

University of Newcastle Honeysuckle City Campus Development Volume 1 - Master Plan





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Executive Summary

Purpose

This Honeysuckle Concept Plan has been prepared to assist in expanding UON’s City Campus and to establish the principles and parameters for the future design and development of the site. It is part of a suite of documents that will be developed during planning and delivery of the new facilities at the Honeysuckle City Campus.

The Concept Plan:

- Outlines key planning and site configuration decisions
- Identifies design considerations
- Confirms design principles
- Provides a clear basis for future stages in the project.

This Concept Plan has been developed to provide certainty to UON that the site can accommodate a range of academic and student accommodation uses. It has been designed to enable flexibility as the design for the Campus progresses in future stages.

Context

The new Honeysuckle City Campus is located on a series of connected sites acquired from the Hunter and Central Coast Development Corporation (HCCDC) between Honeysuckle Drive and Civic Lane, with good proximity to the Hunter River waterfront and to the Civic precinct of Newcastle.

This development will build on UON’s historical presence (University House, Northumberland House, and Conservatorium of Music) and the more recent strategic development of NeW Space in the CBD to create a contemporary city based education precinct for the UON’s future success and prosperity.

UON’s NeW Futures Strategic Plan (2016-2025) outlines UON’s 2025 vision. The Honeysuckle City Campus supports this Plan which seeks to create a University that is engaged, innovative, has a world perspective and committed to the wider community and the environment.



Figure E2: Honeysuckle City Campus Location Context Plan



Figure E3: Newcastle Light Rail, artist's impression



Figure E4: Market Street Lawn, artist's impression

Executive Summary

The Opportunity at Honeysuckle

The closure of the heavy rail corridor now offers uninhibited access to the waterfront from the CBD. Redevelopment of the former rail corridor through a comprehensive plan by UrbanGrowth NSW seeks to redefine the experience of the Newcastle CBD.

With significant investment from government, new initiatives to increase Newcastle's international profile and programs to attract talent and investment into the CBD will directly support UON's objectives for its Honeysuckle City Campus.

The higher learning industry is increasingly competitive. Students are not only after a high quality education but are looking for a complete experience with a focus social, lifestyle and urban living opportunities.

The Newcastle CBD has the potential to create an integrated urban education environment that builds off the amenity offered by a CBD location, the proximity to world class beaches and a fast developing urban waterfront. In addition to this, the CBD represents an opportunity for UON to better engage with the community and industry.

Concept Plan

The Concept Plan provides UON with a sensible and flexible development framework to further extend its academic presence in the Newcastle CBD over time. Academic facilities are proposed to be positioned so that they capitalise on visibility, views and accessibility. Associated activities such as student accommodation are co-located to provide a full campus experience without dominating or overshadowing UON's primary business of education.

Conclusion

The Concept Plan guides the future development of the Honeysuckle City Campus in a way that enables UON to fully realise the opportunity of the site and align with vision in the Strategic Plan.

The physical connectivity with the CBD will open UON up to new and diverse uses, collaboration and community engagement, as well as providing an attractive and vibrant place to work, live, study and visit.



Figure E1: Honeysuckle City Campus Illustrative Master Plan

Introduction

1. Introduction

1.1 Background

The University of Newcastle's (UON) NeW Futures Strategic Plan (2016-2025) outlines UON's 2025 vision and confirms the need for capital investment decisions to reflect and support the strategy and to deliver contemporary physical assets that allow UON to produce outstanding education, research and innovation outcomes.

This vision for the next decade of education at UON, identifies the following outcomes:

- New modes of education delivered from innovative and collaborative facilities in compact vibrant campus settings will maximise education outcomes and provide the best possible student experience;
- Excellent facilities in attractive locations with strong civic and lifestyle amenity are crucial to the attraction and retention of outstanding local and international students and staff.

The expansion of UON's Newcastle CBD presence to include future educational and mixed-use developments offers a number of important advantages:

- The presence of existing UON CBD facilities and disciplines in CBD, that support interdisciplinary learning and research;
- The City provides the most accessible and visible presence for UON to deliver education to local, regional and global communities that it aims to serve;

- An accessible campus in the heart of the City is a strong attractor of students for whom university may not be considered an option;
- A strong and enhanced future multi-discipline CBD presence can support engagement with business, government and community organisations and provide UON with a distinctive and visible community presence and impact;
- City campuses and facilities are highly attractive to the best international staff and students as places to work, research, study and live. UON's strengthened presence in the CBD will create a more vibrant and global city and enhance UON's global reputation and attractiveness to the international markets, which is necessary for the future financial sustainability of UON;
- The City presence enhances UON's positive civic, cultural and social impact on the region and provides positive brand recognition and positioning for UON;

This Concept Plan has been prepared for the development of facilities on land being acquired by UON in the Honeysuckle precinct of the Newcastle CBD. It identifies the built form and public domain design framework for the design of the future facilities. The Concept Plan supports both the NeW Futures Strategic Plan and the 2016 Estate Strategy.



Figure 1.1.1: Honeysuckle City Campus, location within the Newcastle CBD.

1. Introduction

1.1.1 2016-2025 NeW Futures Strategic Plan

Successful university plans are underpinned by a clear vision and institutional framework that provides a roadmap for the future and articulates the values and the direction of the organisation. The expression of shared goals and a shared future is important in the realisation of plans that confidently address the future.

The Honeysuckle Concept Plan outlines a development proposal that supports the UON NeW Futures Strategic Plan (2016-2025). The NeW Futures Strategic Plan identifies eight key objectives:

- An enduring commitment to equity and social justice
- Graduates who make a difference
- A passion for excellence and discovery
- Driving global and regional impact
- Engaging across the globe
- A shared future with our communities
- Staff who make their mark
- Building a sustainable future

The Strategy seeks to create a university that is engaged, innovative, has a world perspective and committed to the wider community and the environment.

1.1.2 Estate Strategy 2016

Complementing the Strategic Plan, the Estate Strategy identifies the important built and physical outcomes of a dispersed university. The document seeks to outline the common approaches to place, services, sustainability, management and facilities while articulating high level principles for the Callaghan, City Precinct and Ourimbah campuses.

Clustering development around Civic is intended to facilitate interconnection within existing and future CBD elements.

The draft plan for the City Precinct outlined in the Estate Strategy identifies a series of objectives:

- A strong CBD presence
- New learning opportunities
- Regional and industry engagement
- Activating the CBD
- A campus accessible by the community
- Contributing to the richness of the CBD
- Attracting investors
- An integrated development

The objectives within the NeW Futures Strategic Plan and Estate Strategy have been integral in shaping the Honeysuckle Concept Plan and remain as the key foundation in supporting this new development.



Figure 1.1.2: NeW Futures Strategic Plan 2016-2025

1. Introduction

1.2 Purpose

This Honeysuckle Concept Plan has been prepared to assist in expanding UON's City Campus and to establish the principles and parameters for the future design and development of the site. It is part of a suite of documents that will be developed during planning and delivery of the new facilities at the Honeysuckle City Campus.

The Concept Plan:

- Outlines key planning and site configuration decisions
- Identifies design considerations
- Confirms design principles
- Provides a clear basis for future stages in the project.

The Concept Plan will form the basis for creating a brief for the future engagement of architects to design and deliver buildings

1.3 Design Process

A structured process of analysis, options development, review and development of a preferred concept commenced in April 2017. The preparation of the Concept Plan for the Honeysuckle City Campus site has been developed focusing on three key areas:

1.3.1 Collaborative Design

Cox Architecture and Johnstaff Projects undertook a series of structured workshops and briefings with key stakeholders from both within and outside UON. Inputs from this process were key to:

- Confirming the project design drivers and master planning principles
- Review and feedback on the of site planning options
- Development of preferred concept option
- Determining future design requirements.

The key advisory body was the Focus Group – Research and Education which had participants drawn from across the faculty and key support areas. They participated in a series of workshops that focused on key areas of the project from high level principles through to conceptual area planning options.

1.3.2 Outputs

Site Assessment and Planning Options

High level scoping of the possible development options for the site was undertaken. This considered:

- Academic facilities that provide flexibility to accommodate a range of faculties
- Student accommodation to meet current and possible future demand
- Associated complimentary student services, retail, recreational and support facilities
- Parking and end of trip facilities to meet reasonable campus user requirements in the context of broader Newcastle parking and transport strategies.

Campus Integration

To successfully integrate the City Campus into the surrounding area, the master planning process included the following:

- Development of recommendations following site analysis and connectivity studies, for the integration of the site with the surrounding precinct, and connection with other University facilities
- Uses positioned on the site to maximise opportunities for community and industry interaction with UON
- Built form and public domain framework that maximises the amenity of the site for both users and visitors, making the Honeysuckle City Campus a memorable and enjoyable place to be in the heart of the Newcastle CBD and connected to the waterfront.

Building Concept Development

Built form proposed in the Concept Plan was developed with a number of key considerations:

- Testing of development envelopes to maximise amenity and balance required site development capacity
- In anticipation of the design quality of future developments and the positive impact of a strong University presence in the CBD, UON should consider pursuing available floor space bonuses
- Preparation of possible blocking and stacking arrangements
- Development of project staging that supports discrete delivery of facilities on the campus
- Development of land uses and development envelopes that respond appropriately to the planning regulations for the site.
- Advice on parking and transportation issues
- Advice on infrastructure services requirements for the development of the campus.

1. Introduction

1.4 Design Excellence Process

Design Framework

The University of Newcastle is committed to buildings that not only meet their specific educational and services requirements but are well designed, well resolved and appropriate to site and location.

The Structure Plan for the Honeysuckle Campus precinct provides a framework for the future delivery of high quality buildings and public domain detail. The design principles seek to create a precinct and new buildings that are:

- Engaged
- Unique
- Sustainable

The emphasis at Honeysuckle will be on quality and developing a coherent and consistent language on the new campus. The New Space building on Hunter Street, opened in late 2017 has been designed as a landmark expression of the University and its new commitment to establishing a greater presence in the CBD. It is not intended that the Honeysuckle Precinct complex will replicate this powerful and unique statement but create its own distinct character that complements the existing heritage context and new development within the Honeysuckle precinct.

Design Excellence Requirements

The Newcastle LEP outlines the city's Design Excellence criteria. The Structure Plan provides a framework that outlines the overall requirements of key elements within the site as the basis for design excellence. The Structure Plan identifies:

- the overall form of the development and its relationship to the quality and amenity of the public domain
- impacts on view corridors identified in the Newcastle City Development Control Plan 2012
- heritage issues and streetscape constraints
- the location of tall buildings, having regard to the need to achieve an acceptable relationship with other buildings on the site and on neighbouring sites in terms of separation, setbacks, amenity and urban form
- bulk, massing and modulation of buildings
- street frontage heights
- pedestrian, cycle, vehicular and service access, and circulation requirements,

Individual building designs must demonstrate:

- whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved
- how the development addresses:
 - environmental impacts such as sustainable design, overshadowing, wind and reflectivity
 - the achievement of the principles of ecologically sustainable development
 - the impact on, and any proposed improvements to, the public domain

To address the Design Excellence framework, design guidelines have been prepared for the precinct. These requirements identify the common elements intended to unite building designs within a strong public domain framework.

The guidelines address:

- Design Principles
 - Planning Principles
 - Development Parcels
 - Building Heights
 - Setbacks
 - Address
 - Site Infrastructure
- Public Domain Strategies
 - Site Interfaces
 - oPublic Domain
- Public Domain Elements
 - Planting
 - Paving
 - Public Domain Lighting
 - Street Furniture
 - Public Art
 - Heritage Interpretation
- Built Form Elements
 - Articulation
 - Materials
 - Building Lighting
 - Building Signage
 - Sustainability

A series of control diagrams for each lot illustrates the built form requirements

Design Excellence Process

For the new buildings on the Honeysuckle site, a series of initiatives have developed to ensure design overview and quality control:

- Development of a clear and robust brief for each building hat describes urban design and functional requirements
- The selection of well credentialed and awarded architects to be considered for projects
- An agreed design review process:
 - An internal design competition process for key buildings; or
 - An external design review process as agreed with Planning.
- Establishment of an internal Design Review Panel to monitor the progress of building designs. Participants are proposed to be:
 - A noted landscape architect
 - A noted architect
 - Precinct Master Planner (Cox Architecture)
 - Sue Ann Wares (University of Newcastle and the GANSW Design Review Panel)

The key, high profile sites that are to be delivered using an internal design competition are:

- Lot A1 corner Honeysuckle Drive and Worth Place
- Lot C- corner Honeysuckle Drive and Settlement Lane
- Lot F - Wright Lane at Civic Place

Design Considerations

2. Design Considerations

2.1 Campus Trends

2.1.1 Urban integration

Increasingly, universities are looking to relocate both teaching and accommodation facilities into city centres as a means of appealing to a more urbanised student cohort.

The urban setting offers a wider range of services, accommodation and entertainment options. The increasing affluence of students is driving a shift towards a desire for more lifestyle choices and convenience. The increasing trend for students to work part-time means locations closer to potential work or transport options are preferred.

Often, the university has been a catalyst for urban renewal that meets the changing demand brought about by a high student population in terms of access, safety, a high quality setting and variety of supporting activities and amenities.

The relocation of the University of Washington into downtown Tacoma saw not only investment into new and refurbished buildings, but upgrades of the surrounding public domain. Safe access to parking and public transport were key elements in the place-making strategy.



Figure 2.1.1: University of Washington Tacoma



Figure 2.1.2: University of Washington Tacoma, Light Rail Station



Figure 2.1.3: University of Washington Tacoma

2. Design Considerations

2.1.2 University identity

The positioning of well located and visible university assets in highly trafficked and busy urban centres can assist in raising an institution's profile as well as:

- Generating improved recognition within the city
- Using the city's assets to attract and retain students
- Creating commercial opportunities through the rental of meeting and function spaces.

Universities such as New York University have grown and expanded across their urban precincts. With no defined campus, signage and wayfinding elements are important in establishing their identity within the city framework.

Key strategies that reinforce the identity of the urban campus are:

- Movement & collaboration spaces visible from the street
- Activity within the building visible from a distance,
- Student activities (common spaces, dining sports facilities) that activate the streetscape
- Public/private functions expressed on the facade
- Atrium and public uses within the building (retail/cafés etc) visible from the street



Figure 2.1.3: New York University branding

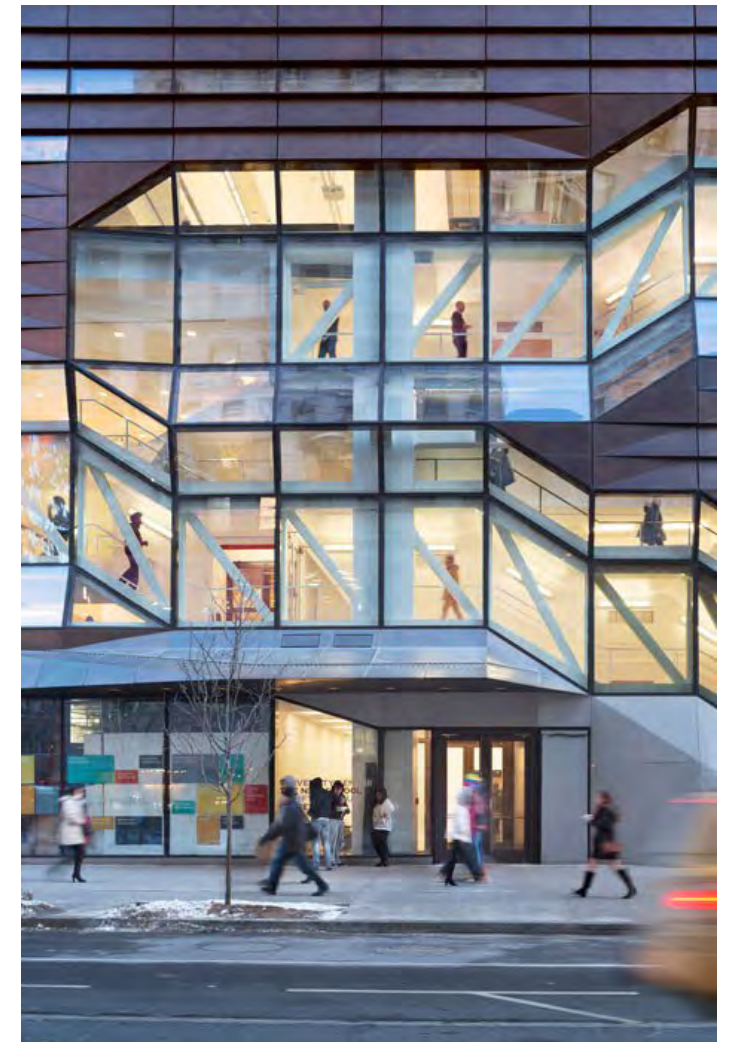


Figure 2.1.4: New School active façades

2. Design Considerations

2.1.3 Collaboration and Engagement

There is now much more competition for the best students. The quality of student experience is critical in attracting and retaining the best students.

