

# CADDENS CREEK PRECINCT

## Urban Design Review

Prepared For: Kaipara Property Group  
May 2018



**WESTERN SYDNEY**  
UNIVERSITY





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EXECUTIVE SUMMARY

RobertsDay (RD) has been engaged by Western Sydney University to provide expert urban design in evolving the vision and concept plan for the Caddens Precinct Centre.

RD is Australia’s first data-driven planning, design and place-making practice. Our mission is to make Australia’s cities and towns the greatest in the world. Awards include the FIABCI Award World’s Best Masterplan; GBCA Six-Star, Green Star Community Award; PIA Great Place Award; UDIA National

Award Best Residential Project and similar.

In evolving the concept plan, RD and Kaipara have met with Penrith Council and received positive feedback on proposed improvements. These improvements are reflected in the final concept.

The concept is consistent with the Objectives and Controls of Council’s Development Control Plan (DCP). Specifically,

the urban performance of the proposal exceeds Council’s Concept based on an analysis of key metrics from the DCP (summarised below).

In addition, the concept plan provides a considered response to the market and site context today (Stage 1), whilst providing a robust framework to change over time (Stage 2).

Finally, the evolved concept plan has been integrated into the

broader University of Western Sydney Framework Plan being prepared as part of a broader master planning process. The concept plan is complements this process.

As such, it is recommended for approval.

HOW THE IMPROVED & FINAL CONCEPTS STACK UP WITH THE DCP...

- 1

Quality Paths
- 2

O’Connell St Presentation
- 3

Integrated Parking
- 4

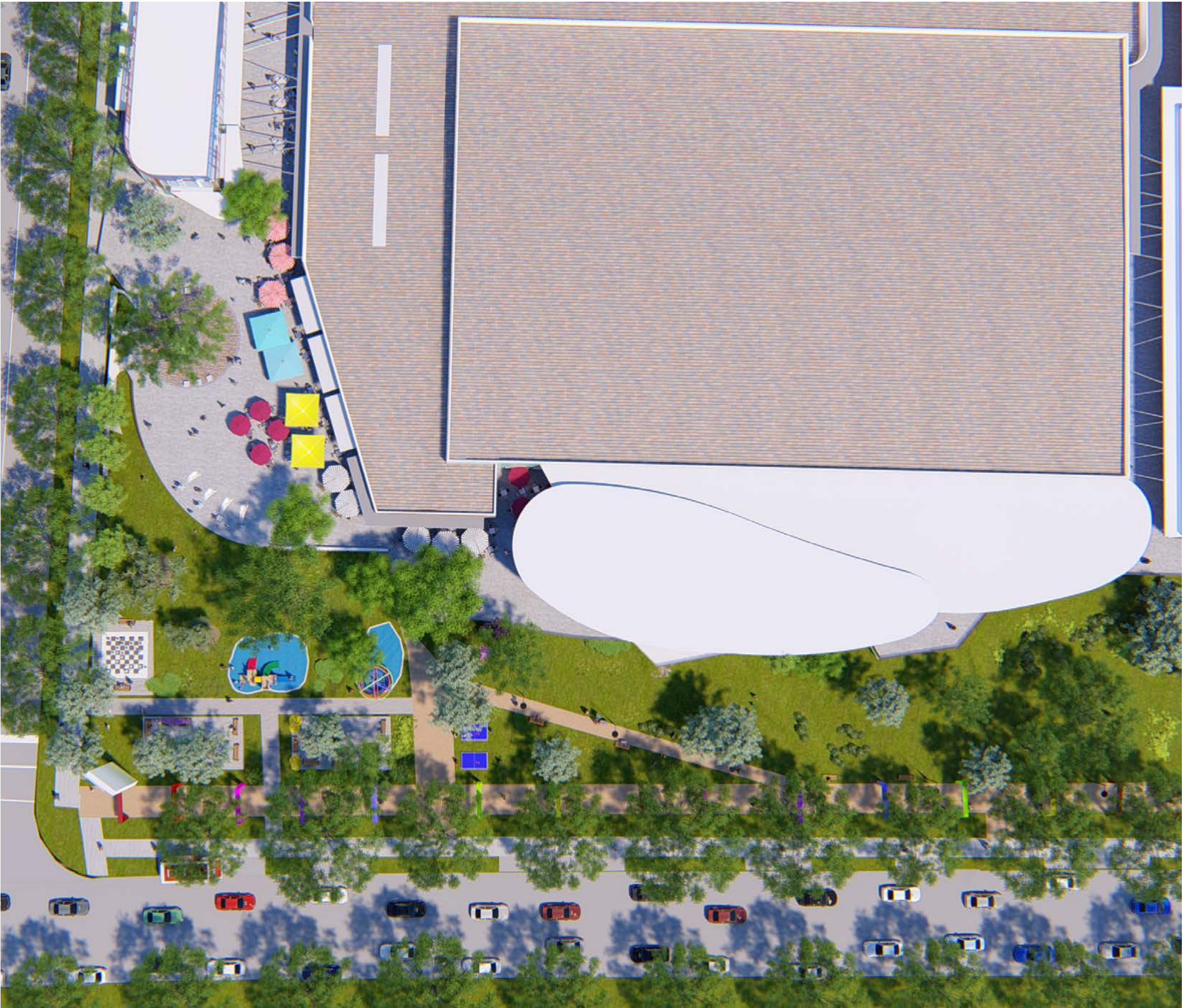
Active Frontages
- 5

Views and Townscape





Aerial view of Precinct with Village Green



PLACE BASED URBAN PRINCIPLES

-  A PRECINCT ACTIVATED DAY & NIGHT BY A RANGE OF FOOD AND BEVERAGE & RETAIL CHOICES
-  PLACES OF PLAY FOR ALL AGES
-  A DIVERSE RANGE OF HIGH QUALITY PUBLIC PLACES EVOKING HIGH LEVELS OF AMENITY
-  A DESTINATION, MEETING PLACE AND COMMUNITY GATHERING SPACE
-  A PEOPLE FRIENDLY PRECINCT, SUPPORTING ALTERNATIVE METHODS OF TRANSPORT OVER TIME
-  AN ENGAGING PLACE PROMOTING OPPORTUNITIES FOR LEARNING AND INTERACTION FOR ALL AGES
-  A LIVEABLE PLACE THAT SUPPORTS EXISTING AND FUTURE COMMUNITIES
-  A WELL CONNECTED, ACCESSIBLE AND SAFE PEDESTRIANISED ENVIRONMENT





Aerial view of Precinct of Neighbourhood Centre





DCP REVIEW & DESIGN IMPROVEMENTS

Based on our review, overall the concept is consistent with the majority of the Penrith Development Control Plan 2014 Objectives and Controls.

Given Council’s decision to keep the north-south O’Connell Street leg open to traffic, a significant public benefit of the concept is evolving the detention basin to also function as a “village green” and focus of community activity. With an area of approximately 7,000sqm, the village green is significantly larger than comparable places, such as Surry Hill’s Shannon Reserve and Central Park’s Chippendale Green. As such, it is right sized for its use and activation to intensify over time as the concept’s stage two is delivered and surrounding area is renewed. It is the intent the detailed design and delivery of the village green will be undertaken in two stages to ensure its scale and activation is fit for purpose.

