JACKA 2 Urban Design Report 2019 FOR SUBURBAN LAND AGENCY

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Executive Summary

The Master Plan for the Jacka 2 aims to create a diverse and connected community that is in harmony with nature. The design has been informed by place-based research and collaboration to create a place that is appropriate and reflective of Jacka.

ENGAGEMENT

A workshop was undertaken to create a vision for Jacka 2. Groups worked together to develop themes and statements to identify a personality and aspiration.

VISION

The community heart of Jacka 2 will be the Village Centre, located at the convergence of nature, urbanity, local vistas and multi- modal movement. All design aspects shall reinforce the Village Centre as a safe, active, people-focused environment for community gathering.

THE MASTER PLAN RESPONSE

A review of the Tait Network Master Plan was undertaken to ensure suitability against a variety of criteria. Key elements were retained, whilst other areas were reviewed to retain existing significant trees, ecology, and key views.

- Heritage Views
- Ecological Urbanism



POST-ITS WORDPLAY



NATURE AT YOUR DOORSTEP



MASTER PLAN REVIEW

SITE ANALYSIS

A thorough analysis of the site provided many opportunities and multiple constraints that can be redesigned to be opportunities.

The key considerations for the site are:

- Topography
 - Trees
 - Water
 - Open Space



EXTENSIVE TREES AND STEEP TOPOGRAPHY

THE MASTER PLAN

THE FOUR PILLARS:

- Maintain and enhance the quality of Jacka 2 as a suburb
- Promote diversity
- Integrate the Precinct into the broader community
- Promote a village in harmony with the landscape

CONNECTED AND HEALTHY

A broad open space network provides opportunities for pedestrians and cyclists to navigate the neighbourhood in a safe and healthy environment.

BUILT FORM

A variety of building typologies have been designed for Jacka 2, including:

- Standard Detached Dwellings
- Terraces
- Multi-unit sites
- Micro-Lots
- Apartments





BROAD OPEN SPACE NETWORK WITH ACTIVE TRAVEL PATHS



MASTER PLAN

Jacka 2 is surrounded by an extensive natural environment, with high quality mature trees scattered throughout the proposed development. These established trees are located within high quality open space and provide a distinctive character for the estate.

LANDSCAPE



EXTENSIVE VEGETATION

5





Introduction

Roberts Day was engaged by the Suburban Land Agency to undertake the urban design for Jacka 2 to inform the preparation of an Estate Development Plan (EDP) for the site. This report supports the EDP and is a summary of the process undertaken to develop the master plan and EDP for the site. The report includes:

- The vision,
- Key master plan principles, and
- Innovation for the site.

This EDP is the result of a collaborative process between the project team, the client, and ACT government agencies. The design has been informed by:

- Reviewing a range of background reports/studies
- Reviewing and building upon a previous master plan
- In-depth Place Analysis
- Client visioning workshop
- Community Consultation
- Project team collaboration

The project seeks to develop a place specific community, with a diverse range of housing typologies suited to the site.

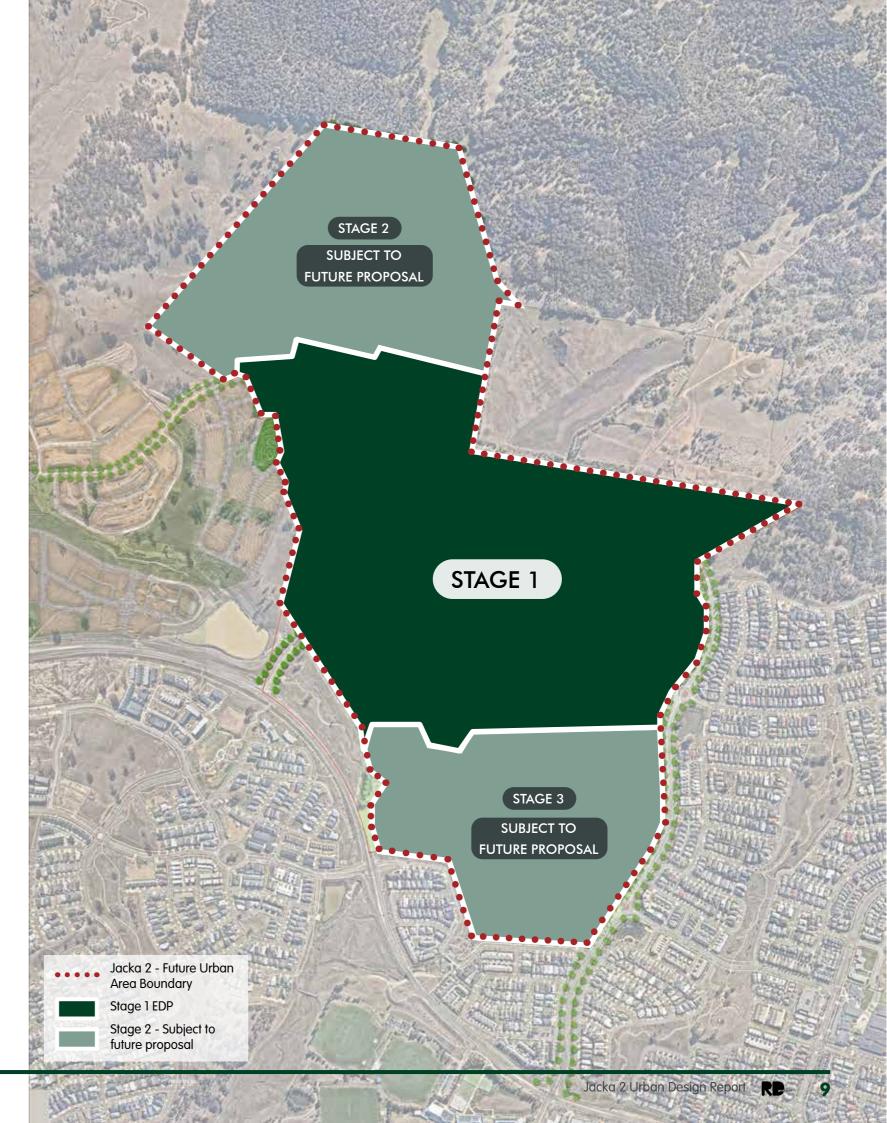




The Urban Design Report covers the Future Urban Area (FUA) Boundary for Jacka 2 to ensure a holistic approach to neighbourhood design.

The report does not divide with staging boundaries to provide suitable context and support for the Stage 1 EDP.

Stages 2 and 3 will be subject to future proposals.



Methodology Great Places Process TM

Roberts Day's Great Places[™] process is a natural evolution and refinement of 20 years of professional practice. It is intended to ensure that the entire vision, conception, delivery and activation of any place is led by the drive to enrich the guality of life of the people who will live, work and visit it.

At the core of our Great Places Process is the belief that a significant amount of time should be invested in understanding the needs and aspirations of the community and stakeholders, and discovering the unique history and identity of a place prior to the physical design process commencing.

A summary and description of the Great Places Process is provided below.

UNDERSTAND

Is the brief and the aspiration right? Are we clear on how we are measuring our successes?

DISCOVER

Do we understand the essence and sense of place? What do users of this precinct need? Who are the characters and stories that make it unique?

ENVISION

Have we engaged with the community? Do we have a clear, unique and marketable place vision? Have we mapped all the strategies and partnerships that will help bring this place to life? Does it capture what we need to prepare a sound business case?

DESIGN

Are we designing something true to the place vision? Are we providing the design and coding that will lead to functional and inspiring architecture? How can we incentivise public benefit and good design?

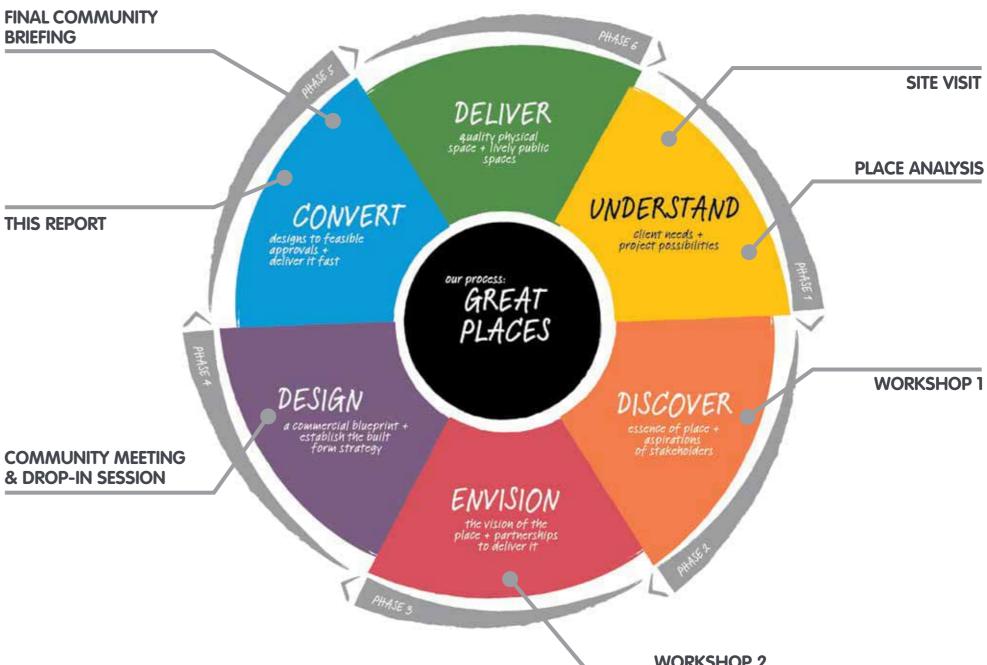
CONVERT

Are we engaged with the agencies? Have we got something clear and implementable that will bring the vision to life, allow flexibility and create a great place?

DELIVER

Have we seen the vision through? Are the buildings and the public spaces performing? Are we incubating business, community ownership and street life that will attract people? Are we setting the community to self govern and normalise?

ROBERT'S DAY GREAT PLACES PROCESS™



WORKSHOP 2







Local Context

OVERVIEW

Roberts day acknowledges the significant amount of strategic, contextual and site analysis undertaken to date for Jacka 2. We have endeavoured to build on this work with a particular focus on:

Local Context- in terms of the role of Jacka 2 in the area. Jacka 2 is highly connected and therefore has an inherent responsibility to provide housing diversity, amenity and community gathering opportunities.

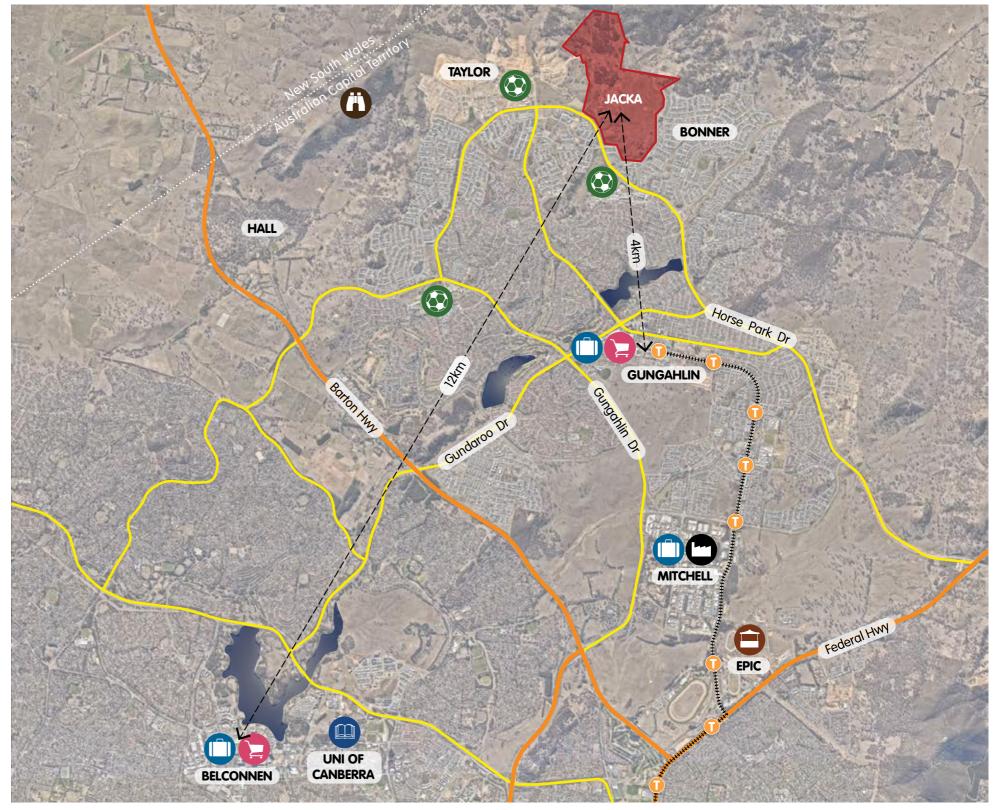
Site Analysis- focuses on additional observations to that which was established in the Concept Plan (refer to following section, Building on Strong Foundations; focusing on arrival experiences, celebration of hilltops and visual and physical connectivity and legibility.

Place Analysis- Roberts Day established an original body of analysis focused around the unique place qualities and features of Jacka 2. The following pages summarise key place findings from our audit. These features begin to form a multi- disciplinary design brief whereby the most unique elements of Jacka 2 are retained and/ or celebrated and evolved into a best practice new urban community.

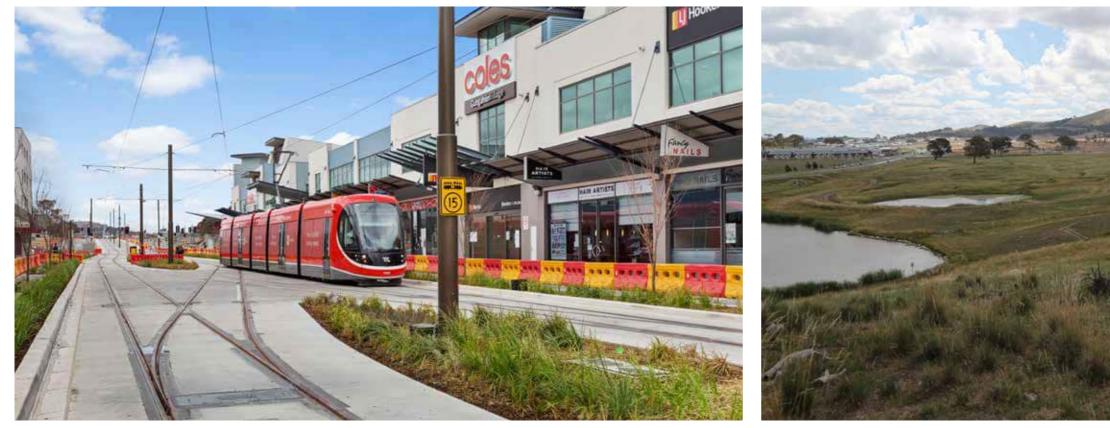
SURROUNDED BY NATURE - CLOSE TO AMENITY

Jacka 2 is in the northern most corner of Canberra, near the ACT/NSW border.