The creation of state of the art facilities and quality spaces within campuses and buildings is a response to the changing expectations and aspirations of students.

New facilities must focus on the place-making elements of new learning environments and include:

- Informal student-centred spaces,
- Visual links and connections through buildings
- Public event spaces
- Inside and outside learning environments
- Group learning spaces
- Access to WiFi and power throughout the facility.

Student experience is also fundamental to reputation and retention and can be seen to impact the long-term loyalty to the institution of graduates, post-graduates and beyond.

The objective is to deliver an intimate experience where students feel at home and not part of a vast educational machine. Opportunities for collaboration, interaction and social engagement through the creation of a range of intimate and accessible spaces is critical in creating a sense of place and ownership.

The fostering of collaborative relationships between students and academics is likely to result in better outcomes.

Curated public events, university showcase spaces and a high degree of site permeability contribute to the fostering of closer community and industry connections with the university. At The New School in New York City, new high quality facilities at University Centre are used by the university to host public and private events that engage in public discourse and showcase student and staff talent to the wider community. These facilities can also be leased to external groups for conferences and functions, further opening up the university to the community and providing additional revenue streams.



Figure 2.1.5: Vertical physical and visual connections, VUC Denmark



Figure 2.1.6: Griffith University informal learning and collaboration spaces, COX Architecture



Figure 2.1.7: Auditorium at University Centre, The New School, NYC

2. Design Considerations

2.1.4 Community Engagement

Universities increasingly see themselves as a resource for a wider community. The desire for increased engagement within the local community can deliver tangible benefits for the university through:

- Fostering a sense of community ownership that builds identity and helps attract local students
- Engaging in city cultural events that enhance the reputation of the university
- Providing better access to research and service programs that benefit students and higher degree researchers
- Increasing opportunities for community engagement
- Demonstrating ongoing commitment to social engagement, innovation and research
- Decrease the separation that can lead to an 'us and them' mentality.

The University of Newcastle was created through the efforts of the local community and businesses. The Newcastle University Establishment Group in 1950 and the Lord Mayor's Committee for the Establishment of an Autonomous University of Newcastle were instrumental in the creation of UON.



Figure 2.1.8: University of Queensland Oral Health Centre, COX Architecture

Having been originally created by the community, the opportunity to better engage with Newcastle society is a key factor in UON's strategy to explore opportunities to strengthen its presence in the Newcastle CBD. UON at Honeysuckle can act as the connector in the CBD, bringing together thought leaders, industry, small businesses, not-for-profits and start-ups to co-create solutions to social challenges through social enterprise and knowledge transfer.



Figure 2.1.9: Alumni Green, UTS, Aspect Studios

2. Design Considerations

2.1.5 Technology

Today's campus is now a digital campus. The impact of rapidly changing technologies is felt by teaching staff, researchers and students as well as industry.

The ability to work anywhere by utilising technology has changed the student experience and increased demands for UON to support the concept of working anywhere, anyway, anyhow.

The ability to implement, operate and change new technologies is essential in the future proofing of new education facilities.

The ability for UON to utilise technology to readily showcase its research, student work and engagement to the wider community is a key opportunity in the CBD environment.

2.1.6 Industry engagement

Increased industry engagement is seen as a critical driver for university growth and reputation. The development of joint programs with industry and employer groups allows for:

- Exposure to new ideas
- Access to new funding streams
- Stronger connections with industry that equip students and graduates with valuable skills that cannot always be taught
- Research outcomes and innovations that are deeply connected to real-world issues and have meaningful social impact
- Improvements in student job-readiness and employability.

2.1.7 Mixed use environments

The increasingly flexible teaching methods and learning environments, as well as changed practices of students working while studying has seen student use of campuses extend late into the night. Library facilities at Callaghan are now offered 24 hours a day. Successful urban campuses are live-work-study precincts.

With this extended access to the campus, new support facilities are needed that activate a wider precinct and support students. On-site accommodation and access to a range of dining and after-hours retail options or pastoral care services are increasingly important.

The creation of mixed use precincts that generate all day activity require a number of design elements in addition to the mixture of uses in order to be successful:

- Ground floor activation through the introduction of retail and dining
- Outdoor recreation spaces
- Outdoor dining that extends into the evening
- A high quality public domain with good solar access and amenity
- Enriched public domain through heritage interpretation that contributes to sense of place,
- The provision of safe, active and open connections
- Public art opportunities/student work display
- A range of spatial experiences – plazas, laneways, and links that establish a legible hierarchy of spaces.



Figure 2.1.10: Student centred spaces, Ryerson, Toronto



Figure 2.1.11: Technology equipped inside/outside work spaces, WeWork

2. Design Considerations

2.2 Student Accommodation

The provision of student accommodation at the Honeysuckle City Campus site will bring 24/7 life and activity to UON's wider emerging CBD campus.

There is currently no dedicated UON student accommodation within the Newcastle CBD as an option for Callaghan students, or to support the UON faculties already located in the CBD.

Increasingly, lifestyle is a key issue that impacts the decision of a prospective student on whether to go to a particular university. The result of this trend has been higher space needs and the locating of facilities where students are not only close to learning facilities, but have easy access to recreational, retail and lifestyle offerings.

Facilities

Student accommodation is seen as a growth industry with a number of international companies now established in the Australian market, and Australian companies expanding into Europe. Each operator has a distinct product and approach to accommodation options however a number of common elements underpin the product offer.

There is an expectation that student accommodation facilities will provide superior amenity throughout. High quality facilities should include:

- Secure bicycle parking facilities
- Generous shared spaces for students to socialise, relax, or work together
- Outdoor recreation spaces that are comfortable for individuals to spend time in, and large enough to accommodate groups
- A variety of gathering or meeting spaces for small and large groups
- Access to high speed internet
- A mixture of studio apartments and bedrooms within larger shared apartments.

The student accommodation identified for the Honeysuckle City Campus is assumed to include a mixture of accommodation styles and will be developed further as detailed planning for the Campus progresses. The social spaces associated with the student accommodation are expected to enhance activation of the Honeysuckle precinct, through the strategic positioning of these spaces and a high degree of transparency at ground level.



Figure 2.2.1: RMIT Student lounge, Source: RMA



Figure 2.2.2: Urbanest Studio Room



Figure 2.2.3: Duke University Special Events & Dining Pavilion

2. Design Considerations

2.3 Benchmarks

A benchmark study has been undertaken to find comparable projects and developments in urban areas that offer lessons and ideas for the Honeysuckle City Campus. These benchmarks also assist in the visualisation and understanding of how design concepts can be translated into successful built outcomes.

2.3.1 Academic Projects

University Centre, The New School, NY

Key Facts:

- Architect: SOM
- 16 storeys, 35,000m²
- Levels G-7 = multi-purpose classrooms, design studios, laboratories, an 800-seat auditorium and the main university library
- 2,800m² academic floor plate
- Levels 8-16 = student accommodation floors (600 beds)
- LEED Gold

Design Elements:

- Designed as a campus within a building
- Vertically integrated academic spaces and student accommodation
- Social spaces interspersed throughout building - 'sky quads'
- Internal activity highly visible through the façades of the building
- Range of function spaces used for academic functions and to engage with the wider community.



Figure 2.3.1: University Centre, The New School, NY

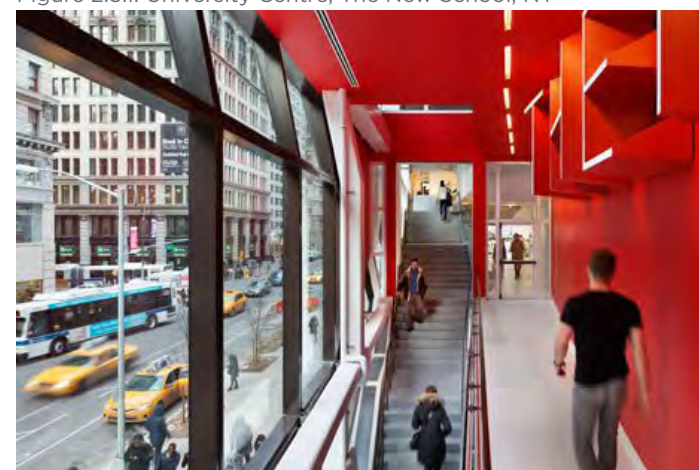


Figure 2.3.2: University Centre, visible circulation



Figure 2.3.3: University Centre, community event auditorium

Lessons Learned

- Ground level transparency showcases activity and events happening within the Centre, contributing to The New School's public identity
- Vertical circulation displayed on the facade highlights activity and movement within the building
- Integrated student accommodation and academic uses provides a potential model for the Honeysuckle City Campus
- Flexible learning spaces provided opportunities for collaboration
- Variety of large event spaces enable wider engagement with the community, reflecting The New School's identity and brand.



Figure 2.3.4: University Centre, light filled student centred spaces

2. Design Considerations

Ryerson Student Learning Centre, Toronto

Key Facts:

- Architect: Zeidler Partnership Architects & Snohetta
- 14,400m², 8 storeys
- Ground floor retail
- LEED Silver
- 50% green roof

Design Elements:

- Provides Ryerson students with an exceptional place to study, collaborate and discover.
- Academic, study and collaborative spaces
- Glazed facade acts as a lantern during the evening.
- Integrated into the urban environment with ground level retail and welcoming public forecourt
- Each floor has its own personality: open / flexible / enclosed / quiet



Figure 2.3.5: Ryerson Student Learning Centre, Toronto



Figure 2.3.6: Ryerson flexible student centred spaces



Figure 2.3.7: Each floor has its own personality



Figure 2.3.8: Building Concept Section

Lessons Learned

- Variety in student centred spaces throughout the building enables a personalised student experience
- The ground level is activated by retail and generous sheltered public space to provide a sense of arrival and gathering place within the urban environment

2. Design Considerations

1PSQ Western Sydney University, Parramatta

Key Facts:

- Architect: Architectus
- Flagship WSU Parramatta City Campus
- 11 storeys of educational facilities, 3 storeys commercial A-grade office space
- Central atrium connecting podium floors
- Roof terrace with break out area and expansive views
- 5 Green Star rating

Design Elements:

- Commercial office space at upper levels provides for close academic and industry partnership.
- Highly integrated spaces with inter-floor connectivity
- Conference space at upper level to bring community uses through the building
- Informal learning and collaboration spaces located at every level

Lessons Learned

- Internal atrium provides good visual and physical connectivity between floors and brings in natural light
- Co-location of commercial office enables opportunity for collaboration between WSU and industry



High Rise School, Adelaide

Key Facts:

- Architect: Cox Architecture
- South Australia's first high-tech vertical school (Adelaide CBD High School)
- 5 Green Star rating
- Under design development, scheduled to open in term 1 2019

Design Elements:

- Multi-disciplinary learning environment
- 'Active atrium' - passive learning opportunities
- 'Maker spaces' - innovative and collaborative learning spaces at each level
- Exhibition/gallery space at plaza level for community events
- Strong connection to surrounding landscape

Lessons Learned

- Internal atrium space used for passive learning and breakout spaces, as well as for circulation and to bring in natural light
- Ground level exhibition space enables community engagement with the school



2. Design Considerations

Innovation Central, Cardiff University

Key Facts:

- Architect: Hawkins Brown
- 12,000m² building - includes 2,800m² commercial units for start-ups
- Ground floor public space used to collaborate and communicate

Design Elements:

- Designed to link together academics and commercial tenants
- The 'Oculus' open staircase through void to drive engagement and collaboration
- Flexible, re-programmable floor plate
- Showcasing activity - facade enables viewing of activity from outside
- Flexible auditorium made up of big steps and pull-out flexible seating cubes
- Secure data facility, fabrication lab, visualisation lab, TV studio



Lessons Learned

- Flexibility is a key design driver to enable changing building programmes, and adaptation of event spaces
- Co-location of academic and commercial start-up tenants fosters research and innovation

Axel Springer Campus, Berlin

Key Facts:

- Architect: OMA
- Winning design competition scheme for new Axel Springer campus
- Under design development

Design Elements:

- New building will act as both a symbol and a tool, highlighting the transition from print to digital media
- Cultural transformation through radically modern workspaces
- Series of terraced floors form a valley, an informal stage at the centre
- Publicly accessible rooftop park
- Ground floor open to the city, containing studios, event and exhibition spaces, restaurants and cafés

Lessons Learned

- Strong narrative about how the building is designed to foster cultural transformation within the workplace
- Facade designed to reveal public facing activity, and conceal private activity



2. Design Considerations

2.3.2 Student Accommodation Models

North, South, East and West Residences, Newcastle

Operated by UON Student Living, the North, South, East and West Residences at the Callaghan campus were opened in 2015. This award winning development features 778 beds in a series of mid-rise buildings that offer a mix of studio rooms, one and two bedroom self-contained apartments, five and six bedroom share apartments.



Callaghan Campus Student Accommodation

2. Design Considerations

Urbanest, Southbank Brisbane

Higher density student accommodation is common around the world. Urbanest's South Bank accommodation in Brisbane by Cox Architecture (716 beds in a 14 storey complex) has a range of studio and shared formats with apartments ranging from studios and four to 16 bed configurations.



Urbanest Student Accommodation, South Bank QLD. Cox Architecture

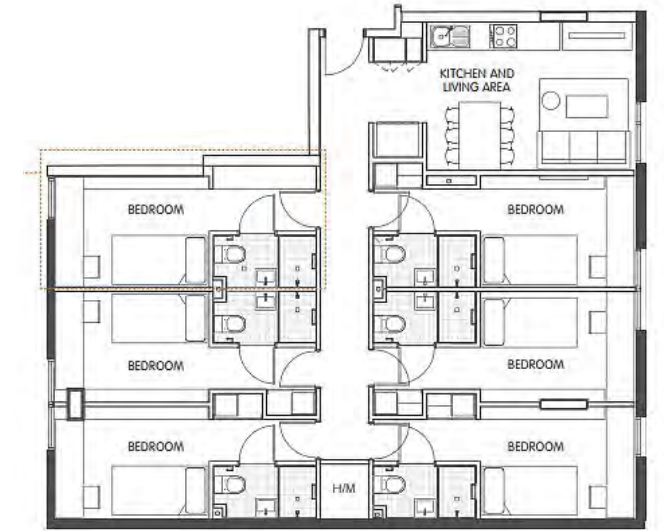


Iglu, Central Sydney

Iglu's Central property in Sydney offers high rise living in an inner city location close to UTS and to Central Station. A range of apartment types - studio, two, four and six Bed shared apartments are provided.



Iglu, Central Sydney



The Opportunity at Honeysuckle

3. The Opportunity at Honeysuckle

3.1 The Site

3.1.1 Site Description

The new Honeysuckle City Campus is located on a series of connected lots between Honeysuckle Drive and Civic Lane within the Honeysuckle redevelopment precinct.

The site is bounded by Honeysuckle Drive to the north, a private lot with Right of Public Access known as Settlement Lane to the east, Civic Lane to the south, Worth Place to the west and future Civic Link to the east. The site includes Wright Lane - a private lot with Right of Access / Right of Carriageway that runs along the northern edge of Sites 2 and 3.

The total area made up of Sites 1, 2 and 3, and Wright Lane is 22,069m².

The full site area is made up of the following parcels:

- Lots 1, 2 and 3 DP 1163346 (Site 1);
- Lot 21 DP 1165985 (part Sites 2 and 3);
- Part Lot 2 DP 1226145 (part Sites 2 and 3, referred to as Rail Corridor within this report); and
- Part Lot 4 DP 1111305 (part Wright Lane).

Sites 1, 2 and 3 are owned by UON, acquired from HCCDC.

Immediately to the south of Site 3 is 468 Hunter Street, a property already owned by UON. While not included in the site area, this Concept Plan considers this site as an important opportunity to create a future pedestrian connection between the Honeysuckle City Campus and NeW Space.

