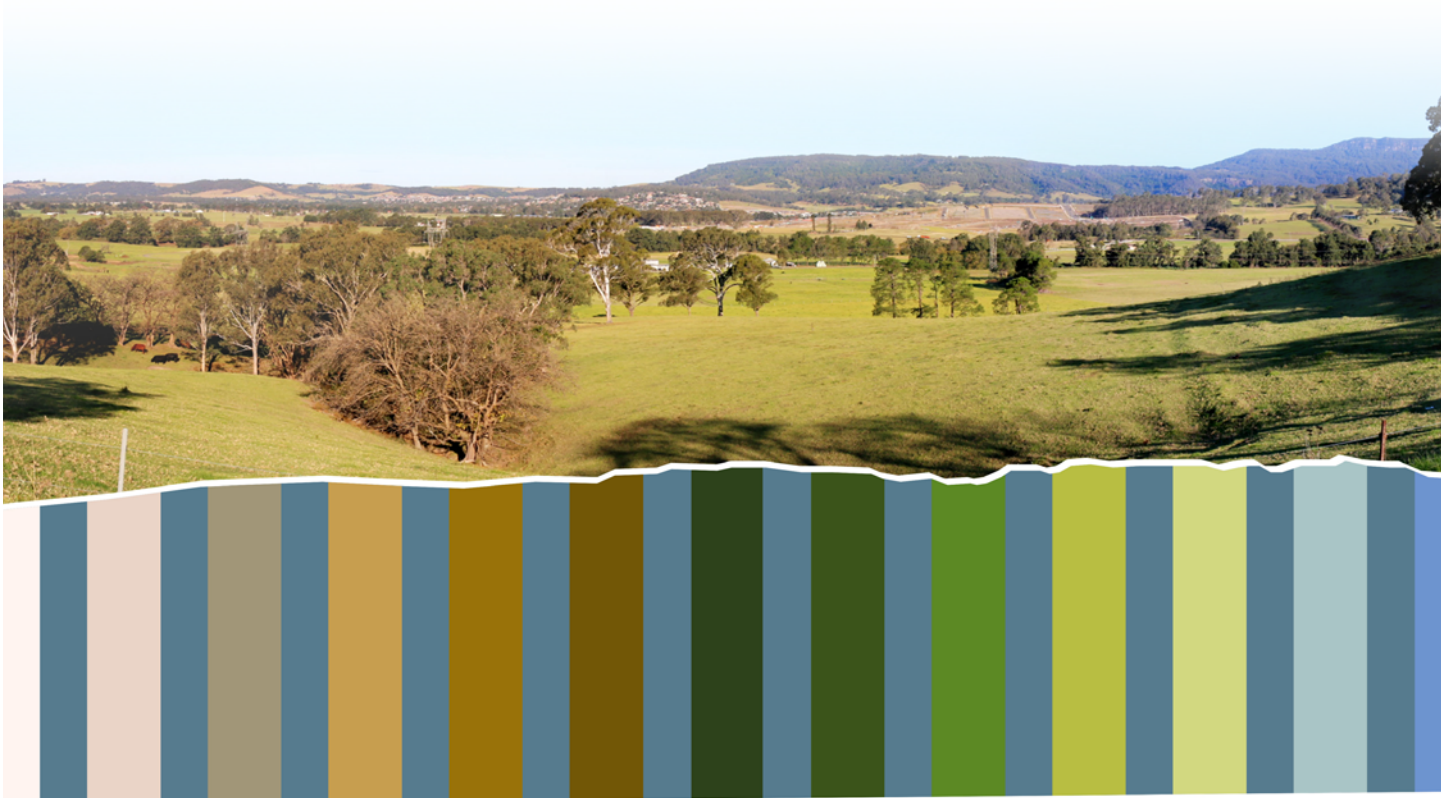


# PUBLIC DOMAIN REPORT

CALDERWOOD CONCEPT PLAN MP 09-008Z MOD 4 PPR





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### 1.1 BACKGROUND

The original Public Domain Report accompanied the Environmental Assessment Report (EAR) for the proposed S75W Modification Application to the Calderwood Concept Plan Approval (MP09-082) (Approved Concept Plan) for the Calderwood Urban Development Project (CUDP)

Taylor Brammer Landscape Architects Pty Ltd (TBLA) are engaged by Lendlease Communities (Calderwood) Pty Ltd to prepare this report to respond to the Department of Planning and Environment SEARS and in particular addresses Key Issue No. 6 Community Facilities and Public Domain.

The key issues outlined in SEARS identifies 8 general requirements and 21 Key Issues of which issue “6. Community Facilities and Public Domain” requests that the modification:

*Address any changes to public domain improvements, pedestrian linkages, street activation and landscaping.*

*Demonstrate that the public domain and open space will:*

- *Maximise permeability and street activation throughout the development;*
- *Provide sufficient passive and active open space for the expected additional population.*
- *Ensure access for people with disabilities; and*
- *Minimise potential for vehicle, bicycle and pedestrian conflicts.*

### 1.2 MOD 4 PPR SUBMISSION

This updated Public Domain Report has been prepared to respond to the NSW Planning and Environment request for further consideration of the key issues raised from submissions received as per their letter of 8th February 2019.

The main focus of this update is to provide additional detail in regard to Issue 4. Public Domain / Open Space; specifically regarding the characteristics of different open space areas including City Wide, District and Local Parks and outline what facilities would be provided within each area.

The Approved Concept Plan permits the development of 4800 dwellings with the updated Concept Plan (MOD 4 PPR) seeking to increase this to 6,000 dwellings. The increase is to be achieved by introducing a variety of small lots/affordable housing within the CUDP.

The current development area of the CUDP remains unchanged.

With the proposed increase in residential dwellings there will be improvements that will influence the Public Domain Plan including:

- Open space increase (active and passive) to meet the needs of the increased resident population.
- Refinement of the pedestrian and cycle network to align with road patterns and open space.
- Adjustment of water cycle management to interface with flood mitigation planning within Riparian Zones and Open Space Areas.

This updated report is structured to demonstrate the improvements to the Public Domain in terms of Open Space, Pedestrian and Cycle movement and Water Cycle Management.

### 1.3 CONCEPT PLAN MOD4 PPR

The following pages show the original approved Concept Plan (Consolidated Concept Plan JBA March 2011)(Figure 2.0) and the current updated Concept Plan (MOD 4 PPR) (May 2019) (Figure 3.0).

The updates to the original approved concept plan include:

- Proposed locations of some local parks and district parks to better meet the distribution requirement.
- Increased areas of both passive and active open space.
- Increased area to Town Centre / Retail.
- Water bodies based upon updated water management information.