- Surrounded by dense vegetation
- Elm Grove Homestead neighbour
- Connects into Taylor and Bonner
- 4kms north of Gungahlin Centre, and the end of the new Light Rail line.
- 7kms to Mitchell
- 12kms to Belconnen and University of Canberra
- 14.5kms to Civic



CONTEXT MAP



GUNGAHLIN TOWN CENTRE

VIEW TO TAYLOR AND ONE-TREE HILL AT HALL







YERRABI POND

EXHIBITION PARK

UNIVERSITY OF CANBERRA



Place Analysis

PLACE ANALYSIS

The Jacka 2 Place Analysis goes beyond desktop and strictly physical site analysis to capture the unique place characteristics that residents value in their community. These values provide the basis for the Jacka 2 design brief and Vision.

- Significant existing trees- stunning trees as clusters and as individual elements to be retained provide an instant maturity, legibility and identity.
- Hilltops- uniquely not just as a backdrop to development but within the development footprint. Sensitive, slope responsive development will retain the topographic character. Hilltops will not only be retained as open spaces but visual corridors will be established between them contributing to a sequence of experiences and vistas.
- Grasslands- the dynamic golden grasslands can be translated into a playful public domain through materiality, layering and landscape; encouraging residents to stay and play.
- Aquifer an aquifer and associated pedoderm occupies a portion of the site to the east of the primary development footprint. Whist a constraint to be respected, the aquifer also provides the opportunity to celebrate and express water on site through WSUD and water play.
- Indigenous Heritage- seven surface artefact scatters and seven Potential Archaeological Deposits (PADs) have been identified within the study area. The sites were considered likely to be impacted by the proposed development and archaeological investigation was undertaken in accordance with the 2005 Jacka Residential Estate Cultural Heritage Scoping Study.[ii] Collection of surface artefacts and testing of PADs was undertaken and all sites were identified as being of low significance. However, the project team viewed this as an opportunity for heritage appreciation, historic and landscape interpretation and celebration and integration, wherever possible, of the historic long term Aboriginal occupation of the land

- Horse Park Homestead- sitting on top of the aquifer is the Horse Park Homestead and associated wetland. This heritage item provides the opportunity for a community facility that promote ecological awareness, education and meaningful interpretation.
- Elm Grove- whilst not part of the Jacka 2 investigation area, there are opportunities to weave in the story and history of Elm Grove to an interpretive and/ or art trail.
- Multi- modal- it is unique for a greenfield site to have pre- existing multi- modal infrastructure that can easily be translated into an active travel system. Jacka 2 benefits from
- vehicle access from Horse Park Drive
- planned bus route/ stop connecting to existing surrounding routes and to the future Jacka 2 centre
- Cycle/ shared path extension from Taylor
- Equestrian presence via an informal Bicentennial Trail route
- Connected- in addition to accessibility, Jacka 2 is connected to the region, Civic, regional open space and the existing infrastructure and services of Taylor and Bonner. Connectivity to transport, amenity and services makes the provision of density and diversity logical and beneficial to future planning and lifestyle trends.









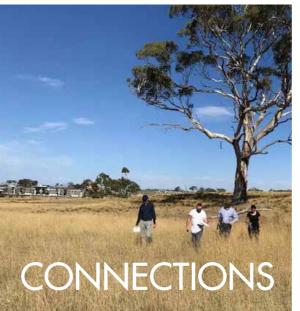
ACQUIFER

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Establishing the Vision



Vision Workshop

The Suburban Land Agency (SLA) came together with the design team to develop an identity for Jacka 2.

PEOPLE CENTRIC

The initial warm-up activity saw a variety of members from marketing, treasury, construction, and the design teams to create a persona based on a randomly chosen demographic type and housing type. This put in the forefront of each members mind the type of people that will choose to live in Jacka.

PERSONALITY

The following two activities were designed to invoke a personality by each member choosing a single word to describe Jacka's personality, and then grouping each word into themes.

Four themes were developed through this exercise, which were: Nature, Sport, Quiet, and Undefined.

The workshop was divided into groups based on the four themes, and they were to expand the theme into a statement to be voted on, these were:

- Nature at your doorstep 1.
- 2. Sport will lead you to explore and connect with your suburb
- 3. The future is undefined; make it yours
- 4. Jacka is a guiet achiever, full of guiet moments

ASPIRATIONS

Using the same method as for the personality, the group were to write a single word answer to question, 'Jacka's streets and open spaces should be...'

Three themes were developed: Natural, Shared, Welcoming

Three groups developed these themes into a series of statements, which were:

- 1. Natural connections in a sustainable neighbourhood, celebrating nature
- 2. Share the adventure
- 3. Welcoming everyone through light, art, nature, and culture



Warm-up activity

Post-its

WORDPLAY: JACKA 2'S PERSONALITY

Participants write down words which answer the statement 'Jacka's personality is'. Suggested 2-3 words per person. They bring the post-its to the front and they are grouped thematically (e.g. nature, activity, heritage).

Worksheets

EXPANDING THE WORDS: PERSONALITY

Each group takes a theme from the wordplay exercise (choosing the most common word from that theme - e.g. nature). In two minutes, they think of at least 10 statements which expand on the theme (e.g. 'Jacka 2 brings you closer to nature'). They choose their favorite and share to the front.

Break and presentation

INSPIRATION: JACKA IS...

Project team to present observed, unique place features of Jacak 2 and relevant global trends/inspiration.

Post-its

Inspired by the presentation, participants write down words which answer the statement 'Jacka's streets and open spaces should be. Suggested 2-3 words per person. They bring the post-its to the front and they are grouped thematically (e.g. connected, green, safe).

Worksheets

Voting game

EXPANDING THE WORDS: ASPIRATIONS

Each group takes a theme from the wordplay exercise (choosing the most common word from that theme - e.g. connected). In two minutes, they think of at least 10 statements which expand on the theme (e.g. 'Jacka 2 will be so green that people will choose to walk everywhere '). They choose their favorite and share to the front.

DOTMOCRACY: PERSONALITY & ASPIRATIONS

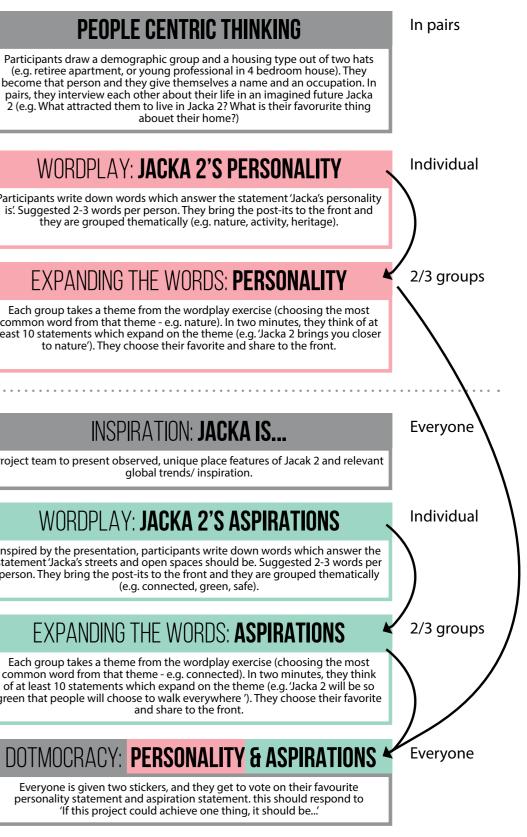
Everyone is given two stickers, and they get to vote on their favourite personality statement and aspiration statement. this should respond to 'If this project could achieve one thing, it should be ...'

VISION WORKSHOP AGENDA | PROCESS WITH SLA TO DETERMINE PERSONALITY AND ASPIRATIONS FOR JACKA 2



VISIONING WORKSHOP





Findings

Following on from the post-it exercises to develop a series of statements that represented Jacka, each of the groups chose a best statement to be voted on. Collectively the workshop voted via 'dotmocracy' on a personality and aspiration statement that best suited the identity for Jacka.

There were four statements to chose from for personality, and three for aspiration. The following statements were chosen.

PERSONALITY

"NATURE AT YOUR DOORSTEP"

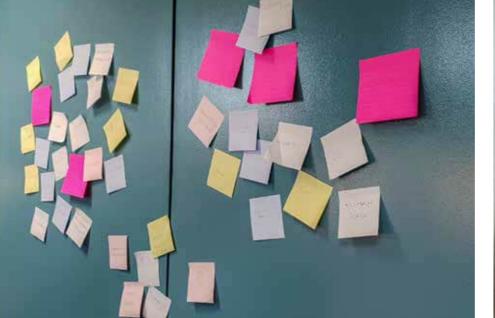
ASPIRATIONS

"NATURAL CONNECTIONS IN A SUSTAINABLE NEIGHBOURHOOD, **CELEBRATING NATURE"**



VOTING ON JACKA 2 PERSONALITY AND ASPIRATIONS







VISIONING WORKSHOP

POST-ITS WORDPLAY

		ASPIRATIONS	
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	-	1. Shale the adventure	
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	3 RE	heighbourhood celebrating nature.	
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DOTMOCRACY - RESULTS FOR PERSONALITY & ASPIRATIONS

Gunghalin Community

Drop-in session

Two Community Consultation sessions were held in the Gungahlin Community. The first was a Community Consultation Drop-in session held at the Amaroo Public School on Saturday October 13th 2018. The session gave the community the opportunity to comment on the design of Jacka 2, and provide feedback.

A small selection of the community visited the drop-in session over the two hour period, with the majority interested in purchasing land within it registering an interest online for future updates.



MEMBER OF THE SLA DISCUSSING JACKA 2





COMMUNITY VIEWING THE PROJECT

Roberts Day and the SLA presented to the Gunghalin Community Council on 12th September 2018. The presentation focused on the place analysis documented within this report and the proposed design responses.

Key questions posed by the community include topics such as:

- The size and mix of blocks proposed
- Early establishment of public transport
- Equestrian access to the site
- The natural and built from interface
- The session successfully provided community transparency and highlighted areas where the team could provide further calcification and agency engagement moving into detailed design.



Jacka 2 - Nature at your doorstep

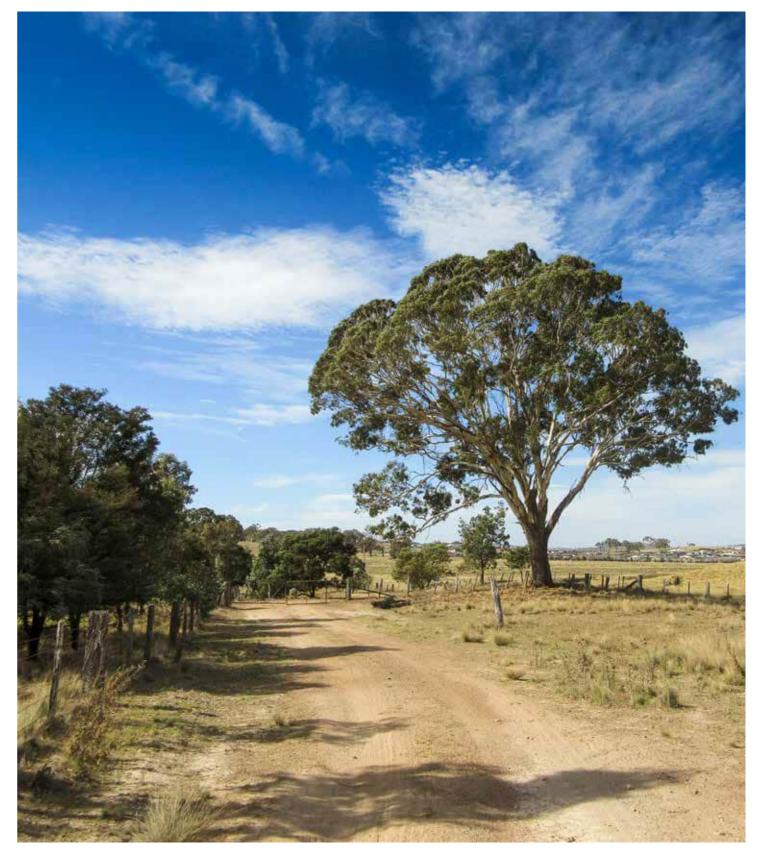
Jacka 2 represents the unique opportunity for ecological and human habitats to not only co-exist but to thrive in a mutually beneficial environment through genuine integration. The retention and celebration of the human habitat at Jacka 2 is equally as critical as the ecological habitat. This is due to the quality Indigenous and European heritage of the site as well as a commitment to the quality of life, health and well- being of the future Jacka 2 community. The community will also be stewards of the cultural and environmental values of the site promoting education, awareness and regeneration.

Innovation will be driven by environmental, community, education and government partnerships and a significant commitment to next- practice master plan design and implementation.

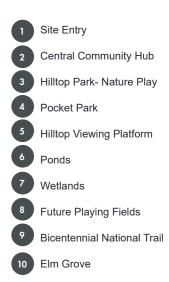
The site has been investigated holistically to ensure the best environmental qualities are retained within the neighbourhood. This has allowed for a substantial groves of trees to be retained within central open space.

Jacka 2 will be A Healthy Community-

- The health of the residents will be optimized due to the natural landscape setting, enhanced ecological awareness, active outdoor focus, regional connectivity, social diversity and community gathering opportunities.
- The health of the ecosystems will be reinstated, retained and celebrated through an elevated status achievable through human interaction and appreciation.
- Using the significant open space on site, a series of 'health loops' could be created for fitness that is overlaid with heritage and ecological interpretive signage/ art.
- The health of the aquifer and vegetation on site could be monitored, studied and communicated to visitors through the Horse Park Community Hub and potential 'ecologist in residence' development.
- Jacka 2 is a complex layer of nature, people, culture and as a healthy inclusive ecosystem. We could draw inspiration from the layering of these elements through contemporary design language / interpretation and multipurpose approaches to development.



