



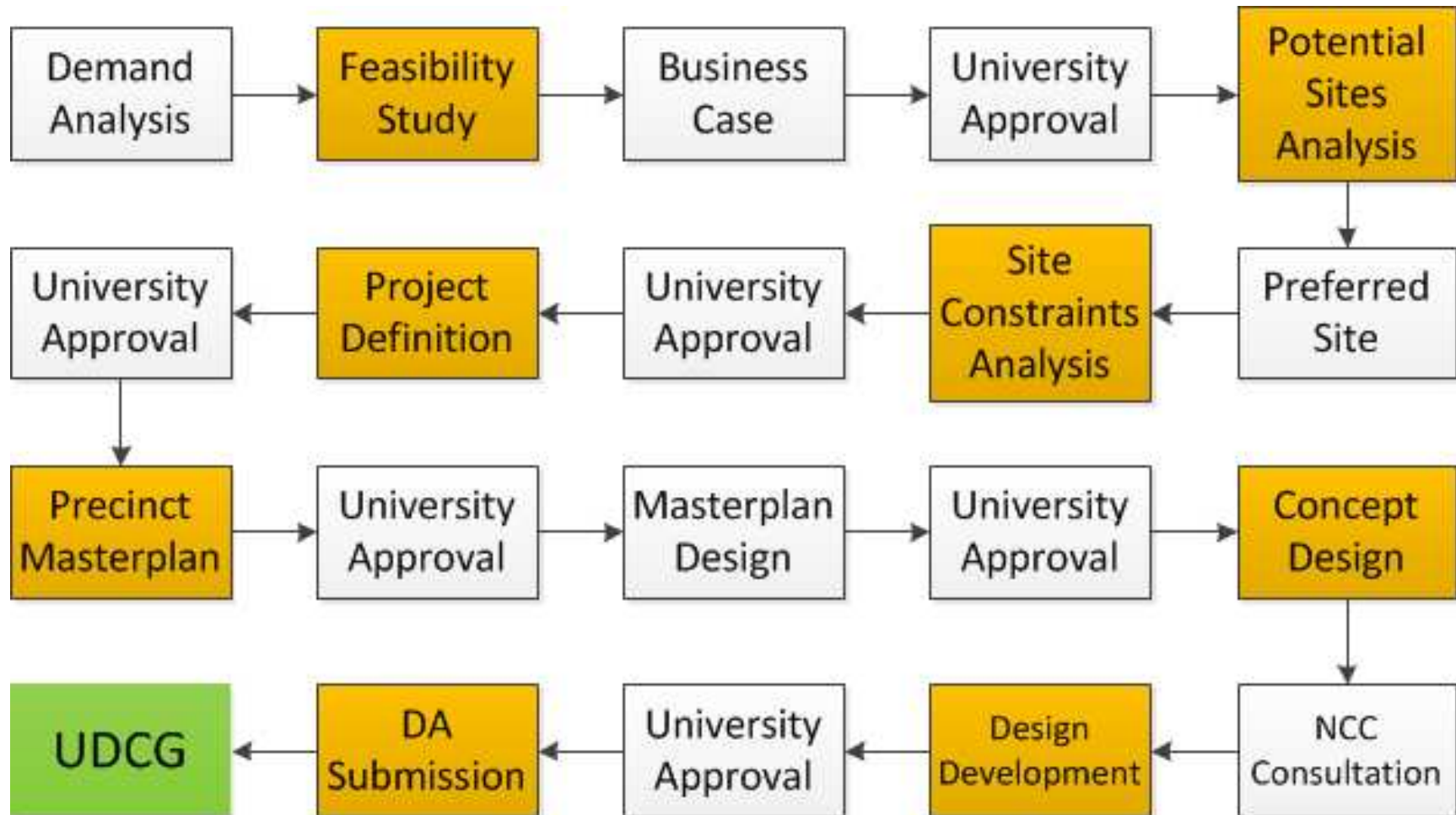
Presentation to the Urban Design Consultative Group New Student Accommodation

Callaghan Campus
University of Newcastle

16 November 2011

Project Progression

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Feasibility Study

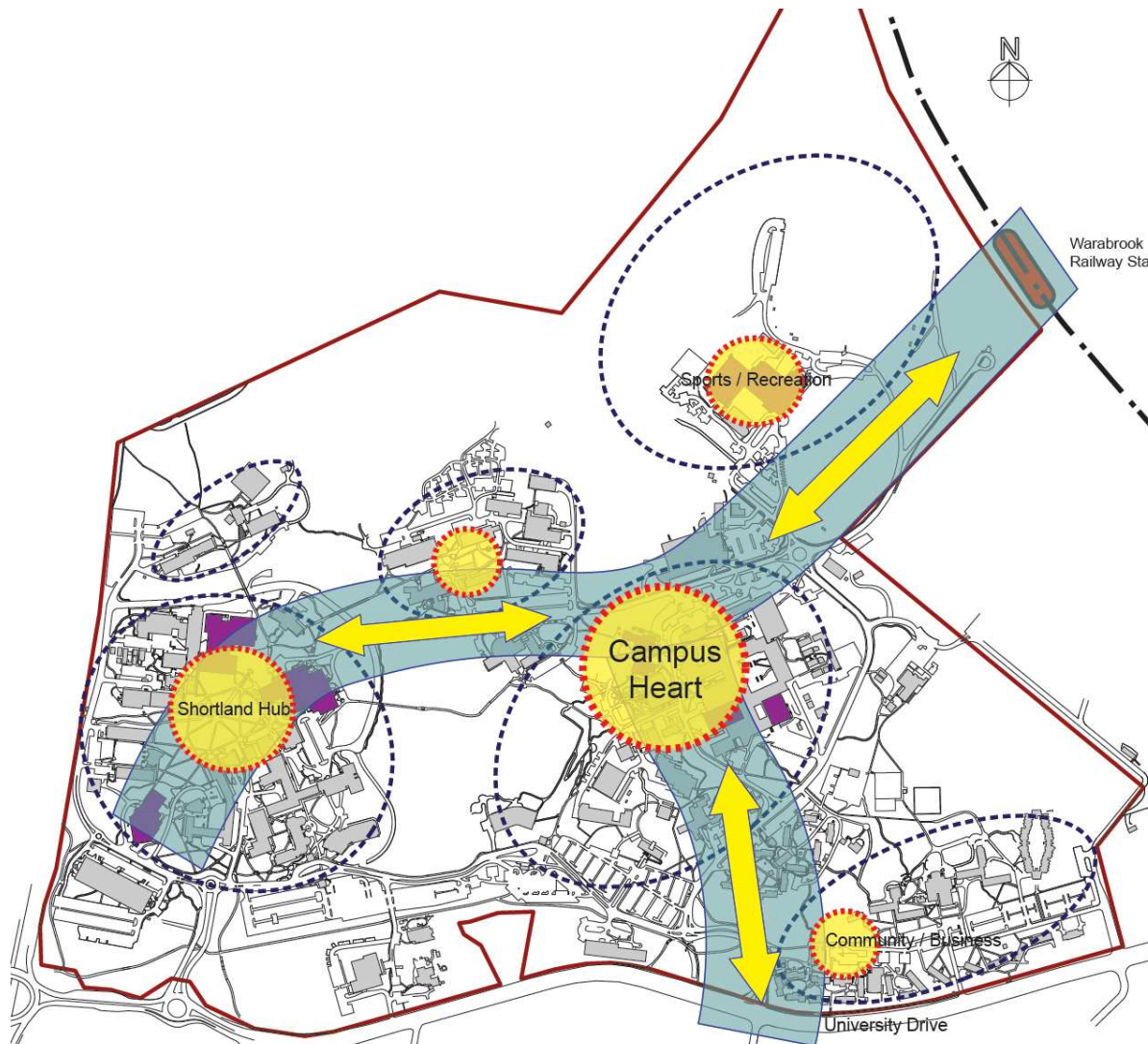
Project Feasibility Study (*APP Corporation, Oct 2009*)