Complementing Council’s DCP intent for a traditional “main street”, the concept provides a broader place framework for activities to evolve along over time. The relationship between the proposed alfresco and retail program adjacent to the park represents best practice urban design by providing a unique, car free environment that is safe, comfortable and delightful. Although at different scales, comparable precedents include Sydney’s award-winning Darling Quarter and The Grounds. It is also consistent with the Greater Sydney Commission’s place-led approach to rethinking urban centres in Western Sydney to be re-oriented towards parklands and natural amenities to improve liveability and sustainability.

With the village green being located at the O’Connell Street intersection, the urban design framework of the centre has inherent flexibility and adaptability to evolve over time with the place. With the announcement of the City Deal for the Western Parkland City, the proposed urban design framework has the adaptability to densify over time in response to proposed rail station nearby. Such commitments may also expedite the market feasibility of delivering the apartments within a shorter timeframe.

As part of the review process and in response to Council’s urban design feedback a number of other refinements have been undertaken to the concept to create an improved urban design outcome. Improvements include:

- a) 18% more active ground floor frontage than the DCP Concept;
- b) 55% more residential frontage than the DCP Concept;

- c) 18.5% more quality pedestrian paths than the DCP Concept;
- d) 63% more building frontage to the O’Connell Street legs than the DCP Concept;
- e) 93% of all parking sleeved by development, compared with 63% under the DCP Concept.

Specifically, the proposed concept delivers on the DCP objectives in the following ways:

- a) To ensure that urban design and landscaping encourages pedestrian amenity and community activity.

The concept street-based urban design framework with landscape-orientated Village Green to create a unique place offering people a variety of experiences. Stage one includes main street shopping, alfresco dining and flexible community building. By co-locating the community building with the village green, it provides opportunities to blend indoor and outdoor activities. Over time, it is anticipated the village green will be programmed with a variety of zones including the Village Square, Playscape, Outdoor Learning Lab, Orchard and Green Gateway providing over 20 community-orientated activities. This approach to place activation is supported by world’s best practice, including Project for Public Spaces Power of Ten.

The concept also provides pedestrians a safe, comfortable and delightful experience with wide footpaths, shared zones, awnings, lighting and public art. Given Western Sydney’s climate, the proposed tree canopy of 25% of the site area complies with the NSW Government Architect’s Draft Urban Tree Canopy Toolkit.

- b) To provide an attractive, accessible and lively community focal and gathering point for Caddens and the wider Werrington Enterprise, Living and Learning Precinct and its residents, employees and students.

The village green will be the central focus of public life over the long term. Centrally located at the intersection of two streets and connecting into a broader open space network with pedestrian and cycle paths, it encourages people within the immediate catchment to walk and cycle to the centre. Over time the village green also provides the civic setting to support patronage of an improved public transport system.

Complementing the village green, the flexible community building is anticipated to have a variety of education programs encouraging life-long learning within the community. Over

time, it is the intent the village green will also function as an outdoor learning lab with WIFI and smart city infrastructure facilitating digital and experiential learning.

- c) To provide active uses at street level which facilitate safety and passive surveillance.

As discussed, the proposed concept significantly increases the amount of active uses at street level compared with the DCP. Uses include street level retail along the main street and village green edge, before transitioning into commercial / residential (live / work) streets. As part of stage two, the proposed apartments will provide for ground floor home-based business opportunities to further increase passive surveillance.

In response to Council feedback, safety and passive surveillance is improved with the concept’s addition of a second story building element to enclose the loading zone. Compared to the DCP diagram where the detention basin is concealed from public view with a number of blank walls, it is considered an enhanced solution.

- d) To provide a mix of retail, residential and commercial land uses.

The proposed concept creates a mixed-use centre integrating retail, residential and commercial land uses. Stage One will deliver the retail, a residential building and community building, whilst Stage Two will deliver balance of the residential / mixed-use in response to market demand and take-up.

- e) To create a retail centre based on traditional ‘main street’ shopping.

The proposed concept creates a main street shopping experience in a similar location to the DCP. Unlike traditional main streets benefiting from the movement economy (25,000 vehicles per day plus), the location suggested by Council will have limited passing trade to create a high quality pedestrian environment. With a variety of retail program including micro-retail shops encouraging local start-ups, it will positively contribute to the local economy.

In addition to this main street environment, the concept also

uses food and beverage as an anchor to activate the village green and create a unique experience comparable to world’s best practice, such as Darling Quarter.

- f) To encourage housing forms which provide opportunities for home-based employment and businesses.

The proposed concept illustrates the opportunity for innovative home-based employment and businesses (live / work) as part of the stage two residential precinct. Whilst not part of the stage one DA, the live work model will provide street activation by ensuring the work component addresses the street as small offices

- g) To provide a rectilinear road pattern that connects the Precinct Centre to the UWS campus and surrounding residential conservation and employment areas.

The proposed concept provides a rectilinear road pattern that is consistent with Council’s DCP, except for two departures. The first is a result of Council’s decision to keep O’Connell Street open that improves connectivity and is supported. The second are minor improvements for vehicle access in response to topography. In the two instances this occurs however, pedestrian continuity is maintained for convenience and connectivity to adjoining areas.

- h) To provide opportunities for the location of UWS and TAFE-related facilities such as student services, libraries, meeting rooms, etc.

As discussed, the proposed concept provides a multi-purpose community building (x,xxxm2) providing opportunities for education activities, as well as other community uses. In addition, the idea of an Outdoor Learning Lab over time provides additional educational opportunities.

The balance of the Urban Design Analysis provides a response to the urban design matters raised by Council, visualises the place qualities of the evolved concept. Based on this Analysis, it is recommend Council approve the concept.





# THE EVOLVED CONCEPT: KEY IMPROVEMENTS

DCP CONCEPT DESIGN



INITIAL IMPROVED CONCEPT





PROPOSED FINAL CONCEPT DESIGN (STAGE 1)



PROPOSED FINAL CONCEPT DESIGN (STAGE 2)



THE FINAL CONCEPT DESIGN DELIVERS:

