architectus™

UNIVERSITY OF NEWCASTLE

STUDENT HOUSING PROJECT

SEPP 65 PRESENTATION

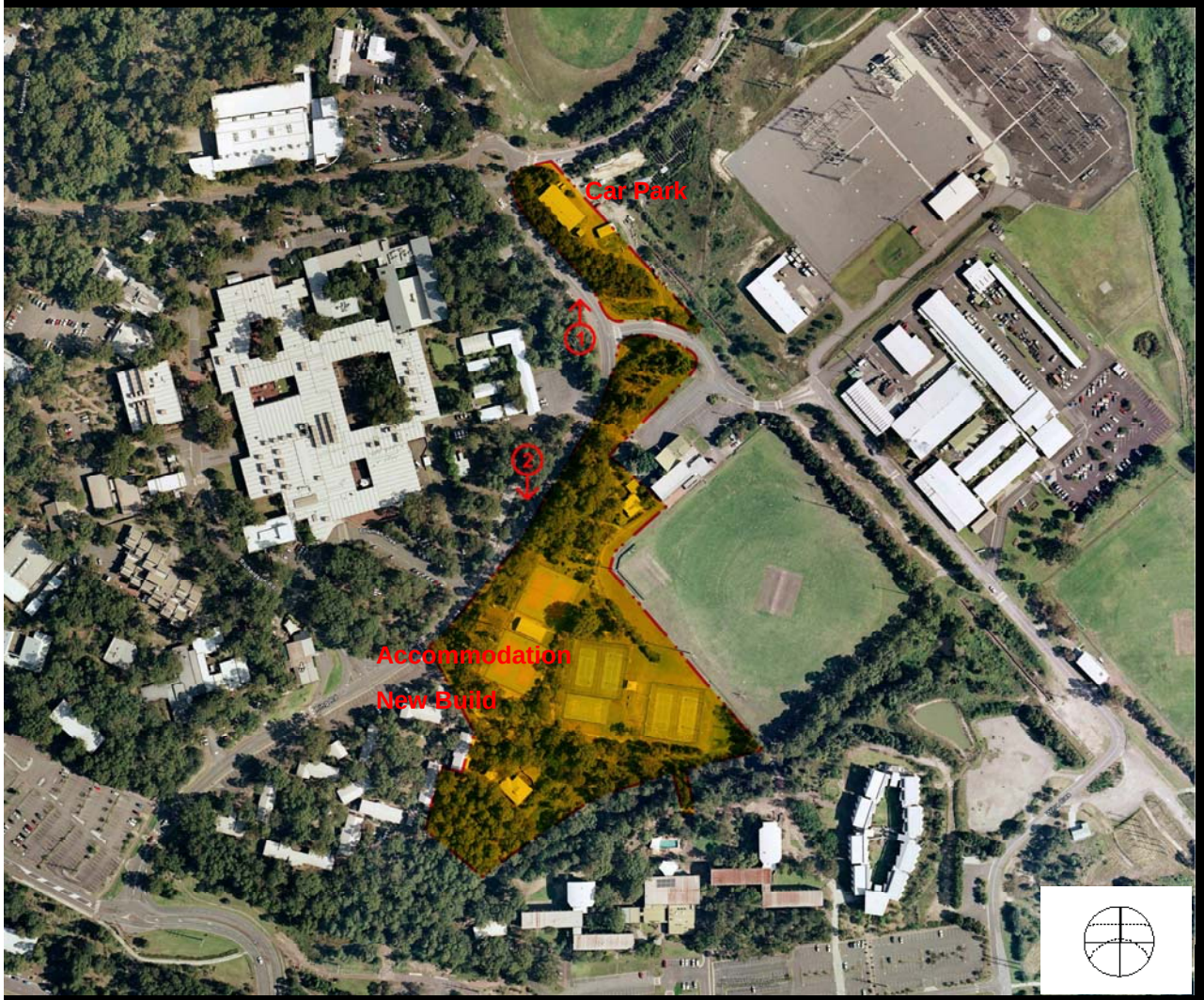
architectus™

Site Attributes

- Highly accessible
- Close to eastern entrance
- Easy walking distance of both bus stops and train station
- Close to amenities and services in and around the Hunter Building
- Close to existing residential colleges
- Overlooks one of the University ovals
- Unify the existing residential colleges and link them back to the main campus via the Hunter Building
- Its development provides an important opportunity to upgrade the amenity, ground plane and landscape of the entire residential precinct

Principle 1 : Context –Existing Campus Condition

architectus™

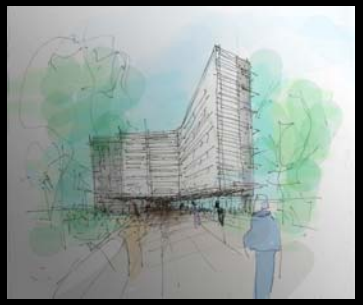


Project Location

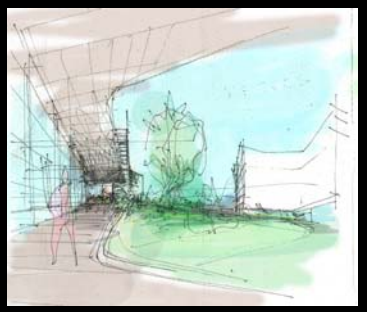
architectus™

View from riparian way to student accommodation

- Bulk & scale responds to desired future character of the residential precinct with UoN campus
- Height & scale minimised by ensuring that buildings are read in composition with existing trees
- "Y" shaped plan emphasises the integration of building/trees, by allowing established vegetation to remain and be 'embraced' by the building 'wings'

