

**ELLENBROOK  
VILLAGE 7B - ANNIE'S LANDING  
DEVELOPMENT PLAN NO.18 (SPN/0071M-4)  
REVISION 4**

**OCTOBER 2018**





## **ENDORSEMENT PAGE**

This structure plan is prepared under the provisions of the City of Swan  
Local Planning Scheme No.17

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE  
WESTERN AUSTRALIAN PLANNING COMMISSION ON:

**11 NOVEMBER 2013**

In accordance with Schedule 2, Part 4, Clause 28 (2) and refer to Part 1, 2. (b) of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

Date of Expiry:

**19 OCTOBER 2030**



Title: Ellenbrook Village 7B - Annie's Landing Development Plan  
Project: Ellenbrook  
Prepared for: Ellenbrook Management Ltd  
Reference: EJV VL7B  
Status: Final (WAPC modifications included)  
Version: 4  
Date of Release: October 2018  
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## TABLE OF AMENDMENTS

AMENDMENT NO.	SUMMARY OF THE AMENDMENT	DATE APPROVED BY WAPC
1	<ul style="list-style-type: none"> <li>Amendments to Density Code Plan</li> </ul>	25 May 2016
3	<ul style="list-style-type: none"> <li>Modifications to densities in Village 7B</li> <li>Modifications to table 2 – Dwelling &amp; Density Calculations to reflect new densities and lot yields</li> <li>Modifications to figure 13 to reflect new zonings</li> <li>Modifications to sections 1 – 10 to reflect updated area may</li> <li>Insertation of updated maps in Appendix E-H.</li> </ul>	14 December 2016

## TABLE OF DENSITY PLANS

DENSITY PLAN NO.	AREA OF DENSITY PLAN APPLICATION AMENDMENT TYPE	DATE ENDORSED BY WAPC



# EXECUTIVE SUMMARY

This Development Plan been prepared to guide development of the second stage of Ellenbrook Village 7, in accordance with the requirements of the City of Swan Local Planning Scheme No. 17.

Ellenbrook Village 7B, comprising approximately 116 hectares, is located directly east of Village 7A and immediately north of The Vines. The Lexia conservation reserve and Maralla Road form the northern boundary of the village and Railway Parade the eastern boundary. The Sawpit Gully conservation reserve runs through the village.

The Development Plan for Village 7B has capacity to accommodate approximately 1,290 lots and 1,347 dwellings for a community of around 3,771 residents.

The design has been guided by an 'Avon Valley' theme. Together with the core Ellenbrook principles that underpin the design of a modern residential community, the Avon Valley's rural landscape and historic townsites have influenced the layout, and architectural and landscape theme for Village 7B.

The Development Plan design accommodates a variety of residential lot sizes, ranging from approximately 180m<sup>2</sup> through to more than 2,000m<sup>2</sup>. This is to encourage a diversity of households to live in Village 7B, both in design and affordability. This diversity will be further encouraged through design guidelines that will be tailored to achieve specific character within nominated residential precincts. Larger lots are provided on the northern periphery of Village 7B fronting Maralla Road, as a transition from the rural setting to the north. Smaller lots will be provided in and around the Village Centre and around areas of POS.

The natural drainage lines, remnant vegetation and providing appropriate access to the conservation areas have influenced the design of the open space system.

All future residents will have ready access to the commercial, retail and educational facilities located in the Village

Centre and the parkway system linking through the Lexia conservation reserve and Village 6 (Malvern Springs) via the interconnected street network and extensive network of footpaths and cycleways.





ITEM	DATA	STRUCTURE PLAN REF. (SECTION NO.)
Total area covered by the structure plan	116 ha	Part 2: 1.1 – 1.3
Estimated area of each land use proposed:		
<u>Zones</u>		
Residential	58.3 ha	Part 2: 3.5
Special Purpose – Village Centre	0.86 ha	Part 2: 3.2
<u>Reserves</u>		
Public Open Space	16.7307 ha	Part 2: 3.3
Public Purpose Reserve – Drainage	0.81 ha	Part 2: 7.0
Public Purpose Reserve - Primary School	4.00 ha	Part 2: 3.2
Road	31.36 ha	Part 2: 3.1
Total estimated lot yield	1,290 lots	Part 2: 3.6
Estimated number of dwellings	1,347 dwellings	Part 2: 3.6
Estimated residential site density	23 dwellings per gross subdivisible hectare	Part 2: 3.6
Estimated population	3,771 residents based on 2.8 people per dwelling	Part 2: 3.6
Number of primary schools	1	Part 2: 3.2
Estimated retail floor space	4,500m <sup>2</sup> nett lettable area	Part 2: 3.2
Estimated area and percentage of public open space given over to:		
• Neighbourhood parks	15.8508 ha 11 parks	Part 2: 3.3
• Local parks	0.3938 ha 2 parks	Part 2: 3.3
Estimated percentage of natural area	5 ha 32.6 %	Part 2: 1.5 and 8.0







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Appendix A	Traffic Report (Addendum)
Appendix B	Environmental Assessment
Appendix C	Report on Engineering Aspects
Appendix D	Acoustic Report
Appendix E	Zoning Classification Plan
Appendix F	Density Sites Plan
Appendix G	Village 7B Development Plan
Appendix H	Bushfire Management Plan



**PART ONE**  
**IMPLEMENTATION**





## **1.0 STRUCTURE PLAN AREA**

This Structure Plan shall apply to the land contained within the inner edge of the line denoting the boundary on the Development Plan.

## **2.0 OPERATION**

The date the Structure Plan comes into effect is the date the structure plan is approved by the WAPC.

## **3.0 STAGING**

Development of the structure plan area will commence upon subdivision approval being granted by the WAPC. The first stage of development will occur at the western edge of the structure plan area and will generally progress in a westerly direction towards the northern and eastern boundaries (which abut Maralla Road and Railway Parade).

## **4.0 SUBDIVISION AND DEVELOPMENT REQUIREMENTS**

### **4.1 Land Use Zones and Reserves**

Land use permissibility for zones within the structure plan area shall be in accordance with the land use permissibility of the Zoning Classification Plan and the City of Swan Local Planning Scheme No. 17 Zoning Table and Schedule 4A. Where there is a conflict between these documents, the standards of the City of Swan Local Planning Scheme No. 17 shall prevail to the extent of any inconsistency in accordance with the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 Deemed Provisions Part 4 cl.27(1).

### **4.2 Reports / Strategies Required Prior to Subdivision**

Prior to the lodgement of a subdivision application for land within the structure plan area, the following management plan(s) are to be prepared, as applicable, and provided at the time of subdivision:

- a. A Bushfire Management Plan is to be lodged with any subdivision application for land within the structure plan area identified as being bushfire prone by the Fire and Emergency Services Commissioner, in accordance with State Planning Policy 3.7 Planning in Bushfire Prone Areas
- b. A Residential Density Code & Yield Plan showing individual lot density codes and proposed yields, which shall be consistent with the approved Structure Plan and the residential density code identified on the Density Code Plan
- c. Public Open Space schedule prepared in accordance with the approved Structure Plan and Liveable Neighbourhoods

### **4.3 Conditions of Subdivision Approval**

At the time of granting subdivision approval, the following conditions may be recommended (as applicable), to require the preparation and/or implementation of the following strategies:

- a. Urban Water Management Plan
- b. Geotechnical Report
- c. Acoustic Assessment
- d. Bushfire Management Plan



## **5.0 LOCAL DEVELOPMENT PLANS**

Local Development Plans (LDPs) shall be required as a condition of subdivision approval and shall be prepared in accordance with Part 6 of the Planning and Development (Local Planning Schemes) Regulations 2015. For land within the structure plan area, LDPs will generally be required in the following circumstances:

- a. Lots with an area of 260 square metres or less;
- b. Irregular shaped lots;
- c. Lot abutting a laneway;
- d. Lots where specific vehicle access and egress control is required;
- e. Lots abutting public open space;
- f. Lots with particular site constraints;
- g. Lots subject of a notification on title;
- h. Local and neighbourhood centres;
- i. Lots that have been identified to accommodate a future change of use; and
- j. To address noise buffer and amelioration requirements.

LDPs will generally be prepared to address one or more of the following:

- a. Building orientation;
- b. Building design and setbacks;
- c. Overlooking and/or privacy;
- d. Vehicle access;
- e. Car parking;
- f. Private open space;
- g. Noise protection provisions (if any);
- h. Bushfire protection provisions (if any);
- i. Any such information considered relevant by the proponent and/or determining authority to address the requirements of this Structure Plan.

## **6.0 RESIDENTIAL DEVELOPMENT**

### **6.1 Density Target**

Liveable Neighbourhoods requires an average net density of 22 dwellings per hectare.

Objective: Based on 58.3 hectares of residential zoned land within the structure plan area, the Structure Plan shall provide for a minimum of 1,283 lots.