Purpose of Study

1. Alignment with University strategic planning
2. Identification of sites
3. Inform business case
4. Definition accommodation type and needs
5. Input from key stakeholders

Feasibility - Strategic Alignment

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- Connect Spine & Heart
- Pedestrian Friendly
- Ground Floor Activation
- Future Expansion
- Preserve Bushland
- Periphery Parking
- Density the Core

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Site Selection

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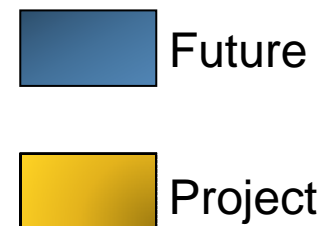
Site Selection Criteria

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1. Proximity to the heart and services
2. Alignment with the Commercial and Retail Masterplan
3. Alignment with Strategic Masterplan
4. Promote periphery parking and improve pedestrian access
5. Size, orientation and outlook
6. Proximity to the proposed campus spine & hubs
7. Proximity to public transport
8. Proximity to existing student accommodation (campus life)
9. Potential to preserve bushland

Site & Future Expansion

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Project Definition

Recommendation

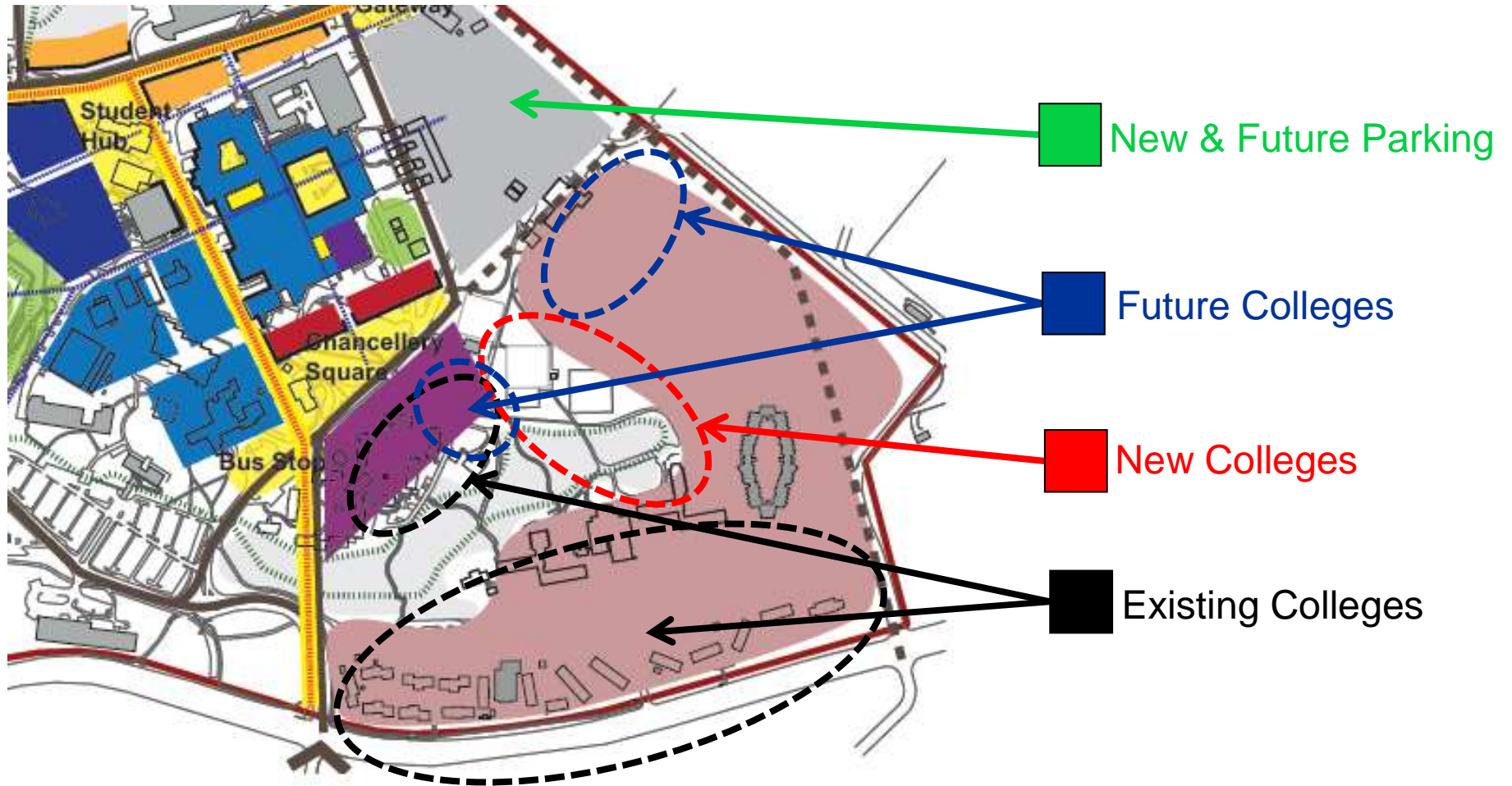
1. To achieve a higher density solution
2. To take a 20 year view of the campus
3. Campus central densification
4. Weighted towards multi-bed apartments (70/30)

Project Definition Outputs

1. Design principles for contemporary student housing
2. Accommodation mix and typology
3. Material specification
4. Student life and support service requirements
5. Operational considerations & life cycle requirements
6. Security and IT considerations

Precinct Masterplan

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Precinct Masterplan Concept Analysis

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- 9 buildings, maximum 8 storeys
- Pedestrian spine creates active connection
- Cloistered courtyards do not maximise views
- Large buildings create 'hard edged' urban solution
- Walled courtyards create a perceived 'boundary'
- High wall to ring road creates large area of western exposure and reduces views into site
- Building separation is minimal, providing limited solar access
- Large footprint necessitates removal of significant trees

- Podium residential
- Podium communal
- Hard landscaping
- Soft landscaping
- Potential sports and grandstand facilities
- Future development site