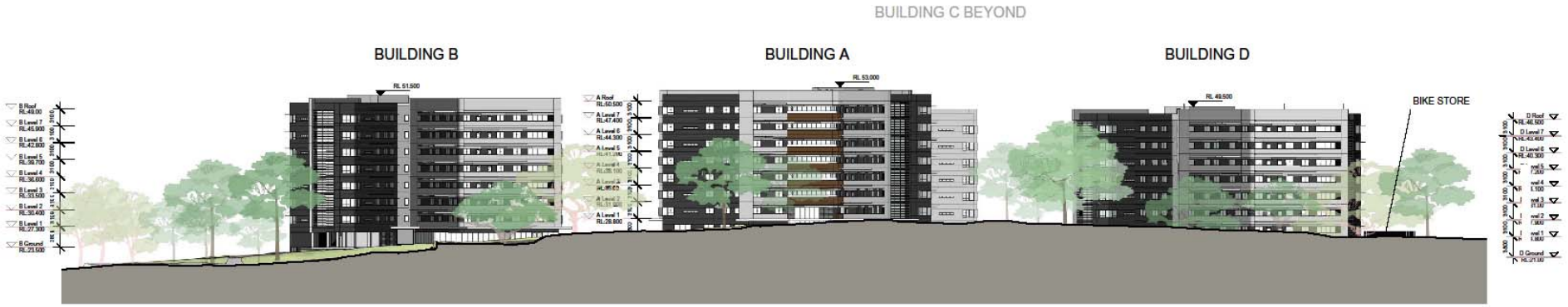


View of main entry from Ring Road



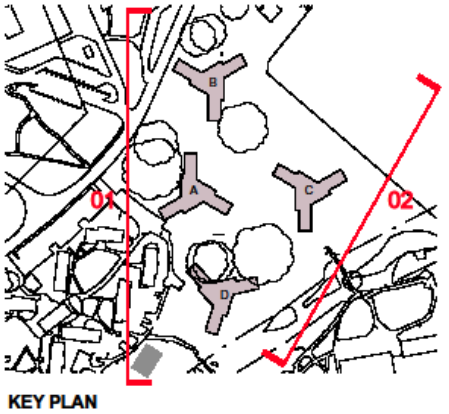
Internal courtyard view from Building A

Principle 2- Scale



1 DA0020 **Site Elevation 01**

Scale: 1 : 500



KEY PLAN

Principle 2- Scale

architectus™

View to main entry from ring road

Typical Elevation

- Maximum building height 8 floors (25m) allows reduced building footprint
- Greater building positioning flexibility
- Increased open area/landscape around buildings, promote bushland experience
- Retention of major trees and an increase to riparian zone setbacks
- Improved views from apartment rooms and through buildings, enhanced view corridors
- Improved solar penetration
- Consolidated waste for each building

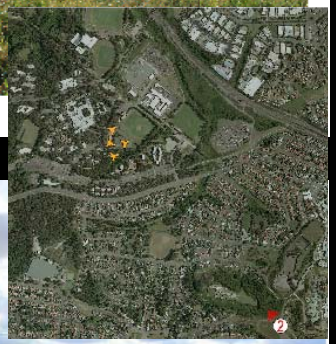
Section through Buildings B, A & D

Principle 3 : Built Form

Principle 4 : Density

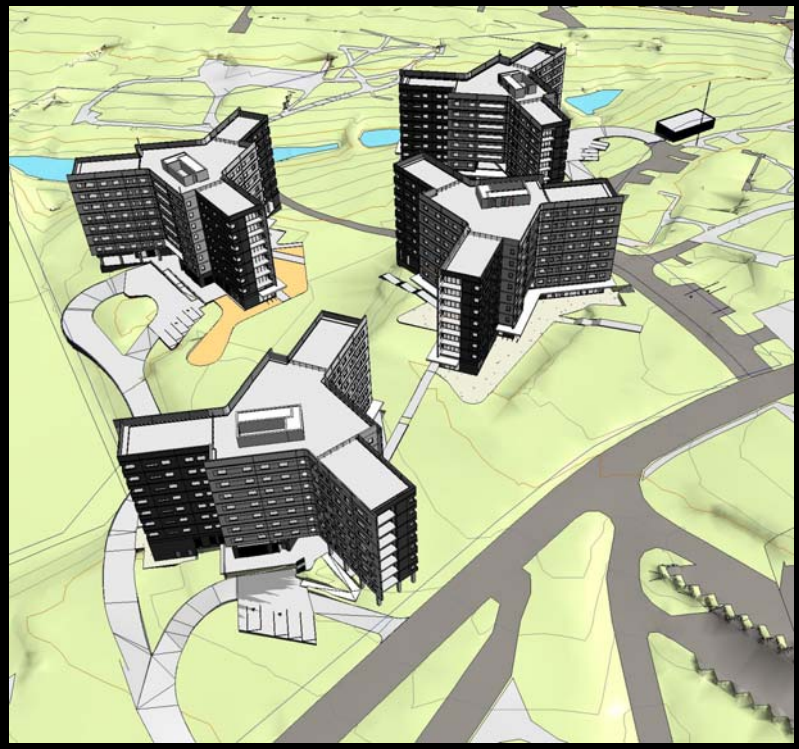
architectus™

② Proposed



② Existing

Viewpoint from Braye Park



3D View

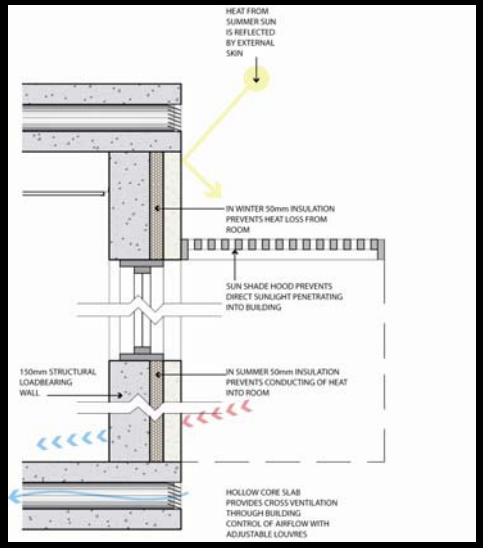
- Greater separation between built form can be achieved with less built form
- Buildings positioned to minimise overshadowing
- Maximise solar orientation
- Natural breeze permeates the site
- Engage with existing landscape
- Building positions maximise privacy, open spaces and views
- GFA= 26,600sqm
- The development provides for a sustainable density that responds to the regional context including the availability of infrastructure, transport and community facilities

Principle 3 : Built Form

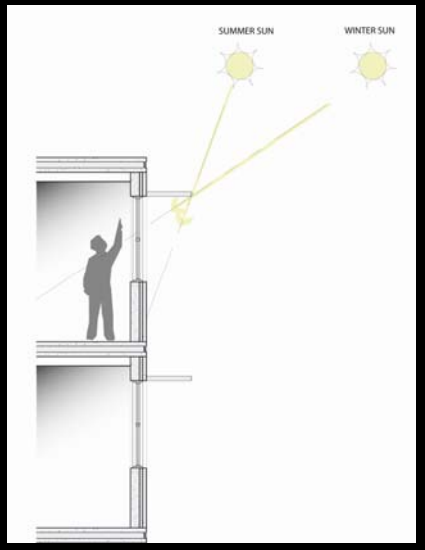
Principle 4 : Density

architectus™

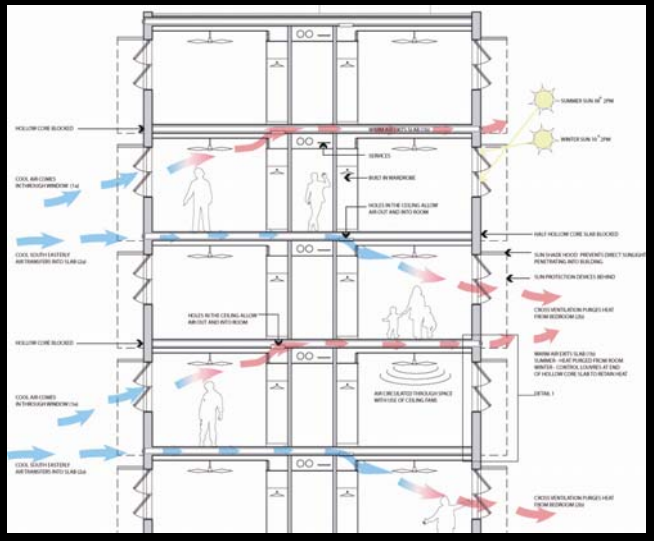
Typical 6 bedroom student accommodation space with hollow core slab for cross ventilation