3.1.2 Site Capacity

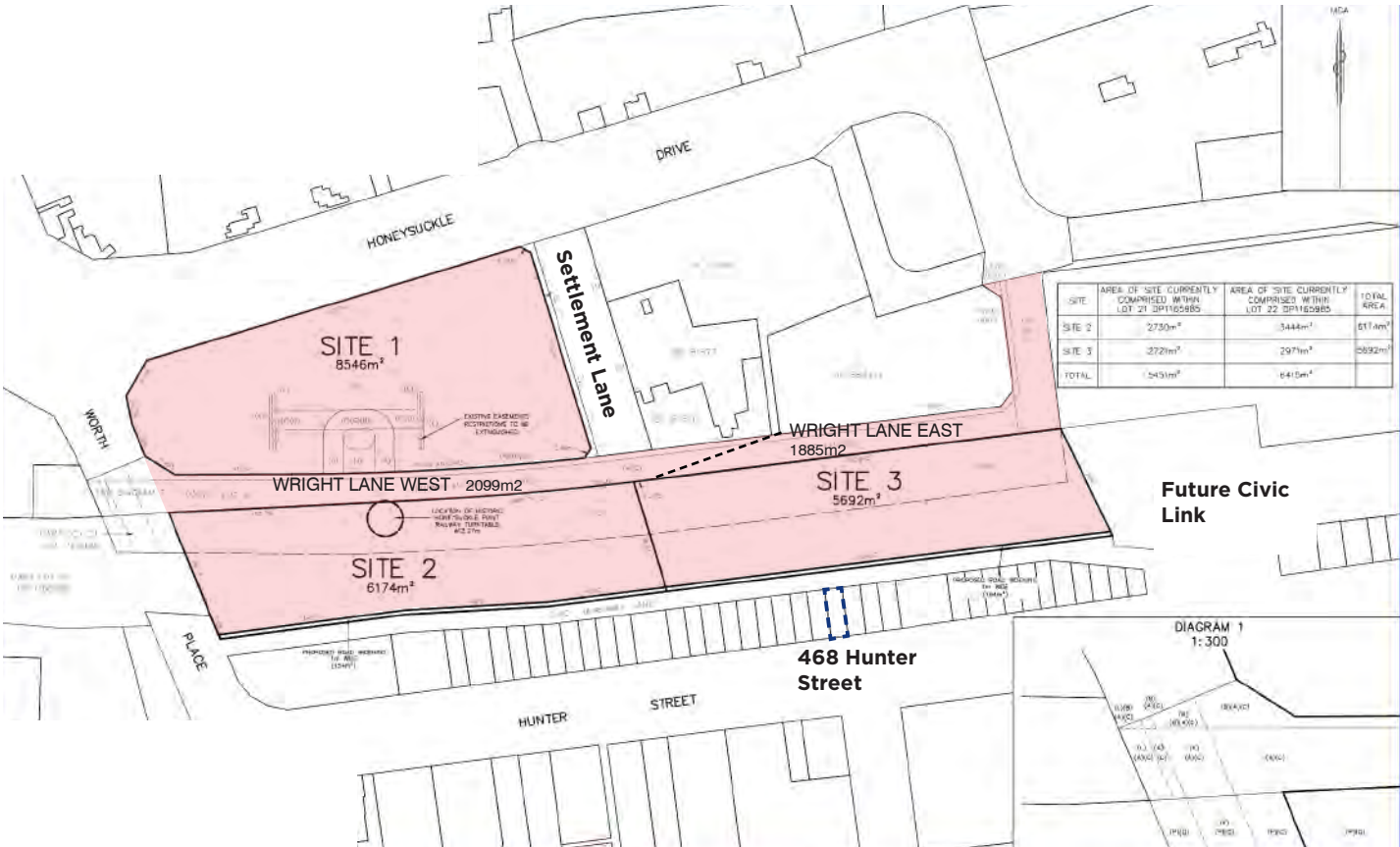
The maximum floor space for the site is based on existed and planned zoning for the site. Planning controls for former rail corridor on Sites 2 and 3 have been recently updated by Newcastle City Council.

The calculations that have been used to formulate the Concept Plan are as follows:

Site	Site Area	FSR	GFA
1	8,546m ²	2.5:1	21,365m ²
2	6,174m ²	3.0:1	18,522m ²
3	5,692m ²	3.0:1	17,076m ²
Wright Lane East*	1,885m ²	2.0:1	3,770m ²
Wright Lane West*	2,099m ²	2.5:1	5,248m ²
Total	24,396m ²		65,981m ²

* Parcel aligns with FSR map

Floor space will be distributed across the precinct to ensure the best functional and urban design outcome.



Land Ownership

3. The Opportunity at Honeysuckle

3.1.3 City Context

The site's location close to the waterfront and its relationship to both Civic and the emerging urban education precinct represent significant opportunities for the new campus.

The Honeysuckle site is well positioned to reinforce a highly walkable and accessible UON education precinct in the CBD, with easy access to both the Honeysuckle and Civic light rail stations.

The site's north facing aspect and close proximity to the Hunter River waterfront in Honeysuckle provides the opportunity to create a great environment for students, staff and visitors to enjoy.



3. The Opportunity at Honeysuckle

3.1.4 University Developments in the CBD

The development of this site for the Honeysuckle City Campus will enhance UON's future presence in the Newcastle CBD. It builds on UON's historical presence (University House, Northumberland House, and Conservatorium of Music) and the more recent strategic development of NeW Space to create a contemporary city based campus for UON's future success and prosperity.

The existing UON assets in the CBD will be supported by the development of a dedicated facility that complements existing uses and provides new support services and functional areas including expanded library, collaboration spaces, community venues and student accommodation. UON's acquisition of 468 Hunter Street can be used to create a future pedestrian link that enhances connectivity between UON developments.



3. The Opportunity at Honeysuckle

3.2 Leverage Newcastle's investments

The closure of the heavy rail corridor will transform the CBD with new, uninhibited north-south connections to the waterfront from the city. The development of a comprehensive plan for the CBD by UrbanGrowth NSW and the delivery of the new light rail seek to redefine the experience of Newcastle.

The Newcastle Urban Transformation and Transport Program (NUTTP) aims to strengthen connections between the city and the waterfront, create new jobs, provide more public space and amenity and deliver better transport.

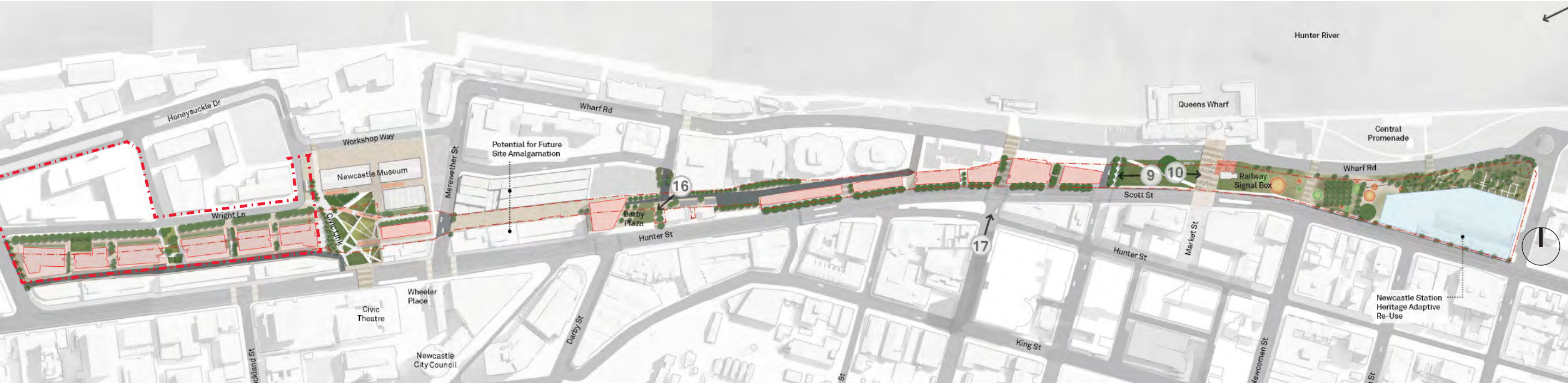
The NUTTP is part of the NSW Government's more than \$500 million commitment to revitalise Newcastle's city centre.

Civic Link is a new public open space, proposed as part of the NUTTP, located directly to the east of the Honeysuckle City Campus site. This space will become a vibrant community hub at site of the former Civic Station, and as the forecourt to the Newcastle Museum. As well as a recreation space, it will be an important pedestrian and visual link that connects Hunter Street to the waterfront.

This open space has the potential to provide significant amenity to the Honeysuckle City Campus.



Civic Link, Artist's Impression, UrbanGrowth NSW



Revitalising Newcastle Corridor Map, NSW Government

3. The Opportunity at Honeysuckle

Under the NUTTP, projects currently in planning or under construction are:

- Newcastle Light Rail
- Wickham Transport Interchange
- Market Street Lawn
- New public spaces at Darby Street and at Civic
- Refurbishment and reuse of the old Newcastle Rail Station.

The opening of the Newcastle Courthouse complex in February 2016 represents a further \$90 million in the CBD by the NSW Government.

Responding to the opportunity for and investment in the renewal of Newcastle, Newcastle City Council has established the Newcastle Smart City Initiative which provides a framework for maximising opportunities in new technology, advanced manufacturing, the digital economy and creative industries. The initiative aims to improve develop economic diversity and strengthen local innovation. One element of this, the Hunter Innovation Project of which UON is a partner, is developing innovation spaces, data connectivity and smart city infrastructure to leverage investment in research and technology within the precinct.

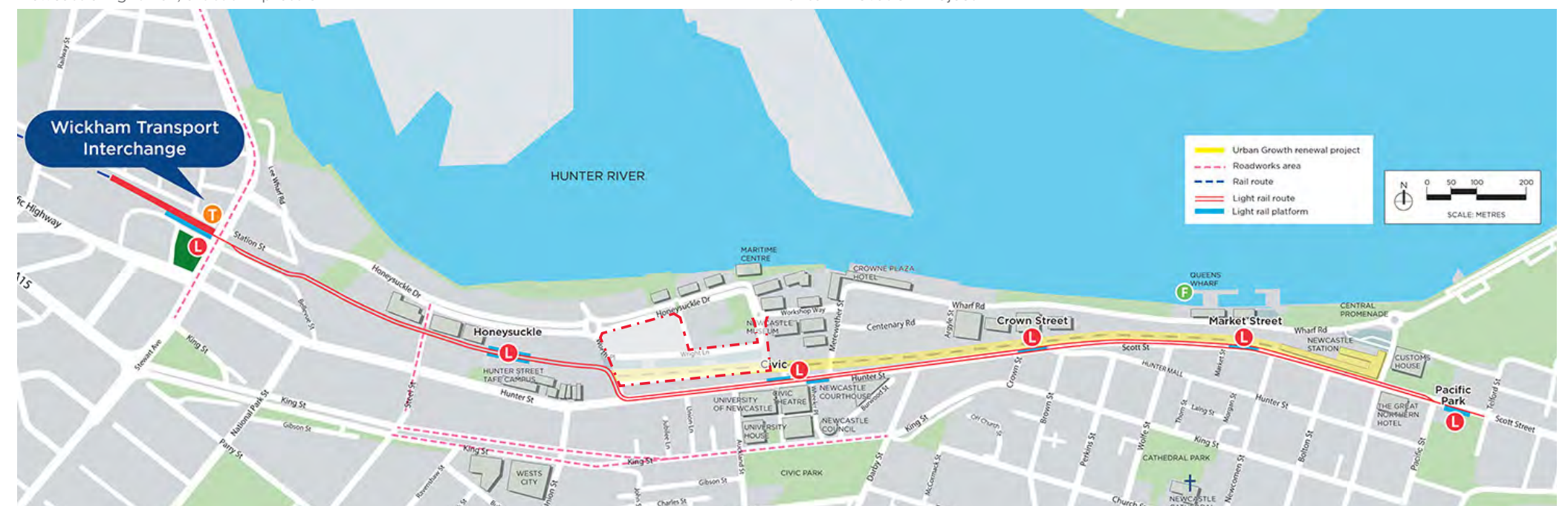
With more than \$700 million investment, government support for local innovation, efforts to increase Newcastle's international profile and programs to attract talent and investment into the city will directly support the UON's objectives for its Honeysuckle City Campus.



Newcastle Light Rail, artist's impression



Hunter Innovation Project



Newcastle Light Rail route

3. The Opportunity at Honeysuckle

3.3 Leveraging UON's Assets

UON already has a significant presence in, and commitment to the Newcastle CBD.

UON's NeW Space and the refurbishment of University House represent over \$100 million in investment in the CBD and demonstrate a significant commitment to the creation of a CBD presence and a new focus on UON's identity and profile.

UON's identity has traditionally been associated with greenfield campuses at Callaghan and Ourimbah. While several departments have a CBD presence (University House, Northumberland House and Conservatorium of Music), the opening of NeW Space is influencing the community's perception of UON's commitment to the Newcastle CBD.

The potential relocation of additional disciplines alongside the introduction of new initiatives including the Global Impact Clusters have the potential to change the perception of UON. This consolidation provides the opportunity to strengthen industry connections and support further interdisciplinary links.

With its mix of uses, the Newcastle CBD has the potential to create an integrated urban higher learning cluster that leverages the amenity offered by a CBD location, the proximity to world class beaches and a fast developing urban waterfront.

The CBD location provides the opportunity to display and showcase the disciplines and innovations of the whole University to the community. The showroom concept allows for changing displays that generate community and industry interest and raise UON's profile.

Digital displays on the outside of the building can be used to showcase UON and the products of specific courses such as animation and video art.



NeW Space



University House



The Conservatorium



Three76 Hub

3. The Opportunity at Honeysuckle

3.4 Advantages for UON

The higher learning industry is increasingly competitive. Students are not only after a high quality education but are looking for a complete experience that includes the social, lifestyle and employment opportunities brought by urban living.

The quality of life and urban experience created in the Newcastle CBD may not only help make University of Newcastle the first choice of new students but also help grow higher degree enrolments and consolidate new and existing research partnerships.

The Concept Plan looks beyond building outcomes and focuses on the assets and opportunities that this site in the CBD and on the waterfront have, that help make UON increasingly attractive.

The direct advantages for UON are seen as:

- Growing UON presence and profile in the CBD;
- Embedding a permanent concentration of human capital into the CBD;
- Contributing to the social, cultural and economic prosperity of Newcastle;
- Engaging in high impact research in the CBD;
- Integrating seamlessly with the city's key connections, transport system, cultural, civil, commercial, service, residential, leisure and retail offering; and
- Close connection to Newcastle's world class natural assets including its beaches and parks that contribute to a highly attractive and balanced lifestyle.

The proposal provides a framework to support the ongoing integration of UON into the urban fabric of Newcastle, connecting and supporting UON assets including NeW Space and University House.



Merewether Baths



Civic Theatre

3. The Opportunity at Honeysuckle



Honeysuckle Waterfront Dining



Darby Street Cafés



Newcastle Beach

Site Assessment

4. Site Assessment

4.1 Site Conditions

4.1.1 Site History

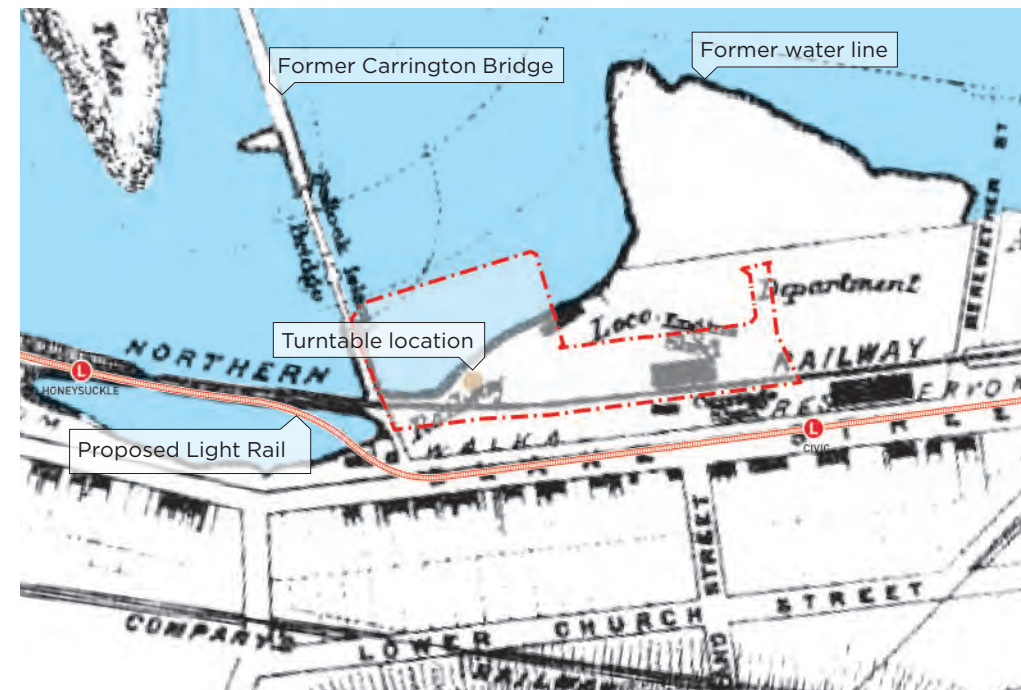
The site is located within the Honeysuckle redevelopment precinct and includes part of the old rail corridor. Known by the Aboriginal people as Meekarlba, Honeysuckle was originally the home of the Awabakal People.