### **6.2 Density**

- a. A Residential Density Code & Yield Plan is to be submitted to the WAPC, at the time of lodging a subdivision application.
- b. The Residential Density Code & Yield Plan is to include a summary of the proposed dwelling yield for the subdivision.
- c. Approval of the Residential Density Code & Yield Plan shall be undertaken at the time of determination of the subdivision application by the WAPC. The approved Residential Density Code & Yield Plan shall then form part of the Structure Plan and shall be used for the determination of future development applications.
- d. Variations to the approved Residential Density Code & Yield Plan will require further approval of the WAPC.
- e. Residential Density Code & Yield Plan may be not required if the WAPC considers that the subdivision is for one of the following:
  - i. The amalgamation of lots;
  - ii. Consolidation of land for “superlot” purposes to facilitate land assembly for future development;
  - iii. The purposes of facilitating the provision of access, services or infrastructure; or
  - iv. Land which by virtue of its zoning or reservation under the Structure Plan cannot be developed for residential purposes



## **7.0 OTHER REQUIREMENTS**

### **7.1 Developer Contribution Arrangements**

As per the provisions of Schedule 13 of the City of Swan Local Planning Scheme No. 17, the following development contribution arrangements apply to the structure plan area:

- a. Development Contribution Area 5 to fund a traffic bridge over the Ellen Brook in the vicinity of Lot 9000 Railway Parade, Upper Swan





#### LEGEND

- Structure Plan Boundary
- Residential
- Special Purpose - Village Centre
- Primary School
- Drainage
- Public Open Space (POS)
- Neighbourhood Connector
- 1.8m High Boundary wall to be constructed

**Notes:** Land use permissibility is in accordance with the below and with Schedule 4a of Local Planning Scheme No.17

\*The following uses are 'D' within the 'Special Purpose - Village Centre' Zone:

Cultural Use	Educational Establishment	Medical Centre
Consulting Rooms	Museum	Museum
Dwelling Aged or Dependent Persons	Funeral Parlour	Office: General
Consulting Rooms: Grouped	Health Centre	Public Amusement
Dwelling Grouped	Health Studio	Recreation Public
Lunch Bar	Car Park	Recreation Private
Dwelling Multiple	Civic Building	Restaurant
Medical Centre	Child Care	Shop
	Club Premises	Any Other Uses Not Listed
	Lunch Bar	

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**CADASTRAL INFORMATION**  
SOURCE: WHILANS  
YYMMDD: 170406  
DWG REF: annie-170406-trun\_pcg84  
PROJECTION: PCG94

**AERIAL PHOTOGRAPHY**  
SOURCE:  
YYMMDD:

SIZE A3

1:7500



R	POS UPDATE	181001	HH	EVDL
Q	LEGEND - 1.8m HIGH WALL ADDED	180309	HH	RD
P	EXTENDED NEIGHBOURHOOD CONNECTOR	180213	HH	RD
O	VARIOUS UPDATES	180129	HH	EVDL
N	VARIOUS UPDATES	171205	HH	EH
REV	DESCRIPTION	YYMMDD	DRAWN	APPR'D

**ZONING CLASSIFICATION PLAN**  
**Village 7B, Annie's Landing**  
City of Swan

REF NO. **EJV VL7B** DRAW NO. **RD1 402** REV. **R**





#### LEGEND

- Structure Plan Boundary
- Public Open Space (POS)

#### DENSITY CODES

R5	R30
R10	R35
R12.5	R40
R17.5	R50
R20	R60
R25	R60 Narrow Lot Innovation Precinct

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**CADASTRAL INFORMATION**  
SOURCE: WHELAN'S  
YYMMDD: 170406  
DWG REF: annie-170406-trun\_pcg84  
PROJECTION: PCG94

**AERIAL PHOTOGRAPHY**  
SOURCE:  
YYMMDD:  
PROJECTION: PCG94

1:7500



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U	UPDATED BASE STAGE 17-19	180328	SB	EVDL
T	UPDATED DENSITY CODE LOTS	180309	H-H	RD
REV	DESCRIPTION	YYMMDD	DRAWN	APPRD

**DENSITY SITES PLAN**  
Annie's Landing, Ellenbrook  
City of Swan

REF NO.	DRAW NO.	REV.
EJV VL7B	RD1 202	V

DISCLAIMER: ISSUED FOR DESIGN INTENT ONLY. ALL AREAS AND DIMENSIONS ARE SUBJECT TO DETAIL DESIGN AND SURVEY





#### LEGEND

- Structure Plan Boundary
- Residential
- Special Purpose - Village Centre
- Primary School
- Drainage
- Public Open Space (POS)
- Lots Affected by 45dB Contour. Refer to Note 1
- 1.8m High Boundary wall to be constructed

#### Notes:

- All lots created within the 45dB contour as detailed in Attachment 1 of Appendix C of the Herring Storer (acoustic) report shall be required to have notifications on title alerting prospective purchasers of the proximity of the Ellenbrook Speedway and potential exposure to noise emissions which may, on occasion, exceed the Environmental Protection (Noise) Regulations 1997.
- The lot design is indicative only and is subject to detailed design at subdivision stage.
- The stage adjacent to the proposed connection to Roxburghe Drive/ Sandy Lane being conditional on the excision of the land within Reserve No. 48221 for the purpose of the provision of a road.
- Subdivision of the north-eastern stage of the development plan being conditional on the excision of the proposed road connection over Sawpit Gully (Reserve No. 46875) for the purpose of the provision of a road.

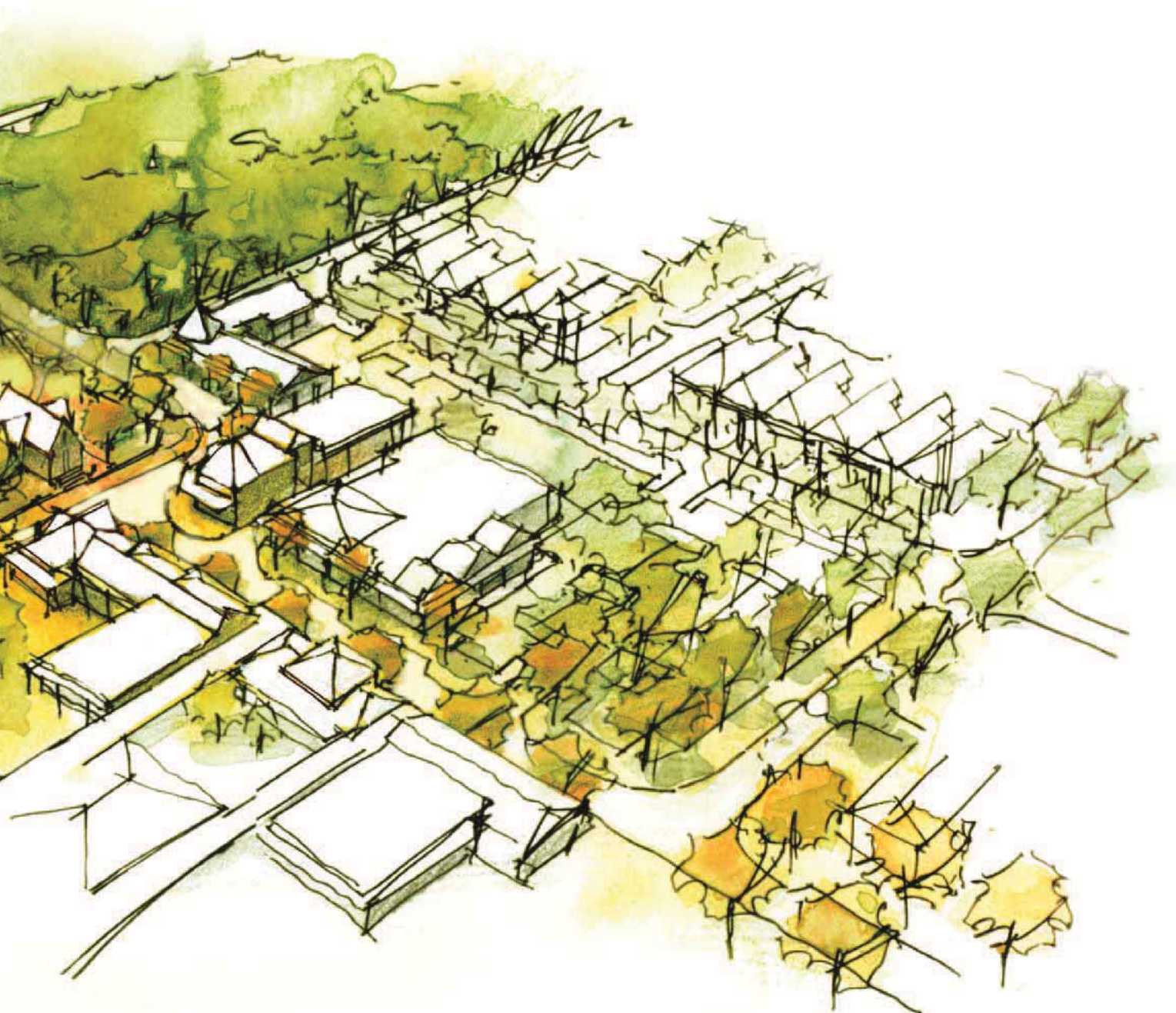
Amendment to Village 7B Annie's Landing Local Structure Plan has been approved by the Western Australian Planning Commission on 6 November 2018.