Detail section showing thermomass and hollow core floor slabs



Overhangs to north facing windows to allow winter sun access



Typical cross ventilation through hollow core slabs

Sustainable principles include:

-Orientation and layout of apartments to optimise natural light and ventilation

-Installation of energy saving appliances throughout project

-Structure, flexible column free construction allows future adaptation & uses for building

-Gas boosted solar hot water system

-Naturally ventilated carpark and natural daylight and cross ventilation to all lift foyers

-Selective landscape planting to minimise water usage

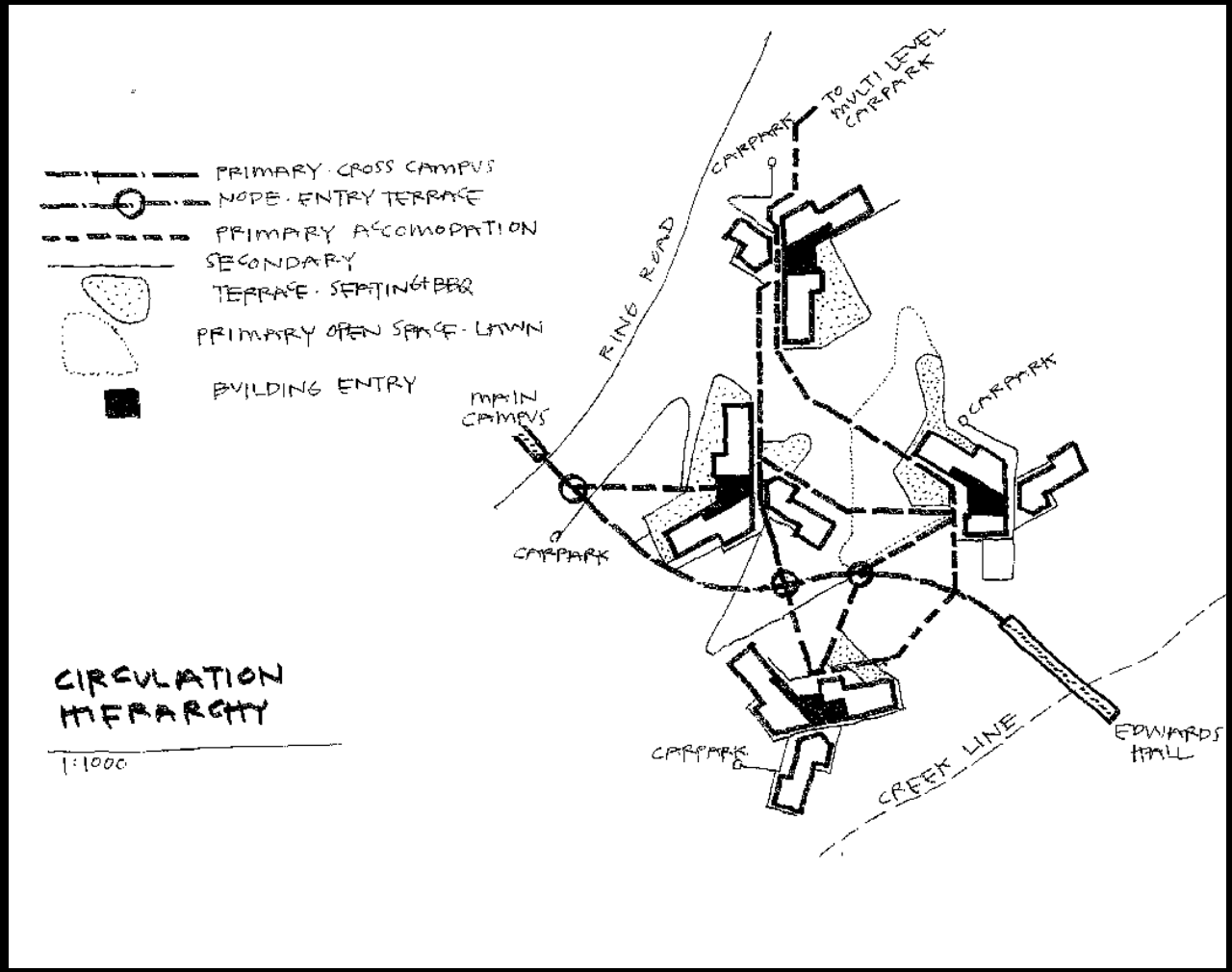
Principle 5 : Resource, Energy and water efficiency

architectus™

Landscape Analysis Plan

- Materials are simple, robust & purposeful in keeping with the rawness of the bushland
- Concrete, coloured asphalt, rock gabions, decomposed gravel

Principle 6 : Landscape



Key strategies- pedestrian movement, access & connections, courtyards and entries

Landscape initiatives- student accommodation

•Upgrade shareway between campus & Edwards Hall:

- To facilitate universal access between accommodation buildings

- Allow for future bridge & universal access connection across the creek

- Small seating terraces at junction of the shareway & major pathways to support way finding

•Main pathways follow direct line of sight between building entries

•Secondary ramping pathways provide universal access between accommodation buildings

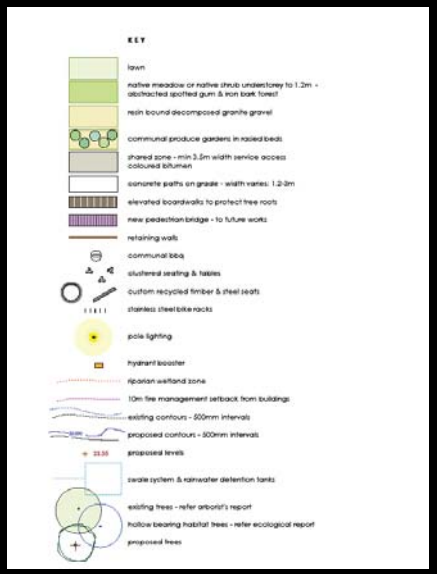
•Landscape open space allows for groups & individuals, for connection & privacy:

- An open lawn & collective space is centred between four buildings

- Outdoor terraces, BBQ areas, visitor bicycle parking, complement ground level communal facilities