The rail previously ran along the water's edge with the original Honeysuckle station to the east of the UON site lying directly on the harbour. The original Carrington Bridge ran across the river mouth, north from today's Worth Place.

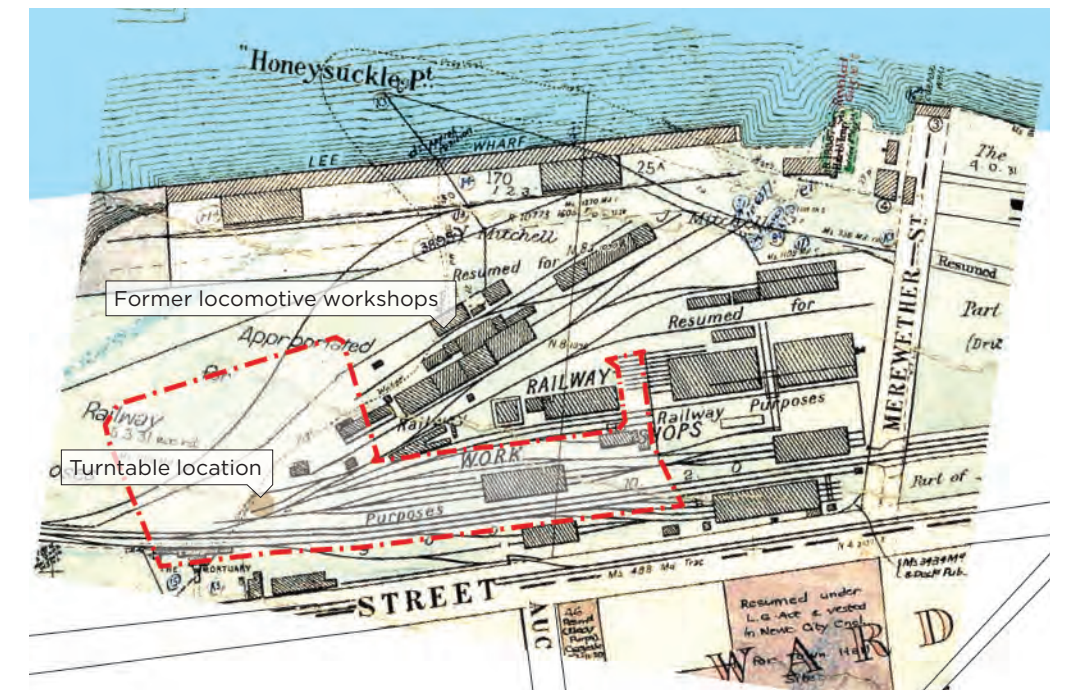
The area was filled in the 1880s and was the site of new wharves on the harbour and the Locomotive Works. A number of the original buildings are kept throughout the precinct.

The remnants of a locomotive turntable dating between 1856-1895 are located on the site and are considered to be of very high archaeological significance. Elements of the turntable may be the oldest surviving railway relics in NSW. Previous heritage studies by GML (2008) and Peter Fenwick (1994) indicate that the turntable's significance warrants in-situ retention. The turntable is currently not exposed and is understood to sit largely within Site 2. Recommended options for retention by previous studies include:

- Excavation and exposure of turntable as display of early railway technology
- Turntable left unexposed with its position marked by circular paving with interpretive panels erected.



Honeysuckle 1876 - Overlay on existing Aerial



Honeysuckle 1916, prior to construction of Civic Station - Overlay on existing Aerial



Honeysuckle Station on the waterfront, built 1872



Locomotive and Turntable at Honeysuckle, installed 1857

4. Site Assessment

In 1908 a sea wall was constructed along the foreshore and included significant land reclamation along the foreshore.

Operation of the railway workshops declined following the closure of the foundry in 1958, with closure of the railway yards in the 1990s. The site was handed to the Honeysuckle Development Corporation in 1992, who were tasked with planning for the redevelopment

of a 4km stretch of the waterfront. Some demolition, clearance and decontamination of the former rail yards took place to enable new development and private investment.

Some site contamination is still present on the site in both the soil and groundwater following its industrial history. Management of contamination will require a detailed site management plan prior to development.

The former commuter rail line that ran through the site from Wickham Station to Newcastle Station has been removed, however the platforms of former Civic Station remain on Site 3. These will require removal and possible fill to level the ground prior to development of that site.



Lee Wharf and railway workshops, Circa late 1930s



Honeysuckle 1970s

4. Site Assessment

4.1.2 Adjoining uses

In partnership with the local community, the State Government in 1992 set about to transform 50 hectares of surplus government land along the Hunter River waterfront adjacent to the Newcastle CBD.

The Honeysuckle Development Corporation (now Hunter Development Corporation) has overseen the construction of new commercial, residential and hotel uses within the precinct. An extensive waterfront open space network offers significant amenity to users.

The precinct has seen steady development since its inception with key commercial users (NIB and Hunter Water) relocating to the development area. Reflecting market conditions, most recent development has been residential.

Sites adjoining UON's site are predominantly residential to the north, and mixed use commercial and residential to the south. The Newcastle Museum is located north of the old Civic Station to the east of the UON sites.



4. Site Assessment



Newcastle Harbour waterfront promenade



Serviced apartments to the east of the site



Newcastle Museum



Honeysuckle waterfront dining and residential



Heritage locomotive buildings



Residential development on Honeysuckle Drive

4. Site Assessment

4.1.3 Key Attractors

The site's location at Civic means that the Honeysuckle City Campus site is close to key cultural and civic assets. These include:

- Wheeler Place
- The Civic Theatre
- Newcastle Art Museum
- Newcastle Library
- Newcastle TAFE
- Newcastle Courthouse

The delivery of the new light rail (replacing the rail service between Wickham and the old Newcastle Station) is seen a catalyst for new development in the precinct. With a service of approximately every 15 minutes in peak, the light rail will be more frequent than the trains that previously stopped at Civic and extends to the east to serve the beaches at Pacific Park.

The light rail will open up easy access to a broader range of amenities and attractions within the Newcastle CBD including a new stop at Pacific Park on the doorstep of Newcastle Beach. The light rail will encourage more pedestrian traffic around the UON Honeysuckle City Campus site with the more permeable street network it will help to catalyse.



4. Site Assessment

4.1.4 Site access

Access to the site will be significantly improved by the closure of the heavy rail, opening of new streets, new light rail stops and new open space upgrades throughout the CBD.

While the main street address is likely to be on Honeysuckle Drive, the primary pedestrian catchment is to the east, west and south. The site is halfway between the Honeysuckle and Civic light rail stops to the west and east respectively, and there are likely to be significant pedestrian flows to and from Hunter Street.

The opening of new links in the block of Hunter Street between Worth Place and Civic will further reinforce movement from the south. UON’s ownership of 468 Hunter Street provides a key opportunity to establish a new pedestrian link between the site and NeW Space. Enhancing pedestrian connections through to the waterfront is critical to providing significant amenity for the precinct.

Vehicular access will be improved by a new link across the rail corridor at Worth Place delivering left-in/left out at Hunter Street with the potential to add a new right turn out of Worth Place into Hunter Street in the future.

Civic Lane will remain as an important point of service to both the UON sites and to Hunter Street properties. The western end of Wright Lane passing through the site has a very limited role in the transport network and may not be required in the future.



4. Site Assessment

4.1.5 Views

The development of 6-9 storey residential buildings along the waterfront provides a barrier to much of the potential for views from the site.

There are however a number of slot views (down Worth Place) and views over low rise heritage buildings in the centre and at the eastern end of the site.

The views to the river are long fetch views along the arm of the Hunter River at Wickham or the high quality views towards Stockton and the distant hills to the north.

Newcastle City Council's DCP identifies a series of view axes to the waterfront that should be preserved in the public domain.

The design of built form at the Honeysuckle City Campus has the opportunity to capture these to the waterfront in the north, while still retaining public view corridors in the public domain.



4. Site Assessment

4.2 Traffic and Access

4.2.1 Newcastle Light Rail

Newcastle Light Rail is a key element of the Newcastle Urban Transformation and Transport Program, helping to facilitate urban redevelopment of public, residential and commercial land as well as providing an efficient and accessible mode of transport through the Newcastle CBD. The light rail will extend along the former heavy rail corridor from Wickham Transport Interchange, and transition to Hunter Street at Worth Place, extending to Pacific Park in the east. Six light rail stops will be provided along the route, including one at Honeysuckle directly to the west of the Honeysuckle City Campus site, and one directly to the east at Civic.

4.2.2 Expected Travel Mode

A transport assessment undertaken by ARUP to support the Concept Plan identifies the expected travel mode for different users and provides recommendations for parking and cycling provisions at the site.

Public Transport

It is anticipated that of the students and staff living within public transport catchments, approximately 70% of staff and 90% of students will adopt a public transport mode. Staff living within the wider public transport catchment may park and ride at rail stations or at the Callaghan campus.

Vehicle

For those staff and students who choose to drive, they have the option of parking in a public parking station in the CBD or utilising a park and ride facility. The Transport Assessment determined that there is capacity in existing parking stations in the precinct to accommodate parking demand for the Honeysuckle City Campus. It is likely that the parking station market would respond to the demand and offer discounts to students and staff using parking stations near the campus.

UON currently provides an on-campus shuttle at Callaghan which provides a connection to Warabrook Station. There is an opportunity for UON to extend this service to connect Callaghan with its current and future CBD developments.

This shuttle service could also offer park and

ride service for students and staff who wish to park at Callaghan and drive to the CBD. Other locations could be considered for park and ride utilising existing car parks in the region that are generally underutilised on weekdays such as at the Ausgrid Stadium or BHP site at Mayfield.

Walking and Cycling

The location of Honeysuckle within the Newcastle CBD would attract a higher than average proportion of students who choose to live within walking and cycling distance of the campus. An expected shift of students moving into accommodation within walking distance of the Newcastle CBD will increase the proportion of those walking to the campus. ‘Other’ mode share is based on a target of 5% cycling rate.

The following table outlines the potential staff and student travel mode share:

Mode		Staff %	Students %
Car	Driver	30%	10%
	Passenger	4%	2%
Train	Walked	10%	12%
	Park and Ride	10%	12%
	Cycled	1%	2%
Bus		35%	45%
Walking		5%	10%
Ferry		1%	1%
Other (Cycling, Motorbike, Taxi etc.)		4%	6%
Total		100%	100%

The Concept Plan has assumed public transport, walking and cycling as the modal priorities for the City Campus. To respond to this, safe and easy pedestrian and bicycle links are important design drivers of the Concept Plan. Bicycle parking and end of trip facilities are also key considerations in the Concept Plan to encourage cycling.

Parking on site has been identified for the following users only:

- Mobility impaired - 3 spaces
- Visiting lecturers/senior staff - 3 spaces
- University operations vehicles - 6 spaces

4. Site Assessment

4.3 Engineering services Infrastructure

An investigation of infrastructure servicing the site has been undertaken to determine the enabling works requirements as well as future capacity requirements for development of the Honeysuckle City Campus. Advice from a number of authorities is yet to be received, however initial assessment confirms that development can be accommodated on the site and that there are few impediments to delivering the project.

The review by engineers ADW Johnson has confirmed the following:

4.3.1 Water

- Water enabling infrastructure and capacity is available.
- A water main is located to the west of the site in Worth Place and crosses Honeysuckle Drive to the north.
- Extension may be required to augment system capacity with connection to a main in Hunter Street
- Awaiting servicing advice from authority

4.3.2 Sewer

- Existing waste water pump station and sewer rising main has sufficient capacity
- New development in the catchment by others may absorb spare capacity and upgrade would be required to enable Honeysuckle City Campus development
- Awaiting servicing advice from authority
- Staged connection works will be required

4.3.3 Stormwater

It is understood that existing site stormwater drainage infrastructure is as follows:

- Existing drainage infrastructure installed in Wright Lane;
- Existing drainage infrastructure in Honeysuckle Drive; and
- The above items connect to a trunk drainage culvert to the west of the site beneath Worth Place which drains north to Newcastle Harbour.

The existing drainage infrastructure in Wright Lane will require relocation to avoid the proposed development footprint.

Following review of the surveyed ground levels, a ground level connection must remain open along Wright Lane to enable overland flow through the site.

On-site stormwater retention and detention will be required with each development stage to ensure that the development will not create an increase in stormwater discharge and will not require upgrade to the drainage network.

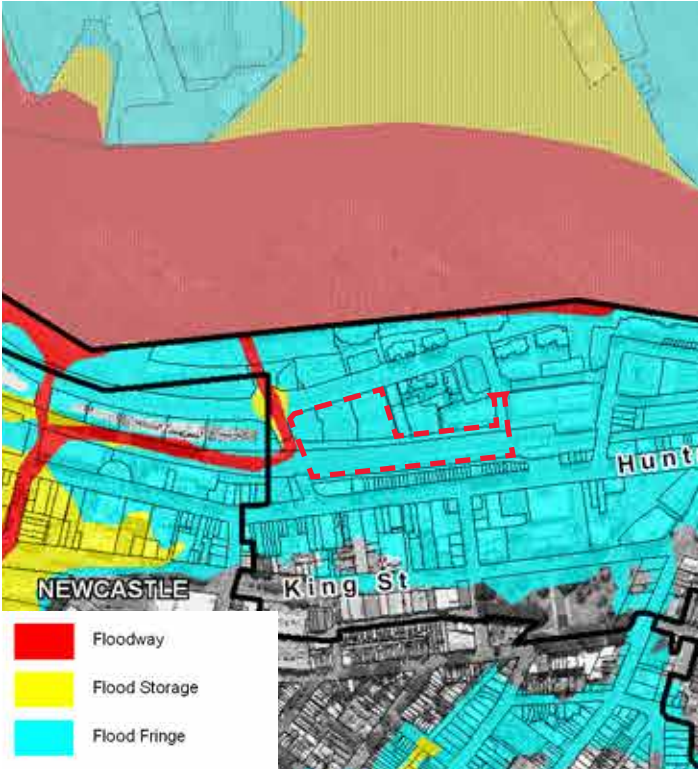
4.3.4 Flooding

Flooding of the Hunter River in Newcastle is a significant issue with large parts of the CBD affected.

Flood mapping assesses a series of flood types and risk categories across the Hunter River catchment. The UON site is noted as being a Flood Fringe site. Worth Place is noted as a major floodway with depths up to 1m possible.

Flood Planning Levels have identified by ADW Johnson as follows:

Area	Level
Minimum Property and On-ground Garaging	2.28m AHD
Minimum Habitable Floor Level	2.58m AHD
Minimum Upper Floor Level Stairway Exit	3.38m AHD
Basement Parking Entry/Exit Crest/ Flood Barrier	3.38m AHD



Newcastle Floodplain Risk Management Map



2007 flooding in Newcastle CBD



Historical photograph of flooding in Steele Street, Newcastle CBD

4. Site Assessment

4.3.5 Electricity

Enabling works will be required to service the development of the site including:

- Relocation of existing electrical infrastructure in Wright Lane and under future development footprints and maintain electrical feed to the existing kiosk substation at the eastern end of Wright Lane.
- Relocation of overhead lighting infrastructure in Civic Lane
- Installation of 2 x new 4,500kVA chamber substations to service the new development. One to be developed with a Stage 1 building, with the second developed with a Stage 2 building.
- Existing chamber substation at the western end of Civic Lane in the south west corner of the site to be demolished with capacity catered for in the new Stage 1 chamber substation

Due to ongoing works within the rail corridor it is not possible to ascertain the status of electrical supply within the rail corridor from Ausgrid. Further discussion with HCCDC is required to establish what, if any electrical infrastructure would remain at handover of the property. Note that this infrastructure is shown to cross the boundary with the existing carpark toward the eastern end of the site.

