

University of Canterbury

Landscape Master Plan

May 2017



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1. Introduction



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1.1 Introduction

1.1.1 Acknowledgement

The University of Canterbury acknowledges Ngāi Tahu as mana whenua of the lands on which the University has been constructed. Through continued dialogue and collaboration the University continues its stewardship of the campus in partnership with mana whenua.

The University also acknowledges the following individuals and groups who participated in the development of this Landscape Master Plan:

- Staff: Arts, Science, Business and Law, Human Resources, Communications, Engineering, Education, Māori and Pasifika
- Learning Resources
- Māori cultural advisors
- Puamiria Parata-Goodall
- Senior Management and Head of Department representatives
- Student and UCSA representatives
- We were guided in our task by designers from Isthmus, Woods Bagot and 360 Degrees

1.1.2 Background

The University estate exists in order to support the core research and teaching mission of the University. While UC encourages use and integration by the local Christchurch community, University grounds are not public domain.

The ongoing development of the University's built infrastructure creates landscaping challenges for the campus. As the hoardings are removed and new developments completed these projects will need to 'knit' in with the existing environment and contribute to a cohesive wider campus landscape.

The Landscape Master Plan is a tool to ensure that future landscape projects are appropriately scoped, budgeted and prioritised in a way that settles new buildings into the surrounding landscape. It is a bridging document between the visionary framework set by the UC Campus Master Plan and future building projects.

The campus landscape is a contributing factor to a prospective student's choice to enrol. The outdoor spaces are the University's first opportunity to welcome students and their families and for them to connect with the University Community. Our campus enjoys a beautiful setting which is, in comparison with other universities, a point of difference and distinction.

The concepts and ideas presented here are unapproved works that are informed by the Campus Master Plan and subject to the normal UC business case approval process.



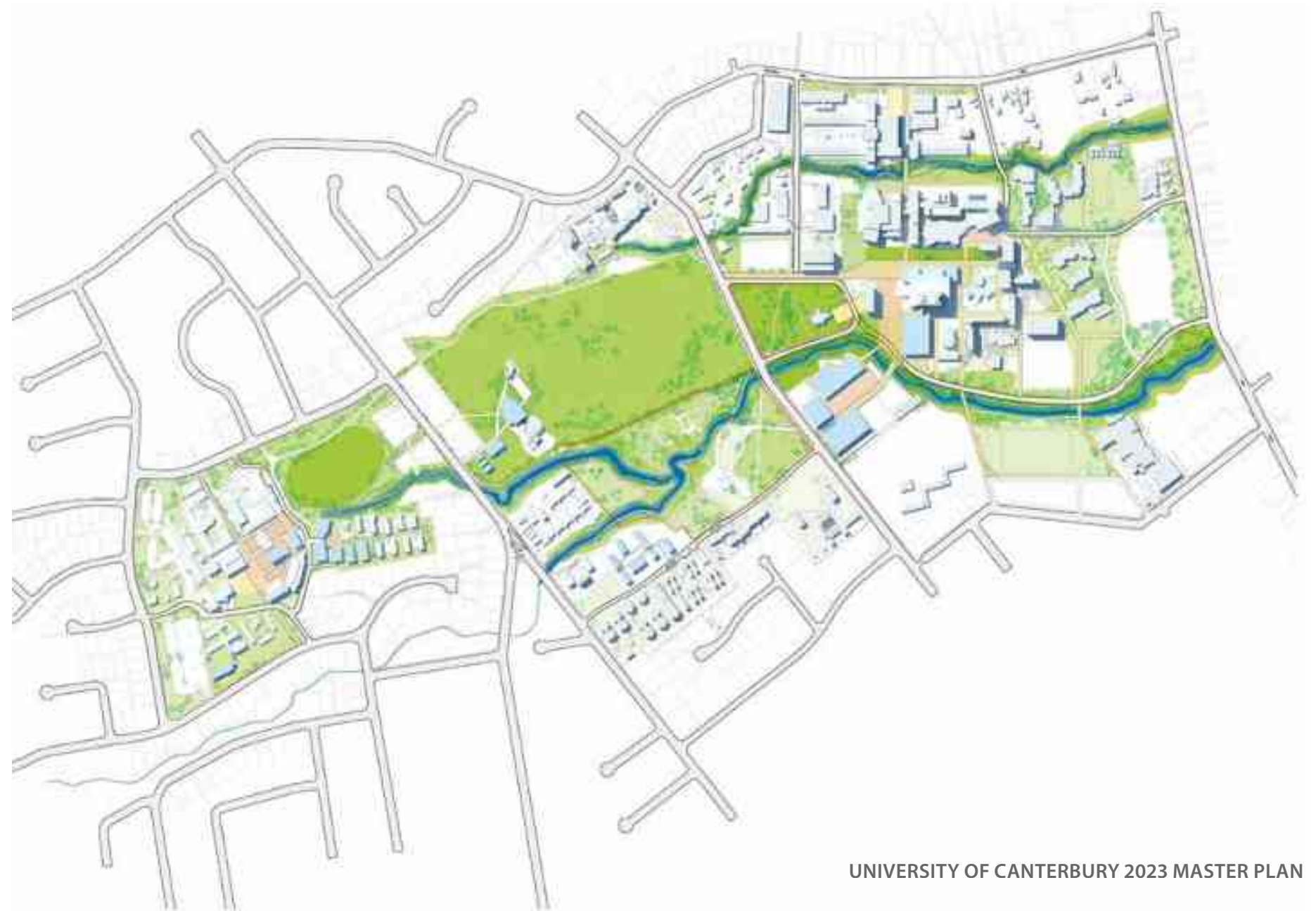
1.2 Purpose

The purpose of this Landscape Master Plan is to guide the development of the landscape of the University of Canterbury campus. It identifies the activities, themes and concepts that will guide campus landscape development and management. The Landscape Master Plan will:

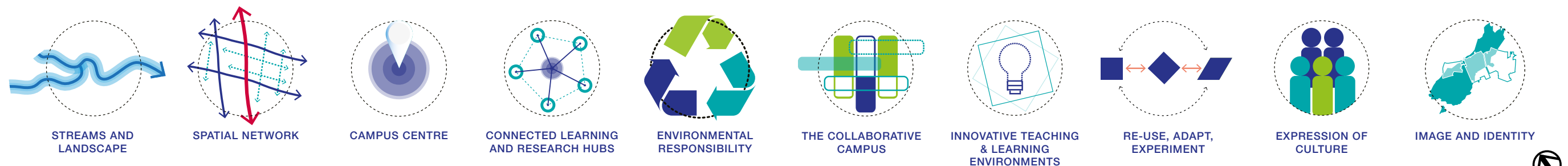
- Be used by UC staff for ongoing management, budget and programme setting, and to guide internal and external teams in delivering capital projects that will reshape the campus
- Provide definition to the ideas and principles set out in the 2023 Jubilee UC Campus Master Plan for campus heart spaces and parkland setting
- Provide guiding principles and recommendations for transforming the campus landscape in the short and mid term, leading toward a long term vision
- Build on the groundwork of the Grounds Team and Sustainability Office in relation to waterways and landscape concepts, and the Engineering Services landscaping guidelines

The Landscape Master Plan addresses the following considerations at a high level, with recommendations for next steps:

- Student and staff movement to, within and between the campuses and adjoining student accommodation (including overlaps with the Transport and Wayfinding strategies)
- Character and context: - parkland setting, fields and neighbourhood interface
- Cultural considerations: - Ngāi Tūāhuriri associations, and Pacifica community
- Heritage and Ilam Gardens Management Plan
- Integration of Dovedale Campus
- Waterways, stormwater and ecologically responsive environment
- Integration of temporary or permanent art installation and display
- Recreation and activation of outdoor spaces



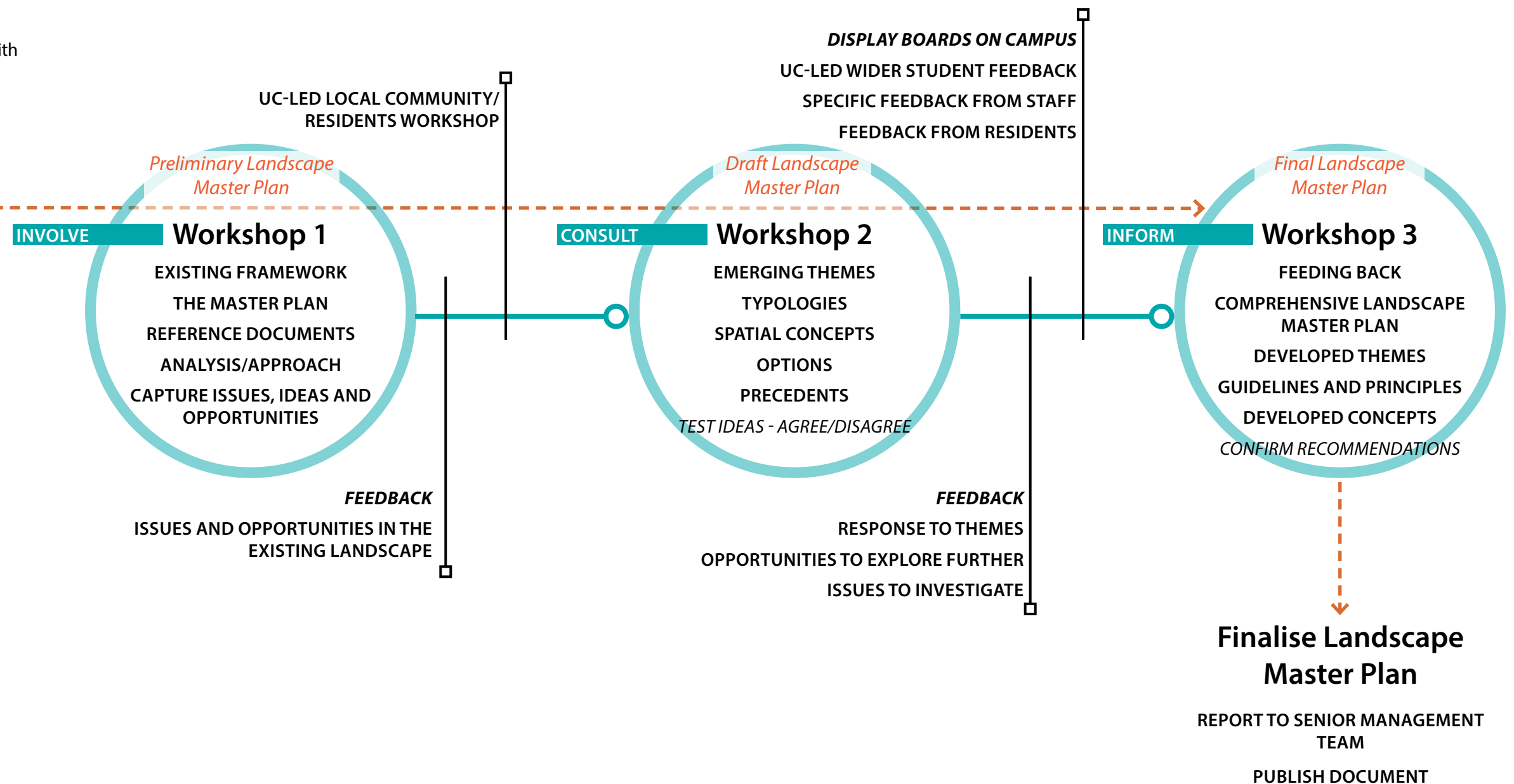
UNIVERSITY OF CANTERBURY 2023 MASTER PLAN



1.3 Process

Stakeholder groups:

1. Senior Management Team and Heads of Departments
2. Waterways, sustainability and transport groups
3. Mana whenua and Māori advisors in conjunction with AVC Māori office
4. Learning Resources
5. Students and University of Canterbury Students Association (UCSA)
6. General staff



1.4 How to read this document

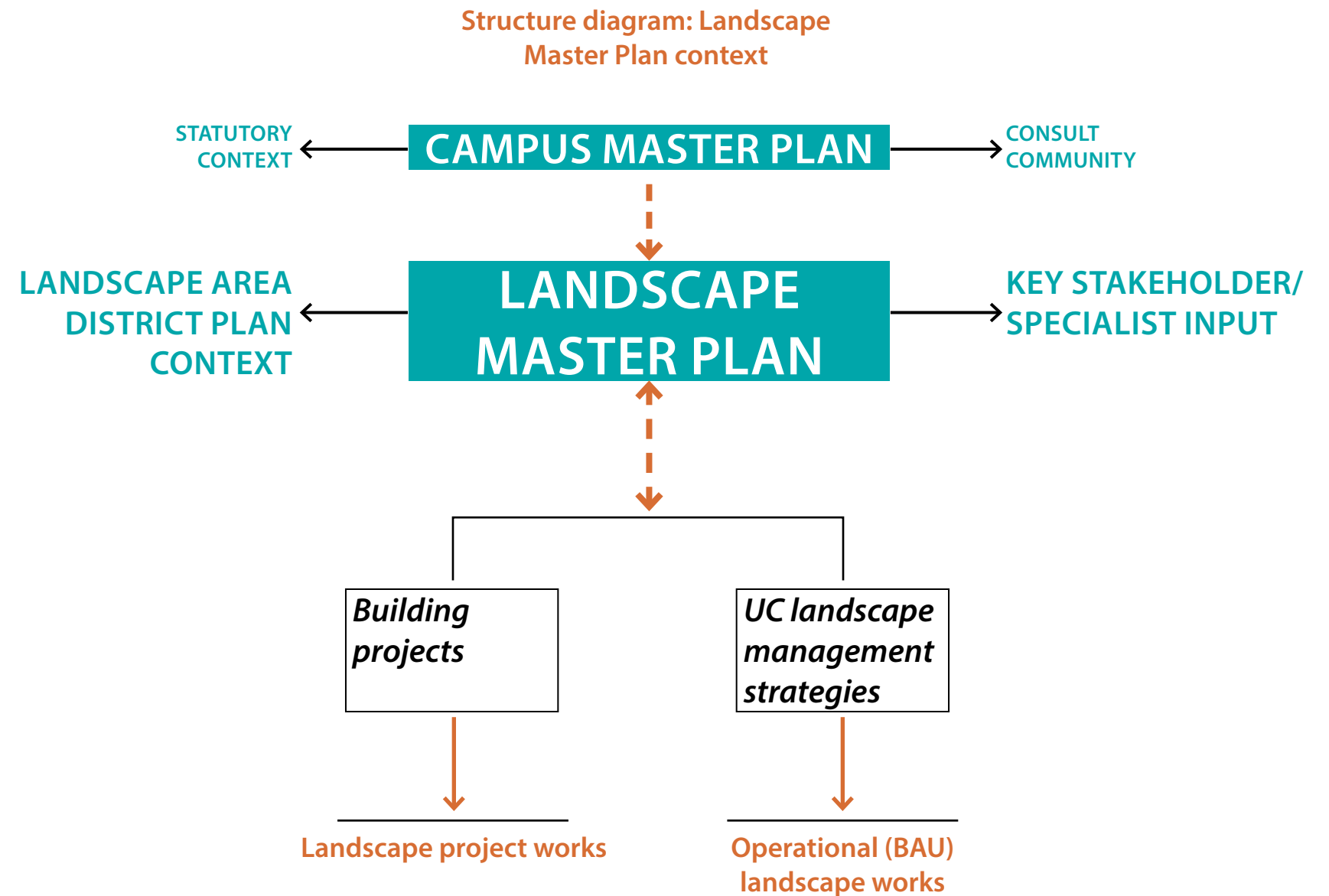
The Landscape Master Plan is a bridging document between the Campus Master Plan and University of Canterbury landscape management strategies. It provides campus-wide spatial typologies and guiding principles for planting and hardscape. Delivery tactics provide both immediate and long-term strategies for implementing the Landscape Master Plan.

A focus on campus heart concepts provides a scoping outline for the regeneration of priority campus heart spaces.

The concepts and ideas presented here are unapproved works that are informed by the Campus Master Plan and subject to the normal UC business case approval process.

Projects and recommendations

Early wins SHORT TERM	TACTICAL URBANISM ACTIVATING SPACES
Project integration SHORT TO MID TERM	CAMPUS HEART CONCEPTS INTEGRATED MAJOR BUILD PROJECTS
Incremental change SHORT TO LONG TERM	LIVING LABORATORY MANAGED PARK LANDSCAPE





2. The University Story



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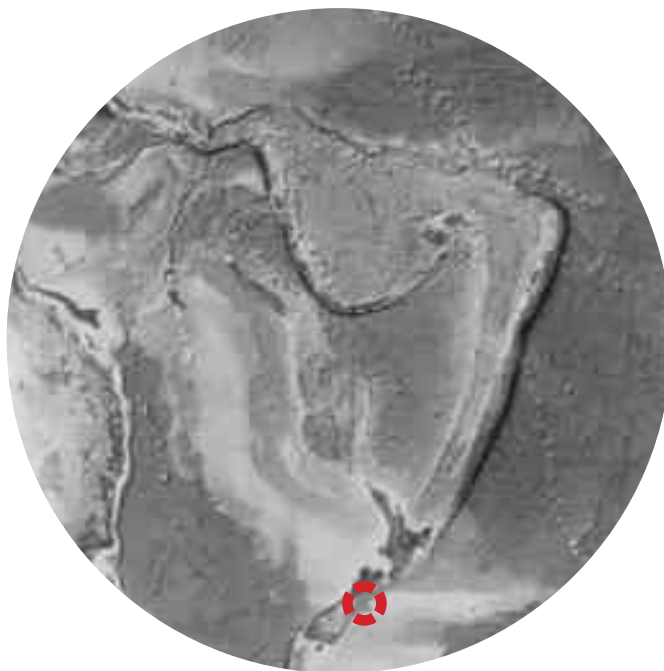
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2.1 The campus in context

The landscape identity of the University of Canterbury can be positioned by reference to its location in the South Pacific, Aotearoa - New Zealand, the South Island, Canterbury, and Christchurch City. At each of these scales there are landscape characteristics and cultural narratives that the landscape of the campus can reference.

THE SOUTH PACIFIC



Landscape character: Sub-tropical, Pacific Ocean
University character: Strong pasifika student community.

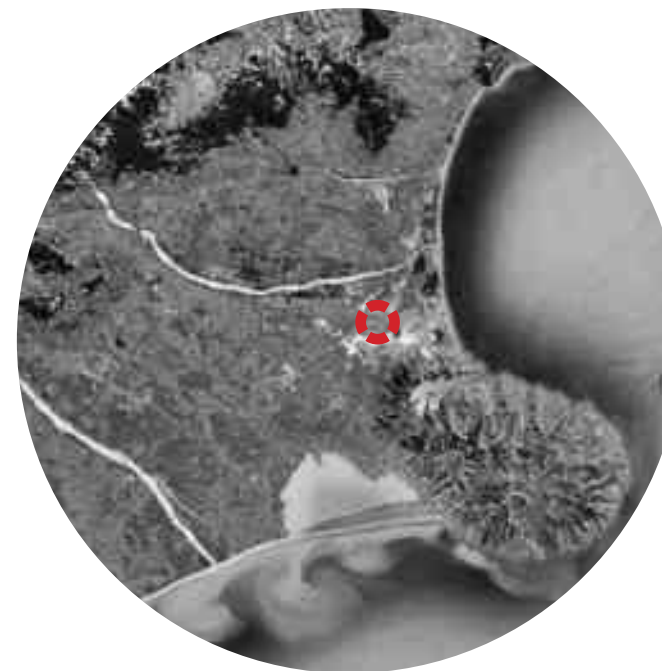
THE SOUTH ISLAND, AOTEAROA - NEW ZEALAND



Landscape character: South Island, New Zealand landscape
University character: One of three universities in the South Island, with a diverse student population and a focus on building a strong and supportive community.

The University of Canterbury has a vital role in educating future leaders as well as academic and research innovation development for New Zealand. Enrolments are expected to grow to approximately 17,000 by 2026. The University of Canterbury is New Zealand's first university to receive a prestigious QS 5-star ranking for overall excellence (2011).

CANTERBURY

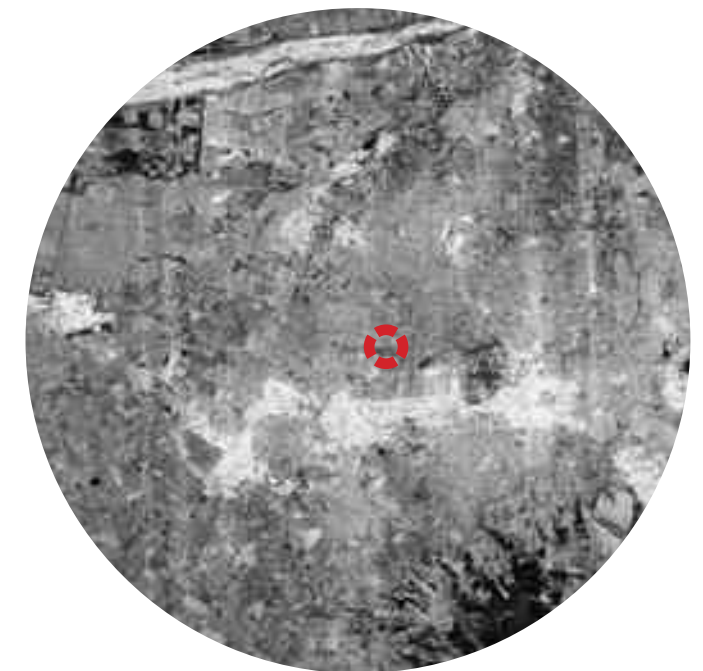


Landscape character: Canterbury character, 'University of Plains' between the Southern Alps, Port Hills, and Banks Peninsula

University character: Māori and European history of Canterbury and geological landscape origins expressed through planting and pattern.

The University of Canterbury promotes an active lifestyle in a region packed with outdoor adventure from the mountains to the sea.

CHRISTCHURCH - THE GARDEN CITY



Landscape character: The garden city and parkland landscapes include Hagley Park and Christchurch Botanic Gardens, the 'lungs of the city', and mahinga kai values associated with the Ōtākaro - Avon river by Ngāi Tūāhuriri.

University character: The modernist campus moved from what is now the Arts Centre in central city to a parkland setting in a suburban environment.

From English garden to ecologically responsive environment, the University of Canterbury has a proud place in the history of Christchurch and a vital role in the city's future.

2.2 Landscape context: Canterbury

The Canterbury landscape is defined by the Southern Alps rising out of the plains with braided rivers weaving through them, from the Alps to the sea. There is considerable variation in landscape types across the Canterbury region, for example the coast, high country, mountains, plains and basins. This is the wider landscape context of the University of Canterbury, the landscape identity that new initiatives can reference and draw inspiration from.

Landscape is multi-dimensional and includes natural science, legibility, aesthetic, shared and recognised, transient, heritage and tāngata whenua values.

Distinctive patterns associated with the Canterbury landscape:

- Linear shelterbelts and hedgerows
- Rural patchwork of green and yellow hues
- Braided rivers
- Tussock and grasslands
- Geology - river gravels
- Exotic trees
- Distant mountain range
- Salt marshes, swamps and wetlands
- Outstanding natural landscapes of Canterbury as defined in the District Plan include Banks Peninsula - Te Pātaka o Rākaihautū and Port Hills - Ngā Kohatu Whakarakaraka o Tamatea Pōkai Whenua.



2.2.1 Cultural narratives and the Canterbury landscape

The Canterbury Landscape is embedded with cultural narratives, from its recent rural farming history, to the centuries old creation stories of Ngāi Tūāhuriri and Ngāi Tahu, which provide a unique Māori view of the world. The University of Canterbury recognises the importance of the Canterbury cultural landscape as part of the University story, including its cultural relationship with mana whenua, Ngāi Tūāhuriri. These narratives, as well as the characteristics of the Canterbury landscape, can be drawn upon in the treatment and design of campus spaces.

Creation stories

The mana whenua creation stories about Ranginui and Papatūānuku, Aoraki, Tāwhaki, Rākaihautū, and Tamatea describe the layers of history of Māori in the Canterbury landscape. (Reference: A cultural narrative for the University of Canterbury Master Plan process 2015. Prepared by Puamiria Parata-Goodall September 2015).

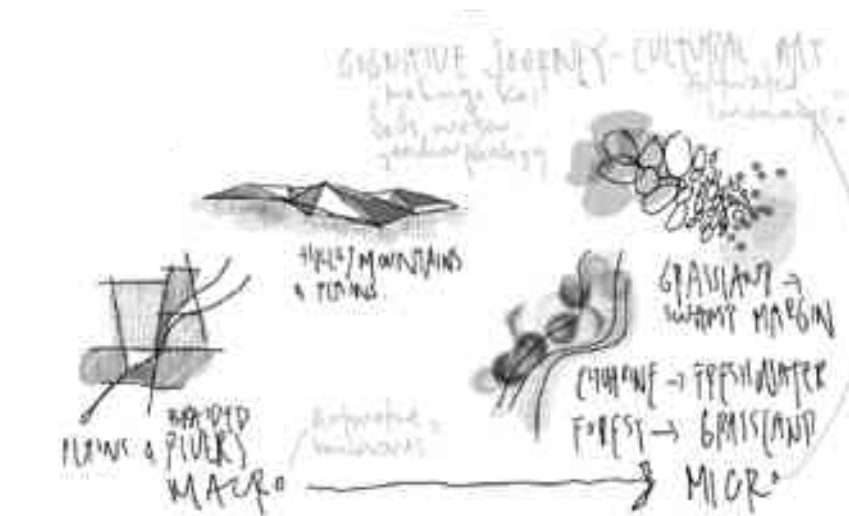
Landuse on the Canterbury Plains

- The Canterbury plains are known as Ngā Pākihi Whakatekateka o Waitaha in Māori
- In pre-European times, the plains were covered in a mixture of dryland vegetation, and the Waimakariri flooded across them
- The area where Christchurch City is was largely swamps and wetlands, providing habitat for mahinga kai species
- European settlement changed the landscape dramatically, draining wetlands and removing native vegetation
- The landscape of the plains is characterised today by a patchwork of farm paddocks and shelterbelts, with a backdrop of dramatic hills and mountains.

Mural depicting Ngāi Tahu creation stories (Christchurch Botanic Gardens)



UC illustrative graphics of cultural narratives



Cultural values and artistic expression of the inherent qualities of the Canterbury landscape



Castle Hill



The Canterbury Plains



Waimakariri River



Te Waihora - Lake Ellesmere



Doris Lusk, 'Canterbury Plains from Cashmere Hills'



Rita Angus, 'Mountains, Cass'



Bill Sutton, 'Nor' Wester in the Port Hills'



Colin McCahon, 'Canterbury Landscape'

2.3 Landscape context: Christchurch

Generous urban parks, open green spaces, and the river network create Christchurch's identity as a 'garden city'. Christchurch's parks can be traced back to the 1850s, when Hagley Park was established in order to promote health and wellbeing within the city. Christchurch influenced the English Garden City movement which aimed to create self-sustaining cities with green spaces for the benefit of the city's residents.

Ōtākaro-Avon River is an iconic part of Christchurch's urban fabric. The Ōtākaro-Avon River has a landscape overlay scheduled in the Christchurch District Plan as a significant feature (SF) (planning map: 30, SF8.3).

- Chapter 9 Heritage, Section 9.2.9.2.3 Schedule of Significant features
- Ōtākaro / Avon River Open Space water and margins
- Refer to District Planning Map showing the extent of SF8.3 in the grounds of the University of Canterbury, Ilam.

The Ōtākaro-Avon River and the cultural area of Christchurch has particular historical significance to Ngāi Tūāhuriri and Ngai Tahu for navigation and mahinga kai.

Riccarton Bush / Putarikamotu is scheduled in the Christchurch District Plan as a outstanding natural feature (ONF) (planning map: 31, ONF35.0).

- Chapter 9 Heritage, Section 9.2.9.2.1 Schedule of Outstanding natural features
- Riccarton Bush / Putarikamotu, bush and associated park
- Refer to District Planning Map showing the extent of ONF35.0 in the grounds of the University of Canterbury, Ilam.



Christchurch - the garden city



HAGLEY PARK



AVON RIVER

Indigenous ecology



RICCARTON BUSH

2.4 The modernist campus

The landscape now occupied by the University of Canterbury was once a forest of matai, totara, kahikatea and miro, but it was largely deforested and farmed by the mid-19th century. The University of Canterbury was relocated from the centre of Christchurch to its suburban home in the late 1950s. The campus was envisaged as a singularly beautiful complex of carefully planned modern buildings, gardens, courts, shrubberies and lawns. (Reference: John Hunt 'The Making of a Modernist Campus: The Development of the Ilam Campus of the University of Canterbury').

The campus has gradually moved away from the original high-maintenance English garden style to a lower maintenance and more ecologically responsive environment within the last 15 years. The landscape is currently made up of a significant number of trees both native and imported, as well as deciduous and evergreen, waterways, lawns and gardens.

Preservation of the historically significant Ilam Homestead and Ilam Gardens, including the cultivation of rhododendron and azalea collections by Edgar Stead remain an important part of the University Story. The University of Canterbury continues its association with Roland Stead and the trust fund that has been set up to maintain the gardens.

While the campus is well known for its striking modernist buildings, its parkland character and landscape are an equally important part of its identity. Important features include:

- Informal parkland style planting towards the edge of the campus to blend it with the suburbs
- Grassed mounds, intended to soften orthogonal forms of buildings
- Interlocking courts and integrated pathways in the core of Ilam Campus

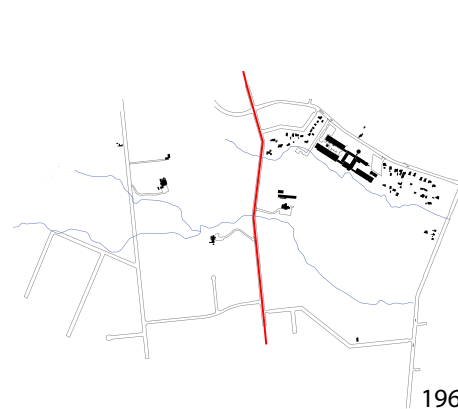
More recent additions to the campus landscape are:

- Riparian restoration plantings
- The Okeover community gardens
- Edible planting schemes

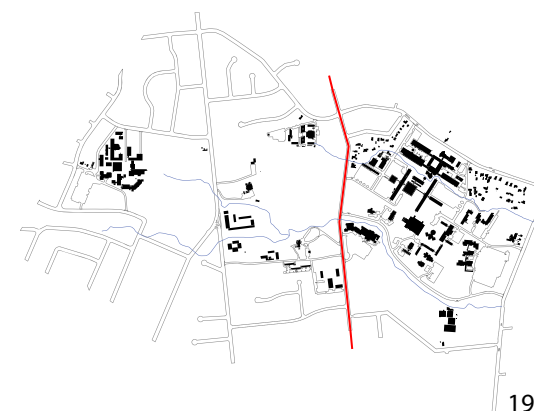


Modernist university buildings in a park-like campus

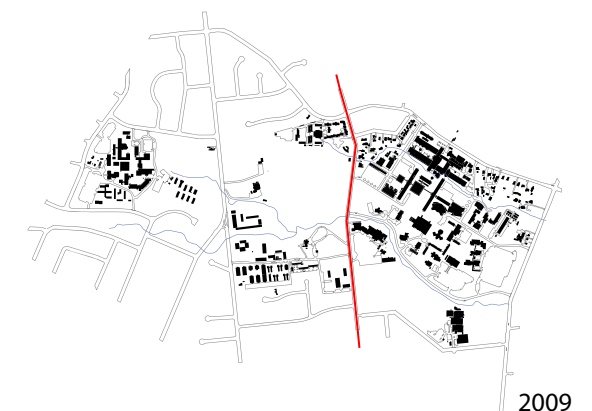
The campus landscape today



1961



1980



2009

Evolution of the campus building footprint

2.5 Character Areas

2.5.1 Existing landscape character

Campus core

- Mixture of different paving types, patterns and motifs
- Central street with paved and grassed courts either side
- Extremes of exposure and enclosure
- Fixed and mobile street furniture: bike racks, seating associated with cafes, landscape benches

Urban landscape

- Gardenesque planting around buildings and in courtyards
- Exotic mixed gardens in older spaces, mass planting and natives near newer buildings
- Small-scale courtyards, pathways and lanes
- Human-scale architectural details on the campus' modernist buildings
- Contrast between landscaping around newer and older buildings
- Temporary interventions bring colour and detail- hoardings, bicycle racks

Waterways

- Typically narrow riparian edge to waterways
- Few formal access points to river
- Narrow bridges cause pinch-points
- Recent native plantings part of stream edge upgrade projects interspersed with mature stream edge plantings such as willows
- Native garden landscape treatment to stream at Te Ao Mārama gardens

Parkland

- Wide open grass spaces
- Exotic deciduous trees with some younger natives
- Pockets of distinctive groupings, i.e. Okeover pines, the cherry walk, and the Rhododendron and Azalea collection in Ilam Gardens
- Low grassed mounds at edges of campus
- Informal desire lines worn through grass

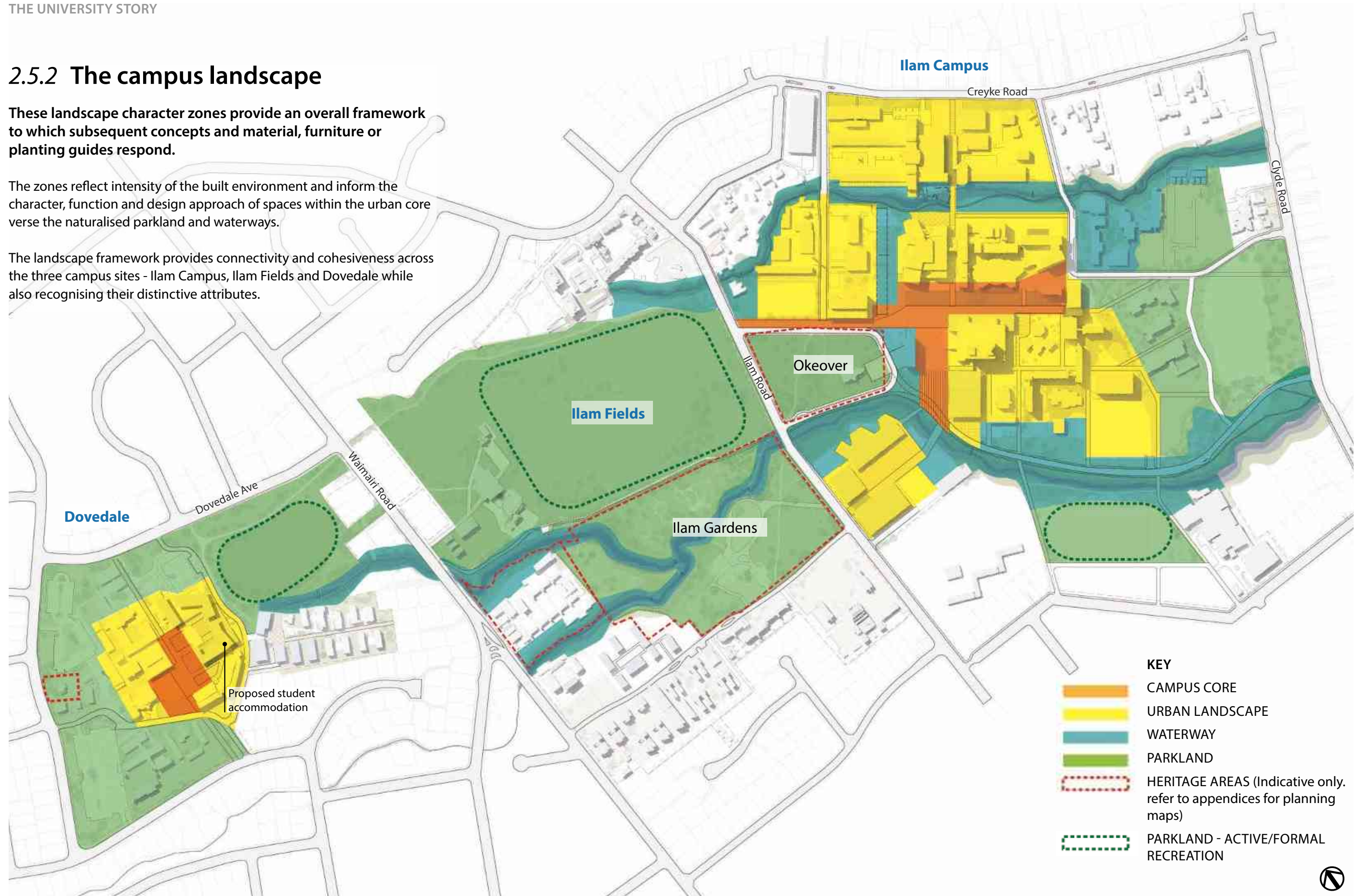


2.5.2 The campus landscape

These landscape character zones provide an overall framework to which subsequent concepts and material, furniture or planting guides respond.

The zones reflect intensity of the built environment and inform the character, function and design approach of spaces within the urban core verse the naturalised parkland and waterways.

The landscape framework provides connectivity and cohesiveness across the three campus sites - Ilam Campus, Ilam Fields and Dovedale while also recognising their distinctive attributes.



2.6 Existing planting

2.6.1 Existing trees

1. University of Canterbury signature trees

- Lime tree: official university tree
- Pin oak: unofficial university tree
- Rhododendrons and Azaleas: associated with Edgar Stead

2. Culturally significant trees and plants

- Original forest trees: totara, matai, kahikatea, miro
- Taonga species: totara (making waka), kowhai (seasonal harvest) ti kouka (landmark)
- Mahinga kai resources: harakeke (weaving), toe toe (thatching) and lining, kowhai (medicinal)

Ref: Appendix 11.1 Significant trees on campus.

3. Commemorative trees

There are no scheduled protected trees on Campus. Commemorative trees have been planted to recognise an event or person.

4. Endangered trees

IUCN endangered exotic tree species (scarce in their place of origin) have been identified. Refer to appendices for list and map.

Ref: Appendix 11.1 Significant trees on campus.

2.6.2 Planting character

Native planting guides

A native plant palette is woven through the Campus and is influenced by the University of Canterbury Landscaping Guidelines, the Matapopore Urban Design Guide, and the Ngahere Native Planting guide. Native planting over the last decade has engendered a shift towards an ecologically responsive look and feel and recognition of mahinga kai values.

Balancing the parkland setting with native planting

The character of the Haereroa-Avon River supports groupings of native and woodland tree species with historical associations, retaining open views to the river.

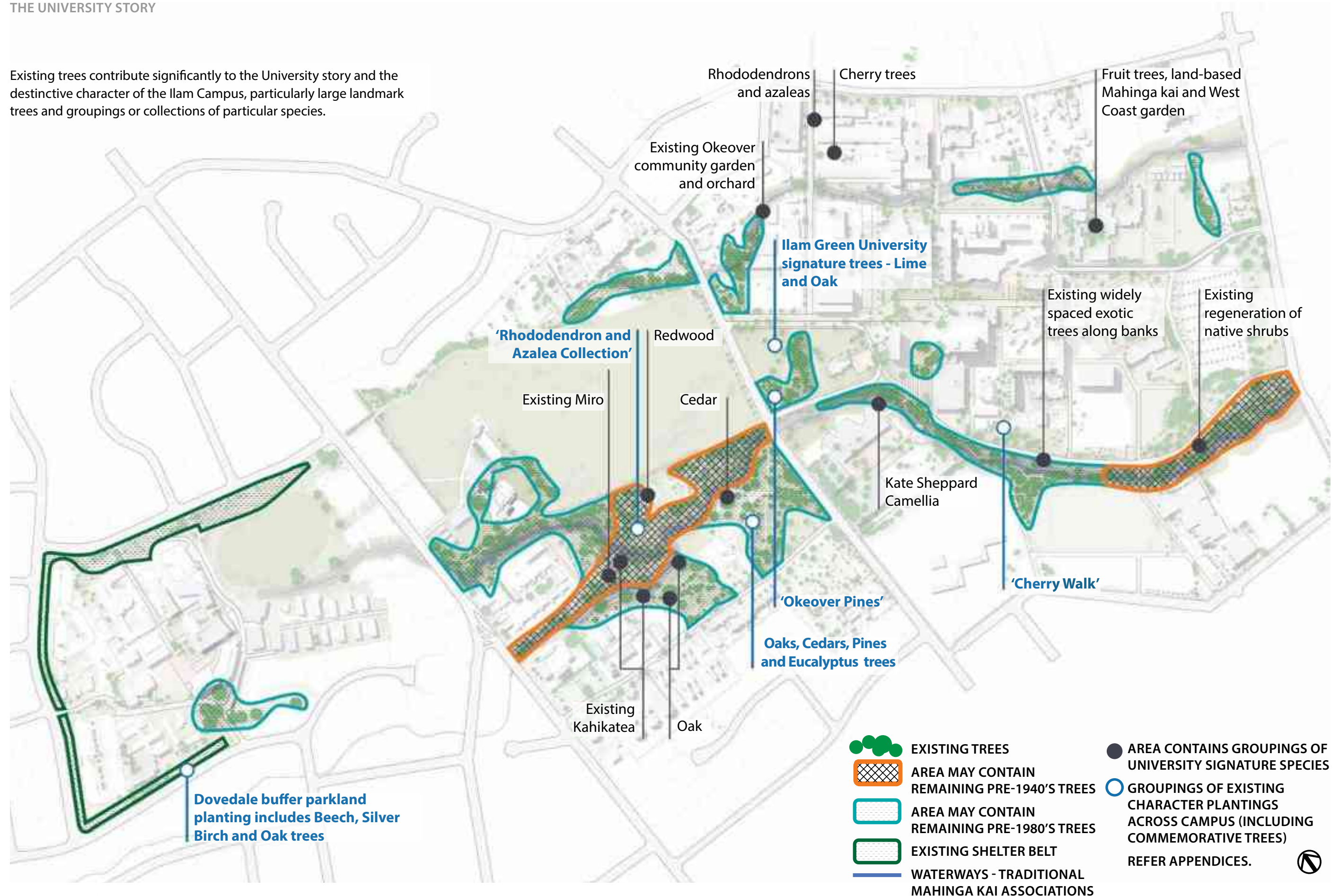
Edible campus

Orchards and community gardens exist in peripheral parkland areas of the campus, but could be developed close to halls of residence in support of the edible campus concept.



THE UNIVERSITY STORY

Existing trees contribute significantly to the University story and the distinctive character of the Ilam Campus, particularly large landmark trees and groupings or collections of particular species.



2.7 Statutory Context

2.7.1 Heritage items

Heritage protection

Landscapes associated with pre-1900 human activity are protected under the archaeological provisions of the *Heritage New Zealand Pouhere Taonga Act 2014* which replaced the *Historic Places Act 1993* on 20 May 2014.

The *Heritage New Zealand Pouhere Taonga Act 2014* defines an archaeological site as a place associated with pre-1900 human activity where there may be evidence relating to the history of New Zealand. A place associated with post-1900 human activity may be declared by Gazette as an archaeological site under the Act.

The *Heritage New Zealand Pouhere Taonga Act 2014* makes it unlawful for any person to modify or destroy, or cause to be modified or destroyed, the whole or any part of an archaeological site without the prior authority of Heritage New Zealand. For any work that may affect an archaeological site an authority from Heritage New Zealand must be obtained.

Refer to <http://www.heritage.org.nz/>.

Christchurch District Plan heritage items

The Proposed Christchurch Replacement District Plan identifies a number of heritage items on the University of Canterbury campus. Those items are to be protected as indicated on this plan. The District Plan describes heritage items as being either 'Highly Significant' (group 1) or 'Significant' (group 2). Refer to section 9.3.2.2 *Policy - Identification and assessment of historic heritage for scheduling in the District Plan* for policy relating to the identification and assessment of historic heritage.

Table of heritage items

Name	Item #	Setting #	Group
Former dwelling and setting, Okeover	300	201	2
Former dwelling and setting, Ilam	301	620	1
Former Ilam Gardens	302	-	1
College House buildings (varying descriptions)	534, 1336, 1337, 1338, 1339, 1340, 1342	194	1 and 2
Fendalton Open Air School Classroom and Setting	535	190	2

Note: boundaries shown are indicative only, based upon the Proposed Christchurch Replacement District Plan, Maps 30, 31 and H12.

Heritage rules

Heritage rules in District Plan *Chapter 9 Natural and Cultural Heritage* should be complied with when any work identified in the Landscape Master Plan is undertaken on or near heritage items. The following sections of the Proposed Christchurch Replacement District Plan identify rules to do with heritage sites, and are particularly relevant to the works proposed in the Landscape Master Plan.

- 9.3.4 Rules - Activity status Tables
- 9.3.5 Rules - Matters of Control
- 9.3.6 Rules - Matters of Discretion
 - 9.3.6.1 Alterations, new buildings, relocations, temporary event structures, signage and replacement of buildings

2.7.2 Significant features

Ōtākaroa-Avon River

The Ōtākaro-Avon river in the grounds of the University of Canterbury is identified as Significant Feature 8.3 in the Christchurch District Plan (refer to appendices for map showing its extent). Policy relevant to treatment of significant features is set out in section 9.2.2.8 *Policy - Recognising and maintaining the qualities of significant features*, and this should be complied with when work is being undertaken within the significant feature area identified in the District Plan.

Note: the Ōtākaro-Avon River is known as the Haereroa-Avon River within the University Campus.



ILAM HOMESTEAD



ILAM GARDENS



OKEOVER LAWN

2.7.3 Map: heritage items and significant features

Areas shown are indicative only. Refer to appendices for District Plan Maps.



Orthophotography in the Christchurch City Council area taken in the flying season (summer period) 2015-16.

3. Themes



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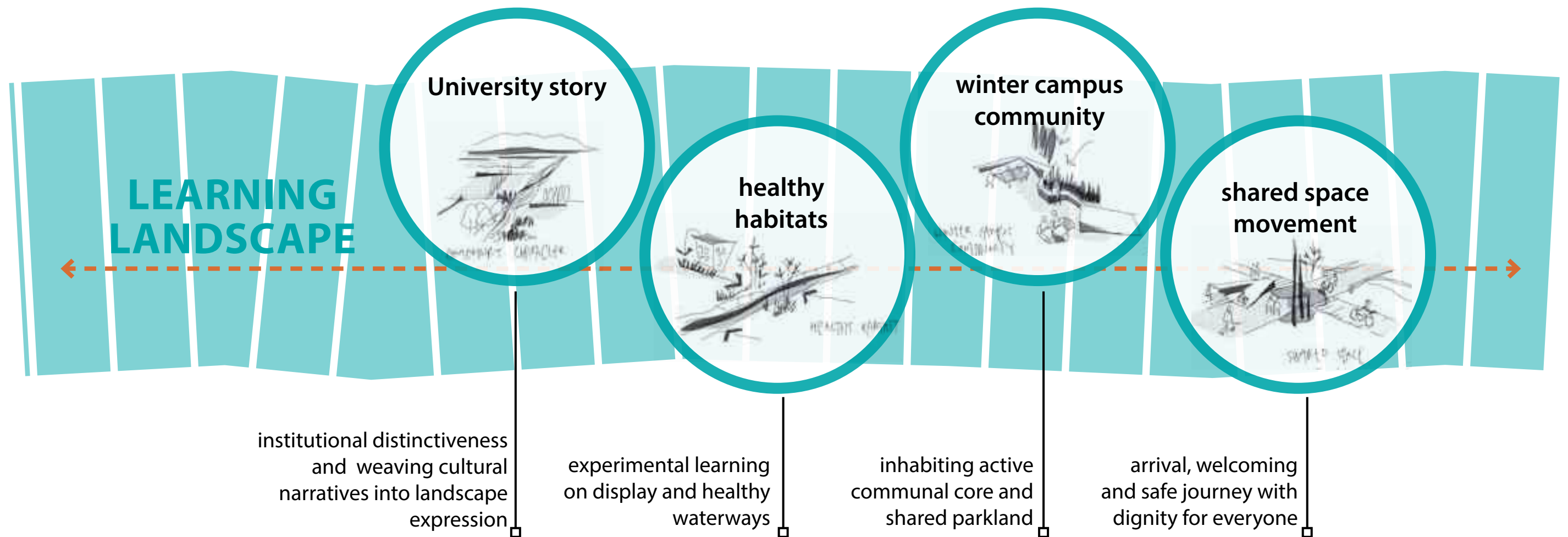


3.1 Landscape themes

The University of Canterbury Campus is a *learning landscape*. Opportunity for learning is threaded across the four themes of the Landscape Master Plan.

The themes emerged out of the first round of stakeholder consultation workshops. They represent what is important to the University of Canterbury campus community.

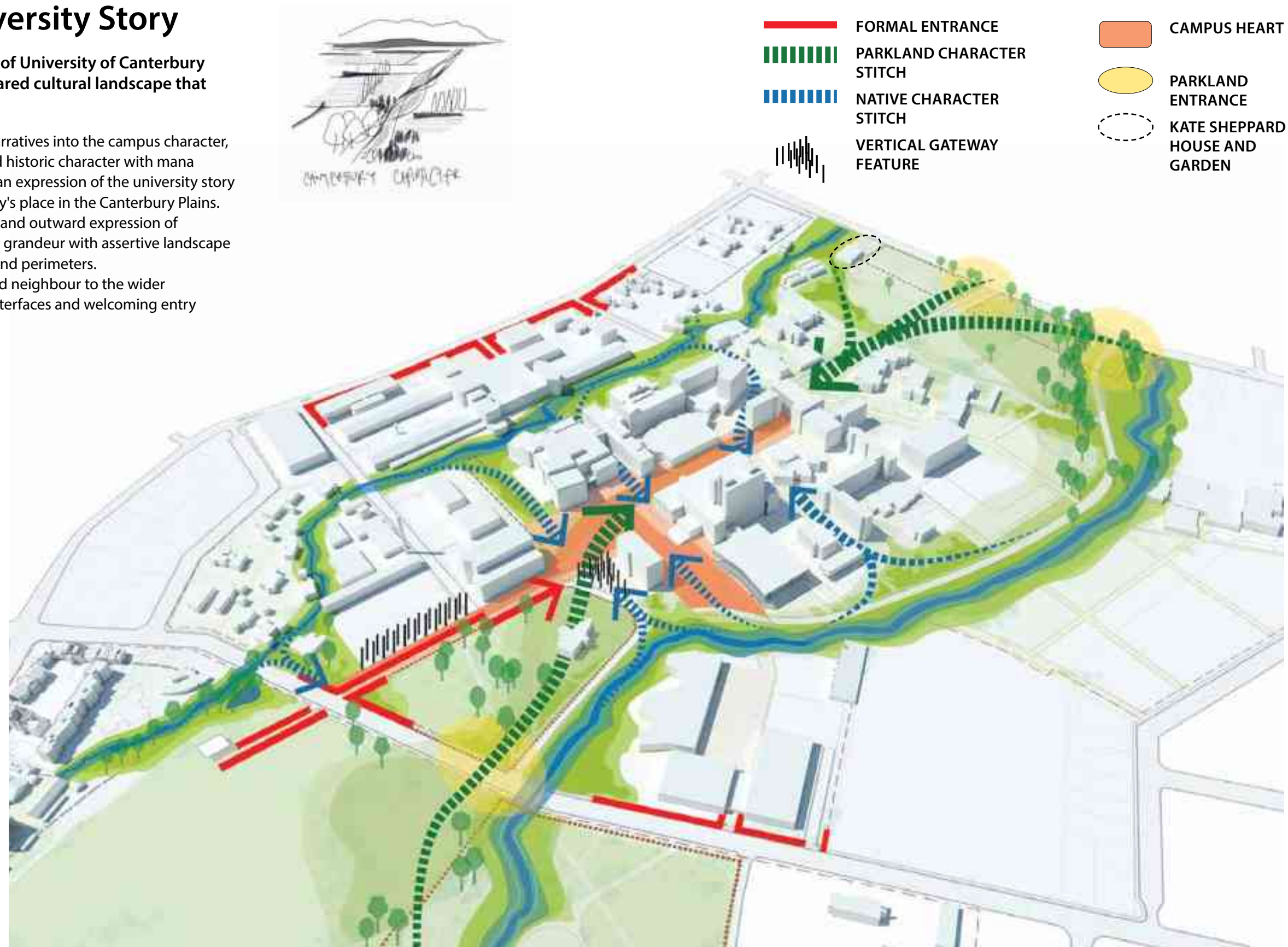
The themes underpin the Landscape Master Plan, and provide principles for future projects to be designed and evaluated against. Any future project should reference some or all of the themes, and respond to the accompanying principles.



3.2 Theme: University Story

Inward and outward expression of University of Canterbury identity and character with a shared cultural landscape that expresses:

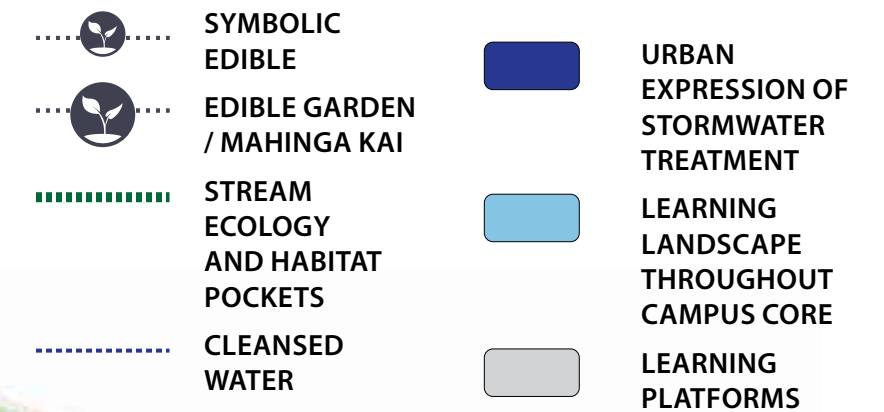
- **[Tikanga]** - Weaving cultural narratives into the campus character, balancing existing parkland and historic character with mana whenua and Pasifika values, as an expression of the university story and the University of Canterbury's place in the Canterbury Plains.
- **[Rangatiratanga]** - Leadership and outward expression of institutional distinctiveness and grandeur with assertive landscape gestures that define gateways and perimeters.
- **[Whanaungatanga]** - Be a good neighbour to the wider community, with considerate interfaces and welcoming entry features.