- Administrative centre in Building A is supported by a coffee bar

•Carparks & service areas are situated on the outer perimeter of each building, pedestrianizing the centre



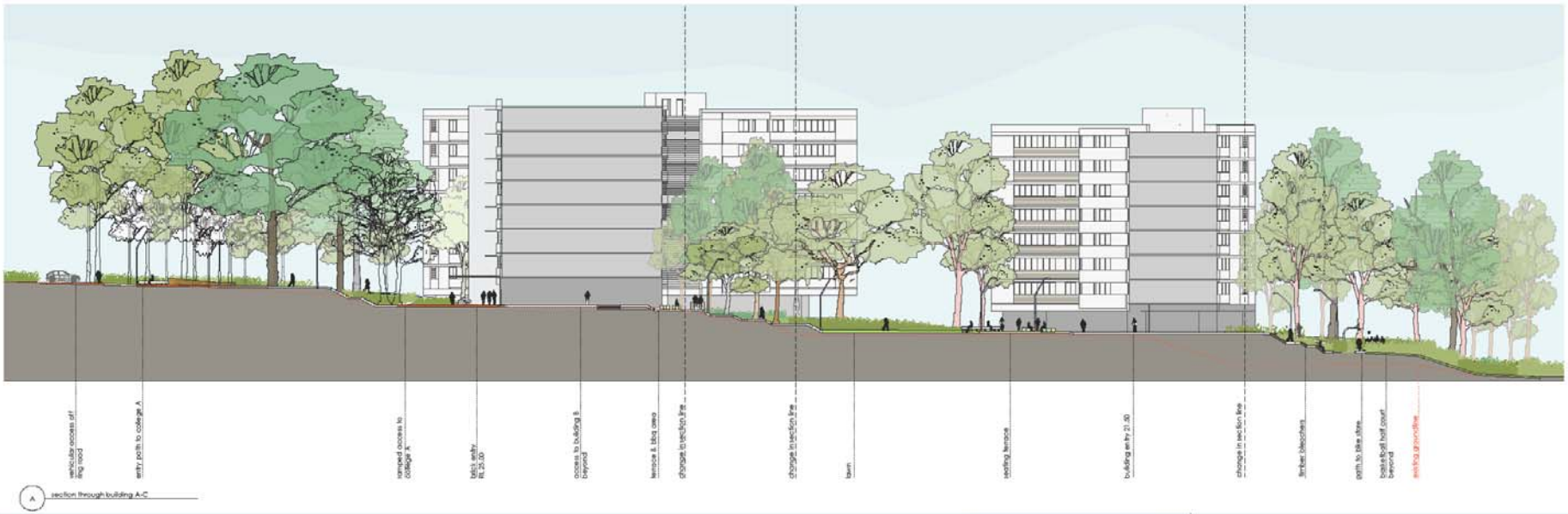
Landscape initiatives- student accommodation

•Reinforce character of bushland campus with tall tree canopy & low meadow understorey;

- Which scales landscape & built form
- Mediates views between buildings
- Maintains clear sight lines for safety & intuitive way finding
- Allows for sunny open areas & shaded protected recreational spaces
- Is not reliant on irrigation
- Supports asset management bushfire guidelines
- Retains remnant open forest trees

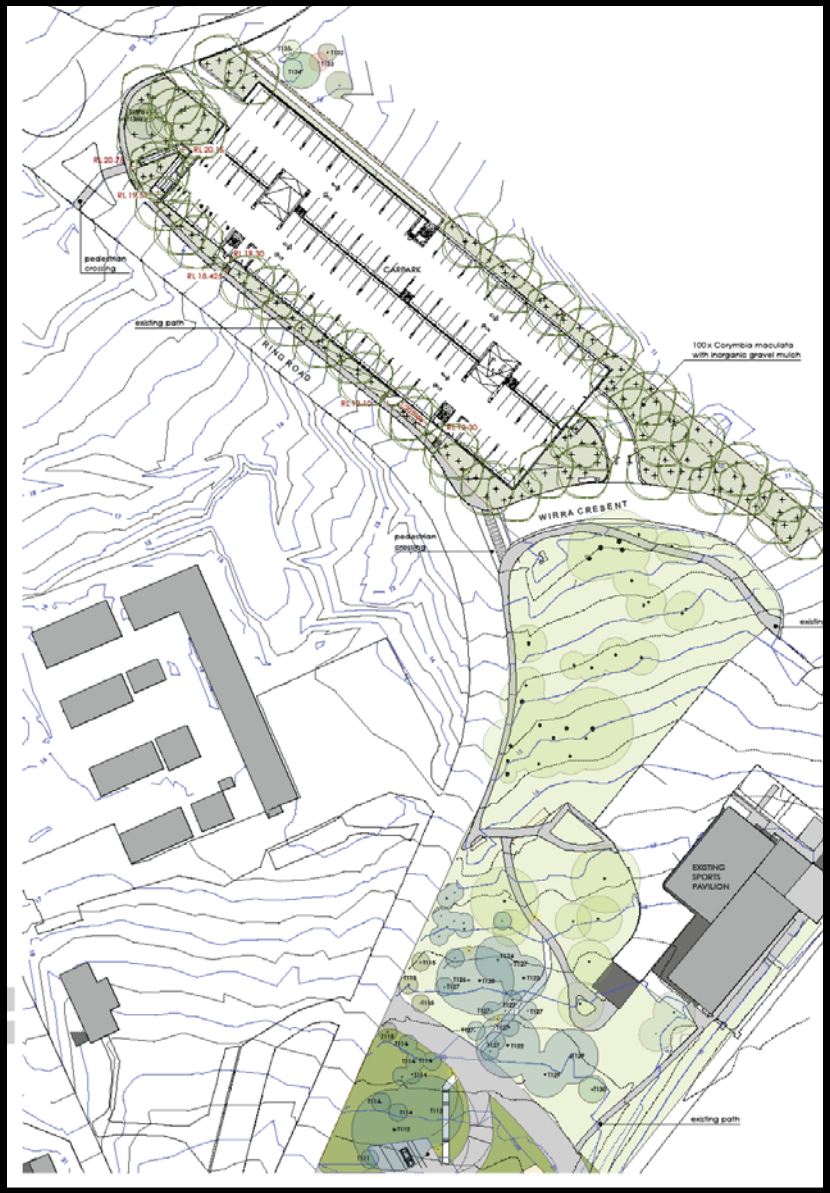
Overall student accommodation landscape plan

Principle 6 : Landscape


vehicular access off ring road
entry path to college A
removed access to college A
brick entry RL 25.00
access to building B beyond
terrace & bbq area
change in section line
change in section line
lawn
seating terrace
building entry 21.30
change in section line
timber bleachers
path to bike shed
basketball half court beyond
existing groundline
A
section through building A-C


path connection to carpark
service access & parking
entry 25.30
1:14 ramped path from 'A' to 'B' (dashed arrow)
terrace & bbq area
change in section line
stairs to college D
cross campus path
secondary path
entry awning & bbq area 21.30
existing groundline
B
section through buildings B, A & D