It is also noted that the electrical infrastructure in Honeysuckle Drive and Settlement Lane are in close proximity to the building footprint. Relocation is not required but care must be taken to ensure that the services are not damaged during construction.

4.3.6 Telecommunications

Based on Dial Before You Dig Information, the following services have been identified:

- Fibre Optic NBN infrastructure installed in the southern verge of Honeysuckle Drive to the north of the site; and
- AARnet infrastructure is available to the south of the site in Hunter Street with a short connection required.

There are NBN connection stubs within the development footprint on Site 1 (Lots 2 and 3 DP 1163346) that will require demolition. There are also Telstra services within the rail corridor which will require demolition.

4.3.7 Gas

Based on Dial Before You Dig Information, the following services have been identified:

- Existing 1050 kPa secondary steel main is installed in the northern verge of Honeysuckle Drive; and
- Existing medium pressure mains installed in the northern verge of Honeysuckle Drive and in Worth Place.

There are no known gas infrastructure items within the development footprint that would require demolition or relocation.

4.3.8 Subsidence

There are varying extents of mining below much of the Newcastle CBD. The Mine Subsidence Board (now Subsidence Advisory NSW) is responsible for identifying areas of risk and potential impact for land affected by possible subsidence of old mines.

A review of contamination, mine subsidence and geotechnical data for Sites 1, 2 and 3 was undertaken by Coffey and identified the following:

Site 1:

- This site is underlain by mine workings at a depth of approximately 75m
- Some grouting works occurred for the previously approved development of this site, however details are unclear and it is anticipated that most grout boreholes will need to be re-drilled.

Site 2:

- This site is unlikely to be constrained by mine subsidence issues

Site 3:

- This site is unlikely to be constrained by mine subsidence issues however it is unclear if Subsidence Advisory NSW will be stricter on this site than neighbouring sites as there is a small pocket of mine workings within the site. Due to the limited nature of this pocket of workings, failure of the workings is unlikely.

4. Site Assessment

4.4 Site opportunities and constraints

In developing a comprehensive response based on the site and the context, it is important to identify a site's opportunities and constraints so that the design can build on the site's strengths and mitigate any weaknesses.

4.4.1 Opportunities

- Located at the prime frontage on Honeysuckle Drive
- Large contiguous site that will be under single ownership
- Potential access to new open spaces to the east (Civic Station) and the west (Worth Place)
- Good views over low rise heritage buildings to the north
- Potential views to the site from Hunter Street at both Worth Place and Civic
- Servicing of consolidated site possible via Civic Lane
- Good solar access from the north
- Wright Lane not essential to overall road network
- Close connection with the Honeysuckle waterfront.



4. Site Assessment

4.4.2 Constraints

- Although improved by rail closure, there is limited road access from Hunter Street.
- Flood impacts - Worth Place is identified as a 'floodway', with the whole site within the 'flood fringe' zone
- Mine subsidence
- Views back to NeW Space may be lost with redevelopment on Hunter Street
- Wright Lane bisects the site if it were to be left open to traffic



Design Principles

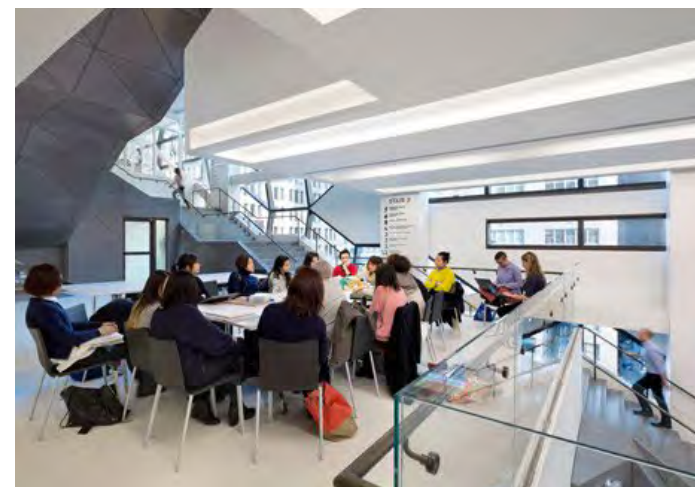
5. Design Principles

5.1 Master Plan Principles

A series of design principles have been developed through the workshop process to guide the master plan response.

Engaged

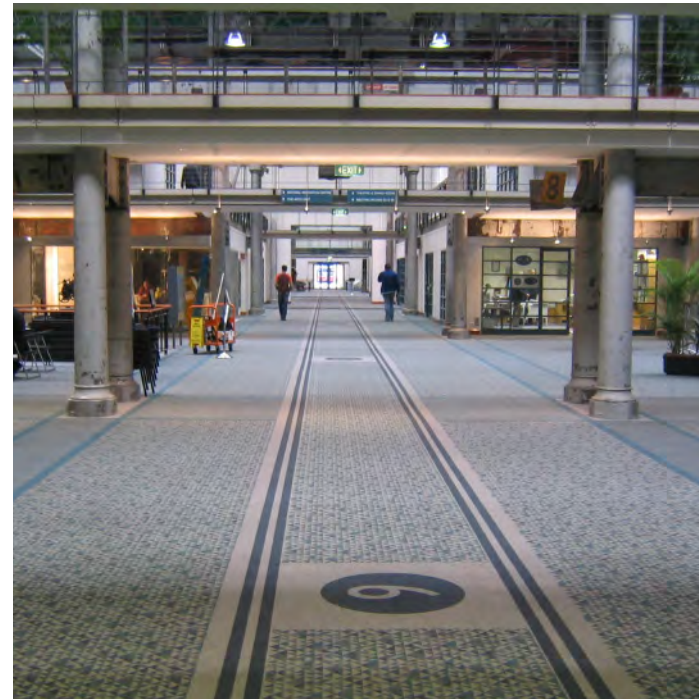
- Create a strong, **visible** UON presence in the Newcastle CBD that is welcoming to students, staff and visitors and contributes to a **sense of identity and place**.
- Contribute to the **vibrancy** of the Newcastle CBD during the **day and night** by designing the urban environment to be have **safe** and **open** connections, with ground level activation.
- Create an **urban campus** that is **integrated** with the CBD and enables boundaries between university and city to be **dissolved** through **physical and visual links** in the built form and public domain.



5. Design Principles

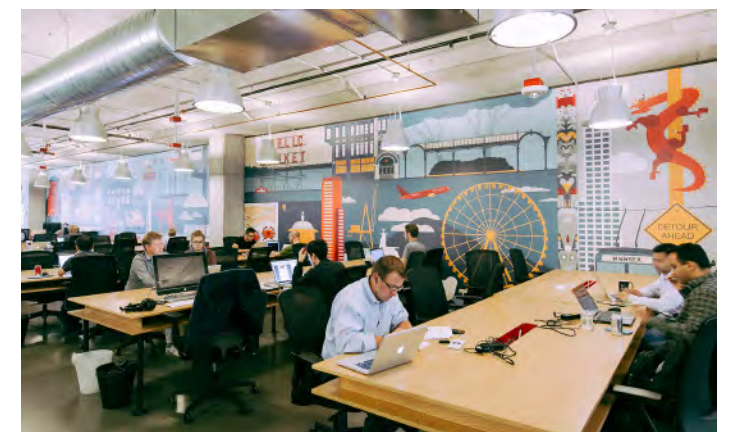
Unique

- Create a campus environment that is a **vibrant** and attractive **destination** offering a **variety** of spaces and experiences for UON students, staff and visitors, but that also **welcomes** the wider Newcastle community
- Respond to the unique **history** of the site by reinterpreting the **locomotive, industrial and indigenous heritage** of the place through opportunities in the design of public domain, landscape and building spaces
- Design the public domain as an **urban campus heart** that provides enjoyable places for people to meet and gather, and that maximises **solar access** and connections to its location between the **waterfront and city**.



Sustainable

- Create a **world class**, sustainable facility that demonstrates a commitment to **social environmental and economic leadership**
- Social: Reinforce UON's relationship with the wider **Newcastle community** and meet **social responsibilities** by dissolving the boundaries between university and city
- Environmental: Meet the challenges of a **low-carbon future** through energy efficient and environmentally sustainable design and operation of the Campus
- Economic: Design and develop accessible and engaging work/study environments that **attract leading academic talent**



Concept Plan



6. Concept Plan

6.1 Illustrative Plan

The Honeysuckle City Campus is a mixed use, integrated education precinct with 24 hour a day activation that is engaged with the community and integrated with uses across the CBD education precinct, as well as the Honeysuckle waterfront.

The Honeysuckle City Campus will be one of Newcastle CBD's most significant developments. The development will be a catalyst for the urban renewal of Newcastle and will have the opportunity to leverage investment committed by government supporting this renewal.

6.1.1 Planning Principles

The illustrative plan presents a cohesive concept for the site and its relationship to the CBD. Key planning principles include:

- Campus Heart located at the core of the campus with good solar access and amenity
- Respond to place and heritage through interpretation of heritage turntable in the Campus Heart
- Built form positioned to enable easy through site links from Worth Place to Civic Link, and from Hunter Street to the waterfront
- Ground level activation fronting major pedestrian links and Campus Heart
- Recognising NeW Space as the flagship UON building in the CBD with a secondary UON address at Honeysuckle Drive

All elements will be subject to further architectural and public domain design.





Artists Impression: Aerial view looking south



Artists Impression: Elevated view of Campus Heart from Honey Suckle Drive

6. Concept Plan

6.2 Blocking & Stacking

The segregation of buildings into either academic or student accommodation uses simplifies staging and planning of buildings. It allows discreet projects to be brought on-line as required.

The building forms have been positioned to enable a high amenity pedestrian environment within the campus as well as allowing links through the site with view corridors preserved towards the waterfront. Building form and scale has been arranged to maximise solar access to open spaces as well as opportunities to capture views from upper levels over the lower scaled buildings on the waterfront.

Building A1 has been identified as the first stage academic building, located in a visually prominent position on the corner of Honeysuckle Drive and Worth Place.

Following this, Building B may be developed for student accommodation and has capacity for up to 400 student beds.

6.2.1 Indicative Development Yield

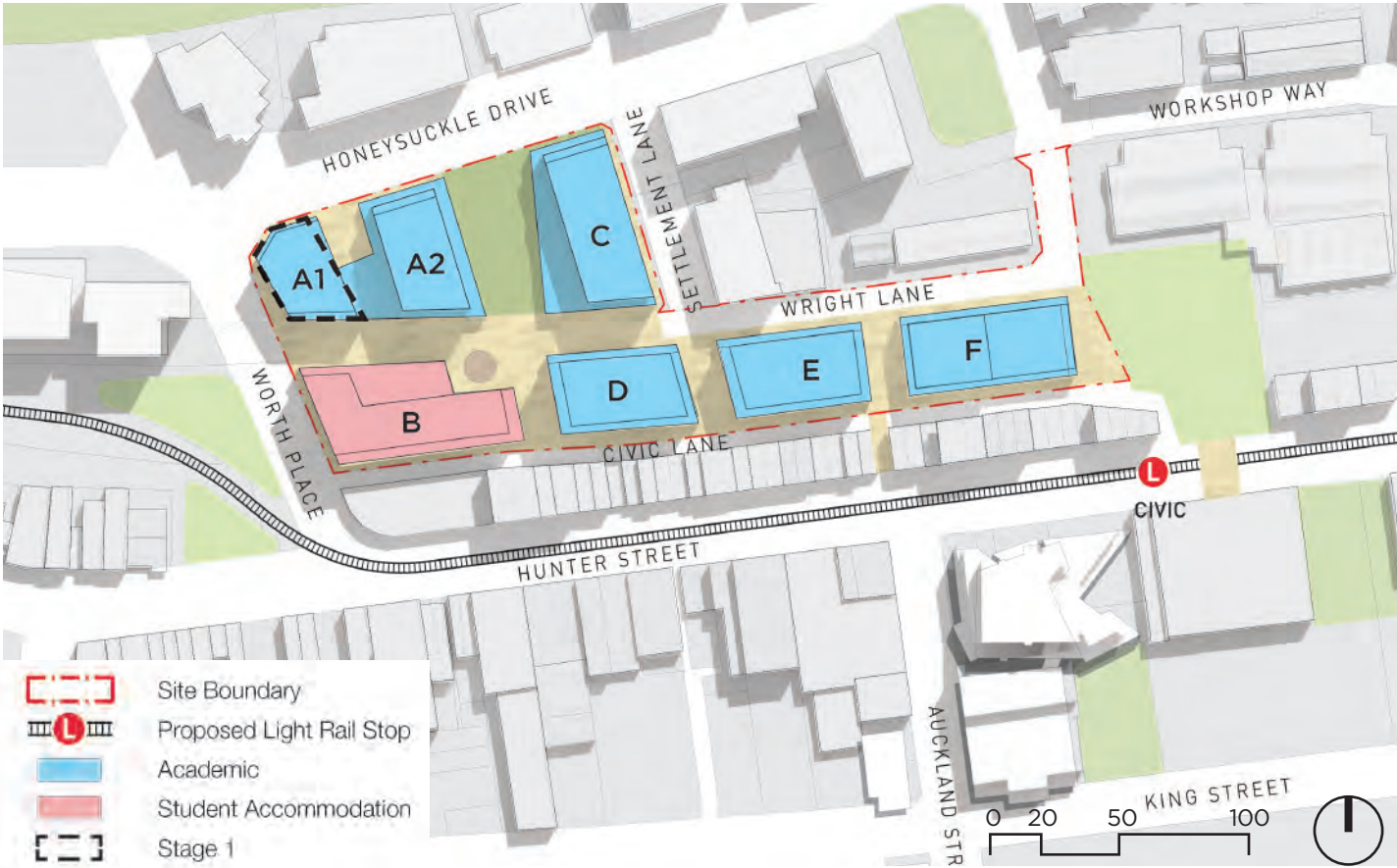
The table below outlines the GFA for each lot proposed in Concept Plan:

Lot	GFA	Site	Stage	Use
Lot A1	4,000m ²	Site 1	1a	Academic
Lot A2	10,770m ²	Site 1		Academic
Lot B	11,480m ² ~386 beds	Site 2	1b	Student Accommodation
Lot C	11,595m ²	Site 1		Academic
Lot D	8,525m ²	Site 2		Academic
Lot E	8,210m ²	Site 3		Academic
Lot F	11,035m ²	Site 3		Academic
Total GFA	65,615m ²			

Gross floor area (GFA) refers to the Council definition of floor space which counts all internal floor space above ground excluding voids and plant areas.

