existing and future demand for car parking. In addition, a number of alternative transport modes have been proposed by ACU to reduce demand for private car use to the campus. The ACU shuttle bus service was implemented in 2009, and has grown from a single bus every 30 minutes during peak periods, to 2 buses every 10 minutes during peak periods in 2011 and will increase to 3 buses every 10 minutes during peak periods by 2016.

The Transport and Accessibility Study at Volume 2 has analysed a number of comparable planning controls to establish a balanced level of car parking provision on site. Based on a comparison of planning controls, 1 space per 6 students and 1 space per 2 staff are considered reasonable parking rates for the Strathfield Campus. An additional 50 parking spaces are also proposed for other uses such as disabled parking zones, car pool spaces, car share spaces and short stay parking for staff and visitors.

This proposed provision of parking rate will also support the Department of Planning and State Government Target for sustainable transport initiatives as well as those future methods outlined in Section 4.9.2.

Based on the above , the university will provide a minimum of 674 car spaces. 644 of these spaces will be for ACU and 30 spaces for St Patrick's College staff. The 644 ACU spaces will comprise 504 student spaces, 130 staff spaces and 10 spaces for visitors.

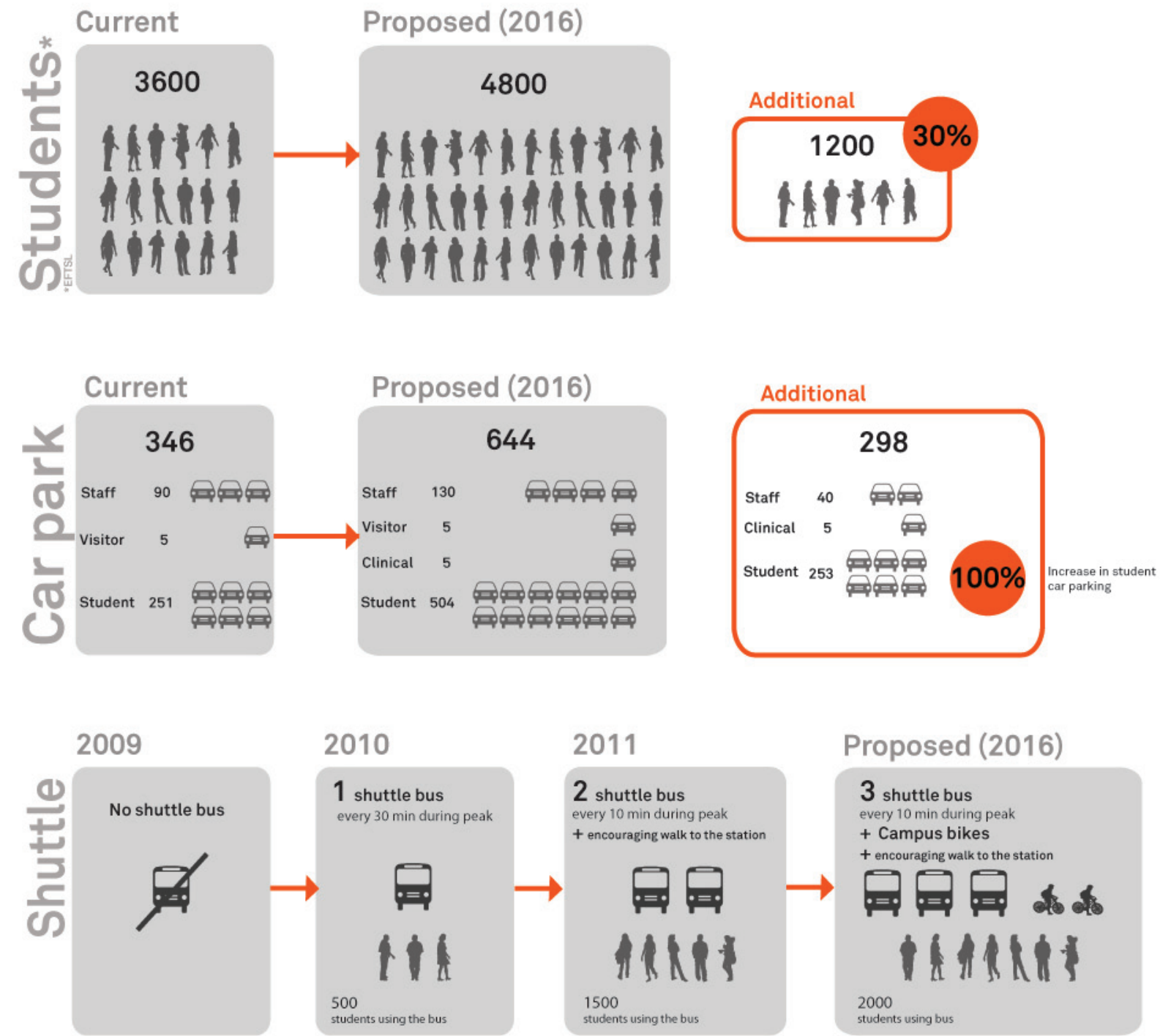


Figure 5.1_Transport Increase Diagram

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Figure 5.2_Proposed New Eastern Intersection on Barker Road

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4.10_Ecologically Sustainable Development

The Concept Plan establishes a framework for future development within the Strathfield Campus. It is considered that future development of the campus will incorporate high quality urban design to accommodate new teaching and learning technologies, as well as incorporating ESD principles.