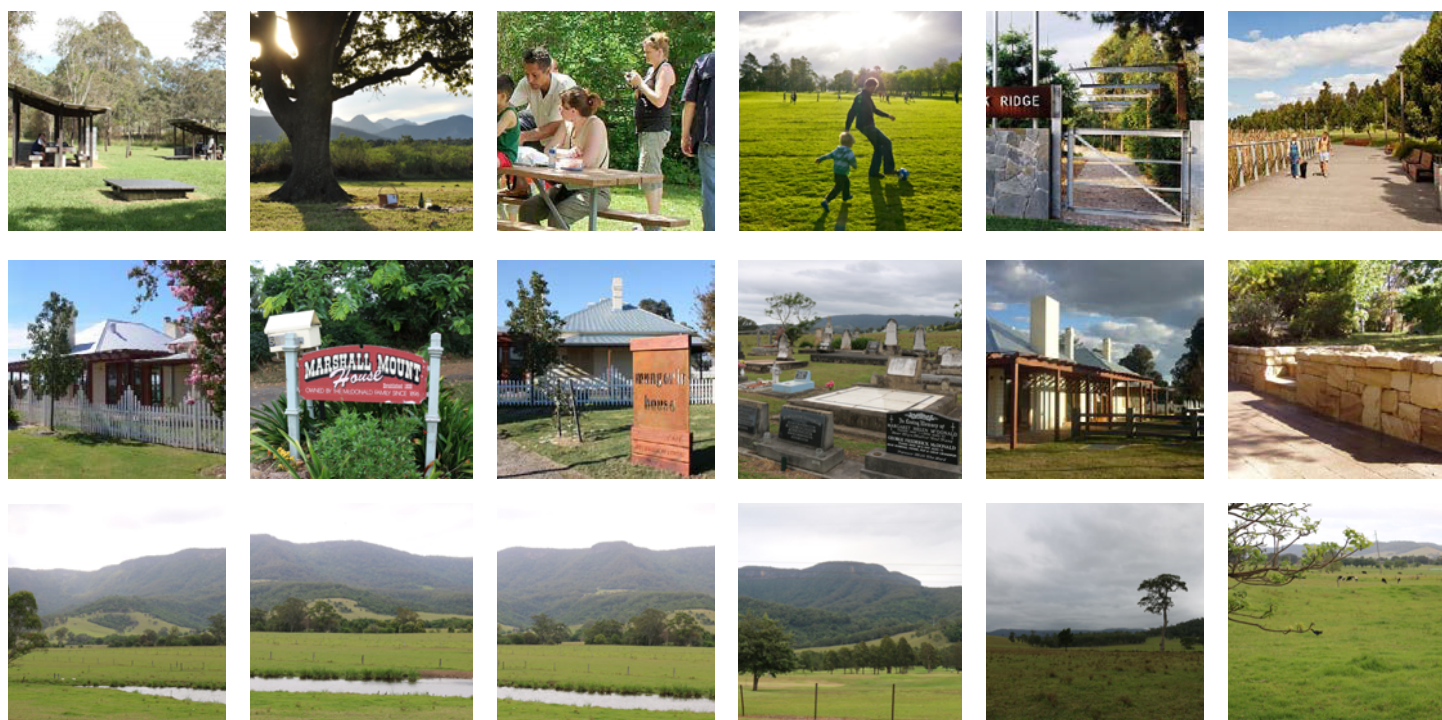


Figure 1.0 CALDERWOOD VALLEY CHARACTER IMAGES

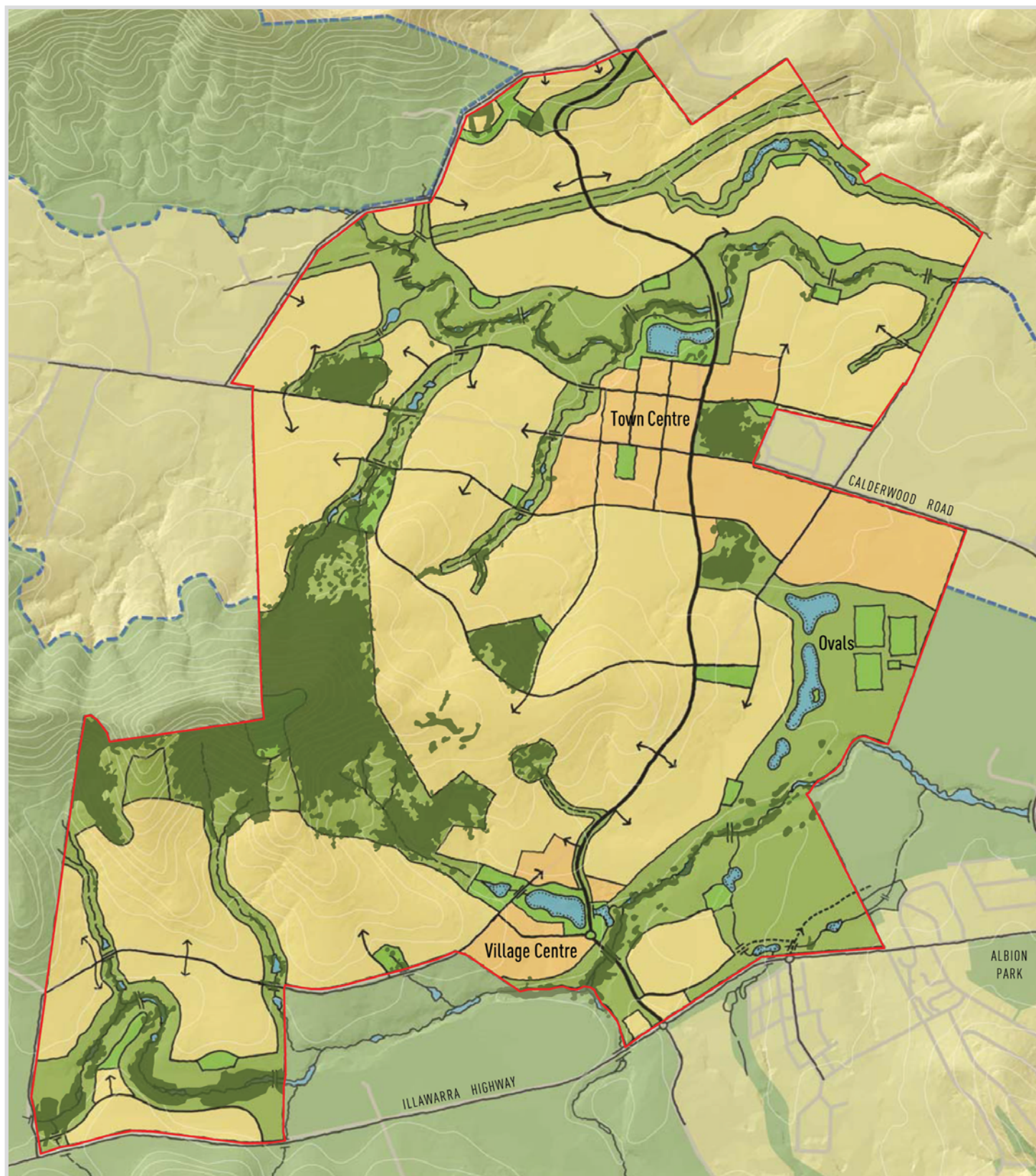
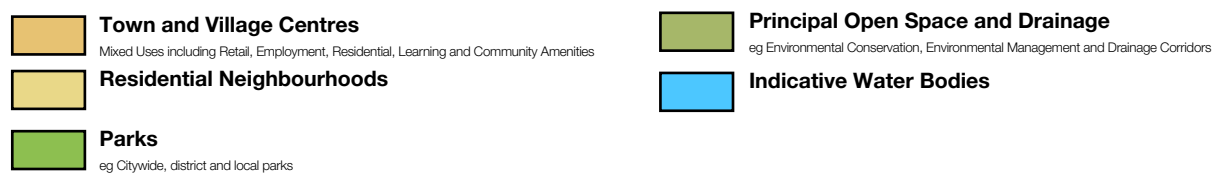


Figure 2.0 APPROVED CONCEPT PLAN (JBA MARCH 2011)



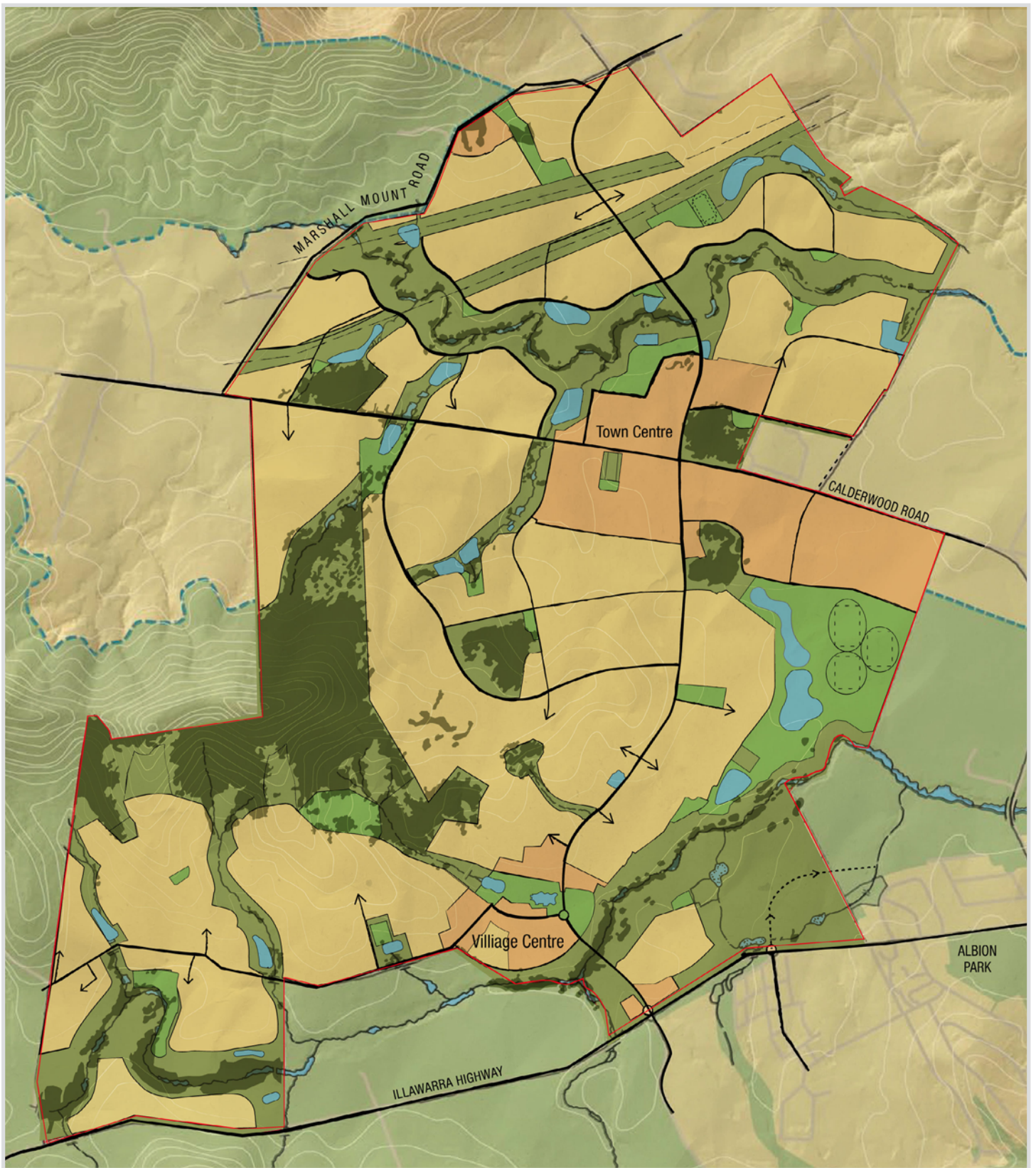


Figure 3.0 CONCEPT PLAN (MOD 4 PPR) (MAY 2019)

- Town and Village Centres**  
Mixed Uses including Retail, Employment, Residential, Learning and Community Amenities
- Residential Neighbourhoods**
- Parks**  
eg Citywide, district and local parks

- Principal Open Space and Drainage**  
eg Environmental Conservation, Environmental Management and Drainage Corridors
- Indicative Water Bodies**

## 2.1 MOD 4 PPR OPEN SPACE

As part of the MOD 4 PPR submission the existing open space in the CUDP is retained and enhanced with additional area and recreation opportunities to meet the needs of the increased resident population.

The Open Space provision is based on applying the 2.83 ha per 1000 people standard as recommended in the Elton Consulting Social Infrastructure Report. Based on the revised CUDP this would create an Open Space demand of 43.808 hectares. Using an approximate 50/50 split between active and passive open space, this would comprise:

- 2.9631 hectares for active open space.
- 21.8449 hectares for passive open space.

The required increase in open space has been designed into the MOD 4 PPR submission and is summarised graphically in Figure 4.0 OPEN SPACE ANALYSIS PLAN (MOD4 PPR).