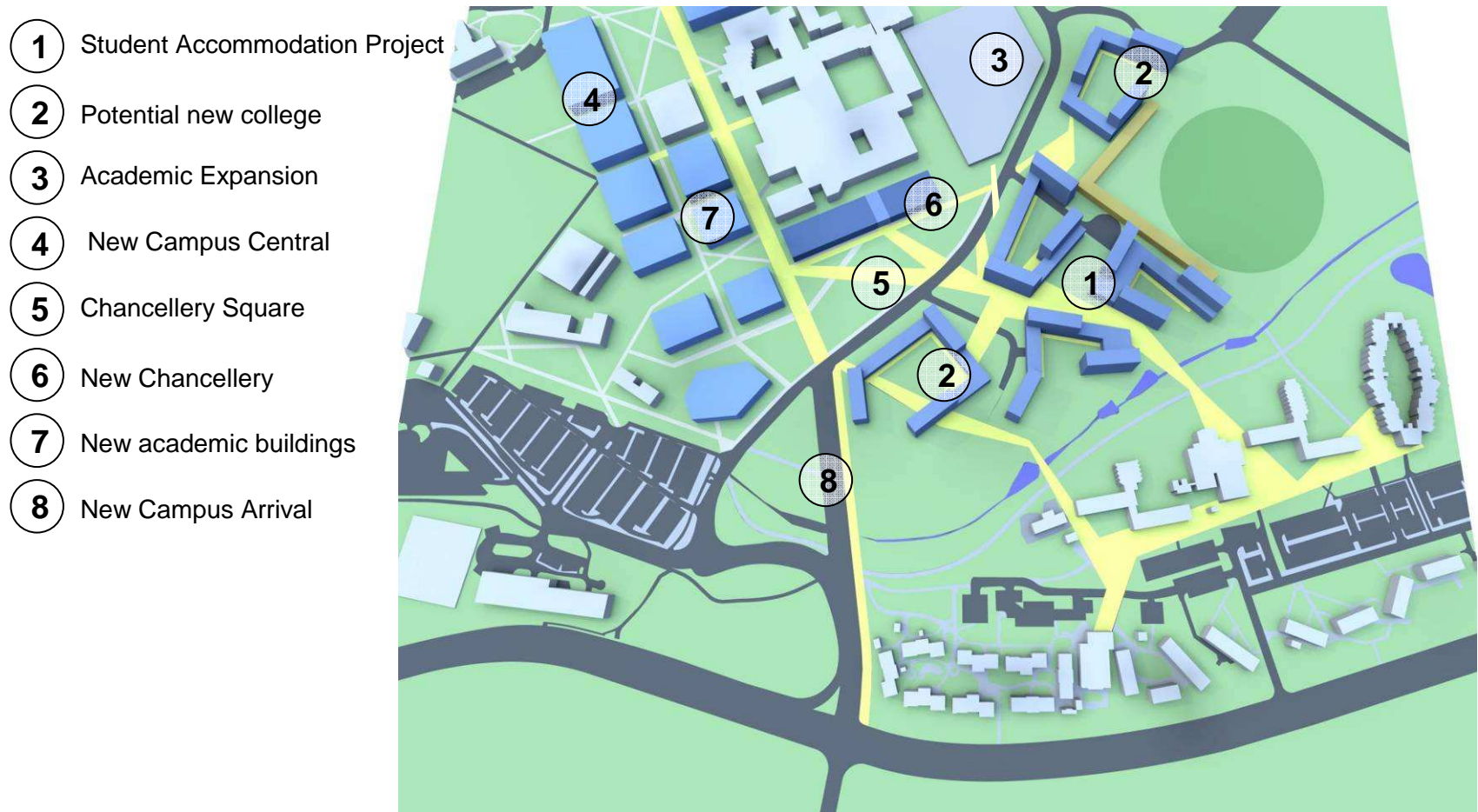
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Masterplan & Future Expansions

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The expansion of the Student Accommodation Precinct is the **first step** in the creation of a new **arrival precinct** for the University and the **rejuvenation** of Hunter Building and **densification** of Callaghan's heart



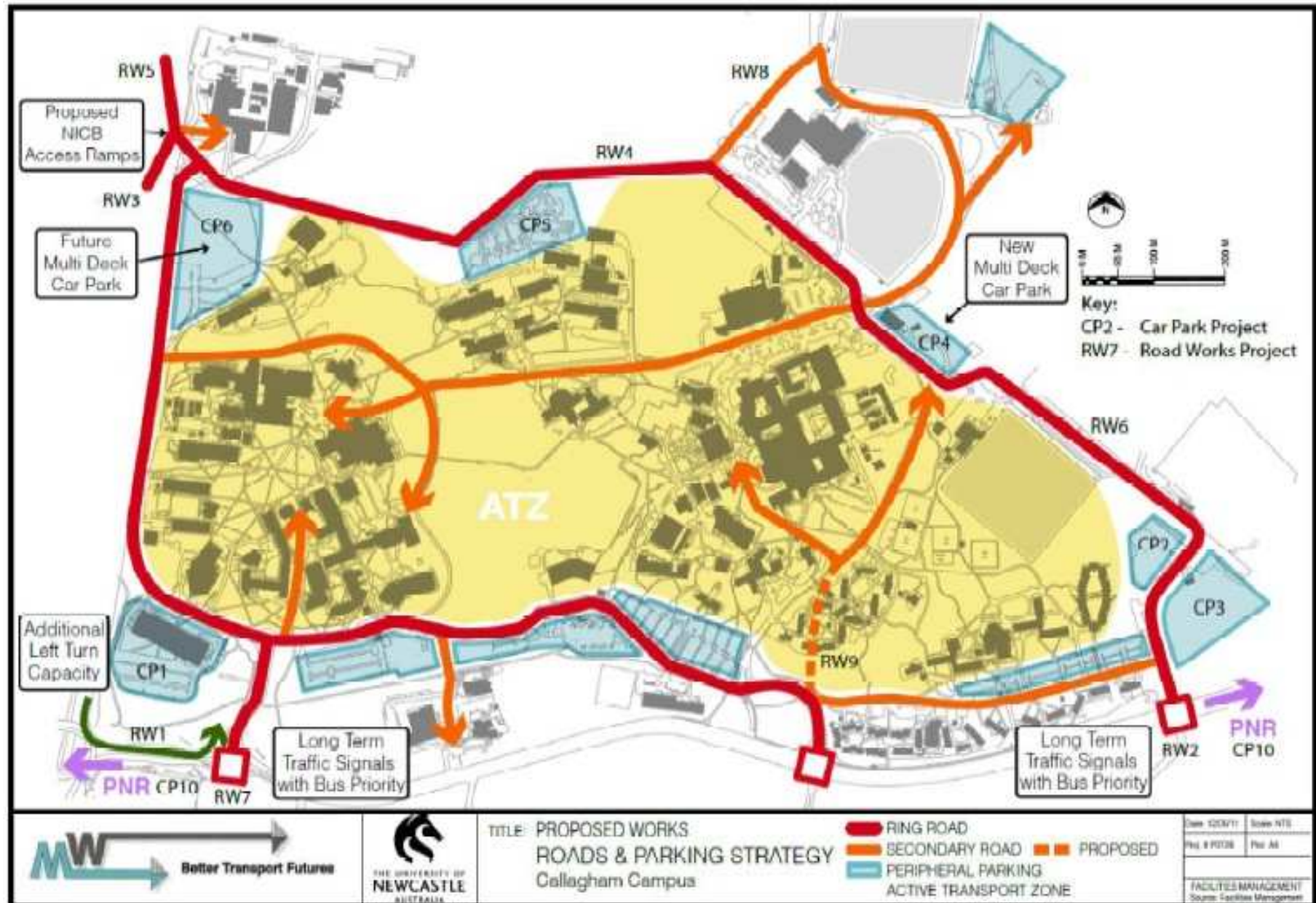
Project Car Parking Strategy

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1. Strategic planning alignment
2. Encourage campus periphery parking
3. Minimise precinct vehicles
4. Promotion of pedestrian and cycle friendly precinct & core
5. Consider medium & long term expansion planning
6. Provide accessible, visitor & service parking
7. Ground plane activation
8. Maximise building positioning flexibility
9. Maximisation of deep soil planting and natural landscape
10. Retention of existing trees