3.3 Theme: Healthy Habitats

All landscape between buildings in the campus core is functional and expressed artistically, to invite continuing learning conversations and promote education on display with a focus on:

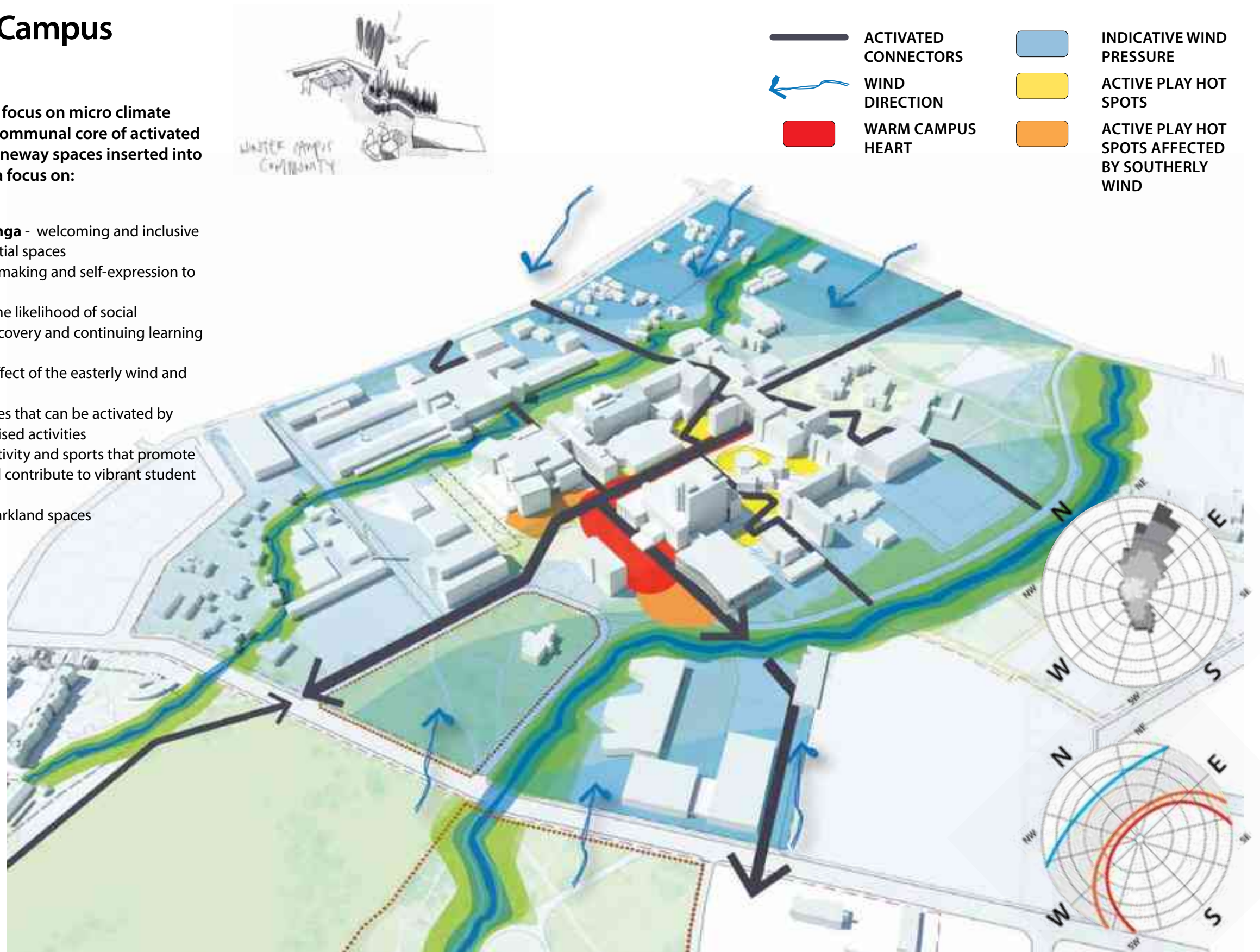
- **[Tohungatanga]** - Functional, attractive 'living laboratory landscape' for the movement and treatment of water
- **[Kaitiakitanga]** - Healthy waterways, habitat and mahinga kai
- **[Manaakitanga]** - Edible landscapes and mahinga kai visible within (or from) campus heart



3.4 Theme: Winter Campus community

Inhabiting the winter campus with a focus on micro climate management to create a protected communal core of activated learning streets and opportunistic laneway spaces inserted into the wider parkland landscape, with a focus on:

- **Manaakitanga and whanaungatanga** - welcoming and inclusive 'street based' communal and interstitial spaces
- Distinctive 'people places', for place-making and self-expression to foster a sense of belonging
- Opportunistic spaces that increase the likelihood of social encounters, chance interactions, discovery and continuing learning conversations
- Sheltered spaces that mitigate the effect of the easterly wind and wind tunnels between buildings
- Campus alive 24/7 with flexible spaces that can be activated by clubs, events, community and organised activities
- Embed opportunities for physical activity and sports that promote direct health and social benefits, and contribute to vibrant student life
- Provide safe, sheltered 'sanctuary' parkland spaces
- Warm materials in the campus heart



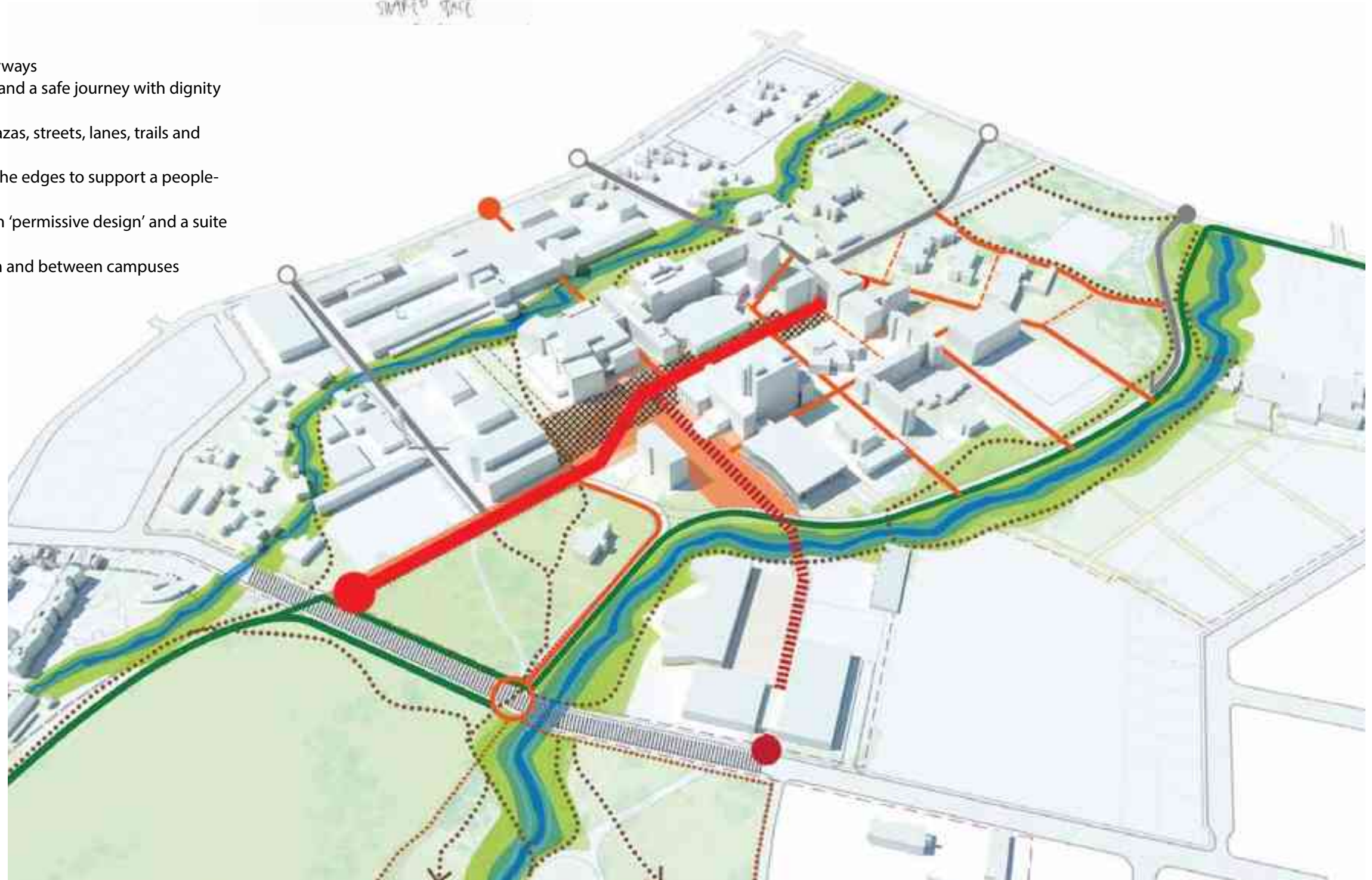
3.5 Theme: Shared Space Movement

Shared and designated travel routes that support manaakitanga, intuitive wayfinding, and a safe journey with dignity for all, with a focus on:

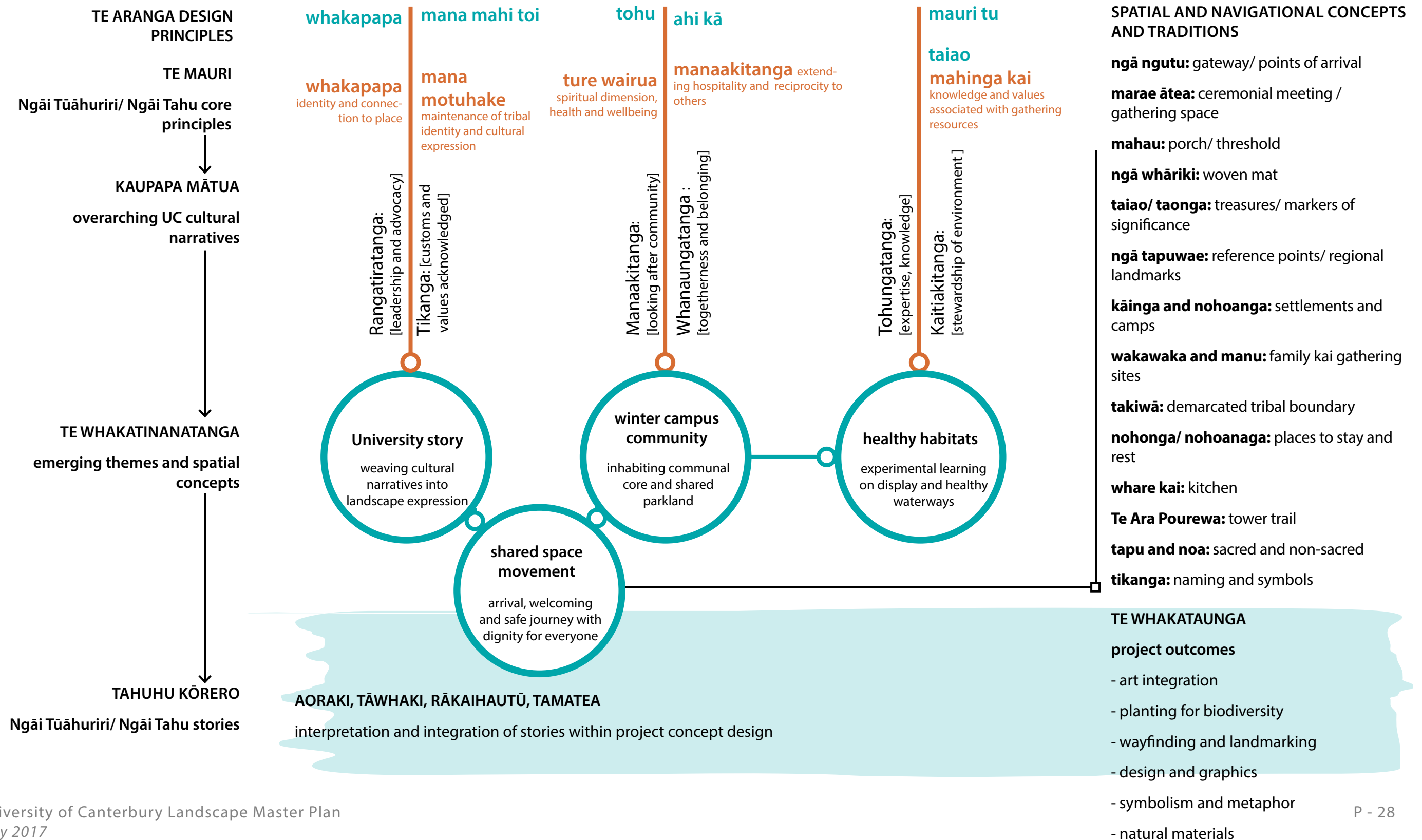
- Improving access to and along waterways
- **Manaakitanga** - arrival, welcoming and a safe journey with dignity for everyone.
- A hierarchy of legible boulevards, plazas, streets, lanes, trails and spaces
- Carparks, cars and buses pushed to the edges to support a people-centric campus core
- Embrace campus cycling culture with 'permissive design' and a suite of clever bike infrastructure options
- Safe and convenient journey to, from and between campuses



	BOULEVARD		UNIVERSITY STREET
	LANE		TRAFFIC CALMING
	MINOR LANE		UNI-CYCLE ROUTE
	PLAZA		TRAIL
	ROAD		



3.6 Cultural narratives + spatial themes





4. Spatial typologies

4.1 Movement typologies

4.1.1 Overlaps and design considerations

The Landscape Master Plan addresses pedestrian and shared movement across the University Campus, as do the Transport Strategy and Wayfinding Strategy. These documents inter-relate and should be read in conjunction with one another. In particular, all three strategies influence the movement of people around the campus, and a co-ordinated approach to the hierarchy of shared paths and entrances, and the suite of design outcomes that will influence their visual cohesiveness and functionality should be considered.

Across all strategies there is regard to:

- Consistent street typologies and naming conventions- boulevard, street, lane
- Consistent path hierarchy (campus street network) - including width and materiality of paths and function (shared vs dedicated) to unify movement, wayfinding and landscape response
- Building interface: street address vs rear access and servicing, and mobility parking
- Accessibility and inclusiveness through universal design response
- Crime Prevention through Environmental Design (CPTED)

Transport Strategy

The Transport Strategy provides a package of transport strategies that support the wider vision for the University of Canterbury.

The TMP provides a toolkit based on best practice aimed at promoting sustainable travel choices and reducing the reliance on the car.

It will inform decisions on transport management approaches and allow UC to tailor its approaches to the needs of UC staff and students to 2023.

Overlap of issues and design considerations and future management decisions with the Landscape Master Plan:

- Bike park infrastructure – location, integration and mix of types- i.e. from moveable racks, to locked and/or covered
- Integration with uni-cycle route and retrofit of 'slow shared zones' such as intersect between plaza and uni-cycle route, including access to and along the river for pedestrians and learning environments

- Design of entrance boulevard and loop road-shared vs dedicated vehicle access
- Vehicle access for service delivery, emergency, field trips, mobility parking, access to carparks- and design of shared space zones (including University Drive intersect with plaza)
- Location of Ilam Road bus stop and affect on pedestrian movement, amenity, safety, environmental conditions, heritage constraints, entry hierarchy and prominence- options and alternatives
- Carpark location, layout, design and inclusion of Environmentally Sensitive Urban Design (ESD) features for stormwater filtration
- Ilam Road treatment- pedestrian crossings, entry and exit design, slow speed zone design
- Road crossings to complete recreational loops - specifically Ilam Road and Waimari Road
- Impact of sports club buildings and fields on people movement, parking etc.

Wayfinding Strategy

The purpose of the Wayfinding Strategy is to:

- Provide a holistic user-centric wayfinding strategy for the University of Canterbury
- Develop a legible campus that clearly articulates paths, nodes, landmarks, edges and districts to assist user navigation
- Define requirements of the signage suite that equip users with wayfinding cues at critical points of their journey
- Provide mechanisms for staged implementation
- Create a vibrant and legible campus for all

Overlap of issues and design considerations and future management decisions with the Landscape Master Plan:

- Entrance hierarchy and character – landscape conceptual themes integrated with location, scale, look and feel of entry signage
- 'Expression of disciplines' as part of inclusive communal spaces, rather than silos
- Marking campus boundaries through landscape and architectural response

- Wayfinding from carparks, bike share locations, including path and landscape cues
- Landmarks or markers for orientation, navigation and prominence of major entry and communal spaces to be integrated with artful landscape, temporary exhibitions, landmark plantings, architectural and sculptural features, and expression of cultural narratives.

Issues and opportunities

Integration of Uni-Cycle Route

One of the Christchurch City Council (CCC) major cycleway routes (Uni-Cycle Way) passes through the campus. The route is one of 13 major cycle routes aimed at providing safe, convenient and direct links between the central city locations including education facilities.

The Uni-Cycle route has a significant interface with the campus landscape. It passes through Ilam Fields, crosses Ilam Road, and crosses the end of the proposed Plaza, then running alongside University Drive until it meets Clyde Road - sometimes shared with the pedestrian path.

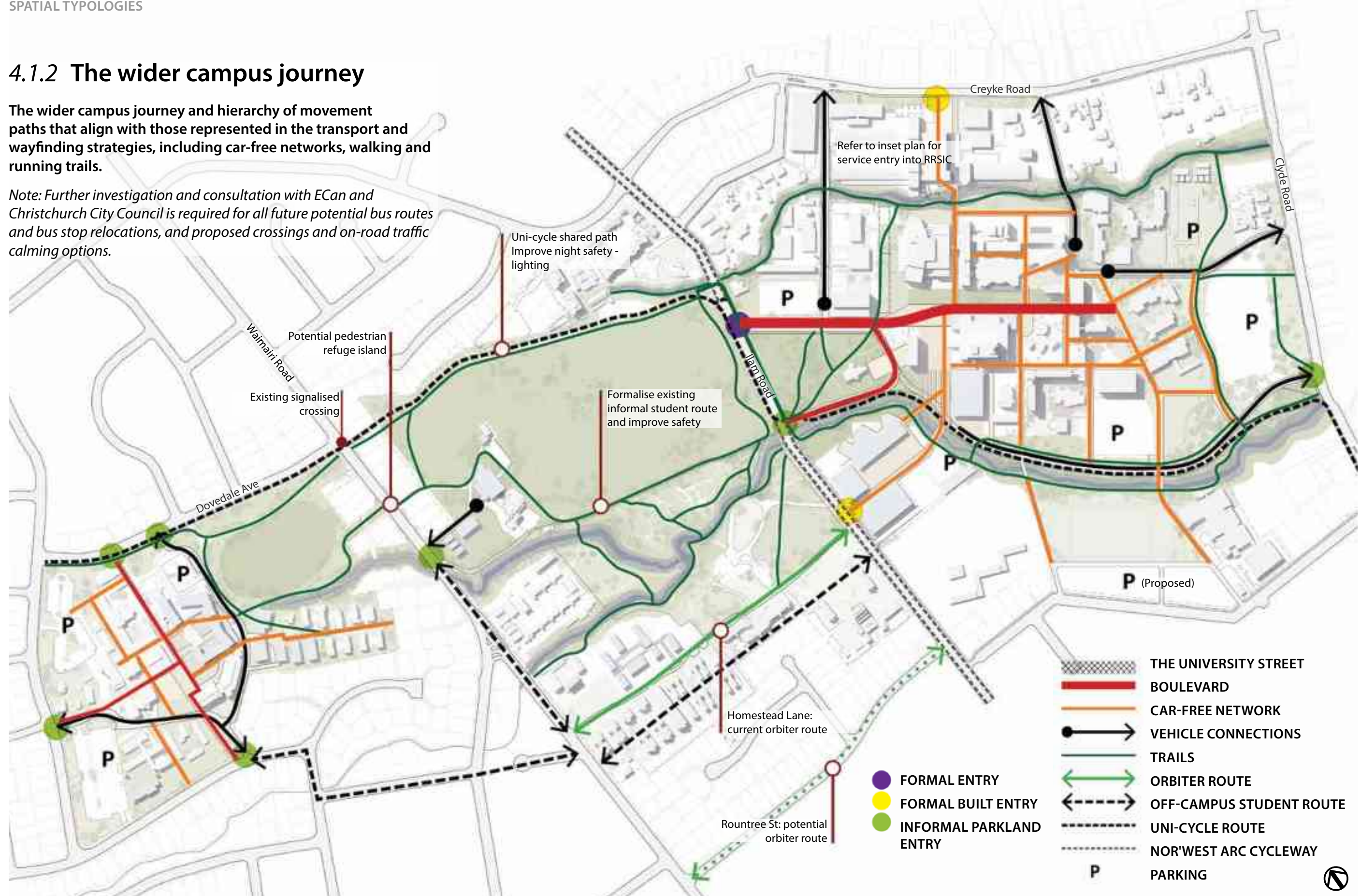
The campus landscape should be integrated with the uni-cycle route to ensure the safe and efficient movement of pedestrians and cyclists around campus. Crossings, slow shared zones and junctions will need to be retrofitted to the route as landscape projects are implemented.

In future, further opportunities to incorporate the uni-cycle route into a 'river side park edge' should be fully explored, particularly when University Drive is no longer needed as a through route. This includes naturalising stream edges and reducing hard surfaces where possible to inform future outcomes for spatial design, hardscape and materiality of the spaces.

4.1.2 The wider campus journey

The wider campus journey and hierarchy of movement paths that align with those represented in the transport and wayfinding strategies, including car-free networks, walking and running trails.

Note: Further investigation and consultation with ECan and Christchurch City Council is required for all future potential bus routes and bus stop relocations, and proposed crossings and on-road traffic calming options.



4.1.3 Movement typologies in the campus core

Boulevard and University Street

- Primary pedestrian and cycle movement network
- Managed vehicle access until the loop, then a car-free shared space
- Up to 12m wide
- Connection through important open spaces

The Loop

- Restricted vehicle access
- Integrated into boulevard and peeling off around Okeover lawn

Lane

- Secondary pedestrian and cycle movement network
- Car-free shared space
- Nominally 4-6m wide
- Function as 'activated connectors'
- to slow bikes and skateboards
- *Minor lane: Pedestrian only linkages, nominally 2-4m wide*

Plaza

- Primary link between UCSA and boulevard / University Street
- Open plaza space: a mixture of expansive space, defined movement paths and pinch points
- Thresholds entering space and intersecting with uni-cycle route.

Road

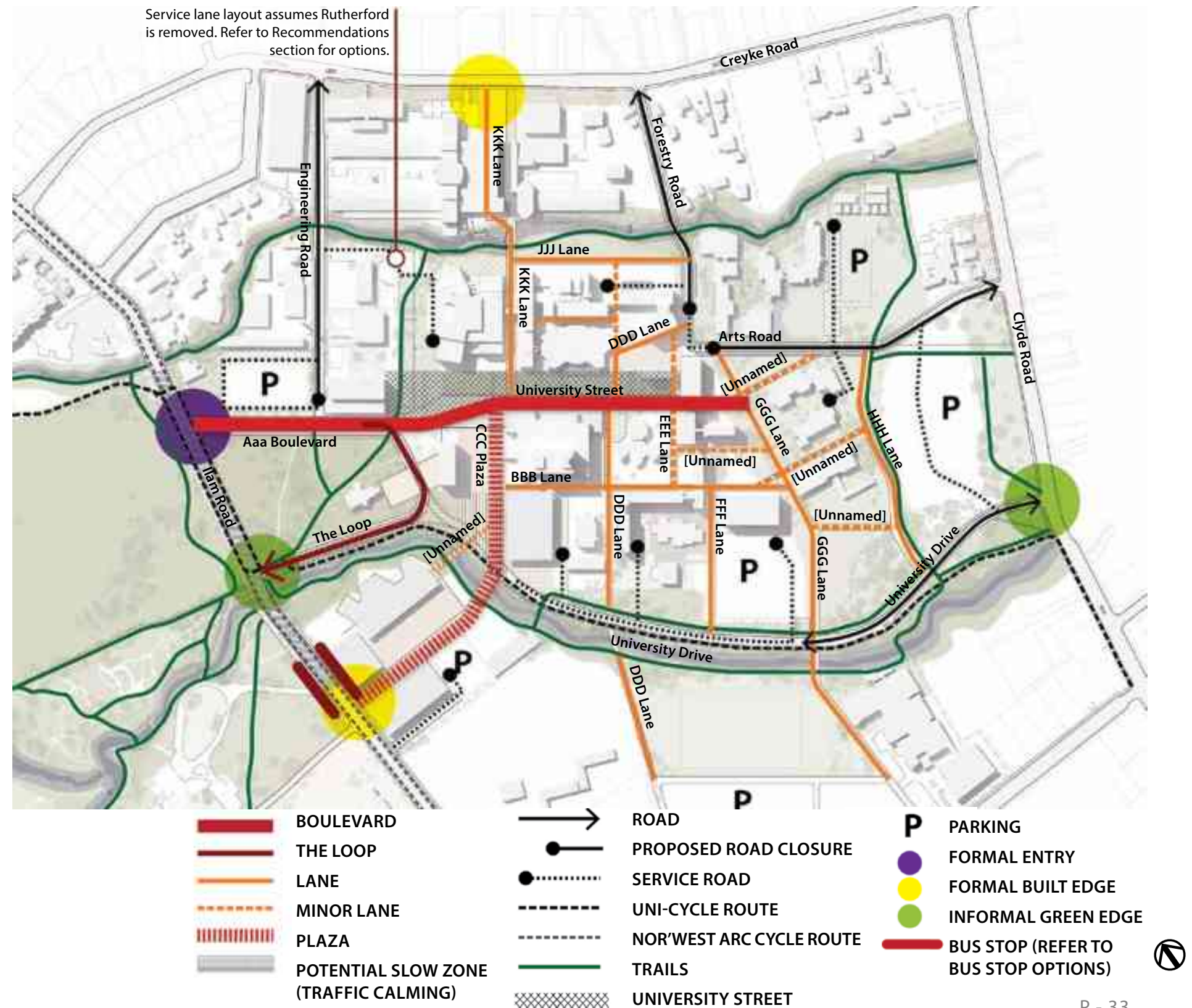
- Slow speed roads providing cars with access to parking areas
- Dedicated cycle lane
- Pedestrian footpath beside road

Service road

- Occasional car use for loading and services to buildings

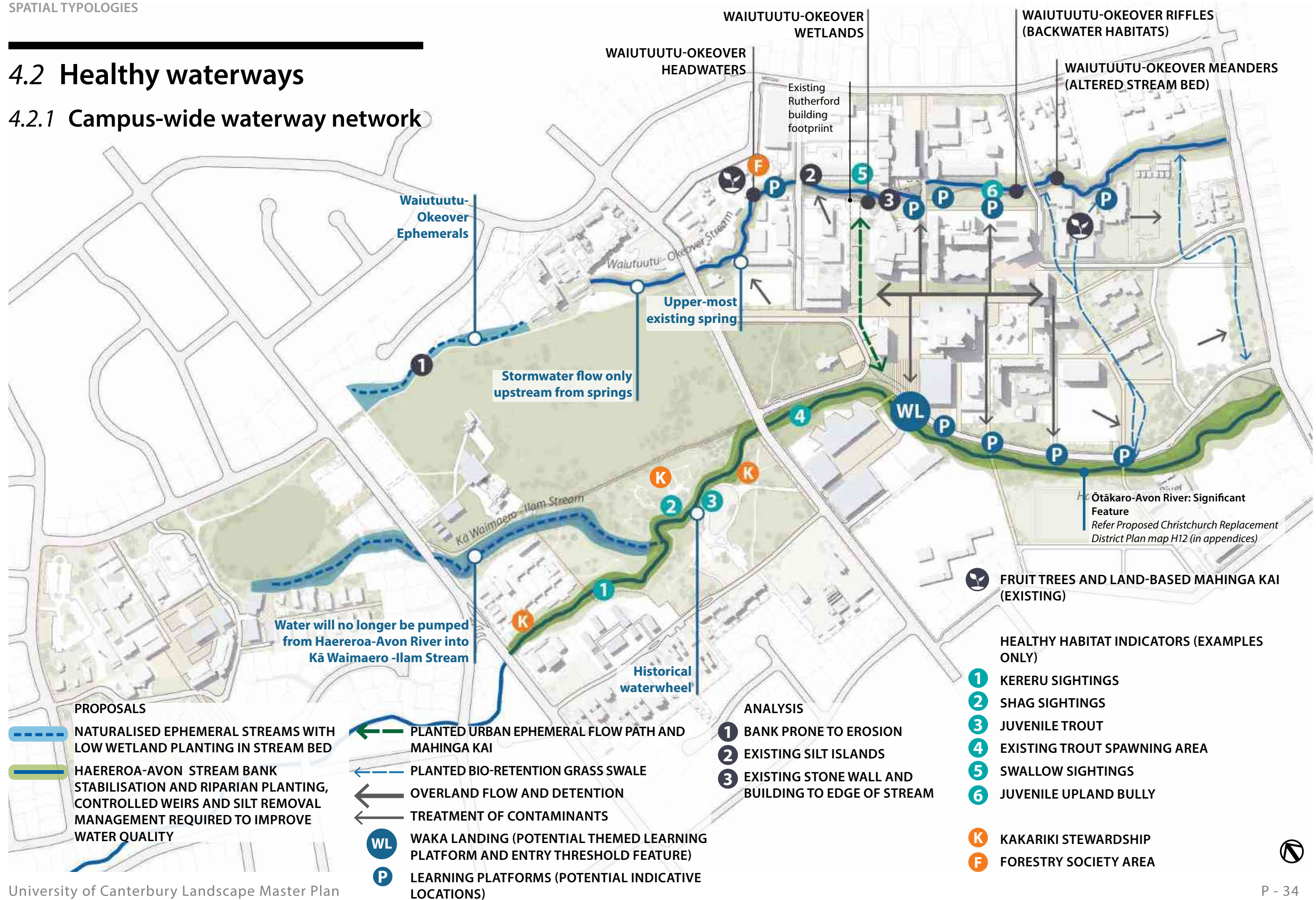
Naming

Naming of lanes with letters (e.g. Aaa Lane) for consistency with the wayfinding strategy. Minor lanes are not included in the wayfinding address system and are unnamed.



4.2 Healthy waterways

4.2.1 Campus-wide waterway network

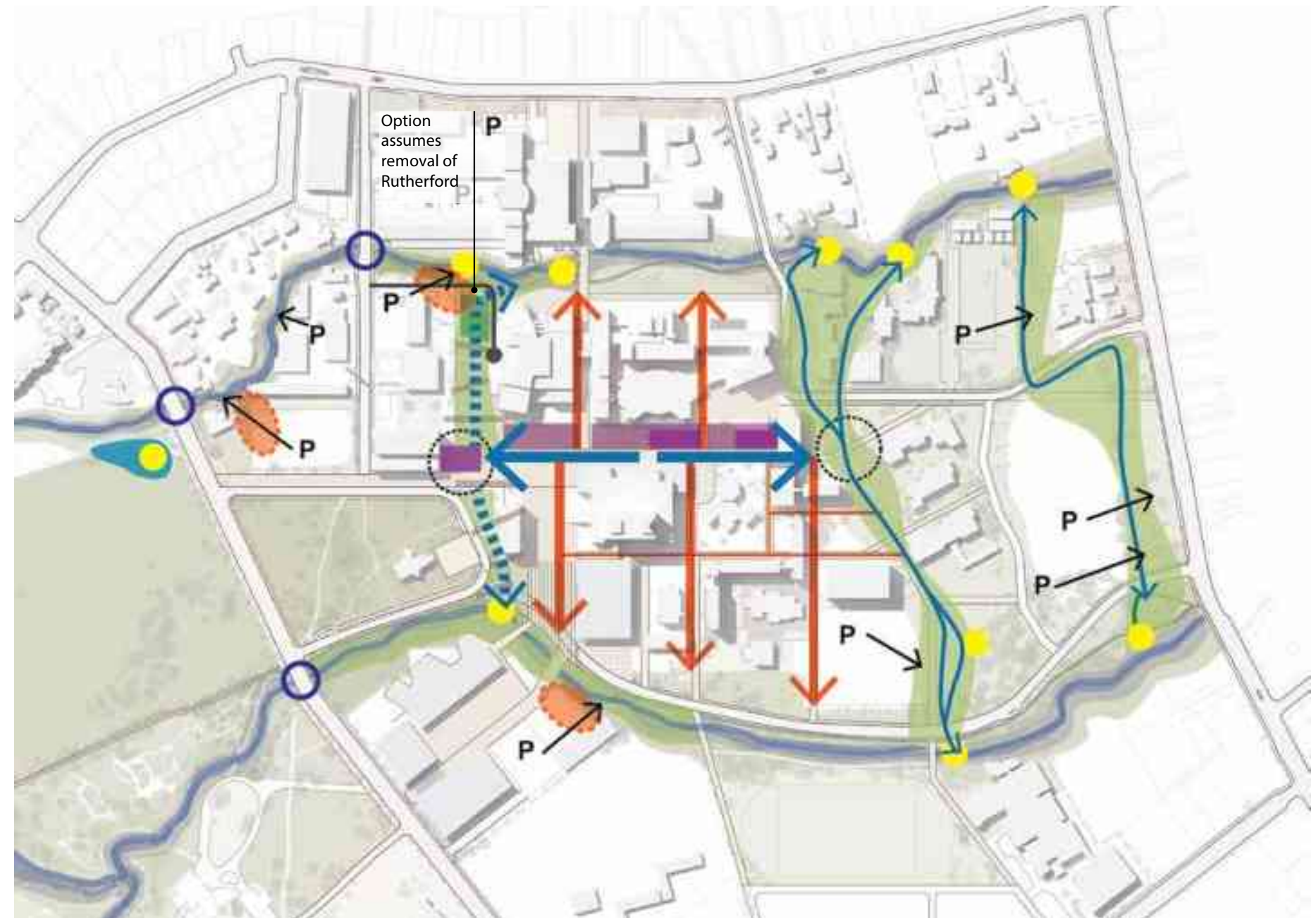


4.2.2 Campus core integrated water systems



1. STORMWATER

- Planted ephemeral urban wetland with potential check dams to slow flow and catch sediment - integrated as pathways and bridges
- Open parkland grass swale, mounding and trees for filtering run-off
- Naturalised - multi braided ephemeral flow path
- Riparian edges, habitat buffer and unmown grass edges
- Overland flow and detention - Surface water collection in boulevard
- Field Wetlands and riparian edges address / express qualities of original Canterbury swamps and wetlands
- Managed discharge to streams
- Opportunity for water feature and detention at gateway with aquifer up top
- Integrated gravel based detention pits integrated with sunken seating areas (overlapping functions - no standing water but could be inundated)



2. CONTAMINANTS

- Treatment of roof contaminants and air conditioning in laneway rain garden
- Car park run off into open system
- Rain garden to address potential mixing of car park contaminants and stormwater drainage entering stream

3. STRUCTURES AND ROADS

- Access to RRSIC
- Check dam pathways
- Existing road culverts

4.2.4 Healthy waterways design matrix

The following design matrix has been informed by the *University of Canterbury - Issues and Options* document produced by the Sustainability Office, 2015

Healthy Waterways

Issues/challenges	Opportunities/priorities	Design principles	Design considerations
Decline in water quality, low flows, sedimentation and modification to natural waterways	Sediment removal plan and programme to be put in place that balances maintenance frequency and cost with long term benefits. Sediment traps and regular cleaning and flushing require ongoing maintenance regime and review of best practice approach. Prioritise sediment management in Waiutuutu (Okeover) stream, plus naturalisation of Ka Waimaero (Ilam Stream) Reintroduce wetlands and riparian plantings to support water quality improvements. Develop a comprehensive Waterways Management Plan	Proper management of sediment and water quality is a high priority for achieving ecological restoration. To achieve waterway health this would need to take precedence over research and teaching objectives in the event of conflicting objectives or priorities. Further investigation and consultation should be undertaken with local and regional governing bodies (CCE and E-CAN) to improve water quality (Council maintain instream and the University of Canterbury maintain riparian edges).	Introduce best practice and cost effective tools for holistic water quality management, including: low cost innovations and trials for bank stabilisation, building materials, and whole of catchment management to lessen sedimentation effects.. Ephemeral streams should be naturalised with wetland planting to reduce maintenance. Water is artificially pumped into streams to supplement flow and controlled by weirs to maintain water levels. Continue to apply 'lessons learned' from restoring the Waiututu-Okeover stream to the Haereroa-Avon River, and Ka Waimaero Ilam Stream.
Loss of habitat and mahinga kai	Prioritise water quality and habitat for native birds and fish, including supporting fish passage Record and publish institutional knowledge and evidence based research for stream restoration on Campus. Utilise taonga and endemic species for riparian margins where possible, appropriately managed with mana whenua involvement.	Ensure ongoing kaitiakitanga (guardianship) by mana whenua Ngāi Tūāhuriri of UC waterways, with an emphasis on restoring their potential as mahinga kai (traditional food and other natural resources and the places where those resources are procured and produced).	Apply 'lessons learned' from restoring the Waiututu-Okeover stream to the Haereroa-Avon River, and Ka Waimaero Ilam Stream. Water cleansing planting that supports mahinga kai and cultural narratives should be used where possible. Regard to Ōtākaro-Avon River as a significant landscape feature in the Christchurch District Plan. Consider measures to prevent pigeons nesting in the vicinity of buildings.
Stormwater discharge and contamination from roofs, carparks and roads	Integrated water systems to visibly treat and filter discharges into streams in order to improve water quality and in-stream ecosystem health. Include requirement within new building and landscape project briefs to select building materials and systems that do not contribute to leaching and contamination of waterways, and ensure that buildings and landscapes are functionally integrated with water treatment systems.	Storm water run-off from all campus surfaces is treated using a range of filtration systems to remove contaminants and achieve improved ecological health of waterways on campus.	Overland flow and surface water collection into swale systems – consider maintenance including planted systems within campus core, and grass swales in outer parkland areas. Water quality issues should be considered when selecting building materials and systems, to minimise leaching from building surfaces. Where space constraints dictate (such as laneways) or within high amenity campus core spaces, integrated design solutions should be provided, including urban filtration beds, rain gardens and proprietary storm water treatment systems.
Whole of catchment issues	Long term to 2045: wider community engagement to address water quality and sediment issues	Recognition that UC streams are part of a larger catchment, which has an impact on water quality and quantity on UC streams and further downstream	Recognition that UC streams are part of a larger catchment, which has an impact on water quality and quantity on UC streams and further downstream I long term planning (2023-2045). Regard to Regional Planning matters for water quality (Canterbury Land and Water Regional Plan).

Learning

Issues/challenges	Opportunities/priorities	Design principles	Design considerations
Limited use of Haereroa-Avon River and Ka Waimaero (Ilam Stream)for teaching purposes	Increase the number of learning platforms associated with waterways, particularly for engineering, sciences and arts. Innovate and build on the success and insights of Waiututu-Okeover stream as a teaching and demonstration waterway, but tailor learning opportunities to specific rehabilitation requirements of the Haereroa-Avon River and Ka Waimaero (Ilam Stream) Establish a long term water quality monitoring programme for all campus waterways.	Provide a diverse range of settings and flexible spaces to explore pedagogical innovations, and take advantage of outdoor learning opportunities. Utilise the waterways as a living laboratory, where students have the opportunity to conduct research and apply knowledge through stream restoration projects.	Locate platforms in stream edge locations where cause and effect on stream health can be monitored (e.g. dams, weirs, discharge points) Utilise opportunities for stream bank stabilisation and dams/ weirs to create artful, functional and multi-purpose integrated structures that are sympathetic to ecological and cultural values. (e.g. Kopupaka Reserve, Auckland) Potential 'waka landing' to provide multi-functional learning platform, stream access and welcoming/ gathering space that embeds cultural narratives. Make research and monitoring programmes visible through temporary display and long term water quality monitoring programmes. Control of water flow and sedimentation trials should be a visible part of the learning environment.

SPATIAL TYPOLOGIES

Limited visibility of stormwater management practices and environmental sustainability on campus	Embed sound stormwater management practices within the campus for research, training, industry engagement and community demonstrations. Water features will be used throughout the campus to demonstrate the qualities of water and to enhance the ambience of outdoor spaces. Wetland environments and filtration devices will be used throughout campus to condition water discharge into streams.	Integrate institutional and technological knowledge about UC waterways into waterway restoration projects and educational programmes. Continue to support and promote research conducted on campus designed to improve stormwater quality in older suburbs such as Ilam. Include best practice, cost effective and ecologically sound stormwater management practices which are integrated throughout the whole campus, with the long term aim of creating an exemplar stormwater management park for research, training, industry engagement, and community demonstrations.	Integrate opportunities for 'research on display' where possible, both of treatment system but also of design choices incorporated into buildings for improved water management (e.g. material choices, any harvesting and reuse. Potential planted urban ephemeral flow path – to be considered as part of potential building removal and staging, balanced with vehicle manoeuvring and servicing needs for RRSIC. Balance service vehicle access requirements and water treatment solutions for all future building work on campus. Opportunities for interactive learning and strengthening 'stream to stream' character of the campus at the entry threshold to the campus heart.
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Access

Issues/challenges	Opportunities/priorities	Design principles	Design considerations
Access to and along streams for recreation (walking, running, cycling)	Connected pathway network utilising stream corridors, with opportunity to provide access to the waters edge at key locations along Haereroa-Avon River that could serve as educational and recreational spaces for the campus and wider community.	Provide access to and along the watercourses. Provide a valuable community asset by offering a safe, pleasant environment for pedestrians and their hauora (wellbeing).	Learning platforms could be multifunctional spaces for break out study spaces, outdoor classrooms, social and passive recreation. The uni-cycle route will be used by commuter cyclists, therefore pedestrian access alongside and across the cycle route to access streams should be considered (such as retrofitted 'slow zones').
Perceived conflict between the ecological health of streams and providing access to streams either for teaching/ learning, or as bridges	Aspirations for access and learning should not compromise ecological restoration and water quality priorities. Instead, walkways, platforms, bridges and structures should be informed by waterway restoration objectives, and be located and designed in a way that contributes to waterway restoration education.	Apply best practice, cost effective solutions for designing and building ecologically appropriate access points, culverts and new bridges. Careful design and management of plantings to provide conditions that support both ecological health and safe use and occupation of waterways.	Incorporate requirement for best practice standards into future design proposals and consultant briefs, including the requirement for specialist ecological review and input to the design process. Consider cost effective structural solutions (span and profile- height above stream bed) materiality, shading and light for optimum instream habitat and health, balanced with accessibility and safety requirements. Any proposed works within waterways are likely to require a Regional Consent.
Adverse impact of culverts on ecological health of streams	Existing culverts should be removed as opportunities arise, prioritising the culvert between Engineering and Von Haast on Waiututu-Okeover Stream.	Apply best practice, cost effective solutions for designing and building ecologically appropriate access points, culverts and new bridges.	Consider movement hierarchy and hardscape material guide when balancing cost and appropriate design response for culvert replacements.

Building interface

Issues/challenges	Opportunities/priorities	Design principles	Design considerations
Buildings encroaching or compromising stream habitat, health and safe access	Strengthen positive connections between the buildings and the stream, including outlook and surveillance.	Opening buildings and activities to the landscape to maximise the benefits of the amenity they offer. Careful management of planting to provide conditions that support safe occupation.	An integrated design approach is required to ensure that building setbacks, interfaces and interstitial spaces are sympathetic to the character and function of waterways, and allow for continuous access and planted ecological corridors. Consider building roof materials, and avoid the use of heavy metals that may contaminate waterways (such as Copper, Zinc etc).
Lack of resilience to flooding and drought	Capacity for significant rainfall events within the campus landscape will ensure that increased building development does not have a negative impact on the receiving environment.	All new build sites must incorporate best practice and cost effective stormwater remediation and filtration devices.	Balance hardscape with soft landscape to innovatively address overland flowpaths within landscape infrastructure so that they are attractive and functional when dry or wet.
Adverse impact of culverts on ecological health of streams	Existing culverts should be removed as opportunities arise, prioritising the culvert between Engineering and Von Haast on Waiututu-Okeover Stream.	Apply best practice for designing and building ecologically appropriate access points, culverts and new bridges.	Consider movement hierarchy and hardscape material guide when balancing cost and appropriate design response for culvert replacements. Consider the impact of increased learning platforms on potential flooding risks by providing integrated solutions, informed by modelling and stormwater engineering input. Not all learning platforms need be at the same height in relation to permanent water level or low flows. A range of options should be considered across the campus waterways matched to learning opportunities and integrated with functional requirements (such as bank stabilisation).

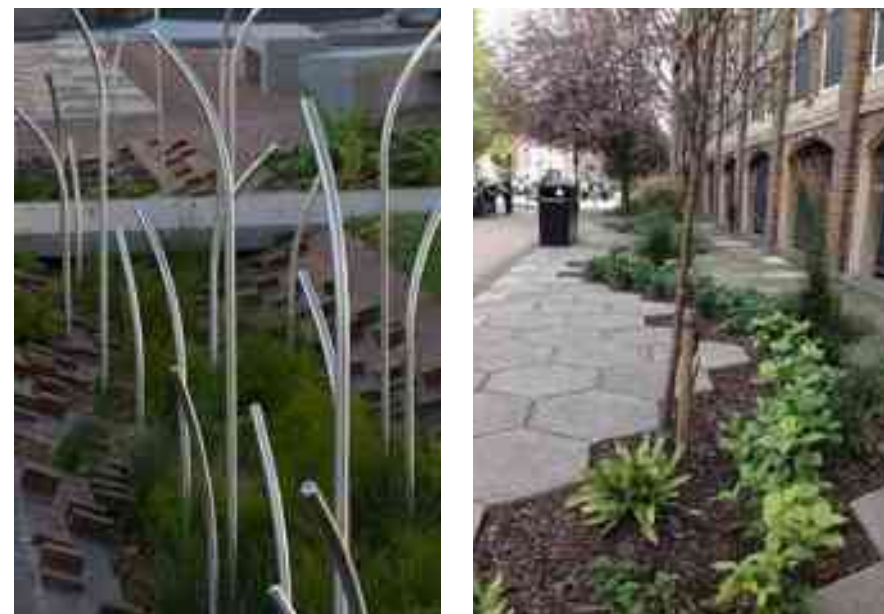
4.2.5 Precedents: integrated water systems

Stormwater and contaminant treatment systems should be designed to integrate into their landscape setting. Design of treatment systems should be consistent with the typologies of the space they are within, and should align with other relevant principles. Below are some examples of integrated solutions that are both functional and artistically woven into the landscape fabric from urban settings to parkland.

Contaminants: treatment integrated into the urban streetscape



Stormwater: making surface water collection visible



Stormwater: parkland, roads and paths



4.2.6 Precedents: structures, bridges and culverts

Structures within waterways such as bridges and learning platforms, should be designed to minimise footprint and respond to regional consenting requirements. Bridges should have a light and open form that prioritises ecosystem health and engages with the landscape. Learning platforms may be integrated into other functions such as bank stabilisation or weirs, and enable access to and along waterways as a part of an inclusive and accessible campus movement network.

Landscape structures can express treatment systems and cultural narrative



Bridge design: light and open design qualities



Potential bridge design reference: engineering students' bridge building competition



4.3 Activating the campus

Principles

- Outdoor spaces will be designed in collaboration with the community to enhance opportunities for the campus community to relax and enjoy the campus environment.
- Space activation designs shall consider the impact of seasons throughout the year to ensure that 'summer' active spaces do not create 'winter' black spots on campus.
- A spectrum of cost effective tactical solutions can be delivered to activate the campus. Refer to Section 9 for recommended delivery tactics.

Issues

- Keeping students on campus (sticky campus and urban buzz)
- Shelter and environmental mitigation for both summer and winter use.
- Noise conflicts with active spaces and lecture theatres.
- Maintenance and management of temporary furniture.
- Programming and co-ordination of events.
- Managing boundary relationships with the community and being a good neighbour.

Opportunities

- Campus running loops with distance markers for active use of campus trails, utilising the waterways.
- All weather activity magnets in the campus core- e.g. stage for events (and covered activities), exhibition space, multi use hardcourt, playable urban environment (e.g. fitness and parkour, skatable features).
- Warm campus heart created through sheltered microclimates (walls, edges, planting), warm materials for seating, and deciduous trees for sunny lawns.
- Activated laneways- opportunistic sheltered breakout spaces for outdoor learning, studying and social interactions, with ground floor building design providing interstitial spaces for seating.
- Integration of orchards, community gardens and sand or hard courts near Ōtākaro-Avon River student accommodation to encourage communal activities.
- Unstructured play and adaptable, flexible spaces of varying size for temporary activities and year- round use (e.g markets, food trucks, events in campus core).
- Gardens for contemplation and immersion in nature to support health and wellbeing of campus community (including heritage

spaces)

- BBQ's and open kitchens to support communal gatherings, particularly around the UCSA.
- Nature and free play environments to support childcare facilities
- Events concentrated within the campus core as a priority to feed urban buzz, rather than diluting across campus.
- Maintaining grounds for public access and engagement.

Recreational activation

Guidelines from the Campus Master Plan

RECREATION AND PLAY: Passive and active recreation areas are located primarily along the Ōtākaro-Avon River and provide facilities for the wider community to engage with the campus. These activities could include play space particularly adjacent to the schools, fitness equipment, spaces for yoga and Tai chi etc.

SPORT: Ilam Fields provides both formal and informal sports facilities. This area of the campus provides opportunities for the wider community to engage with the campus, along with this Kirkwood will be reinstated to a sporting field. There is also opportunity to activate underutilised areas with new temporary sports facilities such as a skateboard rink or an outdoor court.

Design considerations

- Transport review of Ilam Road and Waimari Road crossing points to complete recreational trail loop – transport review.
- Review of sport codes to occupy fields, including layout and consultation.

Social activation

Guidelines from the Campus Master Plan

SOCIAL: Social spaces can be small or large providing a range of opportunities for individuals and large groups to gather and interact. Spaces are chosen for their current merits, relationship to significant campus buildings or for their climatic qualities of shelter and aspect.

EVENT: Two event spaces have been identified. The first event space is located within the centre of the campus, between Puaka-James Hight, Matariki, the Rutherford and RRSIC. The space caters for large gatherings for example during Orientation/ Open Day. The second event space

provides breakout space adjacent to the proposed Hall which will cater for external events such as conferences or performances.

BREAKOUT: Breakout spaces are an extension of the internal environment into the landscape. These spaces will be located adjacent to the satellite hubs, lecture theatres and learning spaces providing opportunities to continue discussion and interaction outdoors.

COMMUNITY: Community spaces on campus currently include the two community gardens Okeover and Dovedale. These can be supported with additional facilities on the edge of campus such outdoor meeting spaces and BBQ sites. Okeover House will be repurposed as a focus for university community life.

Design considerations

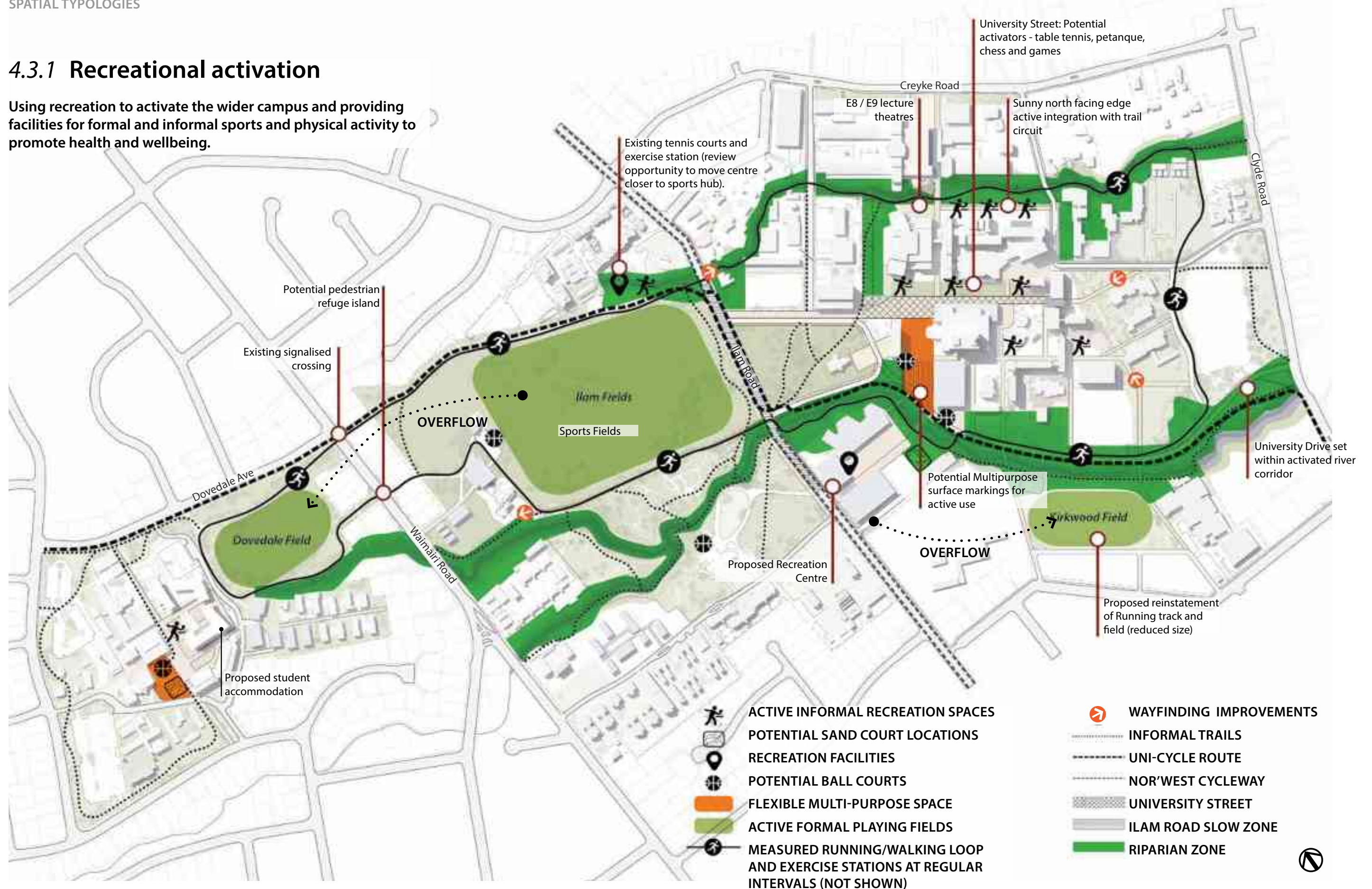
- Activation possibilities includes learning opportunities, event locations, play, potential community garden and orchard sites, and places to sit and relax.
- Potential contemplative spaces connect to a network of garden trails that wind along the river, through native planting, and through Ilam Gardens.
- In the heart of Dovedale and Ilam campuses, flexible communal lawn and hardscape are enhanced with exhibition opportunities. Sheltering 'wind mitigation' spots allow these central spaces to be inhabited in a range of weather conditions.
- There is opportunity for the Geography department to undertake work on sheltered spaces in campus as part of a research programme .

Recommendations

- Consider developing and managing events programme that informs infrastructure required for core communal spaces, management strategy for zones and appropriate activities, and booking system requirements.
- Review use, layout and efficiency of sports fields to inform spatial allocation and supporting facilities required for sporting codes: rugby, football, cricket, hockey, athletics. Include best location for hardcourts / tennis courts near sports hubs and integration of Uni-Cycle path network in more detail.

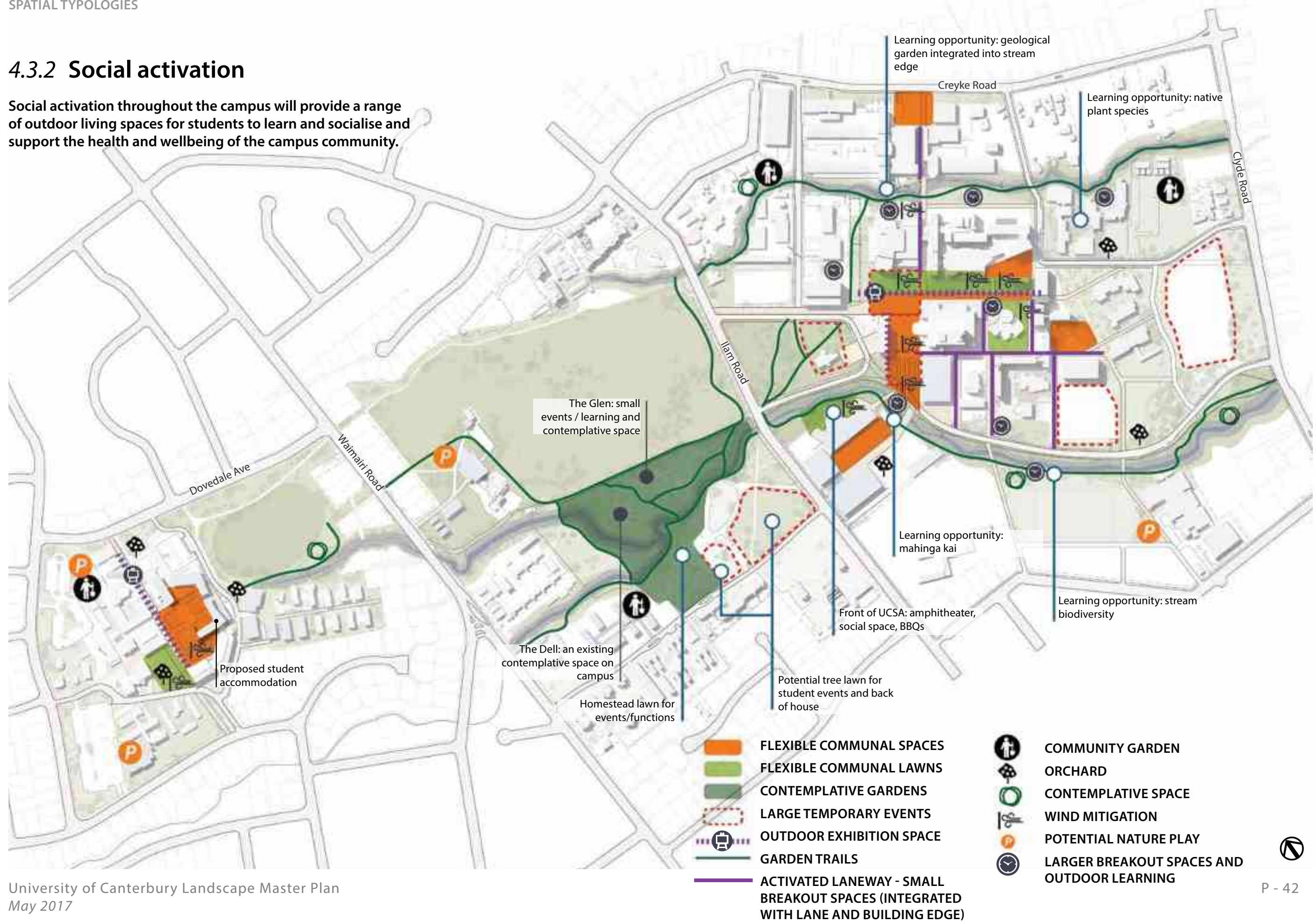
4.3.1 Recreational activation

Using recreation to activate the wider campus and providing facilities for formal and informal sports and physical activity to promote health and wellbeing.



4.3.2 Social activation

Social activation throughout the campus will provide a range of outdoor living spaces for students to learn and socialise and support the health and wellbeing of the campus community.