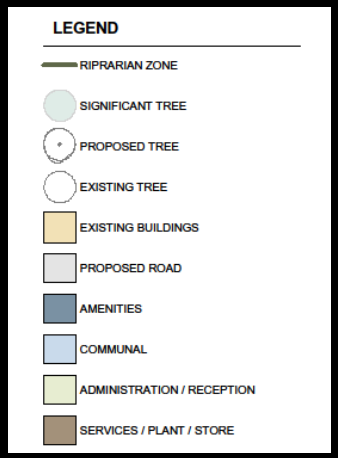
architectus™

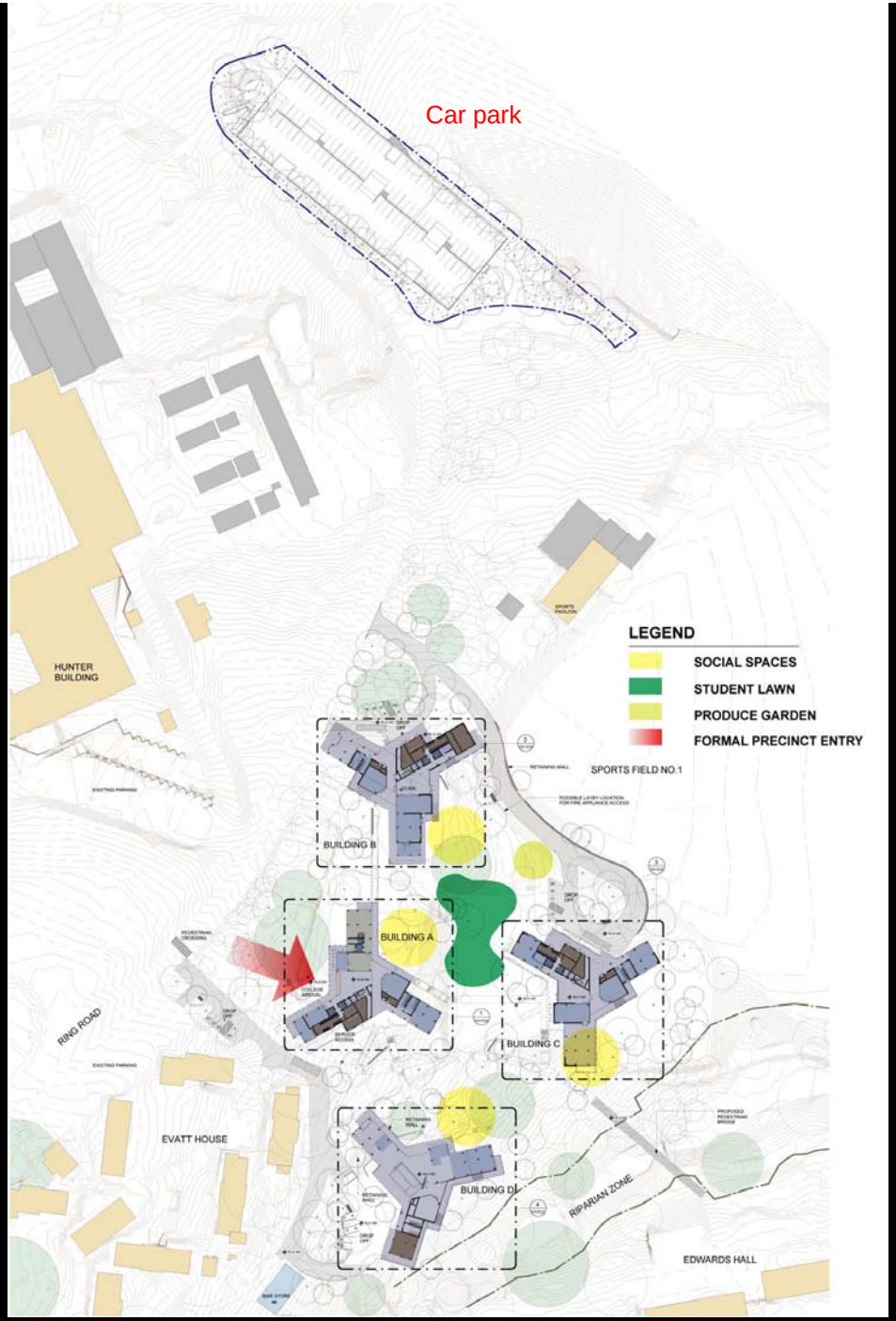


Carpark Landscape Plan

- Screen carpark with a closed forest of spotted gums
- Paths between campus & carpark provide universal access
- Shuttle bus connection will provide universal access between carpark & accommodation buildings

Principle 6 : Landscape





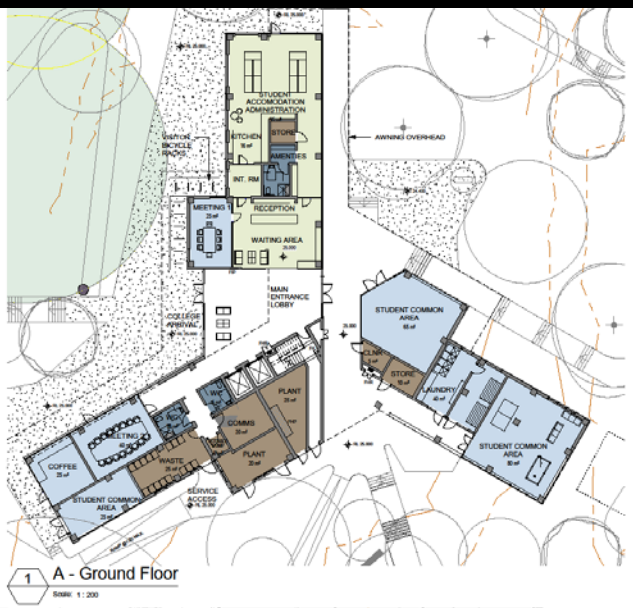
architectus™

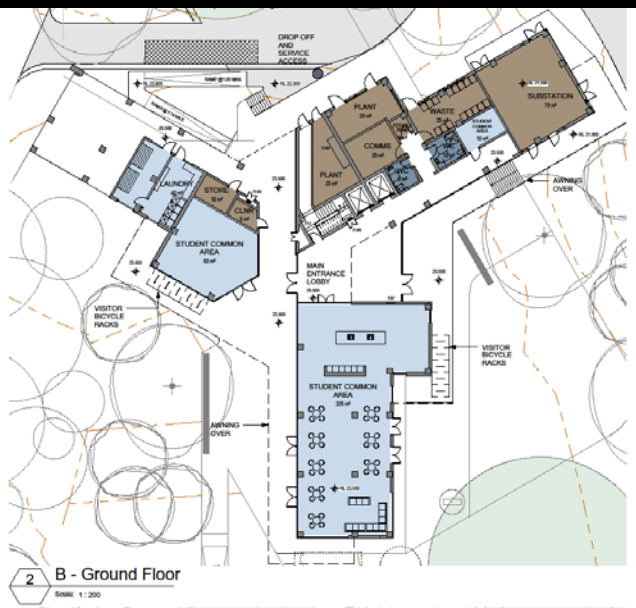
- •Multi level open deck car parking
- •421 car spaces
- •8 motorcycle spaces
- •Accessible spaces
- •Short term on grade parking and drop off areas
- •vehicle access including service and waste collection vehicles is provided at 2 points off the Ring Rd
- •Bicycle storage is provided
- •Provision of 778 beds