ACU have engaged a dedicated ESD Officer to oversee the operations and activities of the Sydney campuses. The Officer will be responsible for implementing ESD measures for new buildings and existing buildings within the Strathfield Campus proposed by the Concept Plan.

Future development within each development precinct will involve a detailed design process which will include consideration of building design, provision of public spaces and infrastructure.

The Concept Plan is considered to provide a basis for future development to incorporate ESD measures, including:

- _Reducing energy consumption and demand through energy efficiency measures and incorporation of passive design strategies such as natural ventilation and daylighting.
- _Increasing the availability and use of no or low environmental impact transportation forms such as walking, cycling and public transport.
- _Assisting in addressing the impacts of the ‘urban heat island’ effect through the provision of greater site landscaping works including trees to provide shade and upgraded public domain utilising permeable surfaces.
- _Setting formal ESD targets for new buildings.
- _Reducing potable water use by using highly water efficient appliances, equipment and fixtures in any new buildings, and the collection and reuse of rain water.
- _Reducing stormwater flows out of the site and improving the quality of the water that does leave the site by incorporating of the principles of water sensitive urban design.
- _Ensuring that employees, staff and students are aware of energy and water use by providing ‘smart’ energy and water meters in all new campus buildings.
- _Reducing resource depletion by encouraging the use of low impact, recycled and low embodied energy materials in the construction of the buildings and public spaces.
- _Reducing the amount of waste going to landfill by providing centralised and structured recycling facilities as well as requiring contractors to maximise recycling of construction waste during the construction stages of the project.

Further ESD measures will be provided with the detailed developmet applications for each stage of development.

4.11_Contributions

The proponent will comply with the Strathfield Council’s *Direct Contributions Plan 2010- 2030* for all future development. The total amount of monetary contribution will be determined as part of future detail.

A Voluntary Planning Agreement is not proposed as part of this Concept Plan Application.

4.12_Contamination

Coffey Environments have prepared a Phase 1 Environmental Site Assessment of the campus to determine the likelihood of contamination (see Volume 2). This assessment takes into account the proposed Concept Plan layout and a review of existing reports and available site history documents.

The assessment has determined that there is a moderate to high likelihood of contamination being present on the site where the proposed redevelopment is located associated with current and former activities undertaken at the site. The key areas of concern within the campus are:

- _Potential for asbestos containing materials and/or synthetic mineral fibre within the Block G teaching building proposed for demolition;
- _A stockpile of unknown source and composition situated at the western end of the site (constituents are unknown but the stockpile could potentially contain asbestos containing materials fragments, synthetic mineral fibre and construction waste associated with previous construction works at the site);
- _Two underground storage tanks of approximate (but unconfirmed) capacity of 1,000 litres and 10,000 litres situated in the south western corner of the site (179 Albert Road), however the condition, current capacity, size and exact location of these tanks are unknown; and
- _Pesticides and herbicides used around historic and existing playing fields.

Based on the findings of the assessment, a number of recommendations are made to ensure future development of the campus can be undertaken. This includes detailed Environmental Site Assessments for future detailed Development Applications within the campus.

4.13_Geotechnical

Coffey Geotechnics have undertaken a Preliminary Geotechnical Assessment of the site. The purpose of this review was to assess the future geotechnical requirements for the works proposed under the Concept Plan.

The assessment determined that compaction records of existing fill are unlikely to be available, and all existing fill should be considered unsuitable to support building loads or new pavement unless excavated and recompacted if suitable, or replaced. All fill will need to be compacted to an appropriate engineering specification where required to support building loads or pavements.

It is expected that excavations to form the basement to new buildings in the library and learning commons and western precincts would likely encounter pavement fill, residual soils and unit 3a and possibly unit 3b Sandstone.

Excavation of fill, residual soil and Unit 3a sandstone should be able to be achieved using an excavator bucket. Excavations in Unit 3b sandstone and shale would require ripping with a bulldozer or the use of an impact hammer.

The use of hydraulic impact hammers for bulk excavation, trimming sides of excavation and for detailed excavation within Unit 3b would cause vibrations that could damage vibration sensitive structures and services. Once building details are known, vibration assessments should be carried out on susceptible structures.

For temporary and permanent cuts in soil and weathered rock (Units 1, 2, 3a and 3b), appropriate batters would be necessary. The batter recommendations provided within the Preliminary Geotechnical Assessment assume that batters are protected against erosion and that surcharge loads are maintain an adequate lateral setback distance from the crest of excavations.

It has also been identified that groundwater may be encountered during excavation works, typically at the soil/bedrock interface and within joints and bedding planes within the bedrock.

For all new buildings, foundations could comprise raft slabs supported on compacted fill or residual soil, pad footings founded upon hard Unit 2 residual clays or pad footings or piers founding on bedrock.

The proposed underground carpark within the western end of the site will likely require bulk excavations to approximately 4m depth. Similarly excavations of up to 4m depth are envisaged to form a single basement carpark level beneath proposed buildings within the southwest and southeast corners of the site.