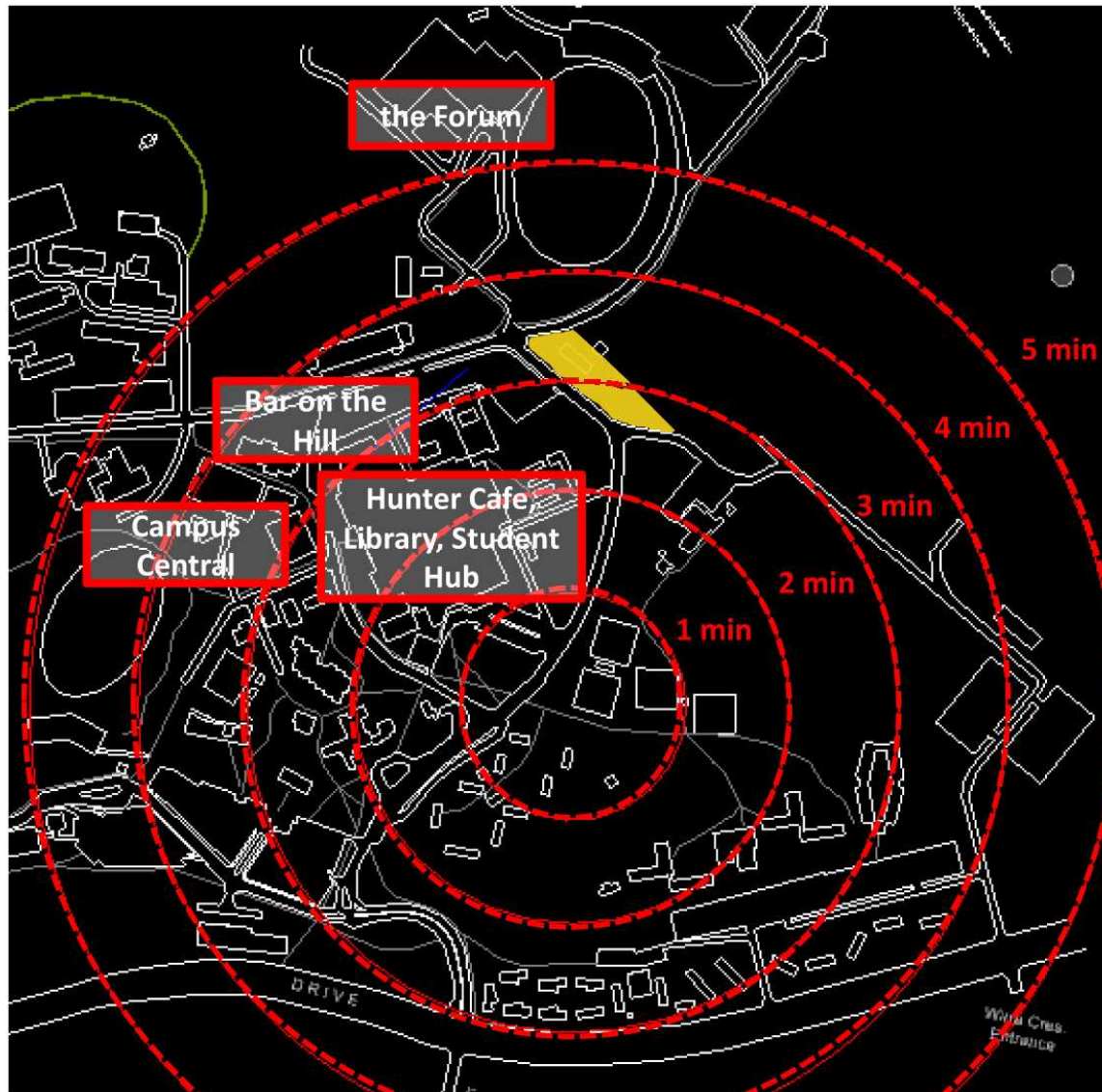
Campus Car Parking Strategy

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Proximity to Carpark

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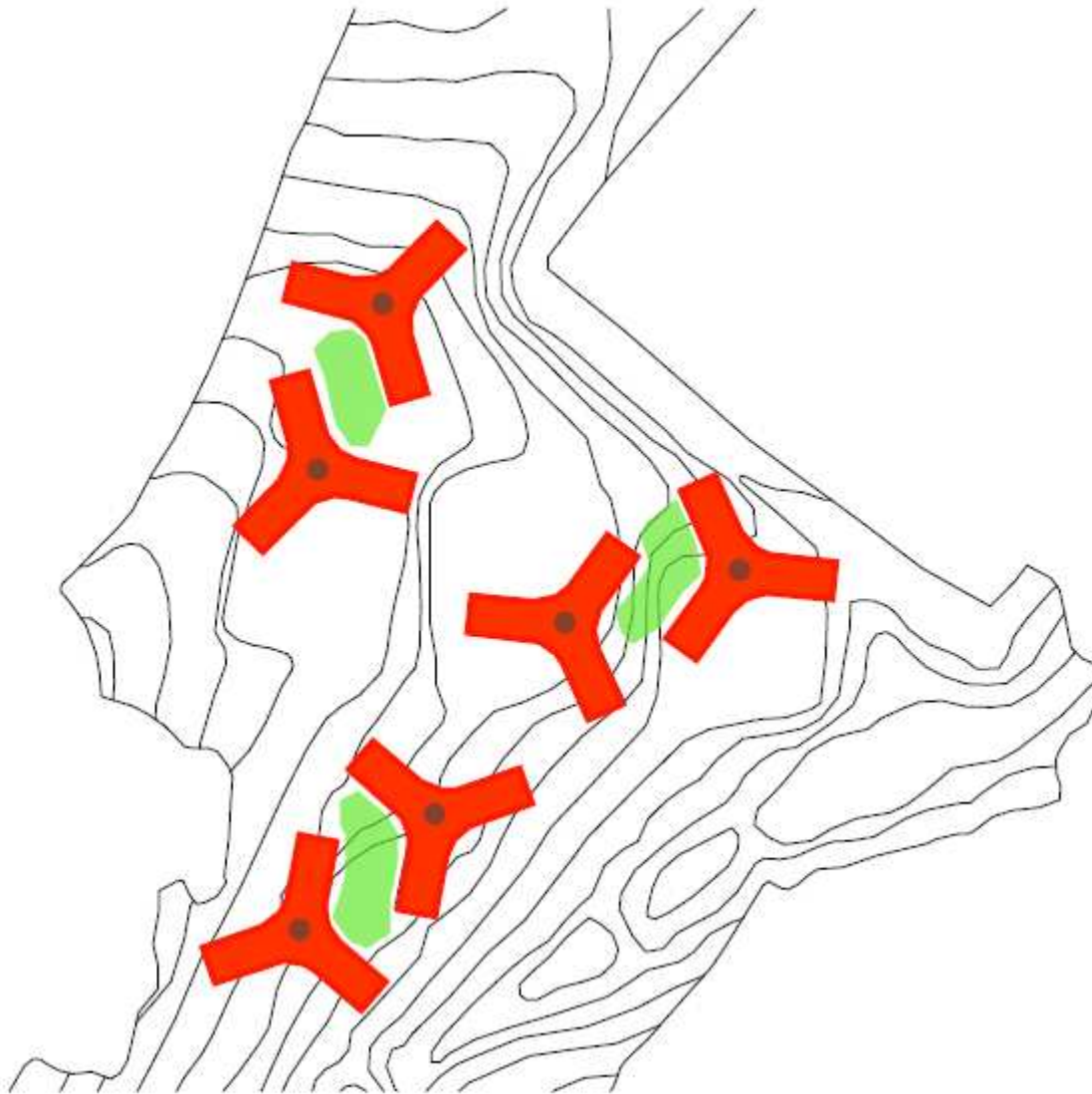
- Car park approximately 2½ minutes walking distance.