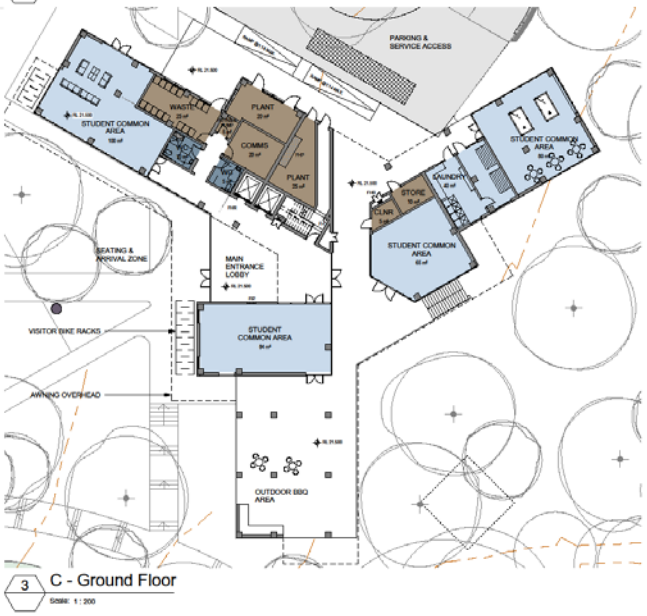
Site Plan

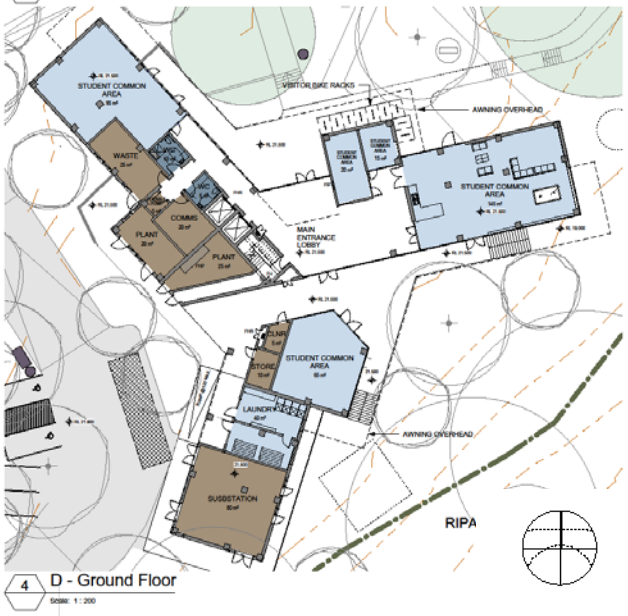
Principle 7 : Amenity

architectus™









Ground Floor Plans – A,B,C & D

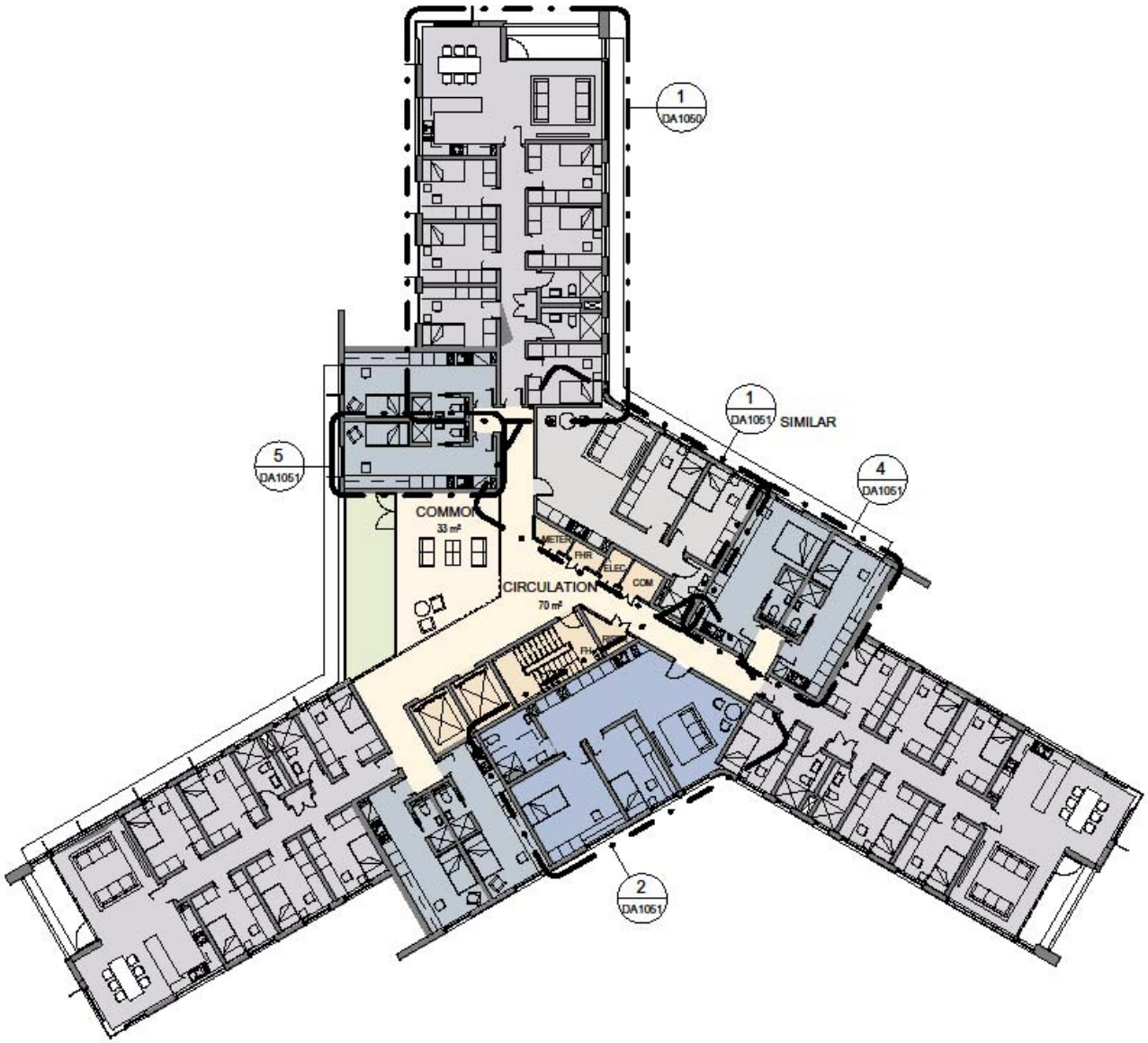
Ground Floor Common Facilities

- Range of common facilities to enhance student campus life
- Games room
- Quiet study rooms
- Large communal facilities
- BBQ areas
- Music rooms
- E-library