Scaling factors have been applied to the gross building envelope (GBA) to calculate GFA. This allows for loose fit envelopes and reflects the different floor type requirements:

- Academic buildings - 85% GBA to GFA
- Student Accommodation - 80% GBA to GFA



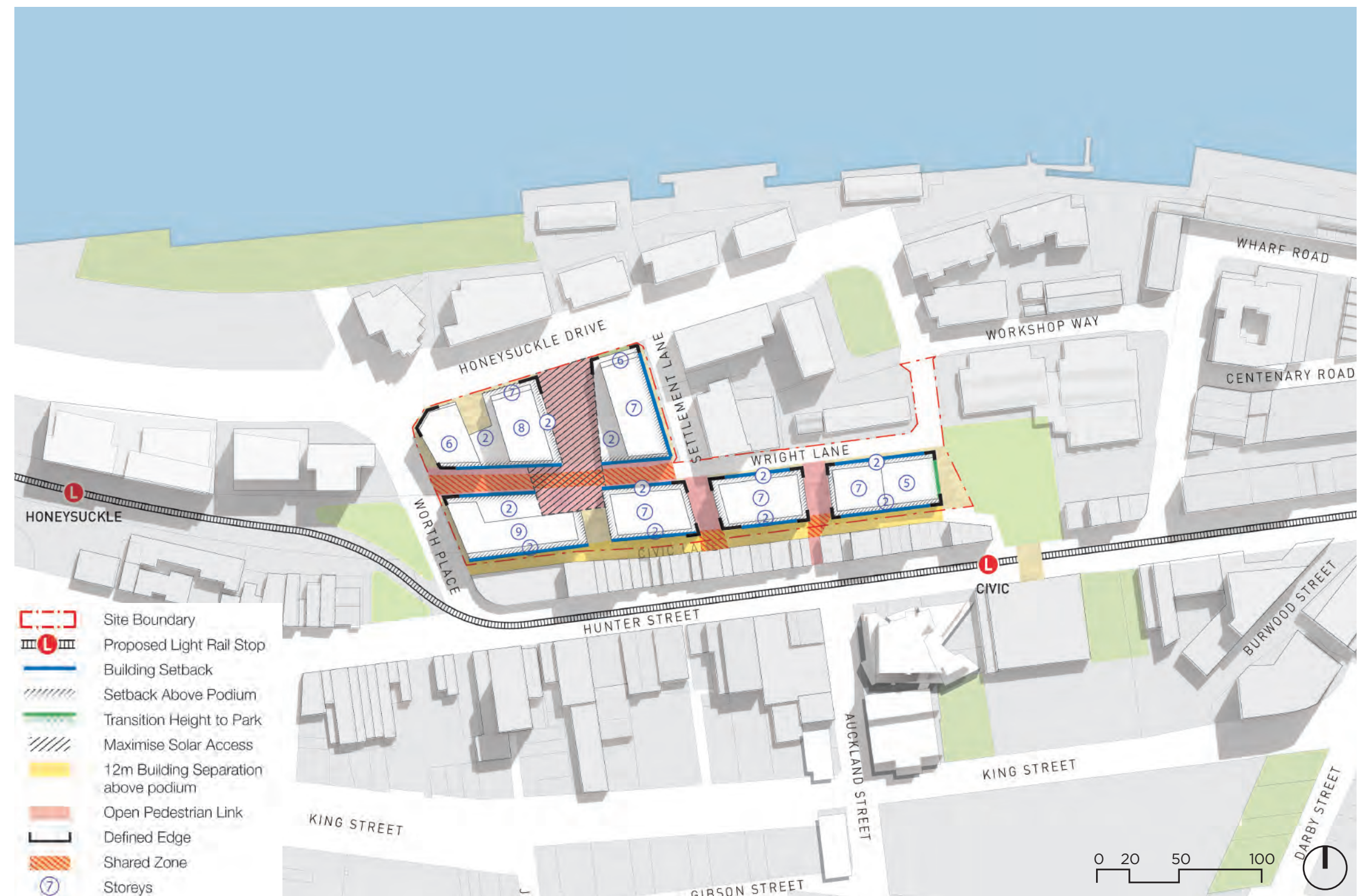
6. Concept Plan

6.3 Built Form

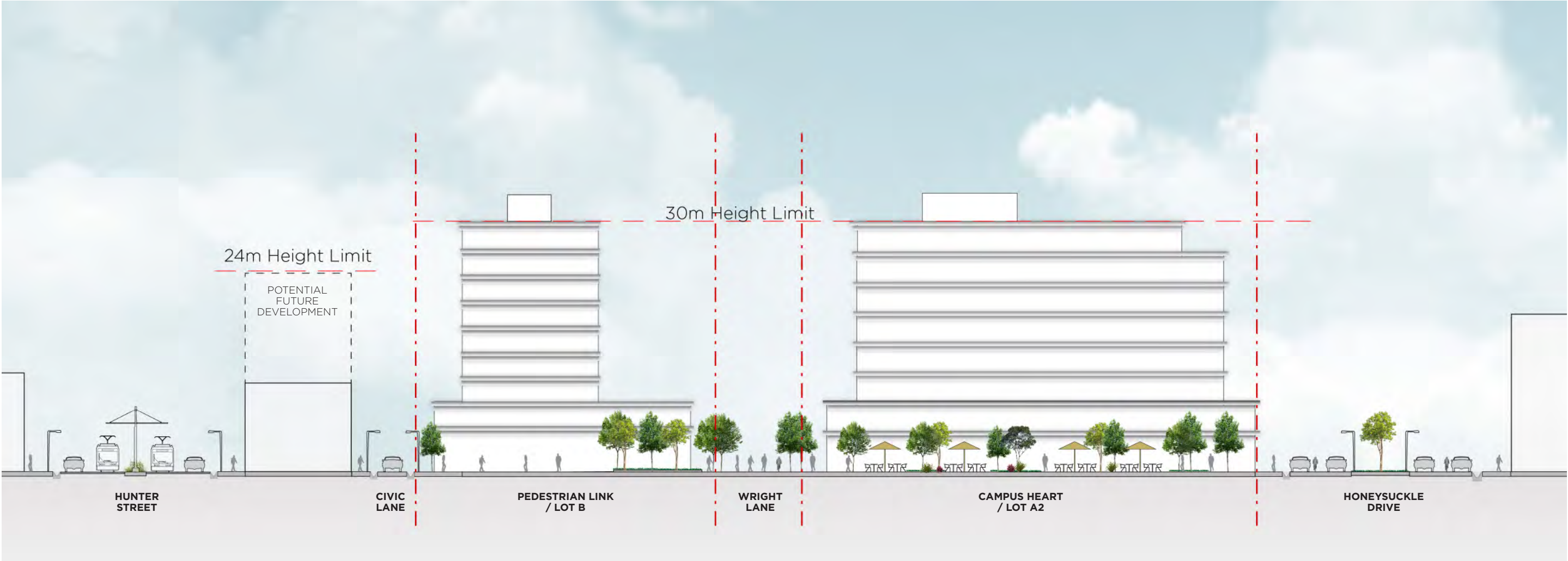
In response to the target floor space and the existing LEP controls, built form on the site has been structured to meet academic and student accommodation requirements. Massing on the site seeks to create well scaled spaces, facilitate views and solar access, and create a unique and memorable campus environment.

Key principles underpinning the built form response are:

- A maximum height of 8 storeys (academic - floor to floor of 3.65m) within the 30m height control
- Maximum height 9 storeys (accommodation - floor to floor of 3.1m) within the 30m height control
- Two storey podium elements
- Creation of a central open space linking the main building elements
- Top floor setback along Honeysuckle Drive frontage to reduce scale
- Buildings setback on Civic Lane to improve amenity and to achieve setbacks to existing and future residential development
- Physical and visual links from the Campus Heart through to Honeysuckle Drive and the waterfront
- Building setback on Settlement Lane to enhance pedestrian connection to waterfront and to accommodation service infrastructure zone
- Reduced building height adjacent to the future Civic Link open space.