04
Environmental Assessment

4.14_Drainage and Stormwater

Mott MacDonald Hughes Trueman have assessed the existing stormwater drainage services for the campus and the future effectiveness of these services for the Concept Plan. The existing campus has three stormwater discharge points.

Precincts 1 and 2 fall within the catchment which occupies the eastern extent of the main campus and the Edward Clancy building site (Catchment 1). This catchment has two points of discharge, being to Barker Road, south of Precinct 1, and the second to Albert Road. The majority of the catchment discharges to Albert Road while the south-western corner of the site discharges to Barker Road at the eastern boundary of the site. The proposed development in this catchment will comprise new buildings generally over existing on-grade carparks. There will not be an increase in impervious area exceeding 100m² and as such, detention may not be required.

Catchment 2 comprises the southern extent of the main campus along Barker Road and includes part of Precinct 3. The increase in impervious area within this catchment will not exceed 100m², therefore detention may not be required. Where required, it is considered that it may be possible to incorporate it in the proposed driveway reserve in the form of an underground tank or within the proposed building.

Catchment 3 is located across the majority of the campus, and includes most of the existing campus buildings. This catchment will have an increase in impervious area as a result of the propsoed access roads to the carpark in the north western corner. The increase in impervious area may not be greater than 100m². Where the area incrase is determined to be over 100m², a below ground tank and proprietary water quality management device may be used to address water management requirements. The point and route of discharge, whether to Francis Street or to the west towards Edgar Street will need to be assessed as part of the future design process.

Gross Pollutant Traps at the site discharge points would be provided to meet the water quality objectives of Strathfield Council DCP (Part N): WSUD.

4.15_Flooding

An assessment of the flood risk of the site has been undertaken by Mott MacDonald Hughes Trueman. The site sits at the top of two catchment areas being Cooks River and Powells Creek and as such is not considered to be affected by major regional flooding. Council does not identify the site as being flood affected.

Localised inundation or flooding will be managed through the provision of unobstructed overland flowpaths, appropriate freeboard and building level controls and on-site detention systems where necessary.

Freeboard is a factor of safety above a given flood level (usually 100 year Average Recurrence Interval (ARI)) above which building floor levels and basement entries must be situated. Council requirements specify building floor levels must have a minimum freeboard of 0.15m to surrounding ground levels where no significant overland flow occurs. Greater requirements apply where buildings are proposed adjacent to mainstream or channel flows, however, this is not considered applicable to this site. Similar requirements are likely to be required for entries to basement car parks.

4.16_Heritage

Weir Phillips have prepared a comprehensive Conservation Management Plan (CMP) for the Strathfield Campus. The CMP identifies the long term management of the heritage items within the campus. The CMP is supported by a Heritage Impact Statement for the Concept Plan.

The areas identified as locations for new buildings within the campus are considered not to impact upon significant view corridors within the site or the positive visual contribution to the public domain created by the existing campus buildings and spaces. Existing prominent heritage buildings, including the Mount Royal Building (known as the Edmund Rice building), will be largely unaffected, however the improved pedestrian movement and reduction of vehicle through traffic is considered to be a positive outcome for the heritage curtilage of the campus.

The proposed car park in the north western corner of the site will have no impact because it will be located underground and away from significant buildings. The design of the Edgar Street entrance should take into account the heritage listed Brother Hickey Building on Edgar Street. It is noted, however, that this building is separated from the proposed entrance by other buildings.

The location of a new pedestrian promenade along the northern extent of the campus buildings and adjacent to the playing fields will have no heritage impact and is considered to provide significant benefits in terms of internal amenity. The proposed central promenade largely exists through the campus, however will be reinforced by the works proposed in the Concept Plan. Any new structures or openings to be created in existing buildings can be sensitively designed to minimise any impacts.

The proposed cross axes will have no heritage impact upon the campus, with the majority of significant landscape elements such as significant trees and statues to be retained in their current form and location. Where tree relocation will occur, the trees are proposed to be replanted in new locations of the campus in a way to appropriately interpret their original alignment of function.

The introduction of new landscape features such as the sculpture park within Precinct 3 will provide a positive contributory element to the campus whilst ensuring no impact upon existing buildings or structures. Additional landscape plantings, as proposed, will also have a positive impact for the campus. Species to be planted will respect the existing vegetation character of the campus.

The proposed library commons will have an acceptable heritage impact through retention of the existing driveway alignment between Albert Road and Mount Royal to interpret the original driveway access.

Overall, the proposed Concept Plan will not negatively impact on heritage items and conservation areas within the immediate vicinity of the site. Future development of the campus will consider the recommendations of the Conservation Management Plan prepared and accompanying this application.

An Aboriginal Cultural Heritage Assessment has been prepared and is attached at Volume 2. This report concludes that there are no known Aboriginal Objects or any areas of Aboriginal Archeaological value within the subject site and that there are no Aboriginal Archaeological constraints to proceeding with the proposed Concept Plan.

4.17_Utilities and Infrastructure

The site will maintain the existing point of connection to the Sydney Water main along Barker Road. Connections to new development within the site will be extended from the existing campus reticulation system.