The methodology to quantify the Open Space included the following process:

- Establishing the additional areas of open space required to meet the increased community population compared to the approved CUDP (Elton Consulting - Calderwood Social Infrastructure Yield Review).
- Accurately measuring the Open Space Plan in an AutoCAD format (note that water quality basins are excluded).
- Comparing the areas measured against the requirements of the SHCC VPA and the CUDP.
- Establishing the preferred distribution of additional areas of open space based on the improvements to open space as part of the MOD4 PPR submission.
- Measuring the improved open space areas and tabulating the result to demonstrate that the requirements for additional Active and Passive Open Space are achieved.

## 2.2 OPEN SPACE AREAS

### ACTIVE OPEN SPACE (AOS)

The required additional AOS to support the modification is 6.123 hectares over the VPA approved 15.84 hectares providing a total AOS of 21.963 hectares. This has been achieved by:

- Completing an accurate AutoCAD measure of the Sports Fields (S1).
- Introduction of Sport Fields (S2) adjacent to District Park (D1) on the northern side of Marshall Mount Creek.

### PASSIVE OPEN SPACE (POS)

The additional POS required to support the modification is 4.014 hectares over the VPA approved 17.83 hectares providing a total of 21.844 hectares. This has been achieved by:

- Completing an accurate AutoCAD measurement of all parks (L2, L3, L4, L5, L8, L11).
- District Park (D2) (Non Core Lands)-layout as per Development Application that has been lodged with Shellharbour City Council. Area increases by 0.396 hectares.
- District Park (D5) and Local Park (L13) (Both Non Core Lands)-layout as per Development Application that has been lodged with Shellharbour City Council. Area increases by 0.813 hectares.
- Local Park (L1) has increased in size by 0.1 hectares.
- Local Park (L6) has increased in size by 0.040 hectares.
- Local Park (L7) (Non Core Lands)-layout as per Development Application that has been lodged with Shellharbour City Council. Area increases by 0.214 hectares.
- Local Park (L9) has been relocated and increased in size by 0.319 hectares.
- Local Park (L12) has increased in size by 0.257 hectares to allow for water quality basins.
- Local Park (L14) is a newly created park in Calderwood Stage 5 providing an additional area of 0.2 hectares. The park has been located to better service surrounding residents.
- City Wide Park (CW1) has been increased in size by 0.1 hectares.

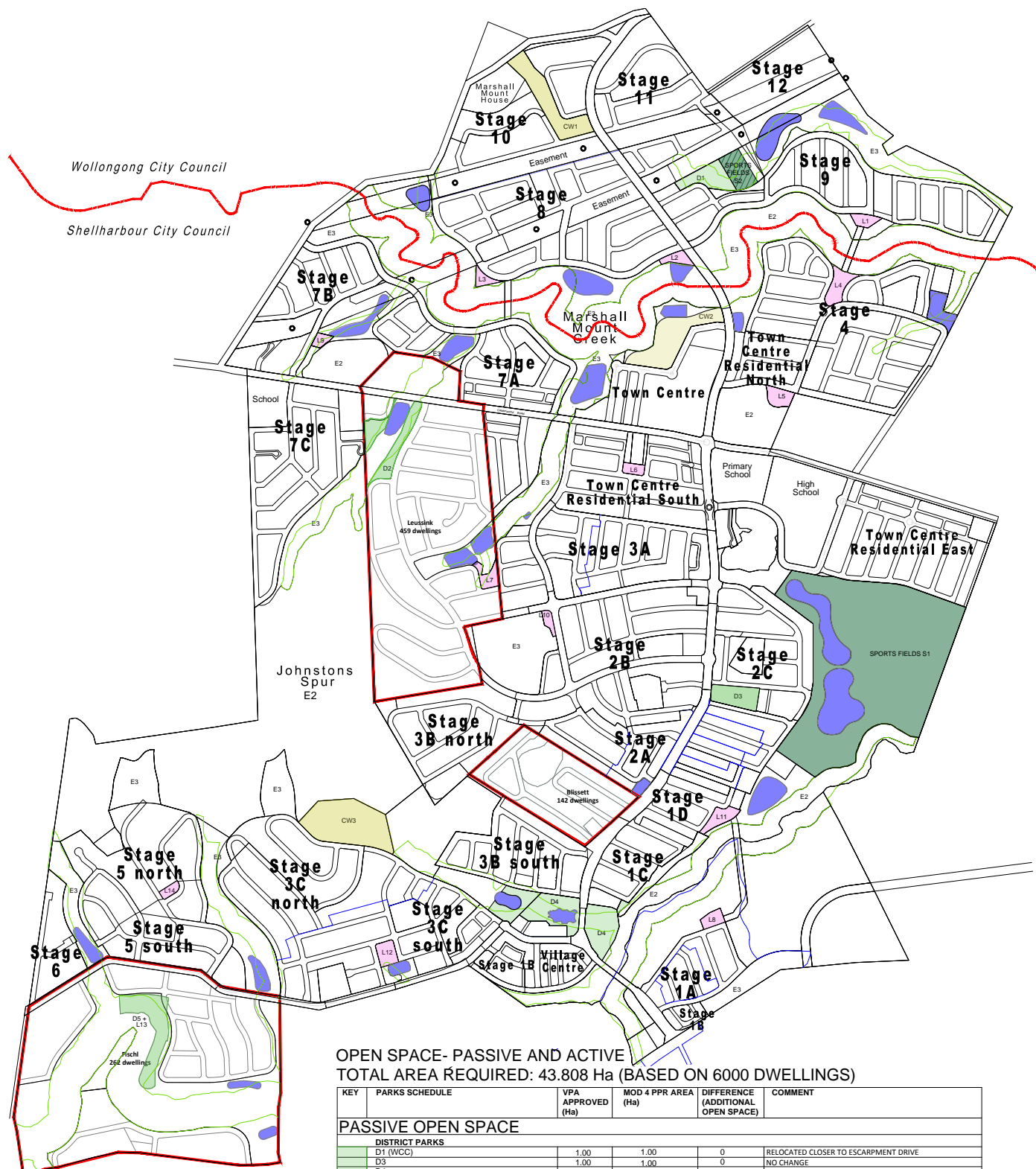
## 2.4 OPEN SPACE REQUIREMENTS AND PROVISION

	Approved Concept Plan	To support 6,000 dwellings proposed in MOD4 PPR	Proposed Total
Open Space Required	33.2ha	10.61ha	43.81ha
Open Space Provided	33.67ha (as mapped in SHCC VPA and shown for WCC LGA in Concept Plan)	10.138ha	43.81ha
Difference	+0.47ha	-0.47ha	-0ha

## 2.3 OPEN SPACE LOCATIONS

Aside from areas of parkland being adjusted to meet the requirements for 6000 dwellings the following parks have been adjusted in their location or introduced as new open space:

- District Park (D1) – relocated away from Marshall Mount Creek with closer access to Escarpment Drive.
- District Park (D2) (Non Core Lands) – layout as per Development Application that has been lodged with Shellharbour City Council.
- District Park (D5) (Non Core Lands) – layout as per Development Application that has been lodged with Shellharbour City Council.
- Local Park (L1) – relocated to north side of Marshall Mount Creek with potential connection to Local Park (L4). District Park (D1) previously located here.
- Local Park (L7) (Non Core Lands) – layout as per Development Application that has been lodged with Shellharbour City Council.
- Local Park (L9) – Shape consolidated so it is less linear and adjoins E2 zone. Closer to proposed roadway.
- Local Park (L12) – relocated north to allow for water quality basin and integrate with park.
- Local Park (L13) (Non Core Lands) – layout as per Development Application that has been lodged with Shellharbour City Council.
- Local Park (L14) – new park to improve amenity to residents in this area.
- City Wide Park (CW3) – relocated to provide improved access to Johnstons Spur and adjoining residential dwellings.
- Sports Fields (S2) – Newly located to better service residential dwellings on the north side of Marshall Mount Creek.



# OPEN SPACE- PASSIVE AND ACTIVE TOTAL AREA REQUIRED: 43.808 Ha (BASED ON 6000 DWELLINGS)

KEY	PARKS SCHEDULE	VPA APPROVED (Ha)	MOD 4 PPR AREA (Ha)	DIFFERENCE (ADDITIONAL OPEN SPACE)	COMMENT
<b>PASSIVE OPEN SPACE</b>					
<b>DISTRICT PARKS</b>					
D1 (WCC)		1.00	1.00	0	RELOCATED CLOSER TO ESCARPMENT DRIVE
D3		1.00	1.00	0	NO CHANGE
D4		3.80	3.80	0	PARTIAL CONSTRUCTION COMPLETED
D2 (NON CORE LAND)		1.00	1.3962	0.3962	RELOCATED AND INCREASE IN PARK SIZE
D5 (NON CORE LAND)		1.00	2.0133	1.0133	AMALGAMATED WITH L13. INCREASE IN PARK SIZE
<b>LOCAL PARKS</b>					
L1 (WCC)		0.20	0.30	0.10	RELOCATED AND INCREASE IN PARK SIZE
L2 (WCC)		0.20	0.3029	0.1029	ACCURATE AUTOCAD MEASURE
L3 (WCC)		0.20	0.5577	0.3577	ACCURATE AUTOCAD MEASURE
L4		0.20	0.6392	0.4392	ACCURATE AUTOCAD MEASURE
L5		0.20	0.4588	0.2588	ACCURATE AUTOCAD MEASURE
L6		0.20	0.2404	0.0404	INCREASE IN PARK SIZE
L7 (NON CORE LAND)		0.20	0.4142	0.2142	RELOCATED AND INCREASE IN PARK SIZE
L8		0.20	0.3185	0.1185	ACCURATE AUTOCAD MEASURE. CONSTRUCTION COMPLETED
L9		0.20	0.5191	0.3191	RELOCATED AND INCREASED IN PARK SIZE
L10		0.20	0.20	0	NO CHANGE
L11		0.20	0.4988	0.2988	ACCURATE AUTOCAD MEASURE. CONSTRUCTION COMPLETED
L12		0.20	0.4578	0.2578	RELOCATED AND INCREASE IN PARK SIZE
L13 (NON CORE LAND)		0.20	COMBINED WITH D5	-0.20	AMALGAMATED WITH D5
L14			0.20	0.20	NEWLY CREATED LOCAL PARK
<b>CITYWIDE PARKS</b>					
CW1 (WCC)		2.00	2.10	0.10	RELOCATED AND INCREASED IN PARK SIZE
CW2		2.00	2.00	0	NO CHANGE
CW3		3.43	3.43	0	RELOCATED. NO CHANGE IN PARK SIZE
<b>TOTAL</b>		<b>17.83</b>	<b>21.8449</b>	<b>4.0149</b>	
<b>ACTIVE OPEN SPACE</b>					
SPORTS FIELDS S1		15.84	21.0592	5.2192	ACCURATE AUTOCAD MEASURE (EXCLUDES BASINS)
<b>POTENTIAL ADDITIONAL ACTIVE OPEN SPACE</b>					
EXTENSION TO D1 PARK (SPORTS FIELDS S2)			0.9039	0.9039	NEW ACTIVE OPEN SPACE
<b>TOTAL</b>		<b>15.84</b>	<b>21.9631</b>	<b>6.1231</b>	
<b>OVERALL TOTAL</b>		<b>33.67</b>	<b>43.808</b>	<b>10.138</b>	