4.3.3 Precedents: activated campus

Activated campus core



Activated parkland



Contemplative spaces



5. Spatial concepts

5.1 Spatial Qualities

5.1.1 Campus heart analysis

The campus heart is a priority for the University of Canterbury redevelopment. It will provide a vibrant centre for the campus community, a welcoming space to greet visitors, and a place to celebrate student achievements. The campus heart is defined as the area between the two waterways, and between Erskine and Arts Road. It comprises two important movement and gathering spaces: University Street and The Plaza + River Crossing, along with the main entrance connection from Ilam Road. This section of the Landscape Master Plan looks more closely at the quality of these spaces, and presents some indicative concepts to inform the scope of future design and construction projects.

Active hubs - Marae Atea

Large spaces, typically 30-40m wide, for welcoming and gathering. Main access routes and entrances to anchor buildings are integrated into them. Flexible multi-purpose use, and predominantly hard surface to cater for events.

Building thresholds - Mahau

Transitional spaces between building entrances and access routes, hooked into access network. These spaces have varying microclimates depending on orientation and location, and offer potential for pause, lingering before/after classes. Linear spaces, typically 10-15m from lane edge to building edge, and length of space defined by building facade.

Social Spaces - Nohoanga

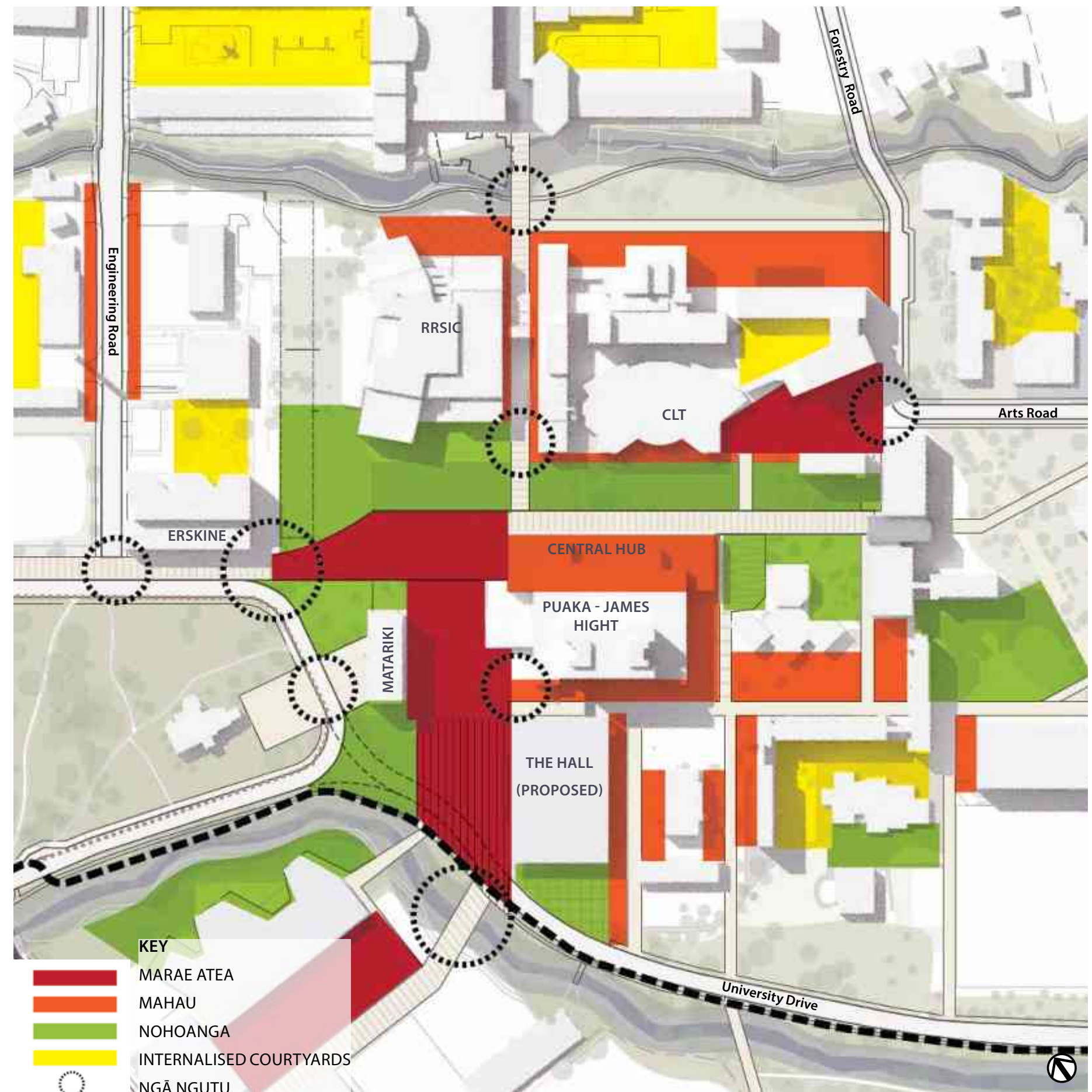
Adjacent to key access routes, slow speed - movement on edges, spaces for gathering in groups, events, and campus community activity (e.g. orientation day and exhibitions), and includes spill-over from more active spaces. Typically 20-30m from path edge to building edge, and boundaries defined by access routes.

Internalised courtyards

Bordered by buildings, with no direct connection to an access route. Primary relationship is with the buildings/faculty, and may include service areas.

Entry arrival thresholds - Ngā Ngutu

Gateway spaces which can be occupied - not just for moving through. They occur where there is a change in scale and proportion passing through, over or between buildings and landscape features.

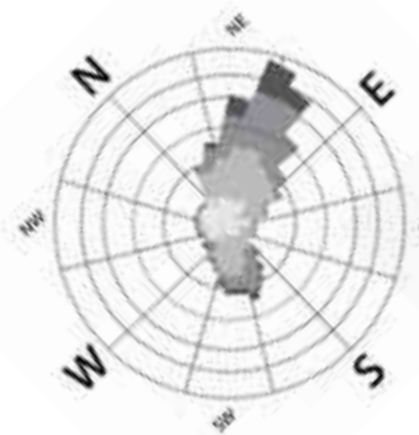


5.2 Existing site conditions

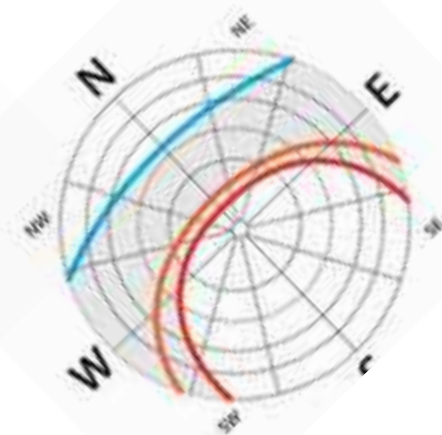
The campus heart is framed by existing buildings: Matariki, Erskine, RRSIC, and Puaka-James Hight. It may be further defined by the proposed new Hall. The existing podium is elevated and exposed to prevailing winds, but also has good solar gain. Existing trees provide some shelter for the student event lawn.

One option is to remove the podium, which would improve levels and accessibility but building entrances to Matariki and Puaka-James Hight would need to be retrofitted and rationalised. Removal of the existing mound allows for visual connectivity and increased communal and event space.

WIND INTENSITY

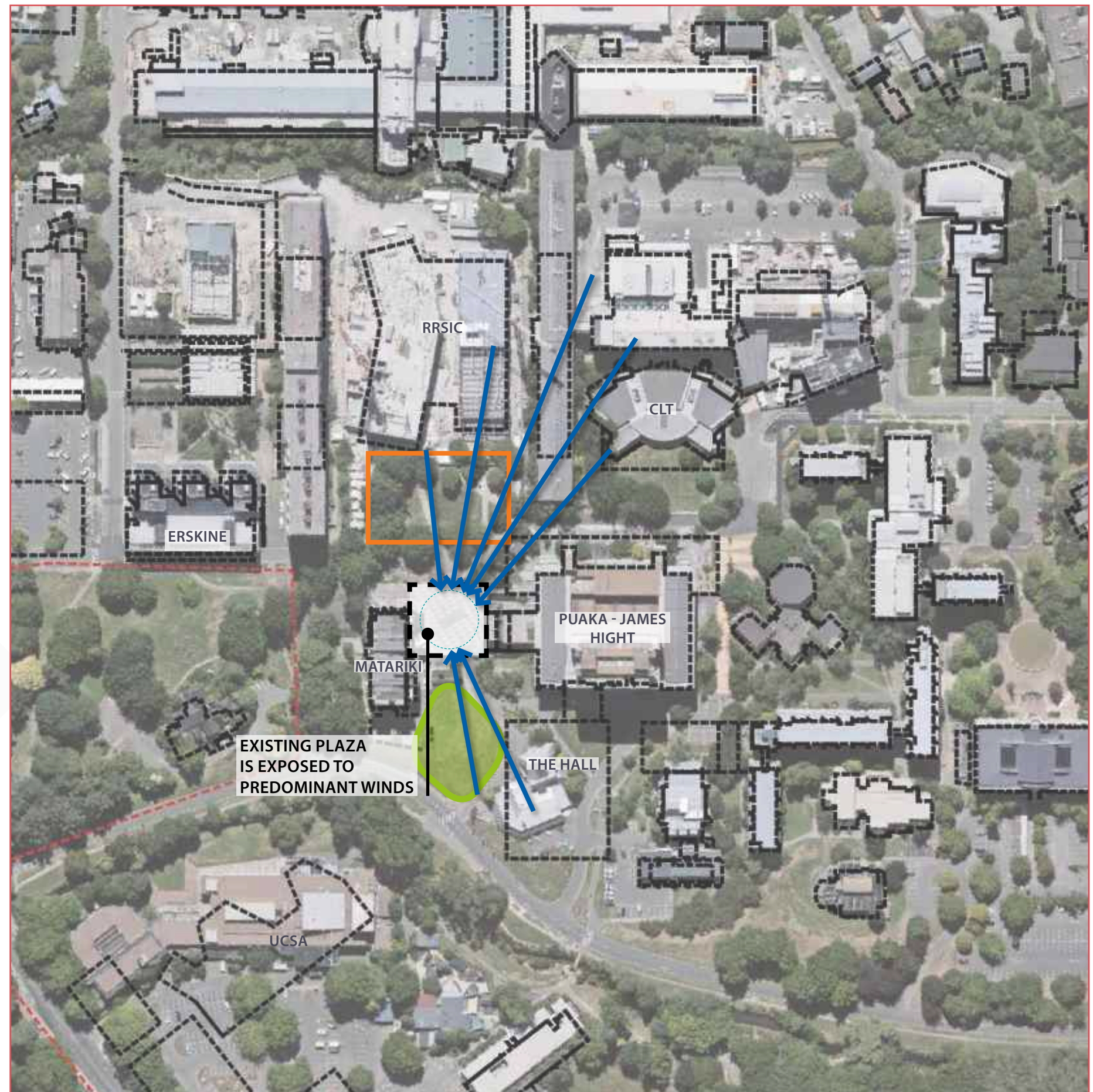


SUN PATH



KEY

-  PREVAILING WIND DIRECTION
-  EXISTING PODIUM
-  EXISTING MOUND
-  STUDENT EVENT LAWN
-  HERITAGE PROTECTION AREA



Character

	Issues/ challenges	Opportunities/ priorities	Design considerations
University Story	Balance the expression of cultural narratives and Canterbury character with parkland character and University history.	Portray the University story within the campus heart landscape as a shared cultural landscape with interwoven narratives Character is reflected in a contemporary design response that draws together inspiration and visual cues that represent a shared cultural landscape. This may be expressed as a cohesive whole made up of the spatial design, planting palette, paving pattern, material choices, walls, landform, furniture and lighting design. It also includes the layering of the Matariki star map over the campus, which reinforces the theme of navigation.	Alignment with wayfinding initiatives including signage and use of colour and branding. Opportunities for expression and display of institutional knowledge and distinction (exhibition space), and representation of the Pasifika community through art, display and performance. The cultural exhibit space has potential for both permanent and temporary expression of character. When there is no exhibit or display, the space retains qualities that represent Canterbury landscape character and cultural significance (such as a water feature with river boulders defining the exhibition space).
Canterbury character-regional	‘University of Plains’ Complement the existing parkland aesthetic by expressing and embedding Canterbury character.	The linear boulevard strongly offsets and contrasts with the soft green character of Ilam Green and the parkland setting, and is an opportunity to provide a visually striking built response to Canterbury character and cultural narratives in the main entrances and campus heart. Appropriate scale and proportion is an important consideration to strengthen the institutional grandeur of the main entrances and campus heart.	Recognise the broad landscape patterns distinctive in the Canterbury regional context with visual cues and inspiration drawn from the rural patchwork of shelterbelts, landform formation, natural processes and geology, and indigenous vegetation. This could translate to spatial arrangement, shape and form, paving pattern, locally sourced material and river boulders, colour palette, furniture, and low mass planting of indigenous species that balances the exotic and native plant palette.
Cultural narratives- mana whenua	Use the landscape to express cultural competency. Cultural narratives should provide inspiration for landscape design, with a balanced perspective that looks into the past while moving into the future. This recognises the shared, transient, heritage and Ngāi Tūāhuriri values of the Canterbury landscape.	Selected Ngāi Tūāhuriri / Ngāi Tahu cultural narratives talk about the creation of the world, Te Waipunamu- the South Island, the Canterbury landscape and the pursuit of knowledge, and are intertwined with the character of the Canterbury landscape and the University Story, rather than separate from them. Expression of Pasifika character is represented in the spatial qualities of ātea and ngā ngutu, and specifically accommodated in exhibition spaces where the University story may unfold.	Make visible: native biodiversity, stream restoration, healthy mahinga kai, edible campus, and celebrated historical connections. Overlaps with integrated water systems- stormwater and filtration devices, and plants noted for mahinga kai value incorporated into gateway and threshold concepts (described as urban ephemeral wetlands), drawing attention to the distinctive landscape framework of twin streams. Draw on cultural narrative inspiration for vertical entry features, lighting concepts, water features, and planting schemes. Consider location, integration and look and feel of wayfinding entry signage.
Parkland and historic setting-local	Reinforce the campus parkland setting with treed lawns and mounding, references to the history of Ilam Campus, and visible connections to the twin stream framework as part of the unique identity of Christchurch.	Ilam Green/ Okeover lawn and trees reinforce parkland character and spacious rural origins of the university campus setting. Grass mounding is a component of the parkland aesthetic and could be reinterpreted with a contemporary aesthetic along the University Street/ University Plaza lawn edge, and investigated at the main entrance as part of heritage review.	Retention and successional replacement of UC signature tree species, including Lime, Pin Oak and Tōtara, and trees that allude to rural origin of the campus-such as landmark pines. Trees may be native or exotic, but planted in informal groupings. Incorporate new grass mounds (sculpted landform) and low retaining walls where they help provide sheltered outdoor settings for social areas, containment and visibility for safe inhabitation and visual connectivity in the campus heart.

Heritage

	Issues/ challenges	Opportunities/ priorities	Design considerations
Protected historic areas	Any alteration to Okeover lawn/ Ilam Gardens within the heritage protection area recorded in the Christchurch Plan will require consent as a restricted discretionary activity. The Okeover building is dated c1865 and protection includes both the building and the site of the protected building (known as Ilam Green or Okeover lawn) Any alterations within the heritage protection area must be submitted for approval by Christchurch City Council in accordance with district planning rules, and in addition fulfill any requirements under the Heritage New Zealand Pouhere Taonga Act 2014	It is anticipated that a vertical gateway feature would be outside the heritage boundary, and located along the southern edge of the existing carpark accessed from Engineering Road, minimising tree removal and providing a ‘built edge’ feature to the carpark that would integrate with future potential buildings fronting the boulevard. A sculptural entry feature located on the southern side of the entrance boulevard (north west corner of Ilam Green/ Okeover lawn) could be low and linear with earth mounding up to a low ‘sculpturally abstract’ wall to avoid excavation. Dependent on a detailed review of the heritage protection boundary in relation to the realigned entry- the design would respond to the site constraints and could be substituted with low mass planting if necessary. The proposed entry plaza and planting on the eastern edge of Ilam Green/ Okeover lawn may be partially outside of the heritage protection area, and is subject to detailed review of bus stop location options. Some earthworking may be required to resolve levels along the entrance boulevard, and a retained edge that minimises impact on the heritage protection area may be considered.	This requires a more detailed study (outside LMP scope) with transport and planning review to consider detailed and accurate entry and loop road layout options. The potential impact on Okeover lawn would be assessed as part of the design process with further heritage assessment required. Additional specialist expertise and involvement will be required from a heritage consultant, and a conservation plan or heritage strategy is recommended. It is recommended that UC undertake pre-application discussions with Heritage New Zealand during the planning stages of the project. Further assessment and recording of heritage sites through current and future District Plan review and recording of NZAA archaeological sites or registered listings with Heritage NZ is not accounted for in the LMP and will need to be reviewed at the time of site specific design and planning. Any necessary alterations should be sympathetic to heritage values of the building and surrounds, and necessary to achieve the CMP vision. It may be necessary to obtain an archaeological authority from Heritage New Zealand for proposed modifications. An archaeological site is defined in the <i>Heritage New Zealand Pouhere Taonga Act 2014</i> as any place in New Zealand (including buildings and structures) that was associated with pre-1900 human activity, where there is evidence relating to the history of New Zealand that can be investigated using archaeological methods. Note: there is no known entry in the NZ Heritage List of NZAA database.

5.3 Cultural narrative

5.3.1 The University story

The university story should be expressed through the design of campus spaces, in particular the campus heart.

Patterns of the Canterbury and Christchurch landscapes, and their cultural, ecological and geological characteristics should be interpreted in project specific design moves.

Māori, European, and Pasifika cultural narratives should be embedded into arrival and communal spaces, and provide a unifying framework for new developments. These narratives can be further interpreted through project specific concepts and detailing.

Cultural narratives can inform design of spaces within specific typologies on campus:

Spatial typology	The University story	Manawhenua cultural narrative
Main axis	Journey and navigation	Journey through Te Wai Pounamu
Laneway network	To do with acquiring and transmitting knowledge	The story of Tāwhaki
Entrances	Outward expression of the university	Creation stories - Rangi and Papa / Aoraki
Boulevard	The warm heart of the campus	The story of Tāmatea
Plaza	Welcoming visitors, hospitality and cultivation	The story of Rākaihautū

Spatial and navigational traditions

Boulevard, axis, laneways
Marae ātea, ngā ngutu, mahau, nohoanga

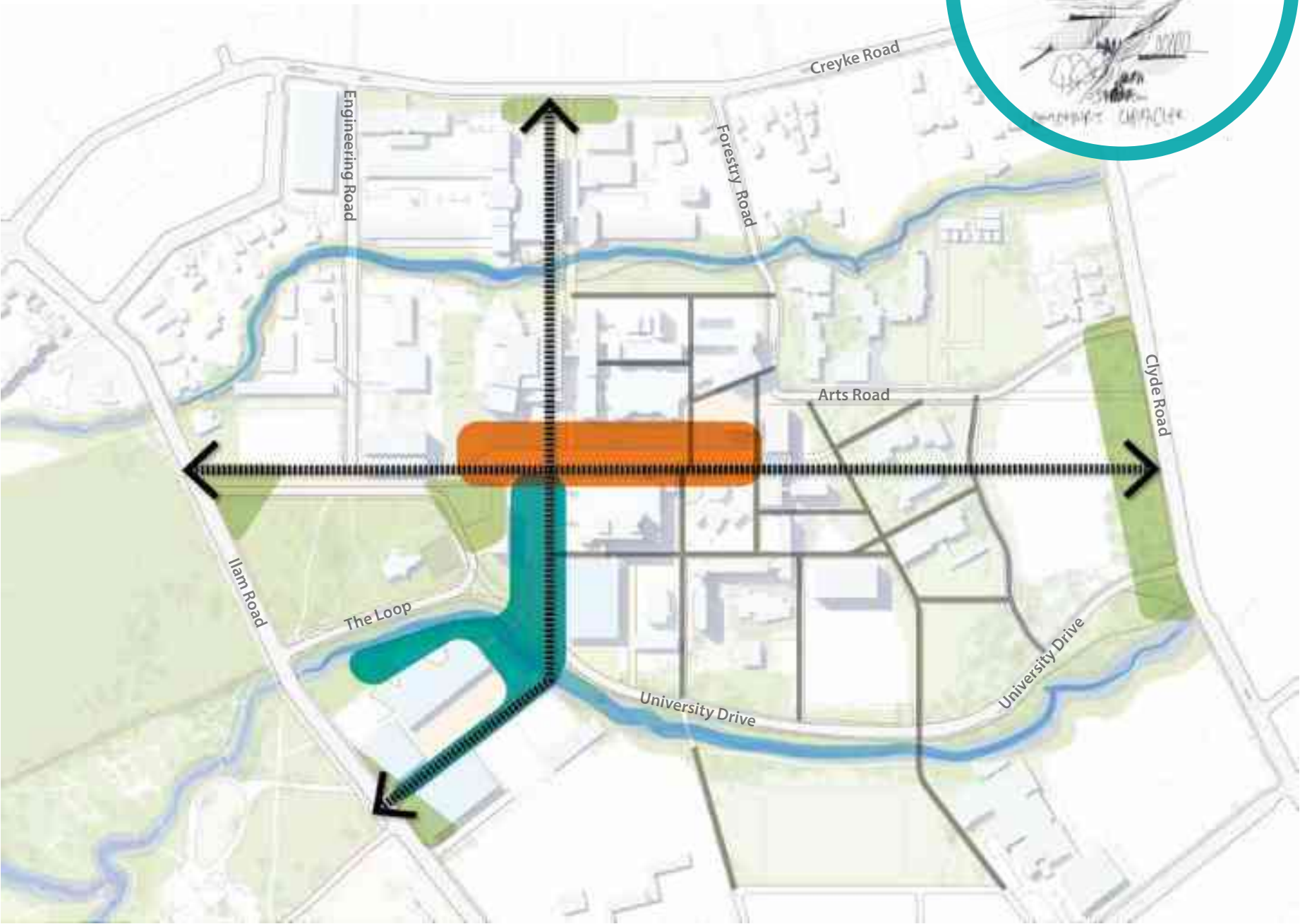
Spatial concepts

Inspiration applied from regional and local landscape patterns and cultural narratives as a woven approach to placemaking

Material guide

Colours and textures of the Canterbury landscape applied to ground plane and furniture. Cultural narratives inspire wayfinding

University story

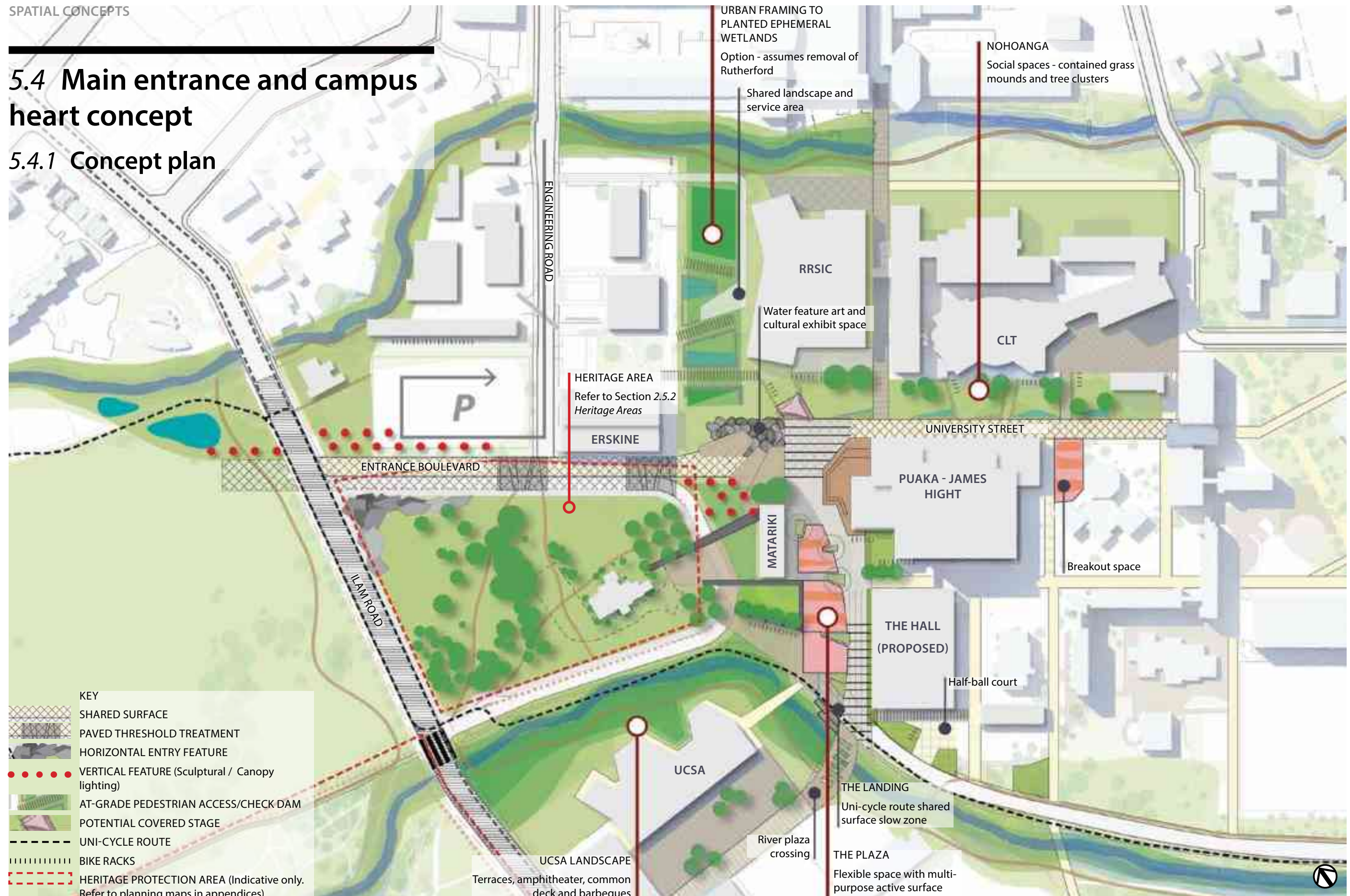


- MAIN AXIS
- LANEWAY NETWORK
- ENTRANCES
- BOULEVARD
- PLAZA



5.4 Main entrance and campus heart concept

5.4.1 Concept plan

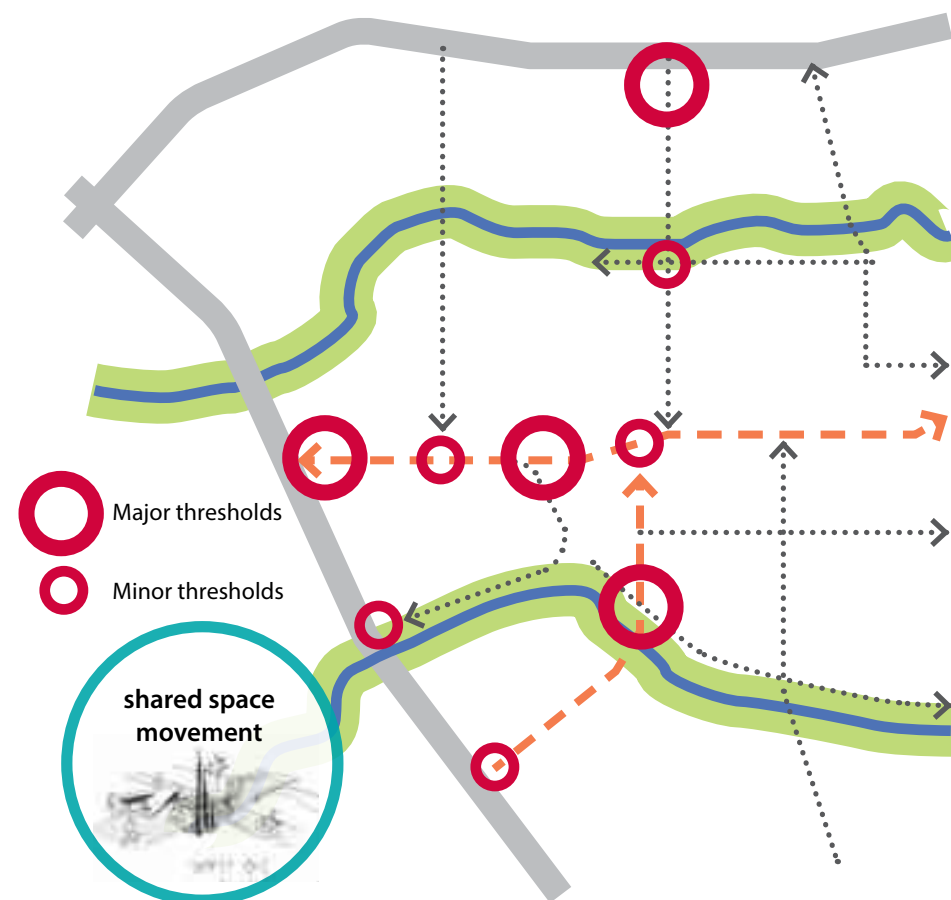


5.4.2 Concept diagrams

Thresholds

The entry sequence is made up of major and minor thresholds at important junctions and entry or transitional zones. Thresholds help to define the spaces in the main entrance and campus heart. The relate to the landscape and built context around the University Street and the Plaza.

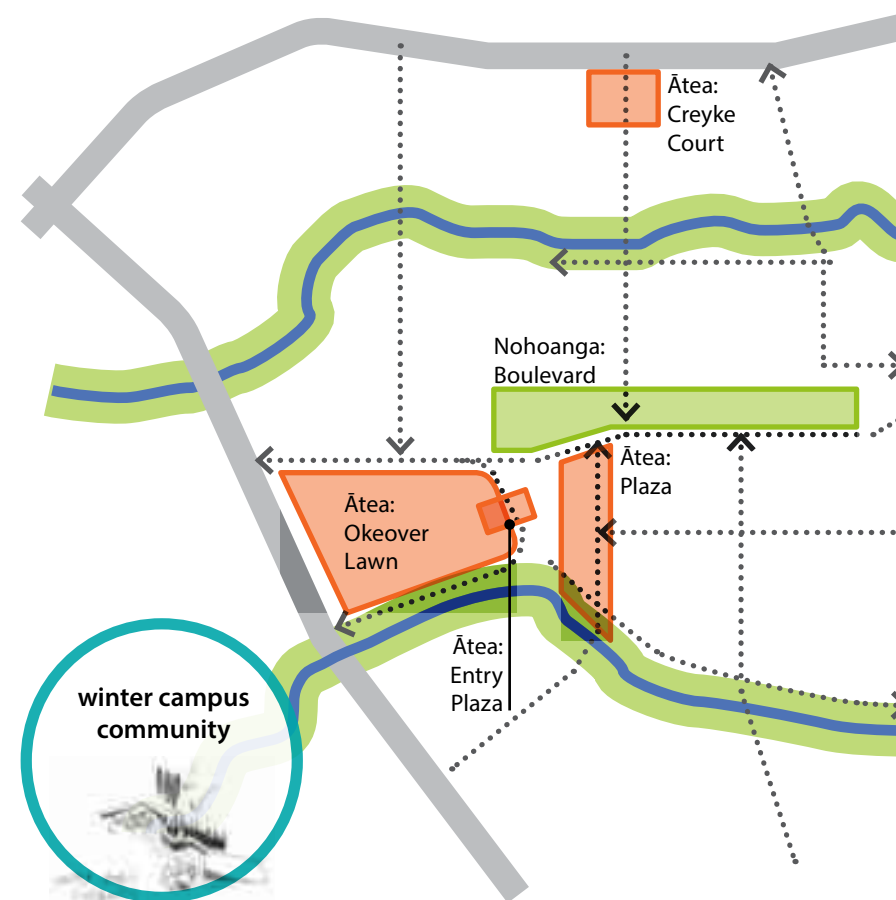
Key design elements should express the concepts of manaakitanga and whakamanuhiri through the creation of clearly identifiable thresholds or 'ngā ngutu', which draw people into the heart of the campus and ātea. Lighting installations at thresholds may be used to express the notion of a karanga welcoming visitors from the darkness into the light.



Gathering

Three defining open spaces connect to the access routes along the University Street and the Plaza, each with their own character and purpose.

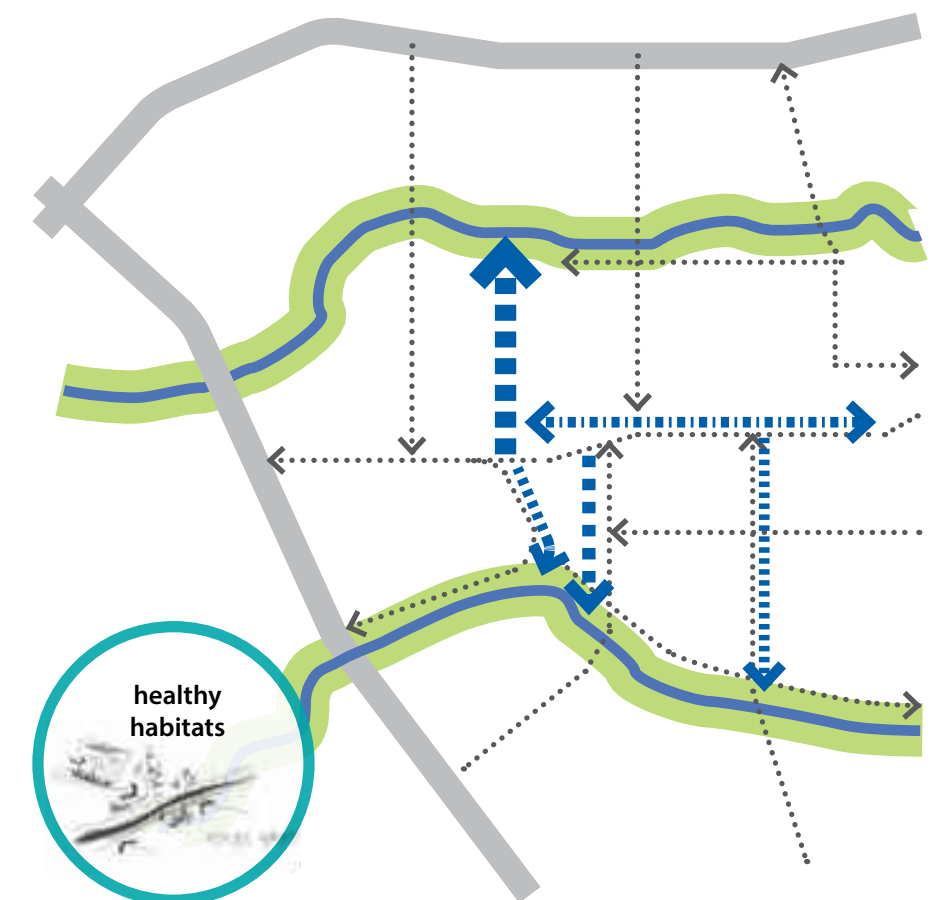
Key design elements will include an ātea or central plaza that is flexible enough to be used for large outdoor ceremonies and gatherings when required. Nohoanga are social spaces for smaller and more informal gatherings.



Stewardship

Treatment of runoff and stormwater is a fundamental part of the landscape concept, and is expressed in artful and functional ways in the key spaces, informing planting choices. A strong 'stream to stream' connection is made visible at the entry threshold – expressing the university story.

Key design elements should express kaitiakitanga, including mahinga kai values associated with waterways and the landscape of learning.

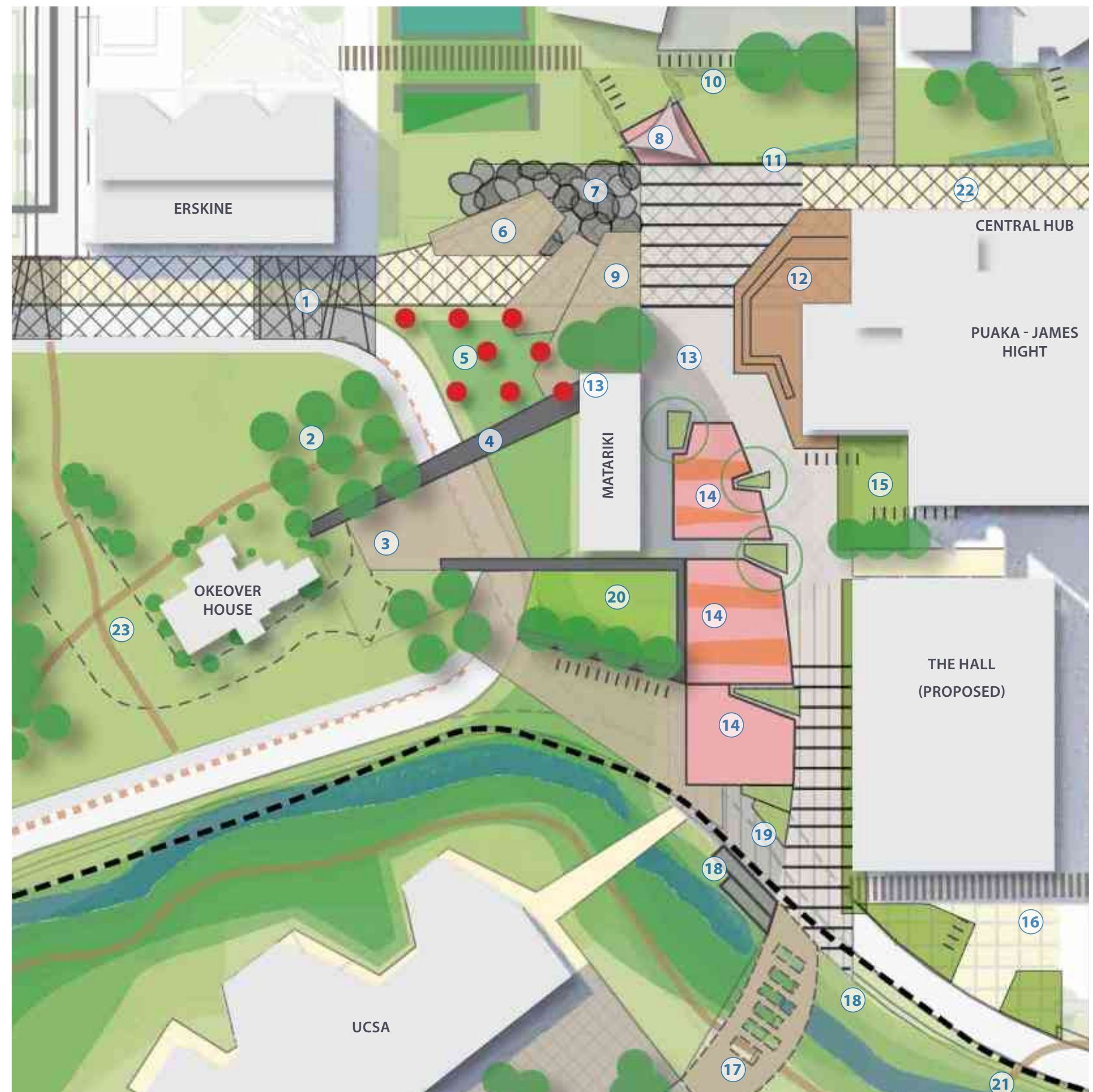


5.4.3 Enlarged campus heart concept plan

Key

1. Paved threshold
2. Potential tree planting, to be rationalised with existing trees and conservation plan recommendations
3. Entry plaza and gathering space for formal arrival and welcoming to campus
4. Pedestrian access
5. Vertical entry feature and canopy lighting installation
6. Raised exhibition platform
7. Water feature, e.g. boulders
8. Potential covered stage and sheltered activities
9. Paved entry threshold (at grade)
10. Contoured lawn to sheltered wall/edge
11. Sunken definition - gravel and planting with seating edge
12. Raised deck and terraced steps
13. At-grade plaza (podium removed)
14. Flat platforms for events and multipurpose hardcourt
15. Sheltered seating/eating and tables
16. Sheltered basketball court
17. River crossing - bridge with 'cut-outs'
18. Learning platforms/The Landing
19. Slow zone uni-cycle crossing and shared space
20. Sloped lawn to retained edge. Trees with lifted canopy to ensure views through to UCSA
21. Existing pedestrian bridge
22. University Street paved area – up to 12m wide, to be reviewed under detail design. This may be able to be incorporated into design work associated with the proposed Central Hub.
23. Existing Okeover car park – subject to review at detail design and as part of conservation plan

KEY	
	SHARED SURFACE
	PAVED THRESHOLD TREATMENT
	VERTICAL FEATURE (Sculptural / Canopy lighting)
	AT-GRADE PEDESTRIAN ACCESS/CHECK DAM
	POTENTIAL COVERED STAGE
	UNI-CYCLE ROUTE
	BIKE RACKS



5.4.4 Design matrix: hardscape

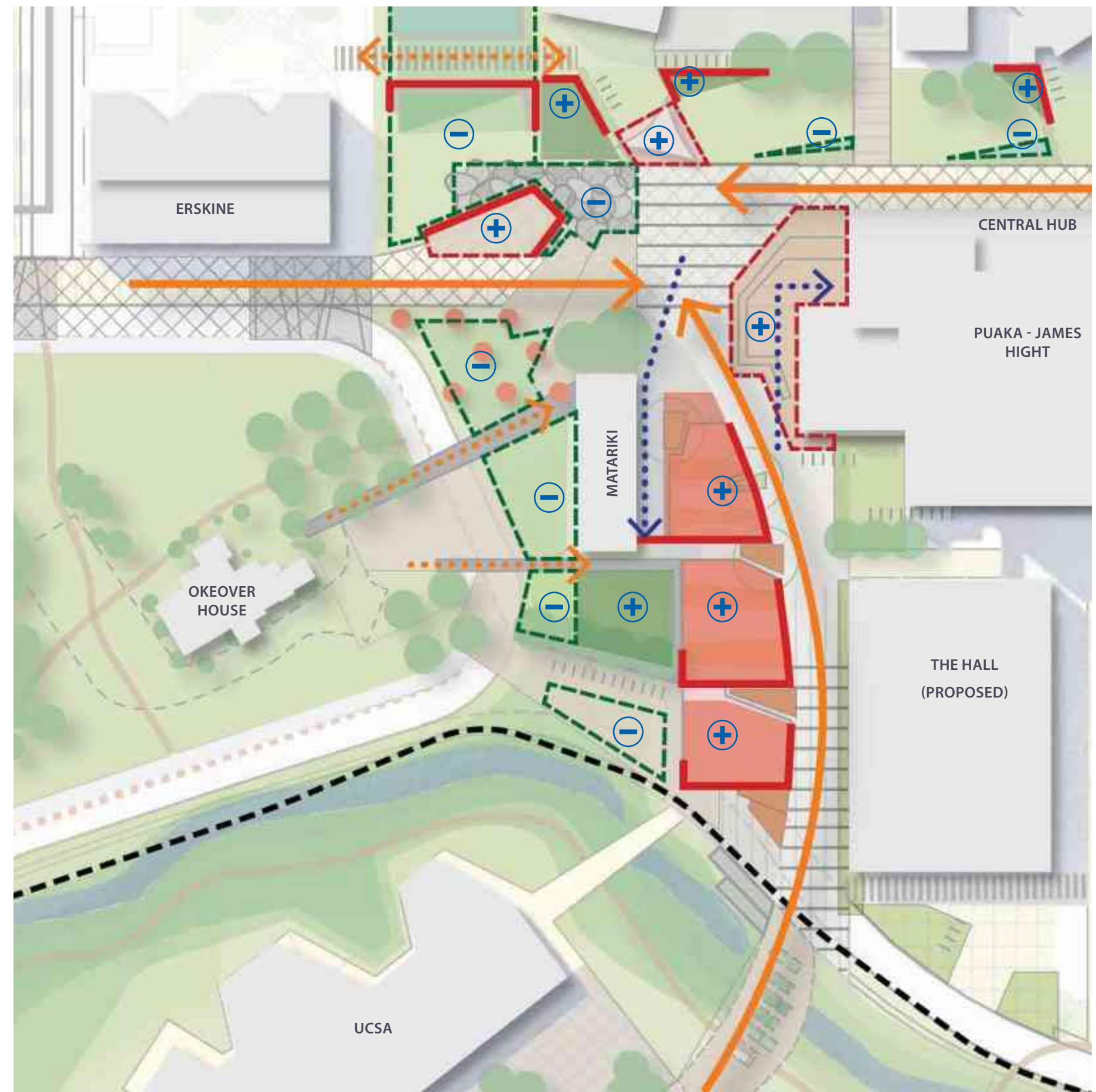
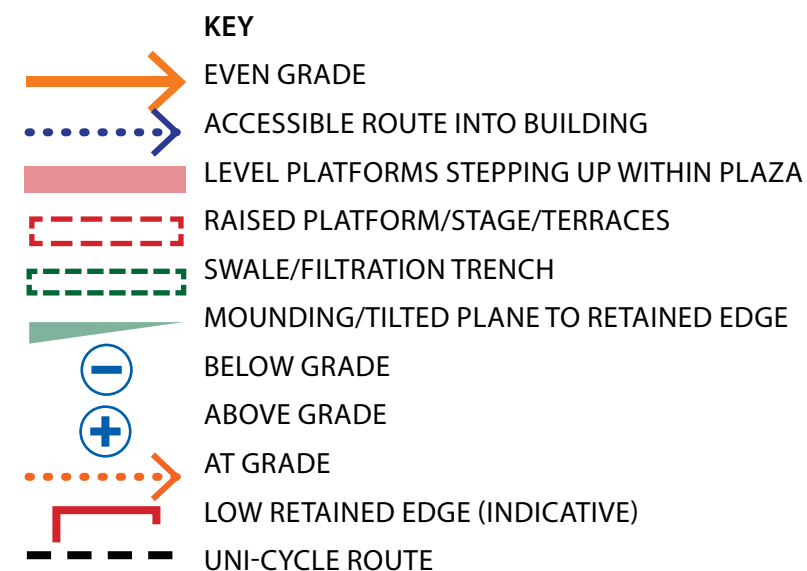
Hardscape

	Issues/ challenges	Opportunities/ priorities	Design considerations
Levels	Differing levels exist across campus, particularly along the length of the main entrance boulevard entering the campus heart, around Puaka-James Hight and Matariki (including the existing water feature), and around the existing mound between Matariki and the Haereroa-Avon Stream. The levels create challenges for visual access, at-grade ground floor building interfaces and accessibility.	An integrated design approach must be taken to ensure seamless transitions between outdoor spaces and buildings, and to incorporate existing site constraints such as trees and heritage areas. Level changes should be embraced and 'designed in' where they provide an opportunity for sheltered social areas of varying scales in the winter campus, tiered observational seating and/or raised platforms for large group gatherings, displays and events. Level changes also create an opportunity to showcase sustainability in the form of water conveyance and treatment (such as planted urban swales). Level changes may also exaggerate the experience of passing over or through entry thresholds to enter the campus heart, and to reinforce character. Resolution of levels should ensure that an accessible journey is provided along the main entrance and throughout the campus heart. The design language of the boulevard/ University Street (width, paving surfaces, signage, vertical features, lighting etc) should support the value and importance of the boulevard as a movement and wayfinding feature that aids campus navigation.	Detailed topographical survey information will assist with detailed design phases. Fixed levels will be set by existing buildings and valued specimen trees, along with the Okeover heritage protection boundary interface and the Haereroa-Avon Stream bank profile. This will inform new building ground floor levels for retrofitted or new buildings (e.g. the Central Hub and The Hall) and vice versa as an iterative design process. Consistently even grades should be prioritised along the length of the boulevard and University Street to maintain the appearance of a unified boulevard with good visual connectivity. A suitably scaled level outdoor area should be provided in the centre of the campus (the plaza between Matariki and Puaka- James Hight) to accommodate large gatherings and activation (such as a basketball court). Removal of the existing mound between the plaza and the Haereroa-Avon Stream may create opportunities for on-site cut/ fill balance. The existing plaza will need to be adapted and partially demolished to achieve the require integrated campus levels.
Drainage	Drainage issues including where there are path flooding problems during rainfall	Showcase best practice sustainability and environmental outcomes through a visible 'living laboratory' approach to drainage, balancing artful form and aesthetic with functional integration and ecologically supportive outcomes. Paving levels and stormwater detention capacity should be resolved to ensure that overland flow paths feed urban detention wetlands and rain gardens within the campus heart, where surface water can be collected and displayed as an ephemeral feature.	Environmental engineering considerations should be part of the iterative design process for these spaces. When dry, these areas should be attractive and multi-functional with seating edges, boulders etc. Planting for filtration or amenity should be hardy and able to cope with drought or inundation, using species that portray Canterbury character and support mahinga kai values. Refer to waterways matrix for more detailed explanation.
Water features	The location of the existing water feature is a challenging site due to differences in landscape levels and pedestrian pathways.	Water features should be provided on campus to demonstrate the qualities of water and to enhance the ambience of outdoor spaces. Water features could take many forms and functions, and may assist with temperature control of buildings. The existing water feature should be removed to allow for the Central Hub expansion and a better interface between Puaka-James Hight and The Plaza. A new water feature could be located at the western end of University Street as a focal point and gateway feature.	A new water feature at the western end of the University Street could portray the University story, combining parkland history, Canterbury character and cultural narratives within the landscape. Rather than standing water it could be water washing over river boulders. A water feature could be combined with the art and cultural exhibit space as a series of platforms, providing an interactive and textured landscape and meeting space - with or without exhibits.
Shelter	Activated spaces need a 'winter mode' so that they don't become activity black spots, especially in the boulevard	Spaces within the campus heart must be multi-functional, flexible and adaptable to ensure they can cater for events, large gatherings and social activities, while also providing sheltered edges and spaces for winter use.	The University street has potential for a covered stage area (refer sketch of University street – location of table tennis in foreground) that provides shelter and all weather performance or seating space with good surrounding observation/ audience areas. Integrated low retaining walls, protective mounded edges and integrated screens may also be used as devices for wind protection in exposed locations. Development of such a space will need to take into consideration the quieter office and library spaces in this zone and in addition any developments undertaken as part of the UCSA build. Moveable furniture can also allow for opportunistic use of sunny spaces (Note refer precedent images for Monash University- covered stage and protected seating areas) (Furthernote - Australian campuses experience different climatic conditions to UC which is primarily a "winter campus".)

5.4.5 Indicative concept levels

Levels are set by 'even grade' access and existing constraints - river edge, heritage protection boundary, and buildings. The podium and existing mound are removed, and stepped platforms create edges for seating and shelter.

The number of platforms within the plaza should be rationalised as part of future design to ensure minimal level changes and sufficiently large flat area for events. Low terracing and subtle level shifts can provide seating edges and spaces for gathering and meeting.



5.4.6 Design matrix: movement and staging

Movement

	Issues/ challenges	Opportunities/ priorities	Design considerations
Vehicle access	The location of bus stops is not confirmed.	The location of bus stops will determine design outcomes for the main entrance boulevard and loop road – width, layout, profile and surface treatment.	Subject to further review and constraints of the heritage protection area.
Uni-cycle route	Integration of the uni-cycle route with campus entrances and the River Plaza crossing.	Intersections and junctions with the Uni-cycle route will need to be considered with future design and implementation of the main entrance, loop road, The Plaza and the stream crossing.	Removal (limited access) of vehicular traffic along part of University Drive creates an opportunity for a shared zone where The Plaza, Stream Crossing and Uni-cycle route will intersect. Levels will need to be reconciled with the Uni-Cycle route, and remediation of the stream bank. Works within waterways are likely to require regional and local consents. Further review and consultation with Council may be required to achieve best practice standards and regulations for citywide cycleways where slow zones are retrofitted.
Bridges	The width of the Avon Stream crossing should be consistent with the design intent of the CMP.	The pedestrian bridge crossing to The Plaza should be generous and welcoming, and achieve continuity of activity from the centre of the campus to the UCSA and Wellness Precinct, while prioritising ecological best practice for stream restoration.	Refer Waterways matrix for further detail on bridge design and The Landing.
Service access	RRSIC back of house service road layout is likely to require more space that may compromise the urban wetland concept.	An integrated water sensitive urban design (WSUD) approach should be taken to resolving efficient service vehicle manoeuvring in this space that does not occupy a full turning circle, balanced with framed planting areas that screen and provide amenity and water conveyance.	Subject to further detailed review of vehicle types, possible vehicle restrictions and tracking curves. The intent is to ensure seamless visual continuity of the 'stream to stream' urban wetland and planted corridor. The service road needs to allow for full-sized buses, Boc Gas vehicles, and chemical deliveries.

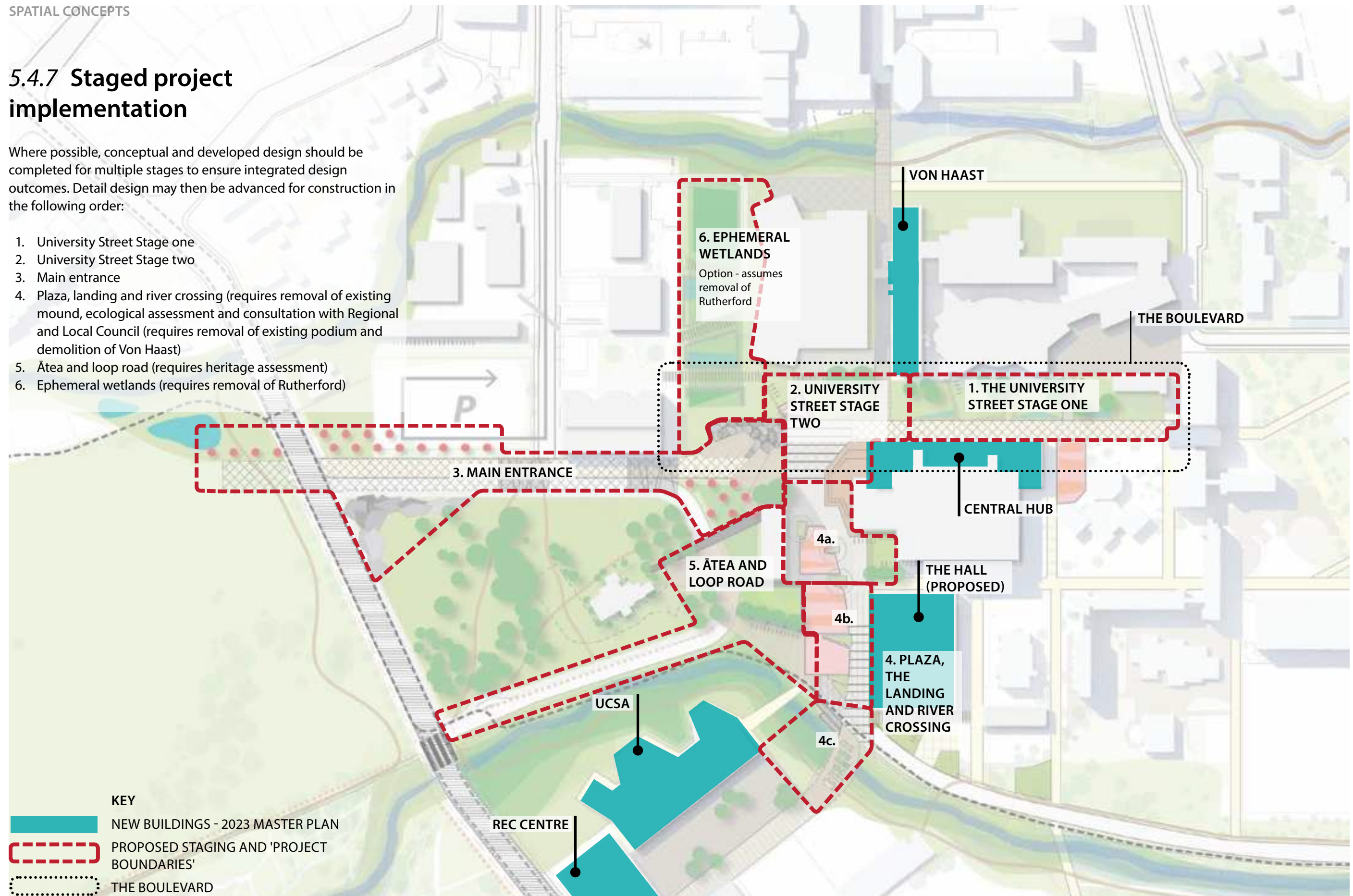
Staging

	Issues/ challenges	Opportunities/ priorities	Design considerations
	Staged removal and construction of buildings around the campus heart, including Von Haast demolition will affect the staged implementation of the Campus heart and the ability to provide a seamless and coherent campus heart landscape.	The campus heart landscape should be designed as an integrated space to avoid inconsistencies. Concept and developed design may be completed for multiple and adjacent sites within the campus heart, while detailed design is advanced for staged implementation on one site at a time.	Staging and sequence aligned with building programme to be determined. Constraints and risks should be identified early and through the iterative design process.
	Interim solutions to address funding shortfalls, interruptions and building construction, and staged implementation requirements.	Tactical and temporary interventions should be encouraged to celebrate the evolving campus heart, and test the use and character of communal campus space.	Tactical interventions and quick wins could include temporary activities and moveable furniture, surface painting and moveable planters, use of hoardings for artworks and murals, temporary exhibition space. All these options would breathe life, energy and colour into the campus heart. Refer to Section 9 for temporary, tactical and cost effective delivery tactics.