As with drainage, the proposed development precincts discharge to different sewer systems, based on the location of these precincts within the campus. Precinct 3 will discharge to the existing 225mm sewer in Barker Road, which continues in a southerly direction adjacent to Wilson Street.

Precinct 1 will discharge to the existing 225mm main in Barker Road, which runs easterly along Barker Road prior to turning north approximately 200m beyond the site boundary.

An existing sewer main runs through proposed Precinct 2, and as such, new development in this location will discharge to the existing 225mm sewer running east around the Clancy Building campus and connecting into the north running sewer.

Gas services exist within the surrounding streets and can be connected to new development precincts. New gas services will reticulate from the existing service point on Albert Road or from a new connection at Albert Road or Barker Road to the main campus.

The Infrastructure assessment anticipates that the proposed buildings will be serviced from the existing substations within the site. An assessment of the capacity of the substations to services the increased development load will be undertaken as part of the future design process. Where additional capacity is required for new development, existing substations within the campus may be upgraded with new substations also provided if required.

New development will be serviced by the existing telecommunications network within the campus. Existing connections to Barker Road will be maintained as well as an existing Aarnet optical fibre running through the campus from Albert Road.

04
Environmental Assessment

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4.18_Flora and Fauna

Biosis Research have completed a detailed Flora and Fauna Assessment of the Strathfield Campus.

The Concept Plan will result in the removal of some planted trees, however existing mature trees will continue to be an important landscaping feature within the campus grounds. Where possible, the Concept Plan has retained mature trees, however some mature species are to be transplanted elsewhere on campus.

As part of the Flora and Fauna Assessment, no threatened fauna species were recorded on site. The assessment identified the campus represents a potential habitat for four threatened, four migratory animal species and one endangered population. The proposal is considered unlikely to result in negative impacts to any of these species.

In addition, the study area does not support potential habitat for any Endangered Ecological Communities (EECs), and no EECs or threatened flora species were recorded in the study area.

Given the modified nature of the existing campus grounds, the campus also does not support potential habitat for any threatened flora species. Consequently the proposal will not result in significant impacts to any threatened flora species or populations.

The proposal is considered unlikely to have a significant impact on terrestrial threatened species, populations or ecological communities listed under the TSC and/ or the EPBC Acts. A Species Impact Statement (TSC Act) or a Referral (EPBC Act) is not considered necessary for any threatened or migratory flora or fauna as a result of the proposal.

The Concept Plan is also unlikely to have a significant impact on any threatened species, populations or ecological communities. However, a number of recommendations have been made to ensure new development will minimise any potential impacts on the flora and fauna of the campus:

- _All mature trees that are to be removed as part of the proposal will be replaced. Where possible native trees which naturally occur within the locality are recommended as a replacement planting, to ensure that there is no net loss of biodiversity as a result of the proposal.
- _Mature planted trees should be retained where possible and adequate tree protection measures should be implemented to ensure retained trees are not impacted by the proposal during the construction phase.
- _Naturally occurring, remnant trees including the Fine Leaved Ironbark and Turpentines should be retained where possible and adequate tree protection measures should be implemented to ensure retained trees are not impacted by the proposal during the construction phase.
- _The Noxious Weeds Large Leaved Privet and Green Cestrum should be treated according to the legal requirements of noxious weed Class 3 and 4 respectively.

4.19_Noise and Vibration

Acoustic Studio have prepared an Acoustic Assessment for the Concept Plan. It examined the likely noise increase from the campus as a result of activities and vehicle movements associated with an increased floor area and student population. The assessment also analysed the likely noise to be generated from future demolition and construction.

The assessment concludes that future construction and demolition works should ensure that the noise level generated by works should not exceed 75dB(A). Based on noise modelling in the surrounding locations, construction and demolition noise is not expected to exceed this level.

Further, noise levels from demolition and construction activities will be controlled to comply with the criteria. A demolition and construction noise management plan forms part of the Acoustic Assessment.

The acoustic assessment undertaken has determined that operational noise levels generated by day-to-day student activities are currently inaudible at the nearest residences and residential boundaries. While an increase in student numbers is proposed, noise levels are not expected to increase beyond acceptable levels, and therefore no impact on the surrounding sensitive uses is anticipated.

Noise from the mechanical services associated with the new buildings have been quantified and assessed against acceptability criteria derived from the NSW Industrial Noise Policy, given no detailed building designs are available. The predicted noise levels from all plant and equipment associated with new building services can comply with the criteria. In addition, all plant within new development will include noise controls as required, with details of such measures to be finalised during the design and documentation stages of the project.

Traffic noise has also been considered given the additional off-street parking areas, and likely increase in traffic as a result of additional student numbers. Based on predicted traffic increases, an increase of 0.5 dBL_{Aeq,1 hour} is predicted for residences located along Barker Road. This increase meets the criterion of a maximum increase of 2 dBL_{Aeq,1 hour}. No increases in existing traffic numbers, or traffic noise levels are expected for any other local roads around the campus.

4.20_Waste

A Waste Management Plan (WMP) has been prepared for the Concept Plan to detail waste management methods to be implemented for future development.

Waste will be generated through future construction works and operational aspects of the campus. The WMP has estimated the likely levels of waste to be generated by Concept Plan based on the maximum floor areas for each precinct.

Construction waste has not been considered in detail, however will be subject to consideration within detailed development applications for future construction works.