*Brown*  
Signed by an officer duly authorised by the Western Australian Planning Commission pursuant to Section 16 of the Planning and Development Act 2005



## PART TWO

### EXPLANATORY SECTION





## 1.0 INTRODUCTION

### 1.1 Location / Local Context

The Ellenbrook project is located within the City of Swan, approximately 20km north-east of Perth city and within 10km of the Midland Town Centre.

Village 7B is the northern extent of Ellenbrook. Village 7B is located directly north-east of Village 7A and immediately north of Woburn Park, The Vines and Lot 4 Railway Parade. It is approximately 116 hectares in area and elongated generally in an east-west direction. The Lexia Conservation reserve and Maralla Road form the northern boundary of the village and Railway Parade the eastern boundary. Sawpit Gully, a tributary of Ellen Brook, dissects the village.

The surrounding area to the north and east is characterised by rural land uses. Walyunga National Park is located approximately 3km east and incorporates the start of the Avon River.

### 1.2 Land Description

Village 7B is wholly comprised in one parent lot, being Lot 9615 on Deposited Plan 59330 within Volume 2697; Folio 882.



**Figure 1 :** Location



**Figure 2 :** Local Context



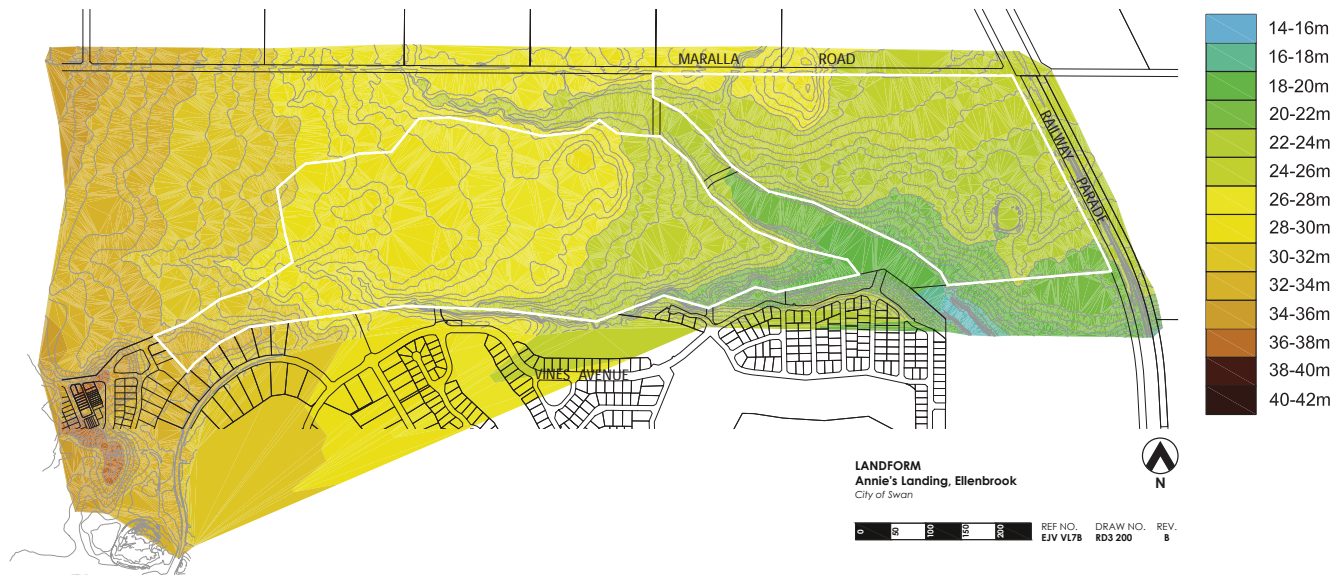
### 1.3 Land Use / Landform

Village 7B extends over approximately 116 hectares of land that is predominantly cleared of vegetation. Site surveys have been undertaken to identify opportunities for the retention of significant vegetation where possible.

The village falls from a high point of approximately 33m in the west to a low point of approximately 18m in the east, adjacent to Sawpit Gully. Two natural drainage lines cross through the site – Sawpit Gully through the eastern part of the site and a drainage line along part of the southern boundary. An existing dam is located near the south-eastern corner of the village, which will be integrated into a future public open space area.

### 1.4 Views

Views are available from within the Village 7B area to the adjacent conservation reserves, including the Lexia Wetlands, and the Darling Range escarpment. The retention of the elevation terrain, where possible, and careful orientation of streets will enable future residents to enjoy the benefit of these views and assist with orientation.



**Figure 3 :** Landform



**VIEW FROM EASTERN SECTOR OF VILLAGE 7B TO SCARP**



## 1.5 Conservation Reserves

Extensive conservation areas, which are protected through the Metropolitan Region Scheme Parks and Recreation reservations, surround the northern portion of the Village 7B area and follow Sawpit Gully through the site. West of Sawpit Gully, the northern portion of Village 7B abuts the Lexia Wetlands, providing an attractive outlook for future residents. A hard edge treatment on the form of a road interface will be provided adjacent to the reservations to provide an appropriate public interface. The proposed road reserve will ensure a 20m cleared zoned with perimeter fencing to control public access.



**Figure 4 :** Conservation Areas



**LEXIA CONSERVATION AREA**





## 2.0 DESIGN CONCEPT

### 2.1 Theme

#### 'Avon Valley' is the theme for Village 7B

A primary objective in the planning of Ellenbrook is to create Villages with a distinctive character and identity with 'central places' which foster a sense of community belonging.

Village 7B is located on the doorstep of the Avon Valley, which provides a picturesque backdrop. Landscape elements of the Avon Valley are found in Village 7B, including rolling pasture, a creek line, remnant bushland and backdrop of the scarp.

Village 7B completes the Ellenbrook New Town project and is located close to the start of the wider Avon Valley region. The Avon Valley region stretches from Brookton on the south to New Norcia in the north and includes the towns of Beverley, Brookton, Goomalling, Northam, York and Toodyay. The wider Avon basin, or 'Avon Arc', also includes the towns of Bindoon and Gingin.

The Avon Valley features a varied landscape of forest, gently rolling hills, rocky outcrops, winding streams, broadacre farming land and historic towns. Situated on the Avon River, York is Western Australia's oldest inland town, settled in 1831.

Together with the core Ellenbrook principles that underpin the design of a modern residential community, the Avon Valley's rural landscape and historic townsites have influenced the layout and architectural theme for Village 7B. Rather than mimicking these settlements, Village 7B will be contemporary interpretation of the historic theme.



### 2.1.1 Open Space Structure / Landscape

The open space structure will be based on retaining the natural features of the Village, providing links to the Lexia conservation area and The Vines, establishing local focal points. This will offer residents and visitors an extensive and interesting car-free network system with wider links to Ellenbrook as a whole.

The juxtaposition of 'working' and 'natural' landscapes that is common in the Avon Valley will be reflected in the mix of formal parks and the retained natural drainage line along the southern boundary of the Village. Native vegetation will be retained within areas of public open space and widened road reserves. The existing dam in the east will be retained as a local feature that reflects the theme of Village 7B. A formal 'town square' will be provided in the future Village Centre.