6. Concept Plan



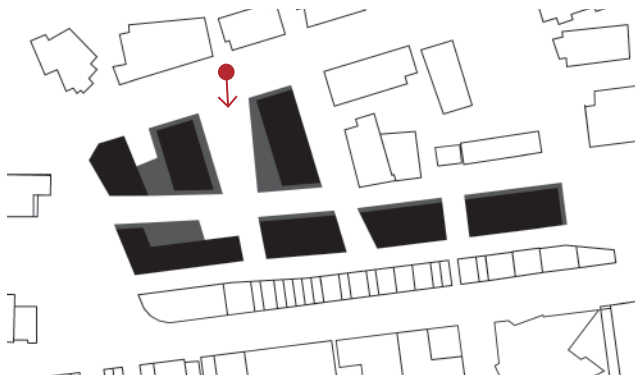
Section through Campus Heart



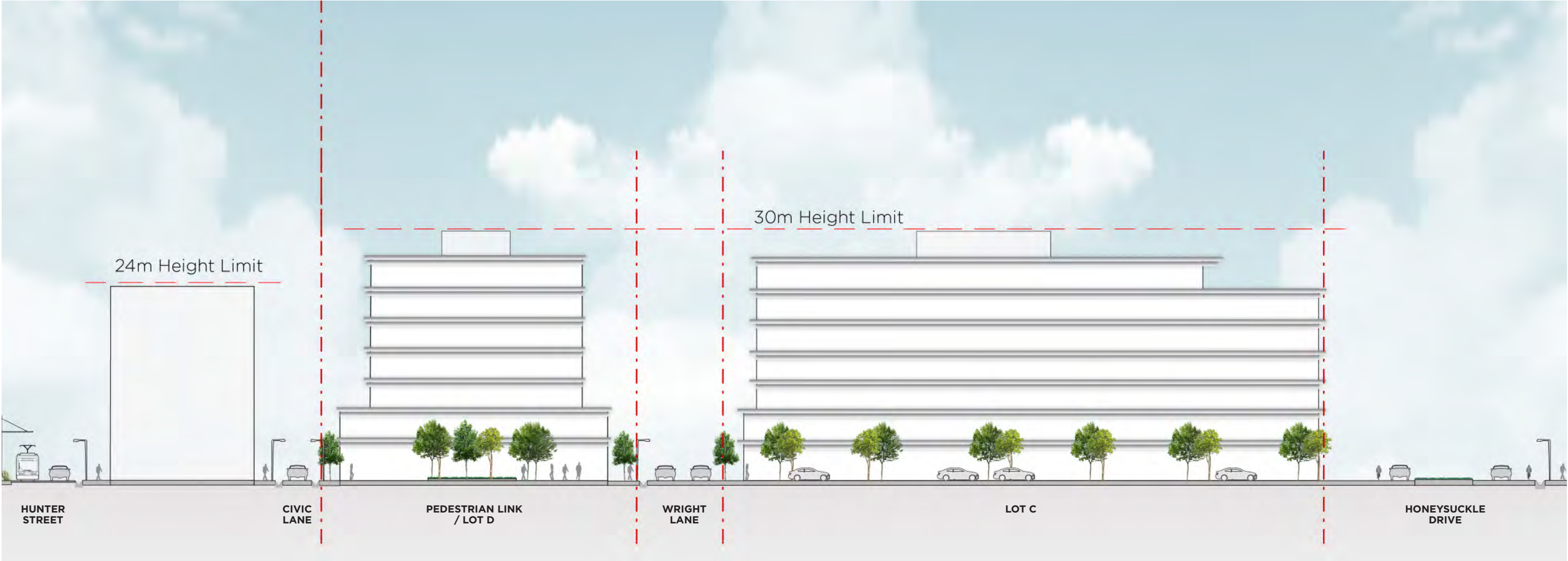
6. Concept Plan



View into the Campus Heart from Honeysuckle Drive



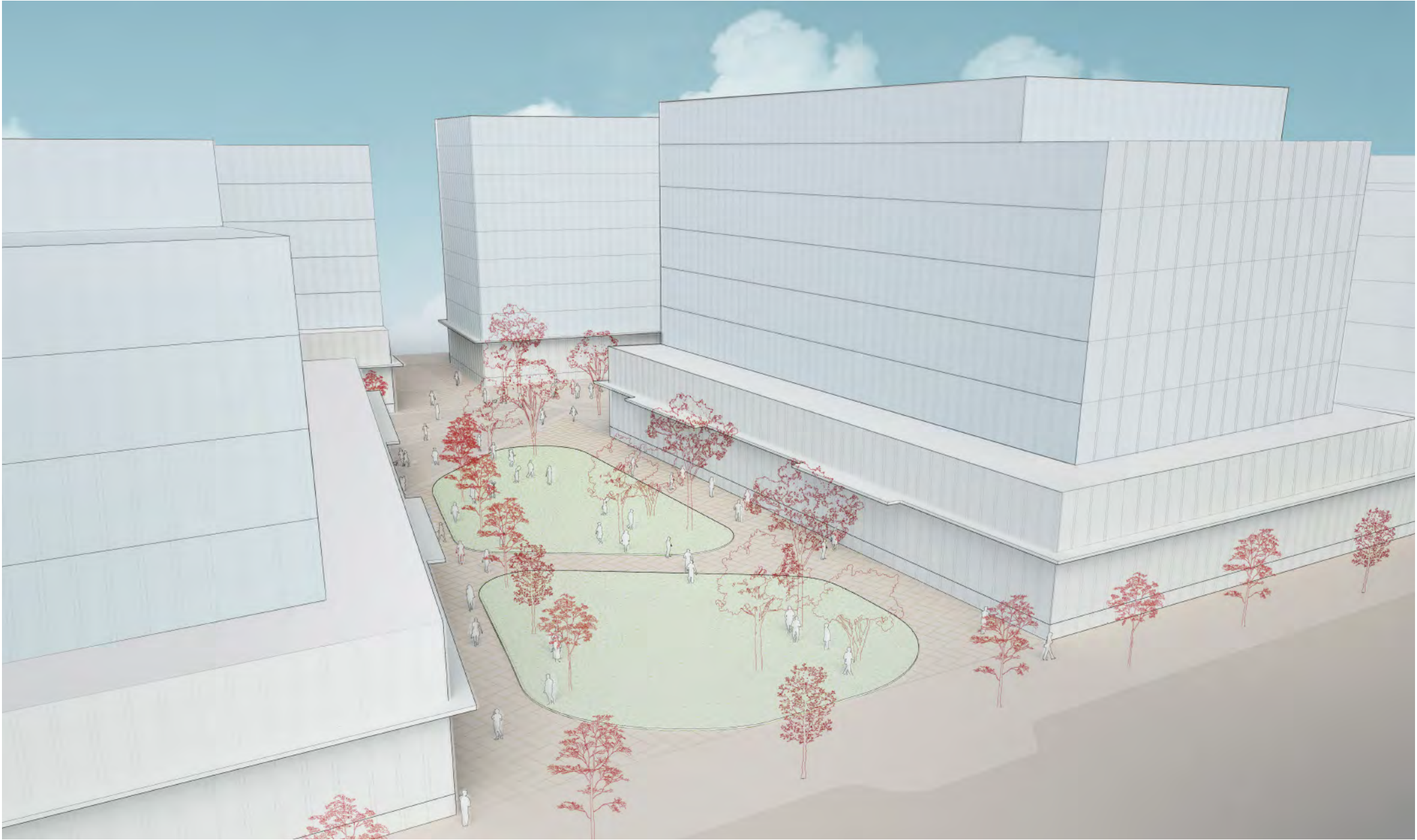
6. Concept Plan



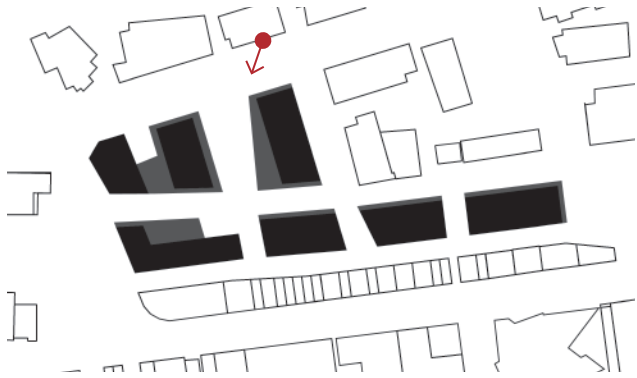
Section at Settlement Lane



6. Concept Plan



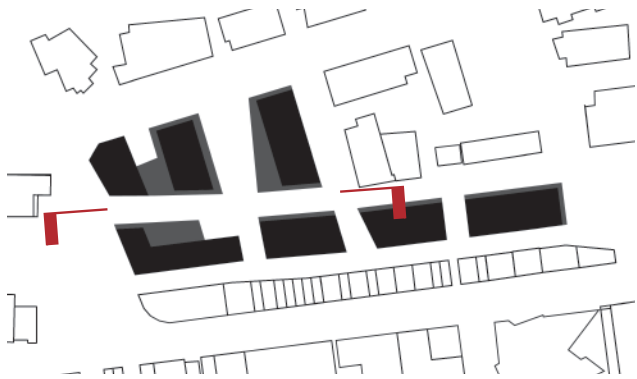
Aerial view of the campus heart



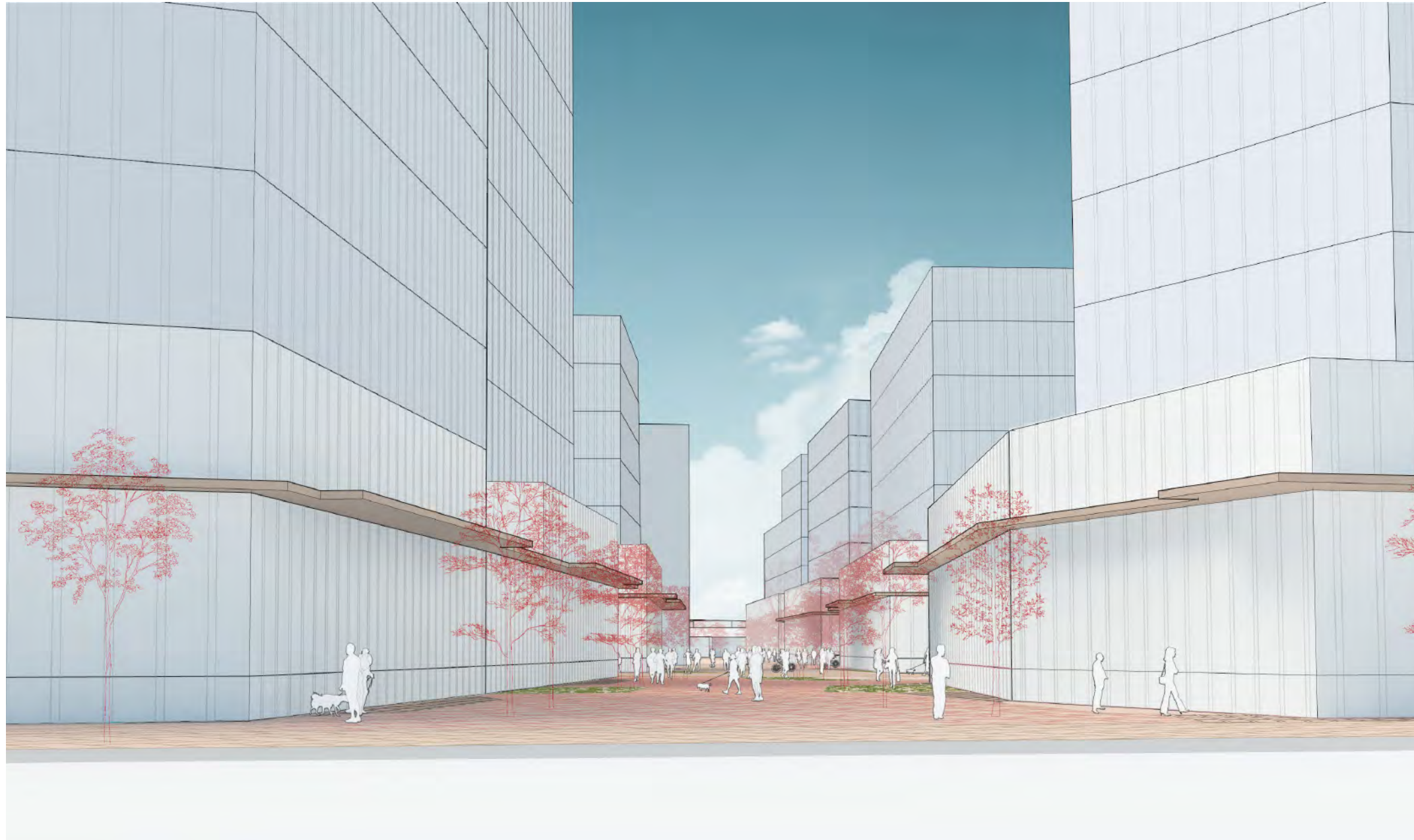
6. Concept Plan



Section through Wright Lane



6. Concept Plan



View down Wright Lane from Worth Place





Artists Impression: Wright Lane looking west towards Turntable Plaza

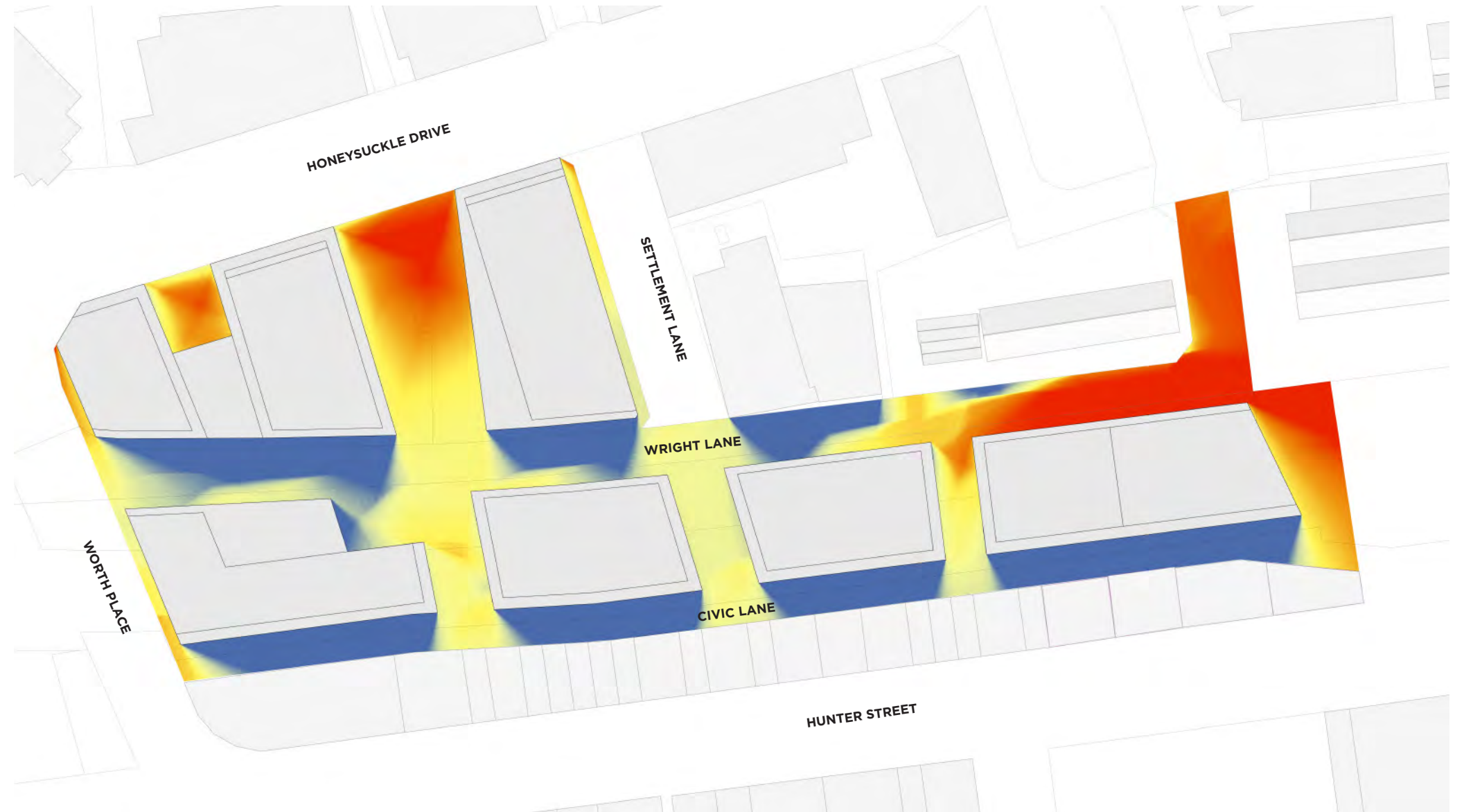


Artists Impression: Internal atrium view

6. Concept Plan

6.4 Solar Access

Solar access studies demonstrate that the new Campus Heart open space will have good solar access throughout the day on the winter solstice (June 21) between 9am and 3pm.



6. Concept Plan

6.5 Visual Assessment

The impact of new development has been modelled and the scheme has been overlaid on a series of photos across the wider precinct to demonstrate the visual impact of the proposal.

Only one view at Worth Place is a key view identified in the Newcastle City Development Control Plan 2012.

There are no views of the site from the Newcastle Cathedral.



6. Concept Plan

1. Honeysuckle Drive Looking East



2. Honeysuckle Drive Looking West



6. Concept Plan

3. Wright Lane



4. Wheeler Place



Worth Place



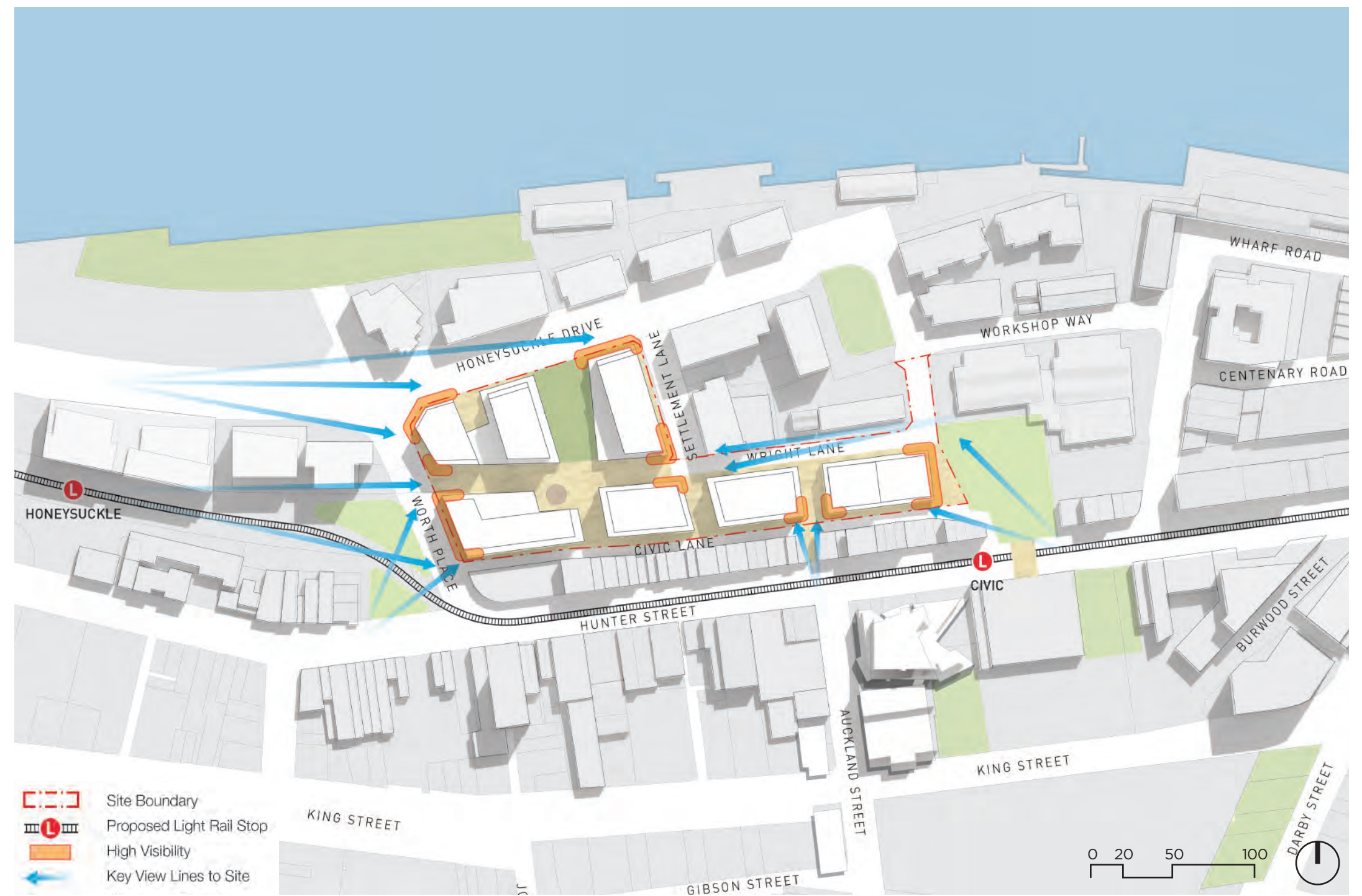
6. Concept Plan

6.6 Identity

The architectural resolution of the buildings should acknowledge the importance of views to the Campus from the east, west and south where most students and visitors will access the site. Views to the Campus from Honeysuckle Drive on the northern edge of the site will represent the formal address.

Key elements that will contribute to the identity of the Campus include:

- Formal address on Honeysuckle Drive
- Building form sculpted to create views into the new central open space from Worth Place and the refurbished rail corridor
- Contemporary, 'green', elegant building character
- Creation of active public spaces at ground level that engage with the city
- Opportunities for showcasing UON's activity through building facades
- Feeling of porosity through the site, enabling new north-south and east-west pedestrian links
- Use of glazed elements to emphasise 24/7 activity at the Campus.



6. Concept Plan



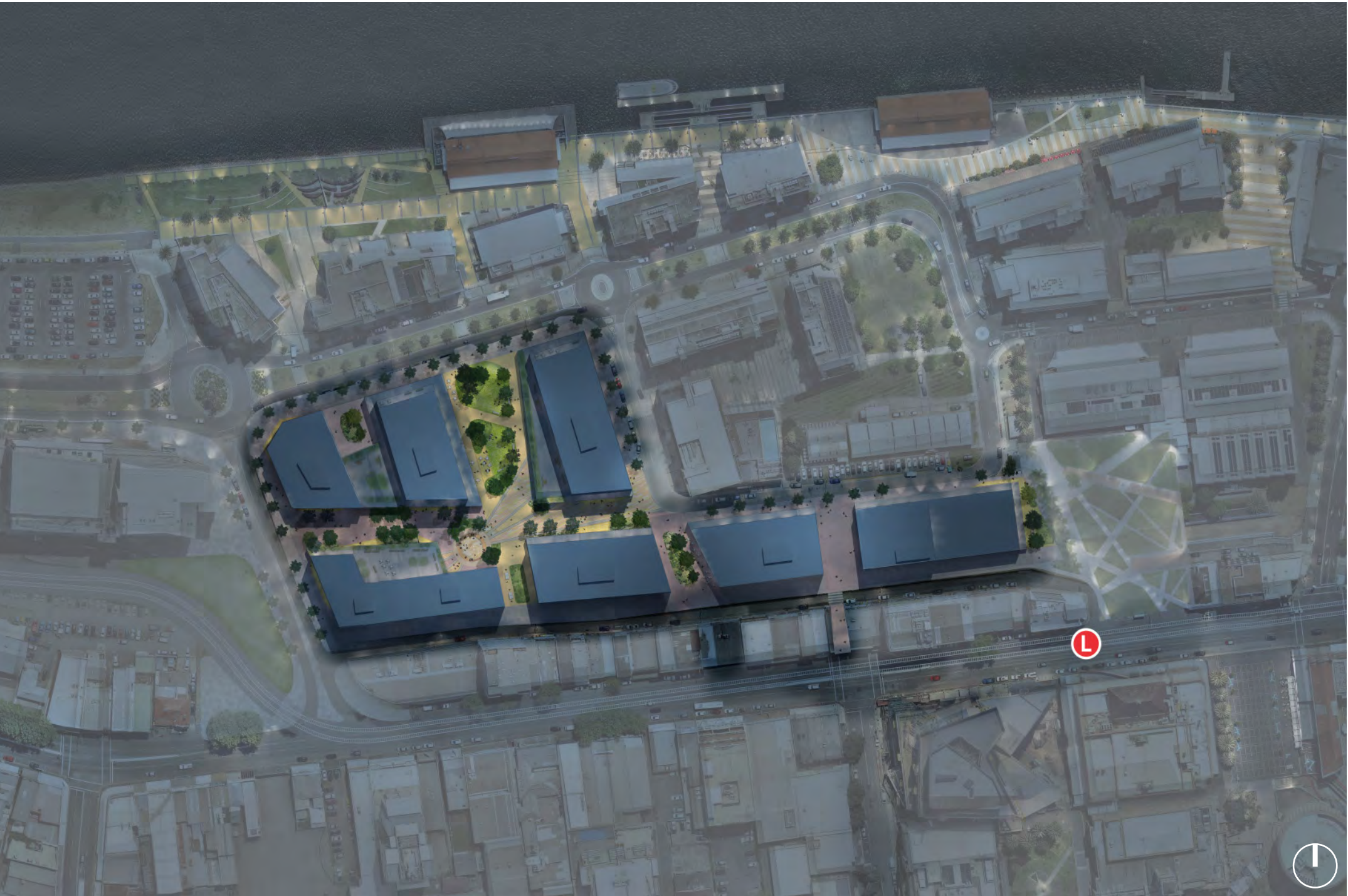
View corridor to destination beyond, Federation Square



Digital showcase facade, University of Copenhagen



High visibility and ground level engagement, The New School



Illustrative Master Plan - Evening Activation

6. Concept Plan

6.7 Public Domain / Landscape

The site requires a high quality and safe public domain solution that provides a common setting for new buildings and enhances the student's (and public's) experience of the site.