During operation, each precinct will provide dedicated waste storage areas within new buildings. Generally, rooms within the future buildings will have individual waste bins for the storage of waste. These storage facilities will include separate general and recycling waste storage facilities. Suitable collection containers will be placed at different points around the site. The cleaners will empty these containers into the larger collection containers for transport to the waste storage area for emptying.

Suitable collection containers will also be placed throughout the campus buildings for glass collection and storage. These storage containers will also be emptied into the larger collection containers for transport to the waste storage area. All waste generated will be transferred to the existing dedicated garbage collection area located adjacent to Gate 3.

The main garbage area at Gate 3 will have additional waste collection bins provided for the additional waste anticipated to be generated by new development. An addition 1100L Mobile Garbage Bin will be provided alongside the existing 2 x 6 cubic metre skip bins to store general waste. These bins will be collected daily by private waste contractors. An additional 6 cubic metre skip bin will also be provided for recycled waste. The recycled waste bins will be collected on a twice weekly basis by private waste contractors.

Collection of general and recyclable waste will continue to be made by private waste contractors on a daily basis. The collection vehicle will collect all waste from the garbage storage area adjacent to Gate 3, and access the collection area from the Gate 2 entry on Barker Road. Collection personnel will be provided with relevant access to the designated collection areas and any storage rooms.

No nuclear, hazardous or potentially contaminated biological and sewage waste will be generated by the new development. Should any hazardous waste be encountered on site during either construction or operation, a specialised contaminated waste contractor will be engaged to remove the contaminated waste as required.

4.21_Hazards

An assessment of the proposal against State Environmental Planning Policy No. 55 - Hazardous and Offensive Development has been undertaken in Section 4.2 above. The Concept Plan will not result in any hazardous or offensive development.

No hazardous materials will be used in future teaching activities, and as such the teaching buildings will not require any dedicated storage facilities. ACU store chemicals and pesticides associated with garden maintenance and management within an existing secure facility. This storage area will be retained for ongoing management of the campus grounds.

4.22_Consultation

Agency and Group Consultation

The Director General Requirement’s specify that the application must be supported by an appropriate level of consultation, particularly with surrounding residents and Strathfield Council.

As part of the preparation of the Concept Plan the following authorities and groups, below were consulted. The issues raised by these groups have been incorporated into the final designs and addressed throughout this report.

- _NSW Department of Planning and Infrastructure
- _Strathfield Council
- _St Patrick’s College, Strathfield
- _Metropolitan Local Aboriginal Land Council
- _Surrounding community

A number of issues were raised by relevant stakeholders during the consultation process. Many of these concerns have been identified within the issued Director General's Requirements for the project. The key concerns identified during the consultation process have been taken into account in preparing the proposal and it is considered that these issues have been adequately addressed.

4.22.1_NSW Department of Planning and Infrastructure

Advice provided by the Department included the following:

- _considering the heritage impacts of any proposal,
- _details to be included in the concept plan – eg built form, land use, gross floor area, concept images, student numbers; and
- _Concept plan to justify proposal against the Metropolitan Strategy and relevant strategic plans.

All of these points have been addressed in the EA.

4.22.2_Strathfield Council

Council were supportive early on of a ‘masterplan’ approach that outlined the future intentions of ACU expanding on site over a 10-20 year period.

Numerous meetings held with Strathfield Council highlighted the following issues that would need to be addressed:

- _parking, both on-site and within the local area;
- _traffic congestion at peak times, acknowledging ACU is only partly responsible for congestion due to the high number of educational establishments in the area;
- _uncoordinated incremental expansion of the buildings on the campus; and
- _the scale of student increases over time.

The Concept Plan addresses the expansion over a 10 year period and the points raised by Council.

4.22.3_St Patrick’s College

Consultation with St Patrick’s College, adjoining the site to the north has been ongoing over the past 12 months in relation to the main car park location.

An existing licence agreement between St Patrick’s and ACU provides for ACU to build on the Eastern Oval (Playing Field 1), however originally the approach to St Patrick’s was to build the car park on the Western Oval (Playing Field 3) in exchange for the Eastern Oval. ACU suggested at the start of the consultation that placing a car park on the Eastern Oval would create a barrier between St Patrick’s buildings and have secondary students walking through the car park to move from one part of the their site to another. St Patrick’s however was concerned that the loss of the Western Oval would have a greater impact on their co-curricular activities which rely heavily on the existing three ovals and on the Western Oval in particular.

Given the reluctance to exchange the Eastern for the Western oval, planning commenced for the on grade car park on the Eastern Oval. Once the extent of the impact of the on-grade car park on the playing fields became evident, St Patrick’s commenced negotiations with ACU to contribute to an underground car park under the Western Oval which would ensure that, following the construction period, the three ovals remain available to ACU and St Patrick’s.

The sharing of costs between St Patrick’s and ACU has resulted in the allocation of 30 car parking spaces for St Patrick’s staff plus an access pooint off Edgar Street.

4.22.4_Metropolitan Local Aboriginal Land Council

The Metropolitan Local Aboriginal Land Council (MLALC) were consulted as part of the preparation of the Aboriginal Cultural Heritage Assessment (Niche Environment and Heritage). The report details that when site inspections were completed with a representative of the MLALC that a high degree of disturbance was present on site and that the MLALC stated they would have no objections to the project on the grounds that Aboriginal objects would not have survived past land use.