### 2.1.2 Housing Form

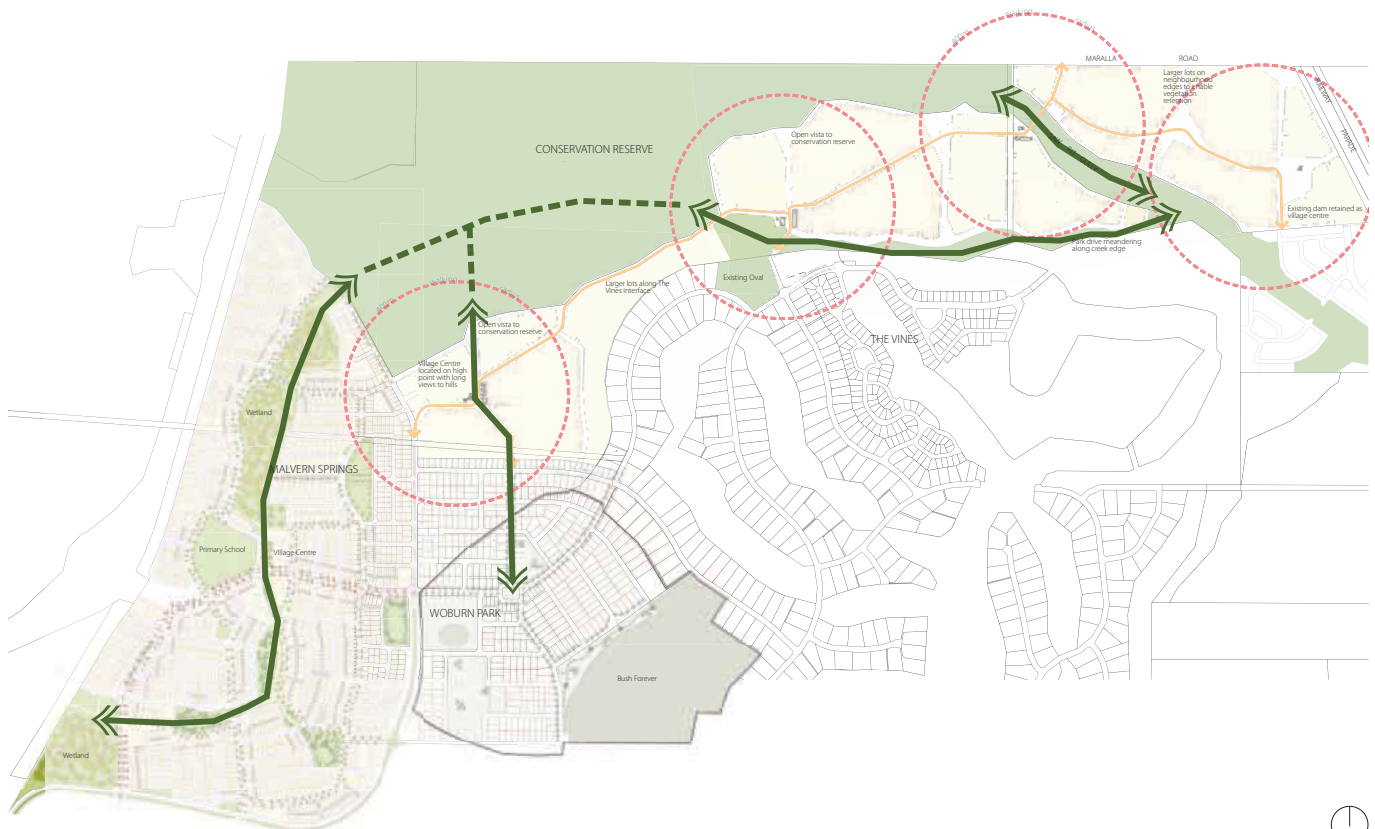
The detailed design guidelines will encourage housing forms that reflect the Avon Valley theme in key areas of Village 7B. There will be a wider range of housing elements in other areas, reflecting the eclectic mix of housing seen in the Avon Valley towns away from the main street. The design guidelines will also promote sustainable living features.

### 2.1.3 Village Centre

The Village Centre will be the focal point and meeting area for future residents and visitors. Located on the central neighbourhood connector road and adjacent the Sawpit Gully reserve, the Village Centre will be based on an Avon Valley main street. Co-location of the primary school, retail/commercial uses, community facilities and the 'town square' will create a destination point easily accessible by pedestrians, cyclists and motorists.

### 2.1.4 Self Sufficiency

Local employment opportunities in the Village Centre, and the maturing Ellenbrook Town Centre and nearby District Centre, will enable residents of Village 7B to enjoy a relatively sustainable existence. As such, Village 7B will be able to offer future residents ready access to the majority of daily needs and employment opportunities during its development phase.



**Figure 5 :** Preliminary Linkages Concept



## 2.2 Design Principles

In keeping with the Ellenbrook Joint Venture's overall vision statement, the design approach adopted for Village 7B was defined by and framed around a number of key principles and objectives.

### 2.2.1 Principles

Village 7B will be a modern community designed to provide housing, recreation and community facilities for approximately 3,771 residents. It will offer a wide choice of housing that caters for varied household types and lifestyles in an attractive environment designed to enhance the natural features of the site.

While signifying a return to the more traditional values of community living, Village 7B will also pursue a leadership role in the more efficient delivery of infrastructure and in the implementation of advanced sustainable environmental built form initiatives.

### 2.2.2 Objectives

- To build a community based upon traditional design principles adapted to the changing demands of contemporary lifestyles;
- To provide varied housing and services for a range of income groups and household types;
- To achieve integrated community planning and compliance with the City of Swan Community Plan requirements;
- To create an interconnected movement network that minimises total vehicle kilometres travelled and gives priority to pedestrian and cyclist access;
- To employ water sensitive design principles via appropriate stormwater management;
- To reinforce the Village's identity through a unifying landscape, retained natural landforms and unique design elements applied to housing in key areas and core buildings;
- To promote energy efficiency, water conservation and waste management through sustainable Village and building design;
- To emphasise linear parkway trails and linkages to nature that incorporate the retained remnant vegetation;
- To create a landscaping theme based upon the concept of the juxtaposition of 'natural' and 'working' landscapes.

Inspirational design elements will include:

- Enhancing the natural landscape in key 'public domain' locations through formal plantings;
- Density housing adjacent to the Village Centre, Neighbourhood Connector, public open space and environmental features, where possible;
- Linear public open space;
- Simple yet dramatic architecture for public buildings;
- Colour palette that reflects the Avon theme and complements the natural setting;
- Interconnected street pattern, including links to The Vines and Equis Lakes;
- Gradation of lot sizes, including larger lots adjacent The Vines to the south and the rural land north of Maralla Road.

The Village design and built form will promote:

- Energy efficiency by promoting walking / cycling and solar oriented housing; and
- Water conservation through selective landscaping and drainage management.

Village 7B will be designed and developed to cater for a return to a simple lifestyle, where neighbours know each other, and the landscape is respected. The design will seek to create a pattern of streets, lots and public open spaces of varying size to complement the physical attributes of the site in a sustainable manner.