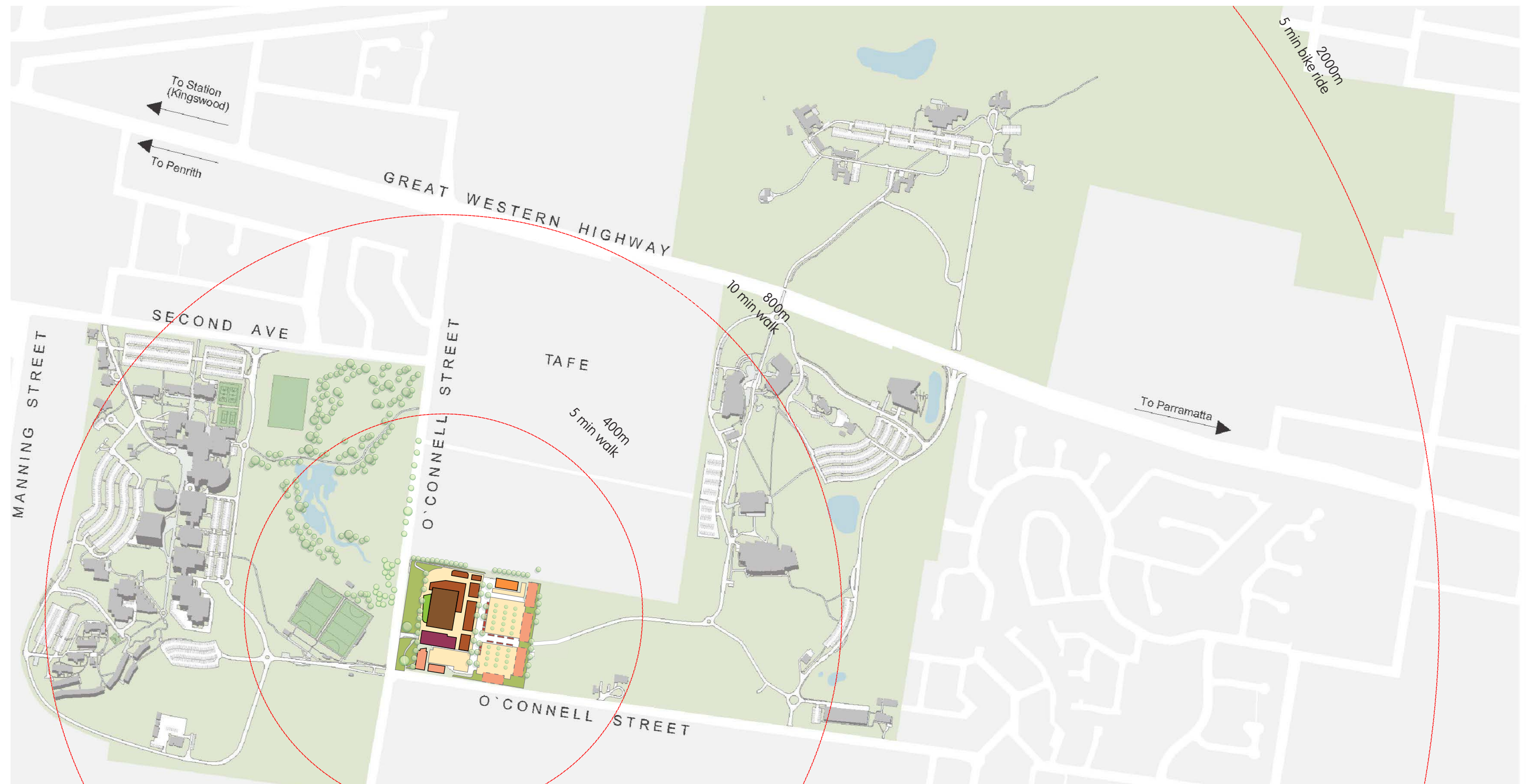
- 18%** more active ground floor frontage than the DCP Concept
- 55%** more residential frontage than the DCP Concept
- 14%** more quality pedestrian paths than the DCP Concept
- 63%** more building frontage to the O'Connell Street legs than the DCP Concept (unchanged)
- 93%** of all parking sleeved by development, compared with 63% under the DCP Concept.





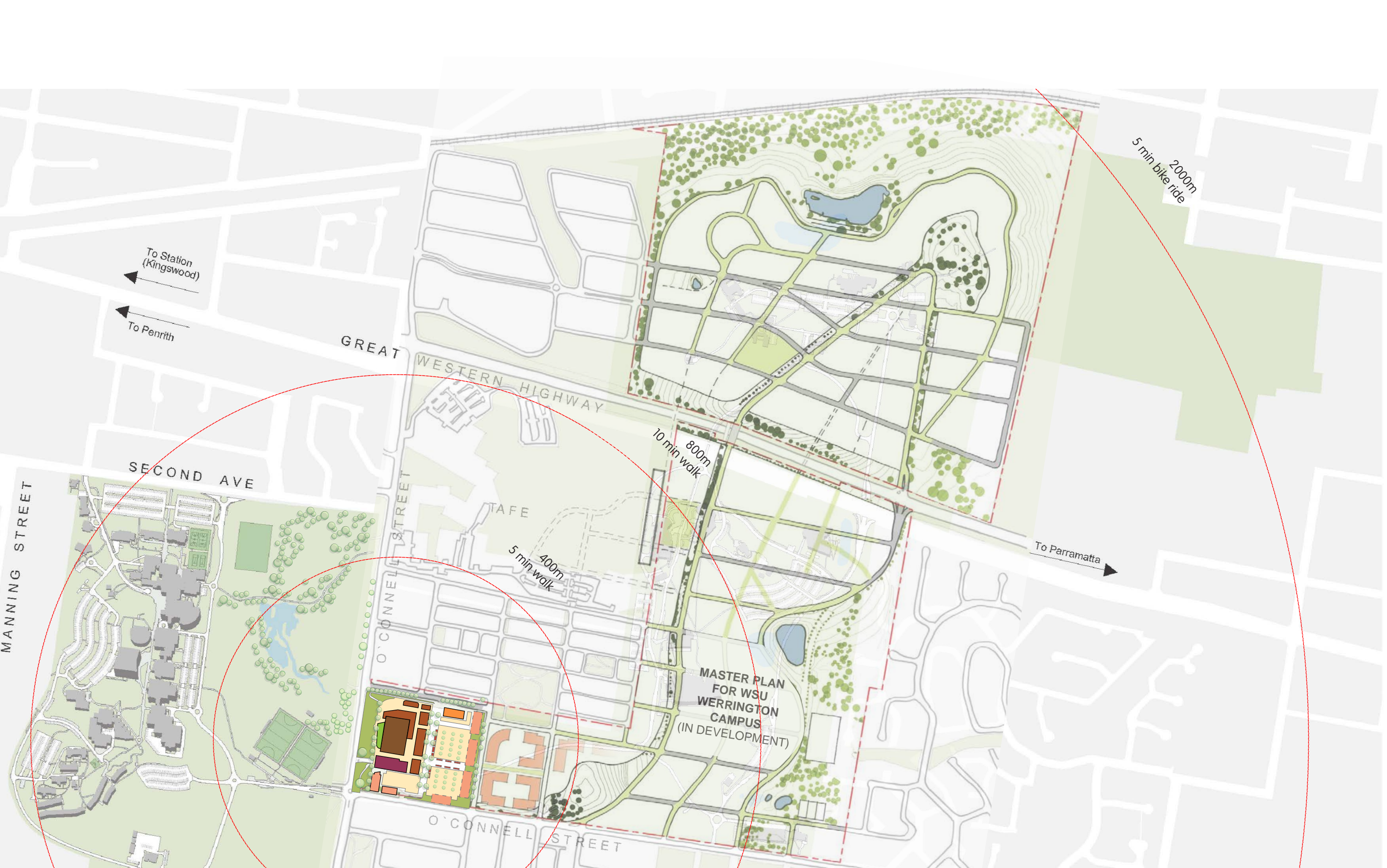
## THE EVOLVED CONCEPT: INTEGRATION WITH WESTERN SYDNEY UNIVERSITY

Based on the feedback received from the Council and the Client as well as a broader understanding, the proposed final concept has been designed to facilitate change over time and be incorporated into the long term future plan of the area.



Final Concept Integrates with WSU layout today





Final Concept integrates with broader precinct and anticipated change over time



# URBAN ANALYSIS: Activate the southern gateway

## Council Feedback: Activate the southern gateway

1

The importance of the site and particularly the south-western corner of O'Connell Street as a future focal point of the locality given its proximity to major access point of the university and the adjacent new large residential subdivisions.