Figure 4.0 OPEN SPACE ANALYSIS PLAN (MOD4 PPR)

The following section of this report provides further detail in regard to the characteristics of the various types of open space proposed at Calderwood Valley as part of MOD4 PPR, including City Wide, District, Local and Active Parks and outlines what facilities are typically provided within each.

Each open space type is described including terms of a typical park in each category with an outline of the facilities that are typically provided within that park typology.

The park examples are typical as each park will differ slightly depending on its location and relationship to the natural and built environment.



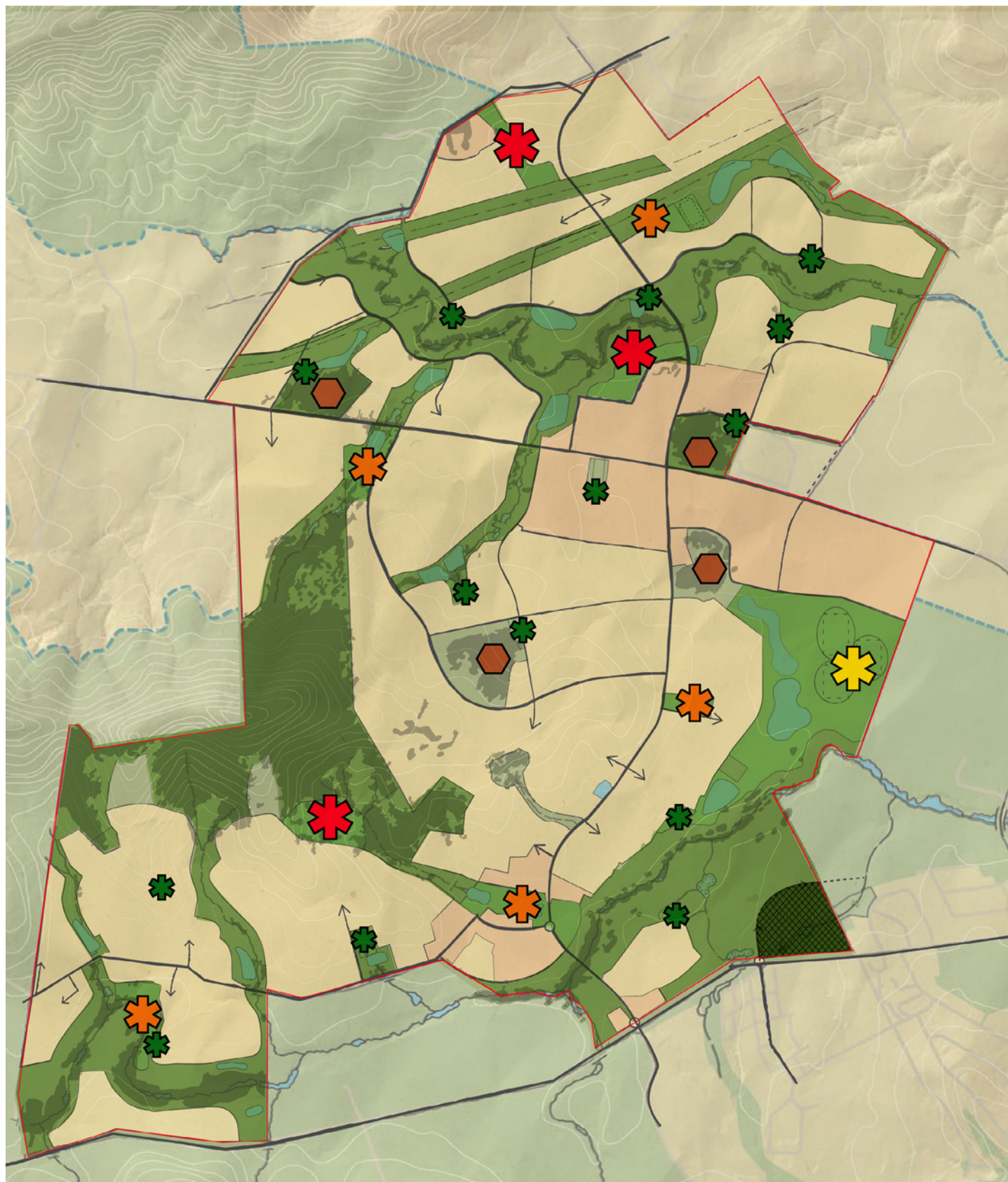









Figure 5.0 INDICATIVE OPEN SPACE NETWORK (MOD4 PPR)

#### LEGEND

- |  |  |   |  |
|--|--|---|--|
|  | <b>Citywide Parks</b><br>Johnston's Spur, Town Centre Park, and Marshall Mount House Curtilage |  | <b>Environmental Reserves</b>                                      |
|  | <b>District Parks</b><br>Indicative locations. Minimum size 1.0 ha                             |  | <b>Open Space Corridors and Citywide Bushland</b>                  |
|  | <b>Local Parks</b><br>Indicative locations. Minimum size 0.2 ha                                |  | <b>Rural Landscape/Lifestyle</b><br>Agricultural area and paddocks |
|  | <b>Main Sports Complex</b><br>Three sports ovals   |   |  |

## 2.6 CITY WIDE PARK EXAMPLE

The details of any changes to City Wide Parks in terms of areas and location are outlined in section 2.1– 2.3 of this report.

**Size:** typically 2.0 ha

### Site Characteristics

As an examples, CW2 - The "Lakeside" Urban City Park lies to the north of the Town Centre in the Marshall Mount Creek corridor. The park will focus on natural waterfront experiences and will be developed on low lying lands with relatively flat topography.

### Opportunities and Constraints

- Promote views and links with water
- Develop space to transition between urban edge to Marshall Mount creek corridor
- Design should optimize any natural drainage line as a site feature
- Links and relationships to retail precinct

### Provision

The following facilities are typically considered in the design of the city wide parks:

- Parking for approximately 20 cars
- Public amenities
- Consideration of irrigation
- Performance space for music and outdoor cinema
- Water quality ponds with board-walks and decking to provide view to waters edge
- Outdoor cafes and decks to waters edge

- Retention of existing vegetation. New tree planting that respects the natural place but reflects the new community - marker trees, deciduous and flowering trees.
- Shared pedestrian / cycleway (2.5m wide)
- Interpretive and way-finding signage
- Open grassed area suitable for informal games and recreation
- Fitness nodes
- Integration of a fitness trail along Marshall Mount Creek
- Structured and natural playgrounds that provide a range of experiences for all ages
- Picnic shelters with barbecues with picnic tables and seats
- Soft landscaping works including broad-scale low maintenance plantings
- WiFi to public areas.
- All Abilities playground
- Fencing as required
- Drinking Fountains where appropriate

### Presentation Standard

- Urban/commercial (High)

### Public Art

- Public artwork in accordance with the Public Art Strategy.