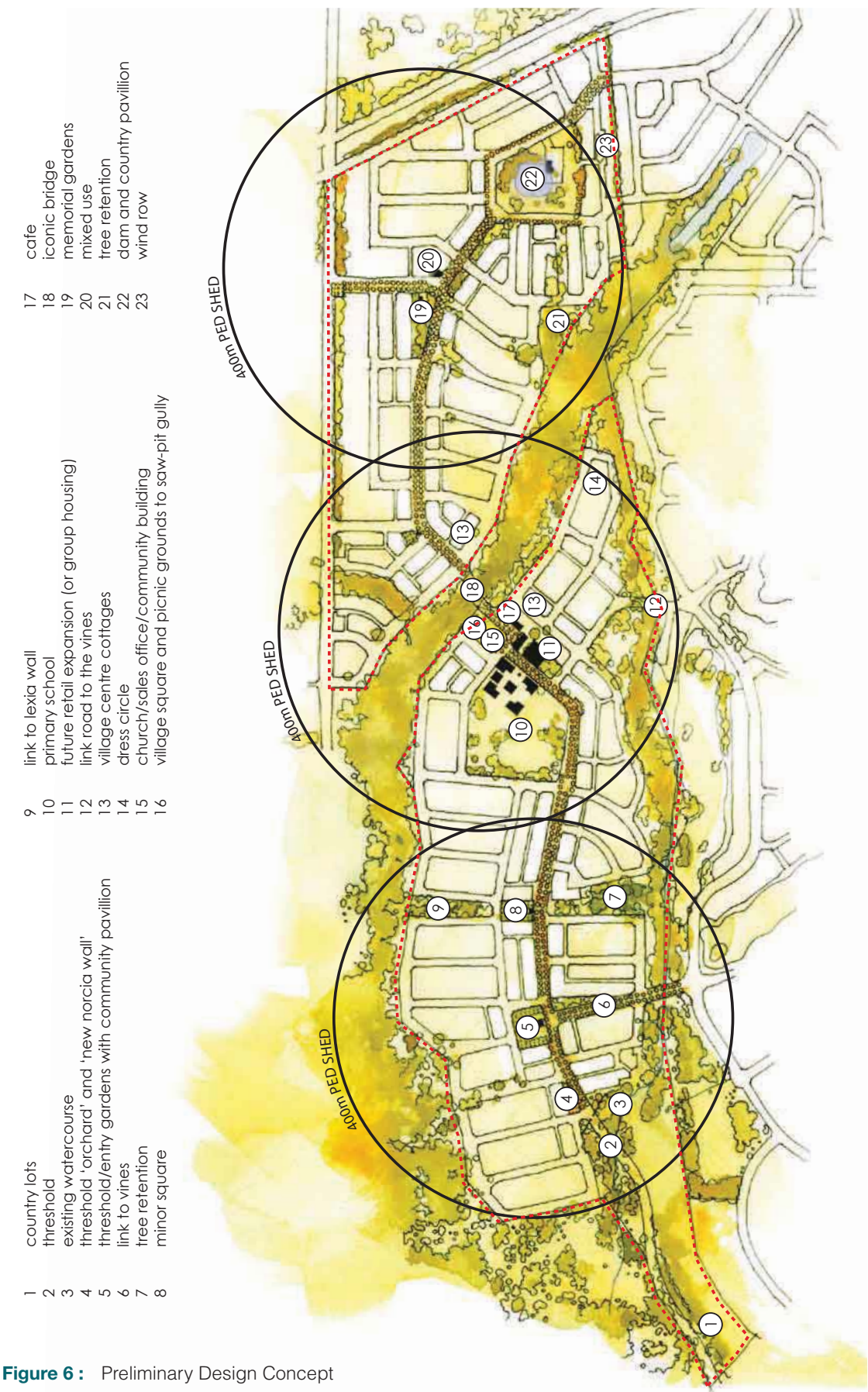
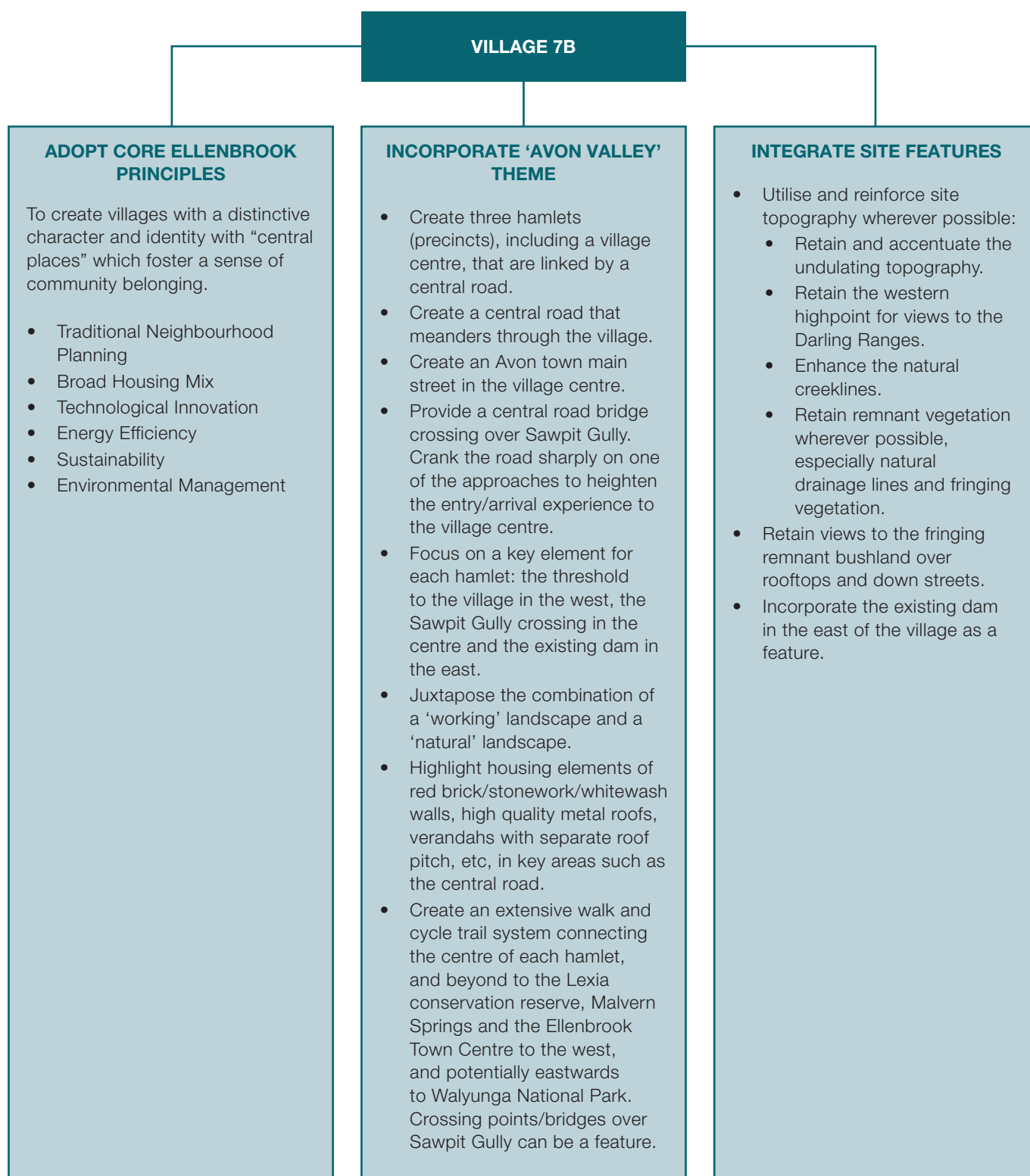


Figure 6 : Preliminary Design Concept



**Figure 7 :** Village 7B Design Principles/Objectives





## 2.3 Project Overview

Comprising approximately 116 hectares, Village 7B will aim to achieve a minimum density target of 1,283 dwellings, as well as a Village Centre capable of providing between 3,500m<sup>2</sup>-4,500m<sup>2</sup> of retail/commercial floorspace, a primary school, community facilities and recreation facilities. It is envisaged the Village will be developed over a 3-4 year period, following completion of the majority of Village 7A.

## 2.4 Development Plan

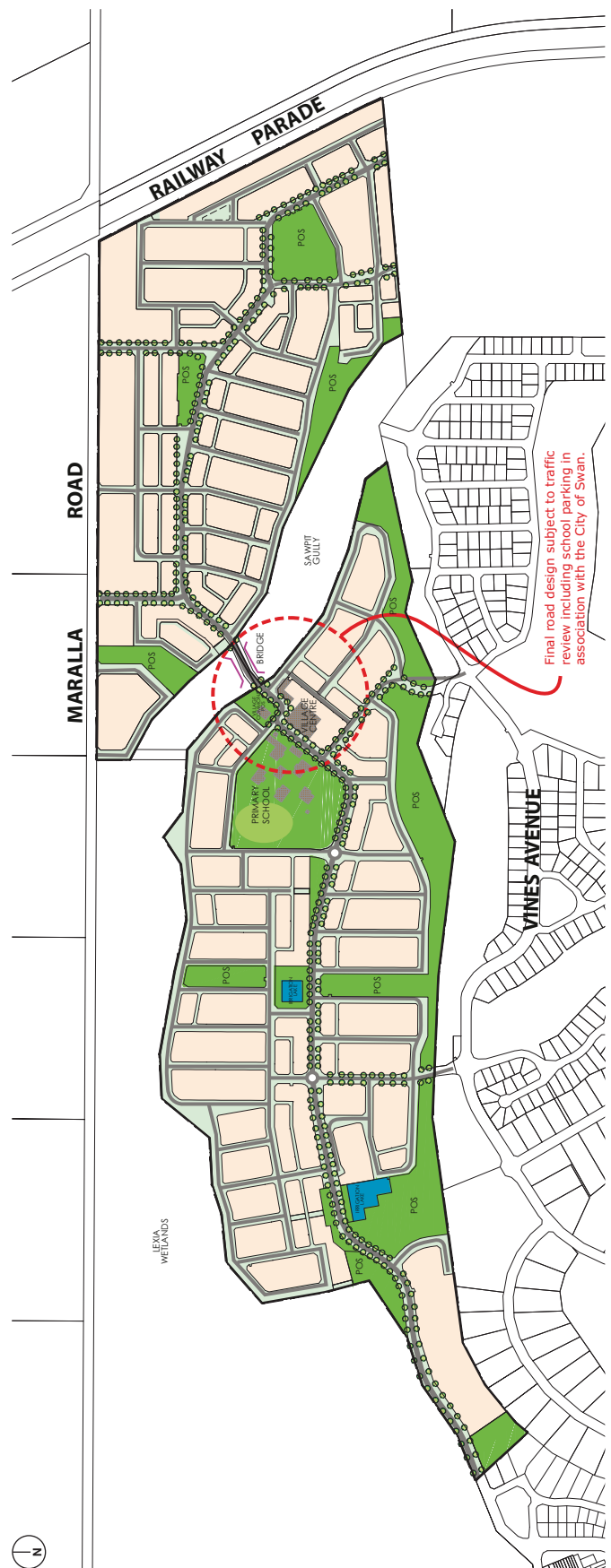
The Village 7B design is the product of the convergence of the locational, landform and landscape features of the site with the design objectives of sustainability, walkability and an identifiable built form.

The existing landform and remnant vegetation within the site and the adjoining land uses, including the Lexia conservation reserve and Sawpit Gully, have influenced the Village design.