### Analysis: DCP Concept Design

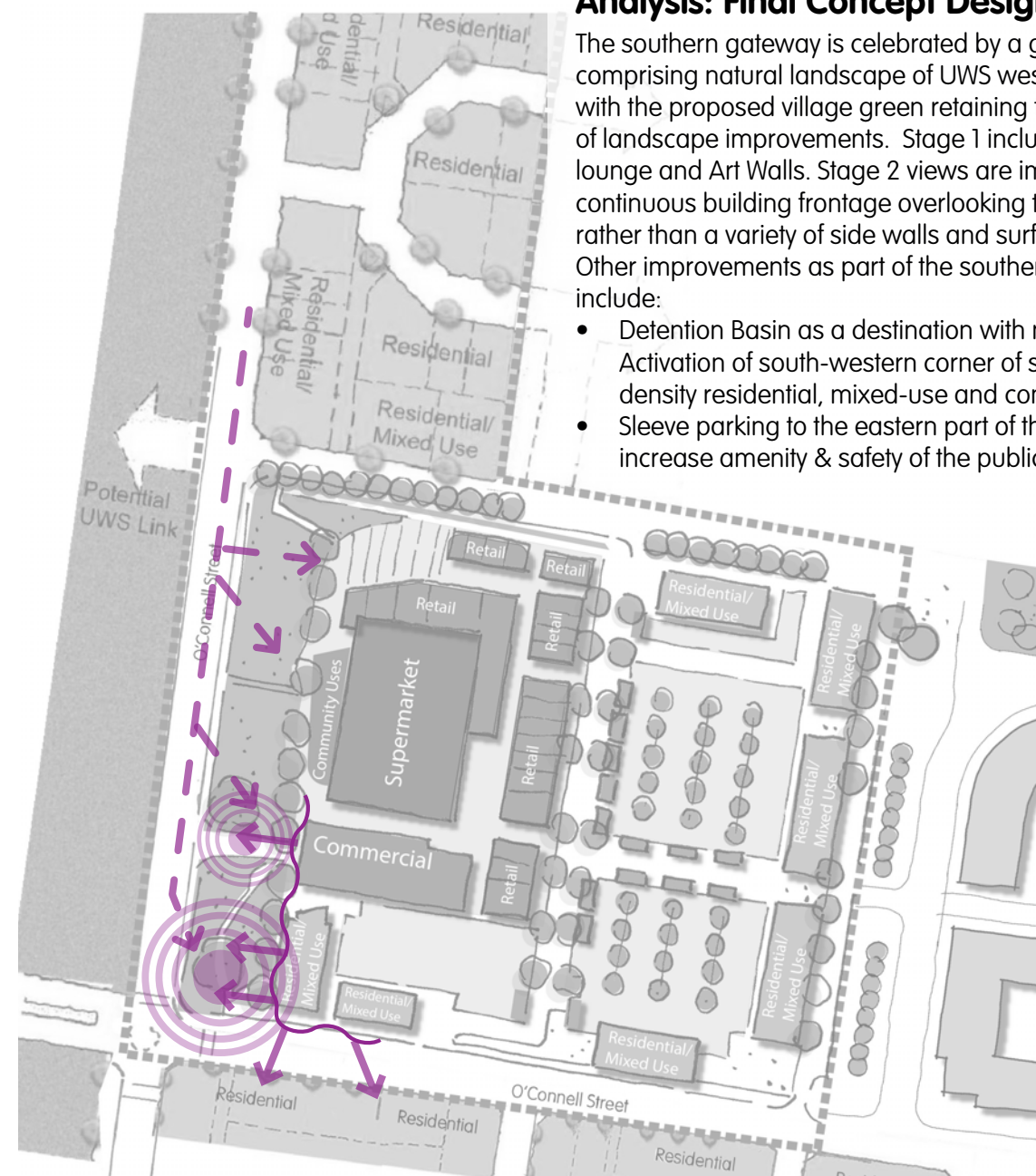
- The southern gateway is undermined by peoples view into the side an apartment building.
- Surface parking lots and a detention basin, likely to be fenced and unkempt adversely impact the overall amenity of the south west corner of the precinct.



### Analysis: Final Concept Design

The southern gateway is celebrated by a green gateway comprising natural landscape of UWS western grounds with the proposed village green retaining trees and variety of landscape improvements. Stage 1 includes the outdoor lounge and Art Walls. Stage 2 views are improved by continuous building frontage overlooking the village green, rather than a variety of side walls and surface car parks. Other improvements as part of the southern gateway include:

- Detention Basin as a destination with multiple uses
- Activation of south-western corner of site with medium density residential, mixed-use and community uses;
- Sleeve parking to the eastern part of the precinct to increase amenity & safety of the public realm.



### Recommendation:

The proposed treatment is considered to be consistent with and improvement upon Council's DCP.



The Southern Gateway (Stage 1) View.





## Flexible connectivity & Visual Access

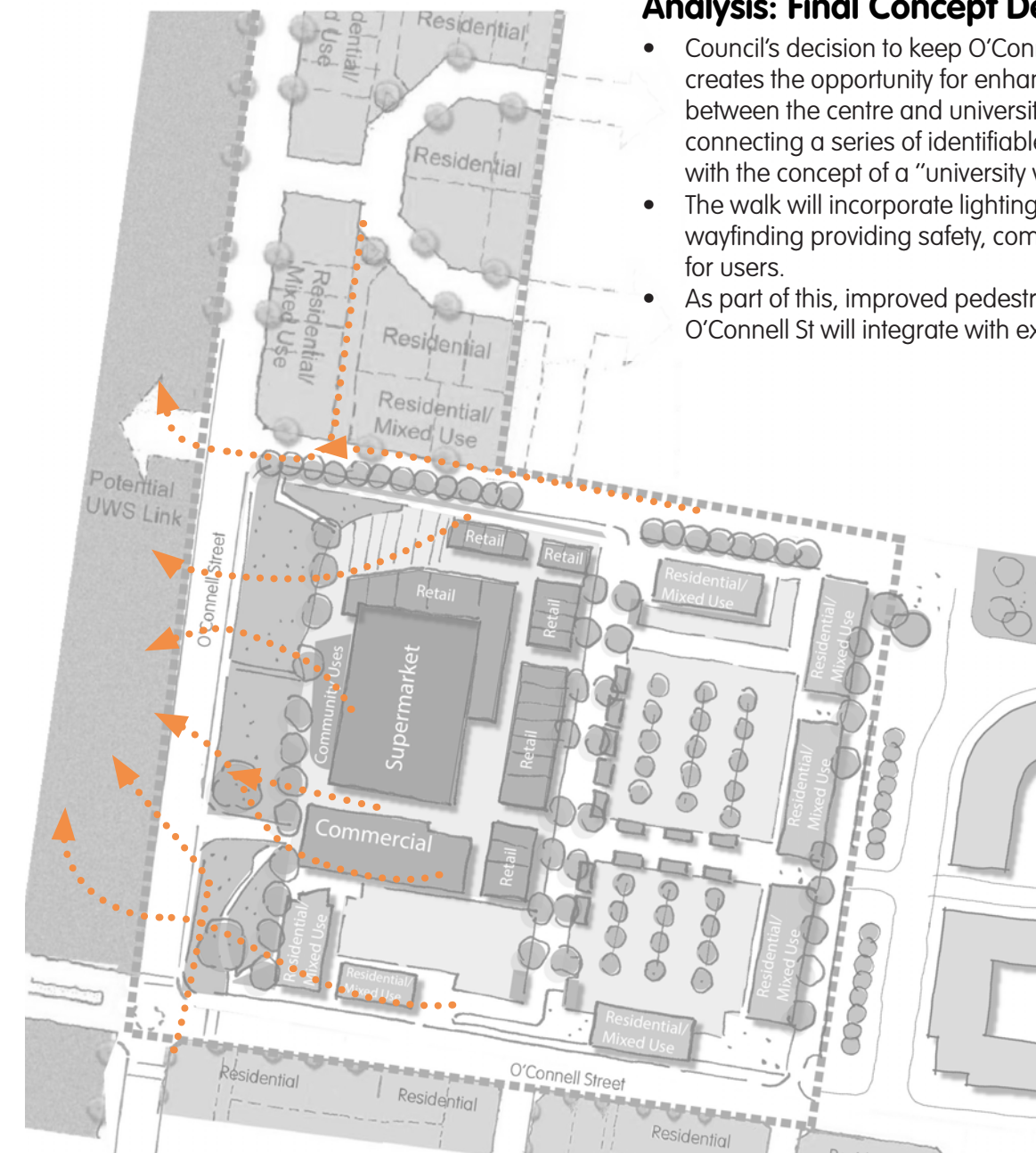
### Council Feedback:

- 2 The opportunity generally to increase the connectivity of the site with the adjacent university entrance.