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Masterplan Development

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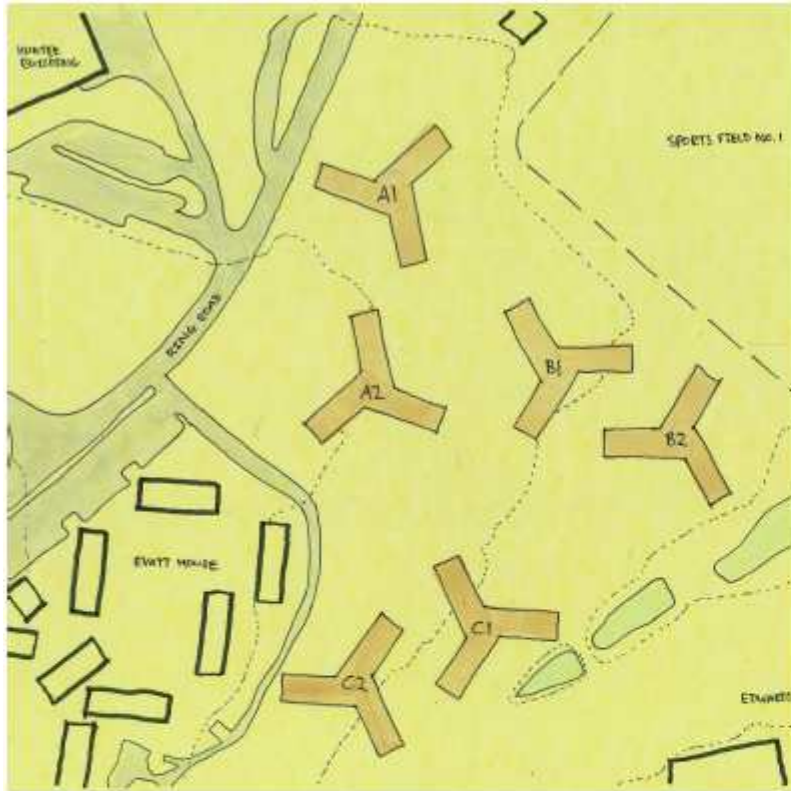
- 6 buildings, maximum 8 storeys
- Pedestrian spine creates active connection
- Reduced building footprint allowing greater tree retention
- Landscaping interlaced through the buildings allowing use by University community
- Non rectilinear plan form reduces visual mass
- Site is permeable, with view corridors maximised
- Plan form increases external views
- Building separation increased

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Concept Design – 6 Buildings

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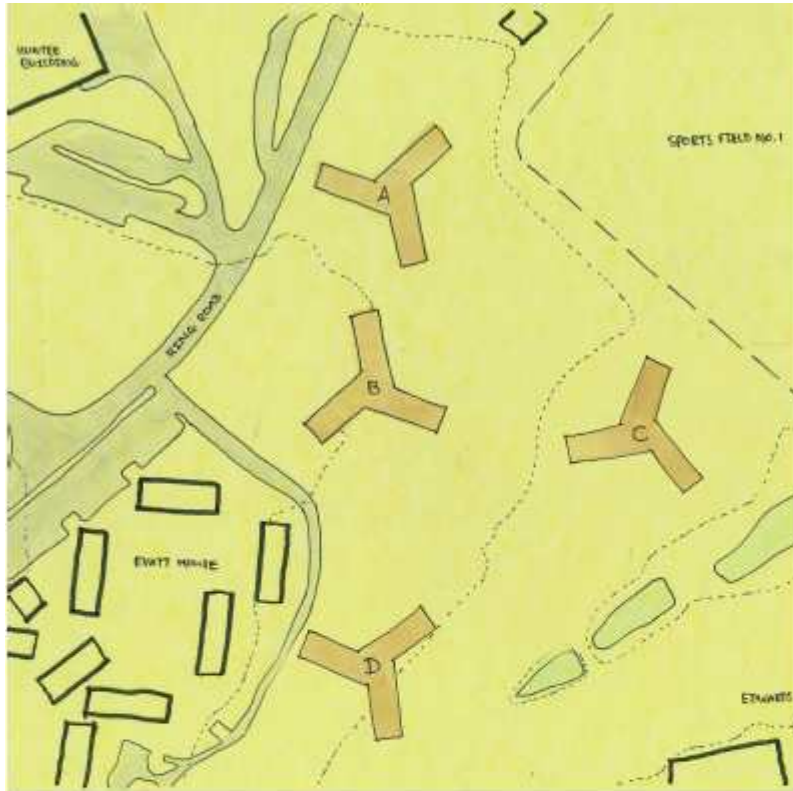
Considerations

- Building footprint
- Open area/landscape around buildings
- Trees removal
- View corridors
- Privacy
- Solar Access
- Operational considerations