The layout of the Structure Plan design provides for views of the Darling Range escarpment, mature vegetation on the fringes of the Village and within the Sawpit Gully reserve, and internal features such as the dam.

The movement network is designed around the main central Neighbourhood Connector road, which is a continuation of The Boulevard that extends from the Ellenbrook Town Centre through to Village 7A. The movement network also aims to provide convenient and safe pedestrian and cyclist access to the Lexia conservation reserve, The Vines and Equis Lakes.

The design has allowed the provision of a diverse range of lot sizes, which will subsequently facilitate a mix of housing typologies to cater for a wide range of demographics and lifestyles. At the western end of the Village, larger lots are provided as a suitable interface with abutting lots in The Vines to the south. Larger lots are also provided fronting Maralla Road, as a transition from the rural land to the north. Higher densities will be located adjacent to the Village Centre, public open spaces areas, the conservation reserves, and the central Neighbourhood Connector



**Figure 8 :** Village 7B Development Plan



### 3.0 DEVELOPMENT PLAN STRUCTURE

#### 3.1 Movement Network, Access & Circulation

The primary access to the Village will be the continuation of The Broadway, which provides the main link to the Ellenbrook Town Centre via Village 7A. Maralla Road provides access from the north of the Village. There will be no direct access to Railway Parade at the eastern boundary of the Village, however, two roads links will be provided to the Equis Lakes development to the south.

Two road links will be provided to The Vines. These will require the extension of existing road reserves within The Vines to complete the connections, as there are currently no road reserves that extend to the boundary of Village 7B. The only road that extends north from The Vines ends at the Sawpit Gully reservation, however, this is not considered the best location for a vehicle crossing, given it is one of the widest sections of the reserves and at the convergence of two drainage lines. There is an opportunity for a less intrusive pedestrian crossing at this point.

A bridge crossing will be provided over a narrower section of the Sawpit Gully reserve, so the main central Neighbourhood Connector road can connect the two sides of the Village. Sawpit Gully is a Class A Reserve under the management of the Department of Planning. A portion of the Class A Reserve will require de-vesting to facilitate the bridge, in accordance with the approved Village 7B Development Plan.

The internal movement network is based upon interconnected streets which provide direct and shared vehicular, pedestrian and cycle access. The streets will be tree lined to reflect the Avon Valley theme of the Village, enhance the streetscape and provide shade for pedestrians.

Rear laneways will be used adjacent to the main central Neighbourhood Connector road, POS areas and near the Village Centre to provide vehicular access to garages at the rear of lots, thereby reducing traffic movements on frontage streets. Coupled with reduced front house setbacks, the incorporation of rear laneways will encourage greater community interaction on frontage streets and in the linear parkway.

Hike and bike trails will encourage controlled access to the 'natural' environment of the drainage lines and remnant vegetation, linking into the wider hike and bike trails throughout Ellenbrook. There is the opportunity to link into the Lexia and Swan Coastal Plain hiking trails and for a potential link to Walyunga National Park to the east, where the Avon River starts.

Ample motor bike parking will be provided at the central squares for the motor cycle/scooter clubs to gather before the Avon Valley.

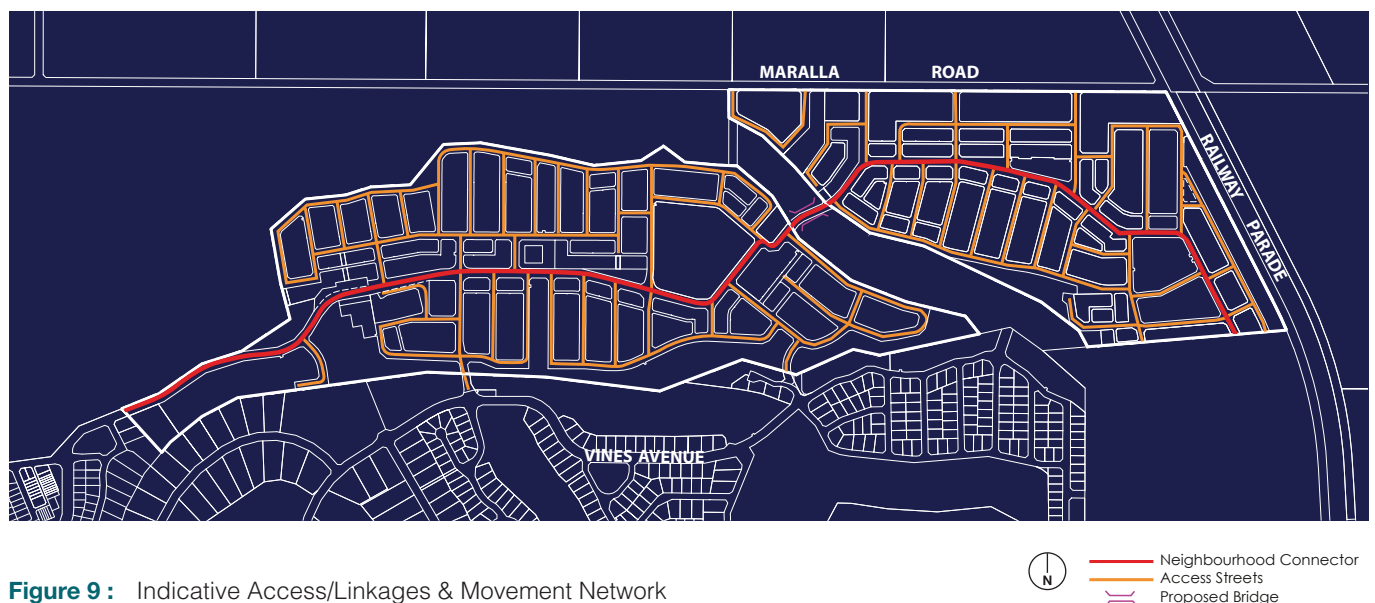


Figure 9 : Indicative Access/Linkages & Movement Network



### 3.2 Village Centre

The Village Centre will provide the primary focus for community activities and interaction and bring to the Village a sense of permanency that is lacking in conventional suburban areas. It will comprise, inter alia:

- Primary School
- Retail and commercial uses
- Village Square
- Community building
- Child care
- Mixed use/density housing

The central location of the Village Centre will provide convenient access to most of the daily needs of the less mobile residents, including the aged, parents and children, giving them independence. The concentration of civic, educational and commercial facilities will also obviate the need to drive from one use to another, as is commonplace in conventionally designed estates.

The Village will provide interconnected street pattern and parkways that will allow direct access connections and alternative route choices for accessing the Village Centre for vehicles and pedestrians/cyclists.

The streets surrounding the Village Square will be 'pedestrian friendly' through the use of design techniques that promote a slow vehicular speed environment and through appropriate application of different road treatments.

The Village Centre will be of a human scale, incorporating proportioned building sited close to the street, wide pedestrian pavements, shade protection, public art and tree planting. The design of the Village Centre will provide opportunities for mixed use development and incorporate inherent flexibility to enable land uses to evolve over time. Consistent with the City of Swan Commercial Centres Strategy, the Village Centre provides for up to 4,500m<sup>2</sup> of retail/commercial floorspace.

The Village Square will be developed as a simple space that has the ability to accommodate a range of community activities. These activities will be complemented by the adjoining community building. The grouping of uses near the Village Square will attract residents and visitors to the area and enable this space to become a centrepiece of the community and a major node for informal interactions.



**Figure 10 :** Village Centre Render Concept





1. Main Street
2. Sawpit Gully
3. Village Square
4. Community Building
5. Bridge
6. Main Street Retail /Commercial
7. Primary School

**Figure 11 :** Indicative Village Centre Layout



### 3.3 Public Open Space Network

The natural drainage lines, remnant vegetation and providing adequate access to the conservation areas have all influenced the design of the public open space (POS) system for Village 7B.

The east-west oriented linear area of POS that runs along the southern boundary of the Village allows for the protection of a natural drainage line (a multiple use wetland) and associated vegetation, while providing an ideal environment for a walk trail (passive recreation). A north-south linear park system provides a green link between the southern drainage line and the Lexia conservation area to the north.

The existing dam in the east of the Village will be retained in POS as a local feature and focal point. Widened road reserves will link this and other local parks to create a chain of drainage swales and POS areas that can accommodate both passive and active recreation.

The primary school oval will provide another form of active recreation area for future residents of the Village. In addition, the Chardonnay Park oval in The Vines, which abuts the southern boundary of Village 7B, will provide another space for active recreation.

A formal Village Square area of POS is provided in the Village Centre, adjacent Sawpit Gully. This will include a church-like community building/structure that could be used for weddings and as a community gathering space. Picnic facilities could also be provided in this area close to the creek.