A copy of the draft report was provided to the MLALC and their response (dated 8 December 2011) reads:

“The MLALC have reviewed the Aboriginal and Cultural Heritage Assessment report and concur with Niche Environment & Heritage Consultant findings. If any further Aboriginal cultural materials [are] discovered during any stage of the proposed construction, all work is to cease immediately and MLALC and NSW National Parks & Wildlife are to be notified immediately.”

4.22.5_Surrounding Community

The location of the Strathfield Campus within a predominantly residential setting requires ongoing consultation with surrounding landowners. Consultation is an important ongoing requirement for ACU, and was included as part of the consultation process for preparation of this Concept Plan Application.

Consultation with the surrounding landowners was undertaken through the release of information flyers and a number of community open days on campus, in which neighbours were invited to view the proposed Concept Plan and discuss the proposal with the consultant team and ACU representatives. The information and invitation flyer was distributed to approximately 220 surrounding properties with two consultation sessions held on 11 and 12 August 2011.

The main issues raised during this consultation were the increased traffic volumes in the area as a result of the proposed expansion, the problem of students parking off-site and the bulk and scale of the proposed library.

The Transport and Accessibility Study accompanying this EA concludes the proposed increases in daily traffic volumes will be below the RTA's recommended traffic volume range for a collector road.

Student parking on-site is proposed to increase by just over 100% (with a student increase of only 30%). It is not proposed to accommodate the scenario that all students will park on–site, but rather students are encouraged to come to site by other means (walking, cycling, public transport). The ACU shuttle bus service was implemented in 2009, and has grown from a single bus every 30 minutes during peak periods, to 2 buses every 10 minutes during peak periods in 2011 and will increase to 3 buses every 10 minutes during peak periods by 2016.

The proposed library building will be 3-4 storeys in height with substantial setbacks to the eastern (10m) and southern (12m) boundaries. Existing residential dwellings are located across Barker Road to the south and open space to the east. The bulk and scale is considered acceptable to accommodate a new library for the expanded campus and because of its setting and considerable setbacks.

It is intended to provide ongoing updates to the local community during future implementation and construction activities through distribution of information letters to surrounding residents, schools and businesses as well as providing regular updates on the progress of works within the campus via the ACU website.

05

05_____Draft Statement of Commitments

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5.1_Draft Statement of Commitments

This section outlines the commitments made by the proponent for the Concept Plan Application. These commitments are made to ensure appropriate integration of the expanded campus within the surrounding context.

Commitment		Timing
General		
1.1	The Concept Plan will be implemented generally in accordance with the Environmental Assessment prepared by HASSELL dated December 2011.	All subsequent detailed design stage and future development applications submitted.
1.2	All future development within the development precincts will be consistent with the 'Character Statement' for each precinct included at Section 3 of this Environmental Assessment.	All subsequent detailed design stage and future development applications submitted.
Ecologically Sustainable Development		
2.1	The proponent's Ecologically Sustainable Development Officer will identify an appropriate future green star design target for future development.	All subsequent detailed design stage and future development applications submitted.
Transport and Accessibility		
3.1	The proponent will continue to provide a shuttle bus service between the campus and Strathfield railway station to improve connection of the campus to high frequency and high capacity public transport services.	Subsequent detailed design stage and future development applications.
3.2	A committee will be appointed to implement programs and initiatives within the campus to promote increased use of public transport services and car pooling opportunities.	To be implemented by the proponent following approval of the Concept Plan and as part of each subsequent detailed development applications.
3.3	The proponent, in partnership with the State Transit Authority, will continue to investigate opportunities to increase the frequency and provision of bus services to the ACU Strathfield campus.	To be undertaken by the proponent during detailed design and future operation of the campus.
3.4	The proponent will investigate providing interest free loans to employees to purchase annual travel passes.	To be investigated by the proponent.
Amenity		
4.1	The proponent will ensure potential impacts on residential amenity caused by operations of the University are identified and minimised	To be continued by the proponent.
Community		
5.1	The proponent will implement an ACU Neighbourhood Policy provide opportunities for external hire of halls, rooms and outdoor spaces for conferences and the like.	The Neighbourhood Policy will be implemented by the proponent following approval of the Concept Plan Application.
5.2	Opportunities for community education activities and shared use of learning spaces and library facilities with the surrounding community will be investigated.	To be implemented by the proponent as necessary following completion of each Stage.