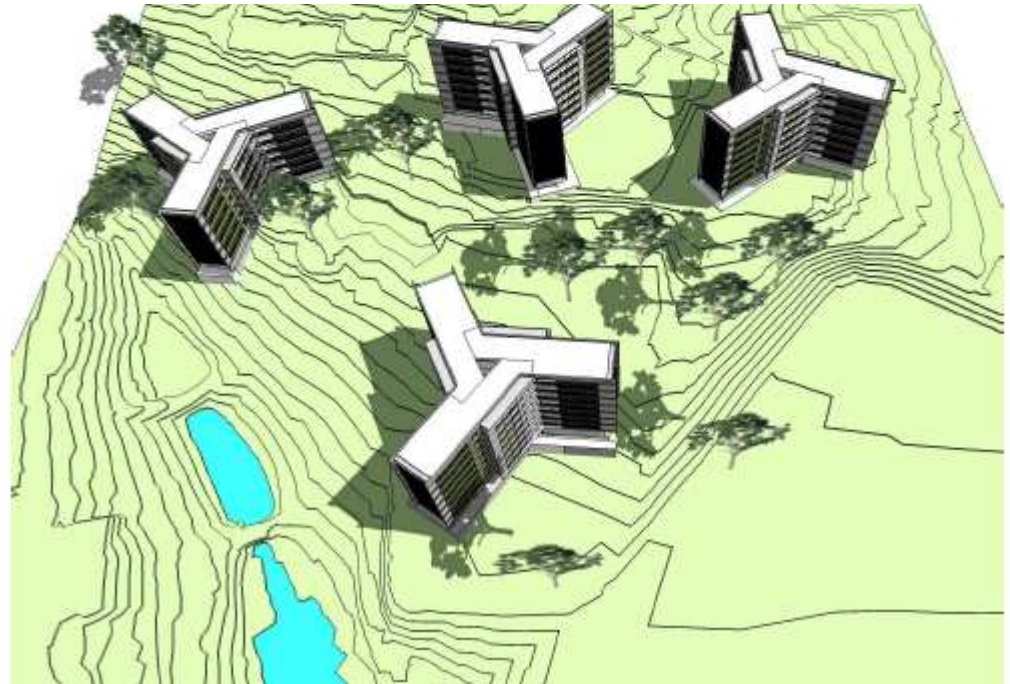
Concept Design – 4 Buildings

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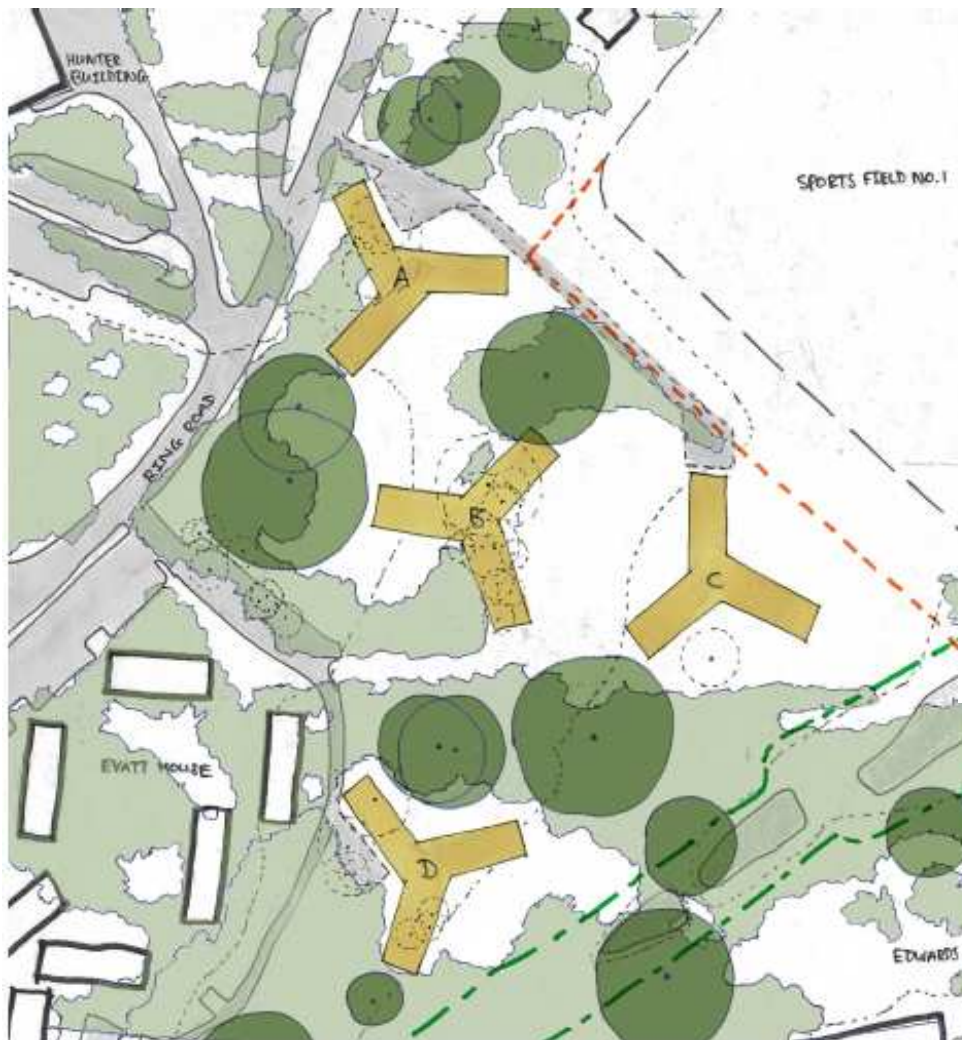
Results

- Reduced building footprint
- Increased open area/landscape around buildings
- More trees retained
- Improved view corridors
- Improved solar access
- Improved privacy
- Operational efficiencies & sustainability



Concept Design Building Separation

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Building Separation

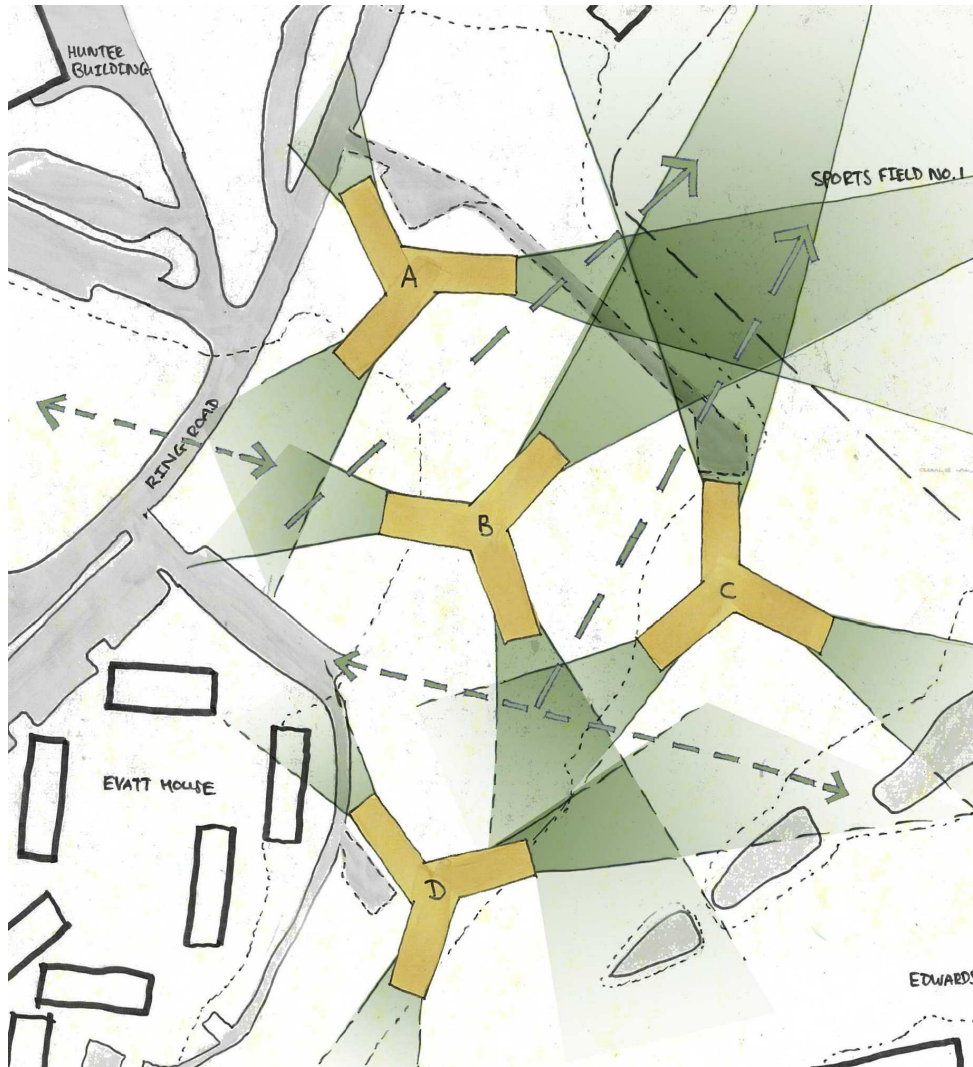
- Each building stand-alone college
- Position minimises overshadowing
- Position maximises privacy, open space and views
- Greater separation with less footprint
- Improved solar access
- Separation from riparian buffer and sports field
- Reduced footprint minimises loss of trees and landscape