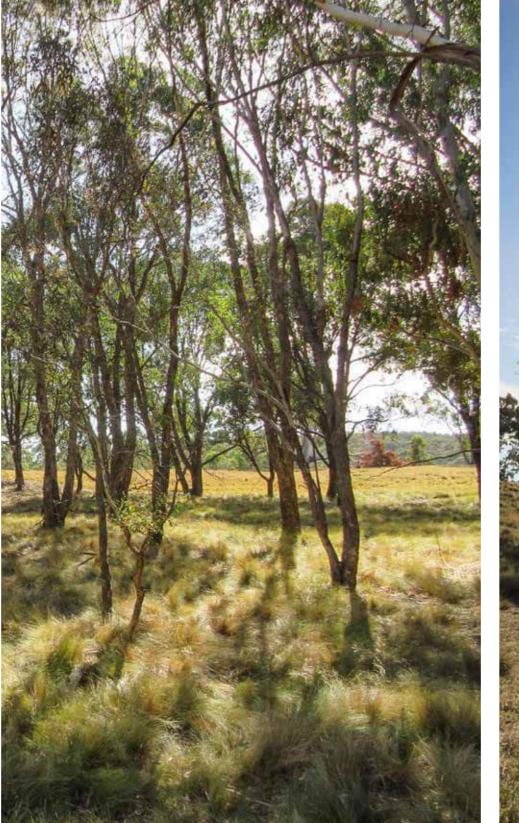


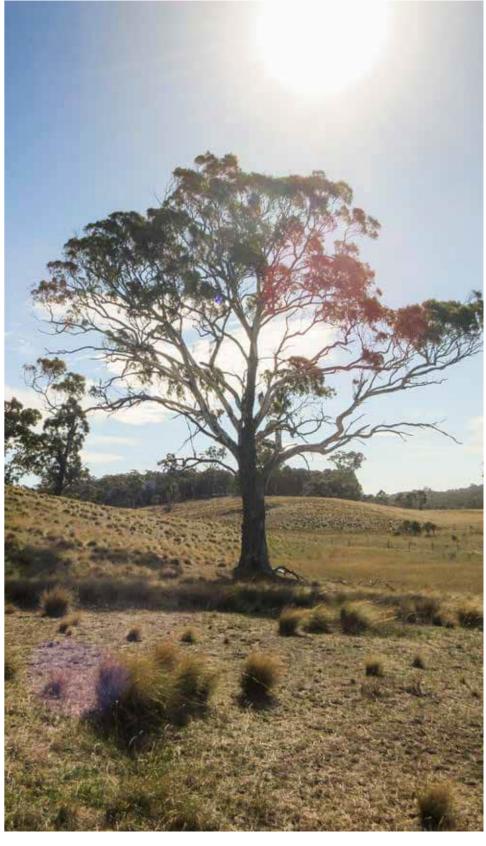


KEY OBJECTIVES:

The community heart of Jacka 2 will be the Village Centre, located at the convergence of nature, urbanity, local vistas and multi- modal movement. All design aspects shall reinforce the Village Centre as a safe, active, people- focused environment for community gathering.

- To prioritise pedestrians, cyclists, equestrians, bus users and the private vehicle; in that order and generally across the development but particularly within high amenity, active areas.
- To endeavour to make the area inclusive and accessible for all especially to and from public facilities, along key desire lines and to facilitate broader suburb- side connectivity through public transport convenience.
- For the residents of Jacka 2 to 'play where they live'- meaning, nature trails, recreation, social interaction and daily needs are provided within Jacka 2.
- To celebrate the natural topography of the site through visual corridors, sensitive built form and minimal retaining walls.
- To facilitate social diversity through the provision of a range of price points and lifestyle choices.
- To retain trees wherever possible within a meaningful and contributory urban structure and open space system.
- To respect and celebrate the site's heritage; valued for its fertility, and the rich natural resources concentrated at the wetlands, potentially for the last 21,000 years. Acknowledge and integrate, wherever possible, the historic long term Aboriginal occupation of the land and the present day protection of the area's ecological significance for the protected migratory species, Latham's Snipe.
- To draw landscape inspiration from the layering of nature, people, culture and heritage through contemporary design language / interpretation:
- Colour Earth tones and white with accents of blue / green and gold (inspired by the grasslands, sun moth and Latham Snipe).
- Layers / layering The layers of both natural and cultural heritage and its importance are not always obvious to the eye on site (ie the aquifer is primarily below ground and the cultural heritage is found through archeological digs etc). This could be expressed through artworks, design language and motifs.
- Materiality Stone, timber, steel, gold + white paint/surface finishes and glass (signage / interpretation and artworks)





Response to Master Plan



Building on strong foundations

The Master Plan for the Jacka 2 aims to create a diverse and connected community that is in harmony with nature. The design has been informed by place-based research and collaboration to create a place that is appropriate and reflective of Jacka.

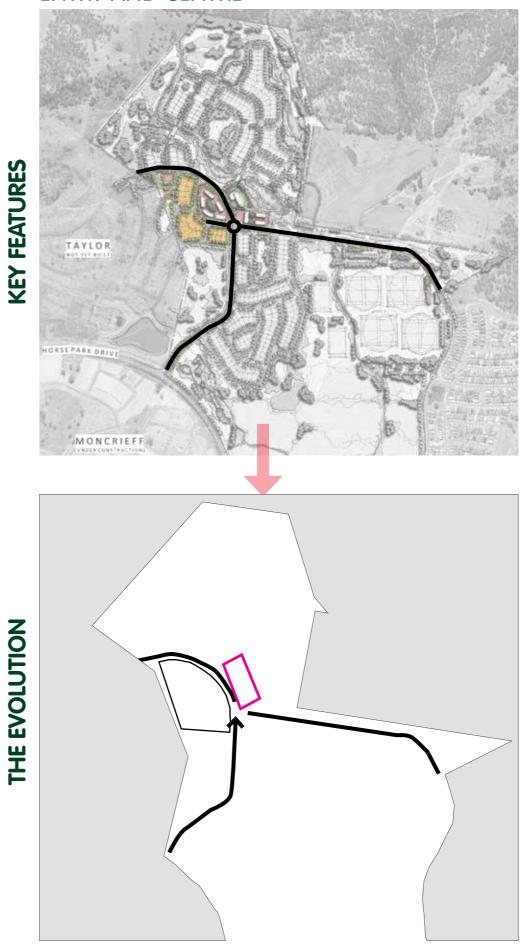
Roberts Day acknowledges and values the significant work undertaken to date. As soon as the team had an understanding of the physical and place attributes of the site, we provided an integrated review of the Jacka 2 Concept Master Plan.

The review highlighted a number of design strengths and strategies for use to build on through the EDP process. With the benefit of further technical studies and key strategic directions including government's climate change initiatives, changing lifestyle trends, draft TCCS guidelines and a team of place- led specialists; we identified strategies to build on strong planning foundations and to evolve the master plan into a model EDP.

The following diagrams demonstrate:

- Principles to be retained from the Concept Master Plan; and
- Recommendations for evolving those elements within the context of the vision.

ENTRY AND CENTRE



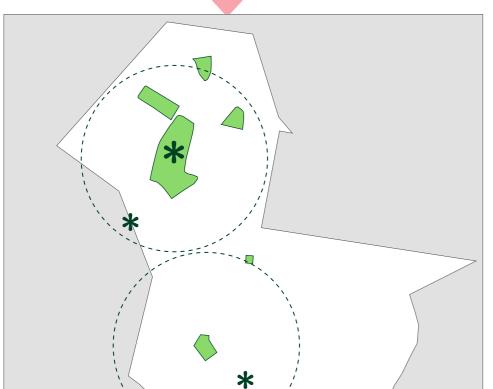
- The centre terminating the entry road
- The centre located at the convergence of key streets

- Reconfiguration of the entry road/ centre to physically and visually 'arrive' and not bypass the community heart
- Give priority to pedestrians, cyclists and public transport through a street network/ intersection treatment that naturally calms and slows traffic

LOCALISED HILLTOP PARKS



• Hilltops retained as parks

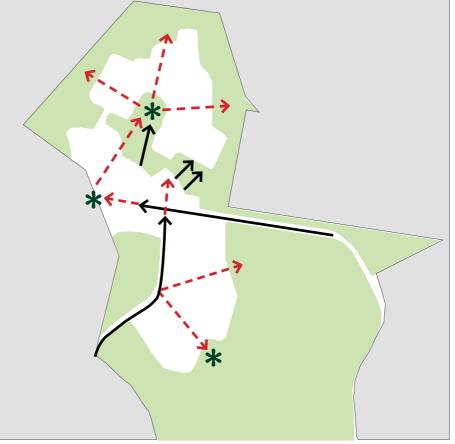


- Supplement and connect existing hilltop parks
- Provision of more equitable distribution of parks
- Co-locate parks with retained trees and along key desire lines

GREEN TO GREEN LINKS



THE EVOLUTION



KEY FEATURES

THE EVOLUTION

• Establishing select views to and from parks and development

• Improving physical and visual connections throughout the site to enhance place legibility and walkability





Jacka 2 is a place-led site specific design solution.

The following pages demonstrate:

- A development footprint established based on the requirement to retain important natural features.
- Design responses to the following:
- Land from/ topography
- Tree Retention
- Views from within the site
- Water
- Human habitat