The POS areas have been strategically located for ease of access for all future residents and to provide local amenity for nearby residential lots. A primary design objective for the POS system is to ensure all future residents are within a 5 to 10 minute walk of an open space area.

**Figure 12 :** Public Open Space / Drainage



#### EXISTING DAM





The intent and function for each of the proposed POS areas are described in detail below:

1. This linear POS area follows the natural drainage line along the southern boundary of Village between the Lexia and Sawpit Gully conservation areas. It will contain remnant trees, walking and cycle paths linking into the hike and bike trail for the wider Ellenbrook area, seating for passive use and grassed areas that are available for more active uses.
2. The linear POS area follows the natural drainage line along the southern boundary of the Village between the Lexia and Sawpit Gully conservation areas. It will contain remnant trees, walking and cycle paths linking into the hike and bike trail for the wider Ellenbrook area, seating for passive use and grassed areas that are available for more active uses.
3. The northern portion of the north-south trail linking to the Lexia conservation area with opportunities for active areas.
4. The central square of the north-south linear POS trail, with both active and passive functions. The periphery of the POS area will be improved with seating and trees.
5. This passive POS will provide a high quality amenity for the surrounding residential lots, as well as an attractive interface between the adjoining rear loaded lots and Neighbourhood Connector.
6. The linear POS area follows the natural drainage line along the southern boundary of the Village between the Lexia and Sawpit Gully conservation areas. It will contain remnant trees, walking and cycle paths linking into the hike and bike trail for the wider Ellenbrook area, seating for passive use and grassed areas that are available for more active uses. The north-south portion of this POS is the southern end of the linear POS trail between the Lexia conservation area and the southern natural drainage line.
7. This is the formal Village Square located in the Village Centre. A passive area that will include a church-like community building/structure.
8. This POS area comprises a creek line that is a tributary of Sawpit Gully and will incorporate natural and formal drainage functions.
9. The linear POS area follows the natural drainage line along the southern boundary of the Village between the Lexia and Sawpit Gully conservation areas. It will contain remnant trees, walking and cycle paths linking into the hike and bike trail for the wider Ellenbrook area, seating for passive use and grassed areas that are available for more active uses.

10. This passive area of POS will provide a local focal point and incorporate drainage swale as part of the chain of swales that also includes POS areas 9 and 10 and the widened road reserved between them.
11. This area of POS adjacent to Sawpit Gully conservation area incorporates a drainage function, remnant vegetation and if possible, a separate dog exercise area and active recreation spaces.
12. This POS areas contains the existing dam and will provide a high amenity focal point for the eastern sector of the Village.

As per the POS Schedule provided in this section, the Village 7B POS system results in a POS contribution of approximately 15% of the subdivisible area. As such, Village 7B is contributing POS in excess of the minimum 10% prescribed contribution. This excess POS provision is a result of retaining areas of natural drainage and remnant vegetation and making up for the minor shortfall of POS in adjoining Village 7A to the west.



**Table 1 :** Public Open Space Schedule

<b>Structure Plan Area (Site Area)</b>			<b>116.26ha</b>
<b>Deductions:</b>			
Primary School site		4.00ha	
Village Centre		0.86ha	
Artificial water body (irrigation lake)		0.43ha	
Add 1:1 rainfall amount as a deduction			
<b>Total Deductions</b>			<b>5.29ha</b>
<b>Gross Subdivisible Area</b>			<b>110.97ha</b>
<b>Public Open Space @ 10 per cent</b>			<b>11.097ha</b>
<b>Public Open Space Contribution</b>			
Minimum 80% Unrestricted Public Open Space		8.8776ha	
Maximum 20% Restricted use Public Open Space		2.2194ha	11.097ha
<b>Unrestricted Public Open Space Sites</b>			
POS 1	0.7105		
POS 2	2.7771		
POS 3	0.6648		
POS 4	0.5565		
POS 5	0.2801		
POS 6	4.4653		
POS 7	0.3333		
POS 8	0.9682		
POS 9	1.9232		
POS 10	0.5625		
POS 11	1.4065		
POS 12	1.5476		
Total Unrestricted Public Open Space			16.1956ha
<b>Restricted use Public Open Space</b>			
Total restricted use public open space contribution (less than 20% of total POS)		1.4345ha	
		0.6150ha	
Drainage area in POS (subject to inundation greater than 1 year ARI rainfall interval but more frequently than 5 year ARI rainfall event i.e. between 1 and 5 year rainfall event)		0.8195ha	
<b>Total Public Open Space Provision</b>			<b>17.4451ha (15.72%)</b>
<b>POS Oversupply</b>			<b>6.3481ha</b>



### 3.4 Pedestrian and Cycle Network

The indicative pedestrian/cycle network for Village 7B is shown on Figure 13 below. The network is designed to provide direct and safe travel as one moves through the Village to access POS areas, the Village Centre, adjoining villages and the Ellenbrook Town Centre.

As a minimum, a pedestrian footpath will be provided on at least one side of most streets to provide safe pedestrian movement and encourage community interaction.

The provision of dual use paths has been planned to coincide with roads that are anticipated to contain traffic volumes high enough to warrant separation of cyclists from vehicle traffic (in accordance with Department of Planning policy requirements). The remaining component of the cycle network constitutes local subdivision roads carrying low traffic volumes that are appropriate for shared use by motorists and cyclists.

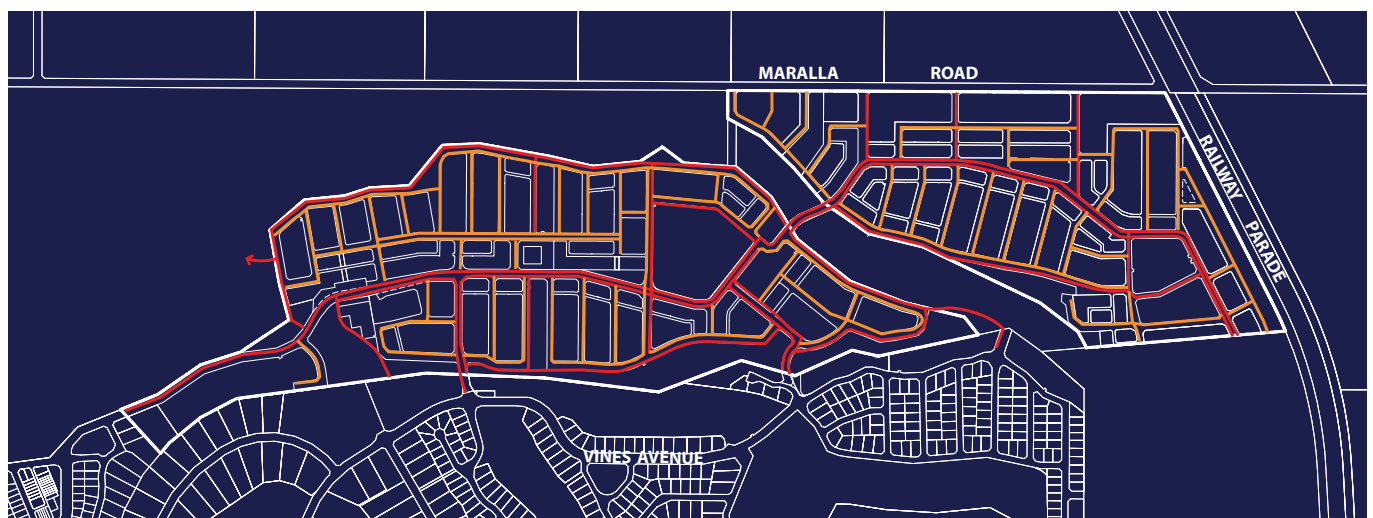


Figure 13 : Indicative Pedestrian/Cycle Network





### 3.5 Housing Theme / Guidelines

The detailed design guidelines, prepared and implemented by the developer, will incorporate Avon Valley theme elements in certain key areas of the Village. This will include referencing the materials and finishes that are seen in the Avon region, together with common roof types including verandahs. The guidelines will also promote sustainable living features. The broad range of lot types provided throughout Village 7B will help to encourage the provision of a diverse range of housing types.

The detailed design guidelines will also reinforce the Avon Valley theme by incorporating characteristic building elements into the front elevations of housing in key areas. In particular, the main central Neighbourhood Connector road will be the focus of the Avon Valley theme. The housing styles of the Avon Valley will be reflected in the Village through the use of:

- Red brick (crema brick will not be permitted)
- Brickwork patterns
- Stonework or white wash walls
- High quality metal roofs (grey is preferred)
- Front verandahs with separate roofs and higher pitching plates

There will be a wider range of housing elements in other areas, reflecting the eclectic mix of housing seen in Avon Valley towns away from the main street. For example, framed materials could be emphasised on the northern edge of the Village fronting the retained bushland, rather than brick houses emphasised on the Neighbourhood Connector road. This reflects the 'one-off' corrugated iron lifestyle homes seen around York, as opposed to the brick cottages of the town's main street.