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Accommodation Concept Views

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View Corridors

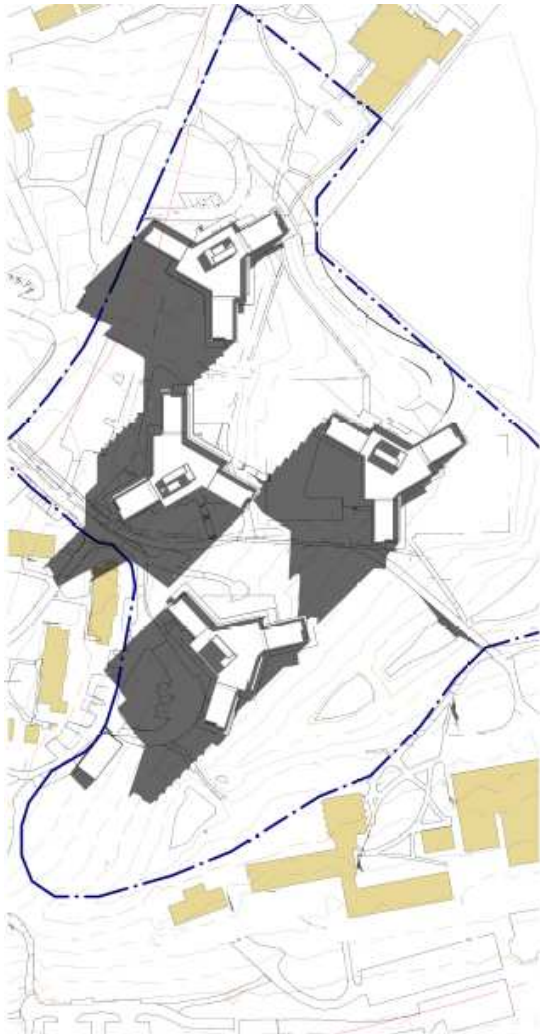
- More permeability through site with less buildings
- Views maximised through increased building separation
- Large apartment views maximised
- Taller buildings increase view from upper floors
- Separation optimised to reduce overshadowing

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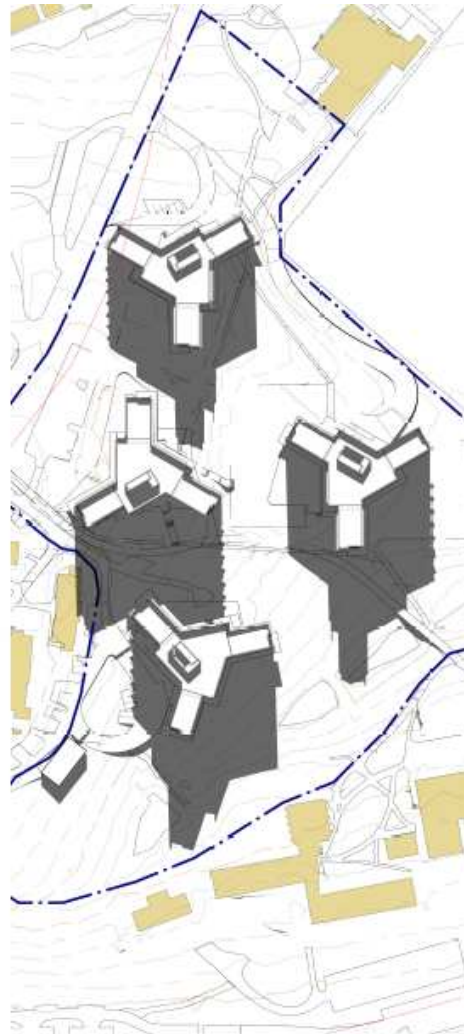
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Accommodation Concept Shadows