- Social interaction promoted through;
- Clear & legible pedestrian circulation
- Spaces adjacent to pedestrian paths
- Provision of a variety of linked courtyards
- Grouping of associated uses, common rooms
- Physical & visual connection from inside to central courtyards

Principle 7 : Amenity

architectus™



Typical Floor Plan

Typical Floor Plan

•"Thin plan " which allow for dual facing living areas

•Provide benefits for both visual connection to the outside

•Cross ventilation

•Controlled solar access

•Balanced day lighting

•Proposed 2700mm ceiling height to living areas (spacious open feel)

•Acoustic & impact ratings as per BCA

•5 & 6 bed apartments have balconies off living spaces

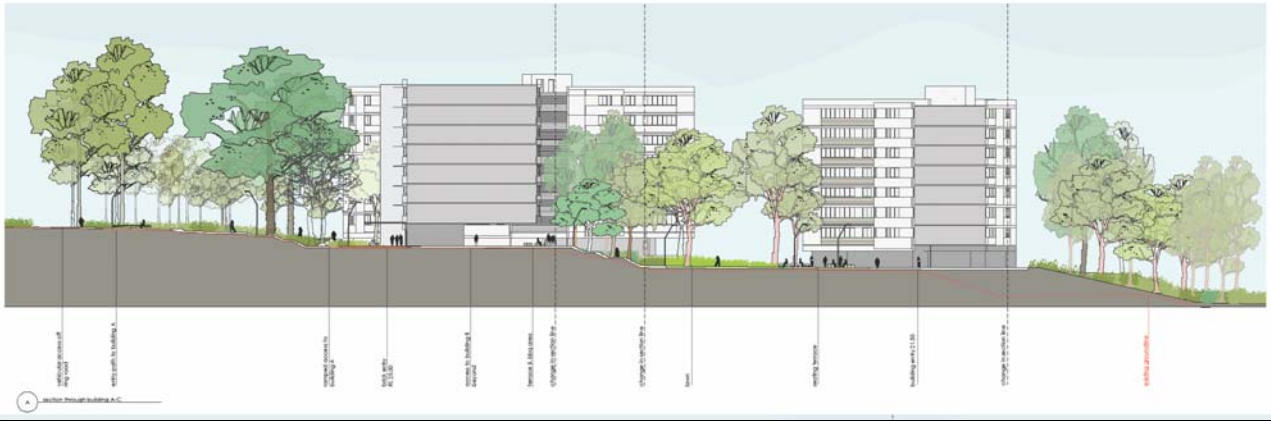
•Common area and terrace for all apartments per floor

•Natural light and ventilation to lobby area

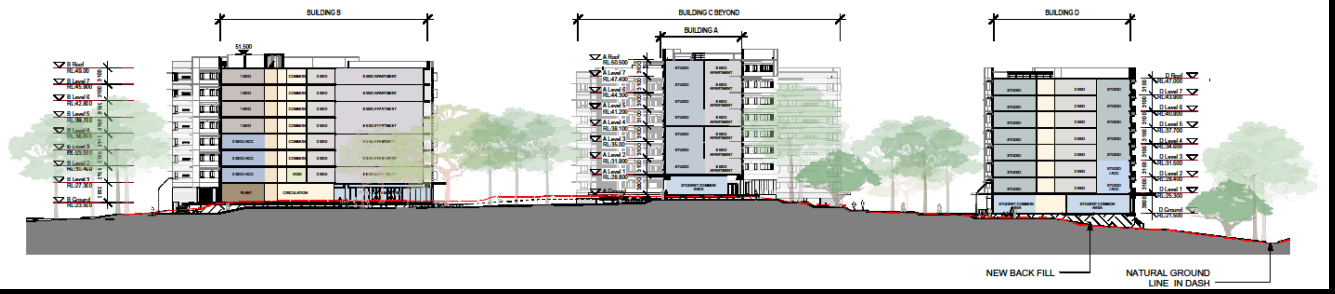
- STUDIO APARTMENT
- STUDIO - ACCESSIBLE APARTMENT
- 2 - BEDROOM APARTMENT
- 2 - BEDROOM - ACCESSIBLE APARTMENT
- 5 - BEDROOM - ACCESSIBLE APARTMENT
- 6 - BEDROOM APARTMENT
- CIRCULATION
- COMMON
- CORE & PLANT
- OUTDOOR ROOM
- VOID
- BALCONY

Principle 7 : Amenity

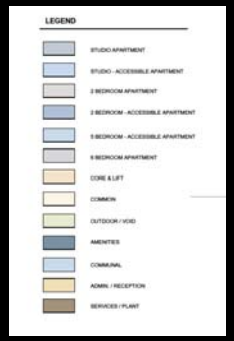
architectus™

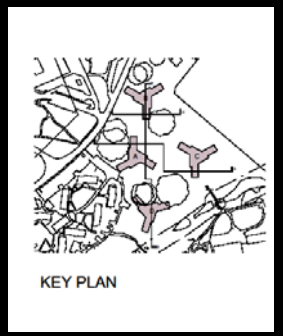


Consideration to safety and security by integrating public and private areas.



Range of apartment sizes and types will ensure all measures of social planning are addressed.