5.4.7 Staged project implementation

Where possible, conceptual and developed design should be completed for multiple stages to ensure integrated design outcomes. Detail design may then be advanced for construction in the following order:

1. University Street Stage one
2. University Street Stage two
3. Main entrance
4. Plaza, landing and river crossing (requires removal of existing mound, ecological assessment and consultation with Regional and Local Council (requires removal of existing podium and demolition of Von Haast)
5. Ātea and loop road (requires heritage assessment)
6. Ephemeral wetlands (requires removal of Rutherford)



5.5 Indicative concept images

5.5.1 Ilam Road Entrance

Concept alignment with Campus Master Plan:

Intent of the Ilam Road Entrance

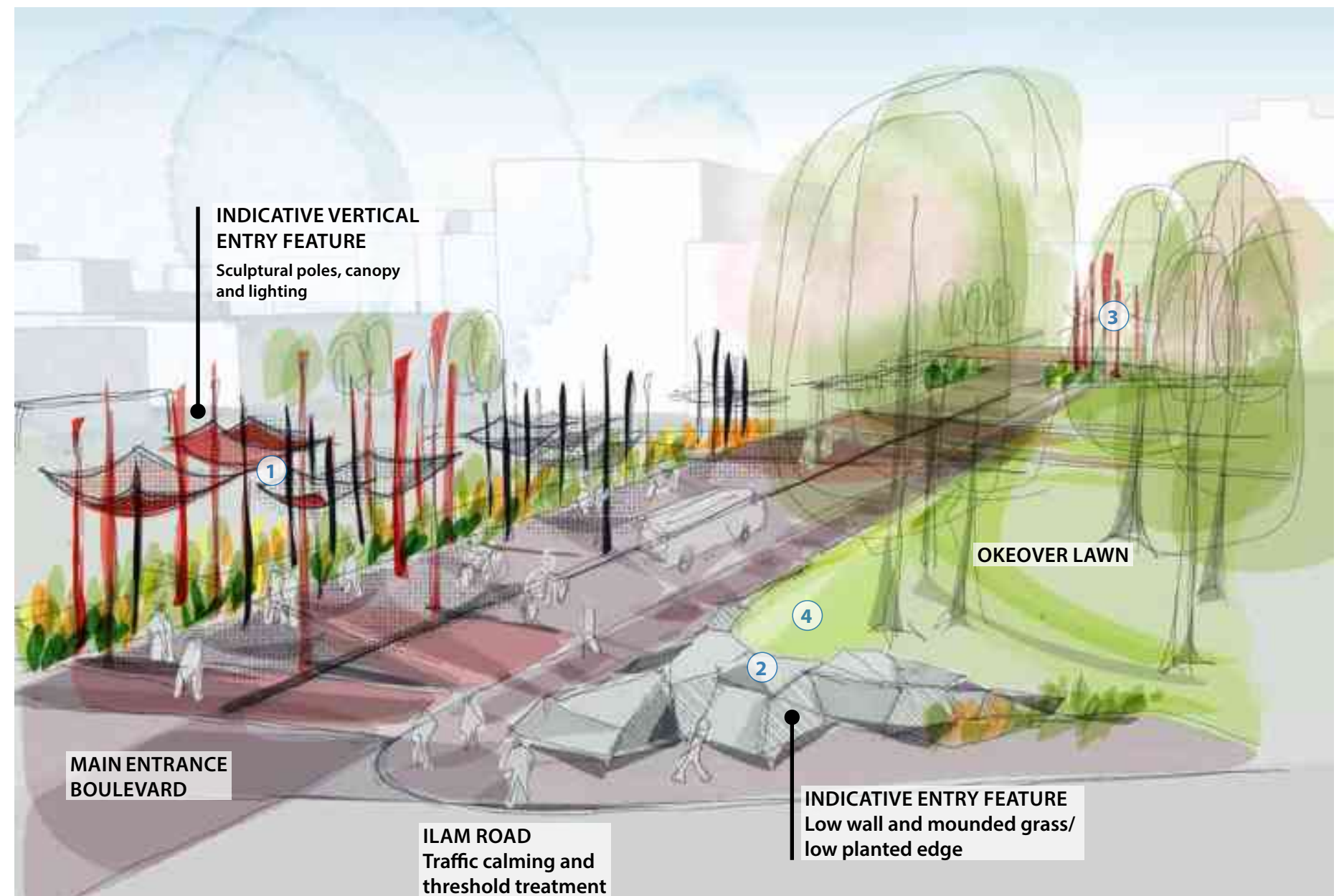
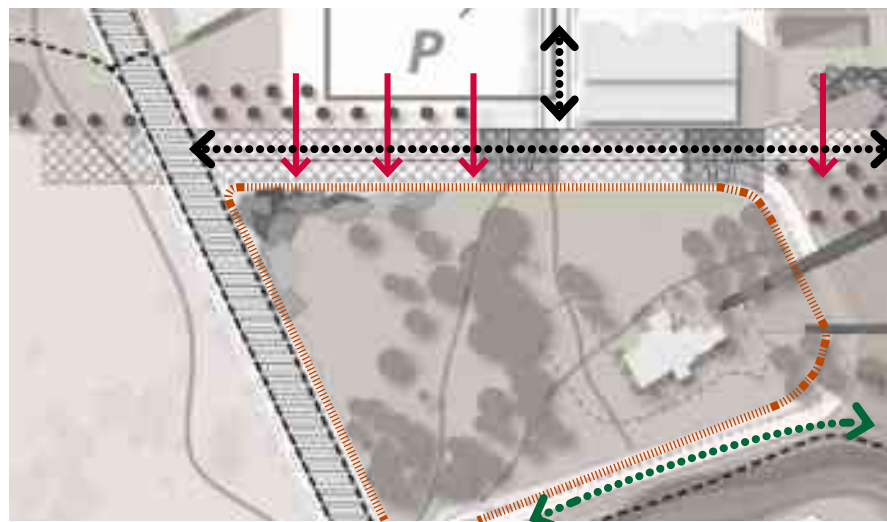
- To serve as a centre for student life and spatial connector with generous facilities for pedestrians
- To link Ilam Road directly eastward into the campus centre and through to Arts Road in the short term and through to the Clyde Road carparks in the long term
- To create an address to important core facilities such as the library and learning commons, and the central lecture theatres

Key design elements

- Safe and integrated landscape design for pedestrian, cycle and vehicular movement along the current Science Road section of the street
- Re-routing of the bus route along Ilam Road into the campus with bus drop off located along the University Street (**subject to detailed review**)
- Opportunity for public art and showcasing of university achievements in the transitional space
- Raised threshold in between Ilam Green and Ilam Fields to assist in reducing traffic speed and increase pedestrian safety

Design considerations - for detailed review

- Heritage protection and trees
- Levels
- Allowance for buses/bus stop location



- NODE
- KEY OPEN SPACE
- STREET ACTIVATION
- ACCESSIBILITY
- CYCLE PATH

- ① The Forest: a vertical feature representing 'the clothing of Papatūānuku' lining the boulevard and screening the carpark
- ② Te Waka A Aoraki: low mounding edge treatment expressing the story of the waka of Aoraki and his brothers
- ③ Poutūterangi: the support post that separates Papatūānuku and Ranginui
- ④ Potential entry sign location. Landscape design elements to be rationalised with any entry signage required.

NOTE: Refer to heritage protection area and aerial overlay. Entry features subject to tree and heritage assessment as part of design process, including resolution of boulevard layout and function and bus stops (transport design).

5.5.2 The University Street

Concept alignment with Campus Master Plan:

Intent of The University Street

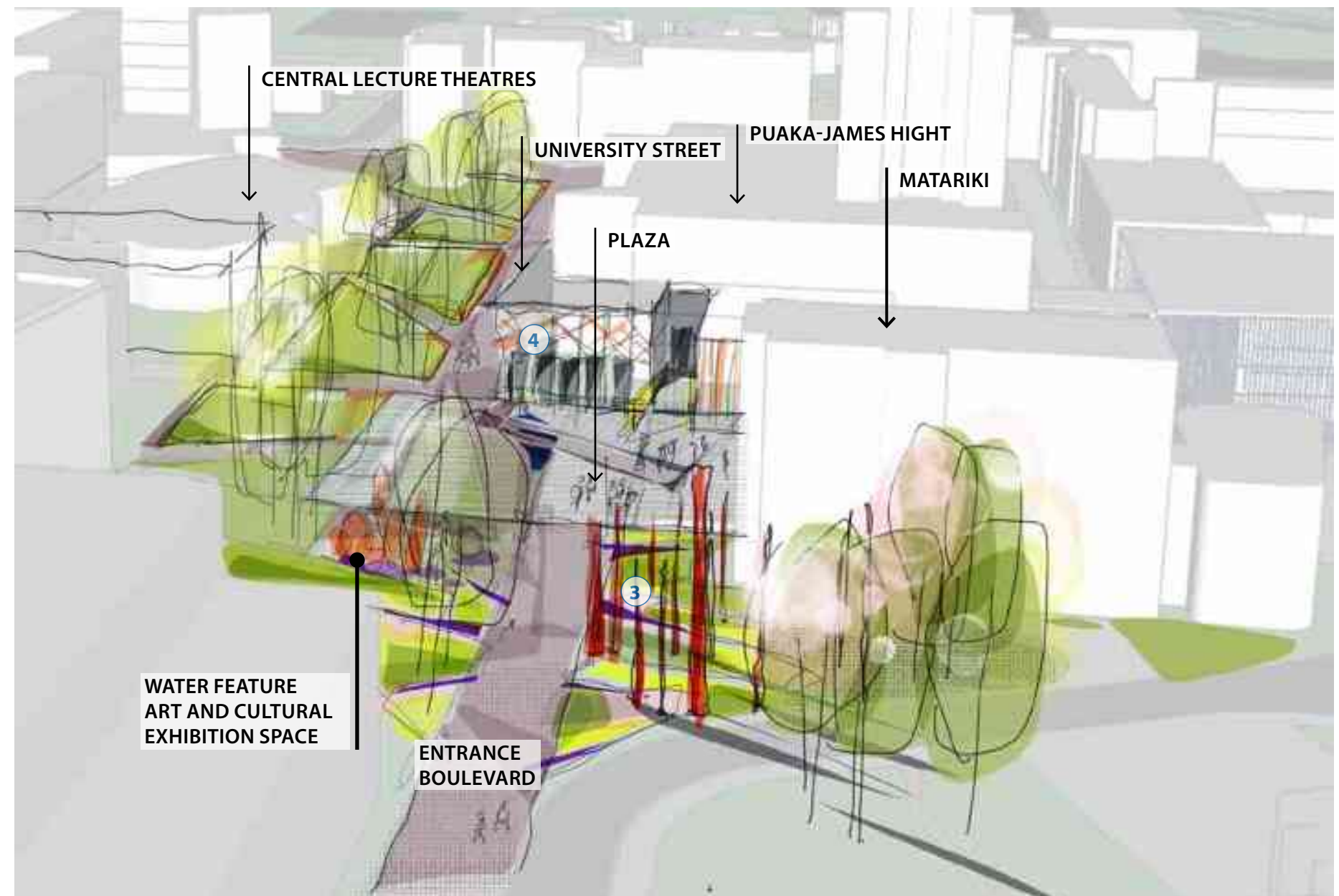
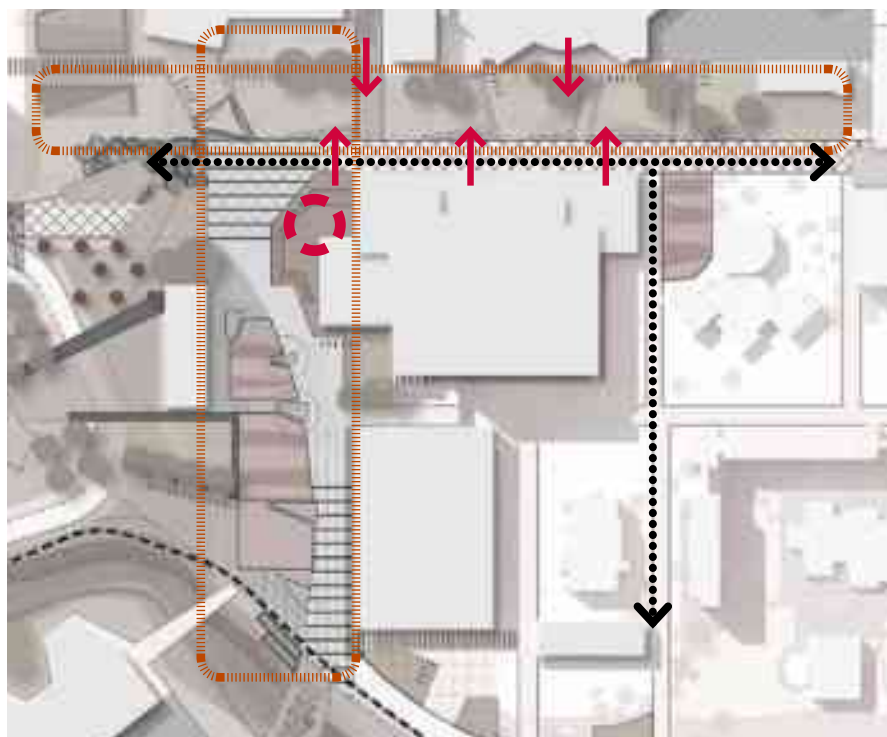
- To connect four significant university spaces; the Ilam Green, The Plaza, University Plaza, The Boulevard
- To form a structural hierarchy from where university activity is to stem from, contributing to the “urban buzz”
- Intuitive wayfinding for visitors strengthening community outreach

Key design elements

- Landcaping for pedestrian and outdoor social amenity space along the University Plaza and Puaka-James Hight edge of the University Street
- Clarification of wayfinding and negotiable level changes
- Transitional space at the northern edge of the University Plaza
- Opportunity for public art/showcasing of university achievements in the transitional space

Design considerations - for detailed review

- Levels and drainage
- Existing trees
- Staging



-  NODE
-  KEY OPEN SPACE
-  STREET ACTIVATION
-  ACCESSIBILITY

-  3 Poutūterangi: the support post that separates Papatūānuku and Ranginui
-  4 Cloak of stars: a lighting interpretation of the clothing of Ranginui to mark the entrance to the university heart

5.5.3 Precedents

Activated plaza and boulevard, warm campus heart



5.5.4 The Plaza and University Street

Concept alignment with Campus Master Plan:

Intent of The Plaza

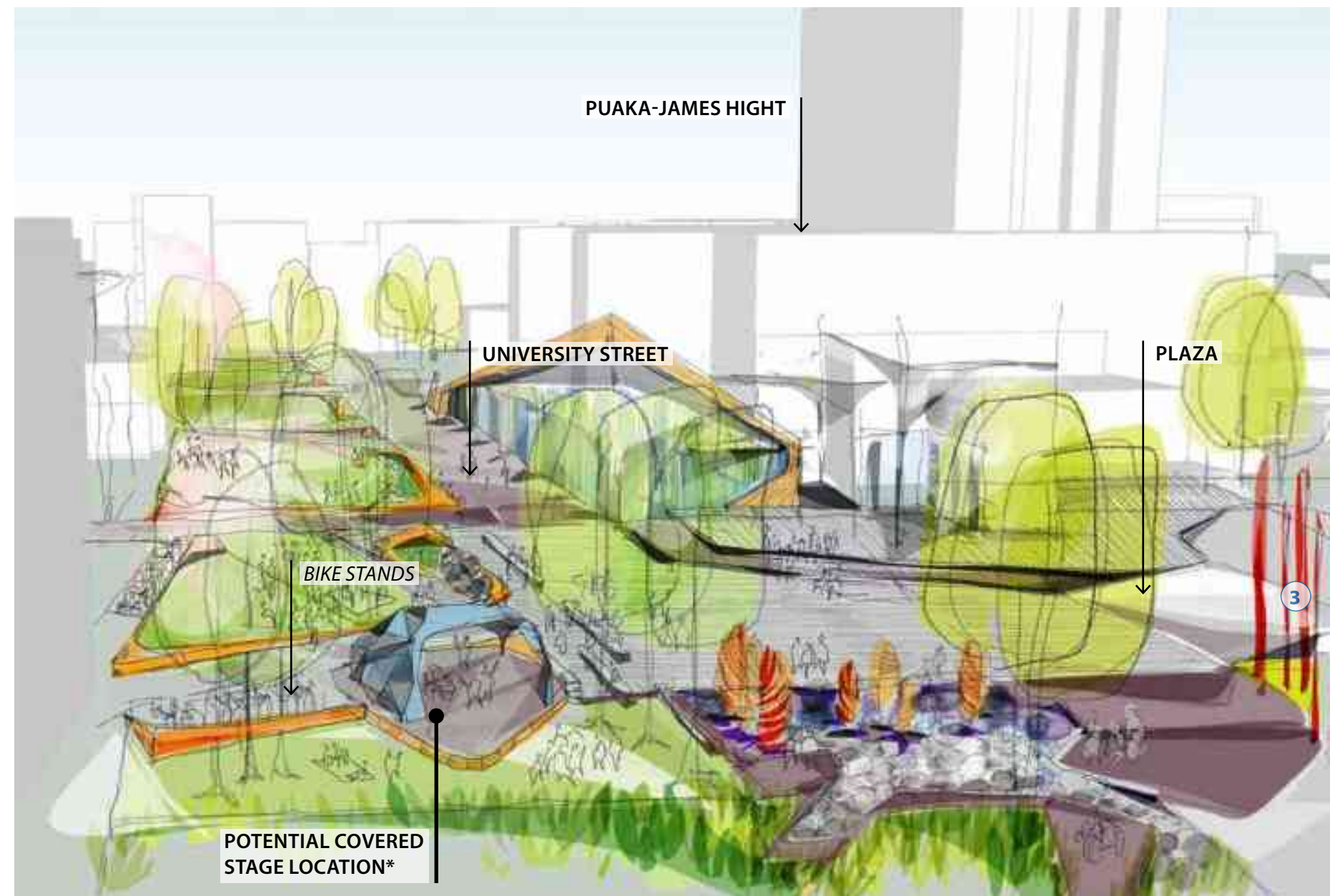
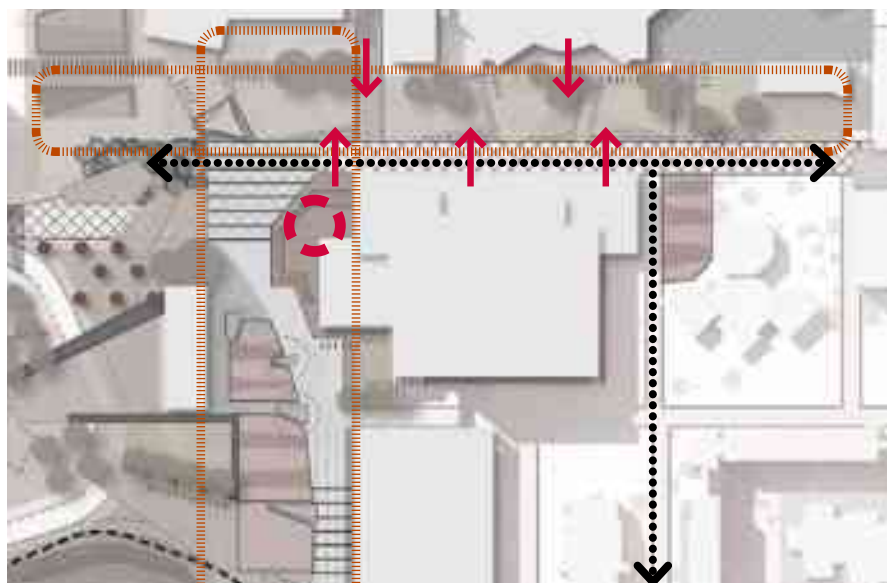
- To create a formal vibrant and active open space, of scale and significance, relating to all the university
- A campus centre that is immediately identifiable, having a direct relationship with all shared university facilities

Key design elements

- Siting of key building projects and activation along the edge; including The Central Hub, the proposed Hall and an addition to Matariki
- Direct pedestrian and clear connection to Ilam Road via the University Street
- Clearing of the mound and relocating the bookshop enabling the extension of the plaza towards the Ōtākaro-Avon River
- Direct pedestrian access bridge connection over the Ōtākaro-Avon River
- Plaza lined with active and permeable buildings
- Integrated resurfacing of the ground plane
- Repurposing of Matariki ground floor

Design considerations - for detailed review

- Activation and winter mode
- Levels and drainage
- Shelter
- Water feature



-  NODE
-  KEY OPEN SPACE
-  STREET ACTIVATION
-  ACCESSIBILITY

NOTES: Activated spaces - winter mode. Refer to matrix.

*Refer to precedent images - Monash University.

3 Poutūterangi: the support post that separates Papatūānuku and Ranginui

5.5.5 The Plaza and river crossing

Concept alignment with Campus Master Plan:

Intent of The River Crossing

- To improve connectivity between the universities two primary activity cores, UCSA/Wellness Precinct and the campus centre
- To improve mahinga kai, the quality of the stream and surrounding environment, enhancing how people experience and interact with the river
- To provide an inclusive and welcoming environment for students and the wider community

Key design elements

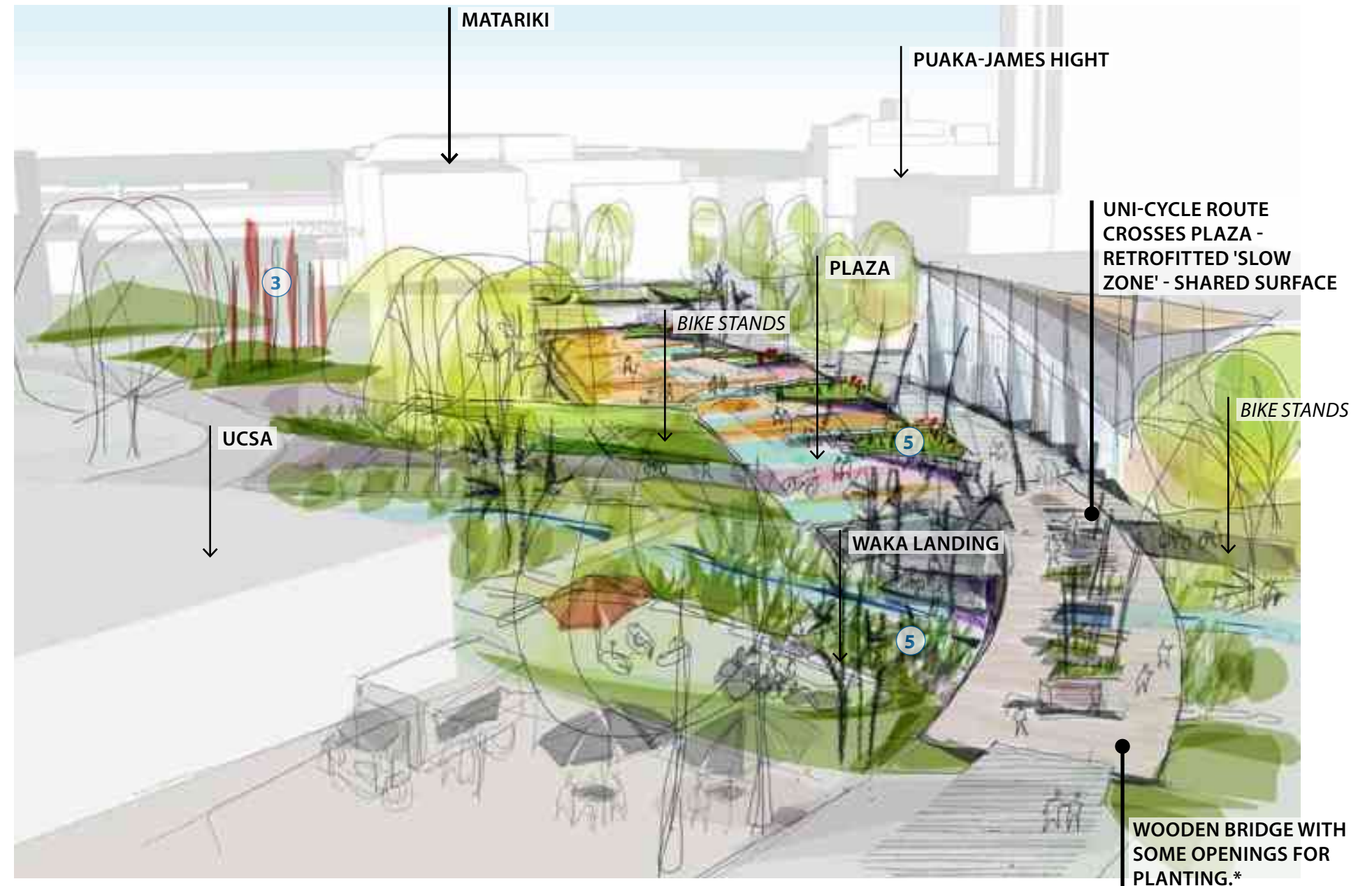
- Continuity of activity from the centre of campus to UCSA and the Wellness Precinct
- Location of the proposed new Hall addressing the stream environment
- Extension to Matariki with social/ collaborative spaces to frame the Plaza and transition to Ōtākaro-Avon Park
- Removal of the mound between the existing plaza and the Ōtākaro-Avon
- Creation of pedestrian bridge crossing over the Ōtākaro-Avon Removal (limited access) of vehicular traffic along part of University Drive
- Landscaping and remediation of the Ōtākaro-Avon bank to accommodate outdoor social activity

Design considerations for detailed review

- Waterways (refer campus-wide matrix)
- Bridges and ecological learning platforms
- Levels
- Safety (CPTED)
- Vehicle access/service access and uni-cycle route



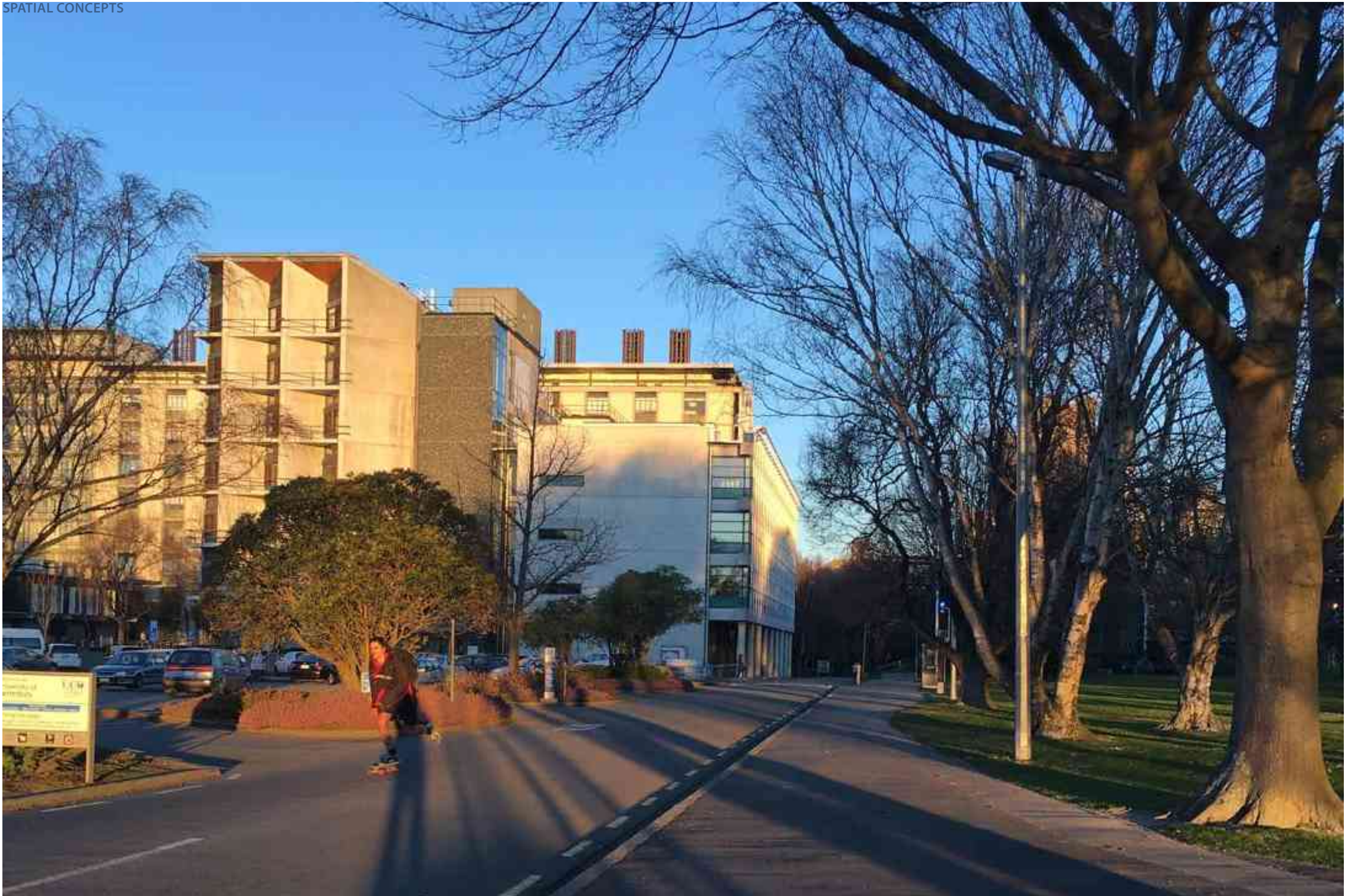
University of Canterbury Landscape Master Plan
May 2017



- NODE
- KEY OPEN SPACE
- STREET ACTIVATION
- ↔ ACCESSIBILITY
- ↔ CYCLEWAY
- - - KEY PROJECT/SITE

NOTE: *Refer to precedent images.

- ③ Poutūterangi: the support post that separates Papatūānuku and Ranginui
- ⑤ The digging stick (Ko): protected 'dug in' gathering spaces and symbolic 'cultivation' plantings to represent the story of Rakaihautu and his Ko that formed the water bodies of the Canterbury plains



6. Planting guide



isthmus

WOODS
BAGOT.



6.1 Campus character areas

Guiding principles for planting respond to the UC campus landscape character zones identified in *Section 2: The University Story* and inform the planting strategy as follows:

Campus heart: Inspired by the mosaic of natural (including geological and creation stories) and cultural landscape patterns of the cultivated Canterbury Plains- reflected in the form and spatial layout of exotic and native planting mixes (Urban blend).

Urban landscape: Responding to the University story that weaves together Canterbury, Christchurch and Campus character into a blend of exotic and native plantings (Urban blend).

Waterway: Repairing the remnant natural environments of the Canterbury plains – including bush remnants and landscapes valued for mahinga kai (Canterbury mix).

Parkland: Preserving and supplementing the picturesque and garden traditions of Christchurch City- including community gardens and orchards, and the parkland landscape foundation for the campus setting (Garden city mix).

Landscape character zones inform the planting mixes:

KEY	
	CAMPUS CORE
	URBAN LANDSCAPE
	WATERWAY
	PARKLAND
	HERITAGE AREAS (Indicative only. refer to appendices for planning maps)
	PARKLAND - ACTIVE/FORMAL RECREATION
	URBAN BLEND
	CANTERBURY MIX
	GARDEN CITY MIX



6.2 Planting strategy

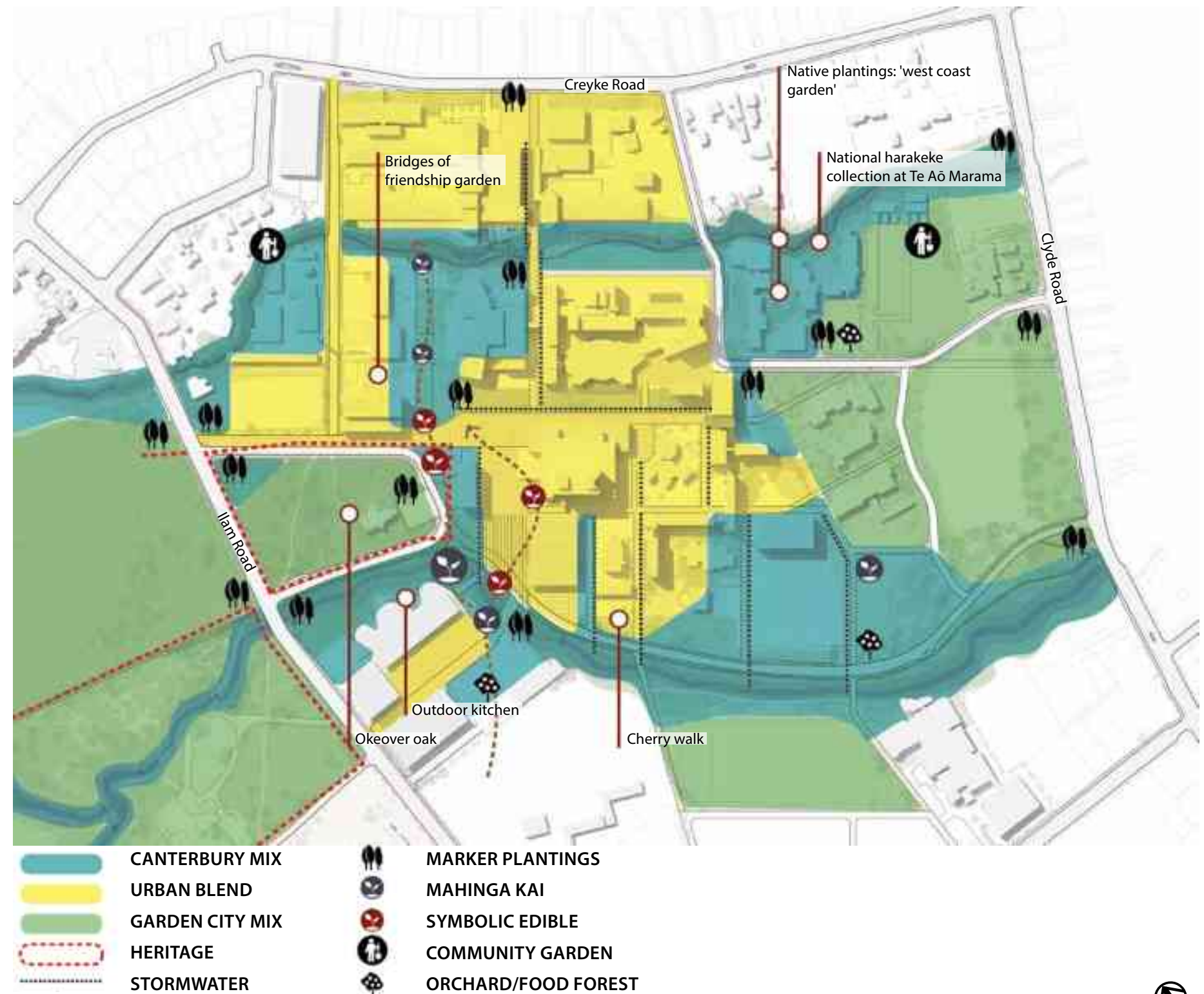
6.2.1 Campus heart planting strategy

An overarching planting concept organises the campus landscape into zones which are woven through the campus in relation to spatial typologies. The different planting zones each have a strong, distinct identity that relates to the campus' character areas.

Planting in the campus heart is closely associated with the spatial typologies identified in the campus, and the cultural narratives applied to those spaces. Application of the different planting mixes weaves and stitches areas together, while maintaining distinctive spatial identities.

Marker plantings, mahinga kai sites, symbolic edible plantings, the community garden, and food forest are located strategically to enhance the planting strategy and portray the university story.

EXISTING PLANTING ILAM CAMPUS



6.2.2 Dovedale Campus planting strategy

The Dovedale Campus strategy uses the same planting typologies applied to the rest of the campus, with an additional type specific to Dovedale, which references the unique planting character that already exists there. The 'parkland buffer' planting has an important screening and amenity function for neighbouring residents and should be managed and maintained accordingly.

The planting strategy aligns with the Dovedale Campus Masterplan (Jasmax 2014) by concentrating 'urban blend' planting in the 'heart' of the campus, surrounding the heart with the 'Dovedale blend' (fine-grained planting appropriate for the residential functions proposed), and a generous green belt of 'parkland' planting.

The green buffer can absorb specific planting features, such as marker plantings, community garden (to serve the Dovedale residents), and edibles/food forest. These should all be planned and designed in alignment with the principles of the parkland planting type.

Dovedale blend

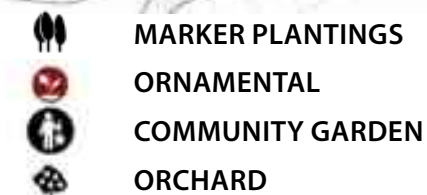
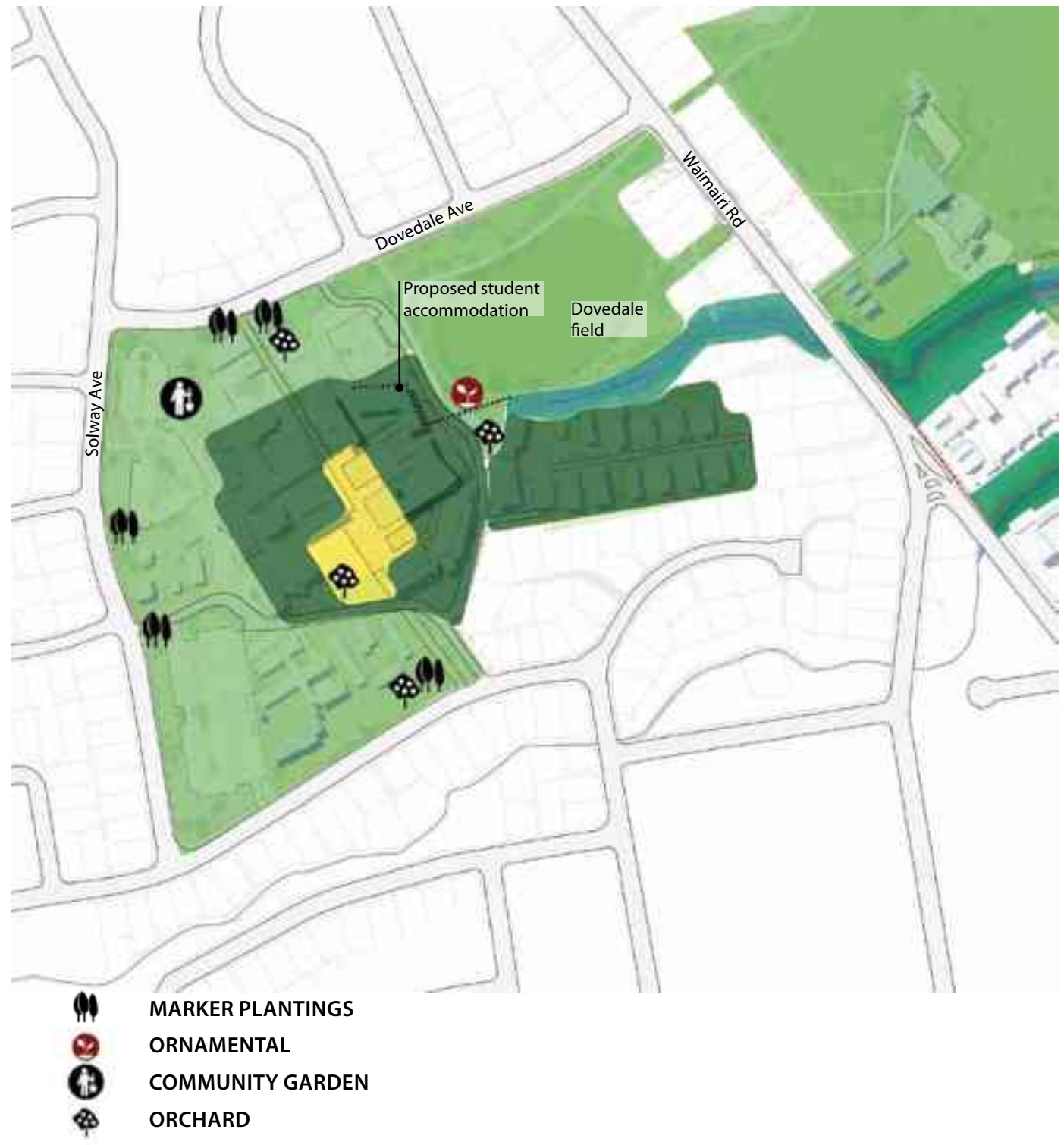
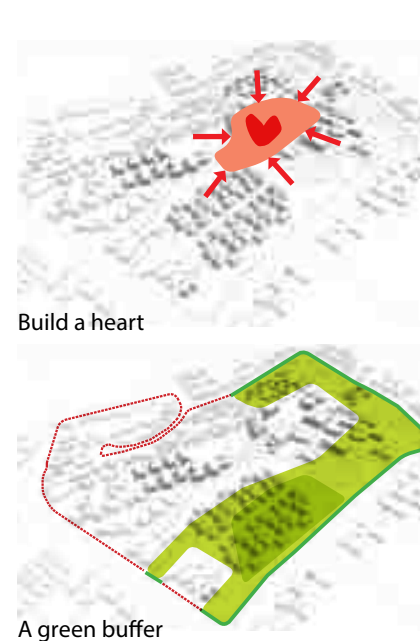
- Unique Dovedale landscape character with textured and layered plantings of nature and exotic mix
- Intimate and finer grain scale of courtyards and outdoor rooms (domestic and residential in scale)
- Retain and compliment existing planting that supports this character
- Incorporate more edible planting and orchard trees wherever possible - plants that nourish and support health and wellbeing especially around student accommodation. Even if symbolic.



EXISTING PLANTING DOVEDALE CAMPUS

Dovedale Student Accommodation Masterplan

The Dovedale planting strategy responds to the design approach set out in the Dovedale Campus Master Plan (Jasmax 2014). Key principles are:



6.2.3 Planting mixes

The proposed mixes are based on existing planting patterns on campus.

Canterbury mix

- Native planting palette used for expression of university story at entrances and thresholds for water cleansing, and for stream bank restoration and stabilisation
- Particularly mahinga kai sites
- Predominance of native trees, particularly within waterway restoration zones, but also incorporating existing and future replacement of exotic trees with landmark or character significance, and in peripheral edges and carpark/servicing areas
- Preference given to indigenous species eco-sourced from the Canterbury region, selection based on Ngahere native planting guide and Matapopore Planting Guide
- Includes plants with significance to Ngāi Tūāhuriri and Ngāi Tahu

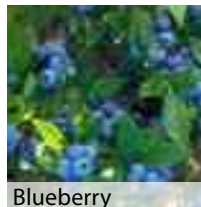
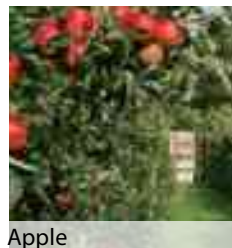
Urban blend

- Native and exotic mix with urban streetscape character, species chosen from UC landscaping guidelines plant list based on plants that cleanse, nourish, fascinate and innovate
- Street tree selection to consider CPTED (Crime Prevention Through Environmental Design), low maintenance qualities, microclimate and form (upright space constraints)
- Low planting to add texture to urban spaces,
- Integrated with stormwater treatment systems and selected for filtering qualities (also green roofs and living walls)
- Planting to contribute to university story and interwoven cultural narrative
- Street trees and mass planting to act as windbreak and shelter, selected and positioned to allow sunlight into the campus and contribute to ‘warm campus heart’ during winter
- Climbers and epiphites - for growing on sheltering structures and green walls

Garden city

- Predominantly large, exotic deciduous trees
- Includes existing native trees and new culturally significant native trees (such as totara and kahikatea) which have a form and growth habit suited to parkland character
- UC signature trees - lime tree, pin oak - in parkland areas visible from perimeter roads
- Marker trees at entrances and along important movement routes to assist with wayfinding
- Orchard trees and food forests especially near student accommodation

INDICATIVE PLANTING PALETTE



6.2.4 Weaving exotic and native species

Issues and challenges:

Need to balance the historic parkland and garden setting with emerging cultural and sustainability themes, with stronger guidance and commitment to the appropriate location of native vs exotic plantings.

Opportunities and priorities

The planting palette should respond to themes and spatial concepts in the Landscape Master Plan, and strengthen the shared cultural landscape with interwoven narratives.

There is no proposal for exclusive exotic or native planting character zones. Instead, the planting of natives vs exotics is addressed as illustrated on this page.

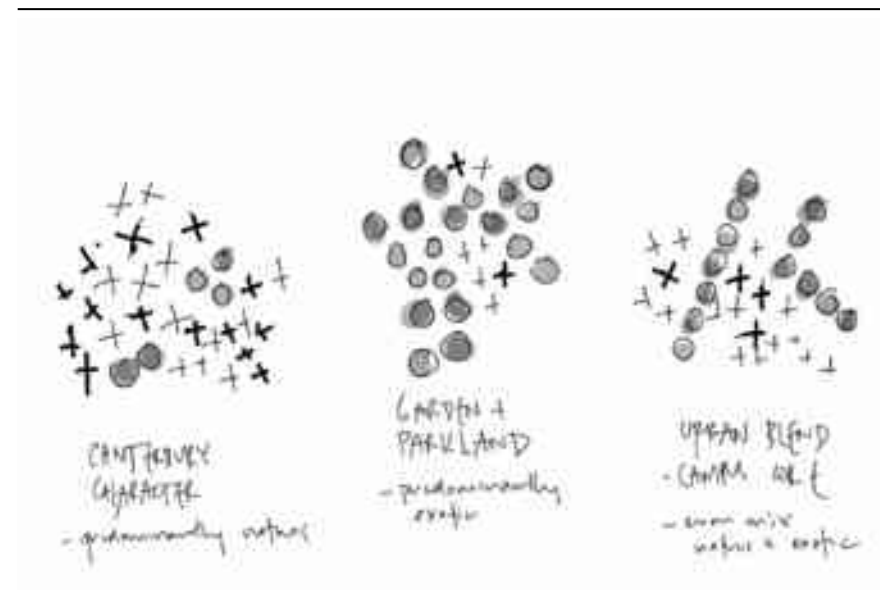
Key reference documents for species selection

- University of Canterbury Landscaping Guidelines
- Matapopore Urban Design Guide and the Ngahere Native Planting guide.

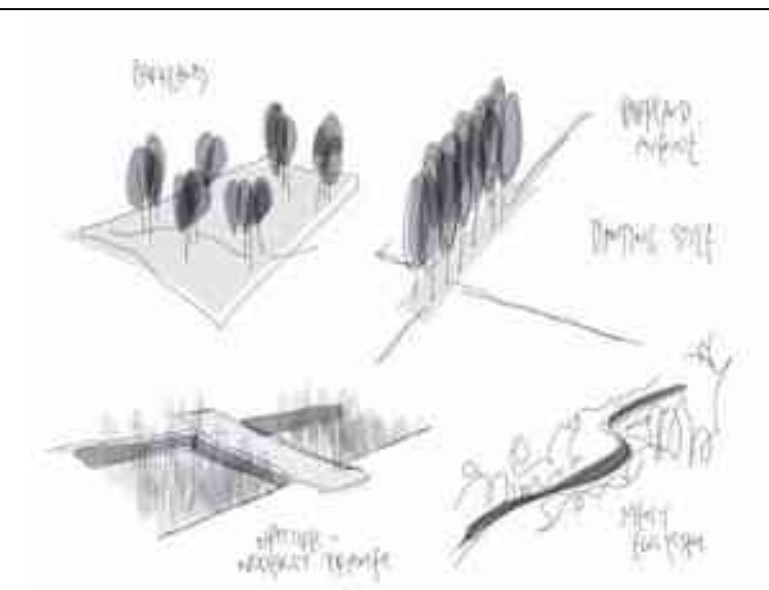
Canterbury Character

Canterbury character will be expressed through native plantings, particularly where defined by the 'Canterbury mix', which includes plants that are indigenous to the Canterbury region, and preferably eco-sourced from the ecological district. The plants selected will be:

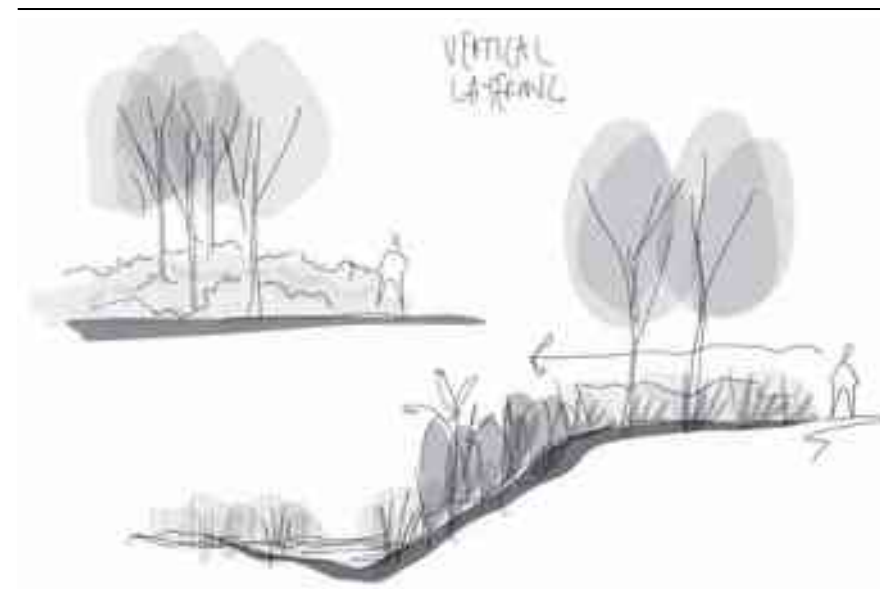
- Appropriate to the localised environment such as stream bank or ephemeral stream/ wetland
- Recognise the former natural landscape setting of the campus such as remnant bush or wetland
- Support the 'living laboratory' landscape response, whereby the value of native plants for Ecosystem Services can be demonstrated: supporting, provisioning, regulating, cultural.



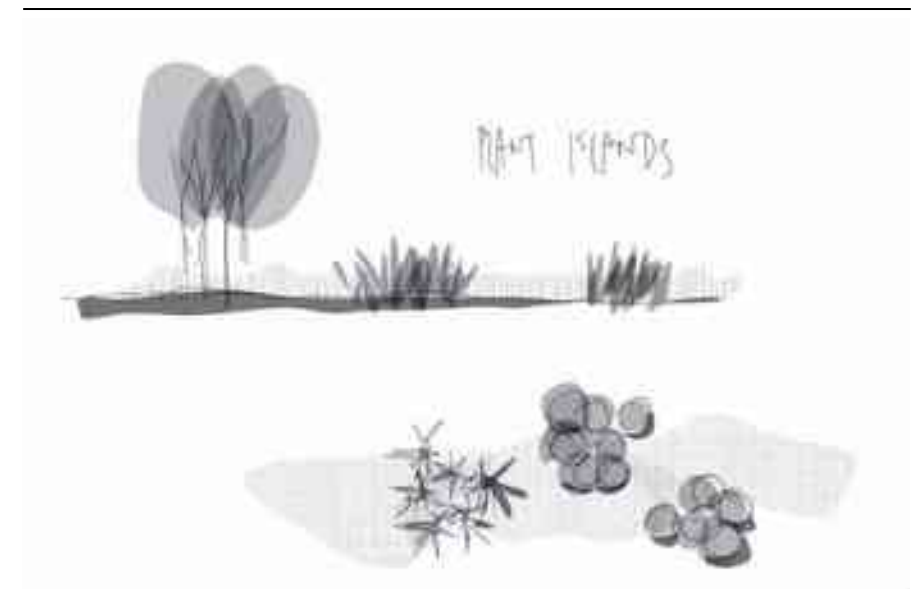
1. Through **predominance** of exotic species in parkland character zones, and predominance of native species in 'Canterbury character' zones, with an evenly blended mix in the campus heart (urban blend) that strengthens conceptual themes and interwoven narratives.



2. Through **planting style** – for example native trees such as tōtara may be planted in the parkland area, if chosen for their individual form and character and planted in informal groupings or avenues that complement the open parkland setting and picturesque character.



3. Through a **vertical layered** approach – for example mass underplanting of native groundcover and shrub plantings along stream banks for restoration and stabilisation, and inclusion of rationalised groupings of native exotic trees within stream corridors in subservience to a predominantly native theme.



4. The concept of '**plant islands**' should be adopted for the mixing of exotics and natives, where trees or singular plant species are clustered in plant islands rather than randomly interspersed.

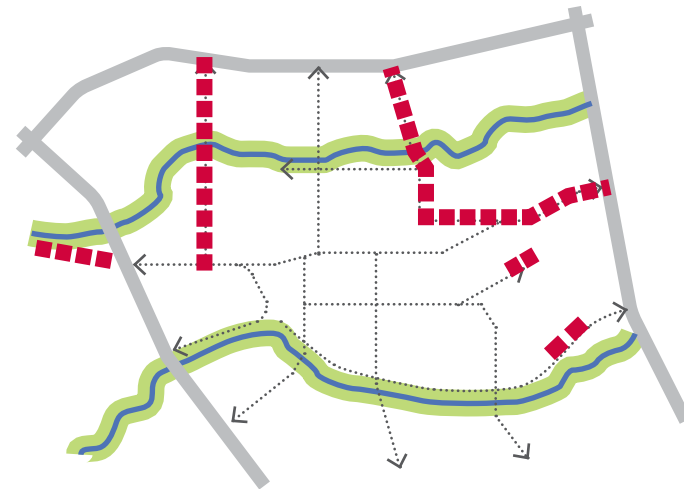
6.3 Planting concepts

University story



Historic relevance

The garden character of Ilam Gardens has been woven into the existing campuses in places. These plantings can be rationalised by concentrating groupings where the vibrant colour can potentially be used to greater effect for wayfinding and character.

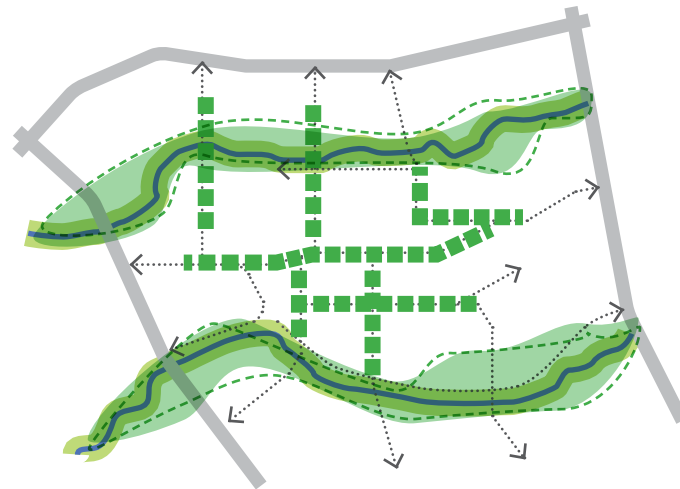


Design considerations:

- Rhododendron and azalea cultivars should be chosen which fit the scale and proportion of the space available, taking into account the importance of visual access between the ground floor of buildings, sunlight access in winter, and passive surveillance for personal safety.
- Planting may be supplemented along Engineering Road, Arts Road and Forestry Road in particular, and where the campus heart interacts with parkland.

Orderly frames/messy habitats

Planting character will relate to the spatial character of different parts of the campus, with an orderly urban character in the campus heart, and naturalised planting along waterways to support ecological habitats.



Design considerations:

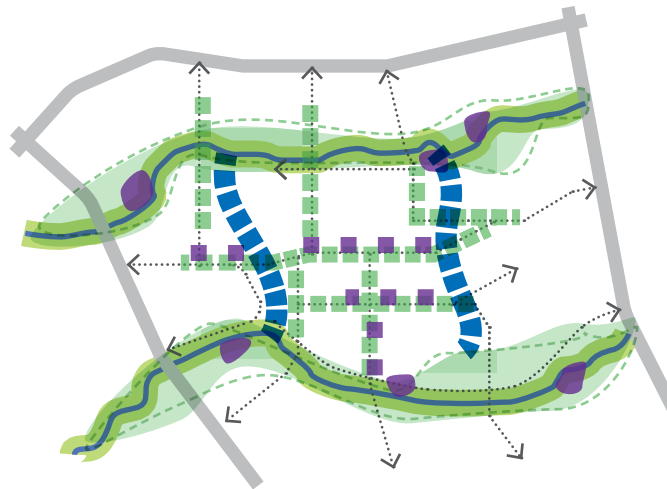
- Streetscape type planting in the campus heart, with planting of a scale and form appropriate for the scale and function of the space.
- Planting has a focus on healthy habitat and waterway quality should be considered for its ecological function.
- Functions such as water cleansing, shade and amenity are expressed in a character appropriate to their location (e.g. native planting used for waterways may be used with an ordered urban character as well as within the campus heart).

healthy habitats



Habitat and mahinga kai

Plantings that attract native bird species and support terrestrial and instream habitat should be provided wherever they fit with landscape character and design principles.