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21st June 09:00



21st June 12:00



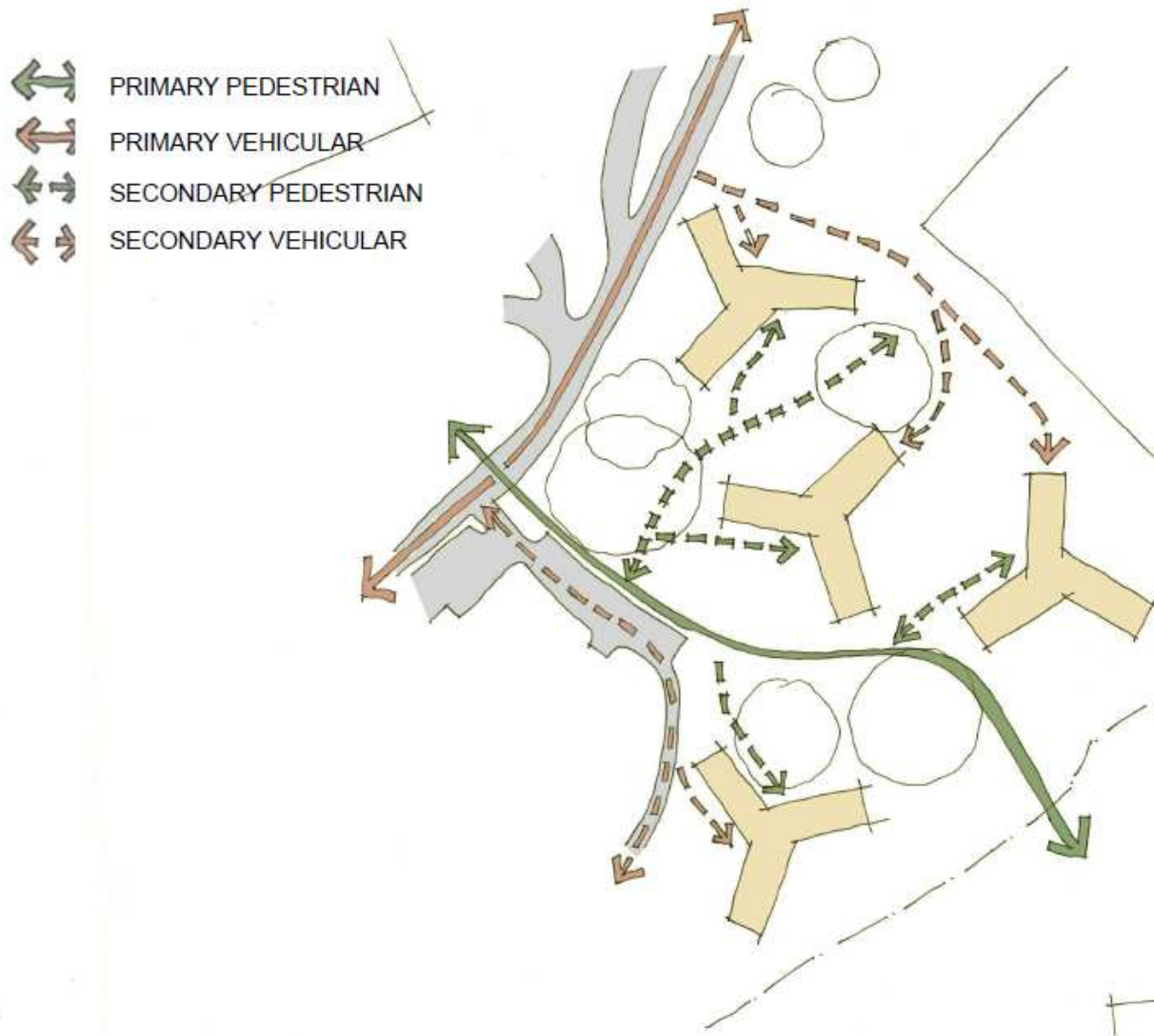
21st June 15:00

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Concept Design Access

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Vehicular Access

- Service access points
- Accessible parking
- Fire brigade access
- Visitor, drop off and “bump” in/out
- Minimise ‘crossover’ with pedestrian access

Pedestrian Access

- Primary pedestrian spine enhanced
- Universal access to each building
- Ground floor permeability provides increased visual connections
- Lifts and stair access from accessible parking

Design Evolution Benefits

1. Improved building positioning
2. Increased open space and landscaping
3. Improved visual and physical permeability
4. Improved solar penetration and view corridors
5. Retention of major trees and increases to riparian zone setbacks
6. Testing and alignment of strategic principles

Perspective View

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THANK YOU
Questions



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Appendix 1 - Experts Engaged

- Site selection and Feasibility: ***APP Corporation***
- Project Definition: ***TSA Management***
- Master Planning: ***LearningSpaceLogic and Super Colossal***
- Town Planning: DeWitt Consulting
- DA Development: ***EJE Architects***
- Lead Architect: ***Architectus***
- Primary Sub-consultants: **GHD**
- Urban Design Peer Review: **GHD**
- Quantity Surveyor: ***Wilde & Woolard***
- Operations Consultant: ***Student Housing Solutions***
- Crime Risk Assessment: ***AECOM***

Other Consultants

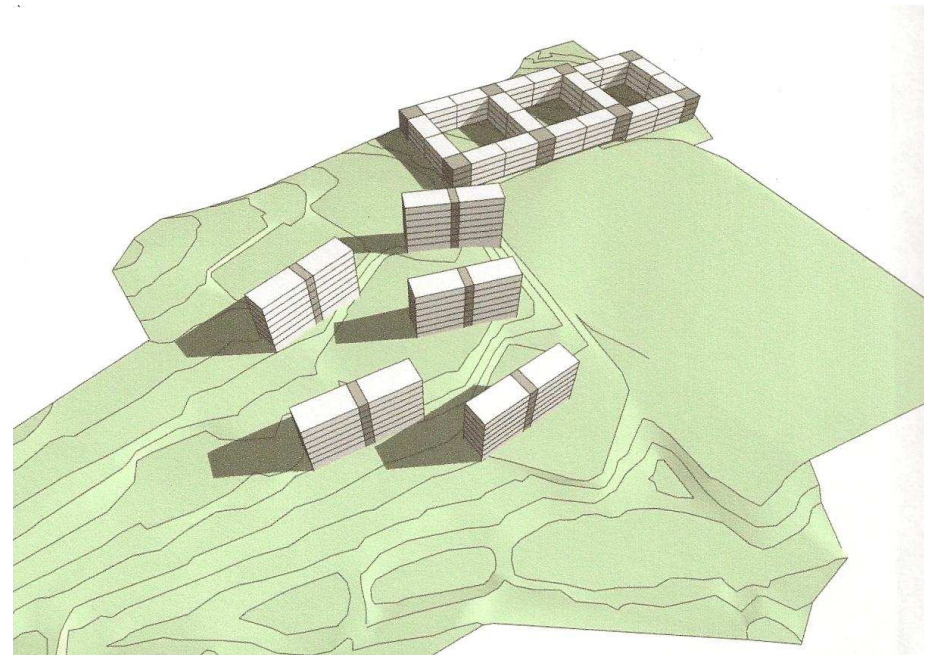
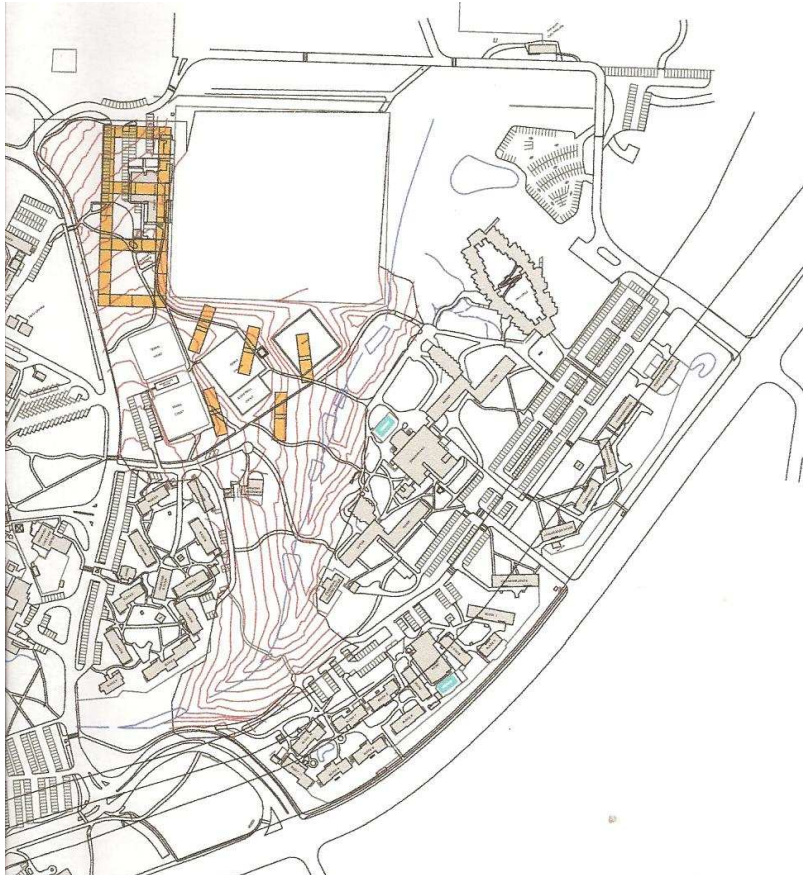
- Acoustic, BCA , Access & DDA, Landscape, ESD, Thermal Modelling, & Green Star

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Appendix 2 - Massing and Density Strategies

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