### Analysis: DCP Concept Design

- The obstruction of the detention basin creates impermeability to the adjacent university campus and blocks views into this natural amenity.



### Analysis: Final Concept Design

- Council's decision to keep O'Connell Street open creates the opportunity for enhanced connectivity between the centre and university entrance by connecting a series of identifiable public places with the concept of a "university walk".
- The walk will incorporate lighting, shade and wayfinding providing safety, comfort and delight for users.
- As part of this, improved pedestrian crossings on O'Connell St will integrate with existing paths.

### Recommendation:

The proposed connectivity is considered to be consistent with and improvement upon Council's DCP.



Quality Paths

Council Feedback:

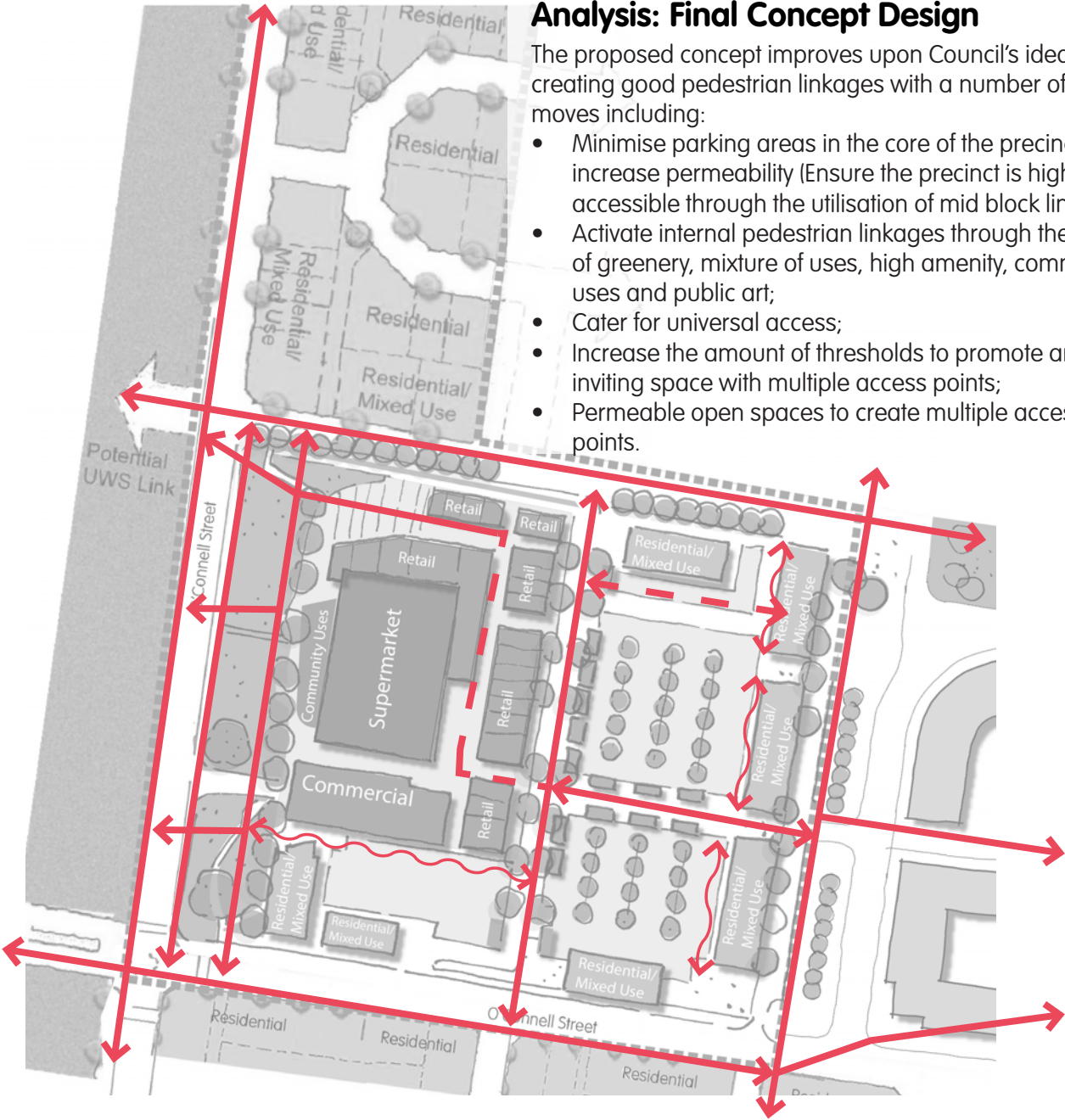
- 3
- Available opportunities to encourage pedestrian linkages

KEY		DCP CONCEPT	FINAL CONCEPT
	Quality Path	1,690m	2,270m
	Internal Path	0m	410m
	Car park/BoH Path	465m	255m



Analysis: DCP Concept Design

- Council's DCP provides a good standard of pedestrian linkages across the precinct, but a number of opportunities for improvement exist, including addressing the poor relationship between the detention basin, adjoining surface carparks and supermarket back-of-house.



Analysis: Final Concept Design

- The proposed concept improves upon Council's idea of creating good pedestrian linkages with a number of key moves including:
- Minimise parking areas in the core of the precinct to increase permeability (Ensure the precinct is highly accessible through the utilisation of mid block linkages;
  - Activate internal pedestrian linkages through the use of greenery, mixture of uses, high amenity, community uses and public art;
  - Cater for universal access;
  - Increase the amount of thresholds to promote an inviting space with multiple access points;
  - Permeable open spaces to create multiple access points.