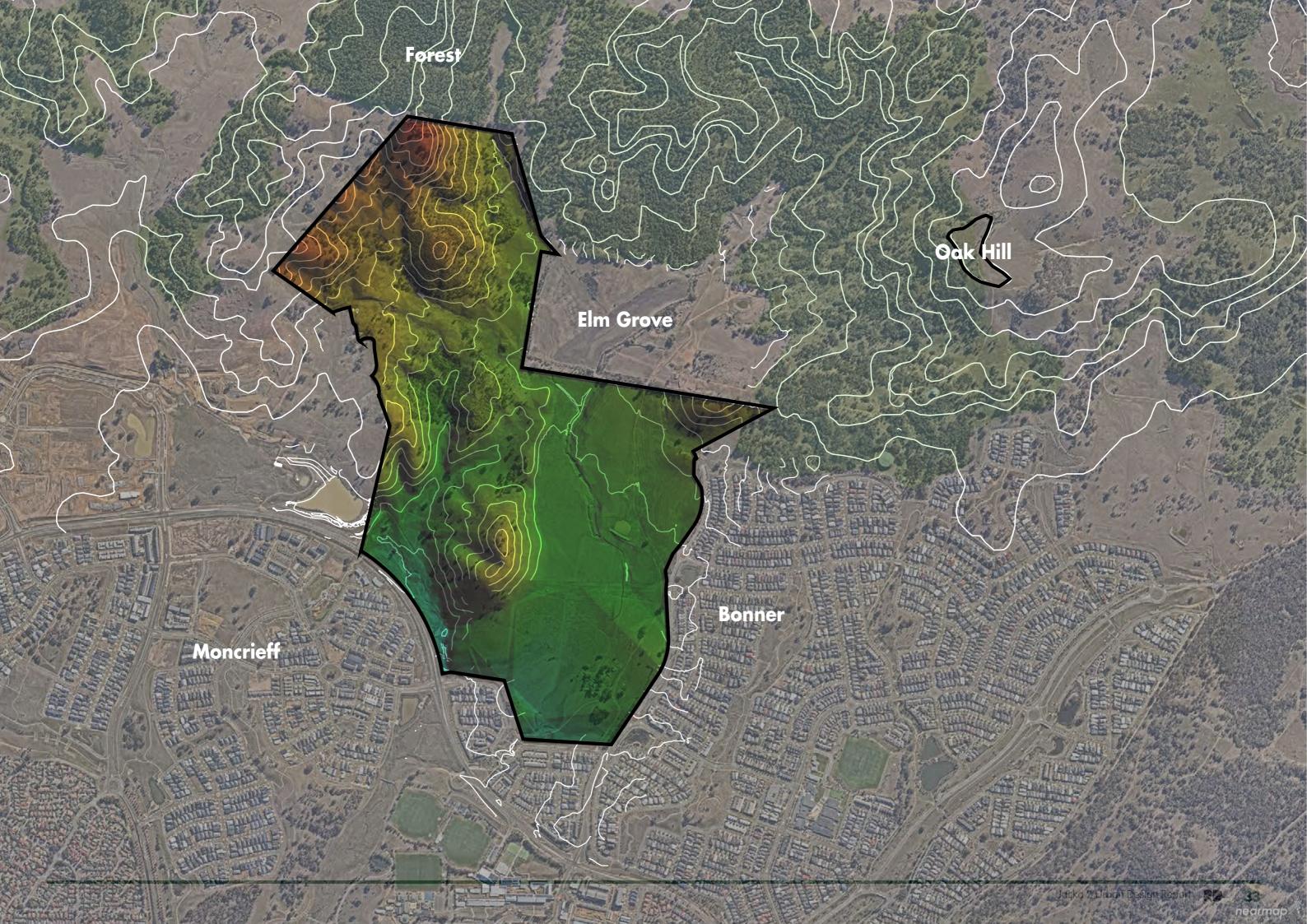


EAST | VIEW TO BONNER PLAYGROUND



SOUTH | VIEW TO GUNGAHLIN, BRINDEBELLA'S, AND TELSTRA TOWER

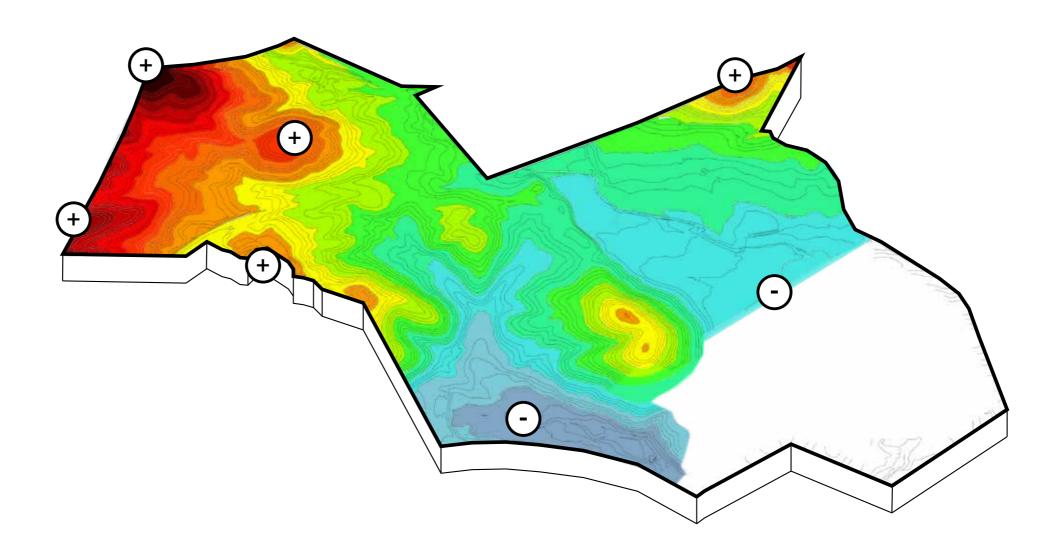




Land Form / Topography Place Analysis

UNDULATING TOPOGRAPHY WITH KEY HIGH POINTS

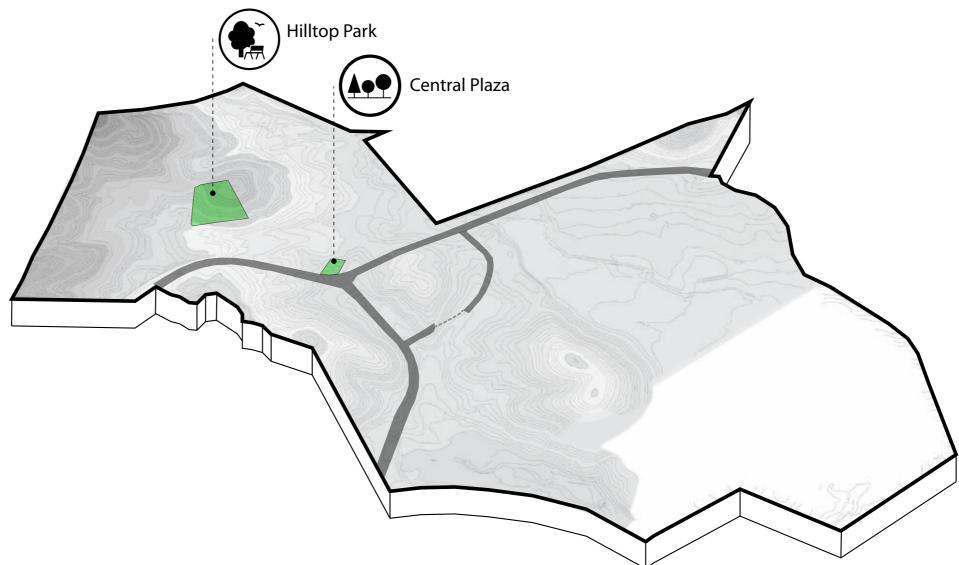
- The land is generally higher in the north of Jacka, falling to the south
- Localised high-points within Jacka provide broad views south towards Gunghalin
- A series of creek lines run through the site, creating local valleys
- The wetlands to the south-east are generally flat



Design Response

VALUE ADD: LEGIBILITY, SUSTAINABILITY

- Hills have been retained as open space to create publicly available viewing platforms
- Site entry road follows the saddle creating a series of experiences before culminating at the Central Plaza arrival
- Major multi-medal streets are located to terminate vistas
- Roads are designed to go up the slope, with houses stepping up the hill. This allows blocks with south-facing slope to have garages on the low side below the house, providing solar access to the building and private open space.



Environmental and Cultural Retention

Place Analysis

EXISTING VEGETATION

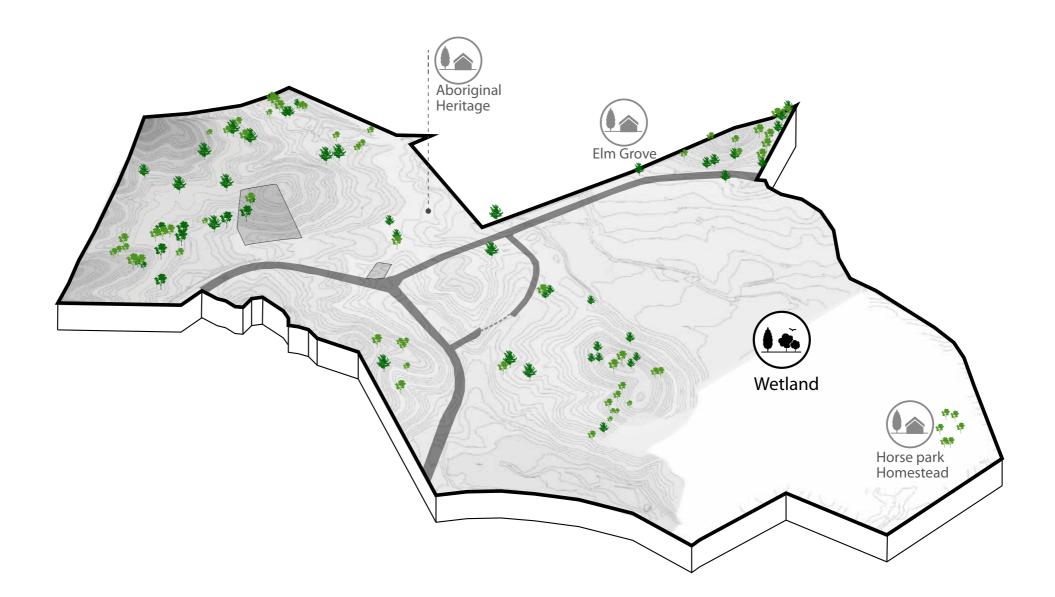
The site has significant existing vegetation outside the development footprint and within it. The trees vary in ecological and urban amenity and include:

- Registered and regulated trees
- Trees in groups
- Trees as sculptural landmarks
- Wetland

EXISTING HERITAGE

The site has significant cultural heritage, both European and Aboriginal, including:

- Horse Park Homestead
- Adjacent Elm Grove
- Large deposits of Aboriginal Artefacts



ENVIRONMENTAL AND CULTURAL ASSETS

Design Response

VALUE ADD: PARK FRONTAGE FOR EVERY HOME

- All excellent value and regulated trees are retained.
- Tree retention is critical to achieving ACT Climate Change objectives
- Where a structural logic and amenity gain exists, mature medium, high and excellent trees have been retained within small to medium sized open space areas.
- Where extensive trees in dense planted areas coincide with steep topography these areas have been retained as a 'green edge'. As this is a significant portion of the site it defines the development footprint potential.
- Where parks are created for the above purposes a variety of block frontages, housing types and interfaces are provided.
- Perimeter edge roads are required for the purpose of bushfire protection. Therefore wherever an internal park could provided direct house to park frontage as a lifestyle option is provided.

VALUE ADD: CULTURAL ASSETS

- Horse Park Homestead has been retained as a community site, providing access to a part of Canberra's history.
- The interface with Elm Grove has been respected with a landscape buffer to the homestead.
- It is the intention that any Aboriginal artefacts salvaged from site will be retained in a landscaped area and kept protected. The area will allow for the artefacts to be retained on site in perpetuity, maintaining a connection to site.
- A sensitive development/ heritage interface will be created and generally maintaining views to and from heritage items.
- The perimeter streets and multi- modal trails connect into active nodes adjoining, but separated from, heritage items in order to facilitate nodes of education and awareness through interpretation, art and storey telling.
- The Homestead is to be zoned CFZ for future community uses to be consistent with the CMP (currently being prepared) to promote knowledge exchange and cultural partnerships.
- The development footprint was reduced in some locations to provide visual and physical connections to heritage areas.
- A number of houses front small parks with retained trees to promote community stewardship/ appreciation.



Views Place Analysis

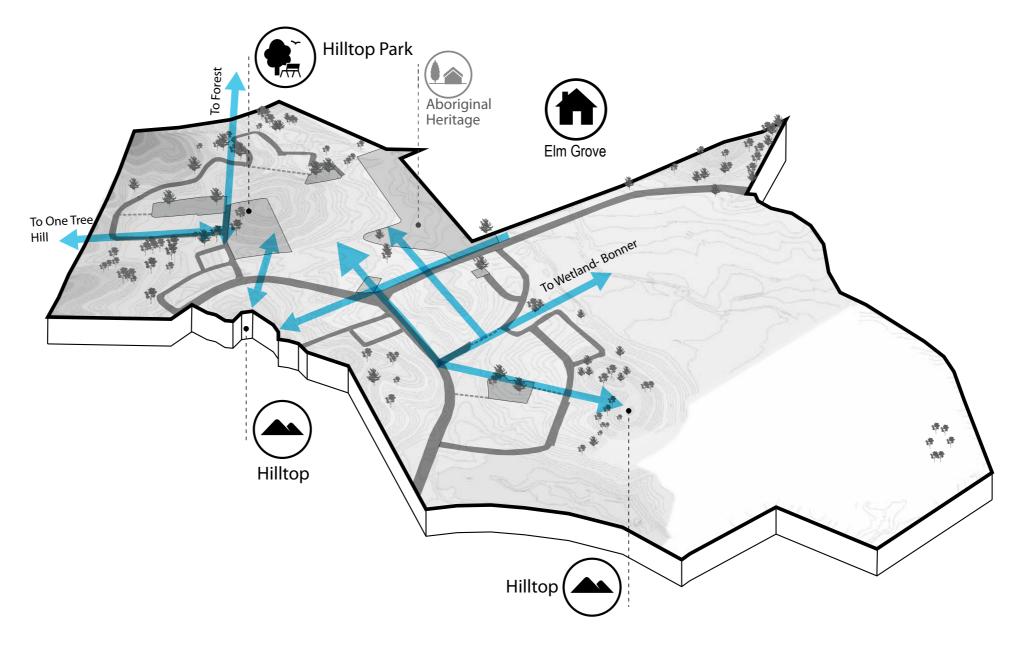
PANORAMIC VIEWS

Due to the topography of the site, there are extensive views in all directions.

The most prominent visual features within the site are the hilltops. There is an opportunity to provide a series of internal localised views to the central hilltop park and the hilltops on the western site boundary and along the wetland.

The key external views from the site are as follows:

- NORTH Forest
- EAST Oak Hill Looking / Elm Grove / Bonner
- SOUTH Gungahlin / Brindebella's
- WEST One Tree Hill



Design Response

VALUE ADD: EQUITABLE ACCESS TO VIEWS

The notable views from the site that contribute to identity and legibility are to be retained within public open space on the hills and ridges. This will provide equitable access to the long distance views across the region irrespective of housing type and/ or socio economic status.

Internal views within Jacka will be captured by creating vistas along roads and paths to and from open space or other key spaces.

Further, the design layout has responded to views by:

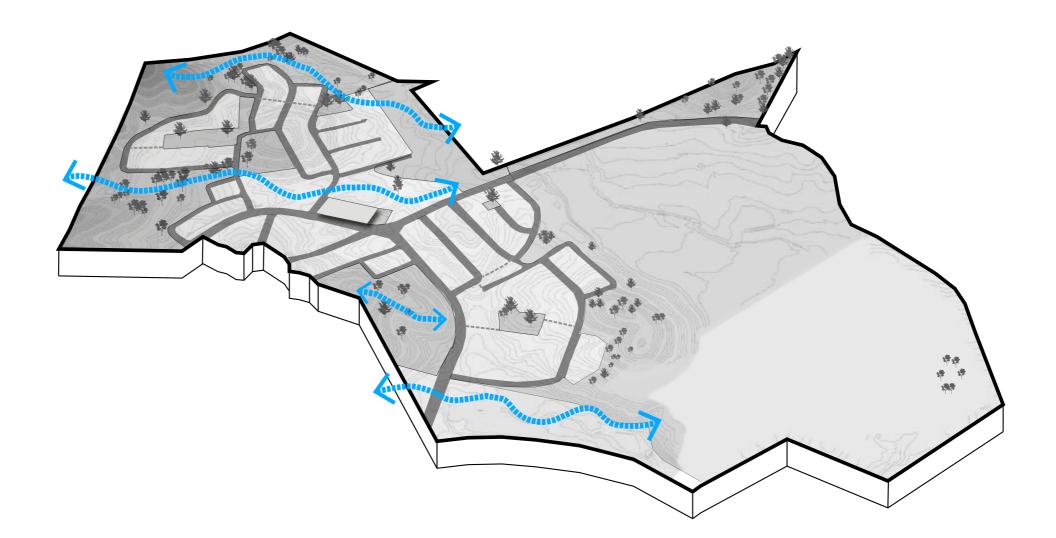
- Hills retained as public open space
- Staggered intersections and/ or street alignments to force terminated vistas and arrival experiences
- The creation of distinct pockets of development with landscape in between to enhance and/ or enable view corridors and wayfinding
- Align roads to create vistas to open space and wetlands and connect to pedestrian path access to key destinations



Water Place Analysis

WATER ON-SITE

- There are a series of ephemeral drainage lines contributing to ponds, wetland and the character of the place
- Drainage and flood requirements determined development
 extent
- An integrated approach to drainage, tree retention and earthworks s required to optimise the development potential whilst focusing on attractive and sustainable development and streetscape outcomes



WETLANDS / POND LOCATIONS

Design Response

VALUE ADD: STEWARDSHIP OF HUMAN & ECOLOGICAL HABITATS

To protect the wetlands at Horsepark Homestead from impacts of the development, a series of water quality ponds and detention basins are proposed throughout the site. Depending on the intended land use and character, some of the ponds will be designed to ensure a permanent water body, others will be permeable to allow water to enter into the underground aquifer and exit at the wetlands.

The development interfaces directly with these water bodies raising resident and visitor awareness about water quality and quantity to the forefront of the residents mind.

The Village Centre is designed with a dual frontage, south towards the street and north fronting directly onto series of ponds.

By directly fronting the the centre to the ponds, development is optimised and residents and visitors have the opportunity to engage with the water on a daily basis encouraging walking, gathering and activation.

A swale is located to the west of the entry road providing an attractive arrival into the community that references the aquifer and wetland identity.

Wherever possible, ponds are designed to be perceived as continuous waterbodies from bridges above, contributing to the joy of 'coming home.'



Human Habitat

The realisation of Jacka 2 is an environmentally driven, placeled community with strong relationships to the past and pride in retaining its existing character.

After the topographical, key views, and environmental challenges have been resolved, the remaining land is available for human habitat.

The developable land is broken up throughout the site around the environmental and topographical constraints. Key views have influenced the alignment of some of the developable land, creating breaks in the development to provide residents with broad views of the region.

The topography has informed where the different block typologies can be located, as the compact blocks use the limited flatter land, the majority of the blocks are larger.



HUMAN HABITAT



Jacka 2 Urban Design Report RP- 43





Design Principles

Five key design principles were the driving force for the design of Jacka 2. These were:

1. NATURE AT YOUR DOORSTEP

Create a distinctive sense of place inspired by the natural environment. Provide connections for the community into the natural surrounds.