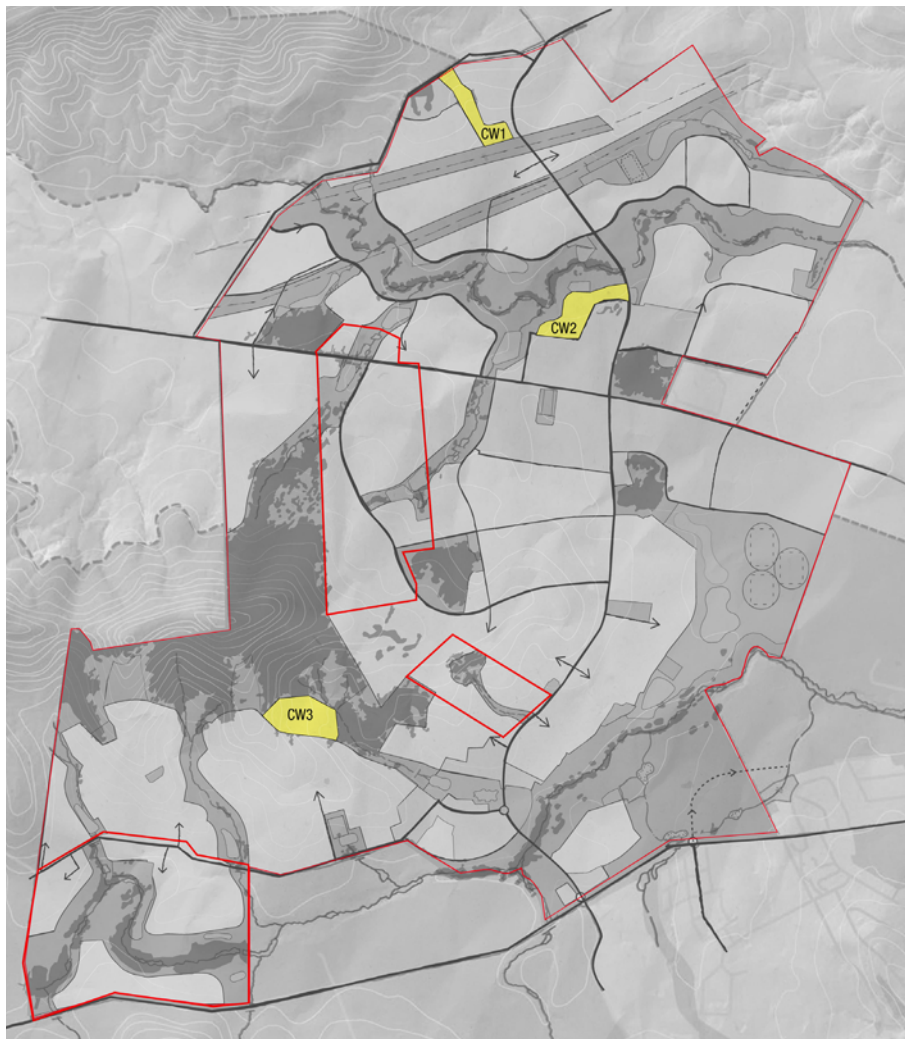
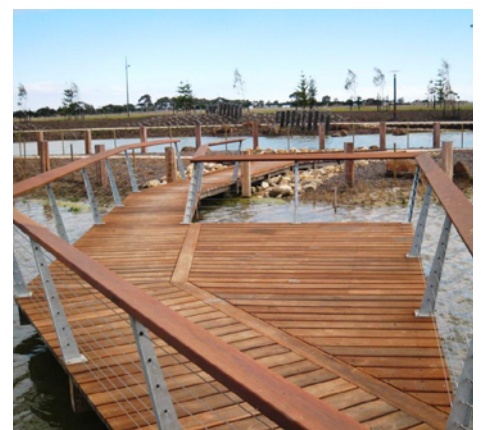


Figure 6.0 CITY WIDE PARKS PLAN

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## 2.7 DISTRICT PARK EXAMPLE

The details of any changes to District Parks in terms of areas and location are outlined in section 2.1– 2.3 of this report.

**Size:** typically 1.0 Ha

### Site Characteristics

As an example, District Park D3 is a 'residential' District Park located to the east of the Calderwood Valley and is bounded by the main Arterial Road to the west. Residential housing faces the park to the north, south and east. The site has no existing vegetation.

### Opportunities and Constraints

- Potential pedestrian landscape to the nearby Riparian zone
- Relationship to the houses bordering the space on the eastern edge
- Primary trail requirement

### Provision

The following facilities are typically considered in the design of District Parks:

- Parking for approximately 10 cars
- Multi use games court
- Open grassed area suitable for informal games and recreation.
- Structured playgrounds that provide a range of experiences for all ages with provision for shade
- Spaces separated by grassed and planted embankments
- Picnic shelters and table/seats
- Fitness nodes
- Fencing as required
- Barbecues where appropriate
- Drinking Fountains where appropriate

### Presentation Standard

- Residential / Parkland

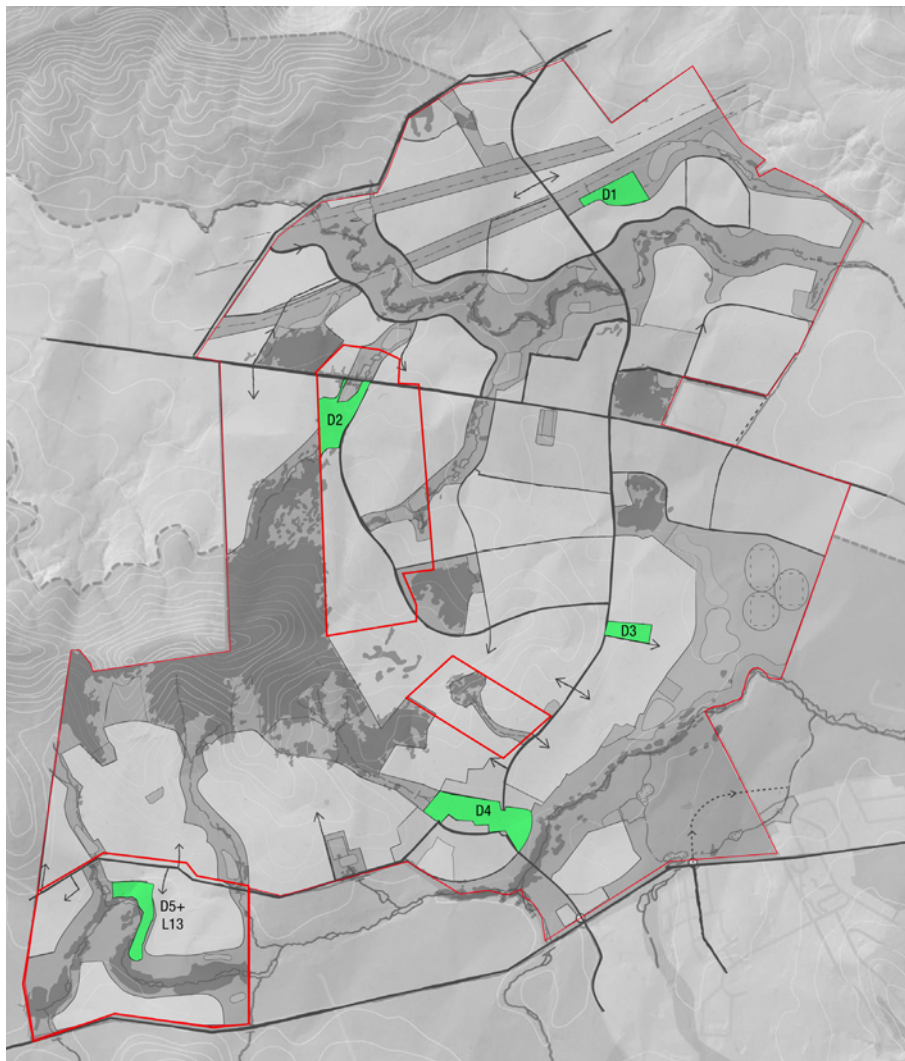


Figure 7.0 DISTRICT PARKS PLAN

## 2.8 LOCAL PARK EXAMPLE

The details of any changes to Local Parks in terms of areas and location are outlined in section 2.1– 2.3 of this report.

**Size:** Minimum 0.2 ha

### Site Characteristics

As an example park L4 is the northern most local park in the Calderwood Valley development and is located within the Marshall Mount Creek corridor. The area has formerly been cleared for grazing and the site for the park has been denuded of vegetation and is highly disturbed. The area is relatively flat with only slight falls from south to north.

The park is bounded by residential development on 3 sides and is open to the north and creek area.

### Opportunities and Constraints

- The site is characterised by gentle slopes and represents a good opportunity to restore indigenous riparian vegetation to an area largely grazed to bare earth
- Link park to primary trail access along east west Marshall Mount Creek corridor
- Reinforce linkages and provide views through the Marshall Mount Creek Corridor to parklands proposed in the north

- Integrate park with surrounding residential areas. The park presents an opportunity to transition between these and the creek corridor.

### Provision

The following facilities are typically considered in the design of Local Parks:

- Natural play relating to the creekline
- Picnic shelters and table/seats
- Riparian planting of low grasses/groundcovers to northern edge with suitable local provenance tree planting
- Integration of primary trail and link across creek
- Fitness node
- Shared pedestrian / cycleway (2.5m wide)
- Open grassed area suitable for informal games and recreation
- Natural playground with provision for shade
- Fencing as required

### Presentation Standard

- Residential parkland (Medium)

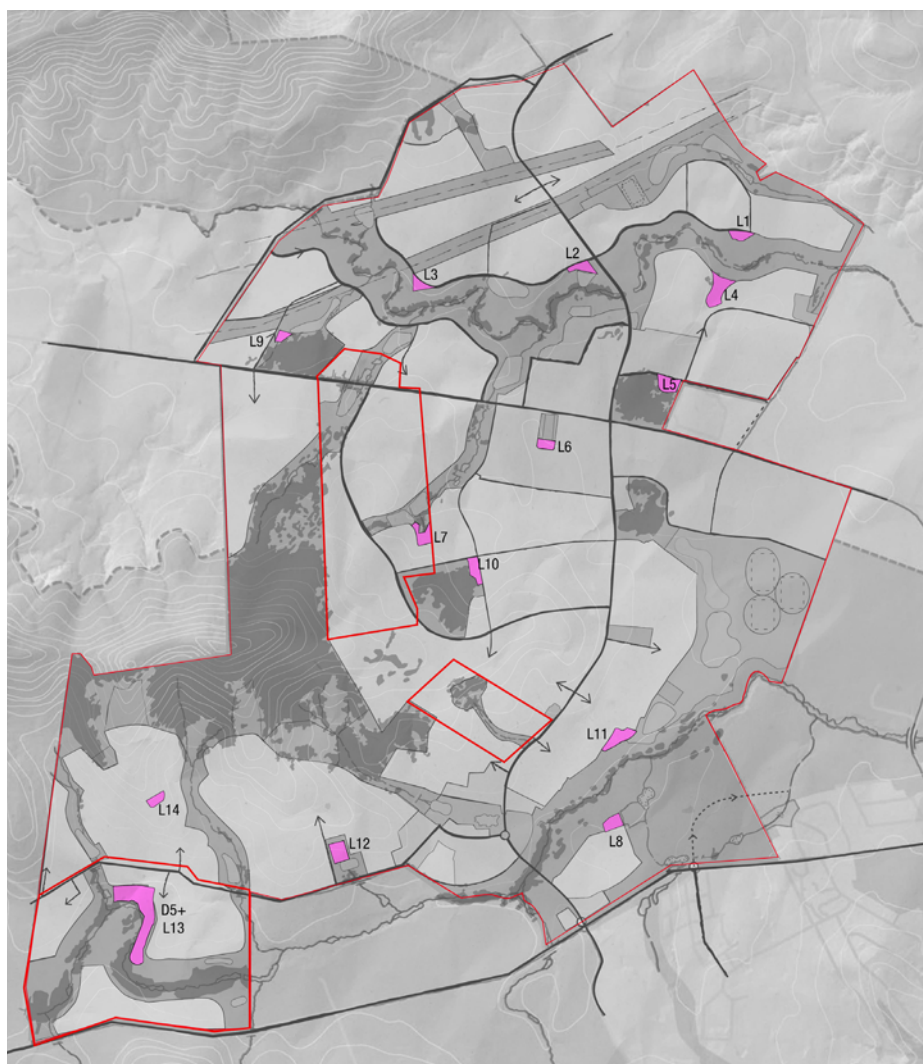


Figure 8.0 LOCAL PARKS PLAN

## 2.9 ACTIVE PARK EXAMPLE

The details of any changes to Active Parks in terms of areas and location are outlined in section 2.1– 2.3 of this report.