Principle 8 : Safety and security

Principle 9 : Social Dimensions

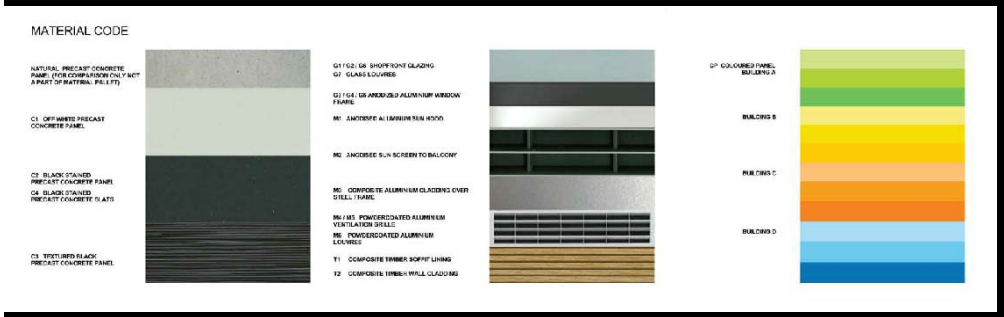
Safety and Security

- Clear identity of building entries
- Activation of ground plane by common facilities & administration
- Well lit external communal zones
- Site lighting along pathways & roads
- Open wide spaces with strong visual connectiveness
- Passive surveillance of ground plane from apartments above
- Avoidance of climbing access to upper level balconies
- Well lit areas around apartment entrance ways
- CCTV coverage, security/help points
- Existing escorts available

Social Dimensions

- Diverse range of unit types creates a varied social mix
- Accessible apartments distributed throughout buildings & levels
- Studio apartments + accessible
- 2 bed apartments + accessible
- 5 bed apartments + accessible
- 6 bed apartments
- Total of 308 apartments
- Total 778 beds (24 accessible)

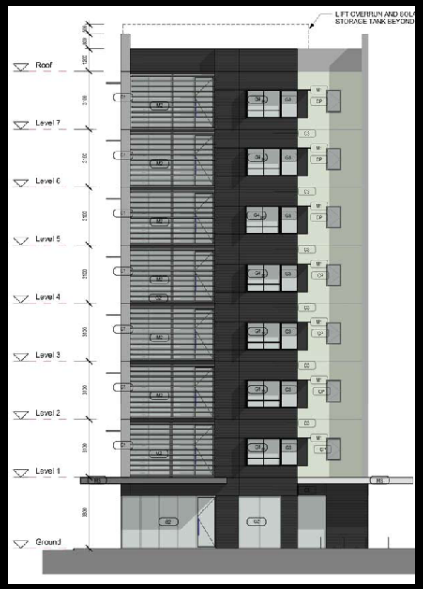
architectus™



Buildings designed in a clear, uncluttered, contemporary manner to reduce visual bulk, optimise daylight and breezes and increase connection from the inside to the landscape.

Similarly palette of materials, colours and finishes is selected to be simple and refined, yet durable and robust.

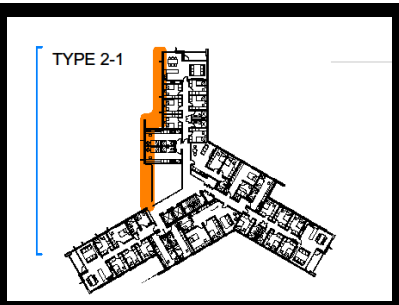
Landscape elements are in keeping with the campus materials palette. Concrete, coloured asphalt, rack gabions & decomposed gravel.



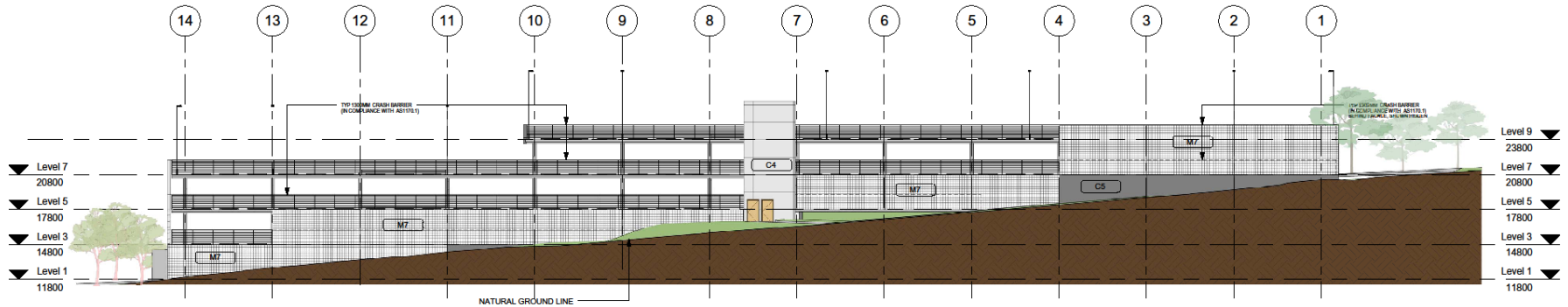
Palette of materials used;

- Off form concrete- white & black
- Textured concrete
- Translucent colour to code each building for increased legibility and identity
- Composite timber soffit lining at common balconies to enhance entry
- Composite aluminium cladding to awning
- Aluminium sunhoods are used for solar control

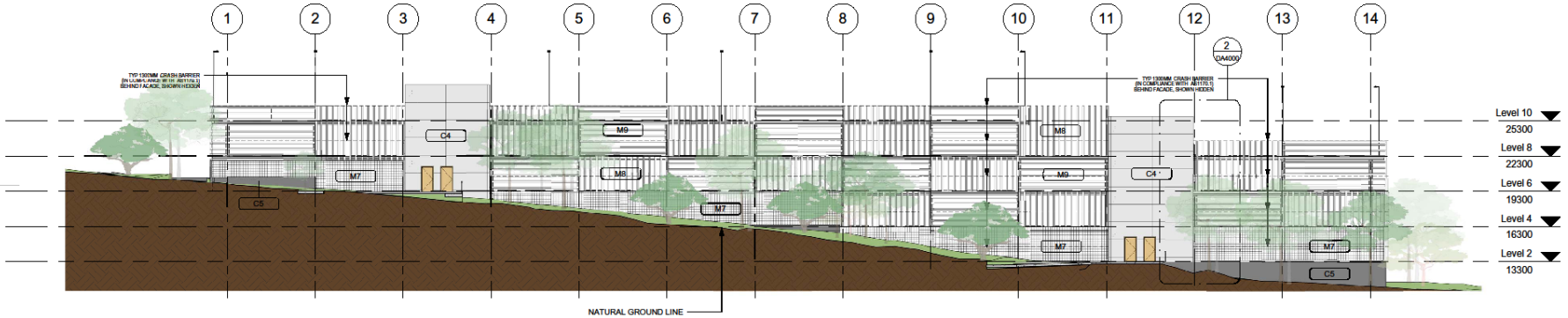
Student Accommodation Elevations



Principle 10- Aesthetics- Materials and finishes



1 North Elevation
Scale: 1 : 200



2 South Elevation
Scale: 1 : 200

Carpark Elevations

MATERIALS:

C4	PRECAST CONCRETE PANEL
C5	RETAINING WALL
M7	MESH SCREEN
M8	VERTICAL GALV. PURLIN SCREEN
M9	HORIZONTAL GALV. PURLIN SCREEN ON SUBFRAME

Principle 10- Aesthetics- Materials and finishes

View from main ring road to student accommodation

architectus™

View from riparian way to student accommodation