- New links between Civic Lane, Wright Lane and Honeysuckle Drive create permeability across the precinct through to the waterfront
- Widening of Civic Lane will improve access, amenity and safety
- Potential closure of Wright Lane to traffic in the east of the site will enhance the experience of users at the Campus as they move between facilities, reinforcing the east-west 'park to park' green connection and creating a safe heart for the Campus
- A setback along Settlement Lane will enable an enhanced landscape and pedestrian zone to reinforce this important connection to the waterfront.
- The Campus Heart, oriented around the heritage turntable, will be an active, social and gathering space with good solar access and amenity
- Setbacks on the northern frontage will allow increased landscaping opportunities that break the uniformity of Honeysuckle Drive and bring some of the bush quality from Callaghan to the CBD.

The selection of landscape species should respond to the coastal environment. Opportunities to introduce woodland species reflect the character of the Callaghan campus.



6. Concept Plan



Garden in an urban plaza, UTS Alumni Green



Coastal Banksia 'honeysuckle'



Active during the day and night, Goods Line artist's impression



Illustrative Master Plan - Public Domain Ground Plane

6. Concept Plan

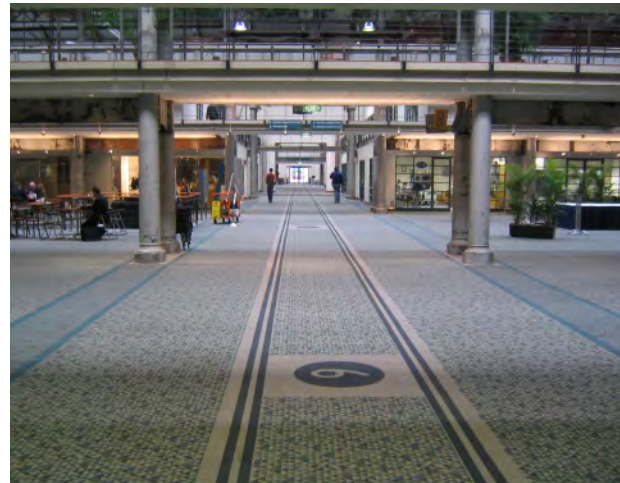
6.8 Heritage Interpretation

The site has a rich history including indigenous heritage, and the transformation associated with the construction of the rail line and workshops, the evolution of Hunter Street and the transformation of the harbour.

The remnants of the locomotive turntable are an important artefact remaining on the site.

There is an opportunity to integrate heritage interpretation elements into the design based on the advice of specialist heritage consultants.

Interpretation of the turntable within the open space of the campus heart is a key opportunity to express the history of the site and create a memorable and pleasant place for the UON community to gather.



Heritage interpretation, Australian Technology Park



Heritage interpretation, Ballast Point Park



Boilerhouse heritage adaptation, WSU Rydalmere



Heritage rail line expression, Highline New York



Heritage interpretation of former turntable, Roundhouse Turntable Plaza Vancouver



Historic rail line remnants within landscape, Goods Line

6. Concept Plan

6.9 Transport

6.9.1 Access

Pedestrian

Despite the formal address to the Campus being from Honeysuckle Drive, most users of the Campus will approach as pedestrians from the south (Hunter Street), the east (the new Civic Link and Civic light rail stop) and the west (Worth Place and the Honeysuckle light rail stop).

In responding to these desire lines, the plan seeks to reinforce east-west movement along the Wright Lane alignment. New north-south links will improve permeability between Hunter Street and Honeysuckle Drive as well as the waterfront.

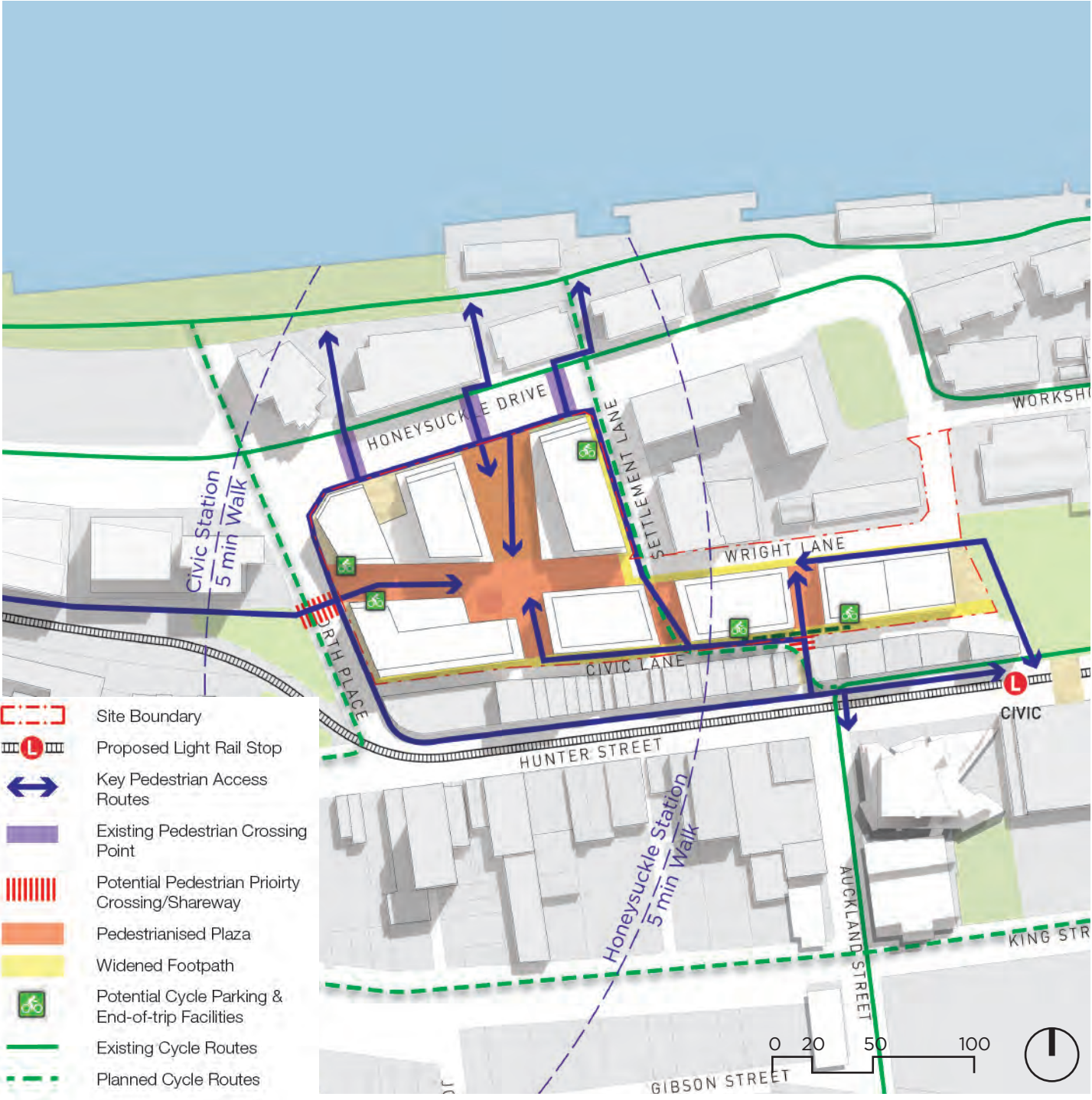
Cycling

The Newcastle City Centre Cycleway Network Strategy, published by the NSW Government in May 2017, identifies opportunities for future active transport networks. The Honeysuckle City Campus would be well served by the proposed network with safe and direct bicycle paths on Hunter Street, Worth Place and Settlement Lane connecting through to Auckland Street.

The Concept Plan identifies opportunities for end of trip facilities within each academic building that include secure bicycle parking, shower and change facilities. This could be accommodated at ground level with direct access from Civic Lane or Settlement Lane. Student accommodation would provide bicycle parking for residents as part of their facilities.

The Transport Assessment by ARUP has identified the following potential demand for cycle parking at the Campus. It is expected that the majority of cycle parking will be accommodated within buildings, with some parking provided in the public domain.

User	Rate	Number
Staff	3-5% Staff	24-40
Students	5-10% EFTSL	219-438
Student Accommodation	20-30% Beds	80-120



6. Concept Plan

Shuttle bus

A shuttle bus will link the UON CBD properties and provide access to Callaghan. A stop location on either Honeysuckle Drive or Settlement Lane (subject to final route) will provide safe and convenient access and avoid the need for street crossings.

Emergency vehicles

All buildings will be provided with full emergency vehicle access. Existing roads – Honeysuckle Drive, Worth Place, Civic Lane, Wright Lane and Settlement Lane will be used.

Public spaces and pedestrian links will be trafficable with access protection provided by removable bollards.

Campus drop off

The Campus will require general pick off/ pick up to service all uses, particularly the conference facility. The potential provision of childcare on the site will require dedicated drop off/pick up areas.

These will be provided on existing roads through a restricted parking scheme.

Site Servicing

Servicing has been planned to avoid impacting primary frontages and new public spaces.

Associated with building cores, areas at ground level on Civic and Settlement Lanes have been identified. These spaces will manage deliveries and waste for UON functions as well as for retail and allied uses in the development.

6.9.2 Parking

Previous assessments have indicated that the CBD has a surplus of parking provision. The a parking strategy for the Honeysuckle CBD Campus has taken a similar approach to the parking strategy at NeW Space, with the intention to support active and public transport modes.

The Concept Plan has made allowance on-site for a total of 12 parking spaces for the following users:

- Mobility impaired - 3 spaces
- Visiting lecturers/senior staff - 3 spaces
- University operations vehicles - 6 spaces.



6. Concept Plan

6.10 Infrastructure

The Enabling Works Investigation by ADW Johnson indicates that adequate infrastructure to service the site appears to be available.

The Concept Plan has been designed to respond to some key infrastructure requirements including:

- Provision for two new chamber substations on the Campus. One will be developed in each stage and will replace the existing substation located on Civic Lane in the south-west corner of the site
- Allowance for overland flow along Wright Lane.
- Setback along Settlement Lane to allow for underground services infrastructure due to the existence of a subterranean car park under Settlement Lane.

The following flood planning levels guide the design of structures on the site:

Area	Level
Minimum Property and On-ground Garaging	2.28m AHD
Minimum Habitable Floor Level	2.58m AHD
Minimum Upper Floor Level Stairway Exit	3.38m AHD
Basement Parking Entry/Exit Crest/ Flood Barrier	3.38m AHD



6. Concept Plan

6.11 Staging

UON has indicated that the first building to be developed will be Building A1 with academic uses. This building sits on a prominent corner of the site, with high visibility from Honeysuckle Drive and from Hunter Street looking down Worth Place.

Following this, Building B would be developed containing up to 400 beds of student accommodation.

Landscaping

With the removal of the railway track, temporary landscaping will be provided on sites designated for Stages 2, 3 and 4 development.

Following ground levelling of the former rail corridor, the site for Building F could accommodate temporary recreation facilities such as basketball courts.

Establishing the Campus Heart as the focal point of the Campus is an important part of the Stage 1 development. Heritage interpretation of the Turntable in Stage 1 will contribute to the Campus character and identity from the outset.

Landscaping of the public domain along Wright Lane can be provided in Stage 2, to provide a safe and pleasant connection between the Campus and Civic Link as the development progresses. The through site link at 486 Hunter Street could be established in Stage 1 to provide a strong connection with NeW Space.





Illustrative Master Plan - Stage 1

Conclusion

7. Conclusion

The Opportunity at Honeysuckle

Leveraging Newcastle's Investment

The closure of the heavy rail corridor will transform the CBD with new, uninhibited access to the waterfront from the city. The development of a comprehensive plan for the CBD by UrbanGrowth NSW and the delivery of the new light rail seek to redefine the experience of Newcastle.

With more than \$700 million investment, government support for local innovation, efforts to increase Newcastle's international profile and programs to attract talent and investment into the city will directly support UON's objectives for its Honeysuckle City Campus.

Leveraging UON Assets

UON already has a significant presence in, and commitment to the Newcastle CBD. This development will secure UON's future presence in the CBD of Newcastle.

Building on this existing presence, the development of the Honeysuckle City Campus will enable the consolidation of additional disciplines in the CBD and provide the opportunity for UON to better engage with the community and industry. Increased engagement will ensure graduates are equipped with the relevant skills to be employable.

Social Engagement

Open and Engaged

The permeability of the site and physical connectivity with the CBD will open UON up to new and diverse uses, collaboration and community engagement, as well as providing an attractive and vibrant place to work, live, study and visit.

The design of the buildings and public domain at the Campus will reflect this philosophy that the UON is open and engaged with the community. A high degree of visual transparency through the façades of buildings, legible pedestrian links, and showcase display of UON activities will support this approach.

Creating a Memorable Place

Urban Amenity

The Concept Plan ensures a high level of urban amenity both for staff, students and visitors to the Honeysuckle site as well as for users of the wider precinct. The Campus will be well integrated into the Newcastle CBD, enabling permeable connections through the site, linking the CBD, the waterfront and UON's existing assets including NeW Space, University House and the Conservatorium.

Creating spaces on the Campus that are sunny during the day, activated by a variety of uses, and safe, will make the Honeysuckle City Campus an enjoyable and memorable place for its users as well as for the wider Newcastle CBD.

Sense of Place

The locomotive history of the site in Honeysuckle is an important part of the future Campus. There is an opportunity to reinforce the sense of place at the Campus by reinterpreting the remnant locomotive turntable within a new public open space.

Landscape planting at the site that is endemic to the coastal environment and that relates to the woodland landscape at Callaghan can assist in reinforcing the UON identity at Honeysuckle by bringing a part of the bush to the city.

Development Potential

Maximising Development Potential

The Honeysuckle Concept Plan maximises the permissible development capacity of the site. The blocking and stacking of the buildings enables flexibility in the functions of each building.

Development Staging

The Concept Plan is designed to be staged, with academic facilities to be developed in Stage 1 followed by student accommodation. The Concept Plan allows for flexibility in the use of future buildings, with parcels able to be developed discretely as required.



Illustrative Floor Plans



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1	06/06/18	ISSUE 2 FOR APPROVAL	rb
2	05/09/18	ISSUE 3 FOR APPROVAL	rb
3	25/10/18	ISSUE 4 FOR APPROVAL	rb
4	28/11/18	ISSUE 5 FOR APPROVAL	rb
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CLIENT
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 NEWCASTLE AUSTRALIA

PROJECT
 UNIVERSITY OF NEWCASTLE
 HONEYSUCKLE CITY CAMPUS
 DEVELOPMENT

SCALE
 1:500 @ A1

DRAWING TITLE
 GROUND FLOOR PLAN

DRAWING NUMBER: SK-16
REV: 4
DATE: 28/11/18



Ground Floor Plan



<table><tr><td>0</td><td>15/05/18</td><td>ISSUE 1 FOR APPROVAL</td><td></td></tr><tr><td>1</td><td>05/09/18</td><td>ISSUE 2 FOR APPROVAL</td><td></td></tr><tr><td>2</td><td>28/11/18</td><td>ISSUE 3 FOR APPROVAL</td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td>REV</td><td>DATE</td><td>DESCRIPTION</td><td>BY</td></tr></table>			0	15/05/18	ISSUE 1 FOR APPROVAL		1	05/09/18	ISSUE 2 FOR APPROVAL		2	28/11/18	ISSUE 3 FOR APPROVAL						REV	DATE	DESCRIPTION	BY	ARCHITECT COX ARCHITECTURE P/O Box 6115, Sydney NSW 1220 Level 6, 155 Clarence Street, Sydney NSW 2000 Australia T + 61 2 9207 9599 F + 61 2 9294 5844 www.coxarchitects.com.au COX Cox Architecture Pty Ltd ACN 002 535 881 Nominated Architects John Buchanan no. 3192 Russell Lee no. 5267	CLIENT THE UNIVERSITY OF NEWCASTLE AUSTRALIA	PROJECT UNIVERSITY OF NEWCASTLE HONEYSUCKLE CITY CAMPUS DEVELOPMENT	SCALE 1:500 @ A1	DRAWING TITLE TYPICAL FLOOR PLAN	DRAWING NUMBER: SK-17 REV: 2 DATE: 28/11/18
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Typical Floor Plan

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