**Size:** 21.059 ha

### Site Characteristics

As an example, Sports fields (S1) is a former cleared agricultural land lying within the Macquarie Rivulet floodplain. Slopes are gently undulating with minimal existing tree canopy.

Remnant protected woodland provides a natural feature at the parks north western end. A major sports facility will be located on the eastern edge within the Calderwood Valley development. It will be the focal recreational space of the Calderwood Valley for organised sports and for larger scale community gatherings and activities.

The development of the final design for the Park provides opportunities to work closely with Shellharbour City Council, local schools and the community to define the final recreational use and sporting / community groups for the facility. This will enable a stronger sense of ownership and accurate and appropriate design briefing,

### Provision

The following facilities are typically considered in the design of Active Parks:

- Vehicular access and parking for approximately 80 cars
- 3 x sporting ovals/fields and training facilities as agreed
- 1x central amenities building including change rooms, central kiosk facility, communal storage, clubhouse/ meeting room, publicly accessible toilets
- Playing field lighting to Australian Standard
- Irrigation system for playing fields
- Ornamental and water quality ponds
- Fenced dog off leash area
- Hard courts (approximately 6 in number)
- Fitness nodes
- Integration of primary and secondary trails
- Structured and natural playgrounds with provision for shade
- Picnic shelters and table/seats
- WiFi to public areas.

- Vegetation to pond edges with native tree planting to the remainder of the area
- Informal grassed overflow parking
- Way-finding and interpretive signage to pathways - particular emphasis on Riparian, wetland and woodland plant communities
- Potential BMX bike track
- Potential Parkour area
- Barbecues where appropriate
- Drinking fountains where appropriate

### Presentation Standard

- Residential parkland (Medium)

### Public Art

- Public artwork in accordance with the Public Art Strategy

### Dog Off Leash Area

The Calderwood Valley voluntary Planning Agreement highlights the sportsground precinct as the preferred location of a Dog Off Leash Area (DOLA).

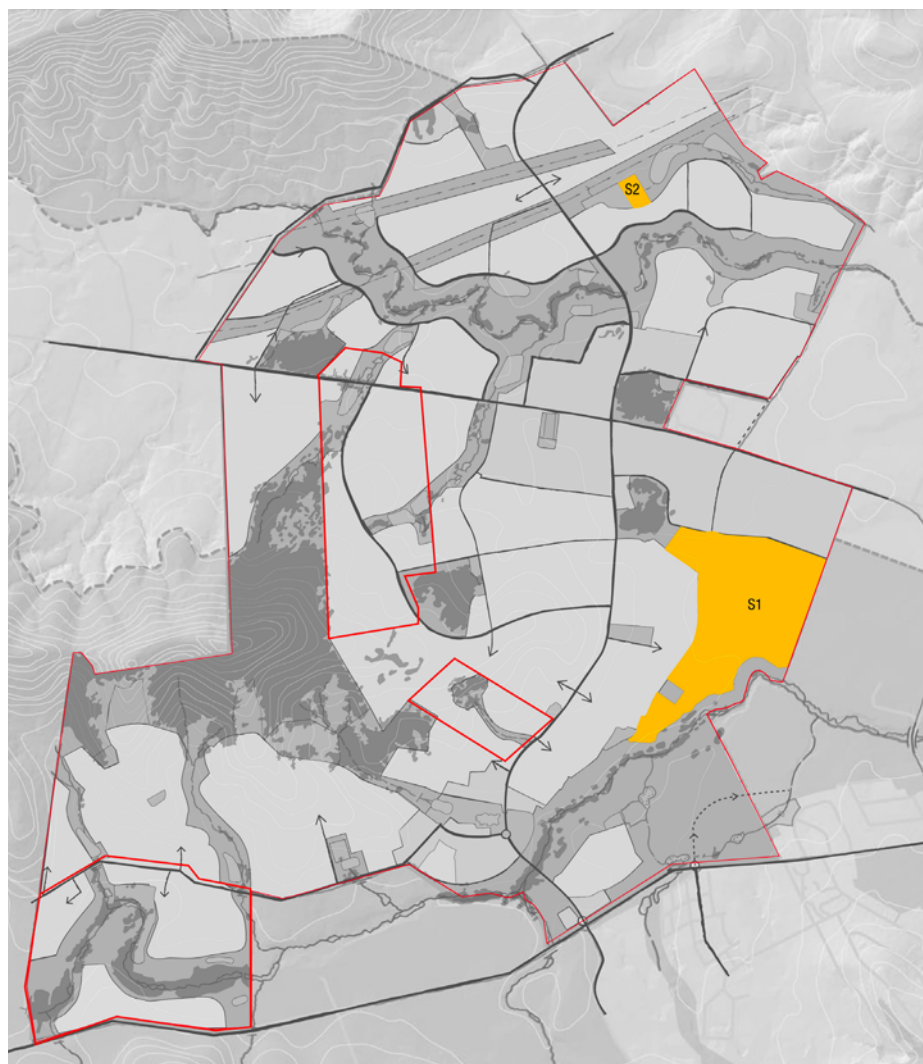
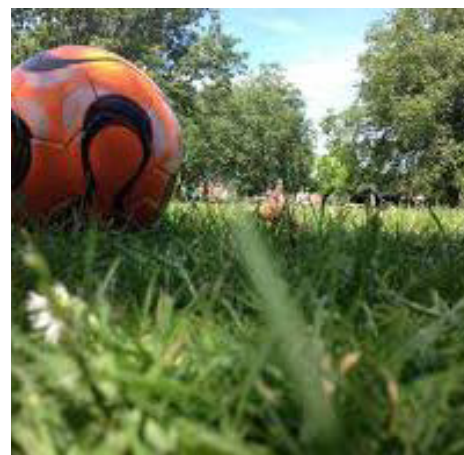


Figure 9.0 ACTIVE PARKS PLAN



### 3.0 ADDITIONAL OPEN SPACE

The following figure 10.0 Additional Open Space Plan shows graphically the updated open space areas that form part of the MOD4 PPR submission.

The updates to the plan from the original approved concept include:

- New active open space which will become an extension to the D1 park (Sports fields S2).
- Sports fields (S1) has increase from the VPA approved 15.84Ha to 21.0592Ha (excluding basins) as part of the MOD4 PPR. The Sport fields (S1) area is consistent with the Calderwood Land Zoning Map being predominately RE1 (Public Recreation).

#### ACTIVE OPEN SPACE (AOS)

The required additional AOS to support the modification is 6.123 hectares over the VPA approved 15.84 hectares providing a total AOS of 21.963 hectares. This has been achieved by:

- Completing an accurate AutoCAD measure of the Sports Fields (S1).
- Introduction of Sport Fields (S2) adjacent to District Park (D1) on the northern side of Marshall Mount Creek.

#### PASSIVE OPEN SPACE (POS)

The additional POS required to support the modification is 4.014 hectares over the VPA approved 17.83 hectares providing a total of 21.844 hectares. This has been achieved by:

- Completing an accurate AutoCAD measurement of all parks (L2, L3, L4, L5, L8, L11).
- District Park (D2) (Non Core Lands)-layout as per Development Application that has been lodged with Shellharbour City Council. Area increases by 0.396 hectares.
- District Park (D5) and Local Park (L13) (Both Non Core Lands)-layout as per Development Application that has been lodged with Shellharbour City Council. Area increases by 0.813 hectares.
- Local Park (L1) has increased in size by 0.1 hectares.
- Local Park (L6) has increased in size by 0.040 hectares.
- Local Park (L7) (Non Core Lands)-layout as per Development Application that has been lodged with Shellharbour City Council. Area increases by 0.214 hectares.
- Local Park (L9) has been relocated and increased in size by 0.319 hectares.
- Local Park (L12) has increased in size by 0.257 hectares to allow for water quality basins.
- Local Park (L14) is a newly created park in Calderwood Stage 5 providing an additional area of 0.2 hectares. The park has been located to better service surrounding residents.
- City Wide Park (CW1) has been increased in size by 0.1 hectares.