2. NATURAL CONNECTIONS

Connect the community into the wider context through a variety of open space connections, sharepaths, and the Bicentennial National Trail.

3. COMMUNITY FOCUSED ACTIVATION

Create a central hub for the community that promotes social interaction and raises awareness of the site's cutlural, aboriginal heritage and ecological values.

4. SENSE OF EXPANSIVENESS

Retain key views from the hills to provide a sense of expansiveness. Maximise the visual connection to the landscape.

5. CHARACTER AREAS

Jacka 2 cannot be painted with a single brush. Roberts Day identified five unique sub- precincts or Character Areas defined by the natural and planned features of the site and requiring tailored responses.



MASTER PLAN

Character Areas

Each Character Area will have a tailored built form and landscape response. When combined, these responses will create an immersive environment. Immersive environments are attractive, safe and comfortable and encourage walking. This is key to realising the Jacka 2 Vision for a healthy and walkable community. There are a diverse range of character areas within Jacka 2. These areas are:

COLLECTOR

Functioning as the entry statement to the project, this Character Area is defined by the hilltop to the west and grand dwellings to the east. The collector road sits in the saddle and is framed on both sides, creating an intimate corridor prior to the experience opening up at the Mixed Use Centre.

The natural landform character is supplemented by formal avenue tree planting and a swale integrated with landscape elements along the western edge.

MIXED USE CENTRE

The urban heart of the site, this area has a higher density than the remainder of the site, with two-three storey terraces facing the collector road and a three storey mixed-use building that faces both the collector road, ponds and aboriginal heritage site.

The ground floor of the mixed-use building will have mandatory retail, commercial, and community facilities. These spaces will spill out onto a plaza space that blends into the intersection of the two collector roads to create a slower pedestrian prioritised area.

The public domain will be urban with a mixture of hardscape and softscape encouraging gathering and multi- modal integration. The frontage to the aboriginal heritage site will activate the space whilst provide passive surveillance to ensure ongoing stewardship and respect of the area.

PARK FRONT

Due to the nature of the site and the requirement to break up the development due to the topography, specifically in the northern section of the site, a significant quantity of the dwellings have direct views to open space. Where appropriate, some dwellings front directly onto the open space, with direct access from their front yards into the parks. The built form and the public/ private interface controls for this Character Area focus on quality outcomes balanced with agency requirements for access and safety. A key principle for this Character Area is activation and address onto public open space. This typology is detailed further within the Our Innovations section of this report.

WETLAND INTERFACE

Horse Park Homestead and Wetland is regional and cultural feature. The development interface with this feature requires special attention in order to celebrate the heritage and ecological contribution.

To contribute to a legible public edge condition, the balance of the development that fronts onto other wetland areas is included in the Character Area and treated in a similar manner. The built form character is a bout buildings st in the landscape and landscape character is naturalistic and permeable but delineates public/ private land.

Similar to the Park Front Character, these dwellings have direct views to a mixture of open space and water bodies in some locations.

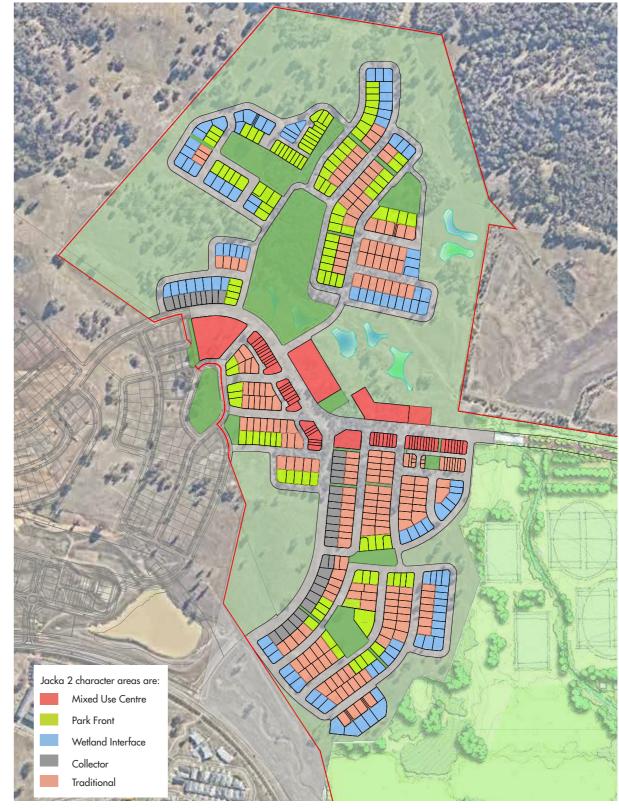
Dwellings fronting Horse Park Drive and the wetlands will have controls on them to ensure high quality outcomes in terms of built form and streetscape character.

TRADITIONAL

The balance of the residential fabric adopts a traditional suburban character responding to the needs and aspirations of the future community. The houses are generally detached with front driveways and generous front setbacks facilitating tree planting.

The Jacka 2 layout differentiates this Character Area from conventional estates. The streets respond to topography and terminate vistas, slowing traffic, creating a desirable pedestrian environment and a sequence of experiences rather than monotony.

A series of parks designed around tree retention bring a fine grain nature to this Character Area.



CHARACTER AREAS

Character Areas - Lifestyle Diversity

PROVIDING A DIVERSE NEIGHBOURHOOD

The site will provide for a variety of housing typologies, community facilities, local centre retail, and open space.

RZ1 - SUBURBAN

The majority of housing will be standard detached residential due to the steep topography.

RZ4 - MEDIUM DENSITY RESIDENTIAL

Located along the collector road and adjacent to the community plaza and retail, this land use will allow for apartments up to three storeys tall. Higher density terraces up to three storeys in height are located along the collector road in close proximity to the retail offering.

CZ4 - LOCAL CENTRE

The hub of the community will provide mandatory ground floor retail/commercial, with two levels of apartments above.

This site will allow for a central community facility (e.g. Childcare Centre) with apartments above.

CFZ - COMMUNITY FACILITY

The existing Horse Park Homestead will become a community facility to allow for a variety of uses.

PRZ1 - URBAN OPEN SPACE 1

This will allow for a variety of active and passive recreation, including playgrounds, sporting facilities, and small pocket parks.

PRZ1 - URBAN OPEN SPACE 1

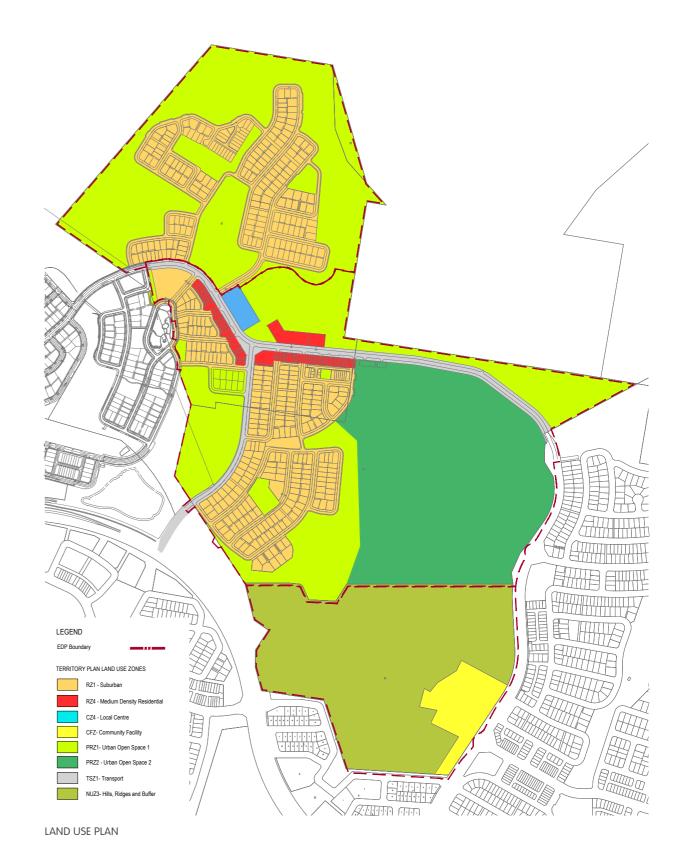
This area is for the future playing fields and netball courts. A selection of 4 multi-sport courts will be included initially, with the future development to occur at a later date.

TSZ1 - TRANSPORT

The minor collector roads that connect the estate into the wider context.

NUZ3 - HILLS, RIDGES AND BUFFER

The existing wetlands in the south of the estate.



Character Areas - Building Typologies

Traditional

Wetland Edge

Park Frontage

The traditional character area includes a range of block sizes and typologies to providing diversity and housing choices.

The character area in general provides a more traditional suburban lifestyle with detached one or two storey homes, however, it also offers some smaller products in proximity to the village centre.

The ecological values of the wetland interface have defined the developable area. The wetland edge character area includes those areas hat have a direct interface with the wetland.

The wetland edge character area includes larger blocks with detached one and two storey homes to celebrate the unique character of the landscape, provide a transect based design and respond to the steep topography.

The park front character area has a direct interface to the proposed open space. The blocks fronting the parks will generally be smaller (single detached housing) to encourage activation and provide more opportunities for residents to enjoy the high amenity associate with the open space.



Mixed-Use Centre | Terraces

FINE GRAIN TERRACES

Terrace houses of 2 to 3 storeys in height on narrow lots establish clearly defined street edges along the minor-collector road near the mixed-use centre. This typology establishes a fine grain, pedestrian scaled urban character, distinctive from the standard detached dwelling. These dwellings are rear-loaded via laneways to provide a clear street frontage with significant landscaping.

Many of the end terraces be multi-unit sites that will include a studio unit above the garage. These units can be sold separately, and provide surveillance to the laneways.

dandenong, vic_

FORTE TERRACE | BURBANK









Mixed-Use Centre | Apartments

MIXED USE CENTRE

The mixed use centre character area adjoins the village centre and has a higher density with mixed residential and non-residential uses. In order to reinforce the village centre as the heart of the community, the character area provides for higher density dwellings including apartments, multi units and two to three storeys terraces.

The ground floor of the apartment buildings will mandate retail, commercial, and/ or community uses. The setbacks provided for these buildings will allow for sufficient area for spill out areas for cafes.



Mixed-Use Centre | Retail & Community

The mixed use site has mandatory non-residential uses on the ground floor. This has been mandated following retail confirmation of the commercial viability and a strong desire for this high amenity, high value floorspace to contribute to the centrally located public heart and not be limited to exclusive, private residential.

RETAIL ASSESSMENT

LOCATIQN have undertaken a retail assessment for Jacka 2. and have recommended floorspace provision at the Jacka Local Centre shown in Tables 1 and 2. In total, around 600 - 800 sq.m of retail floorspace is recommended at the Jacka Local Centre, as well as some 600 sq.m of non-retail floorspace. This could include:

- A small supermarket/foodstore of 300 500 sq.m (likely to be operated by IGA, FoodWorks or Spar).
- Around 400 500 sq.m of specialty floorspace, including 300 - 400 sq.m of retail floorspace and 100 sq.m of nonretail floorspace.
- A small medical centre (i.e. 1 2 doctors). This would however be dependent on the size of any medical centre that may proceed at the future Moncrieff Town Centre. If a large medical centre proceeds at Moncrieff, there may be limited potential to support medical floorspace at the Jacka site
- A childcare centre.

It is important to note that the specialty floorspace recommended above assumes a foodstore is secured for the site. If a foodstore is not secured, a smaller convenience store of 100 - 150 sg.m could be considered. This could include food and grocery items (possibly including liquor), in addition to a takeaway food component (i.e. similar to a corner store). If a convenience store is provided at the site, around 2 - 3 specialty shops could be provided, or 200 – 300 sq.m, in addition to a childcare centre.

The master plan designs the ground floor to open onto the wetland promenades to the north, urban plaza and park to the east and onto the multi modal collector street to the south. These varied interfaces will attract and accommodate the range of uses identified by LOCATIQN and provide optimum activation to Jacka 2

Category	Potential		
Foodstore	Medium		
Specialty Shops	High		
Medical Centre	Medium*		
Gym	Low		
Childcare	High		
Petrol Station	Low		
* Dependent on Moncrieff	LOCATION		

TABLE 1 - JACKA LOCAL CENTRE RECOMMENDED USES (SOURCE: LOCATION)

Tenant/ Category	GLA (sq.m)	Forecast Sales* (\$'000) (\$/sq.m)		Gross Rents** (\$'000) (\$/sq.m)		Occ. Cost (%)
<u>Majors</u>						
Foodstore	<u>400</u>	<u>3,696</u>	<u>9,239</u>	<u>129</u>	<u>323</u>	<u>3.5%</u>
Total Majors	400	3,696	9,239	129	323	3.5%
Retail Specialties						
Food & Liquor	100	937	9,366	61	609	6.5%
Food Catering	200	1,436	7,181	165	826	11.5%
Apparel	0	0	0	0	0	0.0%
Household Goods	0	0	0	0	0	0.0%
Leisure	0	0	0	0	0	0.0%
General Retail	0	0	0	0	0	0.0%
Retail Services	<u>100</u>	<u>531</u>	<u>5,308</u>	<u>66</u>	<u>663</u>	<u>12.5%</u>
Total Retail Spec.	400	2,904	7,259	292	731	10.1%
Total Retail	800	6,599	8,249	422	527	6.4%
Non-retail	100					
Medical Centre	250					
Childcare	<u>250</u>					
Total Centre	1,400					
*Inflated dollars & Including GST ** Excludina GST					LOC	

* Excluding GST

TABLE 2 - JACKA LOCAL CENTRE PROJECT SALES 2025/26 (SOURCE: LOCATIQN)







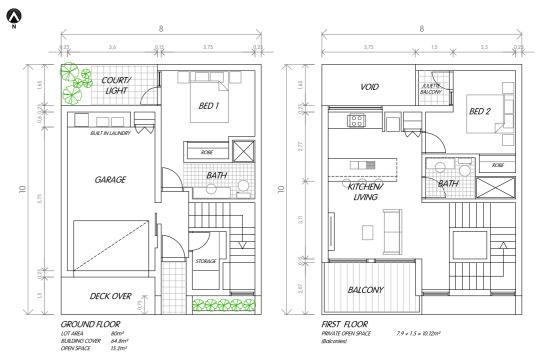
Mixed-Use Centre | Micro Lots

DEMONSTRATION PRECINCT

It is envisaged that a small pocket of Jacka 2 may be developed as a demonstration of innovative, affordable housing types close to the Village Centre, fronting a park and accessed via rear lane ways. The built form may consist of mew housing, microlots and/ or studio dwellings. Public domain controls would contribute to the mews character and reduced on-site parking rates would be sought to contribute to the affordability package. A secondary parking space would be provided on street.