**Recommendation:**  
The proposed connectivity is considered to be consistent with and improvement upon Council's DCP.





## Presentation to O'Connell Street

### Council Feedback:

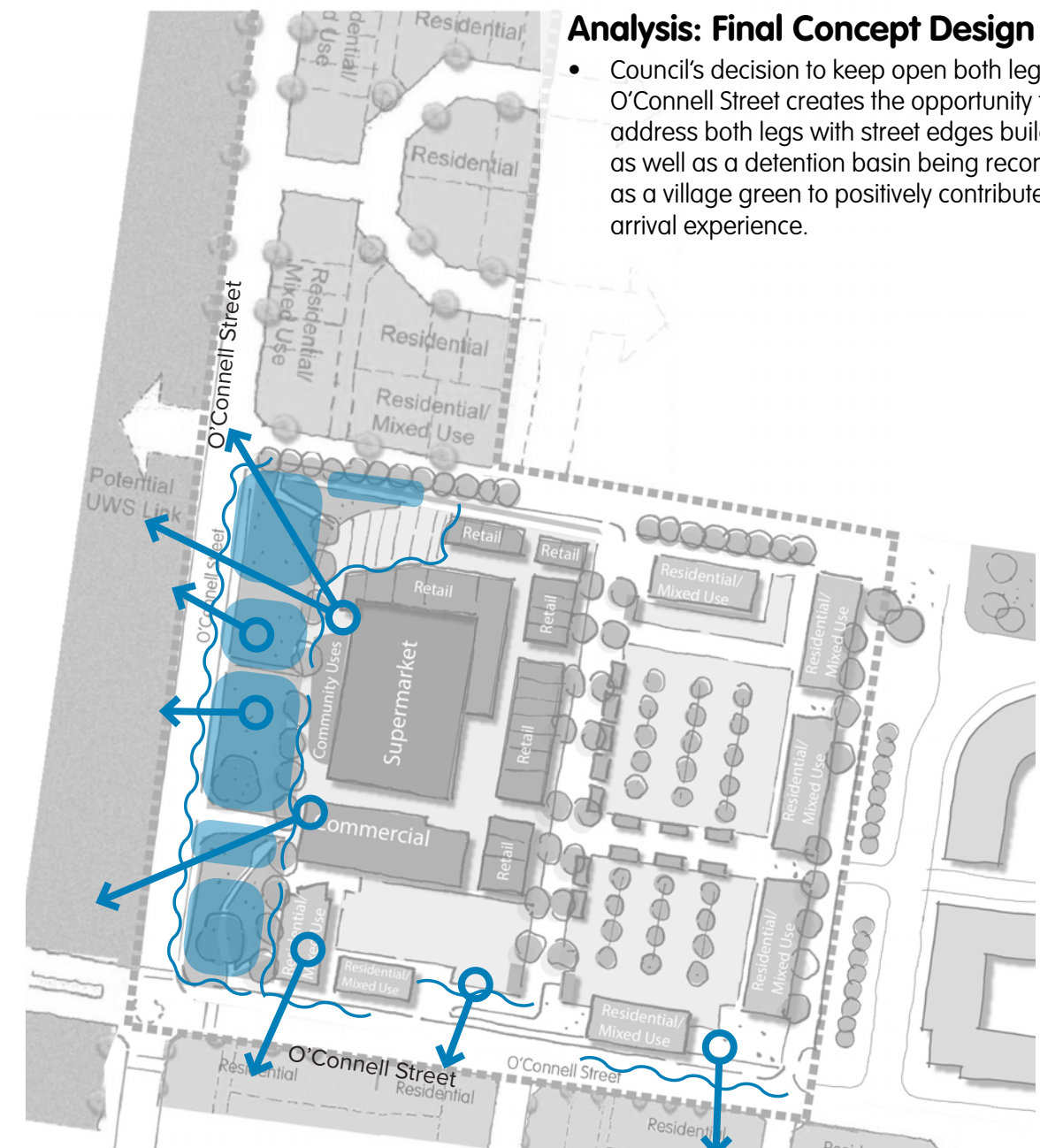
- 4** The presentation of the site to both legs of O'Connell Street

KEY	DCP CONCEPT	FINAL CONCEPT
	Presence to O'Connell	
	Active Frontage to O'Connell	240m <b>650m</b>
	Park Presence to O'Connell	0m <sup>2</sup> <b>6,900m<sup>2</sup></b>



### Analysis: DCP Concept Design

- The DCP illustrates one part of O'Connell Street being addressed by street edge buildings with limited views into open space.



### Analysis: Final Concept Design

- Council's decision to keep open both legs of O'Connell Street creates the opportunity to address both legs with street edges buildings, as well as a detention basin being reconceived as a village green to positively contribute to the arrival experience.

### Recommendation:

The proposed presentation to O'Connell Street is considered to be consistent with and improvement upon Council's DCP.



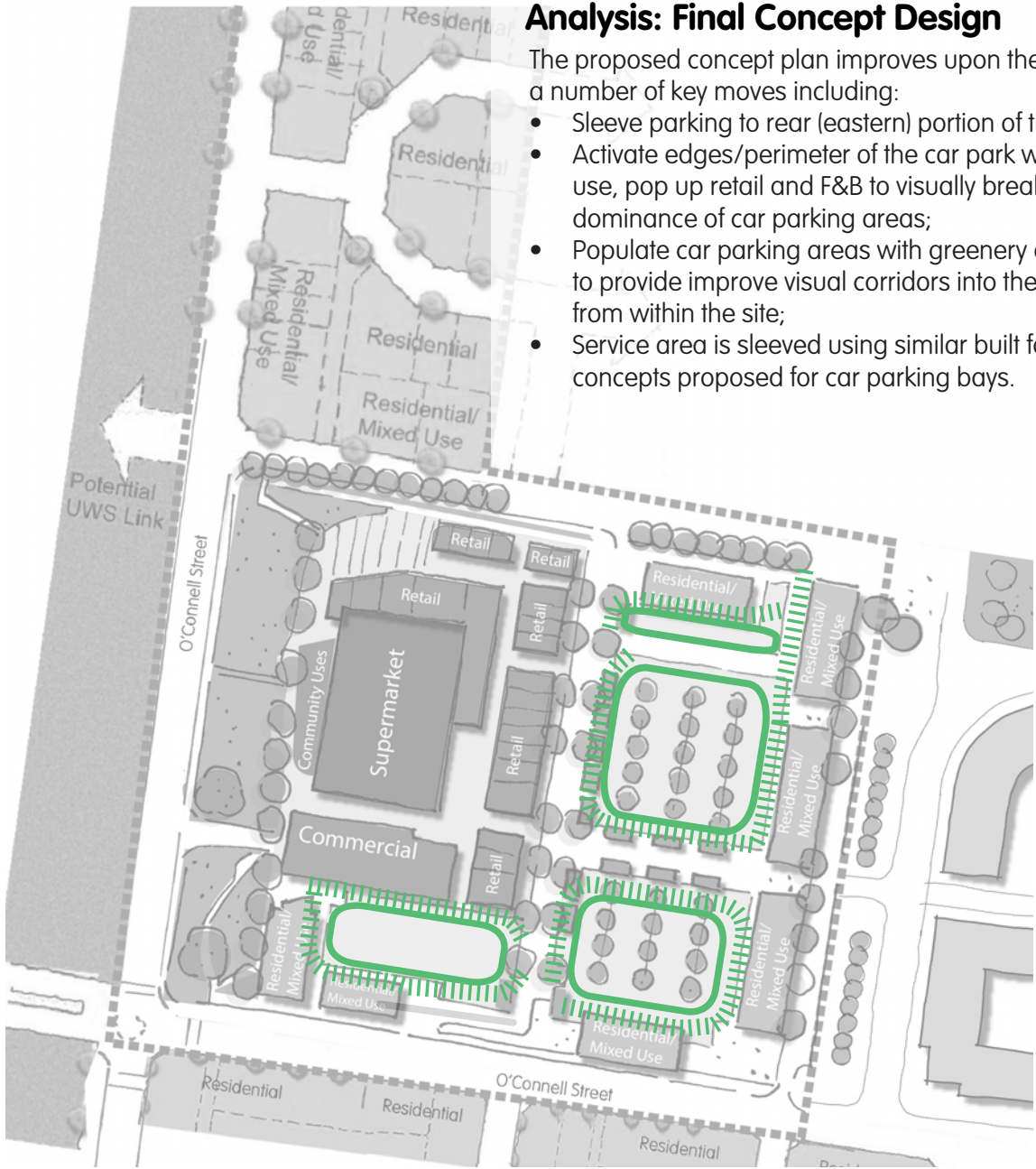
# Internalising and Sleeving Parking

## Council Feedback:

- 5
- The advantages of reconfiguring the development to internalise the service area and car park so that they do not dominate the appearance of the development, and so that active uses present to the surrounding streets



KEY		DCP CONCEPT	FINAL CONCEPT
	Car Parking Area & Service Area	8,240m <sup>2</sup>	7,860m <sup>2</sup>
	Sleeved Car Park	63%	93%



**Recommendation:**  
The proposed location of parking is considered to be consistent with and improvement upon Council’s DCP to internalise car parking.