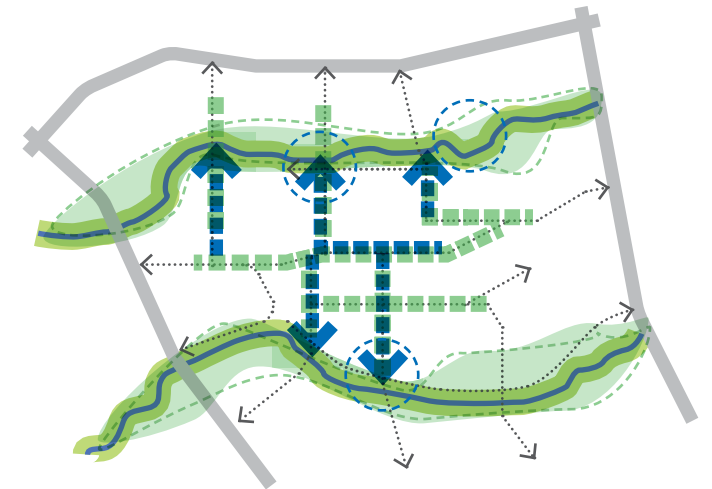


Design considerations:

- The 'Canterbury mix' zone indicated in the planting guide provides the greatest potential for habitat provision and visible reinforcement of mahinga kai values along waterways and 'stitched' into the campus heart at gateway locations. However exotic species that support these values should also be considered where appropriate.

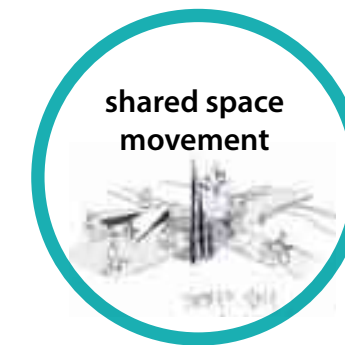
Water cleansing

Plant selection within the campus heart should provide water cleansing properties where possible, and be part of the 'living laboratory' response to a unified campus landscape.



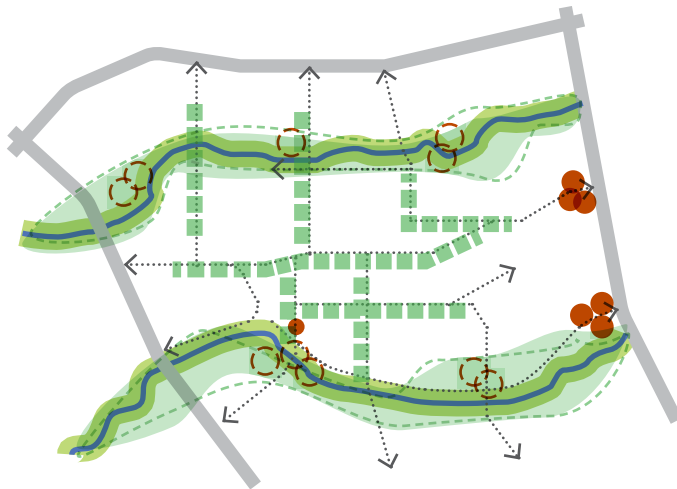
Design considerations:

- Specific areas nominated for plant trials to determine effectiveness of plant species for filtering and cleansing water from buildings and surfaces across campus



Edible campus

Community gardens and orchards can be incorporated in identified locations within the parkland landscape- including within proximity of student accommodation and the wellness precinct to promote healthy eating.

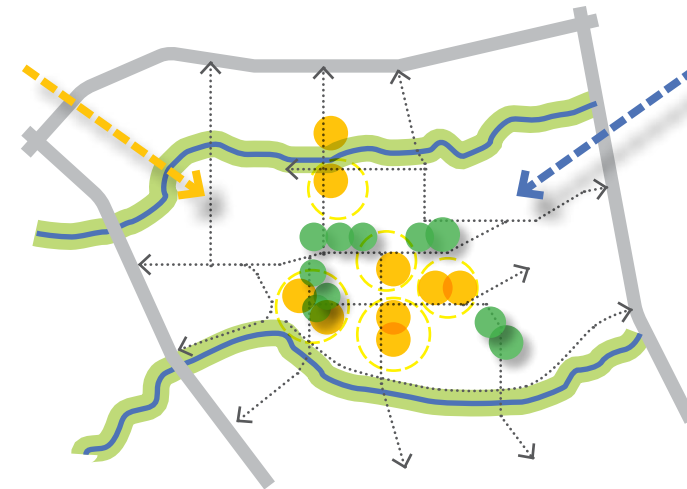


Design considerations:

- Consider alignment with concepts inspired by cultural narratives within the campus core
- Consider the edible landscape and mahinga kai design response to 'orderly frames' for structured planting in the campus heart, to 'messy ecosystems' and in peripheral campus locations.
- Orchard trees chosen for symbolic and form qualities should be incorporated with University parkland entrances as marker species
- In the campus core, mahinga kai species should be selected for their compact form and height and/or punctuation as iconic groupings
- Consider fruiting and production season of plants in relation to academic year

Gathering areas and opportunistic spaces

Groupings of trees should be planted to mitigate prevailing winds within the campus heart. Opportunistic outdoor spaces should be incorporated where possible to retreat from the wind and soak up the sun.

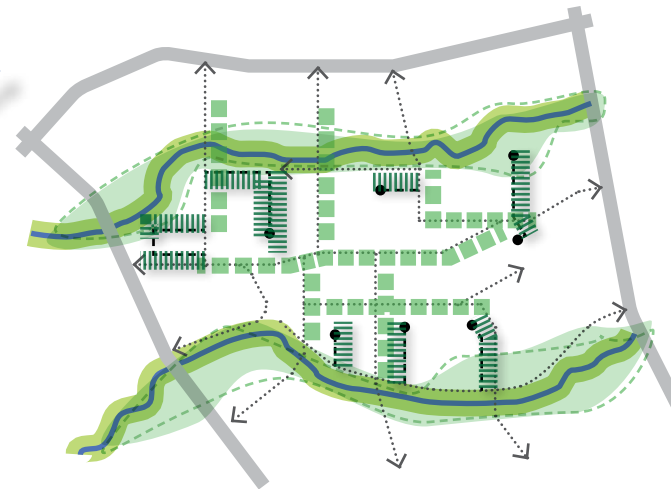


Design considerations:

- Trees should provide both shade and shelter where possible, without compromising functional use of space and solar access.
- Deciduous trees should be chosen for winter campus qualities- colour, seasonality
- There should be no mid-height shrub planting within the campus heart areas that compromise safety and surveillance
- Planting in compact spaces might perform multiple functions (e.g. for water cleansing, shelter and amenity)

Screening

Service vehicle requirements are integrated within a designed landscape response that effectively screens those areas with a combination of constructed and planted screens.

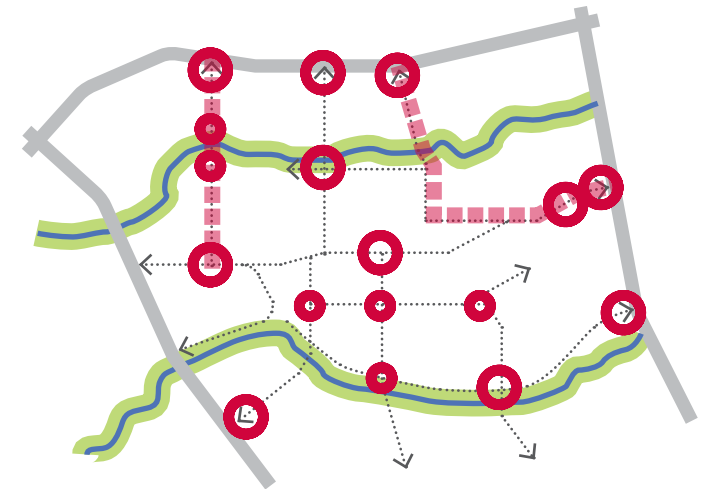


Design considerations:

- Visual permeability should be retained for all plantings not associated with screening or service areas/ back of house
- Visual permeability means an open understory of planting resulting in groundcover planting and tree canopy- rather than dense shrubbery at mid-height or eye-level

Wayfinding

Marker plantings: historically or culturally significant trees noted for their strong form and/or seasonal colour to mark certain locations. Deciduous and native. Includes low growing mass planting to contrast trees.



Design considerations:

- Contrast parkland character of existing entrances with marker plantings of distinctive low mass planting or orchards trees
- Complement entrances with a strong built character with structured marker plantings such as rows, grids or walls (climbers and epiphytes).
- Use marker plantings to identify key junctions and assist with wayfinding through recognisable and repeated cues

6.4 General principles

General principles to do with known issues on the campus.

Proximity to buildings

Issues and challenges

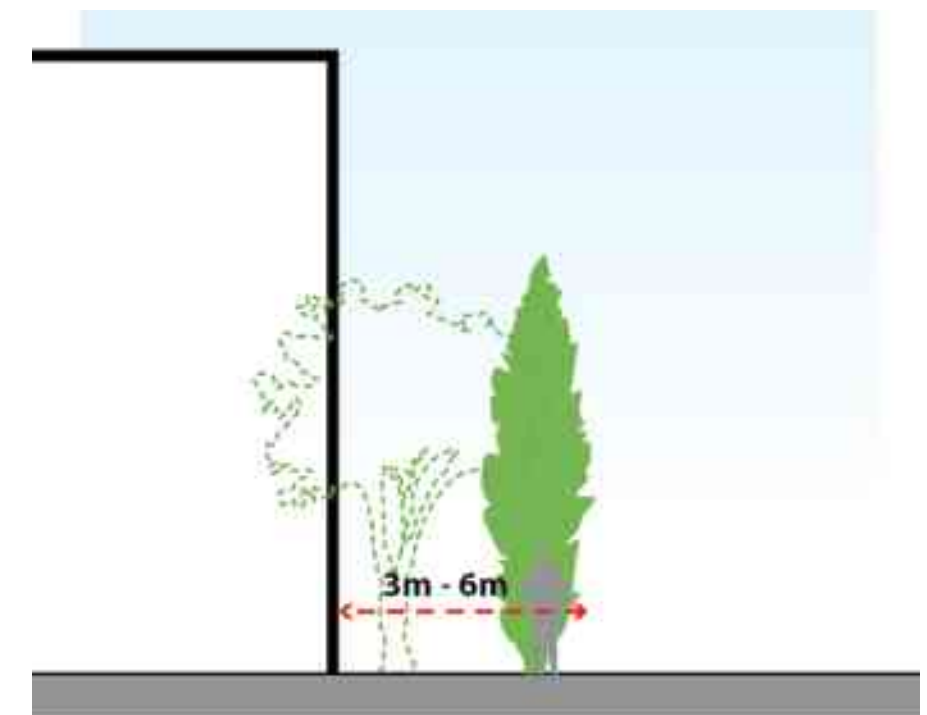
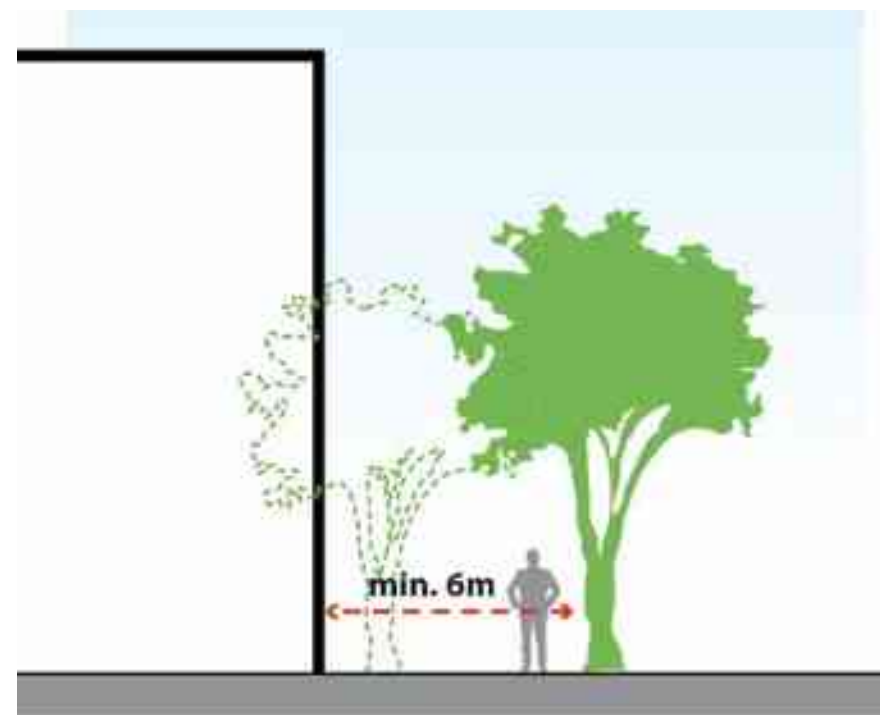
- A legacy of overgrown plantings against buildings resulting in overcrowding and overshadowing.

Opportunities and priorities

- Progressive and staged removal of all tree and large shrub plantings where the trunk is within 6m of a building and where the growth of the trees/shrubs is impacting building service and/or associated footpaths and garden beds. Unless the tree has special significance to the University or other distinctive qualities, and can be accommodated by formative pruning or proposed building modifications and retrofits.
- All new plantings of medium to large trees should be planted so that trunks are a minimum distance of 6m from building edges and rooflines as a rule of thumb - unless the form and growth habit of the tree is upright and/or is a small tree in which case the distance must be a minimum of 3m.

Design considerations

- Undertake assessment of all trees over 6m in height affected by building projects or located within 6m of an existing building. Assess whether any trees may be suitable for transplantation elsewhere within the campus, or where seed stock/ cuttings from parent trees may be collected for future plantings.
- Consider the long term mature form and canopy spread of all proposed new trees, and ensure that the scale and proportion of available space can accommodate proposed species without the tree canopy growing against the building edge or overshadowing internal spaces.
- Trees may not be planted where the urban compactness of campus buildings restricts space for tree planting.



Commemorative Plantings

Issues and challenges

Ad-hoc planting for commemorative purposes across campus.

Opportunities and priorities

Retain existing commemorative plantings, and record/ maintain asset database for future reference. Direct and address all future memorial requests through memorial garden opportunity. Consider UC controlled 'application checklist' of what memorials are deemed appropriate in future.

Design considerations

Ilam Gardens Management Strategy provides options for a suitable memorial garden site and design considerations to inform a future brief.

Locating plantings for research, conservation and teaching

Issues and challenges

Plantings valued for research purposes may have adverse effects on campus amenity and personal safety due to density and form of plantings.

Opportunities and priorities

Existing trial and research plantings are often associated with faculties and are in close proximity for convenience, or to reinforce precinct character (e.g. forestry, sciences, Te Ao Marama). Currently, the scientific or cultural value of these plantings is valued and prioritised over amenity and personal safety (surveillance). To achieve a balance:

- Plantings within the campus heart should prioritise amenity, character, quality and safety to promote vibrant, engaging communal spaces are promoted through visual connectivity and 'urban buzz'.
- Plantings within waterways/ greenways character zones /Canterbury mix' planting zones should prioritise Ecosystem Services, cultural values, conservation and research, and waterway health and habitat

Design considerations

- Consider relocating plant collections valued for scientific research and conservation where they do not support these vpriorities. This may be done over time, and some suitable species may remain as foundation planting.
- Explore opportunity to partner with Christchurch Botanic Gardens for potential satellite locations, plant collections and trails that continue scientific research and conservation initiatives on and off site.
- Support planting strategies for the wider Otakaro-Avon planting scheme endorsed by Matapopore (e.g. eco-system services of plants that heal, cleanse, nourish, fascinate, innovate)

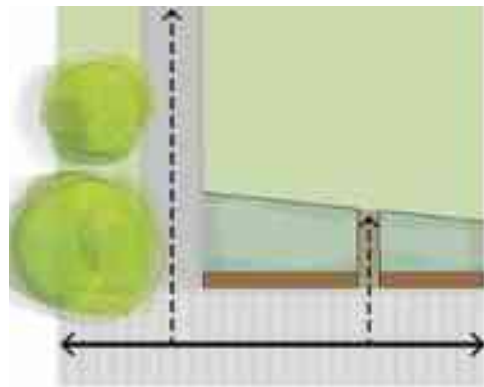
6.4.1 Planting design principles

The following planting principles are intended to assist with design and arrangement of planted areas, particularly in relation to:

- amenity
- shelter and sun
- safety - CPTED
- wayfinding
- water cleansing

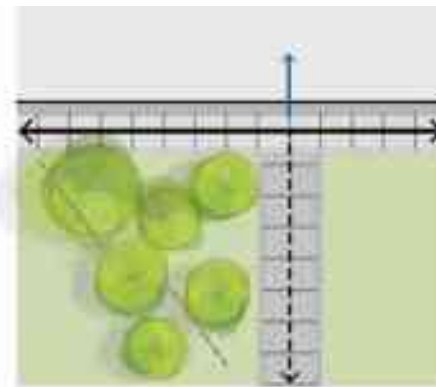
KEY

- ↔ PRIMARY MOVEMENT PATH
- ↔ SECONDARY MOVEMENT PATH
- ↔ VIEWS OUT
- ← PRIMARY BUILDING ACCESS



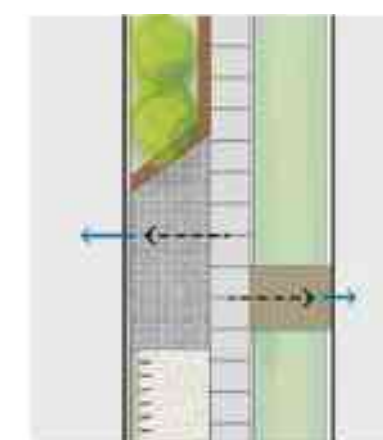
University Street Edge

- Marker trees at key corners
- Native/exotic tree species with good form, low-maintenance, and allow sunlight into the campus
- Native low planting /water cleansing along university street with defined structural edge, integrated into street furniture
- Access ways cut through low planting



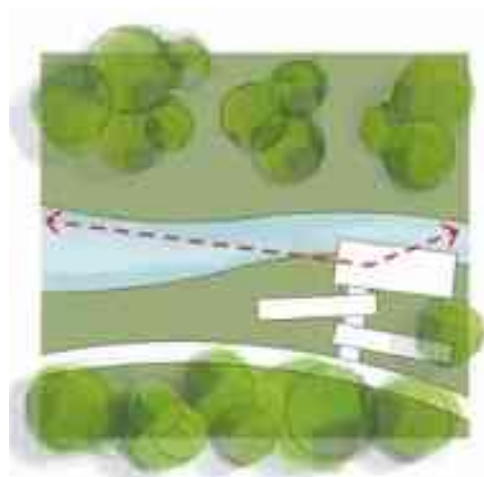
Wind protection and shade in campus heart

- Clusters of trees positioned to create pockets of wind buffer
- Open edge from paths onto lawns
- Maximise visibility and views across spaces



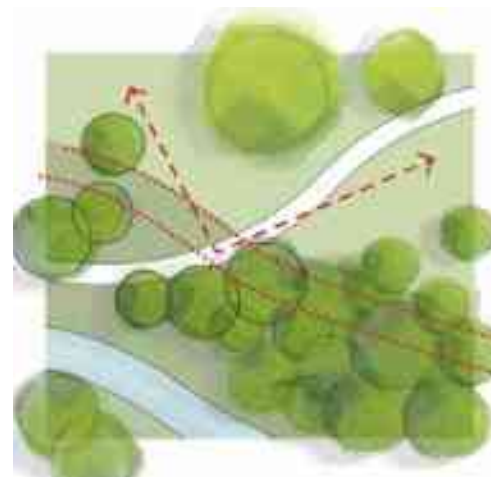
Activated Laneway

- Pockets of planting with strong defined edges on typically sunny sides of lanes
- Raised planting edges help to form seating and gathering spaces at key entrances and intersections
- Native water cleansing planting typically on shady side of lanes, with defined edge
- Planting may be integrated with structural shelter interventions (e.g. climbers or epiphytes as 'space savers')



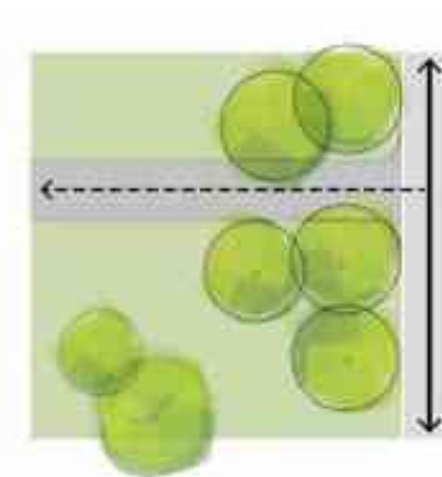
Stream Access and Track

- Indigenous natives to be planted to the areas min. 5m either side of all waterways
- Trails weave through native planting, with moments of openness and enclosure
- Allow views along stream from access points
- Native riparian planting used for bank stabilisation and riparian restoration - typically low growing interspersed with groupings of taller shrubs or trees (plant islands)



Canterbury Mix to Parkland

- Boundary between 'Canterbury mix' planting and 'parkland' to be clearly defined, with low planting and groupings of native trees mixing into parkland
- Clusters of marker trees define a transition or gateway
- Trees open up to allow views out at transition points
- Managed buffer zones to ensure no mid-height shrubs along parkland edge.



Marker Planting

- Large marker species grouped at main entrances and intersections
- Trees in distinctive groupings can be used for wayfinding
- Make use of UC signature trees and culturally significant species, repetition of visual cues (e.g. same species or composition)
- Groupings of either natives or exotics
- Opportunity for seasonal colour

6.4.2 Parkland buffer planting principles

Planting principles to apply to the parkland buffer at Clyde Road and around Dovedale Campus.

Christchurch District Plan landscaping requirements

The Christchurch District Plan requires a landscaping strip to the area adjoining the road boundaries of all sites. Refer to section 21.7: *Special purpose (tertiary education) zone* and 21.7.2.3.6: *Landscaping*. The strip should be in accordance with the following standards:

- Minimum width - Dovedale site - 5m.
- Minimum width – UC east of Ilam Road site, UC west of Ilam Road site, Ara Institute of Canterbury Sullivan Avenue site, and Ara Institute of Canterbury Hassals Lane site – 1.5m.
- Minimum density of tree planting – one tree for every 10m of road frontage or part thereof.

Existing Issues

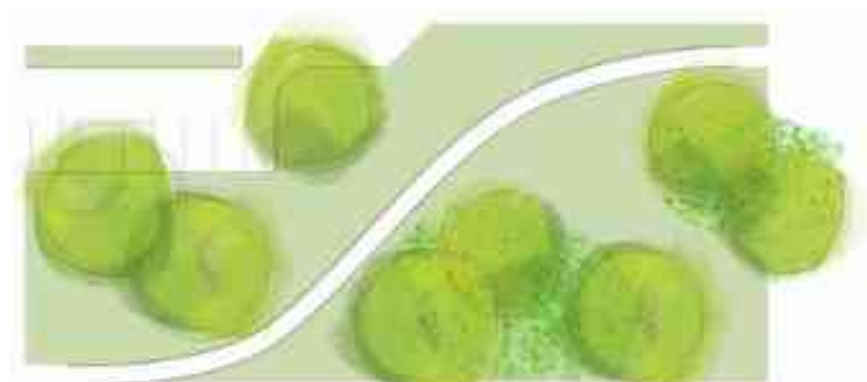
The parkland buffer at Dovedale and Clyde Road currently consists of a border of dense plantings of exotic deciduous trees in gentle grass mounds. The density of the tree planting is affecting the health, condition and form of individual trees. The grassed areas are degraded and tracked out by pedestrian desire lines and tough growing conditions caused by roots and low light penetration.

Parkland buffer - key principles

- Incorporate parking into parkland buffer (deepen parkland edge)
- Formalise desire lines with formed path or trail, considering appropriate path material and construction over or around tree roots
- Plant trees in clusters on mounds, with longer grass or bulbs beneath
- Mown grass or swales between tree clusters

Treatment of existing parkland buffer

- Thin out dense bands of tree planting into staggered groupings or clusters
- Layer in low mixed plantings along edges in specific locations where screening is required, or to discourage informal pedestrian tracking
- Create layered effect with generous parkland buffer to allow space and suitable growing conditions for existing trees while maintaining privacy and amenity for residents



Principles: incorporate car parking, formalise desire lines, and cluster trees



Principles: thin out dense bands of trees



Principles: Low mixed plantings, create layered effect

EXISTING BUFFER CONDITIONS



6.4.3 Existing trees – campus heart

Analysis of tree conflicts with the proposed Masterplan in the campus heart.

This is an indicative representation of the requirement for a significant tree survey and rationalisation within the campus heart.

Trees should continue to be an important feature of the campus heart, to help soften the scale and brutalist forms of buildings. Existing trees should be assessed individually for removal based on any proposed design.

New tree planting should be guided by:

- Integrate with the design of the campus heart spaces
- Contribute to cultural narrative interpretation
- Visual impact
- Size of mature canopy
- Growth habit
- Root zone constraints
- Environmental contribution (habitat shade, shelter, etc.)

Ref: Appendix 11.1 Significant trees on campus.



EXISTING TREES - NO CONFLICT



TREES OVERLAPPING BUILDING FOOTPRINTS



TREES TO BE ASSESSED AND POTENTIALLY REMOVED FOR CONSTRUCTION



TREES CONFLICTING WITH PATHWAY/BOULEVARD ALIGNMENTS



CAMPUS HEART TREE SURVEY PLANTING AREA

Note: refer to appendices for maps and list of commemorative and endangered trees on campus.



Existing planting – campus heart

6.4.4 New planting: exotics and natives

New planting should seek to reinforce and complement character zones and existing planting patterns on campus that support this approach.

Where native planting is used, particularly for waterways and reinforcement of Ngai Tahu core principles (refer to cultural narrative in Section 3: Themes), those plants should be indigenous to the Canterbury region and specific to landscape types (wetland, stream bank etc), with species selection informed by native planting guides endorsed by Matapopore. Gradual replacement of non-indigenous native species should be considered, unless they have proven scientific value or significance to the University.

New, replacement and successional tree plantings should maintain a balance of exotic and native species. It is important that exotic tree plantings are retained where those trees have:

- Proven to grow successfully in parkland areas, and contribute to parkland character
- historical relevance – such as rural origins or garden associations
- portray the University Story (such as signature species of pin oak, lime or totara, and rhododendron and azalea plantings connected to Edgar Stead),
- achieve the desirable sense of grandeur and scale at key gateway locations,
- been planted for commemorative purposes and cannot be relocated
- allow light into the campus during winter (i.e. deciduous trees), or shade/ shelter on lawns where desired.
- Replacement of exotic trees with native tree species may be appropriate where:

- there are maintenance, condition or performance issues,
- there are pest species or prolific seeding plants- such as silver birch known to cause allergic reactions
- the character and theme of the space or entrance would be more strongly portrayed by 'notable natives' such as totara, matiai, kahikatea
- supplementary planting of native species, or eventual replacement of exotics at the end of their lifespan
- trees must be removed to accommodate building projects
- teaching and learning environments would be best supported by the presence of natives for scientific and sustainability research and monitoring
- waterway restoration and ecological habitat requires native planting (indigenous to the Canterbury region), in accordance with best practice and planting guides for the Avon River and Christchurch waterways.
- there are strong cultural drivers for natives in particular locations, including stream corridors and mahinga kai habitats

7. Hardscape principles



isthmus

WOODS
BAGOT.



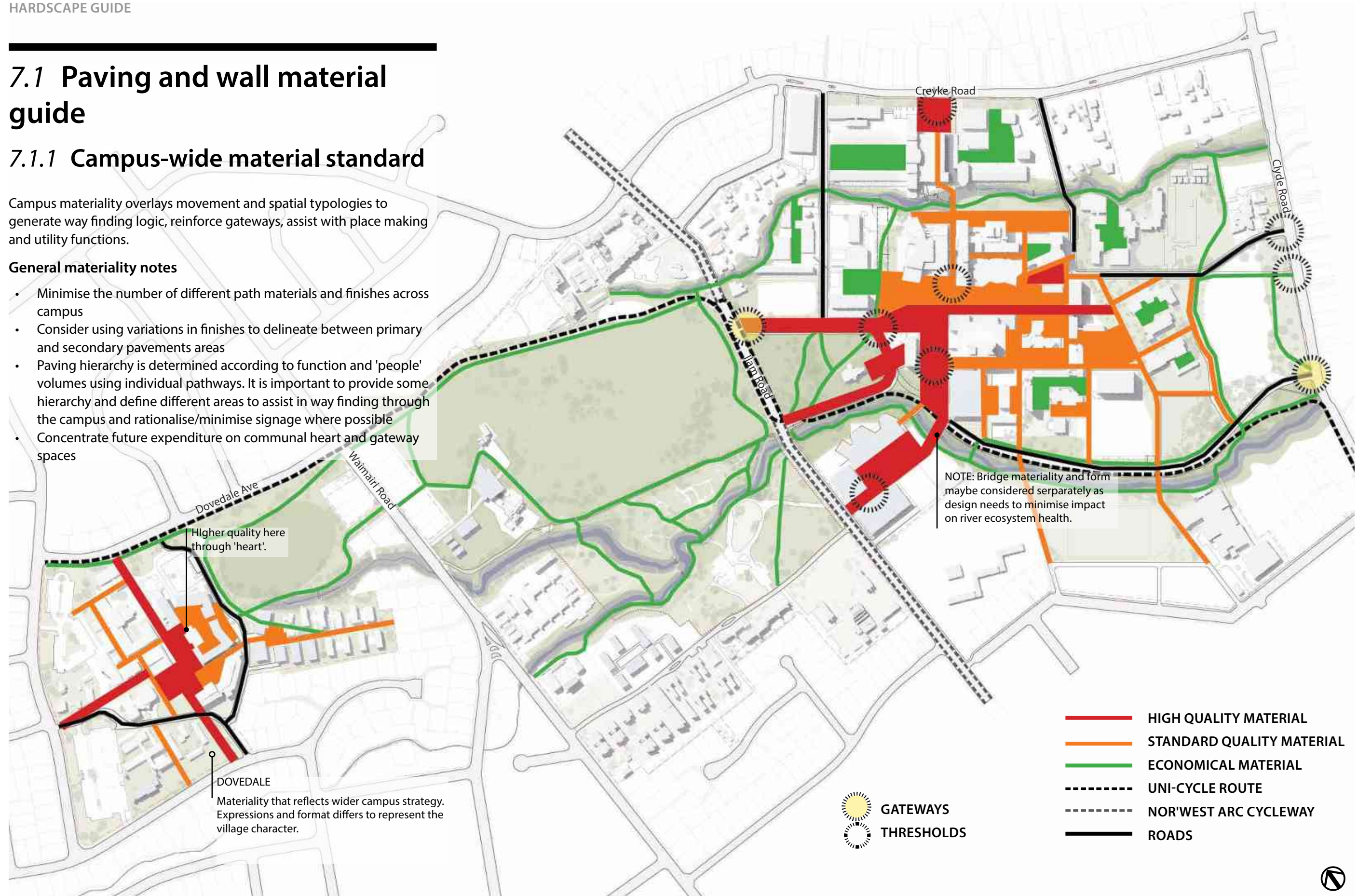
7.1 Paving and wall material guide

7.1.1 Campus-wide material standard

Campus materiality overlays movement and spatial typologies to generate way finding logic, reinforce gateways, assist with place making and utility functions.

General materiality notes

- Minimise the number of different path materials and finishes across campus
- Consider using variations in finishes to delineate between primary and secondary pavements areas
- Paving hierarchy is determined according to function and 'people' volumes using individual pathways. It is important to provide some hierarchy and define different areas to assist in way finding through the campus and rationalise/minimise signage where possible
- Concentrate future expenditure on communal heart and gateway spaces



7.1.2 Campus-core paving and wall material guide

Boulevard

- High quality treatment
- Formal and active character

The Loop

- High quality treatment
- Formal entrance character

Lane

- Standard quality treatment
- Main lanes : may include some high quality detail zones at building thresholds or gateway points & external street connections

Plaza / Active Hubs

- High quality treatment
- Plaza space for multipurpose use
- Relationships with key buildings

Thresholds / Social spaces

- Standard quality treatment
- Spaces for gathering in groups or community activities

Entries and Gateways

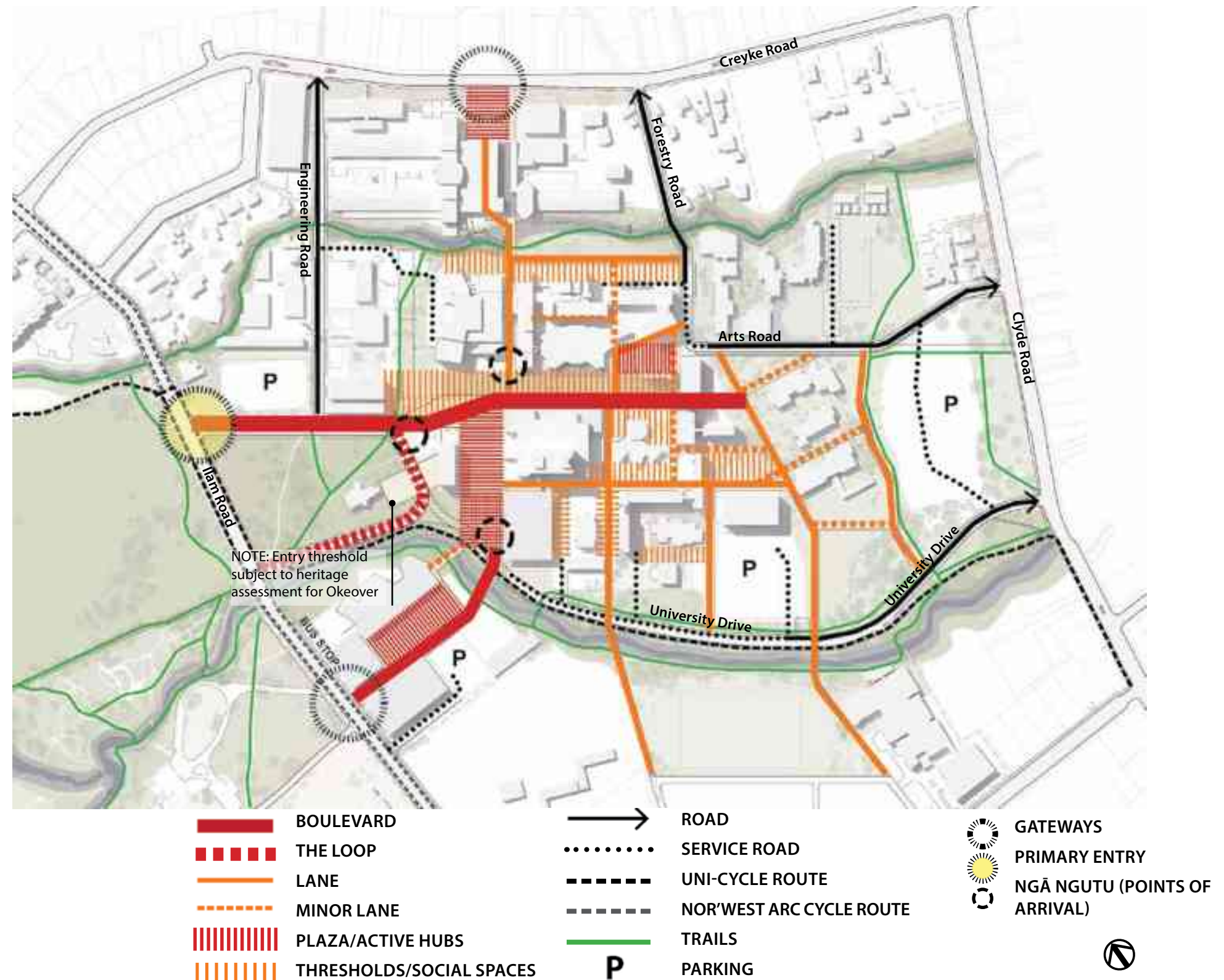
- High quality treatment
- Detailed gateway treatments with opportunities for cultural interpretation.

Trails and Cycle Routes

- Cost effective material finishes

Roads and Shared zones

- Slow speed roads providing access to parking area, with pedestrian footpath to side of road.
- Shared zones clearly differentiated from other pedestrian or vehicle priority zones.



7.1.3 Paving and wall typologies

Entries and Gateway treatments

- Detailed / custom elements for cultural narrative
- Material variation and integration with adjacent finishes
- Unit paving- high quality variation of finishes/format to delineate gateways
- Compatibility with signage and wayfinding (refer Wayfinding Strategy).



High quality

- High quality unit paving/large format paving
- High quality wall materials such as stone
- Suitable for high pedestrian traffic & shared vehicular traffic where identified
- Identity / Place making graphic treatment



Standard quality

- Concrete or asphalt or moderate quality unit paving
- High quality material integration in certain areas i.e. thresholds
- Permeable paving to tree surrounds and to carparks.



Economical

- Cost effective material treatments
- Asphalt with concrete edge for cycle paths
- Crushed decomposed granite with edge for trail paths.



7.1.4 Furniture typologies

Statement

Campus furniture responds to the winter campus landscape, generating and encouraging social interaction, learning opportunities and respite, and reinforcing spatial hierarchy

General furniture notes

- Correspond to user requirements, climate, favorable proximity to paths, building forecourts and amenities.
- Employ a family of material, finish, colour and design
- Locate furniture in favourable climatic zones. i.e. wind protected areas with suitable solar access
- Restrained selection of materials to be robust, vandal resistant, durable.

Plaza and Boulevard (high quality)

- Grouped for interaction - social seating
- Both free standing and integrated
- Precinct identity / place making
- Longer stay - 'warmer material' e.g. colour/ material timber



Laneways & Smaller Social /Learning spaces (standard - high quality)

- Respite / intimate
- Sitting edges to garden beds
- Shorter stay / chance interaction
- Integrated into landscape elements
- Combination of bespoke/proprietary



Parkland

- Located along circuit paths and cycle networks
- Considered orientation for privacy/ vistas/ security
- Robust, low use /low maintenance



Temporal (Tactical Urbanism)

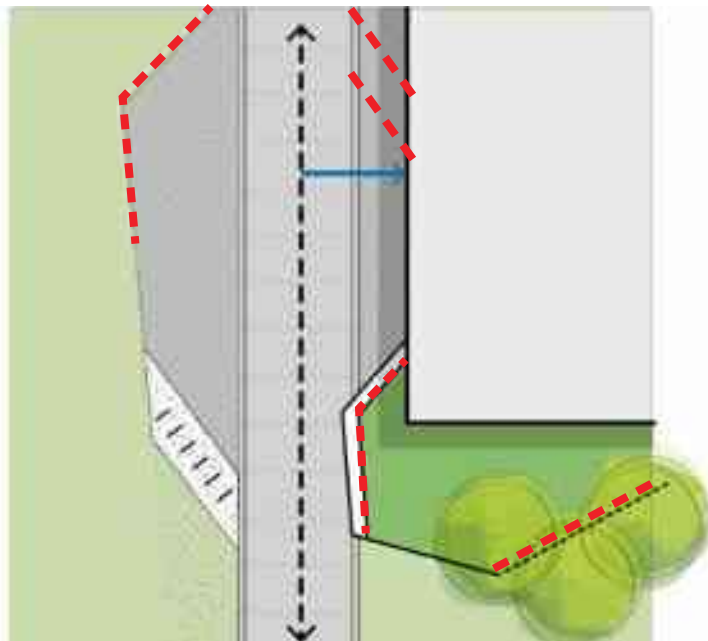
- Loose / movable (student owned)
- Satellite hubs and parkland
- Bean bags, deck chairs



7.2 Activated laneways

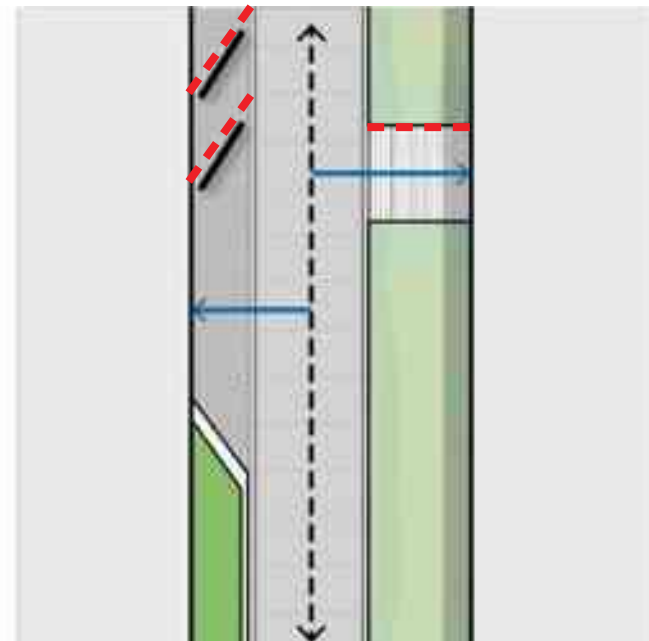
7.2.1 Design principles: activated laneways

Activated laneways provide opportunistic meeting, resting, playful and learning spaces along movement pathways by addressing interstitial and transitional relationships to building edges (thresholds or *mahau*) and the inclusion of furniture, plantings, bike parking, shelter and games to encourage habitation of the wider campus. Laneways, drainage and planting solutions also have an important function in filtering and removing contaminants from buildings before they enter the waterways.



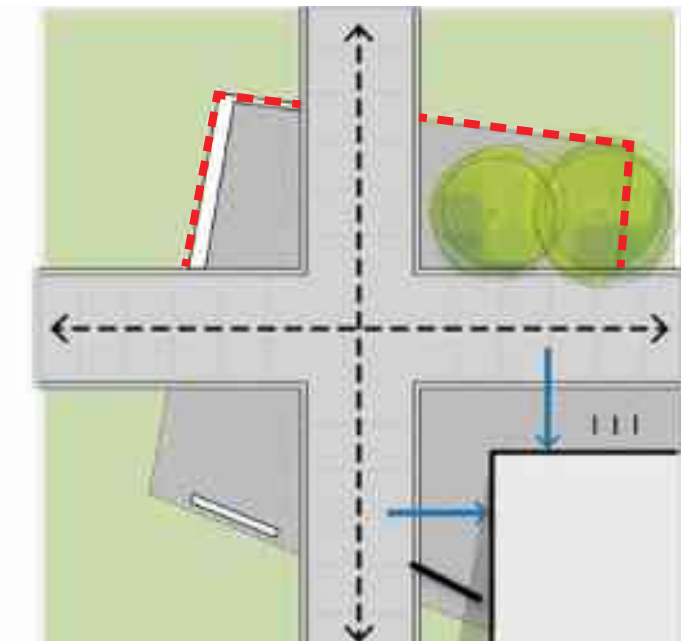
Scenario 1: Laneway onto open grass

- Spill-out space at key building entrances
- Connect laneway to open grass 'nohoanga' space with defined edge and accessible transition
- Integrate furniture, cycle stands, games (e.g. table tennis, pétanque) and amenity with landscape formed edge
- Material differentiation to mark moving and gathering spaces
- Mark corners with low planting and small marker trees



Scenario 2: Laneway between two buildings

- Widen lane to create forecourts to buildings at key entrances
- Facilitate meeting, spill-out and gathering around entrances
- Cluster seating, cycle stands and exhibition space in spill-out areas
- Rain gardens and planting for contaminant filtration on shady sides of lanes
- Exploit sunny areas for seating



Scenario 3: Laneway intersection

- Opportunistic use of intersection dynamics to create small localised plazas
- Expand out to allow gathering, sitting, meeting to occur
- Define edges with furniture, shelter, and planting
- Denote building entrances and create visibility into ground level of buildings as per the University of Canterbury Campus Masterplan, which recommends adapting ground floors for social and communal use
- Use planting to mark but not obscure intersection and provide pockets of shelter

7.2.2 Activated laneways: shelter

Sheltered nooks and sunny spots

Shelter from the predominant cold winds can be created in pockets along laneways, plaza and boulevard by integrating nooks and sheltering screens into edges and planting

Principles for locating shelter

- Relate to building edge and integrated design of these spaces
- Opportunistically occur where space allows, i.e. in wider laneway section
- Active uses such as table tennis should be designed and located with thought given to noise sensitive areas such as lecture theatres



Coyoacán Corporate Campus, Mexico City (DLC Architects)



The Goods Line, Sydney (Aspect Studios)

7.3 Accessibility principles

[Manaakitanga] - The master plan embraces equitable access across the campus, ensuring a welcoming and safe journey with dignity for everyone. Key areas that require attention include prominent entry points, communal campus buildings, main entrances and primary pedestrian routes. The accessible access to Matariki and Puaka-James Hight will need to be reconciled with the removal of the podium and adjustment of levels through the Plaza. This supports health and wellbeing objectives for the campus community and includes the following guidelines and principles:

- All spaces and movement routes are welcoming, shared, universally accessible and inclusive
- Landscape around new builds will marry with 'at-grade' ground floor access to buildings for all new builds and where possible
- An accessible journey with dignity through campus should be indistinguishable from an able-bodied journey
- Where ramps are required they should be prominent and preferable or 'equal to steps, and seamlessly integrated with the landscape
- Where there are spatial constraints for ramps, an alternative route should be provided
- Textural changes in surfacing and colour cues should assist with signalling entrances, thresholds and interstitial spaces, movement vs resting spaces, grade changes, and key wayfinding locations
- Clear sightlines, lighting and path widths should assist with safe shared path journeys
- Key pathways should be well lit for safe evening travel

Key areas where accessibility should be prioritised

- Prominent entry points
- Communal campus buildings
- Main entrances
- Primary pedestrian routes



7.4 Art selection and placement guide

Artwork on campus will require specialist curation based on the following typologies:

Cultural

- Mana whenua, Pasifika and European/ colonial
- Express narrative
- Culturally responsive and appropriate locations
- Reflect historical significance

Educational

- Illustrate educational function
- Interpretive
- Functional component, dynamic
- Permanent & temporary

Temporal / Tactical Urbanism

- Ephemeral / semi-permanent
- Student display - exhibition or symposium
- Interactive / engaging
- Facilitate community engagement
- Murals on hoardings
- Seasonal / event based
- Murals on hoardings

Integrated into landscape

- Permanent
- Identity markers / place making
- Interactive / evolving
- Memorial/ historic interpretation
- Artful infrastructure

Identity markers should be used sparingly not as a wayfinding device and not to mark trails.

Opportunities for selection and placement of artwork on the campus may range from the appointment of an artist for a specific work or design collaboration, or the curatorial programme for a space where evolving student-led exhibitions or cultural displays may occur. Opportunities should be assessed as part of integrated project scoping.



Historical - Ernest Rutherford memorial



Abstract, contemporary, interactive, useful



Cultural



Artful Infrastructure



Temporal (Tactical Urbanism)



Education on display

7.5 Cycle stand infrastructure guide

7.5.1 Campus heart cycle stand strategy

A suite of cycle stand options within the zones indicated provides flexibility to support the University of Canterbury cycle strategy, transport 'mobility options toolkit', and meet minimum District Plan requirements. Landscape integration is essential to accommodate the necessary numbers of cycle stands in convenient locations, whilst maintaining the quality and character of the campus setting. Secure covered storage is best fully integrated within building projects (Refer to Transport Strategy).

Customised

Streetscape quality, functional cycle racks located in activated core communal areas and high profile entrances.

Standard

Fixed or mobile standard 'Downtown' cycle rack already in use at UC, arranged in larger groupings, in laneways, at service entrances and 'back doors'. Mobile racks can be clustered for events.

Covered

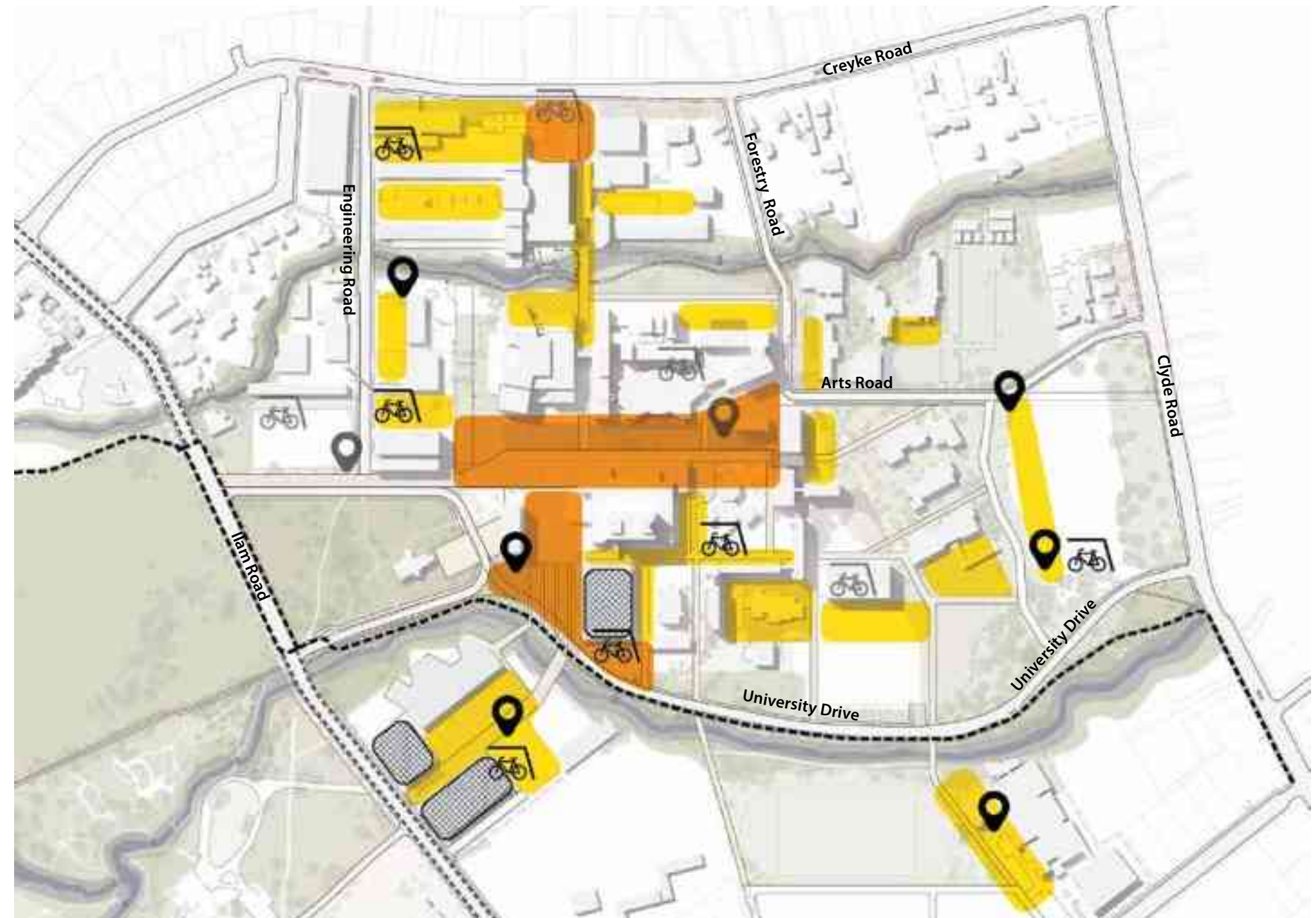
Covered cycles stands, free-standing structure located in association with boulevards and building edges

Secure

Larger, secure spaces with stacking racks integrated into architectural briefs for new builds.

Other

Bike share hubs, possible public repair and air pump stations. Central spots that could be used for pop-up cycling events.



- | | | | |
|---|------------------------|---|--|
|  | CUSTOMISED |  | EXISTING BIKE REPAIR/PUMP |
|  | STANDARD |  | UNI-CYCLE ROUTE |
|  | COVERED |  | NORTHERN ARC CYCLEWAY |
|  | EXISTING COVERED |  | POTENTIAL INTEGRATION OF SECURE CYCLE STANDS WITH ARCHITECTURAL BUILDS |
|  | BIKE SHARE/REPAIR/PUMP | | |



7.5.2 Dovedale campus cycle stand strategy

The Dovedale cycle stand strategy follows the same principles as the Campus Core strategy. Covered and secure stands should be provided near student accommodation, and integrated into new builds where appropriate..



7.5.3 Cycle stand typologies

Customised Rack

- Urban streetscape quality
- Convenient locations
- Clustered in activated areas
- Used for short stays
- Integrated with linear edges and furniture suite
- In landscape project briefs



Standard Rack

- Standard UC rack already in use: 'Downtown Rack'
- Option - mobile/temporary
- Larger groupings
- At service entrances
- Pop-up events and tactical urbanism opportunities (could retrofit standard rack)



Covered

- Free standing structures
- Located strategically near high occupancy areas
- Used for longer stays



Other

- Rental bike system
- E-bike charging stands
- Bike repair/pump stations and pop-up bike workshops



Secure

- Larger, secure and stackable spaces integrated with architecture

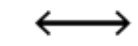
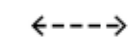


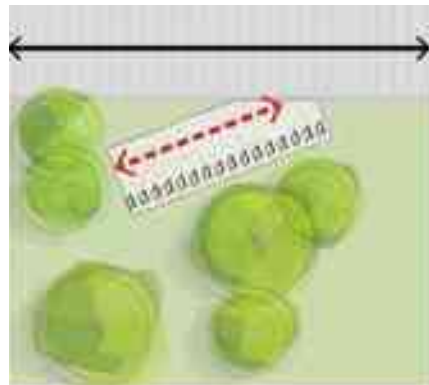
7.5.4 Cycle stand design principles

Investigating principle typologies for cycle infrastructure parking locations

Overall Principle: Integrate with lighting for safety - either from adjacent buildings (security lights may be used for service lanes/back of house) or laneways, or feature lighting at entrances and primary movement paths.

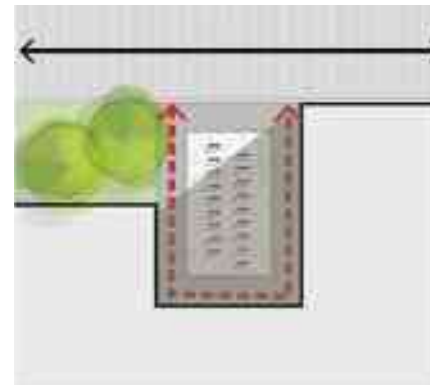
KEY

-  PRIMARY MOVEMENT PATH
-  SECONDARY MOVEMENT PATH
-  ACCESS BETWEEN MOVEMENT PATHWAY AND CYCLE INFRASTRUCTURE
-  PRIMARY BUILDING ACCESS



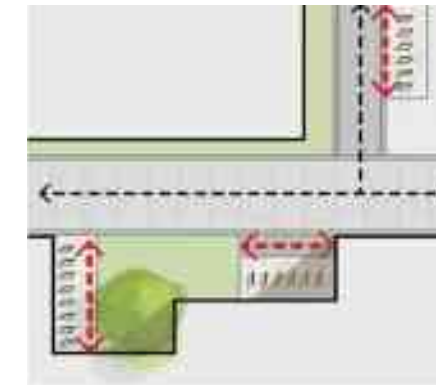
Offset from movement paths

- Among planting
- Visible and safe
- Connecting to main movement pathways
- Pedestrian access



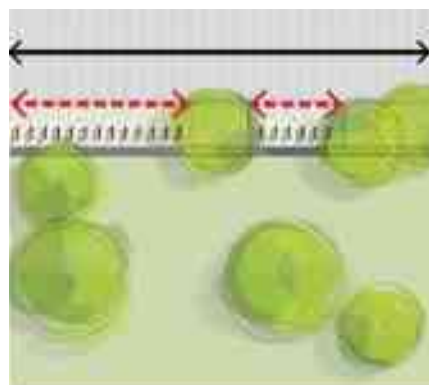
In service lanes/ back of house

- Efficient blocks to maximise number of cycle stands in available space
- Line marking to define and ensure circulation space retained.