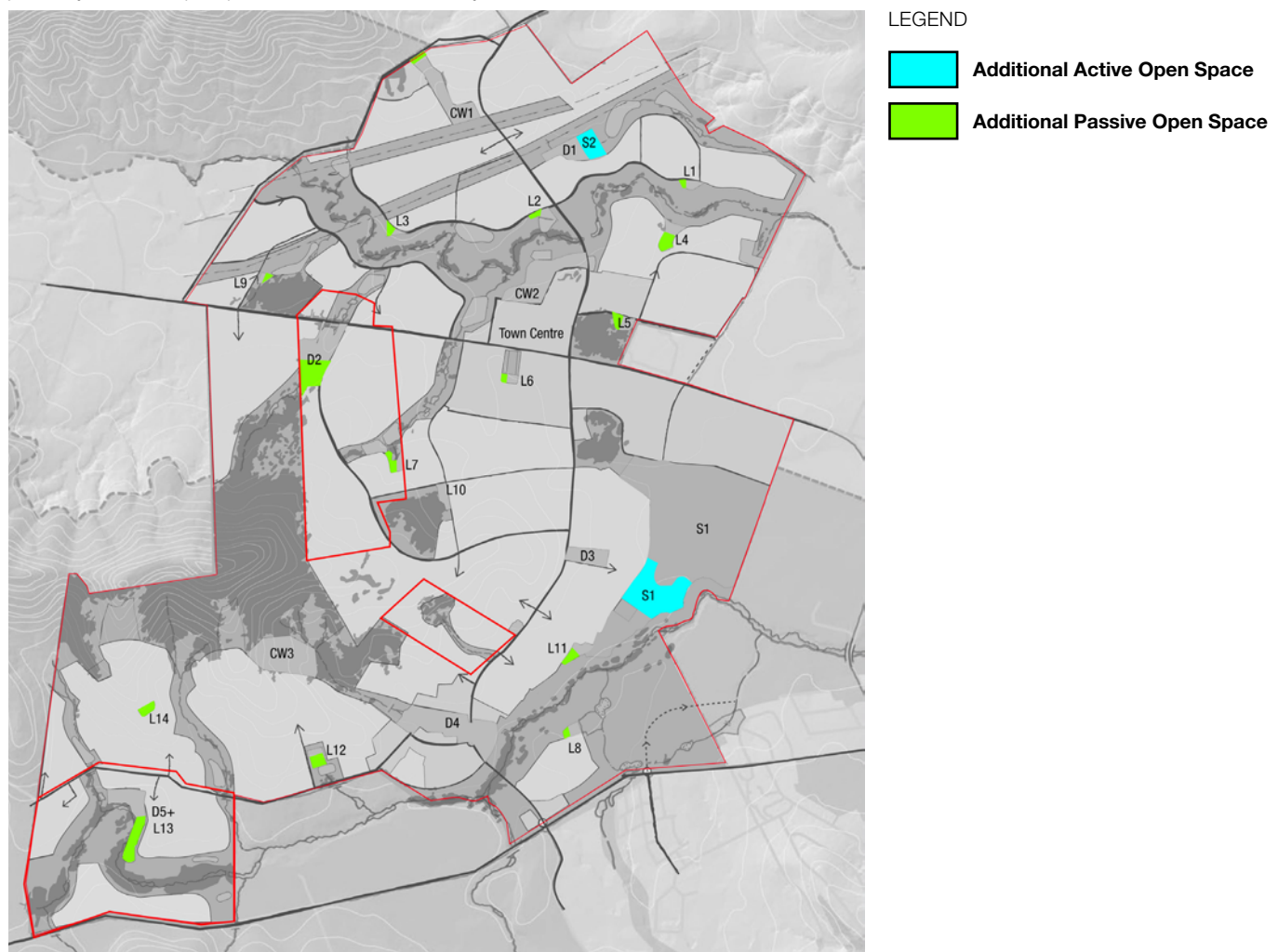


Figure 10.0 ADDITIONAL OPEN SPACE PLAN (MOD4 PPR)

The Proposed Open Space Plan (MOD4 PPR) shows graphically the proposed open space areas that form part of MOD4 PPR submission.

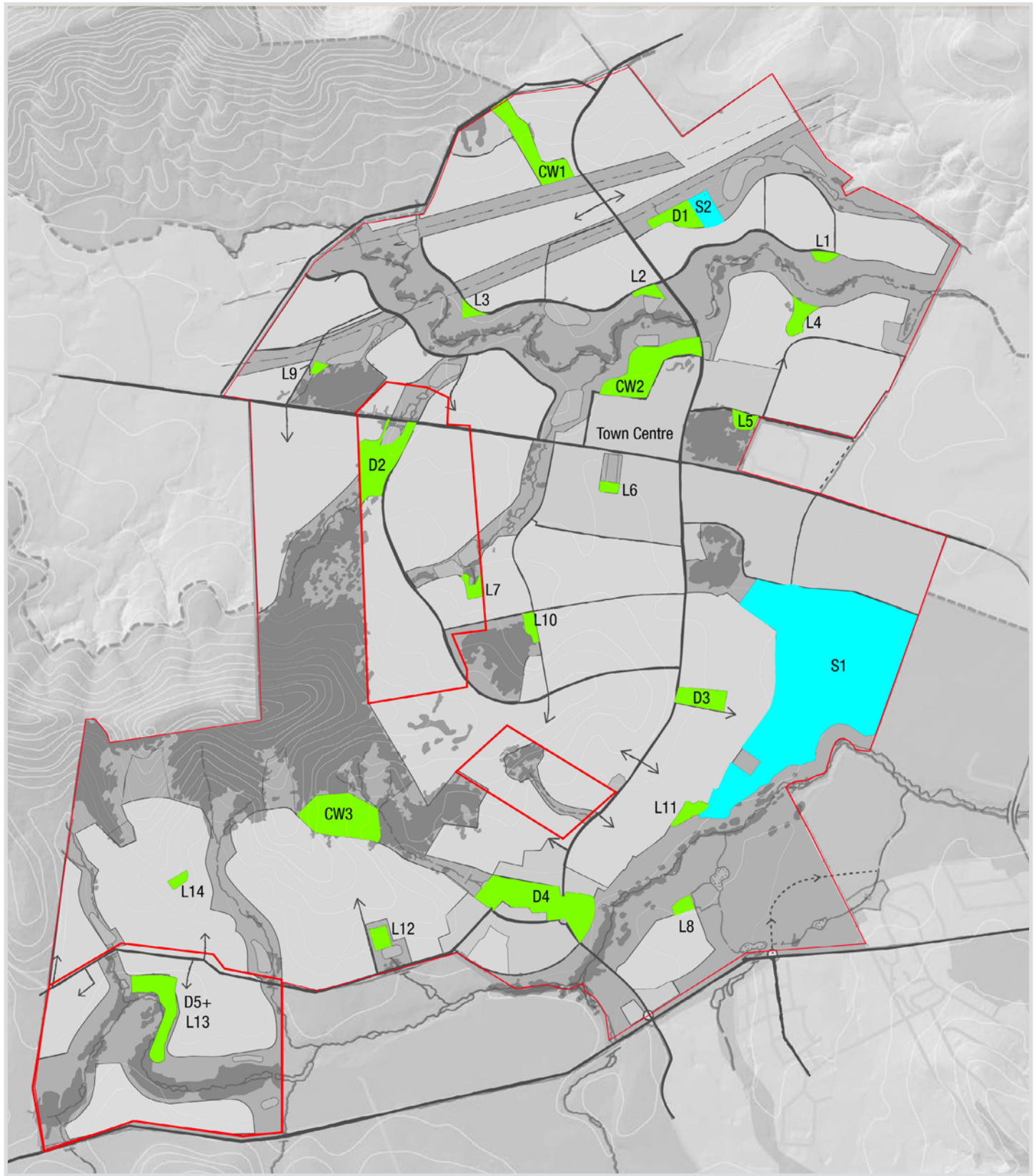



Figure 11.0 PROPOSED TOTAL OPEN SPACE PLAN (MOD4 PPR)

LEGEND

-  **Proposed Active Open Space (MOD4 PPR)**
-  **Proposed Passive Open Space (MOD4 PPR)**

As part of the MOD 4 PPR submission, J. Wyndham Prince have been engaged to prepare *Water cycle and Flood Management Strategy Updates*. The effect of this report on the open space at the CUDP is to confirm and quantify the indicative location of possible water bodies. The areas of water bodies (m<sup>2</sup>) was taken from the report and transferred accurately onto the open space analysis plan (MOD4 PPR) (*Figure 4.0*) and from there utilised on the proposed concept plan (MOD 4 PPR)(*Figure 3.0*). It has improved the amenity for the increased residential community, these water bodies have been located and integrated into the open space network and will provide further amenity in terms of habitat for floral and fauna in addition to their water management function.

It should be noted that in calculating the areas of open space that all water bodies were excluded from any calculations.

The updates to the plan from the original approved concept are shown as Water Cycle Management Plan (MOD4 PPR)(*Figure 12.0*) and include:

- The number of water bodies (stormwater treatment devices) have been reduced from 31 to 28.