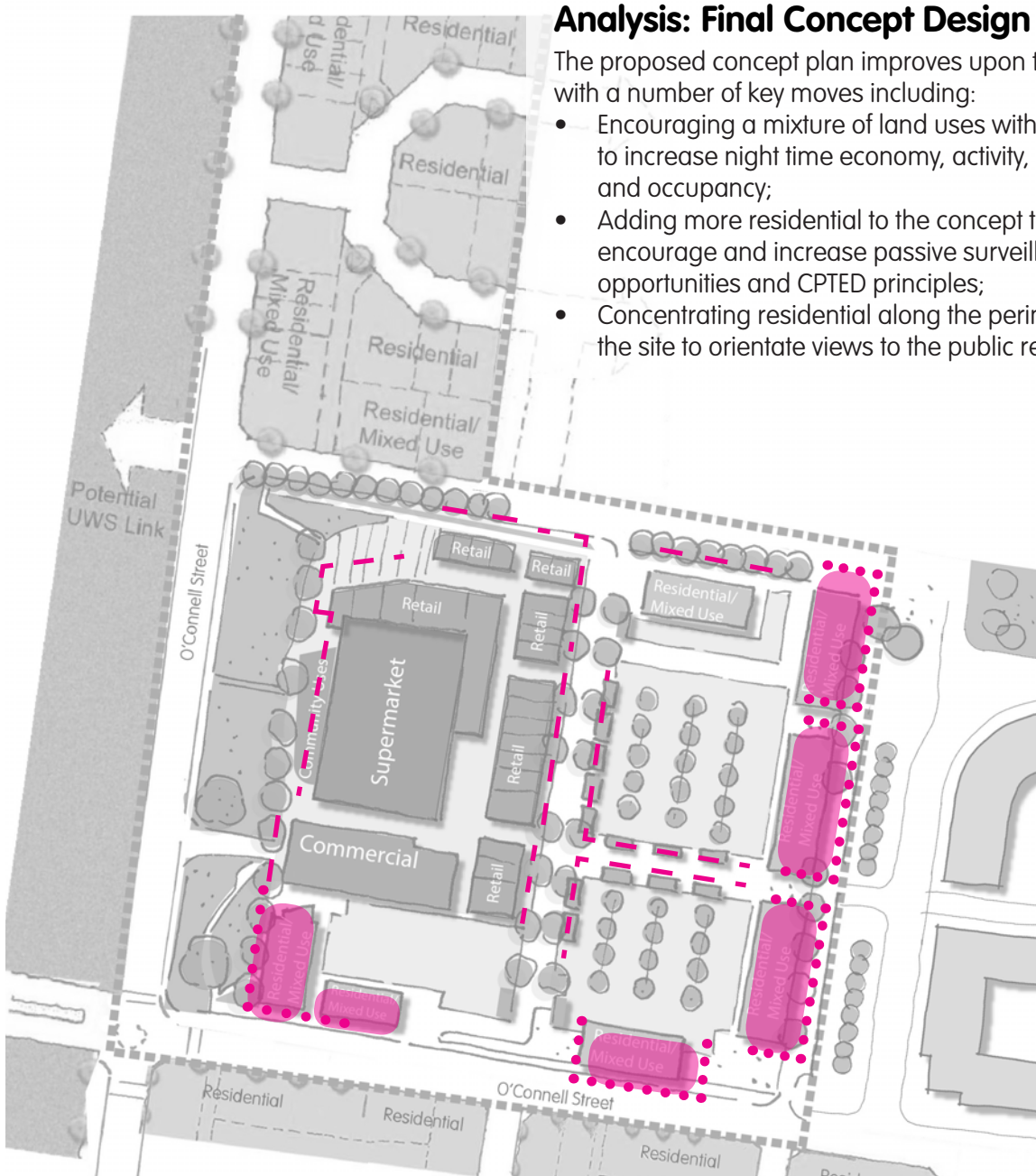
Activated Frontages

Council Feedback:

- 6
- Consideration of the potential to introduce residential uses within the site to activate the site, particularly after hours.



KEY	DCP CONCEPT	FINAL CONCEPT
<div></div>	Residential & Mixed Land Use	
<div></div>	Key Residential Frontage	370m 574m
<div></div>	Other Active Frontage	519m 613m



**Recommendation:**  
The proposed concept is considered to be consistent with and improvement upon Council’s DCP for residential land use & activation.



# A Centralised Community Centre

Council Feedback:

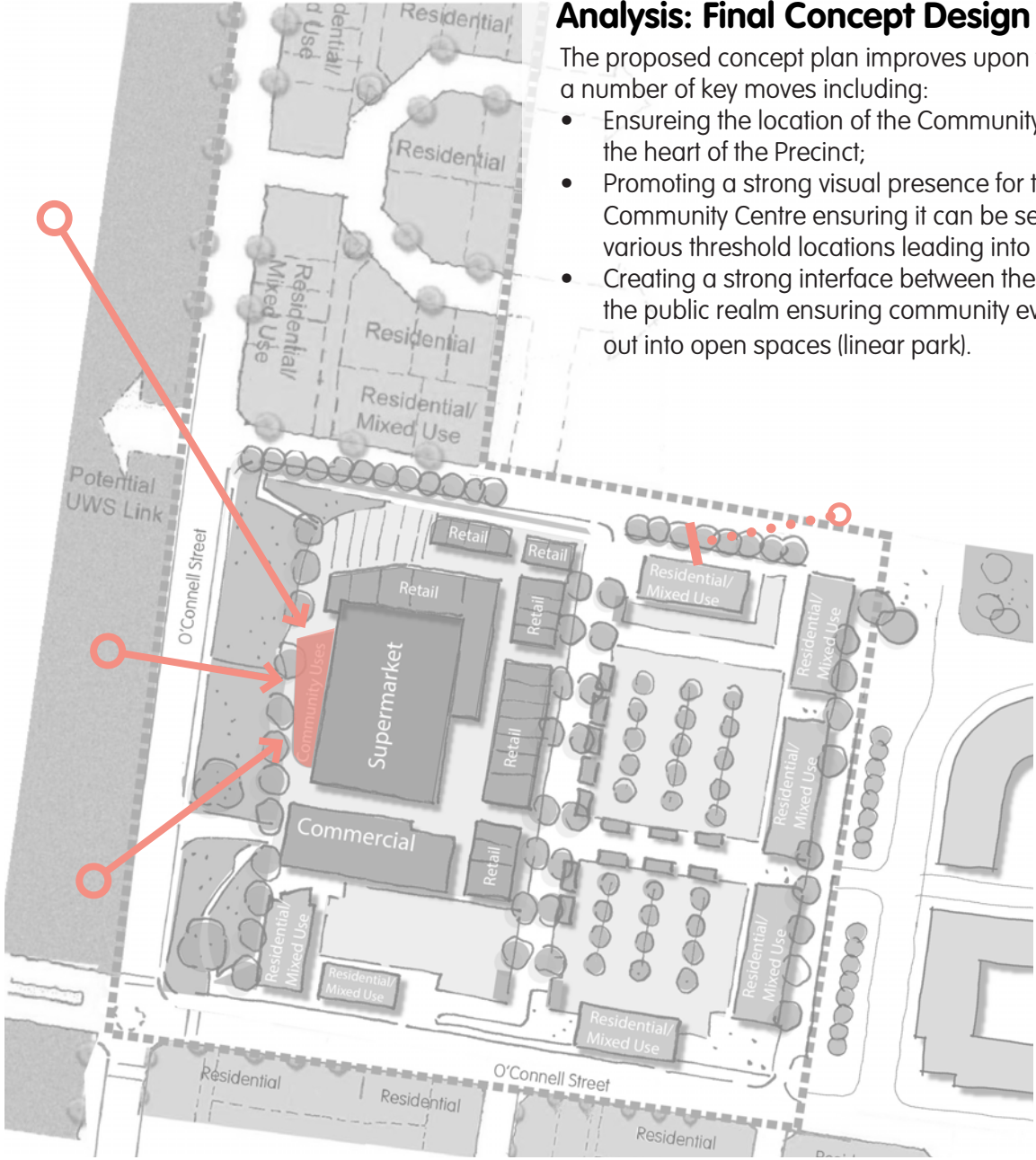
- 7
- Consideration of whether provision should be made for a community facility within the site for which Council reports it has existing s.94 funding.