The concept design for 80m² separate title lots (with on- site parking) is a successful demonstration project within our signature WA project- Ellenbrook Town Centre.





"THE LOFT" AT REVELEY INDICATIVE FLOOR PLAN - OPTION 2



Character Areas - Streetscape Character

DIVERSE STREETSCAPE CHARACTERS

MIXED-USE CENTRE CHARACTER

The urban heart of the neighbourhood, this street will be characterised by an urban street edge of built form. The terrace buildings will be two to three storeys in height along the length of the street with three storey apartment buildings located around a community plaza.

COLLECTOR ROAD CHARACTER

The entry to the estate from Horse Park Drive will be characterised by a wider street with on-street cycle lanes and off-street shared paths to provide amble opportunities for walking and cycling to the broader context.

PARK / WETLAND FRONTAGE CHARACTER

Streets interfacing with open space will have formal street trees along the built form edge and an informal planting within the open space to provide residents wide views to the open space.. Where appropriate the open space kerbs will castellated to allow for water ingress, but prevent vehicular access. Footpaths will be provided along the built form side, with paths meandering through the open space linking to key activity spaces.

TRADITIONAL CHARACTER

Traditional suburban streets with built form on both sides creating a sense of enclosure. These streets will have formalised street trees on both sides that will create a canopy over the street, and shade the footpaths that are on both sides. Predominantly detached one and two storey homes.



MIXED-USE CENTRE STREETSCAPE CHARACTER



PARK FRONT / WETLANDS STREETSCAPE CHARACTER





COLLECTOR STREETSCAPE CHARACTER

TRADITIONAL STREETSCAPE CHARACTER



Connected & Healthy



Walkability

PEDESTRIAN FRIENDLY NEIGHBOURHOOD

The layout of Jacka has been designed in a manner that allows pedestrian permeability easily throughout the neighbourhood. All active open space areas including local parks, regional playing fields, and passive recreation areas are connected via a variety of paths. These paths also connect into recreation destinations outside of Jacka. This allows residents an easy opportunity from all areas of Jacka to walk easily to their destination, providing a healthy alternative to driving.

The place-led approach to celebrate natural features creates a unique neighbourhood structure, encouraging walking and active living.

As the diagram opposite illustrates, all dwellings are within a 5 minute walk (400m) of active open space. The key open spaces are connected via a broad open space network and pedestrian links between residences to ensure pedestrian/cycle permeability throughout the neighbourhoods.



CAPTION



NEIGHBOURHOODS AROUND KEY OPEN SPACE

Access

INTEGRATING THE ESTATE WITH THE SITE CONTEXT

The site will be accessed via two minor collector roads.

PRIMARY ACCESS

The primary access to Jacka 2 will be from Horse Park Drive. There is an existing three-way intersection built 150m into Jacka that will be extended as a minor-collector road. The road will terminate at the secondary minor-collector road adjacent the mixed-use centre.

SECONDARY ACCESS

A secondary collector road will connect from Roden Cutler Drive in Bonner in the east to Taylor in the west.

This road has been allocated as the bus route through Jacka from Taylor, and will include bus stops near the mixed-use centre and the playing fields.

This road will service the future proposed playing fields in the eastern side of the neighbourhood.

PEDESTRIAN / CYCLE

Jacka 2 is serviced by a variety of sharepaths that connect into a broader network within the region that form part of the Active Travel network. There are 2.5m sharepaths that connect into off-road cycle paths on Horse Park Drive.

EQUESTRIAN

The Bicentennial National Trail enters through the northern part of the site, and connects into a network that is over 5,300kms long. The upgraded trail will connect from Taylor in the west to Bonner in the east, and will provide access for horses to drink at one of the northern ponds.



SITE ACCESS



Street Hierarchy Plan

SLOW SAFE ENVIRONMENT

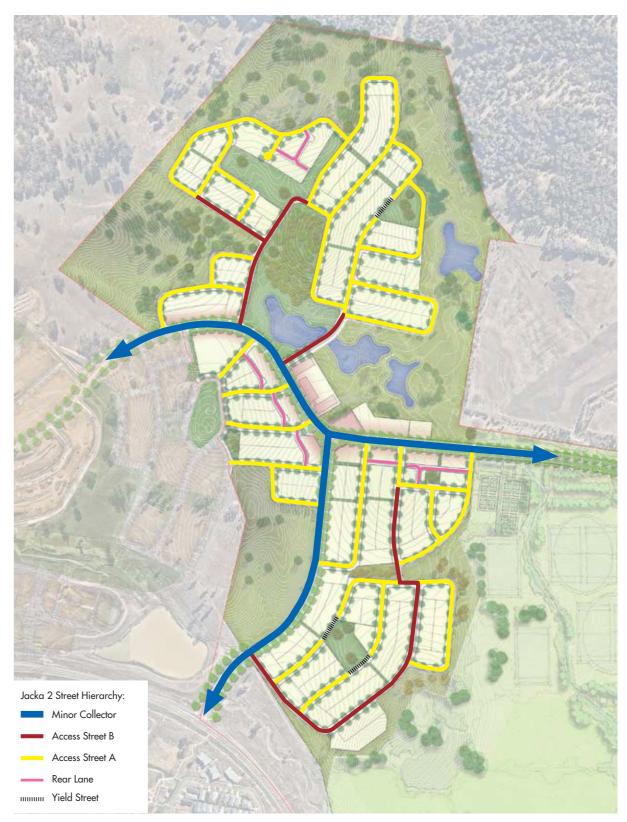
The streets within Jacka are designed to provide pedestrian / cycle priority, and to slow vehicle speeds to create a safe environment.

The minor collector streets provide entry/egress into the estate, with the east-west street providing the proposed bus route. Both streets are bus capable roads and include wide shared paths to allow passengers to easily walk or cycle from home to the bus stops.

All access streets include footpaths to both sides of the street to encourage people to easily walk throughout the neighbourhood, with Access Street B including a wider path along one side as part of a wider Active Travel Network.

Laneways allow the terraces to have rear garages, which allows the east-west collector street to be free of driveways and include additional street tree planting. The laneways will include small street trees where possible.

To provide for a slower environment, and to protect existing remnant trees, a series of yield streets are located adjacent open space. These short one-lane wide sections are located adjacent local playgrounds and pedestrian paths allow for vehicles in both directions, but only one at a time, forcing vehicles to slow down where there are higher quantities of pedestrians.



STREET HIERARCHY

Footpath / Sharepath Network

A WELL CONNECTED NETWORK

The network of footpaths and sharepaths within Jacka 2 provides opportunities for different types of recreation.

All local streets have 1.5m wide footpaths on both sides that will connect into a network of open space footpaths.

The collector roads include 2.5m wide share paths which connect into a broader network of active travel paths throughout the open space network, and into the future proposed recreational areas.

The Shared Path route provide a framework for a future heritage, fitness and art trails system.

Accessibility advice has been sourced to endeavour to make footpaths as accessible as possible but the slopes within Jacka 2 will not permit this in all cases. This advice is attached as Appendix T.

Where there are parking and/or recreational spaces (such as the ecological area at the south) these are accessible from a bus stop and parking areas to key component of the area. Not all paths to all open areas are compliant with AS1428.1 but sufficient access to enable the experience and enjoyment of areas are provided.





Jacka 2 Sharepath Networ 2.5m Sharepath

SHAREPATH NETWORK

SHAREPATH NETWORK

SHAREPATH NETWORK



Lanascape



Open Space Network

Jacka 2 incorporates a large amount of open space, due to its natural features including topography and extent of existing trees which will assume a character that is semi established.

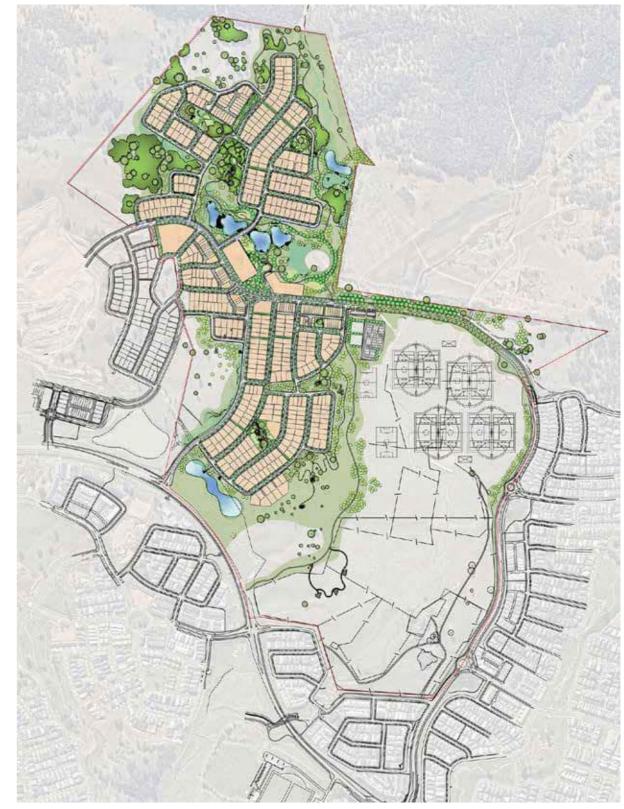
The diverse range of open spaces provides for structured play, nature discovery, passive relaxation, active walking, running / biking, and congregation at key nodes.

The landscape design for Jacka 2 includes the following key items:

- Maximum opportunity for people to identify with their home patch, their block, their immediate neighbourhood and to link with their hinterland, adjacent neighbourhoods and the district networks.
- Existing vegetation will form the framework for the open space areas and be supplemented by complimentary plantings of native and exotic tree species.
- The sites topography dictates that many of the paths within open space will be challenged by grades. Paths will gently wind up and down hill sides.
- A natural style play space will be included within the northern retained tree stand, taking advantage of the existing levels and natural textures of the ground plane.
- The southern section of the development area includes a larger pocket park that includes 3 large statuesque remnant trees. A play space with associated amenity will be sited between these trees.
- The central area includes a plaza with opportunity for community gathering. This plaza has direct links northward to the ponds. The plaza will incorporate large deciduous trees with a variety of ground treatments from paved areas to grass.
- Several residents will front pocket parks. These pocket parks aim to retain existing specimen trees, with surrounding small copses of vegetation. Each park will have an identity that is unique, but material and furniture choices that will be common to the overall theme.
- The treatments to the proposed ponds and wetland areas will respond to the engineering based solutions for recharging of the aquafer. This will include a combination of landscape treatments aimed at ensuring they form a

visual asset to the estate as well as provide amenity to residents as they utilise the open space path network. Planting will be a combination of endemic macrophytes and shrub species to limit access to the water as a safety measure but also to provide habitat for birds and native mammals. An overlay of native trees will provide further habitat value and climatic amelioration. Hard edges are also proposed providing interest and interaction with these features. Habitat opportunity will be created with tree logs

- Bushfire requirements have been reviewed and incorporated into the landscape open space. including integration of the fire trail and access points, and thinning of dense tree copses where this is required within the IAPZ and SFAZ and appropriate plant selections.
- Landscape entry / gateway elements are proposed at each of the 3 access points into Jacka 2 along the Minor Collector. These will include a variety and combination of wall and signage elements
- The streetscapes will include deciduous trees so as to not impede solar access to dwellings. Species have been selected that will eventually provide as large a canopy as possible for the available space between hard and servicing infrastructure.
- A hilltop lookout is provided at the southern high point. This is a natural vantage point that takes advantage of expansive views towards Gungahlin Town Centre and wider Canberra.
- The northern perimeter beyond the Jacka site will always be bushland, given that Jacka 2 is the northern extremity of Gungahlin. There is opportunity to link to existing trails that extend into the bushland beyond.
- Planting of deciduous and native trees is proposed as a buffer to Elm Grove Homestead
- Sports courts are proposed as part of the Estate infrastructure. This will be supplemented with future additional playing fields and/or courts by others to the north of Wetlands
- The landscape design has been integrated where it abuts with Taylor. This includes continuation of street tree species and ensuring footpath connections are maintained.



LANDSCAPE MASTER PLAN (SOURCE: REDBOX DESIGN GROUP)

Public Domain

A VARIETY OF EXPERIENCES IN A NATURAL CONTEXT

Mature trees throughout the site provide opportunities to create established landscaped open space immediately. Retained trees in small clusters or large groups have been located within different types of open space to provide a variety of experiences.

Key areas include :

- Urban plaza adjacent the mixed-use centre. The road at this point is raised with a paved surface to slow vehicles down and provide pedestrian priority
- A nature playground surrounded by a densely planted forest
- Pond/wetland interface
- Pocket parks surrounding retained trees
- Pedestrian links between streets linking open space

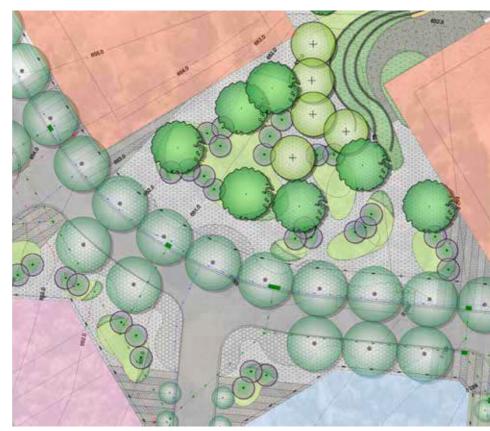




A VARIETY OF OPEN SPACE AREAS PROVIDES DIFFERENT EXPERIENCES FOR RESIDENTS (SOURCE: REDBOX)



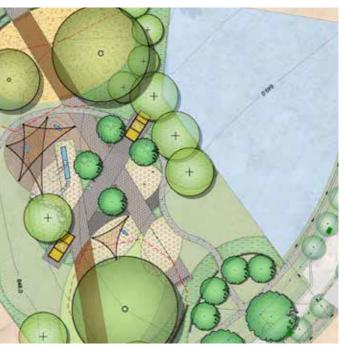
NATURE PLAYGROUND SURROUNDED BY DENSELY PLANTED EXISTING TREES (SOURCE: REDBOX)



PLAZA IN FRONT OF MIXED-USE SITE (SOURCE: REDBOX DESIGN GROUP)



LANDSCAPE WATER INTERFACE (SOURCE: REDBOX DESIGN GROUP)



RETAINED TREES IN POCKET PARK (SOURCE: REDBOX DESIGN GROUP)



Community Hub

CREATING A CENTRAL HEART TO THE COMMUNITY

KEY OBJECTIVES

- To create the Village Centre as the community heart
- Endeavour to make the area inclusive and accessible for all
- Provide opportunities for the residents to 'play where they live'
- Ground floor activation through mandatory retail
- Potential for community facility, inc. childcare centre
- The Public Plaza creates a focused hive of activity
- Provide a connection with nature and a view to the ponds



VIEW TOWARDS PLAZA & MIXED-USE CENTRE

VIEW TOWARDS PLAZA & MIXED-USE CENTRE



PLAN OF PLAZA & MIXED-USE CENTRE

Place Led Traffic and Pedestrian Prioritised

Community Hub Slow Point

The proposed raised plaza slow point is a means of integrating infrastructure with landscape while instilling pedestrian amenity and increasing commercial development by incorporating traffic management that neither compromises safety nor affects access to all road users.