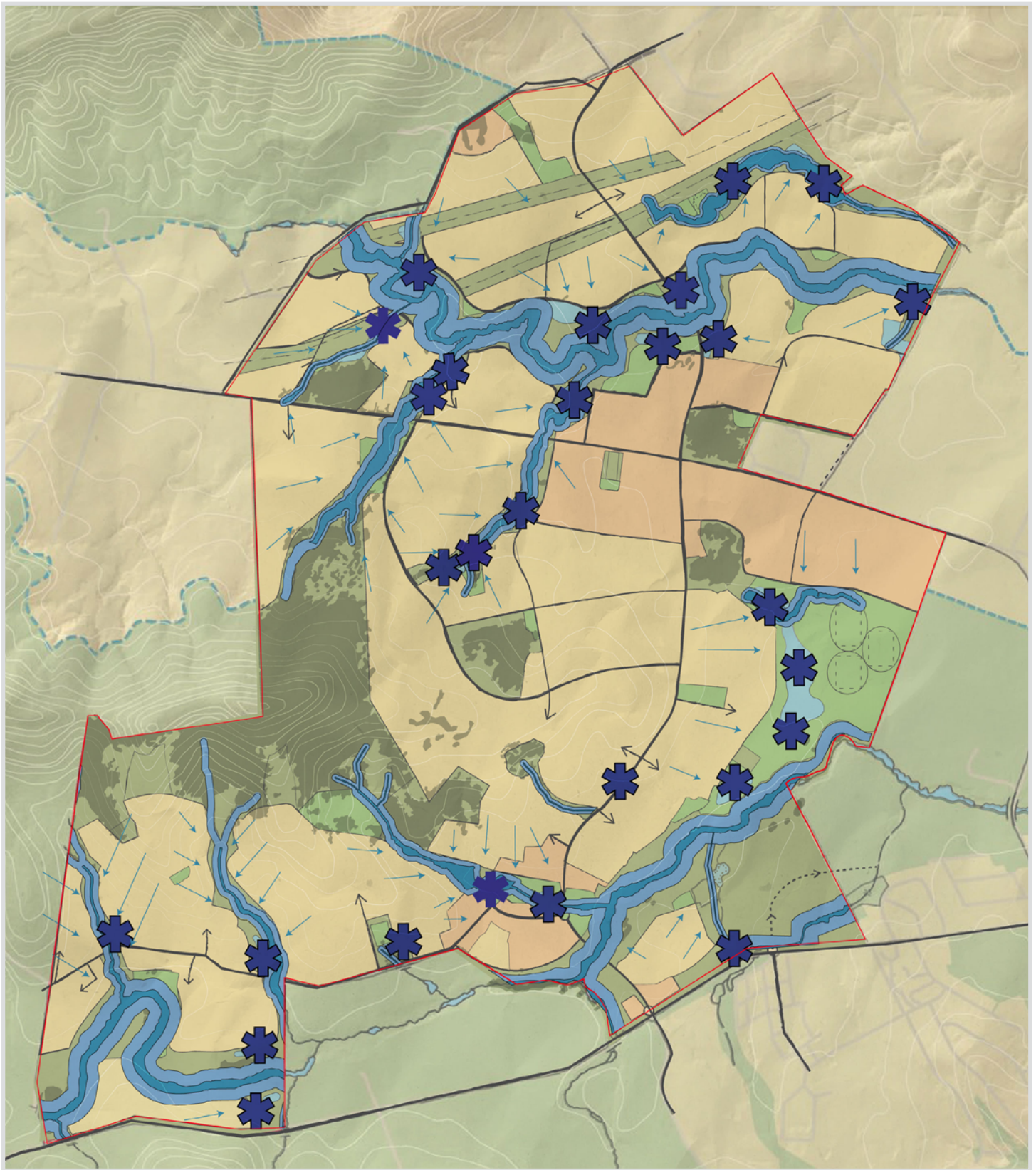





Figure 12.0 WATER CYCLE MANAGEMENT PLAN (MOD4 PPR)

#### LEGEND

- |  |   |
|--|---|
|  <p><b>Indicative location of possible water bodies</b><br/>Both on-line and off-line ponds serving ornamental, water quality and water detention purposes</p> |  <p><b>Core Riparian Zone (CRZ)</b><br/>Size based on stream order</p> |
|  <p><b>Riparian Corridor - Top of Bank</b><br/>Based on ground truth and ALS survey data</p>   |   |

### 5.1 BACKGROUND

The pedestrian and cycle network that accompanies the MOD 4 PPR submission is a refinement of the approved concept plan and is influenced by the updated road network and improved open space network. The aim of the Proposed Pedestrian and Cycle Network (MOD 4 PPR) is to provide a continuous link between open space throughout the CUDP that includes both pedestrians, bicycles and meets the requirements of Australian Standards (AS1428) for The Accessibility Of The Built Environment.

A pedestrian and cycling network has been planned in the Calderwood Valley to maximise connectivity and enable easy cycling and walking between residential areas, schools, villages, town centres and open space area.

A network of pedestrian and cycle paths is to be provided within open space / riparian corridors and through bushland as well as along the street network providing a high level of connectivity within and between the future residential neighbourhoods, and linking the Town Centre and Village Centre.

The provision of off road paths creates a safer and more comfortable environment for cyclists and pedestrians while the location of a large proportion of the network through open space provides an attractive environment for users.

#### CONNECTIVITY

The network of pedestrian and cycle access linkages will enhance the connectivity between built precincts and parkland and open space areas. Access within parks, green corridors and natural bushland areas will vary in the degree of formality and finish in keeping with the character of each space.

The access network is planned and designed to maximise safety and passive surveillance and will meet all requirements for width, signage and sight lines for each particular location.

In addition, design of access paths in all public areas and around community facilities will meet all requirements for width, signage and sight lines for each particular location.

In addition, design of access paths in all public areas and around community facilities will meet the requirements for disabled and equitable access. Tactile indicators, design grades, signage and edge treatments will be employed where appropriate.

The types of access connections to be provided for the various spaces throughout Calderwood Valley may include but are not limited to:

- Primary/Commuter Path in Road Corridor 2.5m link
- Secondary Path in Road Corridor 1.5 – 2.5m link in pedestrian/cycle priority locations
- On road route located where corridors or parks connect to roadside links
- Pedestrian path supplementing the road network
- Track/trail within natural areas
- Boardwalks adjacent to water bodies

In addition to the above, for all road pedestrian paths a minimum footpath width of 1.2m is required with one footpath located to each street.

### 5.2 MOD4 PPR RESPONSE

The following figure 13.0 Proposed Pedestrian and Cycle Network Plan show the MOD4 PPR response.

The updates to the plan from the original approved concept include:

- The trail through the Johnstons Spur will be 1.5m and of a material sensitive to the environment (eg gravel, decomposed granite, etc).

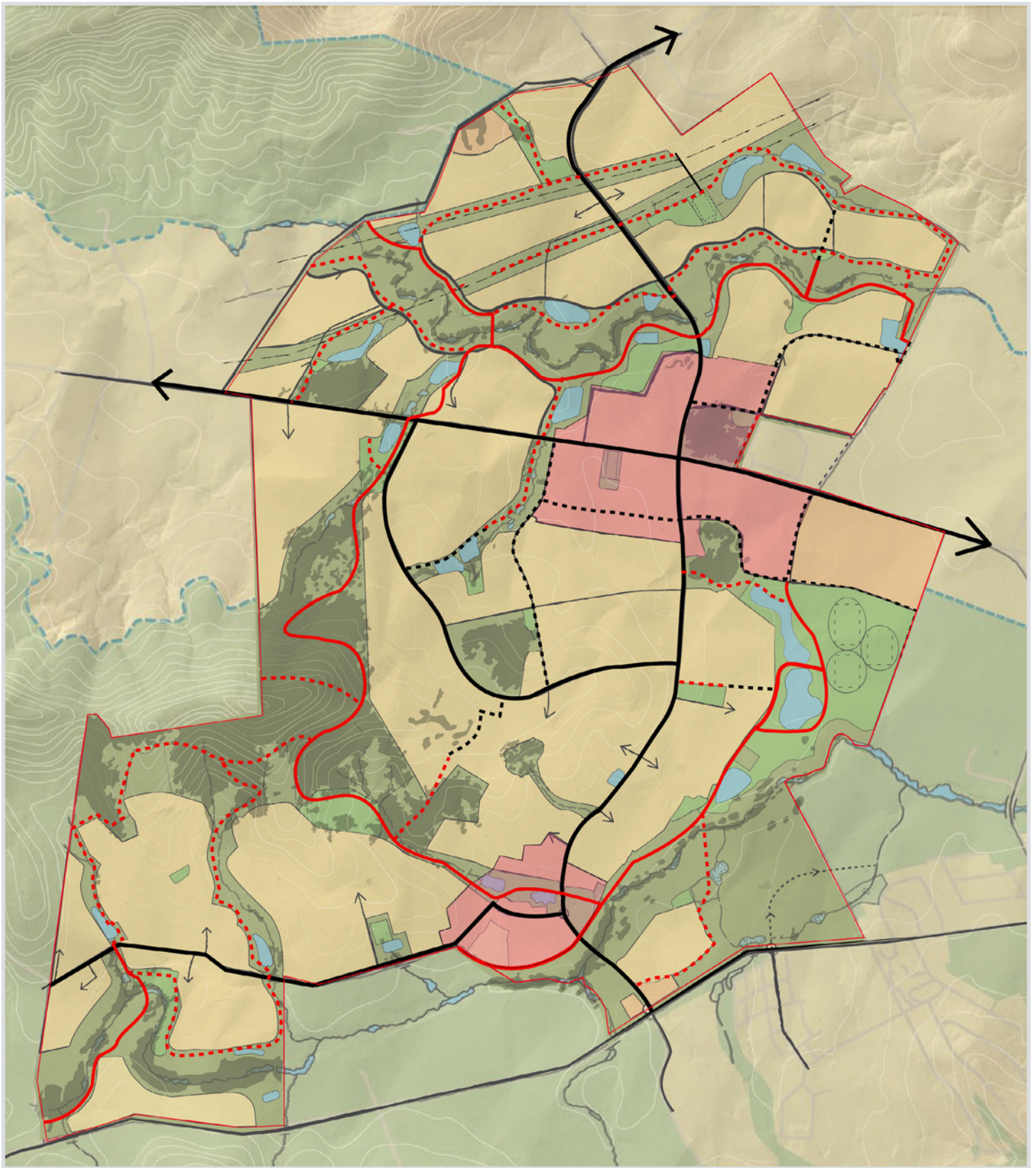








Figure 13.0 PROPOSED PEDESTRIAN AND CYCLE NETWORK (MOD4 PPR)

#### LEGEND

-  **Pedestrian/Bicycle Friendly Zones**  
2-4 lanes, Bus Route
-  **Primary/Commuter Path in Road Corridors**  
2.5m sealed
-  **Secondary Path in Road Corridors**  
1.5m-2.5m sealed

-  **Primary Trail in Open Space Corridors**  
2.5m sealed \*
-  **Secondary Trail in Open Space Corridors**  
1.5m gravel
-  **Indicative Crossing Points (Vehicles Only)**

\* Trail through the Johnstons Spur will be 1.5m and of a material sensitive to the environment (eg gravel, decomposed granite, etc)