05
 Draft Statement of Commitments

Commitment		Timing
Staging		
6.1	The new development precincts will generally be developed in accordance with the Staging plan at Section 3.5 of the Environmental Assessment prepared by HASSELL dated December 2011.	All future development applications to demonstrate compliance.
Contamination		
7.1	A detailed site contamination assessment will be undertaken for future detailed development applications to assess the contamination status of the Underground Storage Tanks and Areas of Environmental Concern.	To be prepared and submitted with the development application for Stage 1 works.
7.2	During future demolition works, care will be taken and should suspected Asbestos Containing Material be identified works will immediately cease and an asbestos specialist will be consulted for identification, removal and disposal of material prior to works recommencing.	During demolition and excavation works for all future development.
7.3	Prior to future detailed development applications, soil sampling of the stockpile at the western end of the site will be undertaken and samples analysed for identified PCOCs and waste classification to determine chemical composition and the potential risk posed to human health by the material. Once composition is determined the waste classification of the stockpile will be determined and the material removed to an appropriately licensed disposal facility.	As part of a Development Application for Stage 1
7.4	During construction works, should contamination be detected that presents an unacceptable risk to human health or the environment, then management and/or remediation will be instigated.	During construction works for all future development.
Heritage		
8.1	The Conservation Management Plan (CMP) prepared for the campus will be implemented for ongoing future operation and development.	To be implemented by the proponent
8.2	Prior to any demolition of the existing handball courts, an interpretation strategy will be developed to communicate the heritage significance of the existing courts.	An interpretation strategy is to be submitted for approval with any
Aboriginal Heritage		
9.1	During future detailed development applications, the proponent is to consult with the relevant Metropolitan Local Aboriginal Land Council at a minimum to identify if Aboriginal cultural values are present within the study area, and to assess what impact the proposed development would have on such	During construction, demolition and excavation works for all future development.

Commitment		Timing
9.2	If Aboriginal objects are identified during development of the subject land, works will stop and a suitably qualified archaeologist notified immediately to assess the finds. The finds will be reported to the Office of Environment and Heritage and further approvals may be necessary prior to the recommencement of works.	During construction, demolition and excavation works for all future development.
Drainage and Infrastructure		
10.1	Staging of infrastructure will be undertaken in accordance with the infrastructure staging plan within the <i>Australian Catholic University – Infrastructure Assessment</i> prepared by Mott MacDonald Hughes Trueman dated December 2011.	All future development applications for Stages 1 to 4 to demonstrate compliance with infrastructure staging plan.
10.2	The proponent will comply with the requirements of the relevant public authorities with regard to connection, relocation or adjustment of services affected by the construction of the proposed development.	During construction works for all future development.
Flora and Fauna		
11.1	The proponent will retain mature planted trees where possible and in accordance with the tree removal plan shown at Section 3.4 of this Environmental Assessment.	All future development applications involving tree removal is to demonstrate compliance with the tree removal plan.
11.2	The proponent will transplant those existing trees where indicated on the tree removal plan shown at Section 3.4 of this Environmental Assessment.	All future development applications involving tree relocation is to demonstrate compliance with the tree removal plan.
11.3	The proponent will ensure that all mature trees that are to be removed as part of the proposal be replaced. Where possible native trees which naturally occur within the locality will be used as a replacement planting.	All future development applications involving tree removal.
11.4	During construction works, mature planted trees will have adequate tree protection measures implemented to ensure retained trees are not impacted.	All future development applications.
11.5	Naturally occurring, remnant trees including the Fine Leaved Ironbark and Turpentine will be retained where possible and adequate tree protection measures will be implemented to ensure retained trees are not impacted by the proposal during the construction phase	All future development applications. Trees to be maintained during construction, demolition and excavation works for all future development.
11.6	The identified noxious weed Broad Leafed Privet (<i>Ligustrum lucidum</i>) will be managed by the proponent in accordance with the legal requirements for the control of a Class 4 weed. The growth and spread of the plant will be controlled according to the measures specified in a management plan published by the local control authority.	To be managed by the proponent during future operation of the campus.

05_____Draft Statement of Commitments

Commitment		Timing
Waste		
12.1	As part of future detailed design and subsequent development applications for each new building, a fully detailed Construction Waste Management Plan will be submitted for approval. These plans will document waste management practices that comply with all relevant legislation relating to waste and resource recovery, environmental protection, and occupational health and safety,	To be submitted for approval with all future development applications .
12.2	General waste collection will continue to be collected on a daily basis from the dedicated waste storage area.	To be implemented by the proponent during future operation of the campus in
12.3	Recycled waste collection will occur on a twice weekly cycle from the dedicated waste storage area. Collection days will be agreed with the nominated waste contractor.	To be implemented by the proponent during future operation of the campus in consultation with the relevant waste contractor.
12.4	Prior to the commencement of works at the site all asbestos based and other hazardous materials that will be disturbed during refurbishment works will be removed. Removal of asbestos based materials will be undertaken in accordance with the regulations and requirements of the NSW Government and the Worksafe	Prior to any construction works commencing.
Construction Management Plan		
13.1	Prior to commencing construction, a Construction Environmental Management Plan will be prepared. This plan will include: 1. Hours of work, 2. Contact details of the site manager 3. Air quality/dust control procedures, 4. Noise management procedures, 5. Waste management procedures, 6. Flora and Fauna Protection, 7. Community Safety, 8. Site specific soil erosion and sediment control plan 9. Arrangements for temporary pedestrian and vehicular access 10. Storage and Handling of Materials Procedures, 11. Environmental Training and Awareness, 12. Contact and complaints handling procedures, 13. Emergency Preparedness and Response.	To be prepared and submitted to prior to construction.
13.2	Measures to control soil erosion during construction will be introduced in accordance with currently accepted principles, as described in Managing Urban Stormwater (EPA NSW) and Soil Erosion and Sediment Control (The Institution of Engineers, Australia).	To be prepared and submitted to prior to construction.