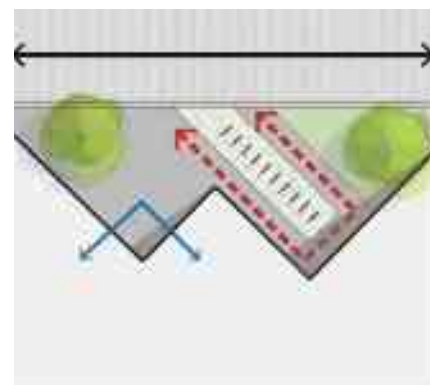
Smaller pockets in laneways

- Small clusters of cycle stands within laneways
- Separated by planting or seating



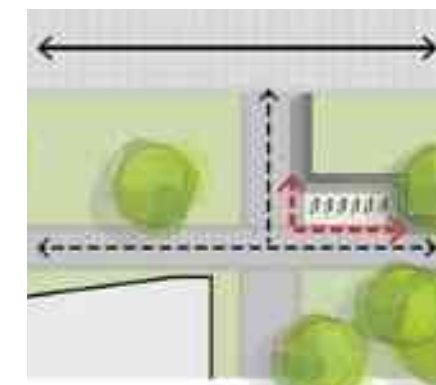
Parallel to movement paths

- Linear sections of stands separated by planting
- Change in surface material
- Against an edge - e.g. low wall or planting



At building entrances

- Set back from entry forecourt but with convenient access.
- Maintain visual access from inside building but physical separation from windows and doors



Off primary movement paths

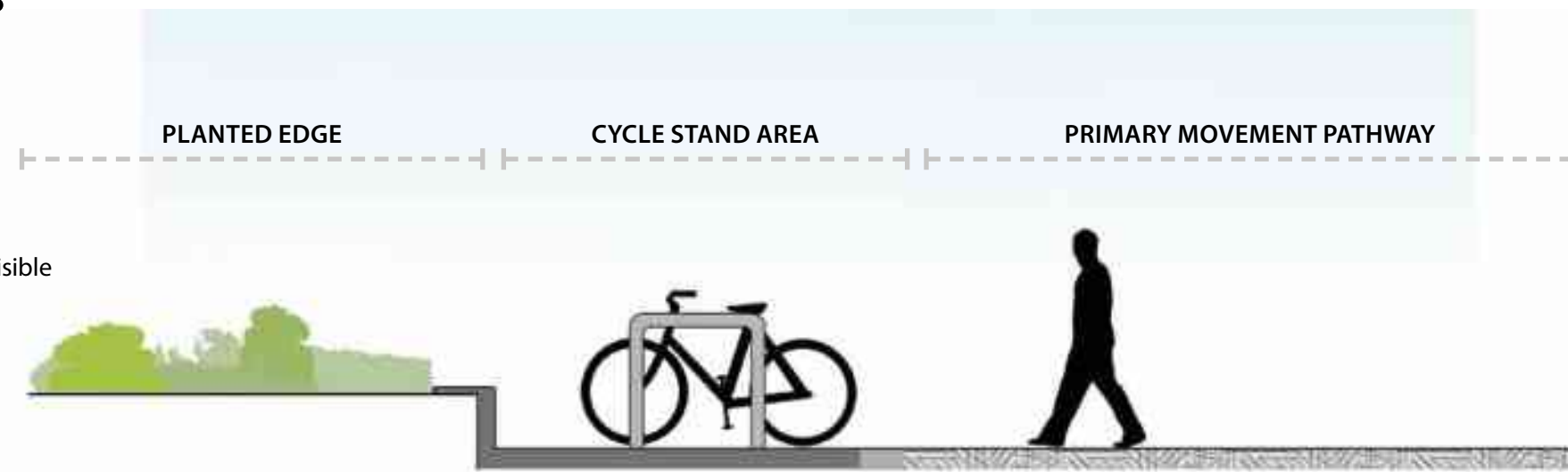
- Offset cycle stand lines from view
- Close proximity to entrances
- Notching cycle stands into building eaves and undercrofts for cover
- Bookend cycle stands with low walls, seating and planting.

7.5.5 Cycle stand design principles

Investigating principle typologies for cycle infrastructure parking locations

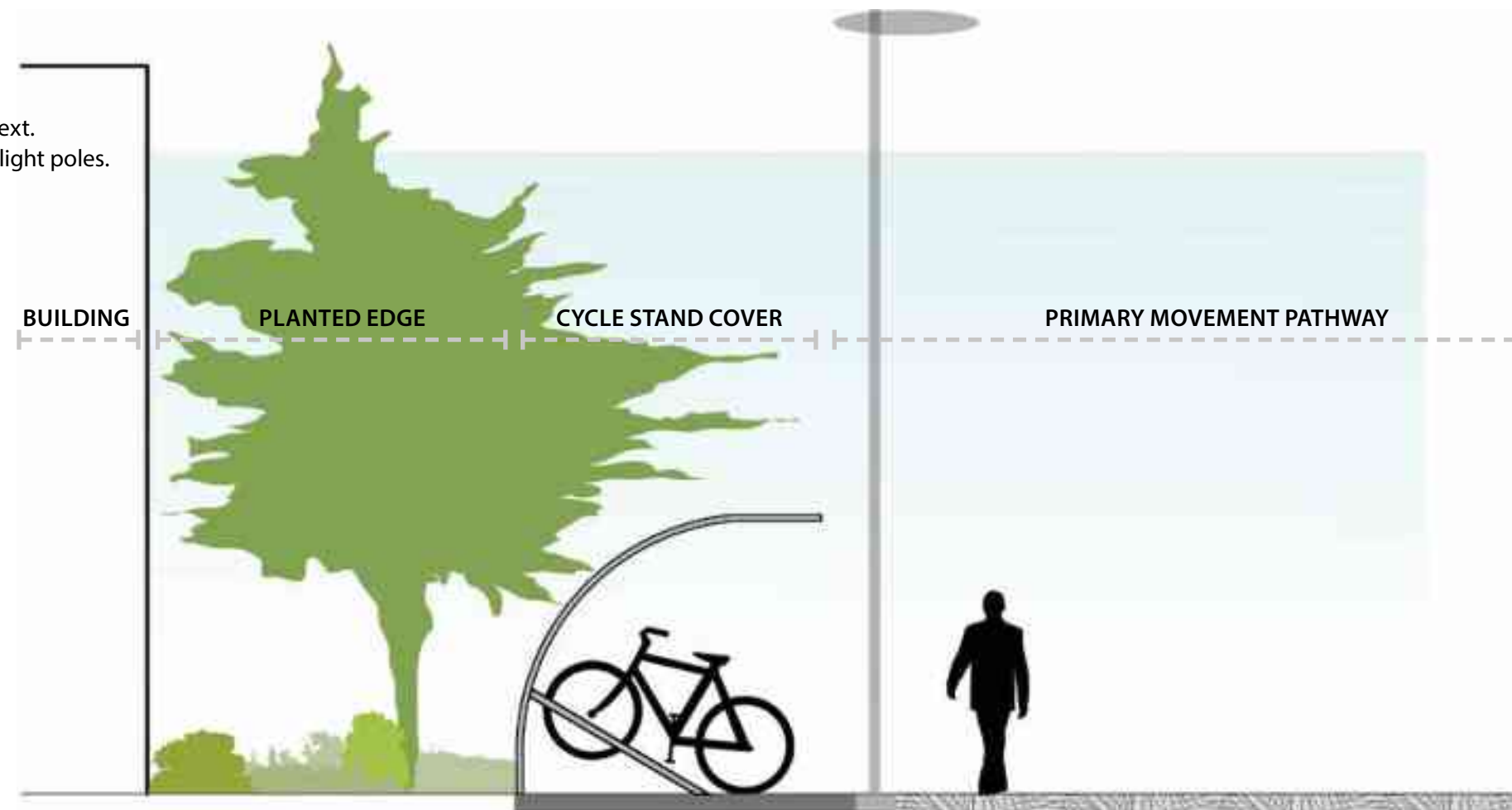
Integration with edges

- Integrate bike stands with edges in commercial and highly visible areas



Integration with structure

- Integrate covered stands where there is scale and context.
- Integration with buildings and other elements such as light poles.



8. Ilam Gardens management strategy



isthmus

WOODS
BAGOT.

360°

8.1 Introduction and purpose

The Ilam Gardens Management Strategy aligns with the Campus Master Plan and the Landscape Master Plan. It acknowledges the unique character of Ilam Gardens within the wider Campus landscape context and provides recommendations for future activity on the site. It is not intended to be a Conservation Plan or Heritage Management Plan, which is a separate piece of work that the Landscape Master Plan recommends be undertaken.

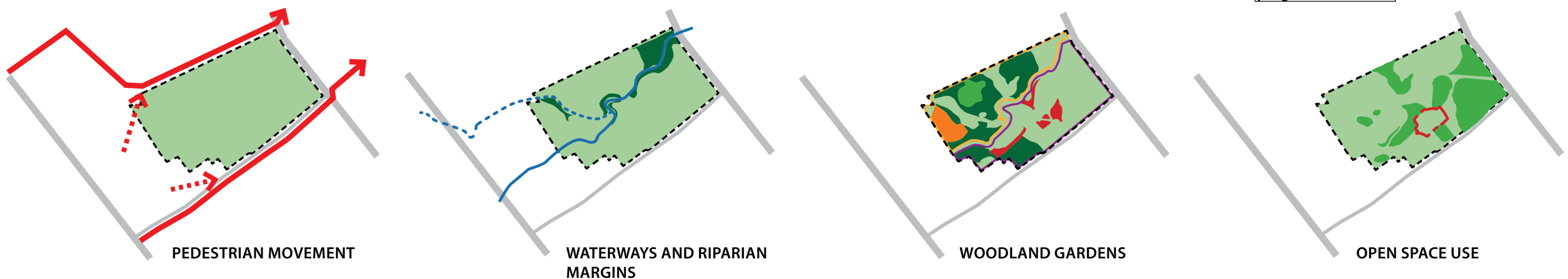
8.1.1 Audience

The Management Strategy provides guidance and tools for addressing operational pressures on Ilam Gardens, recognising matters of immediate concern such as:

- Wear and tear from pedestrian commuter routes and some informal routes that result in damage
- Current and appropriate future events for students, staff and public
- The location and design parameters for a new memorial site
- The condition and safety of the boundary interface with Ilam Fields

The Strategy provides recommendations to operational staff tasked with managing and maintaining Ilam Gardens and programming and booking events. The Strategy also informs future funding priorities for University of Canterbury and the Ilam Gardens Trust, and design considerations for scoping future project briefs.

MANAGEMENT STRATEGY LAYERS



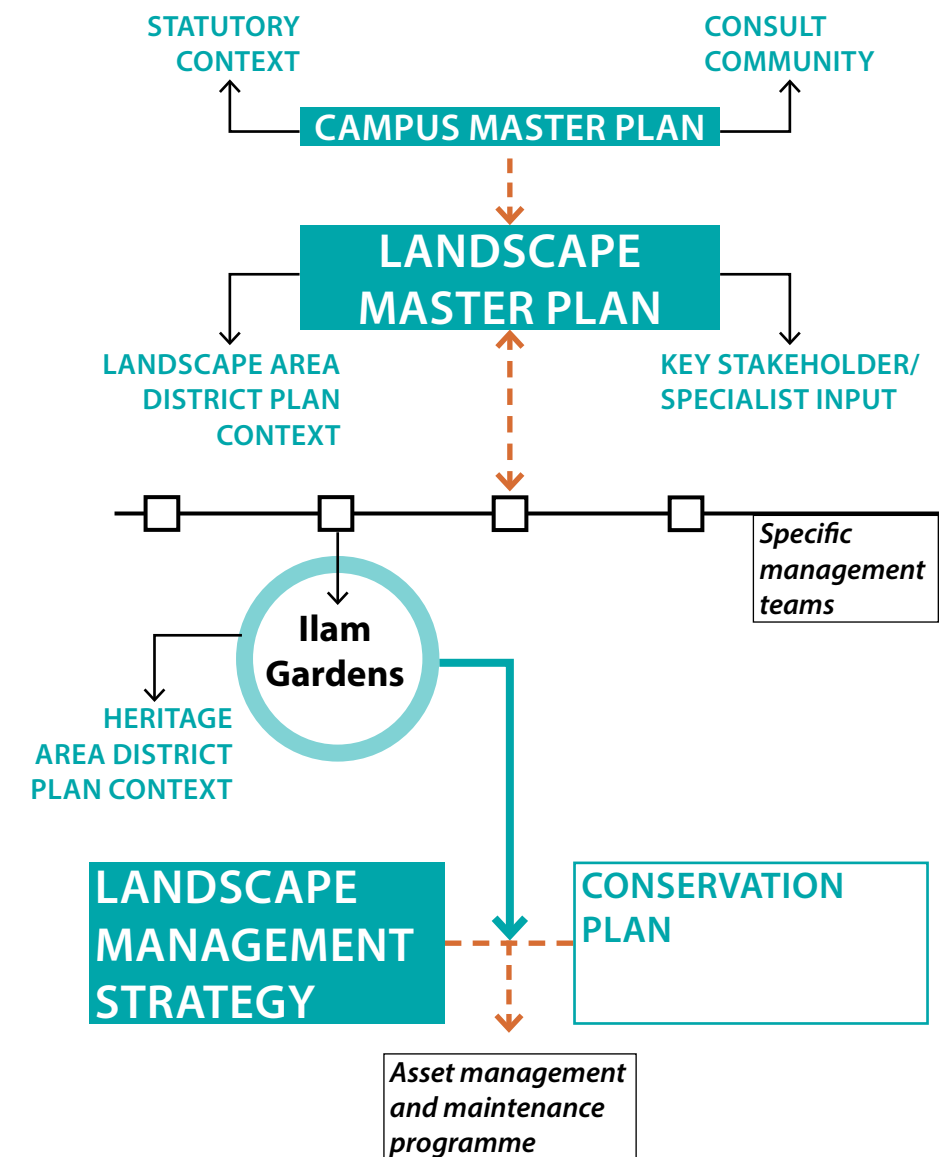
8.1.2 Structure

The Strategy provides an overall management framework for Ilam Gardens, while a Conservation Plan / Heritage Management Plan would provide an assessment of surviving heritage fabric and its significance, and proposals for long term management of these items. Both documents will inform and assist with future consenting requirements.

The Management Strategy divides landscape character, use and activities into 4 layers (as illustrated below):

- Pedestrian movement
- Waterways and riparian margins
- Woodland gardens
- Open space use (including memorial site options and recommendations)

The Strategy scopes particular issues, opportunities and design and management considerations to be advanced, and sets these out in a matrix accompanying each layer. Recommendations are then made to inform future detailed proposals (or business cases), and asset and event management and maintenance programmes. For example, the Management Strategy informs the brief for a memorial design process, and establishes the need for a Conservation Plan/ Heritage Management Plan.



8.2 Overarching objectives

Ilam Gardens is privately owned by the University of Canterbury, and serves both the University and wider community. It is a garden of historical significance, and the University is committed to the following values in its custodianship of Ilam Gardens:

- Conservation and celebration of Ilam Gardens and its significance in the history of the University and for Christchurch.
- Recognition of the globally significant role of Edgar Stead in the propagation and donation of rhododendron and azalea collections to other historically significant gardens in Christchurch and beyond, and to document and protect the surviving elements of his own garden at Ilam.
- To continue the University's association with Roland Stead and the Trust fund that has been set up to continue the improvement programme.
- Provision for the University community and visitors to enjoy the garden setting as a safe, peaceful retreat that supports the health and wellbeing of staff and students.
- To manage operational pressures and protect the gardens from undesirable or inappropriate use, including unnecessary wear and tear and activities that may compromise its role as a peaceful retreat.
- To create opportunities to sustain-ably manage and finance Ilam Homestead, and retain flexibility for compatible future uses.

The Roland Stead Ilam Gardens Fund is an endowment from Roland Stead for supporting the enhancement and improvement of the Ilam Gardens. The fund sits within the UC Foundation and an Advisory Board meets twice a year to decide on disbursement of the interest. Projects funded have included azalea and rhododendron purchases, spring bulbs and considerable tree work. The funding is not intended to displace the maintenance budget but to supplement and enhance the gardens.

KEY

- ILAM HOMESTEAD
- EXISTING STUDENT ACCOMMODATION
- WOODLAND GARDEN AREA
- ILAM HOMESTEAD SETTING
- HERITAGE ITEM BOUNDARY (REFER TO HERITAGE AERIAL MAPS IN APPENDICES)

Note: refer to appendices for University of Canterbury maps of significant trees



8.3 Context

8.2.1 Planning framework

Ilam Gardens and the Former Ilam Homestead are both identified as Highly Significant (Group 1) heritage items in the Proposed Christchurch Replacement District Plan, *Appendix 9.3.7.2 Schedules of Significant Historic Heritage*

Name	Item #	Setting #	Group
Former dwelling and setting, Ilam	301	620	1
Former Ilam Gardens	302	-	1

The relevant activity status and rules that apply are contained within *Chapter 9 Natural and Cultural Heritage* and relevant sections 9.3.5 *Rules - Matters of control* and 9.3.6 *Rules - Matters of discretion* of the Proposed Christchurch Replacement District Plan, including 9.3.7 *Appendices*.

Consent Triggers

- Ilam Gardens are listed in their own right, and any activity that would be construed as an alteration of heritage fabric would trigger a consent process – as a restricted discretionary activity.
- It is possible to gain certification for non-heritage fabric that may be modified. Temporary activities meeting certain rules (e.g. limited duration etc) may be permitted, and reconstruction/ restoration of heritage fabric meeting set requirements is likely to be a controlled activity.

Status

- All changes to the adjusted Ilam Gardens heritage protection area, elevated status to Group 1 and the associated rules have been completed and will be carried through to the Operative District Plan in due course.
- There are limited differences between Group 1 and 2 status items. At present Okeover lawn is a setting for the heritage item (building) rather than an item in its own right. There is potential for this to be addressed in future.

Requirement

Reference to a Conservation Plan 'requirement' is outlined as follows:

The extent to which the works are in accordance with the principles in Policy 9.3.2.4(b), and whether the proposal:

- is supported by a conservation plan or expert heritage report; and*
- the extent to which it is consistent with the Statement of Significance and Conservation Plan and the ICOMOS New Zealand Charter for the Conservation of Places of Cultural (Heritage Value (ICOMOS New Zealand Charter 2010).*

- A Conservation Plan is not mandatory but Council will give regard to one if it exists.
- It is more efficient and consistent to have a Conservation Plan to support all future consents (rather than commissioning individual heritage reports to support each consent application).
- A Conservation Plan is a very useful tool for identification and ongoing management of a heritage item.
- If the subject of the consent application is ongoing/ long term heritage work, then a Conservation Plan would be a useful management tool that could guide proposed works and support any necessary consents.

Format

- A Conservation Plan can be a flexible document – its layout and content is not set in stone and it can be tailored to the needs of the heritage item. But should be consistent with the ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value (2010). (The Charter, a set of guidelines on cultural heritage conservation, produced by ICOMOS New Zealand, is widely used in the New Zealand heritage sector and forms a recognised

Right: Heritage Items and Settings Map from the Proposed Christchurch Replacement District Plan, *Chapter 9.3 Historic Heritage, Appendix 9.3.7.7 The Heritage Aerial Maps*.

Maps also included in appendices.



benchmark for conservation standards and practice).

- For Ilam Gardens this could be a Conservation Report, or **Heritage Management Plan** that would constitute the equivalent of a Conservation Plan, as long as the document provides information on the heritage significance of the landscape as a whole as well as its constituent parts- both as a collection and in terms of itemised 'fabric', along with proposals around long term management (called policies in a CP).
- The document should be user friendly and a useful guide to UC for day to day management and maintenance.

Ongoing consents

- A Heritage Management Plan would provide more detailed guidance on management and maintenance and would help define permitted and controlled activities for all of the landscape fabric, i.e. what is required to retain heritage condition, and for ongoing maintenance.
- This could potentially be used to seek a long term/ rolling consent for landscape reconstruction/restoration, as long as it could be demonstrated that maintenance is not having adverse effects on the components that contribute to the heritage fabric. This would potentially provide more flexibility for a 'working garden', and create parameters for maintenance vs fundamental changes to layout, trees and collections.
- This would also potentially allow for management of a 'visually permeable buffer' along the edge of Ilam fields to address safety and integration issues.

8.3.1 Historic overview

Timeline

For a complete timeline of Ilam Homestead and Gardens, refer to the University of Canterbury booklet in the appendices.

1850s-1866: The Watts-Russell Period

1850: John Charles Watts-Russell buys a 500-acre lot at Riccarton and names it 'Ilam' after his birthplace. Two cottages are transported to the site to make the first Ilam Homestead.

1856: The second homestead - an English style mansion with 10 acres of pleasure grounds. A garden and paths are developed, and much of its layout remains today.

1866: The Homestead is sold.

1910: The second homestead destroyed by fire.

1917-1950: The Edgar Stead Period

1910s: The present homestead is built at some time between 1914 and 1918.

1914: Edgar Stead buys the property at Ilam. He devotes his life to growing and hybridising rhododendrons and azaleas.

1925: Stead is given a collection of rhododendrons on a trip to England, which forms the basis of his breeding program. Stead imports seeds from a large range of species and develops many of his own hybrids.

1950: the Homestead and Garden are acquired by Canterbury College, now the University of Canterbury. Today the lawns and garden are maintained by the University Grounds Team.

Historic images of Ilam Homestead

Top and middle: The second Ilam Homestead, an English-style mansion in the 1880s, in the gardens laid out by John Charles Watts-Russell.

Bottom row: Ilam Gardens in the 1920s, during the Edgar Stead Period, showing the early rhododendron and azalea collection, native planting on the stream edges, and some of the six Japanese style bridges that remain today.



1950-1954: The Hulme Period

Dr Henry Rainsford Hulme, Rector of Canterbury University College, was in residence at the time of the Parker-Hulme scandal.

1950 - Present

Transition from a private residence to venue for university and private events. Garden managed as part of university-wide management and maintenance programme with specialist staff assigned as management and support for restoration through the Roland Stead trust fund.

Earthquake and restoration

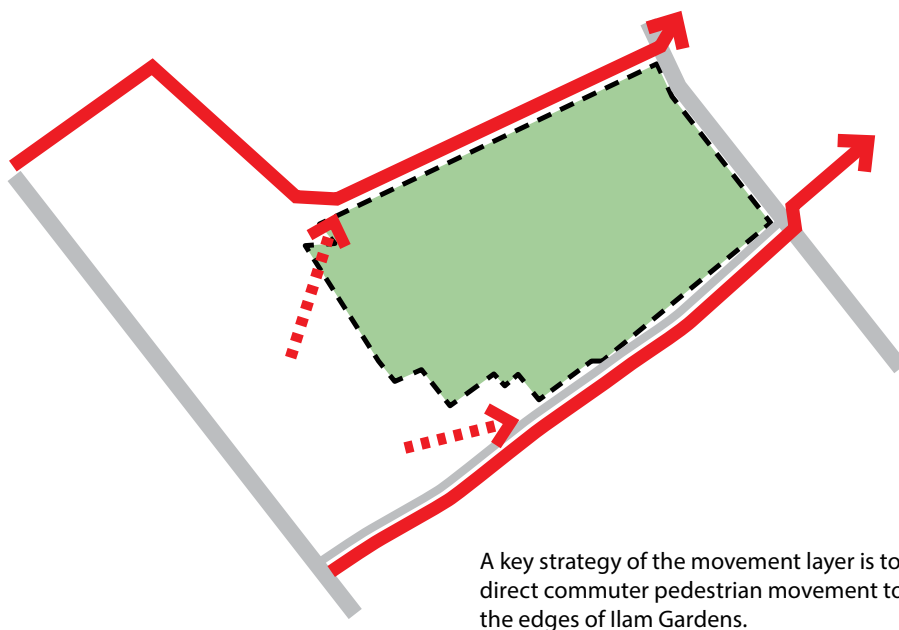
The homestead sustained considerable damage during the Canterbury Earthquakes. The University of Canterbury elected to strengthen the homestead to 100% of the new building standard. Strengthening and extensive retrofitting was completed in 2013.



8.4 Management layers

8.4.1 Pedestrian movement

The intent of the movement layer is to connect Ilam Gardens with the wider campus movement strategy, and provide strategies to minimise the damage caused by informal pedestrian commuter routes. With increasing foot traffic between student accommodation and Ilam Campus, desire lines across lawn areas and along boundaries become more prominent. A balance between heritage protection, safety and universal access priorities is considered.



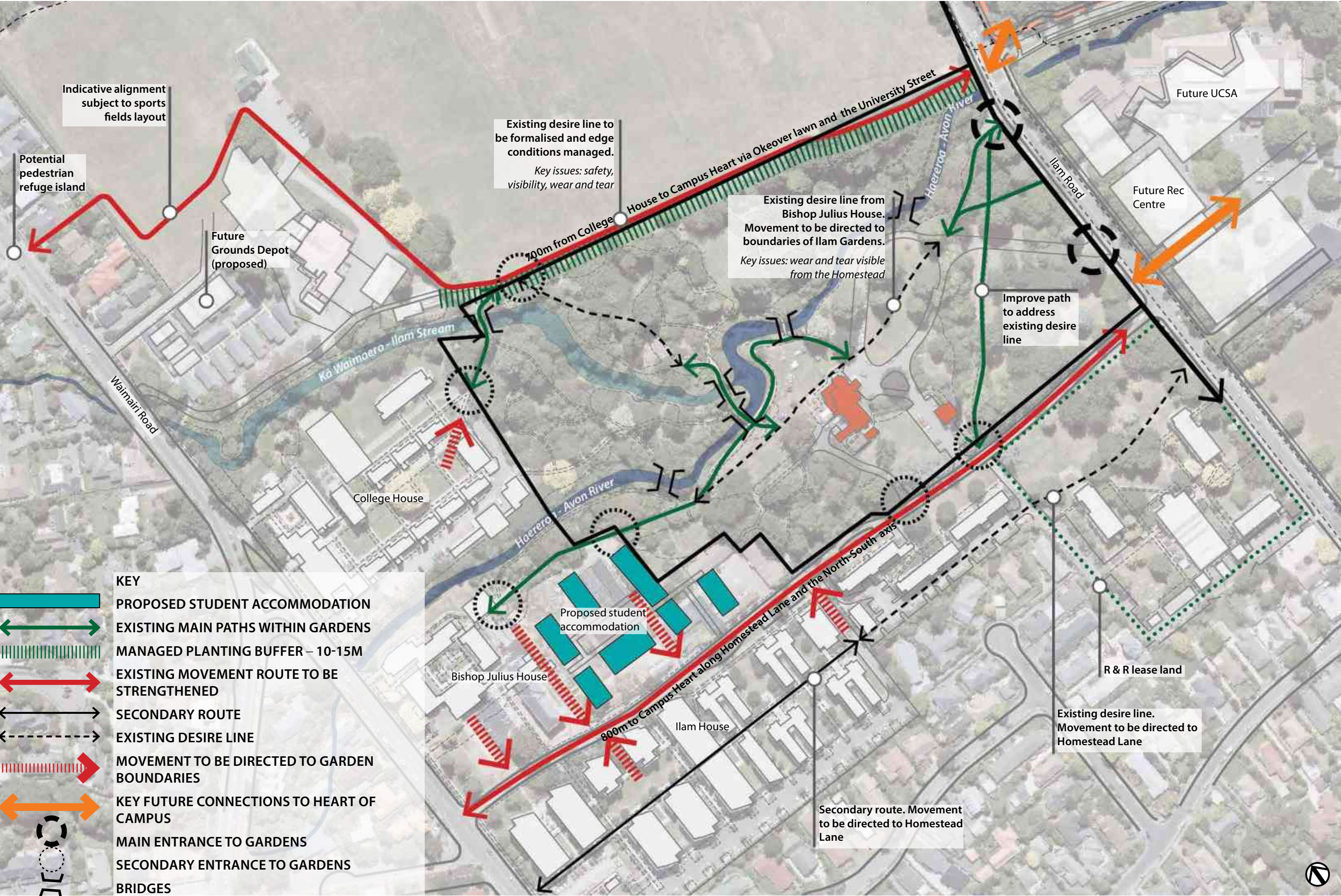
Top row: Homestead Lane and secondary route through Ilam House student accommodation

Middle row: Character of existing paths in Ilam Gardens

Bottom row: Existing desire lines around and through Ilam Gardens will become more prominent as numbers in student accommodation increase.



Pedestrian movement



Pedestrian movement

Issues, opportunities, considerations and recommendations matrix

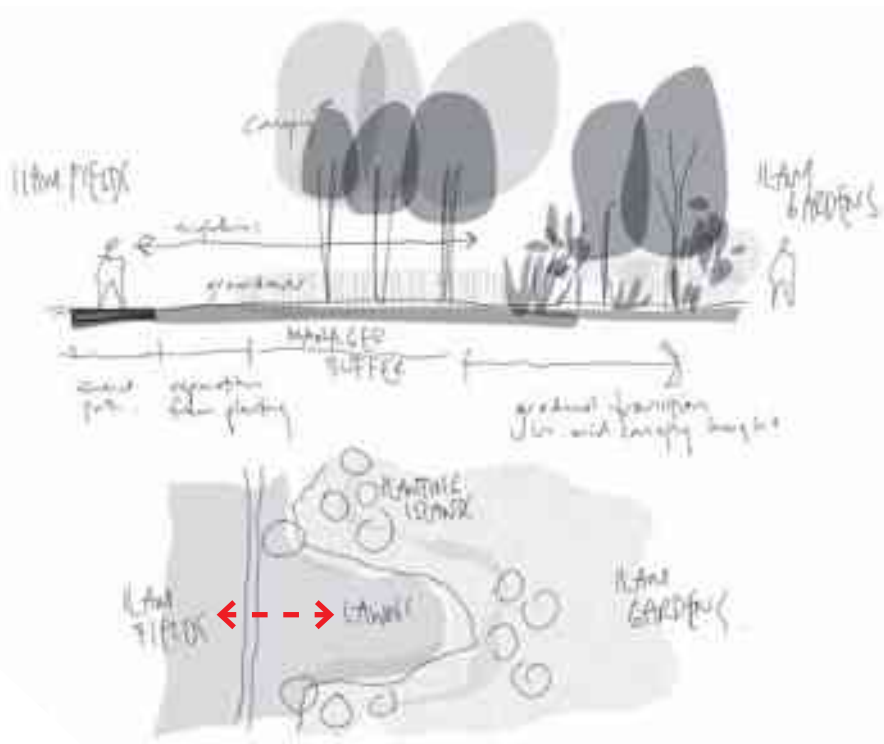
	Analysis and observation		Management Strategy	
	Issues	Opportunities	Design and management considerations	Recommendations
Pedestrian desire lines	Direct pedestrian commuter routes between Ilam campus and student accommodation have resulted in ‘desire line’ wear and tear from foot traffic within Ilam Gardens, mainly from Bishop Julius House. Student accommodation infill will increase the number of students tracking through Ilam Gardens, typically across lawns rather than utilising existing paths. The Uni-cycle shared path is too great a distance from Ilam Gardens to provide an alternate safe route to Ilam Campus.	Completion of the Wellness Precinct (UCSA and Recreation Centre), will help direct pedestrian entry to the campus heart via the southern-most Ilam Road entry and north-south axis. This aligns approximately with the Homestead Lane route. Formalising strong desire lines not altered by future proposals in the Campus Masterplan will improve pedestrian safety and convenience.	Convenience, safety and walking distance to ‘pedestrian arterials’ determines whether students will be deterred from shortcuts through the Gardens. Resulting cost and management implications for areas of campus outside the boundary of Ilam Gardens (e.g. Homestead Lane). Any alteration to the Ilam Gardens path network that is part of the heritage fabric within the heritage protection boundary will require consent as a limited discretionary activity. Similarly the introduction of any new paths will be subject to discretionary consent.	Direct pedestrian traffic to the periphery of the Ilam Gardens heritage protection area, by providing convenient, safe alternative routes with direct access to the campus heart (subject to recommendations proposed below for Ilam Fields and Homestead Lane)
Ilam Fields interface	The boundary between Ilam Fields and Ilam Gardens is a strong pedestrian desire line, regularly used by students during the day and showing considerable wear and tear, mainly from College House. The vegetated boundary of Ilam Gardens is typically dense with mid-height shrubs preventing views into the Gardens, and is not very safe for pedestrians. Sports field lighting along this boundary is on until 11pm when the fields are in use, providing only partial lighting and increased safety issues at night. The only existing safe crossing for Waimairi Road is the signalised crossing aligned with the uni-cycle route. Other informal routes connecting desire lines between Dovedale and Ilam Campuses have potential traffic safety issues.	In places along the boundary interface, there is a precedent of vegetation management with mid-height shrubbery removed. There are open sight lines in between the trees canopy and ground cover planting. For example, In the case of The Glen or Redwood Lawn, there is an open edge between the fields and the Gardens with glimpses of Ilam Homestead. In future the proposed relocation of the UC Grounds Depot will mean that a shared service route would be desirable along this edge for maintenance access.	The vegetation along this boundary sits within the heritage protection area for Ilam Gardens, and vegetation clearance may be subject to a restricted discretionary consent process, unless it could be proven (by way of certification) that this is non-heritage fabric. A Conservation Plan or Heritage Management Plan could assist with a long term consent for ongoing vegetation management along the boundary. The enclosure of the gardens as a peaceful retreat would need to be managed and maintained. This could be done by creating a transitional buffer with graduated vertical layering of planting from low to mid-height moving from the edge of the fields and into the Gardens. An informal edge is desirable, as opposed to rigidly linear planting along the boundary. This can be achieved through moments of openness (lawn) connected to the fields. Pedestrian separation from the vegetated edge is desirable, with potential to move outside the heritage boundary. This may be constrained by the sports field layout.	Implement a concrete path along the boundary interface between Ilam Fields and Ilam Gardens, with sufficient width (min. 3m) to accommodate shared use and small maintenance vehicles, and sufficient separation from the vegetated edge (min same width as the path). Design and review as part of sports field layout and consultation project. Extend and connect existing garden paths (currently exiting onto Ilam Fields) to the shared path. Continue the shared path to a visible and safe destination point (refer to campus- wide spatial typology plans in the LMP), and connect with the Uni-Cycle route to cross at Waimairi Road controlled intersection. Investigate lighting options for night use - either fully lit or not lit at all to discourage night time use. Establish a managed vegetation buffer of min. 10m width, and determine significance of heritage fabric and consenting options (via Conservation Plan).
Homestead Lane	Homestead Lane is effectively a rear service lane for student accommodation, with an internalised pedestrian only route through the core. Homestead Lane is dangerous for pedestrians with narrow or no paths, and limited slow speed interventions for cars. It is also the current orbiter bus route. The internalised pedestrian route is interrupted by building overhangs and protruding stairwells, passes through R & R lease land and does not extend to Ilam Road.	The Transport Strategy recommends that the current Orbiter bus route is moved from Homestead Lane to Rountree Street. Homestead Lane is currently used as a pedestrian commuter route, and is the most logical route to redirect commuter foot traffic out of the Gardens and into the campus heart. A secondary route is the internalised pedestrian path through student accommodation which could be extended to intersect with Ilam Road.	Design interventions to slow traffic and prioritise pedestrian movement could include raised tables and shared surface treatments. A tactical urbanism approach may be taken with temporary, low cost interventions to test suitable permanent solutions. The internalised student accommodation path could be extended, but would need to connect to the formalised Ilam Road crossing opposite the new Wellness Precinct entrance (north-south axis). A temporary, low cost path (permeable surface) could be installed to test usage. Any works should consider the R&R lease cost agreement.	Further investigate design options for both Homestead Lane traffic calming and extension of the internalised pedestrian route, taking into account the likelihood of moving the orbiter route, and resolving parking and servicing requirements for student accommodation. The preferred option is a pedestrianised upgrade of Homestead Lane, however both options should be costed and compared, and the proposal discussed with ECAN. Temporary solutions are recommended in the interim to test usage, e.g. trialling shared space without buses (as a single-lane, one-way street shared with pedestrians).
Accessibility	Most paths within the Gardens require assisted access, have steep slopes or steps to short span bridges. Loose path material is generally inhospitable for wheels, which helps to deter cyclists but also deters wheelchairs and assisted users.	The two halves of Ilam Gardens separated by the Haereroa-Avon River have potential for full accessible routes from Ilam Road; the homestead setting via the existing entrance, and the woodland garden via the Ilam Fields boundary (if a new path were created). An accessible route could be created beyond the homestead curtilage by replacing or building a new bridge with increased span and height. This would be preferable to earthworks.	One of the principles in the LMP relating to the theme of Shared Space Movement is ‘Arrival, welcoming and a safe journey with dignity for everyone’. The opportunity for at least one fully accessible route across the waterways should be further investigated- preferably to the Dell. This would most likely require restricted discretionary consent for altering heritage fabric.	Following conservation assessment of heritage fabric including bridges and crossings, a potential universally accessible route across beyond the homestead curtilage to the Dell should be identified for future upgrade or implementation. Other improvements for assisted access could be integrated into minor works in consultation with accessibility representation groups.
Safety (passive surveillance)	Ilam Gardens has limited passive surveillance, and redirecting foot traffic may reduce activity in the Gardens. At times, informal student activities have resulted in damage to waterway areas and plants. Safety issues with Ilam fields interface are addressed above	Student accommodation provides passive surveillance and increased pedestrian activity which in turn improves safety. Gates in student accommodation fencing bordering Ilam Gardens provide direct access into Ilam Gardens which may increase the likelihood of commuter wear and tear, but also increases activity. Bringing students into the gardens for learning activities and appropriate events, and making it more permeable to the fields is likely to increase 'duty of care'.	The proposed memorial site, along with open spaces programmed for outdoor learning and compatible events will encourage day time usage. Gates signal use and ownership which is important.	Maintain existing gates for College House and Bishop Julius to the gardens. Maintain paths redirecting students from accommodation to peripheral paths. Increase student use of the gardens for education and appropriate events.

Pedestrian movement

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Ilam Gardens – Ilam Fields planted buffer edge

Safety issues along the Ilam Fields – Ilam Gardens edge need to be solved before the existing desire line can be formalised into a path. The edge condition is currently a mixture of dense and open planting. A 10-15m buffer should be created to increase visibility along the path by thinning out mid-height planting.



Gaps in vegetation in The Glen allow sight lines and good visibility between Ilam Fields and Ilam Gardens

Managed permeable edge - existing desirable condition



Dense vegetated edge - existing undesirable condition



Thin buffer edge of planting to create sight lines

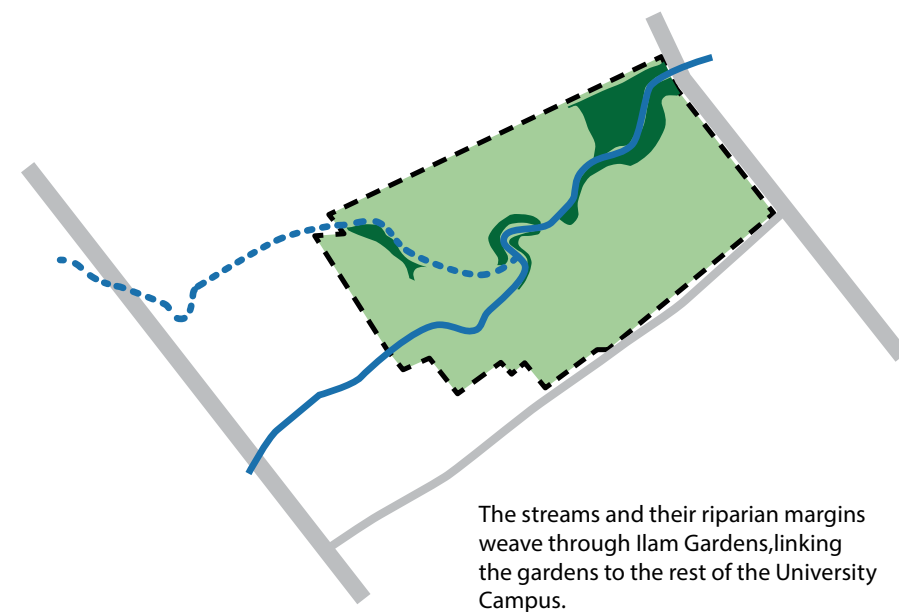
Waterways and riparian margins

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8.4.2 Waterways and riparian margins

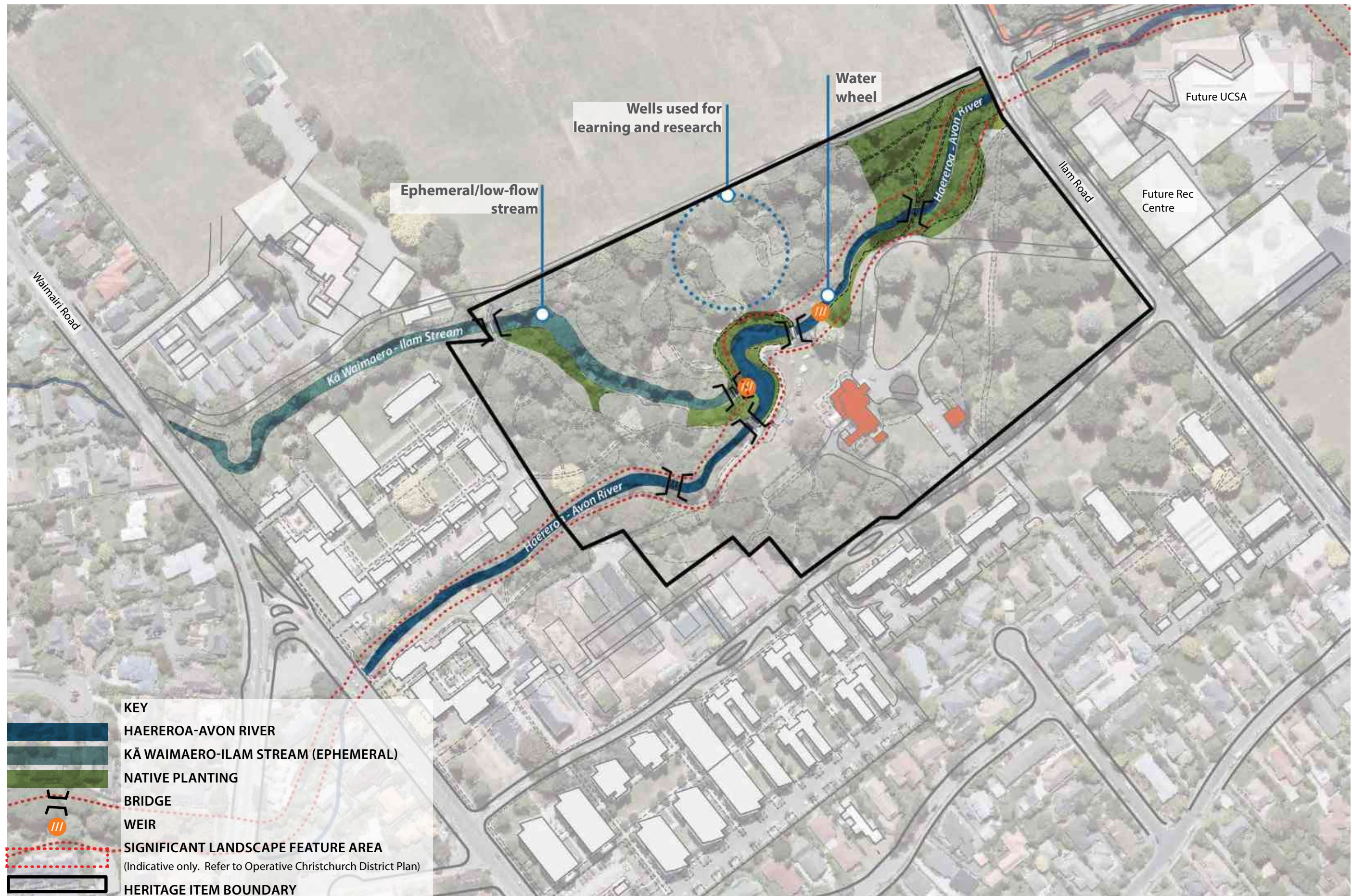
The waterways and riparian margins layer aligns with the wider campus 'Healthy Waterways' strategy, while acknowledging the heritage status of the site, and the 'significant landscape' feature overlay for the Haereroa-Avon River in the Christchurch Replacement District Plan.

The Regional Council has responsibility for waterways, including in-stream maintenance. Works within the water bodies may trigger regional consents. Kā Waimaero-Ilam Stream and Haereroa-Avon River are classified as 'spring-fed – plains urban' in the Environment Canterbury Land and Water Regional Plan.



Top row: Haereroa-Avon river
Middle row: bridges, wells and pathways
down to the streams in Ilam Gardens
Bottom row: Kā Waimaero-Ilam Stream

Waterways and riparian margins



Waterways and riparian margins

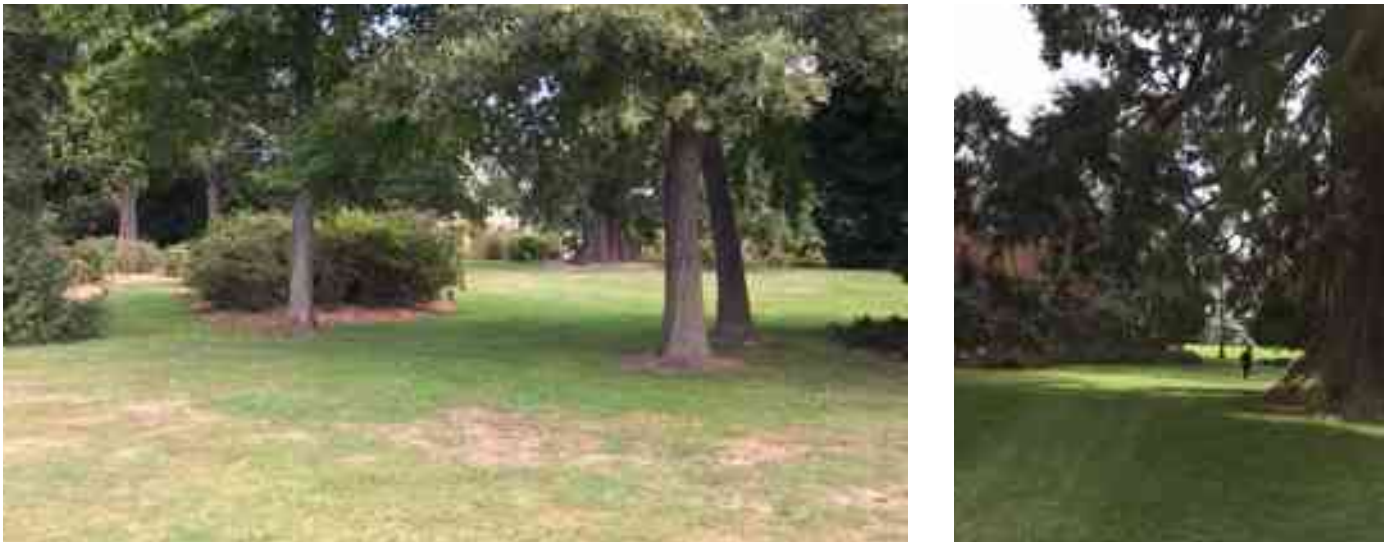
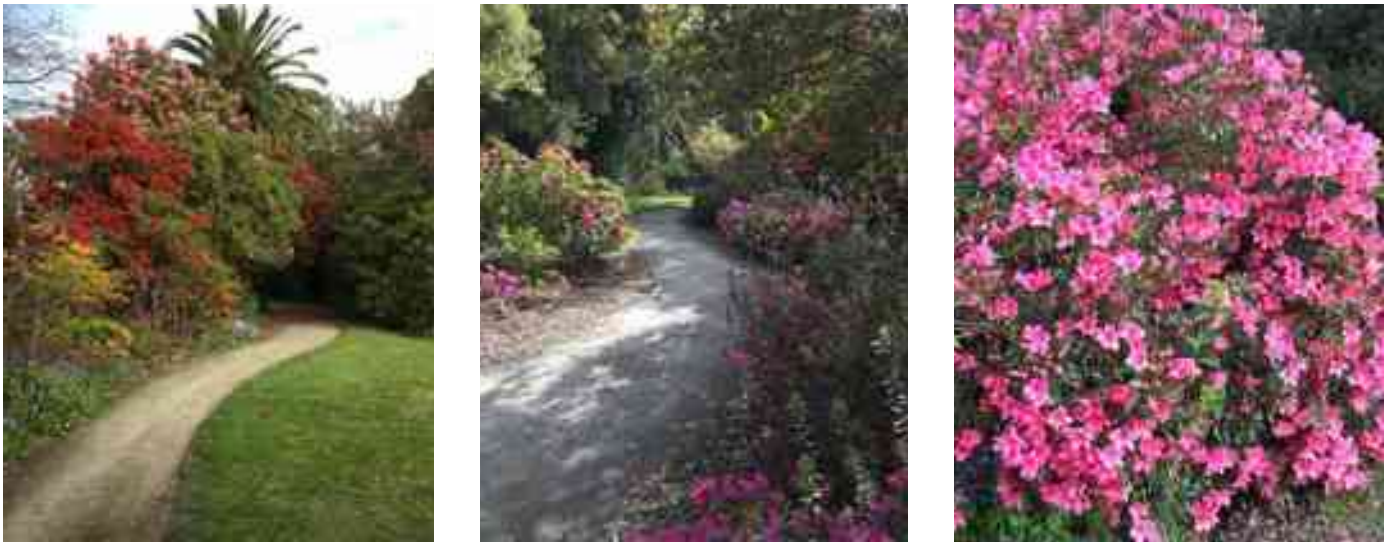
Issues, opportunities, considerations and recommendations matrix

Refer to campus wide Healthy Waterways Plan and matrix for further information. This matrix provides specific detail for Ilam Gardens waterways, while wider campus design considerations and initiatives also apply for water quality management and monitoring.

	Analysis and observation		Management Strategy	
	Issues	Opportunities	Design and management considerations	Recommendations
Ephemeral stream management	Until recently water has been artificially pumped into the Kā Waimaero-Ilam Stream from the Haereroa–Avon River to supplement low flows. However, reduced flows in the Haereroa–Avon River mean this is no longer sustainable. Heavy silting and bank erosion of the Kā Waimaero-Ilam Stream and the Haereroa–Avon River have contributed to poor water quality, along with wider catchment issues.	Return Kā Waimaero-Ilam Stream to a naturalised state with wetland planting. Riparian and in-stream planting will contribute to bank stabilisation, water cleansing, improved visual amenity, reduced maintenance, and opportunities for learning and research. Planting will also help to deter trampling of the stream bed caused by pedestrian shortcuts	Wetland planting must be able to withstand both drought and inundation from fluctuating water levels, and should be eco-sourced from the Canterbury ecological region. Naturalisation may also require a vegetated stream bank amouring system in places to hold riparian planting during establishment and minimise ongoing erosion. Installation of bank stabilisation systems should not interfere with protected heritage fabric.	Cease pumping water into Kā Waimaero-Ilam Stream. Prioritise naturalisation of Kā Waimaero-Ilam Stream as part of a comprehensive Waterways Management Plan that addresses whole of catchment issues for sedimentation and water quality. Continue to apply learnings from the restoration of the Waitutuutu-Okeover stream
Stream classification and protection, and flood management	The Haereroa–Avon River has a landscape overlay scheduled in the Christchurch District Plan as a significant feature (SF) (planning map: 30, SF8.3) - Chapter 9 Heritage , Section 9.2.9.2.3 Schedule of Significant features - Otākaro / Avon River Open Space water and margins - Refer to District Planning Map showing the extent of SF8.3 in the grounds of the University of Canterbury, Ilam. A significant portion of Ilam Gardens accommodates a Flood Management Area (planning map: 30) - Chapter 5 Natural Hazards - Rule 5.5.1 Activities and earthworks in the Flood Management Area Haereroa-Avon River and Kā Waimaero-Ilam Stream are both classified as <i>spring-fed plains urban</i> waterways in the Environment Canterbury (ECan) <i>Canterbury Land and Water Regional Plan</i> (LWRP). - Refer to the LWRP, Section 9 Christchurch West Melton; and - LWRP Planning maps A-C09 and B-C09	A consistent approach is applied to the protection, restoration and management of Haereroa–Avon River, with particular relevance to buildings and access tracks. ECan (Regional Council) is responsible for managing and maintaining the in stream waterway environment, while the University of Canterbury is responsible for river / stream margins. A collaborative partnering approach to waterway management is imperative.	Specific activities are subject to rules contained in Rule 9.2.5 Rules - Landscape overlays - significant features and rural amenity landscapes. Relevant activities may include new buildings or access tracks. Matters for discretion are contained within rules for significant features 9.2.8.2. 9.2.9 Appendices describes the significant features and their qualities. Planning restrictions relating to flood management areas primarily relate to building and filling or excavation. Filling or excavation associated with the maintenance of flood protection and bank erosion protection works is a permitted activity in the District Plan. Works in waterways are likely to require regional consents and further consultation with ECan.	The heritage protection rules applicable to Ilam Gardens are more stringent than the landscape feature protection rules in this case. However both should be reviewed and interpreted on a project specific basis. Resource consent requirements applying to the management and maintenance of waterways should be assessed on a project by project basis and in consultation with ECan and Christchurch City Council as part of a comprehensive Waterways Management Plan that addresses whole of catchment issues for sedimentation and water quality affecting University of Canterbury waterways.
Waterway structures, bank stabilisation and heritage protection	Ongoing repair and maintenance is required for waterway structures at UC’s expense, including weirs, bridges, waterwheel and bank stabilisation walls along the Haereroa–Avon River within Ilam Gardens. There is limited information regarding heritage fabric and its significance. Ongoing issues with siltation and water quality, currently managed by weirs for flushing the stream. Bank stabilisation walls/ retaining walls along waterway edges are fragmented, constructed of differing materials and in a general state of disrepair. Bank erosion is evident in places and contributes to siltation of the Haereroa–Avon River. Bridges are typically short span and difficult to access for some people (refer movement matrix)	Weirs are used to artificially control water levels within the Haereroa–Avon River. The repair of weirs and the waterwheel has in the past been the responsibility of Engineering Services. They have potential to be used as an outdoor learning environment. Weirs that are not historically significant and/or no longer effective or sustainable for maintaining water levels and flushing sediment could be decommissioned and replaced by other effective silt trap solutions (with appropriate certification). Riparian planting could contribute to bank stabilisation measures (see below).	Maintenance and repairs to heritage items, or upgrade works required as a result of damage may be undertaken as permitted activities, and reconstruction or restoration as controlled activities under the Christchurch Replacement District Plan. New structures or alterations to existing bridges and in stream structures are likely to trigger a restricted discretionary consent for both heritage protection and works within a Flood Management Area (refer Christchurch District Plan). Where new bank stabilisation works are required for erosion or siltation, consider visually unobtrusive options such as a vegetated stream bank amouring system, and/or consistent use of materials and systems that are appropriate to place, and support the character and heritage significance of Ilam Gardens, and of the Haereroa–Avon River as an important feature of the Christchurch landscape.	Commission Conservation/ Heritage Management Report to identify, record and assign management and maintenance strategies for heritage fabric according to significance and protection requirements. Undertake project by project assessment of consenting requirements. Undertake a specific feasibility investigation as part of the UC Waterways Management programme to rationalise the use of materials, systems and effective strategies for bank stabilisation - balancing best practice tools for water quality management together with the cohesive restoration of heritage fabric where applicable in Ilam Gardens. This will be informed by the Conservation Plan as above.
Riparian edge and native bush balance	Native planting consistent with the riparian restoration of campus waterways and the wider catchment may conflict in places with historically significant garden layout and character, plant collections and trees. Riparian planting may visually obstruct composed views of Ilam Homestead from within Ilam Gardens, and/or contribute to personal safety issues.	The Haereroa–Avon River is ecologically important, culturally significant, and has strong historic heritage and amenity values. This provides an opportunity to showcase the University story within the context of Canterbury and Christchurch. This may result in varying edge conditions, all of which support these values and the character of Ilam Gardens.	Eco-sourced planting from the Canterbury ecological district is preferable for riparian restoration. Plant species should be selected from the Ngahere Native Planting Guide and Matapopere Planting Guide. Guidelines for campus wide planting, particularly along waterways also apply to Ilam Gardens, including mixing of native understory and exotic trees, and mid-height vegetation carefully rationalised to maintain sightlines. In other highly visual locations particularly those associated with the Ilam Homestead setting, the lawns may extend down to the waters edge, or retained edge.	Where possible (and excluding the homestead setting), the riparian margins of waterways within Ilam Gardens should be planted with native plants suited to the stream bank profile and ephemeral or fluctuating nature of the water levels. Mid-height native vegetation in the north-eastern corner of Ilam Gardens which abuts Ilam Road and Ilam fields should be managed to address safety issues and visual coherence (refer movement matrix, managed buffer)

8.4.3 Woodland gardens

The Woodland Garden layer considers the ongoing restoration of the original garden and subsequent periods of the Gardens history, including recommendations to guide specific management policies to be further crafted through a Conservation Plan. The Strategy outlines management considerations for character, use, visual amenity, safety experience and enjoyment of these areas, rather than specific plant collections and their heritage significance.



Top row: garden collections
Middle row: The Woodland in spring
Bottom row: The Glen

Woodland gardens



Woodland gardens

Issues, opportunities, considerations and recommendations matrix

Refer to campus wide Activation Plans for further information.