ROAD SURFACE

To highlight to drivers they are driving within a unique zone, the road surface is proposed to have a different treatment that provides a physical and audible cue they should slow down. Providing a paved surface alerts the driver to a different circumstance.

Providing patterns within the surface will provide a visual cue the intersection is a different zone and care should be taken.

PEDESTRIAN CROSSING

To achieve the same primary purpose of the pedestrian crossing in a different manner, a more dynamic appearance using a bold graphic approach will be employed. This type of pedestrian crossing provides a visual difference to standard crossings, and identifies the area as a unique zone.

BOLLARDS

Jacka 2 will propose a variety of bollard / barrier types that incorporate planter boxes, street furniture, waste receptacles, post boxes, kerb treatments etc. These are designed to limit vehicle access, whilst not being perceived as a barrier. The more dynamic approach to limiting vehicle access will create a plaza space that is both safe for pedestrians, and more open and welcoming.

BUS ROUTE

The Jacka intersection will work in a similar way to the Kingston one, with the bus route along the continuous road. The bus stops will be located just after the raised platform.

As pedestrians will use the proposed pedestrian crossings, vehicle / pedestrian priorities will be clearly defined.



LOCATION PLAN



SIMPLE RAISED KERB PREVENTS VEHICLE ACCESS



LANDSCAPE AS BARRIER



PROPOSED RAISED SLOW POINT



BOLD GRAPHIC PEDESTRIAN CROSSING



Raised Platform

Slow zones are a critical component of an integrated, hierarchical movement network within pedestrian prioritised communities. Slow zones compliment a system that also includes minor collectors that facilitate efficient private vehicle movements and public transport.

The slow zones achieve the following Jacka 2 project objectives: Safety:

- Minimise rat running along local residential streets;
- Prioritise pedestrian safety in key locations such as parks, play areas, along shared paths and connecting open spaces and destinations.
- Celebrate features of Jacka 2 by creating intermittent destinations to encourage views to water and high points.
- Consistent with the Jacka 2, promote a healthy community through a primary and secondary active travel circuit connecting parks, paths and shared spaces to regional open space and playing fields. It is proven, that by providing points of interest every 200m that people will walk further and for longer. A well designed and landscaped slow zone, preferably attached to a feature, can serve this purpose.
- Strategic slow points can create 'character precincts and/ or enclaves.' Residents in these areas take on a pride- based ownership of the public realm resulting in higher maintenance contributions a higher quality overall communities.







RAISED PLATFORM CONNECTING FOOTPATHS



Yield Street

One-way at a time yield streets are proposed within Jacka adjacent open space to not only slow vehicle speeds, but to provide additional space around existing high quality trees, connect open space networks, and promote a healthy community by safely connecting active travel networks.

The streets are designed in a way that it narrows to a single lane with different road surface and treatments. This gives visual cues to drivers they are arriving at a special circumstance and extra care should be taken. As the street narrows to a single lane that allows movement in either direction, drivers must 'yield' to on-coming traffic. This action forces vehicles to slow down or stop for a short period. The yield section is short and with clear line of site for vehicles to see oncoming traffic.





PROPOSED YIELD STREET TO PROTECT EXISTING HIGH QUALITY TREES



METCALFE STREET NICHOLLS, ACT | PROTECTING ESTABLISHED TREES



METCALFE STREET NICHOLLS, ACT | PROTECTING ESTABLISHED TREES

3 Storey Terraces

A series of two-three storey terraces are located along the collector road in the heart of the Jacka community. These terraces will have a two storey frontage with the upper level set back with a roof top terrace to take advantage of the northern exposure and views to the ponds and hills.

Private Open Space can be located within a ground floor courtyard that faces north, however this will be along the collector road and to keep an urban feel the fences at this point will only be 1.2m in height which won't allow for much privacy.

Principle Private Open Space should be located on the upper level terrace facing north. This allows for north facing open space that is still connected to the urban heart of the neighbourhood but is private.

Terrace housing is defined by the following elements:

- Front block boundary treatment courtyard wall/ fencing reflective of the urban intent and the collectively height of a retaining wall and privacy wall/ fence must never exceed the maximum height allowance
- Front fence/ wall setback 0-1.5m depending on frontage to a street, park or path
- Private open space principle private open space at upper levels and oriented north. Additional open space can be located in a ground level courtyard facing north with a 1.2m high fence.
- On-site parking tandem or double garage access from a rear laneway. Due to topography two parking spaces adjacent each other may need to be at separate levels.



TERRACES WITH ROOF TOP PRIVATE OPEN SPACE



TERRACES WITH ROOF TOP PRIVATE OPEN SPACE - UPPER LEVEL SET BACK



TERRACES WITH ROOF TOP PRIVATE OPEN SPACE



Over-under terraces

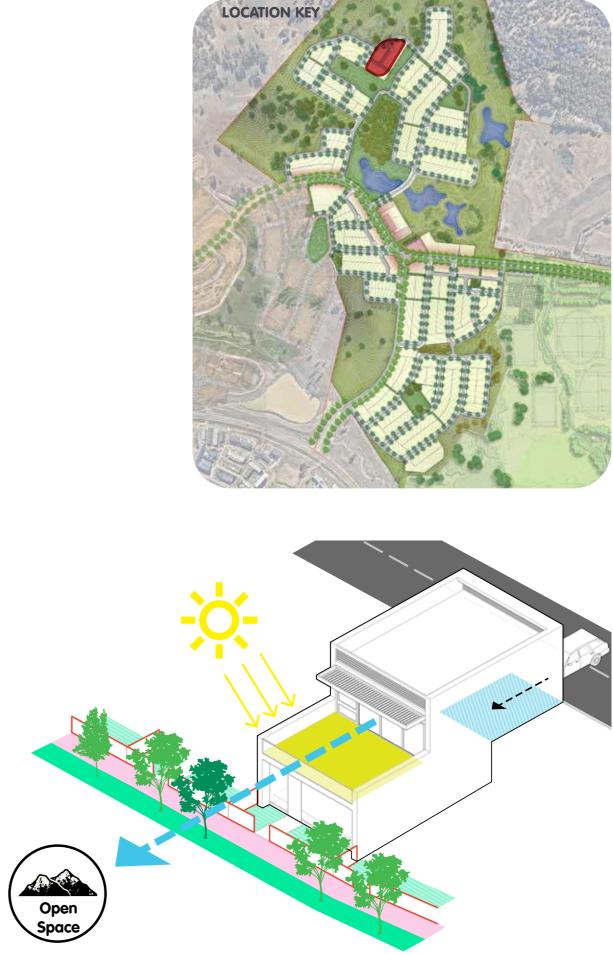
ALTERNATIVE METHOD OF DELIVERING DWELLINGS **ON STEEP TOPOGRAPHY**

Challenging topography in the northern area of the site requires an alternative housing types. Typical frontages of 10m and block sizes of around 300m².

To allow for equitable access to views and solar access, built form that steps down the hillside is encouraged. The blocks have rear lane access which will require the garage on the upper level of the lower terraces.

Private open space is recommended to be at the upper levels facing north and taking advantage of the views to open space. Over-under terraces is defined by the following elements:

- Front block boundary treatment courtyard wall/ fencing reflective of the urban intent and the collectively height of a retaining wall and privacy wall/ fence must never exceed the maximum height allowance
- Front fence/ wall setback 0-1.5m depending on frontage to a street, park or path
- Private open space principle private open space recommended at upper levels and oriented north
- On-site parking tandem or double garage access from a rear laneway and where 'stepping' requires the garage is located at an upper level



OVER-UNDER TERRACE CONCEPT

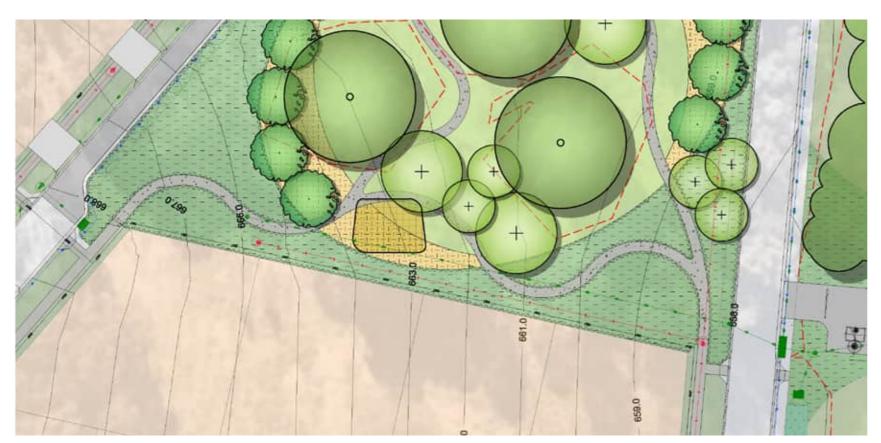
Park Frontage

DIRECTLY INTERFACING WITH PARK

High value remnant trees have been retained throughout the site in areas of open space. In key areas, this open space has been developed into parks, with dwellings that front directly onto it.

Either rear or side loaded, these properties will have their primary habitable spaces face the park to provide passive surveillance. Additionally, they will include low fences to their front boundary to enclose their private open space, with mailboxes incorporated into these fences where appropriate. This will give an additional sense of activation to these areas as residents will frequently interact with the edges of the park. The four defining elements for park frontage housing are:

- Front block boundary treatment mandatory fencing with gate access encouraged to contribute to the traditional Canberra 'garden suburb' character. Include daytime habitable rooms to park frontage for passive surveillance.
- Front setback- the most generous front setback of 4m
- **Private open space** private open space at ground level, fronting the open space.
- On-site parking- typically a two car garage at the rear or side



TYPICAL PARK FRONTAGE

TYPICAL PARK FRONTAGE

Open Space



Mailbox to Park Frontage

PARK EDGE ACTIVATION

The defining elements for park frontage mailboxes are:

- Activation mailboxes require the postal service and residents to use the footpaths along the edge of fences on a regular basis. This allows for chance encounters with neighbours who are using the public open space.
- Passive Surveillance With residents accessing their front open space to check the mailbox, it provides passive surveillance to the open space. This helps with providing a safe environment to the public open space.





MAILBOXES TO PARK FRONTAGE - BONNER



MAILBOXES TO PARK FRONTAGE - BONNER



MAILBOXES TO PARK FRONTAGE - HARRISON

Corner Blocks

Issues

Our research indicates that corner sites are generally less appealing to inside lots, particularly in the Canberra market, as fencing to street elevations is not permitted meaning greater exposure to passing traffic and a reduction in the overall developable land. Our preliminary research indicates a reduction of up to 5% of sale price typically applies to corner sites.

The example below is a typical corner block with limited private open space behind a courtyard wall. A large portion of the buildings facade is exposed to the street, with open space that is underutilised.

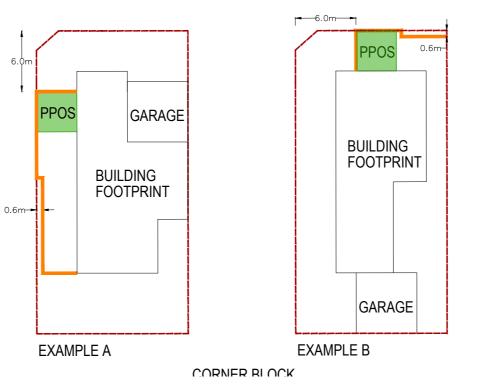
Proposed

Alternative fencing controls to corner blocks are proposed to make the location of Principal Private Open Space easier and more useful. Where the PPOS is proposed within the secondary frontage or forward of the building line, the fence is proposed with a minimal setback to allow for sufficient space for a useable private open space.