Commitment		Timing
Arborist Report		
14.1	A detailed arborist report will be prepared in relation to all trees to be removed or relocated. This report will detail all measures to be taken to ensure that proposed works do not threaten the ongoing viability of these trees.	Report to be submitted for assessment as part of any future development applications involving tree removal or relocation.
Demolition		
15.1	Demolition will be undertaken in accordance with the requirements of Australian Standard AS2601– 2001: The Demolition of Structures which is incorporated into the Occupational Health and Safety Act 2000 administered by WorkCover NSW.	During any future demolition works.
15.2	A licensed asbestos contractor will be engaged to monitor demolition of buildings containing asbestos or other contaminants. Following removal of all asbestos from the site final clearance certificates will be obtained. Further analysis will be undertaken where significant amounts of soil are to become exposed or disturbed as part of the redevelopment works. Further investigations of groundwater conditions and quality will be undertaken if soil contamination is encountered.	A licensed asbestos contractor is to be engaged by the proponent prior to any future demolition works commencing.



06

06_____Conclusion

This Environmental Assessment seeks Concept Plan approval for a conceptual framework for the Strathfield Campus, including rationalised built form, parking and access arrangements within an improved and integrated public domain structure.

6.1_Summary

This Concept Plan Application will guide the future development of the Strathfield Campus over the next 10 years through establishing new development precincts and key upgrades to campus infrastructure, access, internal circulation and the public domain. The Concept Plan also provides adequate growth opportunities to accommodate the projected future student numbers envisaged for the Strathfield campus by 2016.

This Environmental Assessment seeks Concept Plan approval for a conceptual framework for the Strathfield Campus including four new development precincts, rationalised parking and access arrangements and an improved and integrated public domain structure.

6.2_Suitability of the Site

The subject site contains the existing Strathfield Campus of the Australian Catholic University. The subject land is used for educational activities, with the Concept Plan seeking to continue the educational activities of the campus, and provide for additional education floor space.

The subject site is located within an established residential context, characterised by detached dwellings. The interfaces of the campus have been recognised as important transition zones by the proposed Concept Plan, with setbacks and landscaping increased to these interfaces to ensure minimal impact to the surrounding residential amenity.

The proposed built form of the Concept Plan responds to the height, scale and form of existing development within the existing campus and surrounding locality through a consistent height, scale and alignment of buildings. The maximum height for new buildings will be 2-4 storeys, which is generally consistent with the scale of development within the existing campus, which ranges between 2-3 storeys across the campus.

The Concept Plan ensures the continued provision of quality open space throughout the campus by linking internal courtyard spaces along axial pedestrian corridors, and introducing new central north facing courtyards within the new development precincts. The Concept Plan also provides opportunities for passive outdoor activities, including spaces to allow students to gather and study between buildings.

The Concept Plan has been designed in accordance with the principles of Crime Prevention Through Environmental Design and will improve the safety of the campus. Specifically, this is achieved through strong sight lines along the key pedestrian routes and through open space areas, as well as passive surveillance opportunities from surrounding buildings.

The Concept Plan is considered to respond appropriately to the residential context, and it is considered that the subject site is suitable for the proposal.

6.3_Justification for the Proposal

The Concept Plan proposes new development precincts and associated development controls, such as height and gross floor area to ensure new development will respond appropriately to the existing built form and character of the locality. The Environmental Assessment demonstrates that the proposed Concept Plan will respond appropriately to its existing context, and ensure the continued use of the land for educational uses without significant impacts on surrounding residential amenity or traffic function.

Principal noise generators from the campus will be from vehicle movements to and from the site, as well as student movement throughout the campus grounds. Noise from campus activities is expected to occur at its peak generally during the hours of 8 am to 5.30 pm weekdays. In the evening and weekend periods, a smaller number of students and staff will be present on campus therefore minimising noise generation and movement throughout and around the campus.

The traffic analysis undertaken has also determined that the proposed Concept Plan will generate an increase in traffic movements of 250 vehicles during the AM peak and 130 vehicles during the PM peak. This will result in a total daily traffic volume on Barker Road of approximately 8,250 vehicles per day at full development of the campus. This total daily volume is considered to be below the RTA's recommended traffic volume range for a collector road and therefore appropriate.

Off street parking is increased from 346 spaces to a minimum of 674 spaces (30 spaces allocated to St Patrick's College staff) based on the number of future students and staff to be at the campus at any one time. Excessive amounts of off-street parking has been avoided by the Concept Plan as it will encourage future students and staff to continue to drive to the campus and will hinder the ongoing promotion of active and public transport to the campus. Based on a comparison of planning controls, 1 space per 6 students and 1 space per 2 staff has been considered a reasonable parking rate for the Strathfield Campus.

All necessary urban infrastructure services are established within the surrounding area and currently provided to the subject site or able to be extended to service new development. These services are also considered to be of an adequate standard to absorb additional future loads generated by new development.

Approval of the Concept Plan is therefore sought consistent with the details in this Environmental Assessment and attached specialist reports and subject to consideration of any issues raised in public exhibition of the application and relevant provisions of the former Part 3A of the EP&A Act.

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