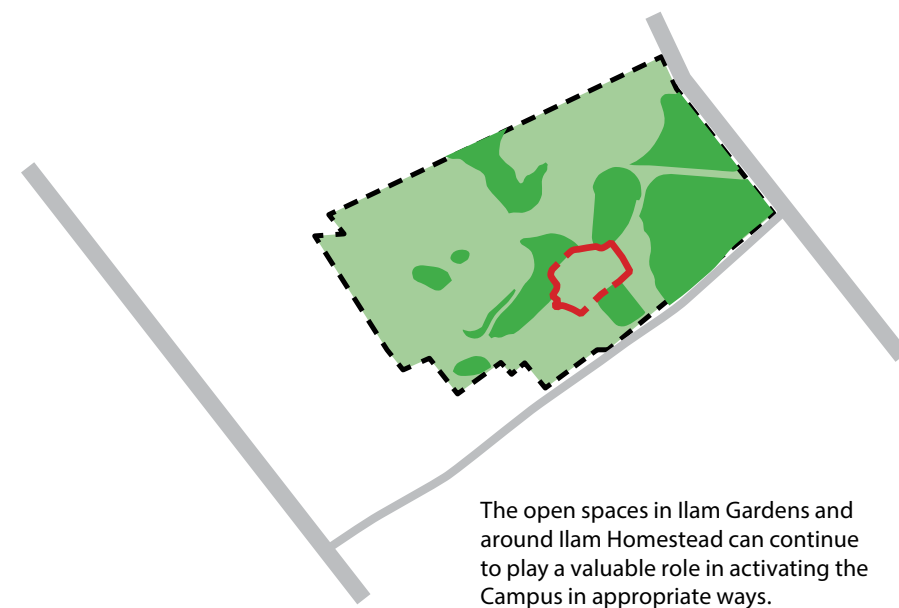
	Analysis and observation		Management Strategy	
	Issues	Opportunities	Design and management considerations	Recommendations
Coherence of garden layout and collections	Heritage values and plant collections are only partially documented through photos and fragmented records held by the Trust, University grounds staff and various institutions and interest groups. Important Rhododendron and Azalea collections are pepper potted throughout the Gardens.	Much of the character of Ilam Gardens and the wider campus was established by Edgar Stead. Stead's collection and breeding of rhododendrons and azaleas is world famous, and these plants have a special place on the Ilam Campus, and especially through the Ilam Gardens. Stead's donated plants are also present in the history of many gardens in Christchurch, as is the 'Galaxy' variety, which came from a collection created by M. Clothier and Peter Cadigan.	Ilam Gardens is a working garden like Christchurch Botanic Gardens with high foot traffic and varied public and private uses. Some flexibility needs to be retained in order to manage the condition and performance of plant collections and their suitability to micro-climates, while responding to the heritage values of both the landscape setting and important plant collections or trees. Existing partnerships with the Christchurch Botanic Gardens and research/ horticultural institutions to systemise plant collections/ digitise plant records.	Commission a Conservation Plan/Heritage Management Plan for Ilam Gardens which serves to document and protect surviving heritage fabric and landscape setting, including policies or proposals for continued conservation of significant plant collections within a heritage landscape setting. Retain knowledge and understanding of significant plant collections through plant records and site identification to inform future planning and conservation initiatives. Continue improvement programmes.
Propagation	Propagation of heritage and unique plant varieties is likely to be compromised by the relocation and downsizing of the nursery and depot to accommodate student accommodation.	Further opportunities could be explored for planning and fundraising initiatives for enabling works.	Ongoing propagation is a form of conservation, preservation and research.	Continue established relationships with the Christchurch Botanic Gardens and the Trust to expand and enable conservation and research efforts for highly valued plant collections within Ilam Gardens through on-site propagation. This work is not currently resourced internally by the University, and may need to be out-sourced.
Interpretation and profile	There is limited on-site interpretation or clues to suggest the significance of rhododendron and azalea collections, or other plant varieties and garden features.	Grounds staff are working with the Manager of the Christchurch Botanic Gardens and with Roland Stead through the Trust established to re-create the original woodland garden.	Ilam Gardens could be used as a satellite garden for the Christchurch Botanic Gardens to help raise its profile and importance as a storehouse of important collections. This could be explored through further discussions with CCC.	Maintain a low key approach to signage and interpretation, with potential for clues and web-site links to obtain more information. Raise profile through working partnerships and horticultural/ heritage interest groups. Map for self guided walks.
Management and character zones	Character areas are not clearly identified with the Gardens. The Gardens are managed as two distinct areas: 1. the Homestead and its setting extending to the Avon River, and 2. The Woodland Garden extending from the Avon River to the Ilam Fields edge. There is a dedicated resource of one grounds staff personnel to the Ilam Gardens management zone (one of 33 management zones across campus). Limited resources and funding allocation need to be targeted and prioritised for such a complex site.	Ilam Gardens could be further managed by 'subset' character zones that enhance the visitor experience and tailor maintenance efforts with limited resources. Plant collections could be grouped in places for impact, display and demonstration of variety and significance. The 1980's garden, the rose garden and the woodland bulbs garden are examples of character zones within the Gardens.	Character areas and management priorities should be further detailed in a Conservation Plan/ Heritage Management Plan to guide management and maintenance priorities. The early periods of garden layout and design intent are likely to influence management and maintenance of character zones High visibility/ frequent use areas include: The 'garden core' (gardens visible on the other side of the Avon River when viewed from the Homestead front lawn or terrace, included within a potential loop walk linking the Dell and the Glen. The Ilam Fields edge which is highly visible from Ilam Fields and Ilam Road, and currently foreboding and fragmented in appearance.	Commission Conservation Plan/ Heritage Management Plan as above. Assign highest priority/ quality standard to maintenance of the 'garden core' which is defined as the gardens most visible from the homestead / font terrace and lawn, and the gardens might likely to be visited in a short loop from the homestead. Create a managed vegetation buffer along the Ilam Fields boundary as detailed in the 'Pedestrian Movement' matrix.
Trees	Tree stock within Ilam Gardens is aging, with no clear replacement or successional strategy. In general Ilam Gardens is over-supplied with mature trees, and canopy closure is affecting the growing conditions and performance of other garden plants. Only hazardous trees are removed. Campus tree surveys provide species names and locations, but not information on age, source, height or condition. Maintenance costs and hazards are increasing with an aging stock and can be complex operations requiring large exclusion zones. Current management and maintenance practices do not require consent. Many trees are likely to form part of the heritage fabric identified in a conservation plan.	Mature trees within Ilam Gardens contribute to the parkland character of Ilam Gardens and the parkland setting for the wider campus. Landmark species include giant conifers, redwoods, pines and oaks. Exotics are blended with landmark native trees including kowhai and totara. Large rhododendron varieties are also landmark trees. Commemorative trees have been documented, along with International Union for Conservation (ICUN) significant species (refer appendices). Potential to partner with Christchurch Botanic Gardens to support best practice, given similar issues with tree stock.	There are no individually scheduled/ notable trees in the District Plan. However the historic heritage provisions in the Christchurch Proposed Replacement District Plan provide blanket protection for the removal of trees or vegetation clearance. Removal of trees is a restricted discretionary activity as it alters the heritage fabric (unless non-heritage fabric can be certified). Decisions for tree replacement include 'like for like' replacement or introduction of another significant species, or non-replacement due to overcrowding or the need to retain open space areas for historical garden composition and/ or future use. Representation of the same species elsewhere on campus may lower the priority for replacement. Utilise resources that may be provided by partnering with research institutions and NZ Arboricultural Association to undertake condition surveys.	Complete condition assessment for trees in Ilam Gardens, starting with the oldest landmark trees (preferably determined through a Conservation Plan/ Heritage Management Report and based on historic records, aerial photos or photographic evidence). Complete successional strategy for these trees, including priority for replacement or securing seed stock. Identify locations where trees are adversely affecting historically significant plant collections, and tag these for non-replacement at the end of their natural lifespan. Continue improvement and restoration programme in partnership with the Ilam Gardens Trust. Controlled activity works for tree maintenance would need to be clearly defined in the conservation or heritage management plan.

Open Space Use

ILAM GARDENS

8.4.4 Open space use

The lawns around Ilam Homestead are currently used for university events, many of which will be relocated to the Campus Heart and the UCSA/ Wellness Precinct when those projects are completed. Appropriate student, staff and public events are anticipated to continue around Ilam Homestead, balanced with places for quiet retreat and learning landscapes. The merits of two potential memorial sites are considered, with design considerations to inform a future project brief.



The open spaces in Ilam Gardens and around Ilam Homestead can continue to play a valuable role in activating the Campus in appropriate ways.



Top row: The Glen and The Dell
Middle row: The Tree lawn and Ilam Fields
Bottom row: The Oval and Homestead Lawn

Open Space Use



Open Space Use

ILAM GARDENS

Issues, opportunities, considerations and recommendations matrix

Refer to campus wide Activation Plans for further information.

	Analysis and observation		Management Strategy	
	Issues	Opportunities	Design and management considerations	Recommendations
Events and programmed activities- over-view	Ilam Gardens has become increasingly popular as an outdoor venue for student events, particularly due to the temporary exclusion of other venues on campus during demolition and construction of major build projects. This has placed operational pressures on Ilam Gardens in the interim, and raised questions about what events may be appropriate in future and where.	Once completed, outdoor event spaces around the UCSA building and within the campus heart (The Plaza and University Street) will reduce the pressure on Ilam Gardens to host events. Events are managed as part of a campus-wide booking system, allowing a holistic approach to what events are best suited where. Events help to bring prominence to Ilam Homestead and Ilam Gardens, which in turn could boost management funds through events or attract donations from interest groups.	Contracts should be in place to ensure that appropriate protection measures are in place (such as temporary ground coverings, tree protection) and that sites are restored to 'pre-event' condition at the cost of the event organiser. The frequency and rotation of events needs to be monitored and managed to enable recovery of lawn areas before the next event. <i>Christchurch Proposed Replacement District Plan 9.3.4.1 permitted activities</i> Temporary buildings or structures for events in a heritage item which is an open space are permitted, provided that the building or structure is removed within one month after the event. (Additional restrictions apply to signage.)	The energy and 'urban buzz' created by events is desirable within the campus heart and this should be the priority venue for events. Ilam Gardens provides an important retreat for quiet contemplation and this should not be compromised by inappropriate or over-prescribed events. Event bookings for specific locations within Ilam Gardens should only be accepted if they are not suited to the campus heart or UCSA event sites, and the type of event meets the specified criteria for Ilam Garden event sites- including scale, duration, nature of the event. Rotate event locations (e.g. between the oval and tree lawn, or seasonal use). One event on at any given time.
Tree lawn and oval	Potential noise and boundary issues with proximity to Ilam Road, and nuisance to neighbours- noise and privacy issues Protection of trees as part of the parkland character of the University, and the heritage fabric of the Garden. Restricted parking provision limits the ability for on-site parking during events.	The tree lawn is well suited to appropriately scaled events, providing shade and shelter and close proximity to the UCSA and recreational facilities on campus via existing path networks within the Gardens. Existing trees and planting can help to buffer and mitigate noise and visual effects. Alternative modes of transport to events are readily available (such as proximity to bus stop) The Oval could be used as a secondary event space to rotate with the Tree Lawn if required (e.g. to allow for recovery of lawn areas). However, this is the main entry to the Homestead, and it is preferable that the Tree Lawn be used as the priority venue.	Vehicle and car parking restrictions should be in place during events. Homestead Lane provides an appropriate 'back of house' entry for set up and operations, first aid, chill out area, and portable toilets, and can be temporarily fenced off. Back of house set up in the Homestead Lane car park would restrict use of Ilam Homestead for private functions, so events could not be overlapping. Events should not be back to back, or longer than one day duration. One event per month during summer, and one every two months during winter as a rule of thumb. Large vehicles or food trucks should not be permitted on the tree lawn. Controlled access for stage set up should avoid tree roots and existing paths or put appropriate measures in place to avoid damage.	Future events to be contained within the site boundary shown on the Open Space Use plan, to ensure set back from boundaries and neighbours. This also helps restrict numbers and secure the event boundary. Appropriate events could include: - University 'Tea party' - Picnic/ food event - Outdoor theatre - Low key 'music in parks' type event - Commemorative event - Historical, or cultural or horticultural themed event - Events with limited infrastructure and set up requirements As part of condition assessment, consider appropriate location of trees in this specimen area to help facilitate event management and cleanup.
Front lawn and marquee lawn	The Homestead is currently exclusively used by the staff club, but this may change in future to become more economically viable. Limited car parking is available to service events at the Homestead or on the marquee lawn	In the past the Homestead has been managed as a private venue for functions. Shared occupancy/ access is desirable to preserve UC's use of the Homestead but may not be commercially viable. The marquee lawn has good access from the external courtyard/ BBQ area and can be serviced from the Homestead for staff events or private functions. Two large oaks provide a pleasant setting, and marquees do not visually obstruct the front of the Homestead in this location.	The potential for future management and occupancy of Ilam Homestead as a venue for public or private functions should not compromise the University Community's access to and enjoyment of the Homestead setting. This includes the continuation of BBQs, staff gatherings, and temporary events on the marquee lawn. This may require a shared booking system for outdoor venues associated with the Homestead, and good communication to manage the events programme with external partners. The front lawn provides an important setting for the Homestead and should not be programmed for events.	Continue to investigate appropriate future commercial options (such as private functions and weddings), and ensure continued University access to the Homestead setting. There should be no tents, marquees or temporary structures erected on the front lawn. Temporary marquees may be erected on the marquee lawn, provided they comply with the relevant District Plan provisions. Appropriate events for the Homestead and marquee lawn include: - Weddings, family events, Christmas parties - Staff and student formal celebrations and recognition of achievements - Conferences and corporate hire

Open Space Use

ILAM GARDENS

	Analysis and observation		Management Strategy	
	<i>Issues</i>	<i>Opportunities</i>	<i>Design and management considerations</i>	<i>Recommendations</i>
The Glen/ Red-wood Lawn	The Glen is directly accessible from Ilam Fields, and is used as an informal route into the heart of the Gardens/ Ilam Homestead. There are signs of foot traffic wear and tear and no formed path. The lawn is occasionally exposed to prevailing winds and noise from the sports fields	The Glen is distinguished by the giant Redwood tree. The open space is long and linear, and suited to smaller scale events. There is good service access from the edge of Ilam Fields which could be formalised. There are 5 wells within The Glen, which are increasingly being used for monitoring and recording ground water levels. The Glen has been used as an outdoor classroom on occasion.	The Glen could be provided with more seating for outdoor learning, but also for small social gatherings and events. It is a convenient and pleasant place for the wider community, and place for children to play and explore while siblings play sport. It could have a garden path extended from the bridge into the south-eastern corner (near the existing drinking fountain and seat) to formalise existing desire lines (subject to consent). The Glen is suitable for small shelters such as ‘easy ups’ / market style gazebo tents.	The Glen should be prioritised as a learning and teaching environment first and a small-scale event site second. Recurring outdoor classroom bookings could be co-ordinated through the campus event booking system. Appropriate events for the Homestead and marquee lawn include: • Small social gatherings for clubs and community interest groups • Family events and gatherings (e.g. for a birthday party or reunion) • Learning, teaching and research based events (display, demonstration, and community education), particularly related to waterways and history.
The Dell, Rose Lawn and little lawn	The Dell is not well suited for events. It is small and located close to student accommodation (College House). Access is by way of garden path across the dual waterways, or from the back gate of College House. There is no service access for event set up.	The Dell is the preferred location for the proposed memorial site/ memorial garden. It is sheltered and quiet. The Dell, Rose Lawn and little lawn provide a backyard retreat- particularly for students in accommodation, supporting health and wellbeing for the campus community.	Refer to memorial site options matrix, and design considerations for a future memorial landscape response. Seating should be provided in these locations for relaxing, reading a book, study groups, or hanging out with friends. The Rose Lawn may also provide a suitable location for a working garden shed for storage for tools and operational requirements.	The Dell, rose lawn and little lawn should not be used for events. They should have good seating. Access to the Dell should be prioritised in terms of path maintenance and potential upgrades (subject to consent).
Public facilities	There are currently no public toilet facilities within the Gardens. The Gardens are not well used for passive recreation.	Public facilities for basic amenity and comfort all contribute to the amount of time people are likely to stay and enjoy the gardens, and potential for increased and repeat visitation. More activity in the Gardens will increase passive surveillance and personal safety (CPTED).	Basic amenities include toilets, shelter, drinking water, bike racks, seating. The most logical location for public toilets is a retrofitted/ re-purposed portion of the Homestead building. Entry and exit to toilets should have passive surveillance for safety (CPTED), while not adversely affecting heritage values and visual amenity.	Additional facilities are required to increase informal use of the Gardens. Investigate heritage significance and potential to re-purpose and retrofit the existing small building at the rear of the Homestead for public toilets.
Car parking	Car parking on site is limited and is likely to restrict the size and frequency of events or functions in the Homestead and on the marquee lawn.	Bike racks and bus routes in close proximity provide good alternative transport options. Provision for car parking is currently in keeping with the original ‘front and back’ layout of the Homestead and grounds.	Bike racks should be located where they encourage increased use of the gardens, but near entrances to the Gardens and/or Homestead to discourage cycling through/ within Ilam Gardens. Bike racks should be visible (to limit vandalism), but unobtrusive – i.e. not blocking pedestrian routes, and limited in size). Potential for occasional overflow parking should be explored for the back lawn. Particularly if limited parking has a significant effect on use of the Homestead and opportunities for commercial return.	Retain limited short stay parking and drop-off zones at front of house (access via Ilam Road and the Oval), and disabled parking and longer stay parking at back of house (with access from Homestead Lane). Provide additional bike racks – small blocks in discrete locations.

8.5 Recommendations summary

A conservation or heritage management plan is recommended for Ilam Gardens to inform ongoing operational requirements and future consenting requirements for individual projects within the gardens. A conservation/heritage management plan in tandem with the landscape management strategy should guide the asset management and maintenance programme.

The following recommendations apply to the four management layers.

8.5.1 Pedestrian Movement

- Design and implement a concrete shared path along the boundary interface between Ilam Fields and Ilam Gardens, taking into account sports field layout and connection to existing path network
- Maintain existing gates for College House and Bishop Julius House to the Gardens and direct commuter traffic to the periphery of the Ilam Gardens heritage protection area
- Improve safety along Ilam Fields edge, including lighting investigation and a managed vegetation buffer
- Further investigate design options for both Homestead Lane traffic calming and extension of pedestrian route through Ilam House with interim temporary interventions
- Investigate universally accessible route from the Homestead grounds to The Dell (refer to memorial garden recommendations)

8.5.2 Waterways and riparian edges

- Prioritise the naturalisation of Kā Waimaero-Ilam Stream as part of the UC Waterways Management Programme
- Undertake a review of bank stabilisation methods within Ilam Gardens, balancing best practice for water quality management together with restoration of heritage fabric
- Plant riparian margins of streams with native plants as part of the wider UC Waterways Management Programme, while applying site-specific heritage management policies arising from the conservation plan
- Manage mid-height vegetation in the north-eastern corner of Ilam Gardens to address safety issues

8.5.3 Woodland gardens

- Continue established relationship with the Christchurch Botanic Gardens and the Ilam Gardens Trust to document and restore significant plant collections and garden layout in accordance with a conservation plan
- Maintain a low-key approach to signage and interpretation
- Assign highest priority/quality standard to maintenance of the 'garden core'
- Complete condition assessment for trees in Ilam Gardens, and a successional strategy for the oldest landmark trees
- Investigate opportunities to digitise plant collection records with research/horticultural institutions

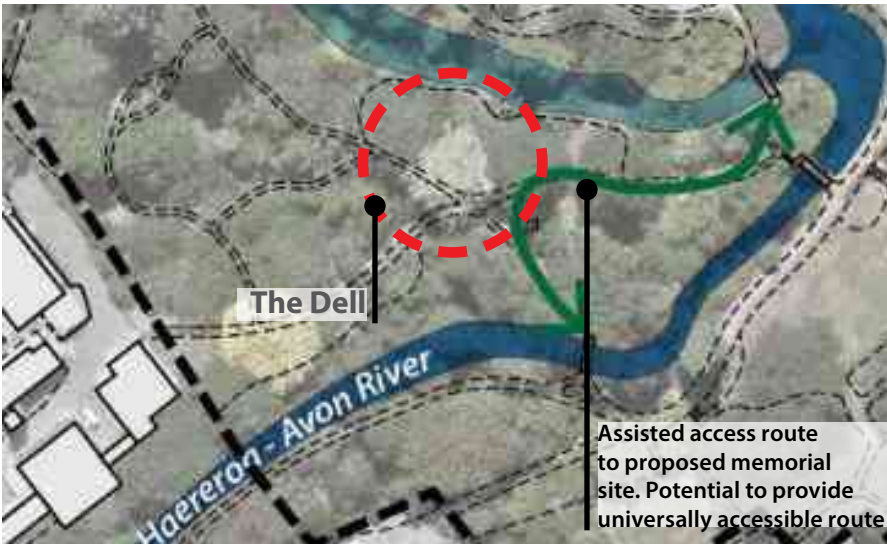
8.5.4 Open space use

- Embed Landscape Management Strategy recommendations for events into campus-wide event booking system to ensure grounds are only used for appropriate activities that support events in the Campus Heart, and rotated to avoid wear and tear on the grounds
- Future events should be contained within the site boundaries shown on the Open Space Use plan
- Review contracts for event set up and pack down to ensure that the site is appropriately restored to its former condition

8.5.5 Memorial garden location

The proposed Memorial Garden would be a centralised destination for commemoration and reflection. Students and staff would be able to commemorate people and events within this space, in replacement of ongoing ad-hoc memorial plantings and plaques around campus. There is a risk that these plantings are not recorded, or are planted in an inappropriate location. The recommended site for a memorial garden is The Dell, which is sheltered and most suited to a quiet retreat.

Access to the site is currently assisted (i.e. a wheelchair would need to be pushed), but universally accessible access is possible if consents can be obtained for altering the heritage landscape fabric by implementing accessible path and bridge improvements. A Conservation Plan/ Heritage Management Plan would inform the heritage significance of existing landscape fabric



University of Canterbury Landscape Master Plan
May 2017

Comparison of potential locations

	Option 1: The Dell <i>(Between 2 waterways)</i> <i>PREFERRED OPTION</i>		Option 2: The Glen <i>(off to side of Redwood lawn- tucked into woodland area near existing fountain/ seat)</i>		Priority/ impact on recommendation
	Pros	Cons	Pros	Cons	
Considerations					
Privacy	Secluded space, generally quiet and peaceful. Not on commuter desire line			Closer to sports field activities, screened but potential noise	High priority (The Dell most suited)
Accessibility	Existing assisted access	Between two waterways with no accessible route (steeper than 1:12 grade to stream crossings with steps). Would require significant grade change or new bridge	Accessible route from edge of sports fields, and direct access within gardens from homestead	Requires new formed path through The Glen	High priority (Universal access to The Dell is restricted, and dependent on both budget for upgrades and heritage protection/ restrictions)
Heritage		Within heritage protection area (Operative CC Plan and Proposed Replacement District Plan). Restrictions apply		Within heritage protection area Proposed Replacement District Plan (Previously not within Christchurch City Plan heritage protection boundary- may have lower significance)	High priority (Rules for Replacement District Plan heritage areas still under review. Both sites have modification restrictions)
Current use	No programmed use, favoured for quiet contemplation			Redwood lawn used on occasion for small events and teaching space	Moderate priority
Cultural significance	Near water (the stream), which has significance for its cleansing properties			No immediate access to a waterway	Moderate priority
Character and setting	Simple group of trees in lawn and views of stream		Existing areas of lawn and specimen trees, with under-planting of azaleas		Moderate priority
Significant trees	Some existing trees- e.g. cherry trees, but not significant or large scale?		Some large trees around site, but able to be located away from tree roots		Moderate priority (dependent on proposal-type of memorial and potential conflict with trees)
Safety	Site is relatively open with visual connectivity across stream. Relatively close to College House.	Limited passive surveillance	Site is relatively open- lawn and large trees with garden backdrop. Some daytime passive surveillance to Redwood lawn.	Some existing safety issues at night with students walking along sports field boundary	Moderate priority
Prominence	Contained, visual screening from wider catchment	Less well known- may bring less visitors and understanding of the Garden		More open visual catchment May receive increased visitation if more visible from sports fields and more widely known, with casual use not suited to contemplation	Moderate priority
Shelter	Sheltered from prevailing winds			Slightly more exposed to prevailing winds	Moderate priority
Topography	Gentle slope on lawn down to Ilam stream		Relatively flat		Lower priority (memorial can be designed to suit site)
Maintenance		Restricted maintenance vehicle access (e.g. for repairing any memorial infrastructure?)	Good potential maintenance vehicle access- especially if shared path formed along sports field boundary		Lower priority
Waterways	Overlooking ephemeral stream- twin stream setting	Low flows- encourages 'mud run', diminishes amenity		Not overlooking waterway	Lower priority

8.5.6 Memorial garden design considerations

The memorial brief would be informed by a Conservation Plan or heritage Management Plan.

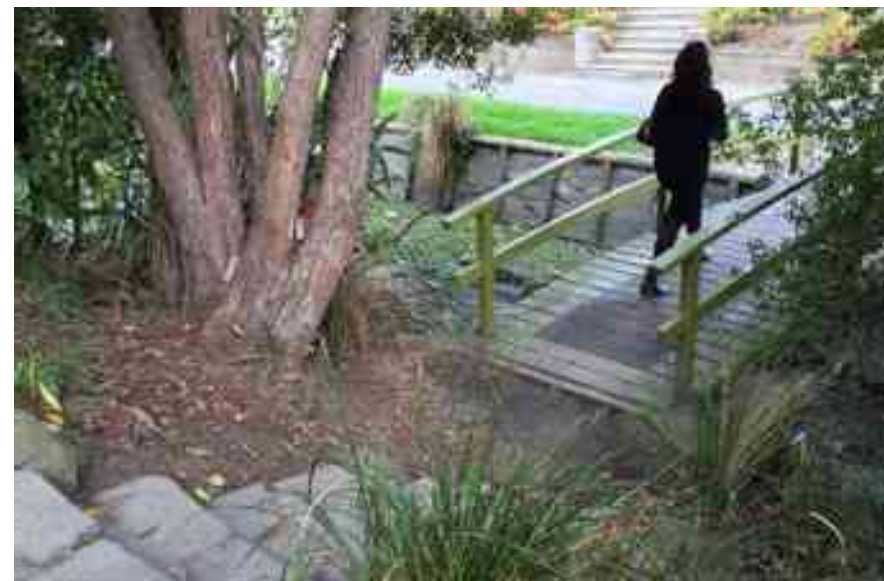
General considerations:

- Access to the memorial, and potential increased use of the site
- Functional potential of the memorial as a path, seat or shelter
- Ability to minimise footprint or integrate unobtrusively within the gardens
- Permanence, durability
- Ease of maintenance, cleaning, repair and/ or replacement
- Sympathetic design response to site and heritage significance
- Compliance with relevant building standards and safety codes
- Placement in relation to existing site features- trees, waterways
- Ability to accommodate additions as a continuing dynamic feature
- Guidance requirements for additions to the memorial, e.g. standard element and events
- Site constraints/capacity (day-to-day use – informal vs. capacity for commemorative events and potential bookable space)

Specific site response:

The memorial should respond to the site as a significant heritage landscape, and the potential to contribute to the collective memory of people and place. This could be done in a number of ways from a conservative approach (a small intervention such as a plinth) through to a field or ground plane intervention (such as a path or defined edge), to a landmark or 'object' response with a minimised footprint (such as a sculptural seat, vertical element or shelter)

Site images



Access to The Dell



The Dell

8.5.7 Memorial design process

The memorial design process should be inclusive, with a far reaching audience.

- Consultation to confirm preferred site location (with both options tabled): UC senior management team, CCC heritage, accessibility advisors, cultural advisors, Ilam Gardens Trust
- Consultation with representatives of the Trust, staff and student community to define desirable characteristics- e.g. shade, shelter, seating, place to position names or interact with memorial in some way (such as ongoing additions to the memorial, or events), response to site features
- Consultation to define site constraints and opportunities to inform brief: CCC heritage, Heritage NZ

There is potential to host a design competition with a public voting process to select a 'favoured site response'. The benefits of a design competition include:

- Varied response to site conditions- a wide selection to consider and choose from.
- Democratic process

The disadvantages include:

- Design process that may be disconnected from consultation and liaison with stakeholders, and heritage restrictions
- Misalignment between 'popular public vote' and final panel decision
- Cost and incentives to manage the competition process

Precedents: ground plane response



JFK Memorial, by Geoffrey Jellicoe



Wildwood Plaza, by Studio Vulkan Landschaftsarchitektur



Give Peace a Chance, by Cardinal Hardy

Precedents: object response



Memorial for the 2011 Japan Earthquake, by Ishi-no-kinendo



Utøya memorial, by 3RW



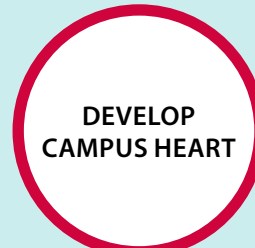
Droneport, by Norman Foster



9. Delivery tactics

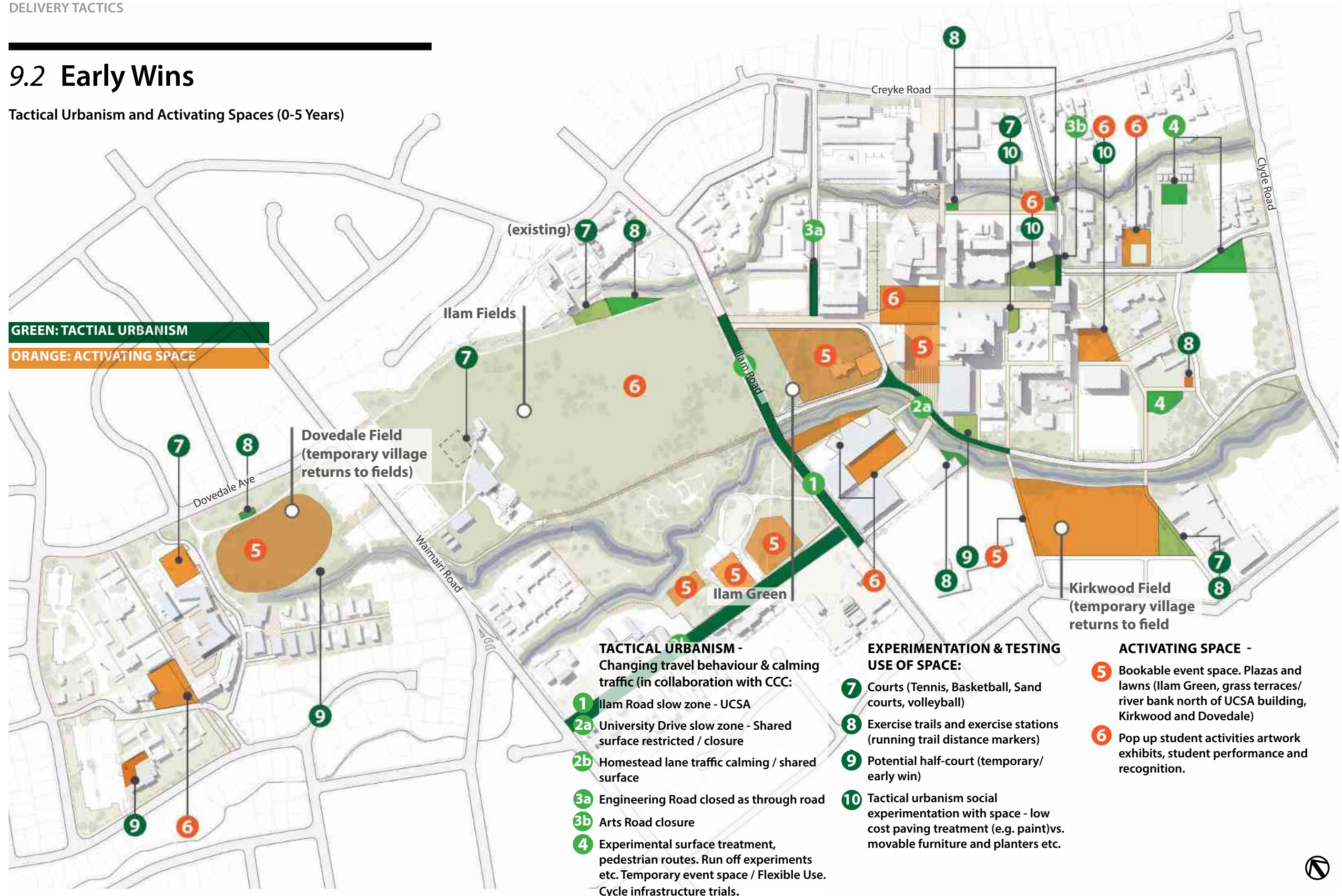
9.1 Delivery Tactics - Matrix

The University of Canterbury Landscape Master Plan identifies 'delivery tactics' that enable the function, qualities and character of the University landscape to evolve over time by implementing: early wins, project integration and incremental change. These tactics inform how spaces can be activated and connected in response to building development priorities and enhance the experience of those studying, working or visiting the University.

	EARLY WINS ----->		PROJECT INTEGRATION ----->		INCREMENTAL CHANGE ----->	
DELIVERY TACTICS						
DESCRIPTION	Through student services levy allocated based on advice from the Joint Operations Advisory Board (JOAB), and other student clubs and fundraising mechanisms- students have greater involvement and influence in the transformation of the campus through temporary low cost interventions and programmed activation that bring colour and life to campus, instigate change, test ideas, bring prominence to the campus heart, and promote health and wellbeing. A centralised campus event management system ensures that both internal and external events are booked for the appropriate site, and are 'best fit' for character and use.		Requires capital investment and programming, with external design and project management assistance to develop the campus heart + integrate major builds. These projects are pivotal to the transformation of communal spaces, inhabitation of the winter campus landscape, and prominence of a distinctive UC brand- particularly the formal entry and heart of the campus.		The Sustainability Office advises on possible outcomes and opportunities for environmental and learning outcomes across campus, to be delivered in partnership with UC staff /students/ Engineering Services/Grounds Team as part of ongoing operational expenditure for management and maintenance of the Campus grounds. Working groups may be formed around programmes that reinforce curriculum based opportunities for monitoring, research and demonstration projects that receive grants, sponsorship or partnership 'matching' funding, and result in 'visible' landscape interventions.	

9.2 Early Wins

Tactical Urbanism and Activating Spaces (0-5 Years)



9.2.1 Delivery Tactics: Early Wins

	EARLY WINS	
DELIVERY TACTICS		
ANTICIPATED OUTCOMES	• Changing travel behaviour and calming traffic • Reconfiguring carpark and construction spaces • Experimentation and testing use of space • Temporary and low cost	• Activating communal campus spaces • Encouraging social interaction and learning • Invitation into re-purposed spaces
PROJECTS	• Road closure/ slow zone – University Drive • Through-road closure – Engineering Road • Potential through road closure – Arts Road • Slow zone – Ilam Road (with CCC) • Slow zone – Homestead Lane • Claiming carparks/ trials • Law helipad/University Street – movable furniture • The Hall – basketball court • Dovedale – sand court, table tennis • Campus running trail – markers, stations • Kirkwood- sand court • Dovedale – nature play • Interactive hoardings (e.g. murals) • Nature play at Dovedale	Bookable event spaces • Kirkwood Field – recreation events • Dovedale Field – recreation events • Ilam Fields – sport events • Ilam Gardens – tree lawn and terrace • Central plaza (The Hall) – markets, music events • Ilam Green- ceremonial events Student activity/performance • University Street – exhibits and events • NEB court – pop-ups • Law helipad – student pop-ups • UCSA- outdoor kitchen, theatre
WHO	• JOAB – Student body • CCC – Partnerships • UC Sports	• UC Sports • UCSA/student body • UC Clubs • Event management
HOW	• Sponsorship • Fundraising events / Event revenue • Student Levy • UC Construction fund	• Fundraising • Sponsorship • External events
WHEN	• Short term (0-5 years indicative) • One – transition from recovery phase • Catalyst prior to new phases of development	• Short term (0-5 years indicative) to long-term • Phase one – transition from recovery phase • Catalyst prior to new phases of development
NEXT STEPS AND RECOMMENDATIONS	• Review JOAB projects – alignment/ priorities • Review catalyst opportunities ahead of build programme • CCC consult – Ilam Rd 'slow zone' opportunity • Empower student groups to instigate opportunities • Prioritise Campus heart • Test what works	• Priority/ focus on campus heart activation • Investigate fundraising opportunities • Events – management strategy review • Ilam Homestead – commercial review

9.2.2 Early Wins: Tactical Urbanism Precedent Imagery





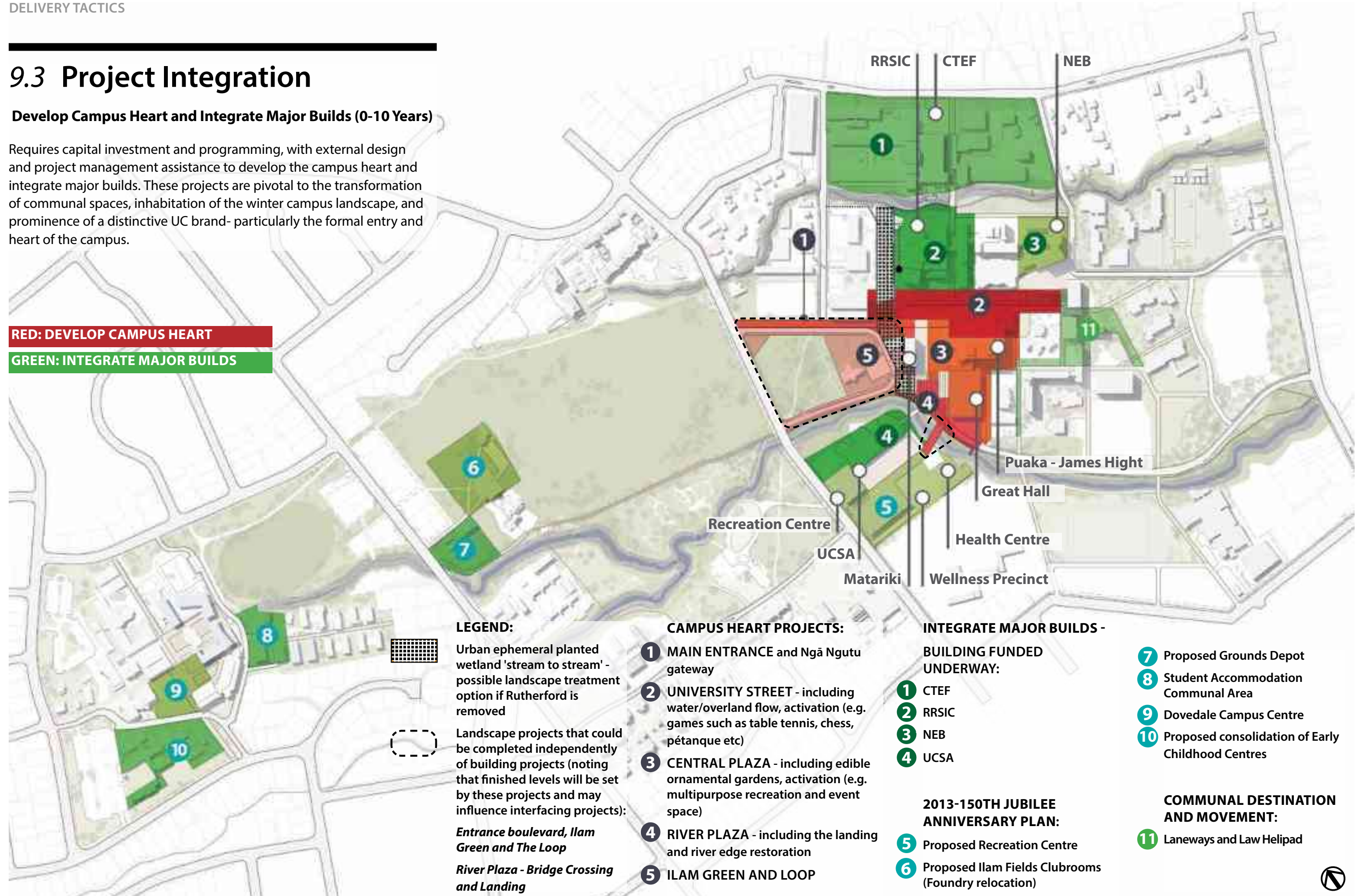
9.3 Project Integration

Develop Campus Heart and Integrate Major Builds (0-10 Years)

Requires capital investment and programming, with external design and project management assistance to develop the campus heart and integrate major builds. These projects are pivotal to the transformation of communal spaces, inhabitation of the winter campus landscape, and prominence of a distinctive UC brand- particularly the formal entry and heart of the campus.

RED: DEVELOP CAMPUS HEART

GREEN: INTEGRATE MAJOR BUILDS



9.3.1 Delivery Tactics: Project Integration

PROJECT INTEGRATION		
DELIVERY TACTICS		
ANTICIPATED OUTCOMES	• A world class campus entry and heart • Distinctive identity and character • Spaces for congregating and formal events	• Embed water sensitive urban design • Learning laneways and protected spaces • Integrated 'look and feel' of new build projects
PROJECTS	• Main entrance • Plaza • River plaza and bridge • University street • Loop road • Ilam green – entry plaza/ atea • Dovedale campus heart	• Engineering (CTEF) • Science (RRSIC) • Education (NEB) • Student Association (UCSA) • Recreation Centre/ Wellness Precinct • Rutherford • Von Haast • Ilam Fields Clubrooms • Grounds Depot • Sonoda accommodation - communal • Dovedale campus heart • Early childhood centre consolidation • Law helipad and laneways
WHO	• Engineering Services - project management • Major CAPEX Projects - external design and delivery	• Capital Works project management • External design delivery
HOW	• Open expenditure - Salaries/consultants	• Capital expenditure
WHEN	• Medium term (0-10 years indicative) • Significant transformation period • Jubilee plan 2018- 2023	• Medium term (0-10 years indicative) • Significant transformation period • Jubilee plan 2018- 2023
NEXT STEPS AND RECOMMENDATIONS	• Tree survey/ topographic survey- campus heart • Campus heart concept development and costing • Programme and budget confirmation • Business case and funding application • Comprehensive bus stop feasibility study • Staging and projects that may be prioritised by independence from building projects	• Identify landscape zones around projects for development, allocate and ring fence budget that can not be utilised elsewhere • Review of current project landscape exclusions • For all new 'major build' projects - assign budget for integration of current builds • Wellness Precinct, including bus stop location review • Secure cycle store opportunities - architecture briefs • Incorporate laneway rain garden requirement

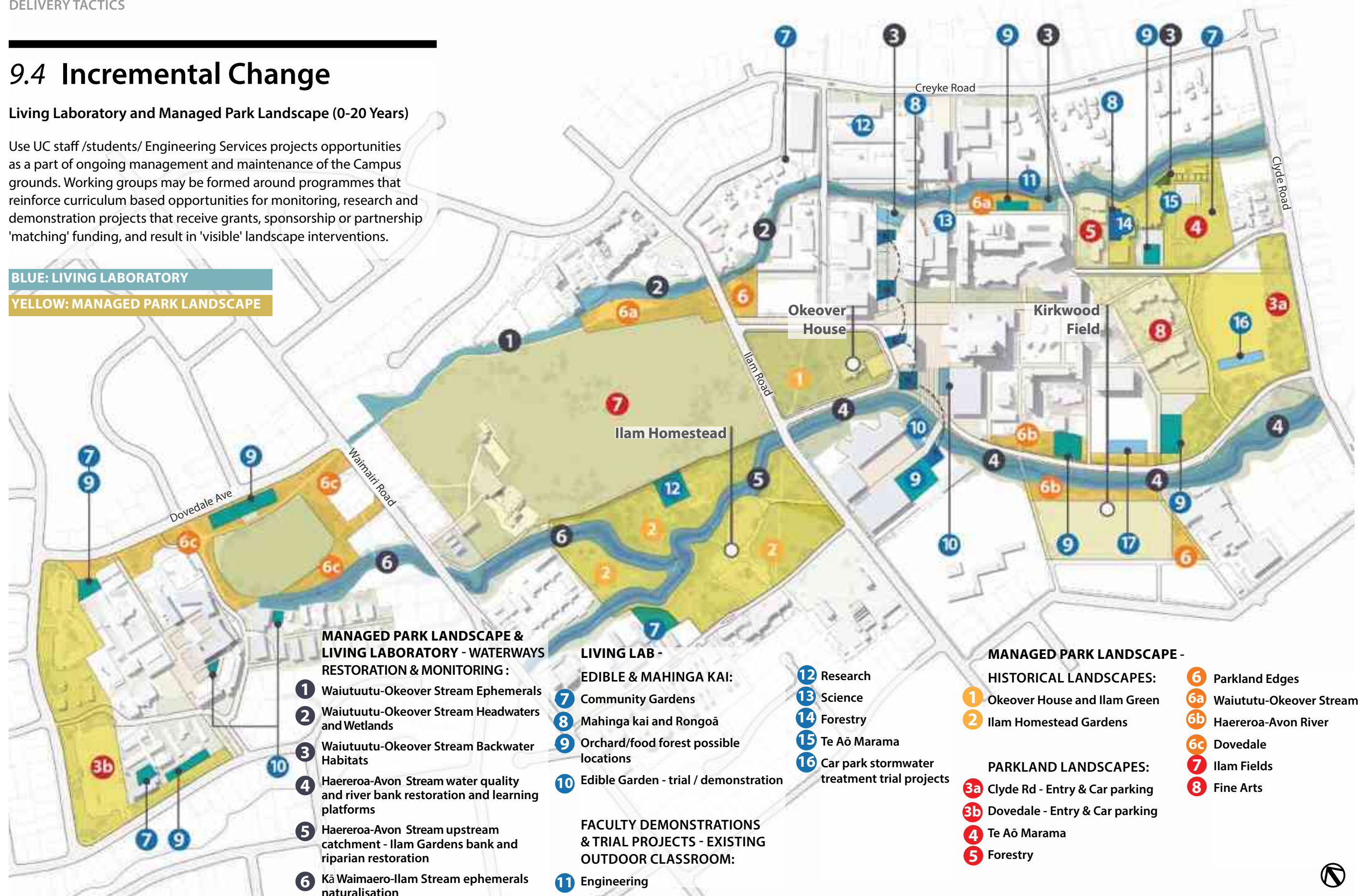
9.4 Incremental Change

Living Laboratory and Managed Park Landscape (0-20 Years)

Use UC staff /students/ Engineering Services projects opportunities as a part of ongoing management and maintenance of the Campus grounds. Working groups may be formed around programmes that reinforce curriculum based opportunities for monitoring, research and demonstration projects that receive grants, sponsorship or partnership 'matching' funding, and result in 'visible' landscape interventions.

BLUE: LIVING LABORATORY

YELLOW: MANAGED PARK LANDSCAPE



9.4.1 Delivery Tactics: Incremental Change

	INCREMENTAL CHANGE	
DELIVERY TACTICS		
ANTICIPATED OUTCOMES	• Waterway monitoring programme • Plant resources- edible and mahinga kai • Demonstration, trials and learning outdoors	• Historic and parkland management • Waterways restoration • Sport and recreation provision standard
PROJECTS	• Waterways- water quality trials / monitoring • Stream access/ learning platforms • Laneway- contaminant treatment/ climate trials • Wetland and bio-remediation trials • Terrestrial/ aquatic habitat trials/ monitoring • Edible landscapes/ demonstration projects • Orchard and food forest trials • Mahinga kai harvest sites • Art exhibitions / functional integration projects	• Ōtākaro - Avon River restoration programme • Ilam Stream restoration programme • Okeover habitats and north facing edge • Clyde Road entrance • Ilam Gardens (refer Management Strategy) • Ilam Green/ Okeover House • Sports fields (Ilam, Dovedale, Kirkwood) • Parkland tree management • Parkland planting • Dovedale buffer- tree thinning, paths • Parkland- wetlands and swales
WHO	• UC waterways working group • The Sustainability Office • CCC and E-Can (Environment Canterbury) • Engineering Services/UC Grounds Team • Kākāriki environment club • Faculty research and curriculum based trials • Campus clubs- environmental and sustainability	• Engineering Services/UC Grounds Team • Sustainability Office
HOW	• Grant applications • Sponsorship • Partnership • Research Scholarships	• Operational expenditure • Trust/ contribution fund (heritage) • Events/ commercial use/ fees • Partnerships for heritage landscapes (e.g. botanic gardens, horticultural institutions)
WHEN	• Long term (0-20 years indicative) • Ongoing management, restoration, maintenance	• Long term (0-20 years indicative) • Ongoing management, restoration, maintenance
NEXT STEPS AND RECOMMENDATIONS	• Curriculum/ research project review for alignment • Learning landscapes' programme • Alignment with build projects/ overlap • Waterways management strategy and programme	• Ilam Gardens Conservation Plan • Tree condition survey- Ilam Gardens and Ilam Green • Plant collections review and records • Sports fields- further consultation • Sports fields- layout and efficiency study • Sport fields- management strategy • Foundry and clubrooms detailed study • Ilam Gardens memorial site – consultation to form project brief

10. Recommendations



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BAGOT.



10.1 Delivery tactics and project priorities

Project priorities and next steps (comprehensive planning) should be guided and informed by:

1. **Timetable for the delivery of flagship projects.** Landscaping improvements will be progressively implemented as key University of Canterbury projects are delivered. A priority will be to ensure that the immediate surrounds of RRSIC, CETF, NEB projects will be integrated into the University campus.
2. **A focus on the campus heart** projects and initiatives identified in the Campus Master Plan that are integral and catalytic in redefining the perception and function of the campus. These projects consolidate outdoor activities in the communal campus heart that help realise the University's vision, contribute to its identity, and create an 'urban buzz' with a dynamic outdoor environment for learning and social exchange, and showcasing University achievements. These connectors facilitate movement along the University axis, reinforce the main entry, and centre on the University Street and Central Plaza.
3. **Attention to District Plan.** Compliance issues with respect to car parking and bike rack locations will be a priority. Regard to heritage protection for Ilam Gardens and Okeover House / Ilam Green will

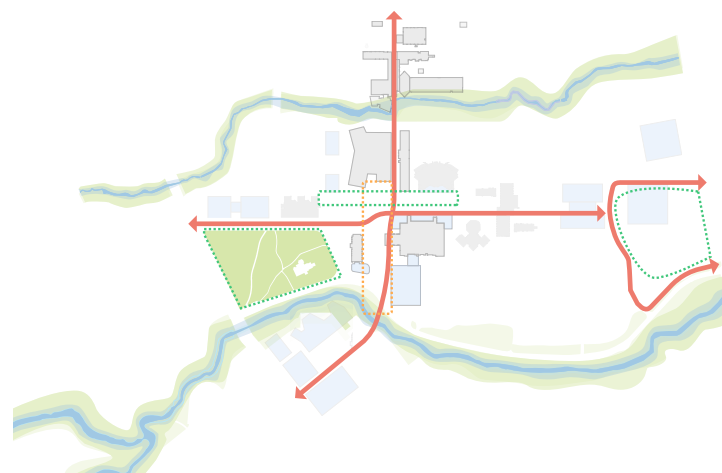
also be a priority as part of wider campus projects (waterways) and specific projects (memorial site)

4. **A focus on the waterways** as the most enduring and defining characteristic of the University of Canterbury, that embody the values of a healthy campus. The waterways provide a focus and a starting point for innovative teaching and learning, recreation, wayfinding and identity, cultural expression, environmental health, and community wellbeing. The waterways contain and define the campus heart and assist with wayfinding. The health of the waterways should guide and inform all future decisions around movement and stormwater treatment in the campus.
5. **Early wins** are temporary low cost projects, and form part of a collaborative community approach to the innovative transformation of outdoor spaces. Tactical urbanism and activation can be used as part of a project life cycle to test, inform and develop campus spaces over time. Priorities for early wins should focus on enabling and catalysing key projects, and concentrating activity in the campus heart and along waterways.

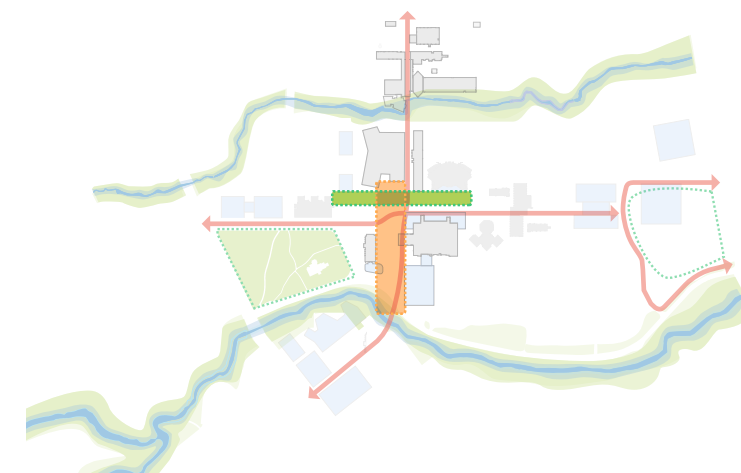
All works are subject to available funds and where relevant an approved business case.



STREAMS AND LANDSCAPE



THE UNIVERSITY AXIS and
MAIN ENTRY



CAMPUS CENTRE

10.1.1 Delivery tactics and project priorities - matrix

The project priority recommendations in the table below set out how to get started with implementing change within the Campus landscape, and where to focus efforts in support of the 2023 'Jubilee' UC Campus Master Plan. Recommendations made are subject to available funds.

STAGE	EARLY WINS	PROJECT INTEGRATION	INCREMENTAL CHANGE
Transition from recovery phase Now-2018	Focus projects - Traffic calming and closure of 'rat runs' with temporary landscape devices- University Drive, Engineering Road, Arts Road - Experiment with activation and use of the plaza and law helipad spaces- relocatable furniture etc. - Install temporary basketball courts - Install distance markers for campus running trail - Interactive hoardings and temporal artworks	Focus Projects - Campus Heart Concept Plan: comprehensive design brief for Entrance Boulevard, University Street, Central Plaza, River Plaza, Ilam Green (plaza and loop road). These projects should be scheduled after the completion of nearby/ adjacent building works in order to avoid re-work. Ref: UC 10 year LTCP. - Integration and funding for completion of 'major build' landscapes (CTEF, NEB, RRSIC) - Wellness Precinct Master Plan (see further investigations)	Focus Projects - Waterways- ephemeral stream restoration - Sediment management for waterways - including investigating low maintenance alternative to sediment traps - Ilam Gardens- memorial garden site - Orchards/ food forests/ edible - Mahinga kai learning and demonstration sites - Decommission of temporary villages at Dovedale and Kirkwood, mitigation and repair to former condition of fields
	First steps Create a detailed 'early wins' design led programme based on the LMP that gets in ahead of permanent rebuild and construction projects to change travel behaviours, test and adapt the use of communal spaces, and inform future project briefs. Identify seed funding for 'catalyst' interventions. Involve students from idea generation through to implementation. Tactical urbanism could be included as part of a comprehensive design brief and engagement process for the Campus Heart Concept Plan project.	First steps Develop a comprehensive design brief including further investigations (see below) that will define the scope, budget, staging and design parameters for the Campus heart projects and inform a UC Business Case for capital expenditure. Design-led collaboration including landscape, traffic, wayfinding, architecture, art, trees. Peer review landscape concept proposals for 'major build' projects against the LMP, rationalise scope, budget and integration requirements and prepare costing and Business Case for additional capital expenditure and staged completion.	First steps Scope the memorial garden project and potential fundraising avenues (such as public events in Ilam Gardens). Commission a Conservation Plan for Ilam Gardens and further investigations (see below). Waterways management strategy and work programme approved by relevant University stakeholders, focusing initially on ephemeral streams. Scope potential new site for 'food forest' orchard along waterways and /or student accommodation and residential parkland buffer areas. Review and rationalise future sportsfield in conjunction with UC sport and other interested parties.