Analysis: DCP Concept Design

- The DCP illustrates various obstructions to view corridors to the community facility from the surrounding context. A community facility should be the focus or at the heart of the precinct where it can be viewed or seen from various locations.

KEY	DCP CONCEPT	FINAL CONCEPT
	Community Centre	
	Clear View Corridors to Centre	x1 x3
	Interrupted View Corridors to Centre	x3 x1



Analysis: Final Concept Design

- The proposed concept plan improves upon the DCP with a number of key moves including:
- Ensuring the location of the Community Centre is at the heart of the Precinct;
  - Promoting a strong visual presence for the Community Centre ensuring it can be seen from various threshold locations leading into the site;
  - Creating a strong interface between the Centre and the public realm ensuring community events can spill out into open spaces (linear park).

Recommendation:

The proposed townscape and community facility location is considered to be consistent with and improvement upon Council’s DCP.





## STAGING

The proposed concept has been deliberately designed as two stages. Stage One includes the core retail offer, main street and village green. Stage Two includes the possibility for decked parking with integrated shop top housing when the market exists. The diagrams below illustrate this approach. Stage 1 includes the northern park of the Village Green. The balance of the Village Green will be completed as part of Stage 2.

STAGE 01



STAGE 02





The Community Center View.





## CREATING A BETTER PLACE



**The suggested long term vision for the Village Green is to provide over 20 activities or things to do. It blends 'town and gown' to create a unique place.**

The Power of 10 is a globally recognised concept developed by Project for Public Spaces in order to evaluate and facilitate Placemaking at multiple city scales. "The idea behind this concept is that places thrive when users have a range of reasons (10+) to be there. These might include a place to sit, playgrounds to enjoy, art to touch, music to hear, food to eat, history to experience, and people to meet" (Project for Public Spaces, 2018).

The Village Green has been designed to facilitate this concept. Whilst the green itself is divided into five (5) related and interconnected zones, the aim is to create a broad range of activities within each zone across the whole precinct. Activities will spill over into different zones (such as play, dining, seating and public art) creating a sense of continuity whilst maintaining the theme or focus of each zone (listed below). It is envisioned that the use of this concept will further enhance the social and economic vitality and viability of this public space.

- 1 Village square**
- Alfresco dining
  - Food trucks
  - Pop-up retail
  - Urban seating and meeting
  - Experience retail

- 2 Play space**
- Water play
  - Kids playground
  - Dog park
  - Informal programming
  - Fit zone

- 3 Outdoor learning**
- Outdoor library
  - Collaboration tables
  - Free wi-fi
  - Outdoor classroom

- 4 Urban orchard**
- Micro food production
  - WSU partnership
  - Student coop.

- 5 Green gateway**
- Retained landscape
  - Urban forest

 **Community Centre**

Place Plan





Icons representing various urban design elements:

- Blue pedestrian icon
- Red family icon
- Blue graduation cap icon
- Red fork and plate icon
- Green tree and bench icon
- Orange bicycle icon
- Purple play structure icon
- Red house icon

The Green  
Aerial View



Icons representing various urban design elements:

- Blue pedestrian icon
- Red family icon
- Blue graduation cap icon
- Red fork and plate icon
- Green tree and bench icon
- Orange bicycle icon
- Purple play structure icon
- Red house icon

Northern Gateway

Play Space

Community Centre



Public Life: Activites



Nature and tranquility



Kids Playground



Active Play



Alfresco dining



People watching

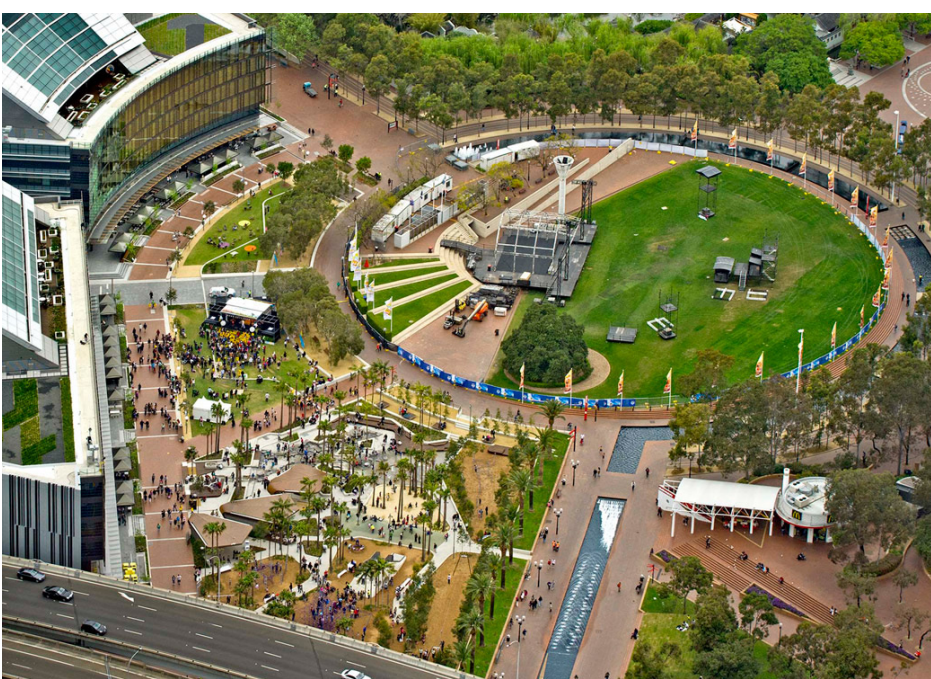


Outdoor learning





Public Life: New Trends in Retail





Trends in Place Led Retail