The fences can not go further than 6m from the corner of the blocks to prevent vehicle site lines being blocked

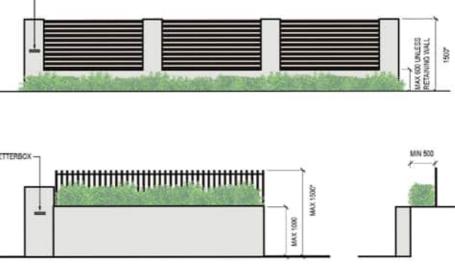


TYPICAL CORNER BLOCK WITH LIMITED PRIVATE OPEN SPACE - FORDE



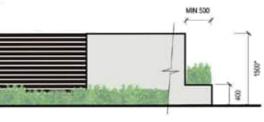
PROPOSED CORNER BLOCK FENCING CONTROLS - FENCE TO BE SETBACK FROM CORNER FOR VEHICLE SITELINES

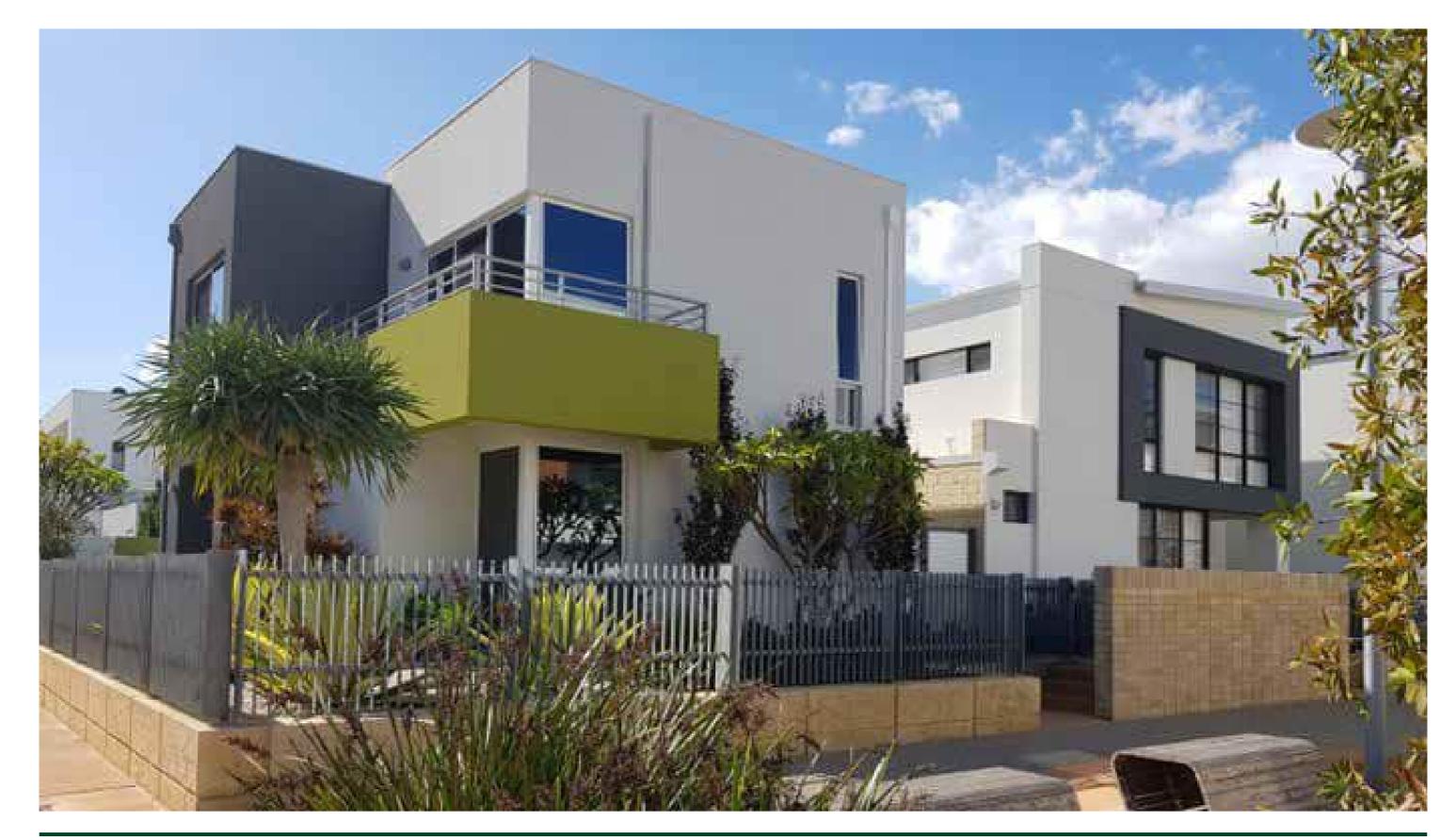




- LETTERBOX INTEGRATED

COURTYARD WALL OR FENCE EXAMPLES WITH INTEGRATED LETTERBOX IF APPROPRIATE









Jacka 2 Urban Design Report **R** 79

Quick Facts

NATURE AT YOUR DOORSTEP

The design of Jacka 2 responds respectfully to the environment, topography, existing trees, and key features including views and heritage.

Jacka 2 demonstrates a commitment to:

- Innovation
- Sustainability
- Nature
- Places for people
- Providing for a diverse community







Jacka 2 Urban Design Report

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Ecology | Conservation

RETAIN EXISTING REMNANT TREES TO CREATE A DISTINCTIVE MATURE ENVIRONMENT

The site has a significant quantity of mature registered and regulated trees of high to excellent quality. The design of the layout has retained as many as possible, with a variety of options undertaken to keep these trees.

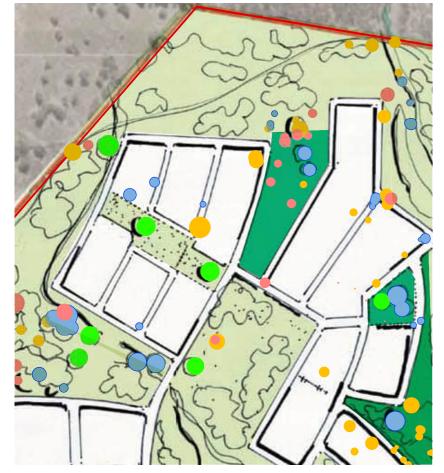
This page documents a few of these sketches. As demonstrated within the EDP Master Plan, significant trees have been retained through an integrated planning, landscape and engineering approach.

Quality	Total trees	Retained	% Retained
Exceptional	12	12	100%
High	55	41	75%
Moderate	125	63	50%
Low	133	72	54%

However, in some cases trees could not be retained due to:

- Earthworks
- Road cross section requirements
- Quality of the tree and likelihood of survival during construction
- Drainage and servicing
- Comprising a connected, quality community structure

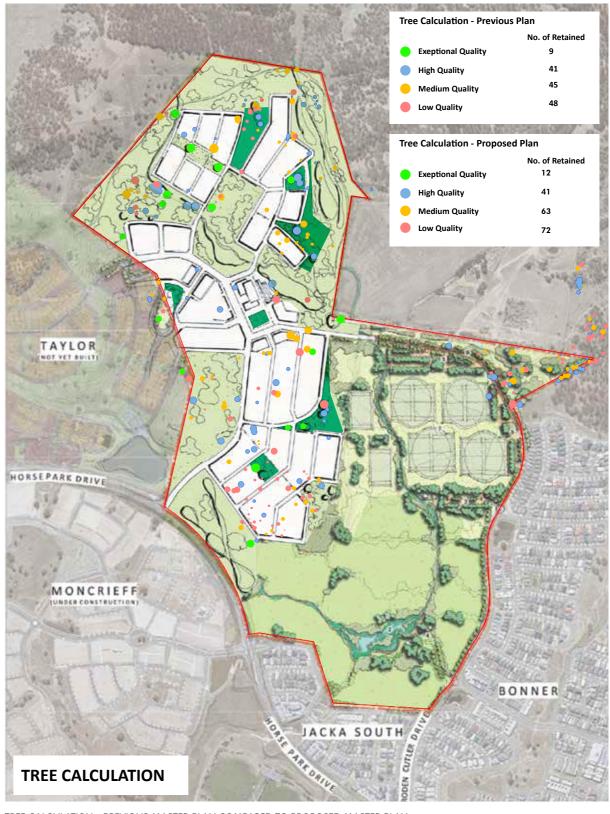
Particular care has been taken with the open spaces around the existing trees to ensure they are accessible and usable spaces for the residents. The remnant trees are located within part of a network of connected open space that include walking trails and sharepaths to ensure a safe and healthy community use of the areas.



ABSOLUTE TREE RETENTION IN THIS AREA IS CHALLENGING DUE TO THE CONVERGENCE OF EXTREME SLOPE/ DRAINAGE LINE/ SITE BOUNDARY AND BUSHFIRE.



RETAINING TREES WITHIN THIS PARK IS CHALLENGING DUE TO TOPOGRAPHY AND THERE WERE BETTER LOCATIONS FOR COMMUNITY GATHERING PLACES. THE TREES WERE ALSO NEW PLANTING.

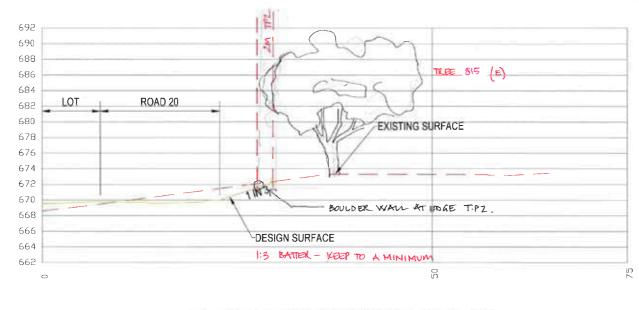


TREE CALCULATION - PREVIOUS MASTER PLAN COMPARED TO PROPOSED MASTER PLAN A HIGHER QUANTITY OF TREES HAVE BEEN RETAINED THROUGH THE PROPOSED PLAN

Design studies were undertaken around the existing trees to ensure as much work as necessary, but as little as possible, was undertaken to retain them in an environment that they would survive.

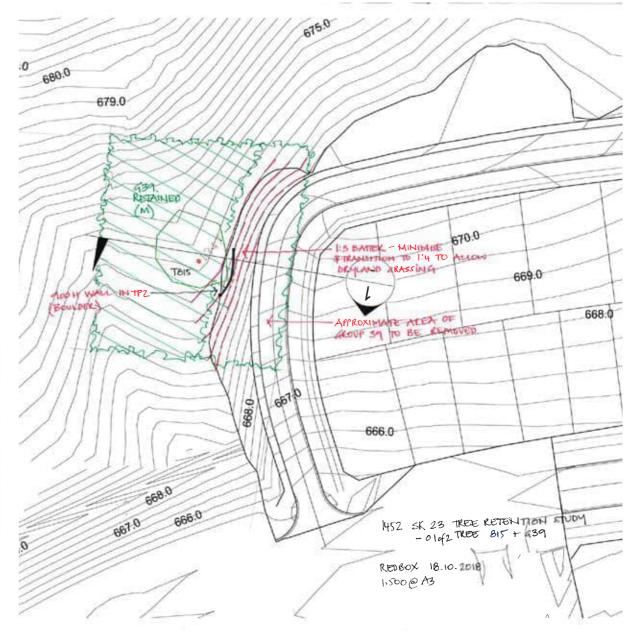
The detailed studies were a balance of earthworks, retaining walls, and the removal of some trees where needed to keep the higher value ones.

The following are examples of work undertaken to retain existing trees.



TREE SECTION AT ROAD 20

SECTION THROUGH ROAD 20 TO RETAIN THE EXCEPTIONAL TREE WITH MINOR BOULDER RETAINING WALL (SOURCE: REDBOX DESIGN GROUP)



LOCATION PLAN OF TREE RETENTION STUDY (SOURCE: REDBOX DESIGN GROUP)

Aboriginal Heritage

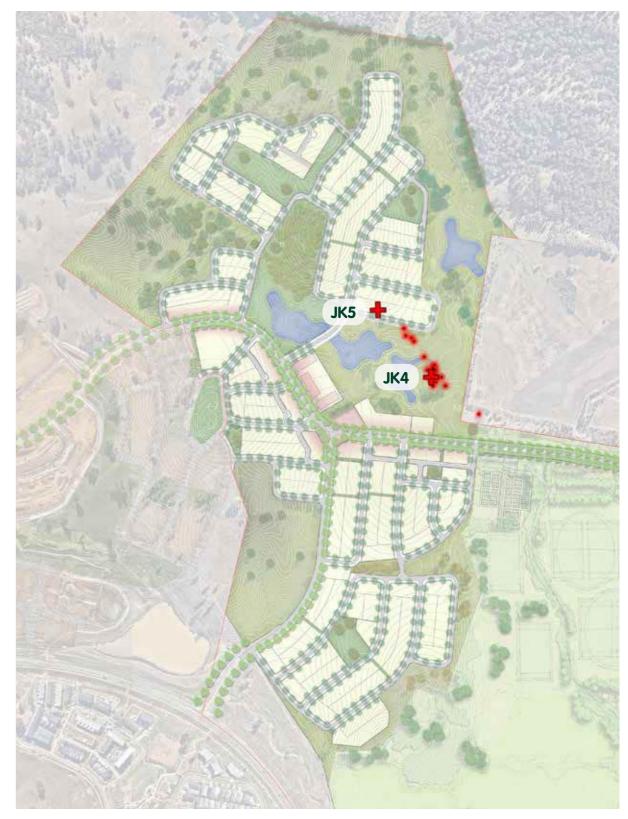
The Jacka 2 residential estate is part of the former Horse Park pastoral property, and is associated with the heritage listed Horse Park Homestead to the immediate south. GML Heritage Pty Ltd (GML) has provided preliminary heritage advice for the preparation of the Estate Development Plan and Landscape Masterplan for Stage 2 of the Jacka Residential Estate. This advice highlighted potential constraints to the development and identified opportunities for deeper understanding of heritage significance of the landscape, integration and interpretation of heritage throughout Jacka.

The Jacka 2 Cultural Heritage Study undertaken by Biosis in 2012 (2012 CHS)[i] identified seven surface artefact scatters and seven Potential Archaeological Deposits (PADs). The sites were considered likely to be impacted by the proposed development and archaeological investigation was undertaken in accordance with the 2005 Jacka Residential Estate Cultural Heritage Scoping Study.[ii] Collection of surface artefacts and testing of PADs was undertaken and all sites were identified as being of low significance.

No further management was required with the exception of PAD 2 (also referred to as JK4 and JK5, HP20, and C5/1). Test excavation of PAD 2 has not confirmed the extent of archaeological remains present, and potential impacts arising from development activities cannot be established.

GML has prepared an Aboriginal Archaeological Research Design (AARD) to accompany the lodgement of an Excavation Application under the Heritage Act 2004 (ACT). This program of test excavation aims to confirm the extent of subsurface archaeological deposits present at PAD 2. This will inform the detailed design of the proposed works in the vicinity of the site, and where possible, allow for the avoidance of impacts. A Results and Further Analysis report will be prepared following the test excavation and will include results from the work, address the research questions and will outline the management recommendations for avoiding further impacts to the sites, or the need for further mitigation measures, including salvage excavation.

The design response to the aboriginal heritage is documented throughout this report with particular focus in the Analysis, Design Response and Character Area sections. This EDP sets out a robust and protective spatial framework to promote sensitive celebration and also facilitate detailed heritage interpretation, art, gathering and contemplation strategies to be implemented during detailed design.



LOCATIONS OF HERITAGE

Built Form

PROVIDING HOUSING DIVERSITY

There are a variety of building typologies provided on site that respond to the topography and location. The majority of dwellings are detached single residential properties, that due to the steep nature of the site will be split level houses.

In key areas where there are mature trees retained in open parkland, there are houses that front directly onto the open

space. These houses will include front fences with gates onto footpaths.

The mixed-use site on the collector road includes ground floor retail with apartments above. These apartments will have views to the north of the proposed water bodies and bushland.

To create an urban centre, there are terraces of 2-3 storeys in height along the collector road nearing the mix-used centre.



MIXED-USE CENTRE OVERLOOKING WATER BODIES

HILL-SIDE HOUSES



PARK FRONTAGE DWELLINGS



STANDARD DETACHED DWELLINGS





TERRACES ALONG COLLECTOR ROAD



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