STAGE	EARLY WINS	PROJECT INTEGRATION	INCREMENTAL CHANGE
Regeneration 2018-2023	Focus Projects - Complete exercise trail circuit around campus - Temporary recreation activation- courts, games, pop up activities, nature play etc. - Temporary social activation- BBQ's, food trucks, music events, exhibitions etc. - Carpark contaminant and stormwater treatment- experimental interventions and environmental awareness events.	Focus Projects - Staged design and construction of Campus heart projects. (with priority given to development of projects independent of new buildings – i.e. Entrance boulevard, Ilam Green and loop road, River plaza crossing). - Completion of 'major build' landscapes (CTEF, NEB, RRSIC). - Completion of 2023 landscape projects associated with Wellness Precinct and Recreation Centre, Ilam Fields clubrooms (relocation and review of Foundry) and Grounds Depot, and 'Campus Heart' design project for Dovedale. - Formalise road closures and reconfigured carpark and cycle stand landscaping.	Focus Projects - Establish monitoring and indicator mechanisms for completed projects e.g. stormwater and contaminant treatment within campus heart, and terrestrial/ aquatic habitat quality. - Address contaminants entering waterways from carparks - focusing on priority locations with direct discharge to streams. - Continue waterways restoration programme, including learning spaces and water access. - Connect parkland trails and formalize commuter desire lines. - Continue planting programme, focusing on parkland entry- cultural and iconic marker plantings, and amenity buffers to residential areas.
	First steps - Events management strategy - Review programme and funding streams to activate spaces ahead of construction - Create a mechanism that empowers students and staff to make 'tactical intervention' applications for approval by UC management, particularly where aligned with course work.	First steps - Align staging and budget with programme of works for new buildings - Define extent of works for Campus Heart projects that are independent of new building footprints and infrastructure. - Prioritise 2023 landscape projects that are independent of new buildings- i.e. Ilam Fields.	First steps - Secure operational expenditure where this contributes most significantly to waterways and entrances. - Confirm new site for an orchard/ food forest project. - Review and cost accessible path and bridge upgrades for Ilam Gardens.

10.2 Next steps

The Landscape Master Plan is a flexible spatial framework for ongoing development and management. To develop the high level concepts in the Landscape Master Plan it is recommended that further investigations be carried out in the next year (2016-2017) to better inform project specific scope and parameters. These investigations include the following:

1. Detailed investigation and consultation with ECAN and CCC regarding future potential public transport/ bus route and bus stop relocation options - based on the options and recommendations put forward in the Landscape Master Plan in conjunction with the Transport Strategy. This will inform the design of the entrance boulevard and loop, as the inclusion of frequent bus traffic would significantly impact on the width, layout and materiality of this space.
2. Review service access requirements to RRSIC once a decision is made on the potential removal of Rutherford and any replacement buildings, in conjunction with waterways and potential landscape proposals for the 'stream to stream' urban wetland.
3. Integrated Master Planning of the UCSA, Recreation Centre, Wellness Precinct and Ilam Road (in consultation with ECAN and CCC where appropriate) to fully consider the potential for integrated bus stop provision as above, and traffic calming in the vicinity of the UCSA pedestrian crossing.
4. The Landscape Master Plan identifies that some proposed new buildings, pathways/ boulevards and plaza spaces overlap with existing trees that may require removal or integration, particularly in

the Campus Heart. Further consultation should be undertaken with key grounds staff and HODs as to the significance of educational plant groupings that are too close to buildings.

5. Further design and policy review for the use, layout, quality standard and efficiency of campus fields (Ilam, Dovedale, Kirkwood) to inform spatial allocation and supporting facilities required for UC and community sporting codes, including: rugby, football, cricket, hockey, athletics. This review may be extended to consider the event policy for fields.
6. Comprehensive planning and curation for integration of art opportunities within the campus, specifying locations where art 'typologies' apply and can be incorporated as part of development projects or standalone interventions. An art guide or policy should include specialist input from UC's Art Committee, a curator and landscape architect to refine the Landscape Master Plan recommendations, and establish a process for artists to work collaboratively as part of project teams, or be appointed for specific commissions that reinforce the identity and vision of the University.

Further investigations - Ilam Gardens

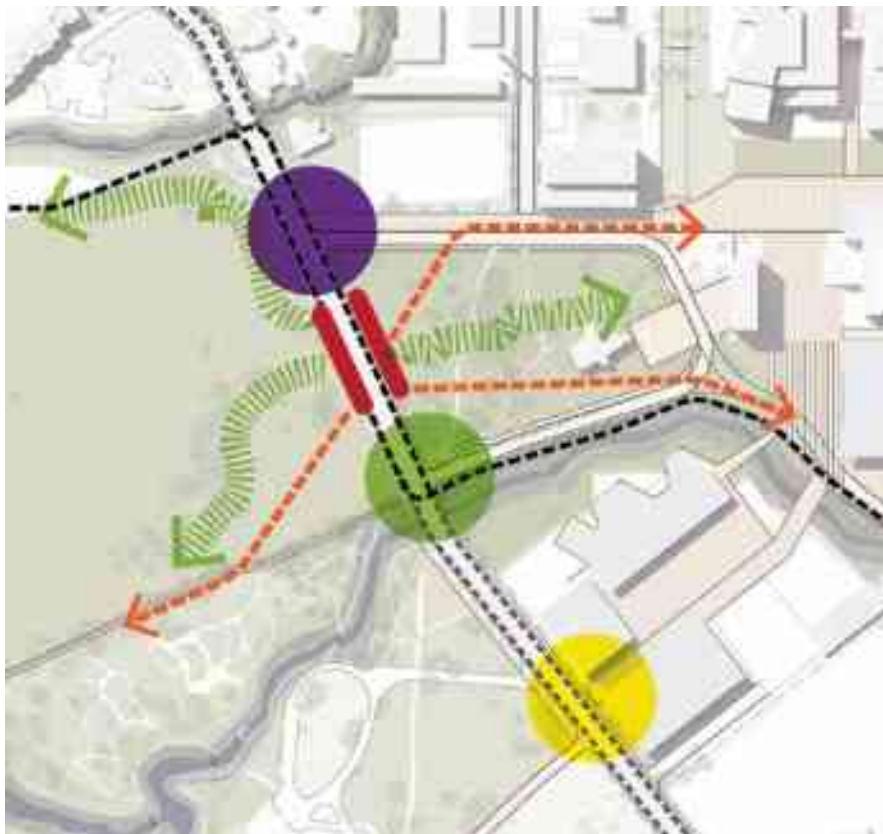
Further investigations for Ilam Gardens are recommended in the Ilam Gardens Landscape Management Strategy and include:

- Consult with CCC and ECAN regarding proposed naturalisation of ephemeral streams
- Review and consult on proposed location for memorial garden, scope and brief, and develop design for fundraising.
- Formalise path along Ilam Fields
- Investigate potential to re-purpose building for public toilets.
- Event management strategy to include Ilam Gardens 'tree lawn'.
- Investigate traffic calming and shared surface for Homestead Lane

10.3 Explore Ilam Road bus stop options

Investigating possible bus stop configurations on Ilam Road

Option 01: Bus stop between Okeover lawn and Ilam Fields



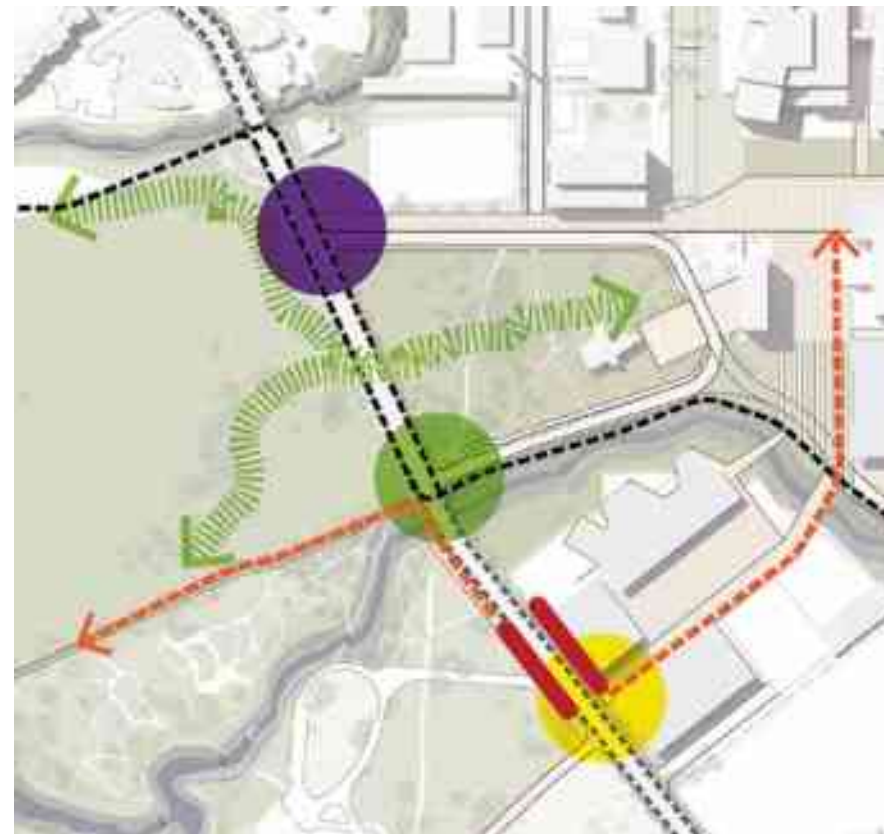
Pros:

- Safety - visibility up and down street
- Views into campus

Cons:

- Interrupts continuous green character from Ilam Fields to Okeover lawn
- Separated from key entrances
- Desire lines across Okeover lawn and Ilam fields
- Indirect connection to access network
- Conflict with cycleway both sides of road

Option 02: Bus stop integrated with UCSA



Pros:

- Strong connection to UCSA, wellness precinct and accommodation
- Direct access into campus via wellness precinct
- No conflict with cycleway
- Journey times remain as per status quo
- Less conflicts with cycle and pedestrian traffic

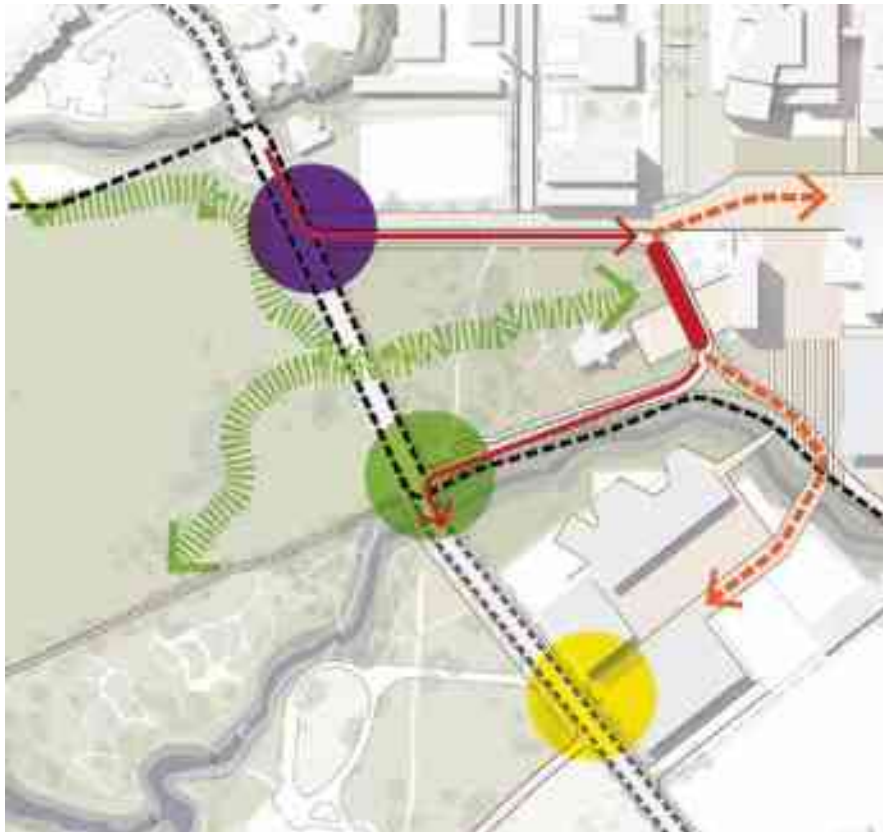
Cons:

- Disconnected from main (formal) entrance
- Bus stop safety and visibility issues need to be resolved
- Concentrates foot traffic in wellness precinct/around UCSA building



RECOMMENDATIONS

Option 03: Bus stop in campus, entering on the boulevard and exiting on the loop



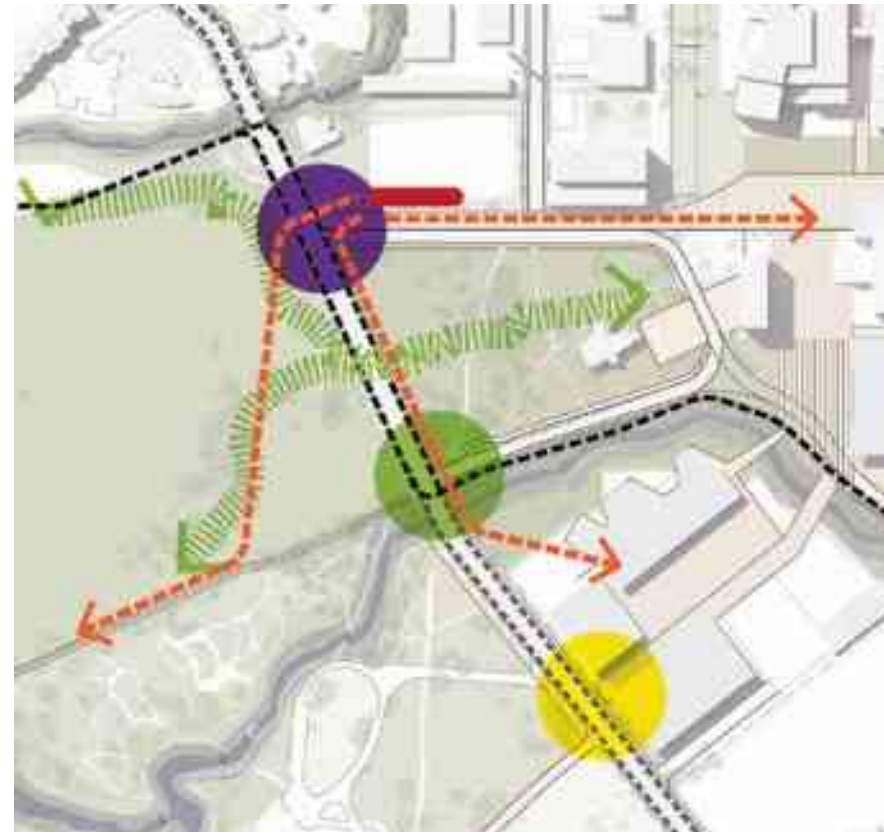
Pros:

- Arrival directly into the heart of the University - reinforces entrance experience
- Direct access to University
- Disembark/embark removed from road

Cons:

- Adds time to bus route
- Bus turning issues at entrance and exit
- Creates conflict with cyclists and traffic on road
- Brings traffic into the boulevard - safety issue
- Disconnected from Ilam Fields and accommodation
- Conflicts with "pedestrian campus"
- Conflicts with Buses crossing cycleway at entry and exit

Option 04: Bus stop north of main campus entrance



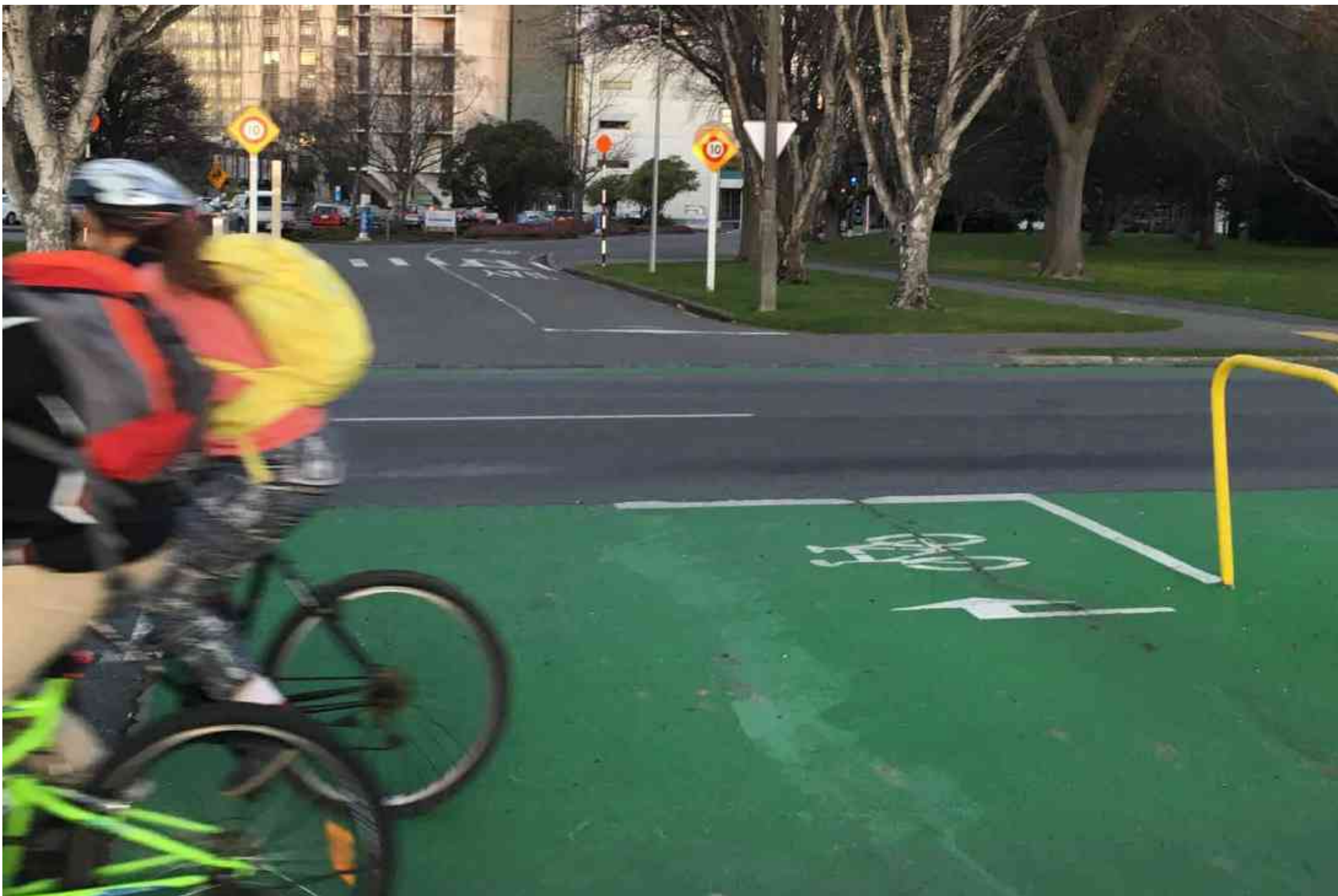
Pros:

- Arrival directly onto Boulevard - reinforces entrance experience
- Direct access to University
- Disembark/embark removed from road

Cons:

- Adds time to bus route
- Bus turning issues
- Creates conflict with cyclists and traffic on road





11. Appendices



isthmus

WOODS
BAGOT.

360°

11.1 Significant trees

11.1.1 Categories of significance

Categories of “Significance”	Response
Planting to memorialize a death	1. Transfer 'memorial' to heritage garden where original planting will be disturbed, where tree dies, becomes diseased or is otherwise unsustainable. 2. Retain memorial trees where plantings are retainable. 3. No further memorial trees planted on Ilam Campus as per Memorial Policy
Commemorative trees – planting to note moments in UC history	1. Maintain where plantings are sustainable 2. Remove those that are unsustainable and replace where feasible. 3. No further commemorative plantings on Ilam Campus as per Memorial Policy.
'Significant' – Look and feel of gardens/trees add to the value and character of the UC Estate	1. Maintain as per Landscape Master Plan
Endangered Trees (as per ICUN)	1. Managed as a commemorative tree under Landscape Master Plan

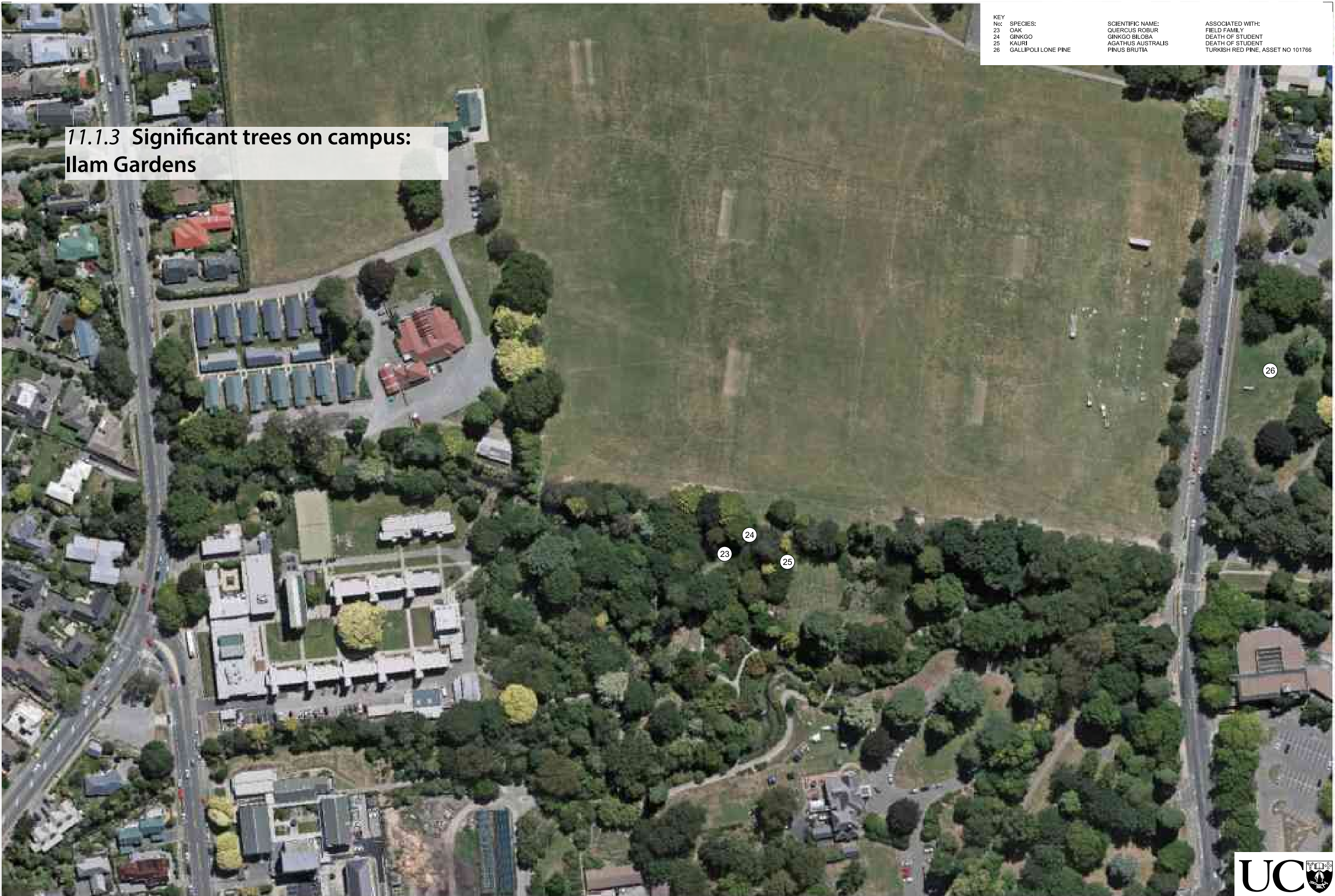
The University of Canterbury will endeavour to protect known commemorative trees and ICUN endangered species.

Information regarding significant trees has been provided by the University of Canterbury. Review of trees and their significance should be carried out on a project by project basis, including review of the Christchurch District Plan.



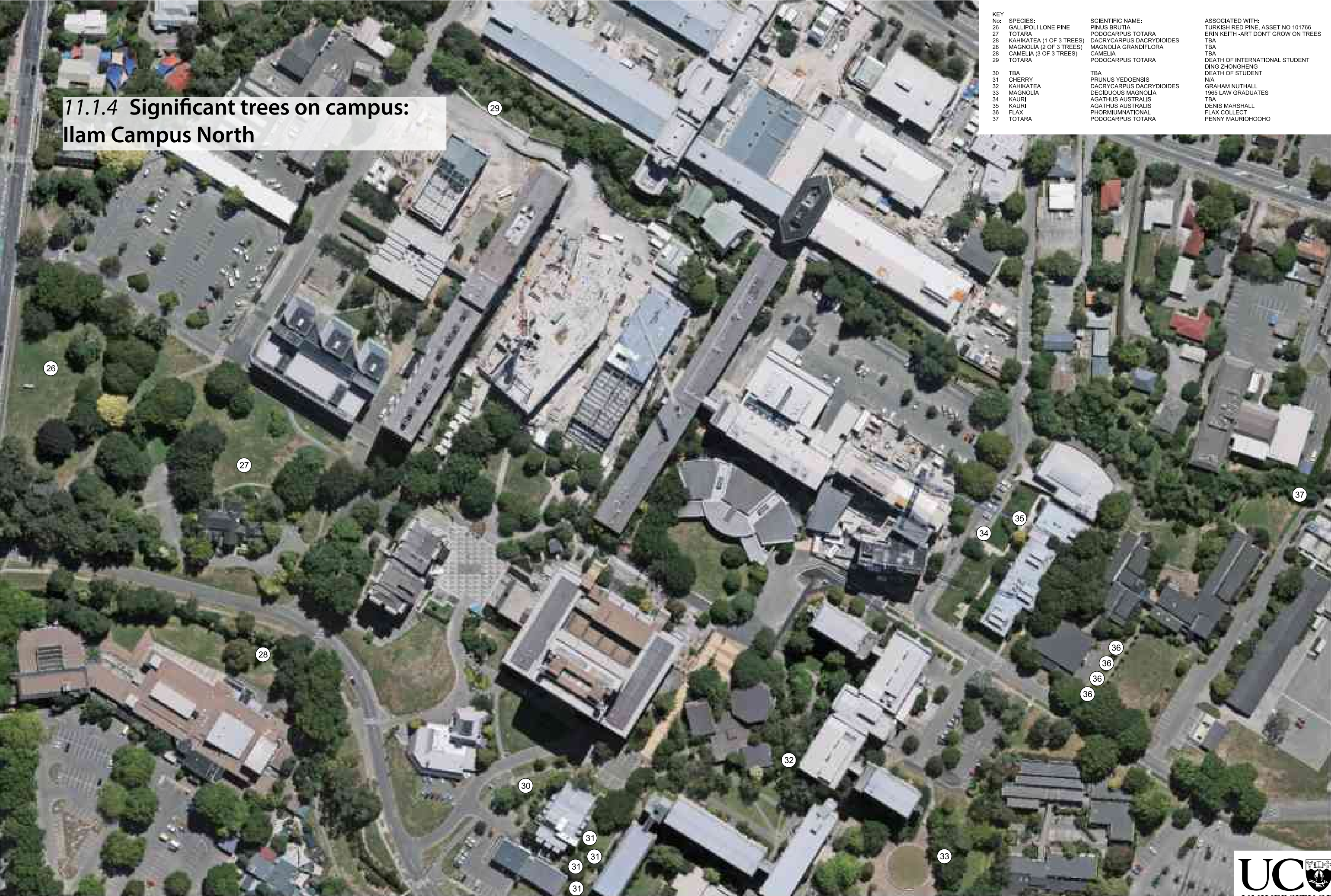
11.1.2 Significant trees on campus:
Dovedale

KEY	SPECIES:	SCIENTIFIC NAME:	ASSOCIATED WITH:
No:			
1	BALTIC PINES (4 OFF)	PINUS EXCELSA	LANCE MCCASKILL
2	OAK	QUERCUS ACUTISSIMA	E C ROBINSON
3	MAGNOLIA	MAGNOLIA GRANDIFLORA	TBA
4	CAMELIA	CAMELIA	KATE SHEPARD 100 YEAR ANNIVERSARY
5	KAURI	AGATHUS AUSTRALIS	DEATH OF STUDENT
6	GINKGO	GINKGO BILIBA	JOHN GUNN POLSON
7	KOWHIA	SOPHORA MICROPHYLLA	GARY MARSH
8	LIME	TILIA EUROPAEA	JACK MANN
9	MAPLE	ACER PSEUDOPLATANUS ESK SUNSET	DR COLIN KNIGHT
10	TULIP TREE	LIRIODENDROIDAE	COMMEMORATIVE
11	LILAC	SYRINGA VULGARUS	CINDY INCH
12	CAMELIA	CAMELIA	ROBIN EVENS
13	ACER	ACER NEGUNDO	E SUNDERLAND
14	CHEERY	PRUNUS	10 YEARS STUDY AT CCEL
15	OAK	QUERCUS ROBUR	CHARLES HODGKINSON
16	HORSECHESTNUT	AESCULUS HIPPOCASTANUM	REMEMBERANCE JOHN A DORAN
17	OAK	QUERCUS COCCINIEA	GRAEME STOOP
18	OAK	QUERCUS PETRAEA	BRUCE D JAMIESON
19	OAK	QUERCUS RUBRA	IAN HALL
20	ASH	FRAXINUS AMERICANA	WENDY RITCHIE
21	KOWHAI	SOPHORA MICROPHYLLA	RT HON JENNY SHIPLEY
22	MAPLE	ACER	ANNE KNIGHT
			BASIL DOSSETT
			ANN BERNEY



11.1.3 Significant trees on campus:
Ilam Gardens

KEY	SPECIES:	SCIENTIFIC NAME:	ASSOCIATED WITH:
No:			
23	OAK	QUERCUS ROBUR	FIELD FAMILY
24	GINKGO	GINKGO BILOBA	DEATH OF STUDENT
25	KAURI	AGATHUS AUSTRALIS	DEATH OF STUDENT
26	GALLIPOLI LONE PINE	PINUS BRUTIA	TURKISH RED PINE, ASSET NO 101766



11.1.4 Significant trees on campus:
Ilam Campus North

KEY	SPECIES:	SCIENTIFIC NAME:	ASSOCIATED WITH:
No:	GALLIPOLI LONE PINE	PINUS BRUTIA	TURKISH RED PINE, ASSET NO 101766
26	TOTARA	PODOCARPUS TOTARA	ERIN KEITH -ART DON'T GROW ON TREES
27	KAHIKATEA (1 OF 3 TREES)	DACRYCARPUS DACRYDIOIDES	TBA
28	MAGNOLIA (2 OF 3 TREES)	MAGNOLIA GRANDIFLORA	TBA
28	CAMELIA (3 OF 3 TREES)	CAMELIA	TBA
29	TOTARA	PODOCARPUS TOTARA	DEATH OF INTERNATIONAL STUDENT
			DING ZHONGHENG
			DEATH OF STUDENT
30	TBA	TBA	N/A
31	CHERRY	PRUNUS YEDOENSIS	GRAHAM NUTHALL
32	KAHIKATEA	DACRYCARPUS DACRYDIOIDES	1965 LAW GRADUATES
33	MAGNOLIA	DECIDUOUS MAGNOLIA	TBA
34	KAURI	AGATHUS AUSTRALIS	DENIS MARSHALL
35	KAURI	AGATHUS AUSTRALIS	FLAX COLLECT
36	FLAX	PHORMIUM AUSTRALIS	PENNY MAURIOHOOHO
37	TOTARA	PODOCARPUS TOTARA	



11.2 Statutory Planning Context

11.2.1 Significant features

The following sections of the Christchurch District Plan apply to the significant feature and landscape overlay on the Haereroa-Avon River:

9.2.9 Appendices

9.2.9.1.3 Significant features

The following are the district's identified significant features and their qualities:

Ōtākaro/Avon River and Heathcote River/Ōpāwaho:

1. The rivers provide an important natural contrast with the wider urban environment.
2. Ecologically important, including for indigenous fauna and indigenous vegetation.
3. Historic heritage associated with both early Māori and European settlement.
4. Cultural significance to Ngāi Tahu, particularly relating to mahinga kai and associated pā and kāinga (settlements).
5. The river banks have high amenity values and valued for passive recreation.
6. The Ōtākaro/Avon River is an important natural feature in the city, particularly at Mona Vale, Hagley Park, the Botanic Gardens, and Central City, and contains remnant channels, basins, wetlands and springs reflecting the geomorphological history of the city landscape.
7. Heathcote River/Ōpāwaho with its origin in the tributary streams flowing from Port Hills provides a corridor of high amenity values as it meanders through the residential suburbs and has strong historic heritage values, particularly in the industrial area of Woolston and Radley's wharf where the towpath along the river is now used as a walkway.

(Proposed Christchurch Replacement District Plan)



Aerial Map Reference: 656
Heritage Item Number: 302
Heritage Setting Number:

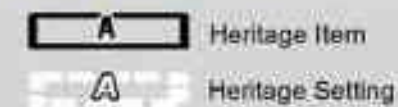
11.2.3 Heritage items: Ilam Gardens and Homestead, College House and Okeover House

The map shows an aerial view of a residential area. A large green area, likely a park or garden, is outlined in black. Within this area, several buildings are labeled with numbers: 534, 1336, 1338, 1339, 1342, 1340, 1337, 620, 302, 301, and 300. The area is bounded by Main Road to the north, Ilam Road to the east, and a residential street to the south. Other streets visible include Main Road, Ilam Road, and a residential street. The map also shows surrounding residential areas with houses and streets.

Heritage Item and Setting boundaries are a visual reference only as they have been captured against specific sets of aerial photography. The outer boundary of the setting is deemed to follow:

- a) the specific measurement(s) or description of the setting boundary where they are included on the aerial map; or if not specified, then;
- b) the cadastral boundary at the nearest point to the setting boundary shown on the aerial maps.

The boundaries should only be referred to in relation to these specific photos, not survey information or building plans. There may be a visual distortion due to the angle of the aerial photography. District Plan rules do not apply for overlays extending into the Coastal Marine Area. The Coastal Marine Area is as defined in the Resource Management Act.



Scale 1 : 2,468
Aerial photography captured in 2010
Published On: 14/10/2016

Scale 1 : 2.468

Heritage Items and Settings Aerial Map

Aerial Map Reference: 16
Heritage Item Number: 535
Heritage Setting Number: 190

11.2.4 Heritage items: Fendalton Open Air Classroom



Heritage Item and Setting boundaries are a visual reference only as they have been captured against specific sets of aerial photography.
The outer boundary of the setting is deemed to follow:
a) the specific measurement(s) or description of the setting boundary where they are included on the aerial map; or if not specified, then;
b) the cadastral boundary at the nearest point to the setting boundary shown on the aerial maps.
The boundaries should only be referred to in relation to these specific photos, not survey information or building plans. There may be a visual distortion due to the angle of the aerial photography.
District Plan rules do not apply for overlays extending into the Coastal Marine Area. The Coastal Marine Area is as defined in the Resource Management Act.

 Heritage Item
 Heritage Setting



Scale 1 : 461
Aerial photography captured in 2010
Published On: 16/07/2015

11.3 Campus comparisons

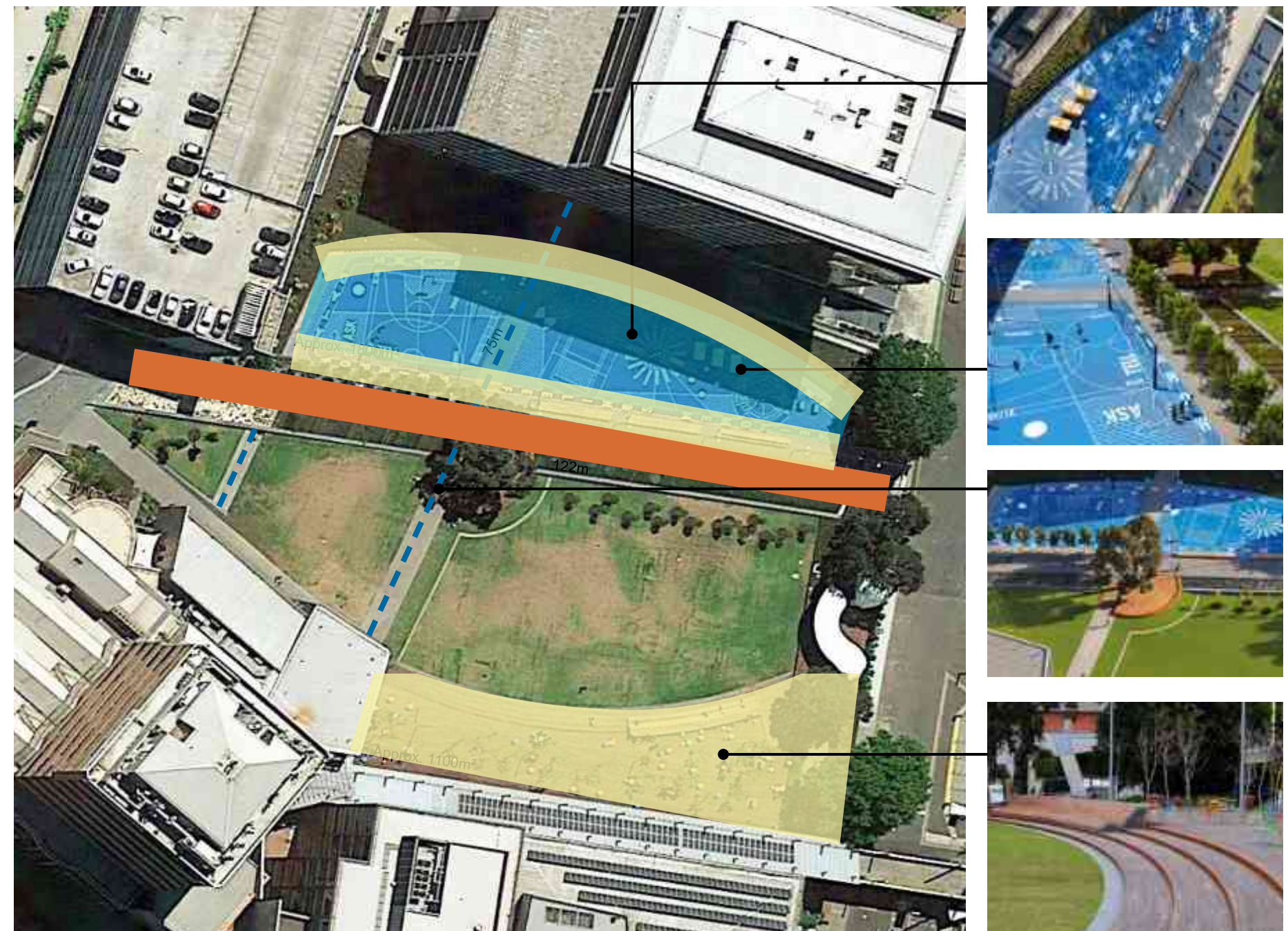
11.3.1 Monash University

Movement Typologies:

- Primary Access (Pedestrian/Cyclists): Approx. 5m width
- Secondary Access Routes (Pedestrian): Approx. 3-4m width
- Shared Surface (Cars/Pedestrian/Cyclists)
- Slow/Congregational Spaces
- Mixed-surface sports facilities: Approx. 60m x 20m
- Plaza/entrance area

Key Spatial Features:

- Integrated Seating
- Spatial Planting
- Focal Centre
- Cycle Parking
- Water Feature



11.3.2 Colorado State University

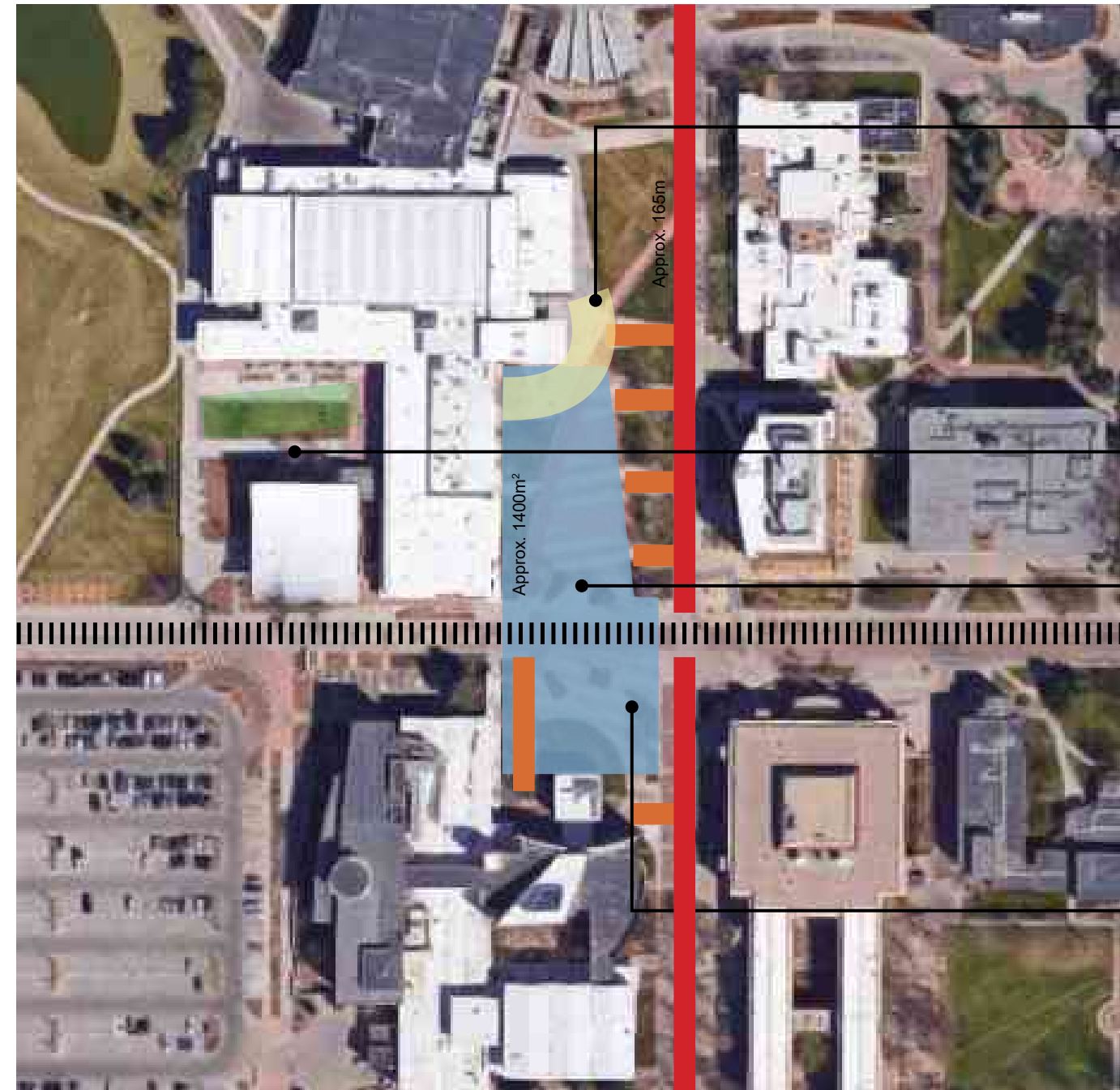
Movement Typologies:

- Primary Access(Pedestrian/Cyclists): Approx. 8m width
- Secondary Access Routes (Pedestrian): Approx. 3-4m width
- Shared Surface (Cars/Pedestrian/Cyclists): Approx 10m width
- Slow/Congregational Spaces
- Mixed-surface sports facilities:
- Plaza/entrance area



Key Spatial Features:

- Integrated Seating
- Spatial Planting
- Focal Centre
- Cycle Parking
- Water Feature



11.3.3 RMIT University

Movement Typologies:

- Primary Access(Pedestrian/Cyclists)
- Secondary Access Routes (Pedestrian): Approx. 3-4m width
- Shared Surface (Cars/Pedestrian/Cyclists): Approx 5m width
- Slow/Congregational Spaces
- Mixed-surface sports facilities: Approx. 40m x 50m
- Plaza/entrance area

Key Spatial Features:

- Integrated Seating
- Spatial Planting
- Focal Centre
- Cycle Parking
- Water Feature



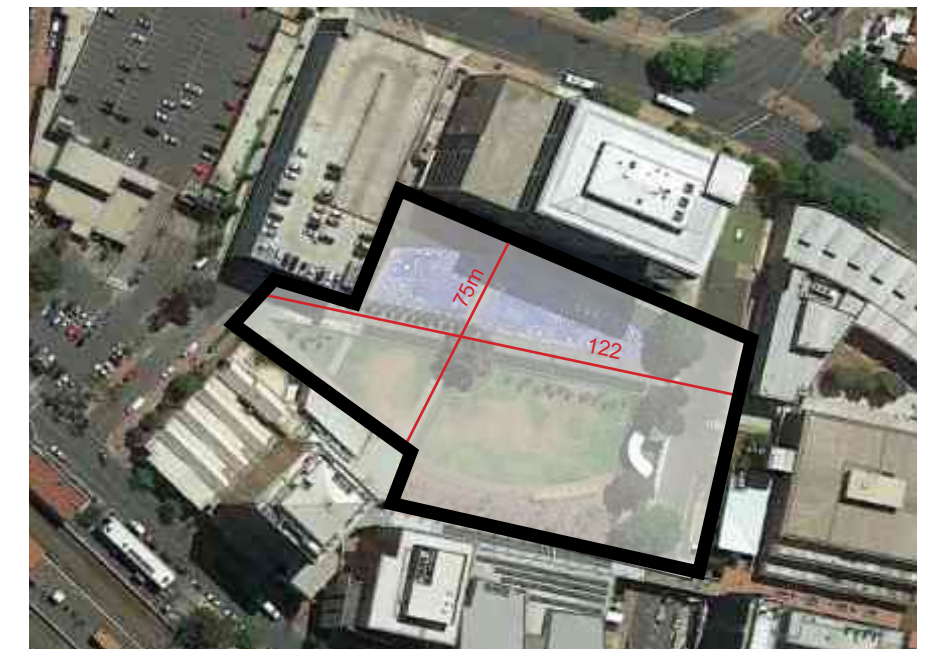
11.3.4 University of Canterbury spaces in relation to relevant campus precedents



UC - OKEOVER LAWN

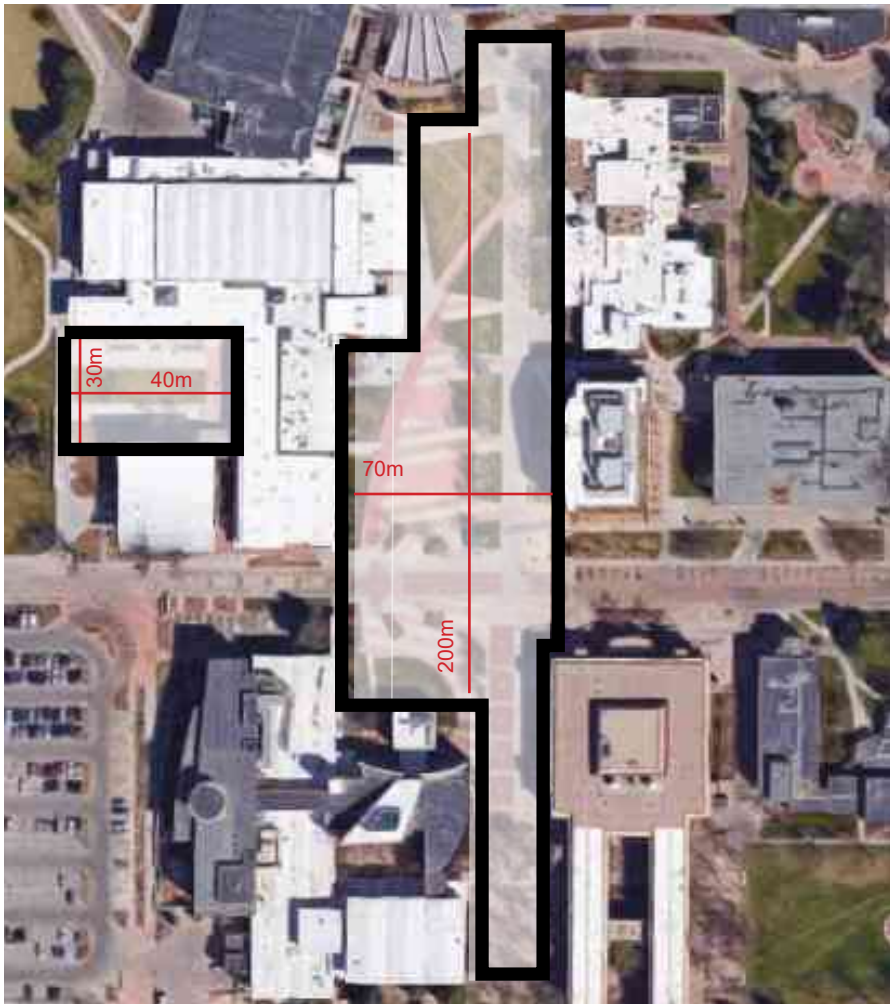
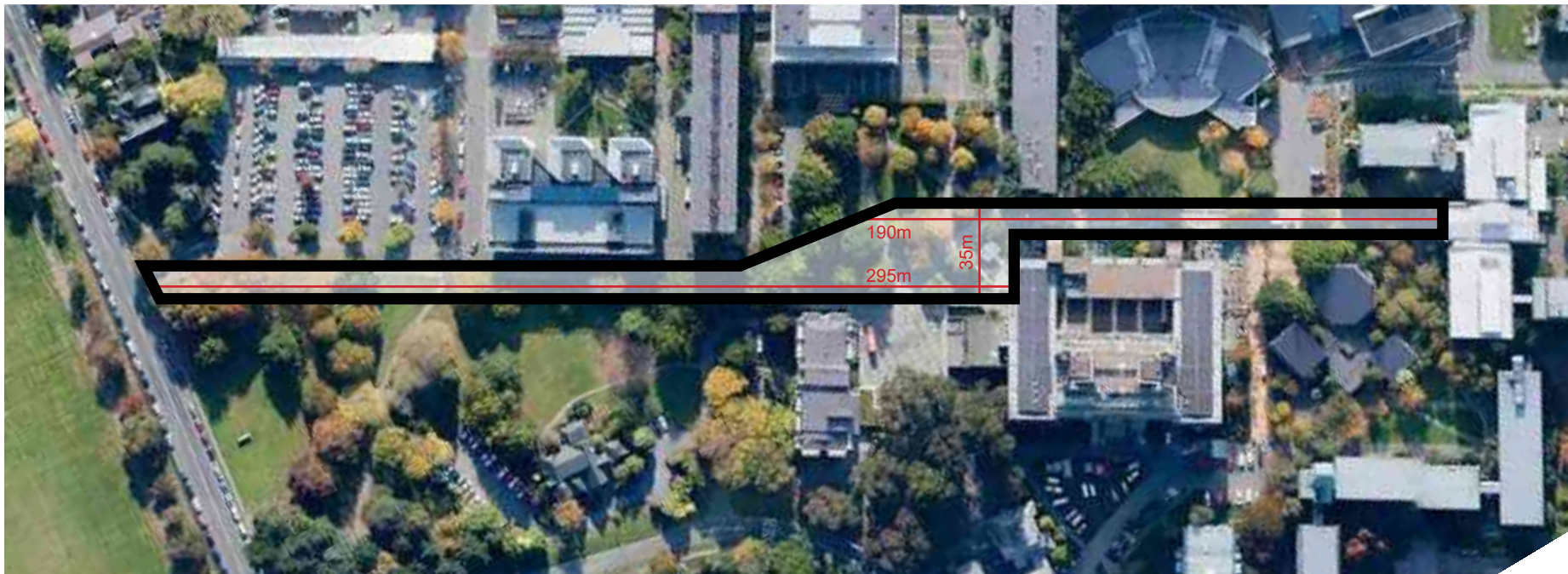


UC - C BLOCK LAWN



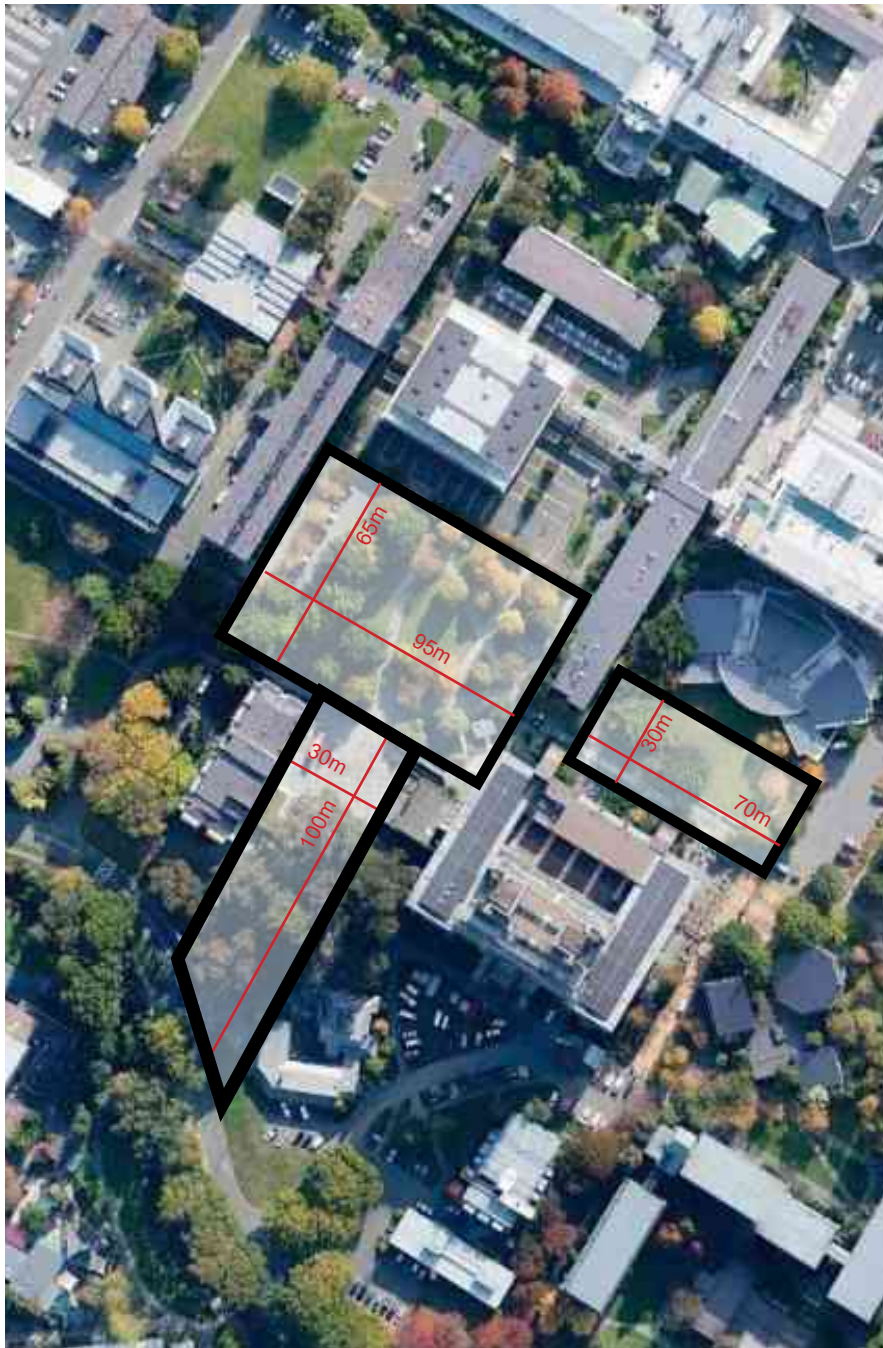
MONASH UNIVERSITY





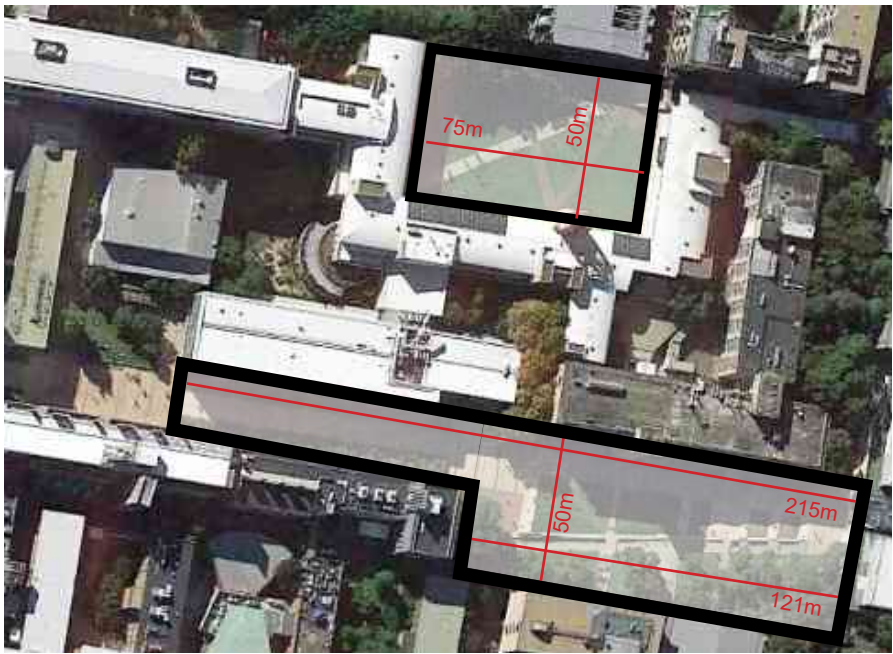
COLORADO STATE UNIVERSITY





RMIT - URBAN SQUARE





UNIVERSITY OF NEW SOUTH WALES