A selected palette of shingled roof tiles could be available in dress circle areas, like the grand houses found in Gingin. More flexibility in materials and colours will be allowed in other areas of the Village, away from the central Neighbourhood Connector road. A variety of details and 'odd' touches (like low gates with decorative metalwork) will be encouraged throughout the Village, to reflect the eclectic mix of the Avon Valley.

Most lots fronting the central Neighbourhood Connector road will be rear loaded. These rear loaded lots, paired with compact lots with wider frontages, found throughout the Village, will allow for trees in the gaps between houses.





### 3.6 Residential Lot Yield & Mix

Australians have become more discerning and selective in their preferred choice of urban environment for living, working, learning and recreating. The role and function of the home is now more varied than at any other time in Australian history. Accordingly, Village 7B has been designed to offer a range of lot and housing types to satisfy the community's diverse range of lifestyles and associated demands.

A diverse range of lot and housing typologies will be provided across the Village. The provision of residential density code ranges will allow flexibility to respond to changing market demands when preparing detailed subdivision designs in the future. Medium density R40 and R60 lots, including rear loaded cottage product and compact lots, will generally be provided around areas of high amenity, including the central Neighbourhood Connector road, POS areas and the Village Centre. A base coding of R25 and R30 will be provided elsewhere, to allow for more traditional lots.

Village 7B, while catering for first homebuyers with affordable cottage and traditional product, will also be well suited to the second and third homebuyer given its parkway setting and proximity to the Ellenbrook Town Centre and District Centre. Larger lots will be provided around the periphery of the Village, to transition to The Vines in the south and the rural setting in the north.

Liveable Neighbourhoods require an average net density of 22 dwellings per hectare over the entire structure plan (Development Plan). Based on 58.3 hectares of residential zoned land within the structure plan area, the Development Plan is required to provide for a minimum of 1,283 dwellings. The proposed modifications comply with the minimum density requirements.

	Net Dwelling Density per Hectare	Estimated population
	22 dwellings per hectare based on 58.3ha 'Residential' zoned land - roads excluded	based on occupancy rate of 2.8 people per dwelling
Required	1,283	3,593
Proposed	1,290	3,771

Figure 14 : Residential Densities





## 4.0 STATUTORY PLANNING

### 4.1 Zoning / Planning Approval Process

The Ellenbrook project and specifically Village 7B are zoned 'Urban' under the Metropolitan Region Scheme (MRS). In this context, the 'Urban' zone is a generalised zoning category which may include residential, retail, community services, local open space and related activities. The planning process undertaken to facilitate development of land for 'Urban' purposes is described below.

Following the rezoning of the Ellenbrook project land to 'Urban' under the MRS, the City of Swan then Town Planning Scheme No. 9 (TPS 9) was amended to rezone the Ellenbrook project landholdings, including Village 7B, to 'Special Purpose – Ellenbrook'. The more recently gazetted City of Swan Local Planning Scheme No. 17 (LPS 17) amended the Ellenbrook zoning to 'Special Use Zone – Ellenbrook'. This 'Special Use' zoning establishes a two-tiered strategic planning framework for the implementation of urban development. Subdivision and development at Ellenbrook is proceeding in accordance with a staged approval process, which embodies the following:

- Structure Plan;
- Development Plan;
- Subdivision approval; and
- Detailed Area Plan / Local Development Plan.

An overarching Structure Plan has been prepared and approved for Ellenbrook which provides the broad structure for future development at Ellenbrook. This Development Plan represents the next step in the strategic planning process with the objective to refine proposed in the Structure Plan affecting the subject land and to guide development. LSP 17 also accommodates the preparation, approval and enforcement of site specific Detailed Area Plans / Local Development Plans. The Detailed Area Plans / Local Development Plans are prepared on a per lot basis, where warranted, to enhance and expend upon the planning proposals or the provisions contained within a Structure Plan or Development Plan.

**Figure 15 : Zoning Classification Plan**





## 4.2 Development Control

In accordance with Clause 4 of the 'Special Use Zone – Ellenbrook', development control and land use permissibility for Village 7B will be based upon the Zoning Table of the City of Swan LPS 17 in conjunction with the Zoning Classification Plan as contained in this Development Plan.

The Zoning Classification Plan depicts the location of various land use activities within Village 7B. As noted on the plan, no further fragmentation of lots for development in excess of the R20 standards will be permitted except where nominated on Detailed Area Plans or the Density Code Plan as adopted by Council.

## 4.3 Aboriginal Heritage Act 1972

In 1994, the then Minister for Aboriginal Affairs granted consent to Ellenbrook Management Pty Ltd to utilise land on which two archaeological sites occur for the purpose of urbanisation, under Section 18 of the Aboriginal Heritage Act 1972. This consent, however, does not include any development of, or impact on, Sawpit Gully nor within a buffer of 30 metre either side of the creek. A further Section 18 approval is required for a bridge across Sawpit Gully.

## 4.4 Sawpit Gully Crossing

Sawpit Gully is a Class A Reserve for the conservation of flora and fauna, under the management of the Department of Planning. A portion of the Class A Reserve will require de-vesting to facilitate the road crossing, subject to approval of a Development Plan that endorses the principle of the crossing.

## 4.5 Freight Rail

A freight rail line is located to the east of the Village, separated from the site by the Railway Parade road reserve.

Herring Storer Acoustics (HSA) were commissioned to measure noise and vibration levels caused by the freight rail line adjacent to Village 7B. The HAS report analyses the measured noise and vibration levels against the acceptable levels outlined in State Planning Policy Road and Rail Transport Noise and Freight Considerations in Land-Use Planning (draft version, July 2008).

The HSA report concludes that, based on the measurements carried out and an analysis of train noise and vibration, the noise and ground vibration outputs from passing trains will comply with acceptable levels and no amelioration is required. A full copy of the HSA report is appended to this Development Plan.

## 4.6 Ellenbrook Speedway

Ellenbrook Speedway is located approximately 400 metres east of Village 7B, separated from the site by the freight rail line and the Railway Parade road reserve.

Herring Storer Acoustics (HSA) were commissioned to measure noise from the speedway. A full copy of the HAS report is appended to this Development Plan.

The HAS concluded, and the following annotation is included on Plan 1 of this Development Plan:

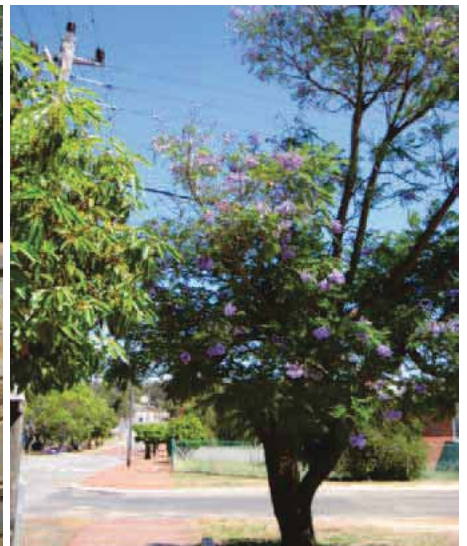
*"All lots created within the 45dB contour, as detailed in Appendix C of the Herring Storer Acoustics report, shall be required to have notifications on their title altering prospective purchasers of the proximity of the Ellenbrook Speedway and potential exposure to noise emissions which may, on occasion, exceed the Environmental Protection (Noise) Regulations 1997."*



## **5.0 TRAFFIC / ROAD PLANNING**

A traffic report for Village 7B has been prepared by Sinclair Knight Merz – Traffic Engineers. A full copy of the traffic report is appended to this Development Plan. The projected traffic volumes in the Village are shown in the report and incorporate both internal and external vehicle movements. The resultant traffic volumes are considered acceptable for the proposed residential development. The proposed road network will adequately accommodate the projected traffic volumes and provide good accessibility and permeability throughout the Village. The report also provides details on; traffic management, road design, public transport routes and the pedestrian/cycle network.

Jacobs have prepared an updated traffic statement as an addendum to the original Sinclair Knight Merz traffic report. The update traffic statement addressed modifications to the Village 7B Development Plan, in particular, changes to the design for the unconstructed eastern portion of the Village. A full copy of the Jacobs updated traffic statement is appended to the Sinclair Knight Merz traffic report.





## 6.0 SUSTAINABILITY

### 6.1 Introduction

The Western Australian State Sustainability Strategy (the Strategy) was released in September 2003. The purpose of the Strategy is to establish a framework for the development and implementation of initiatives that reflect the principles of sustainability. The primary goal of the Strategy for the creation of new communities is to “... *plan and provide settlements that reduce the ecological footprint and enhance quality of life at the same time.*”

The Strategy outlines objectives and strategies to ensure new communities embrace sustainability, including:

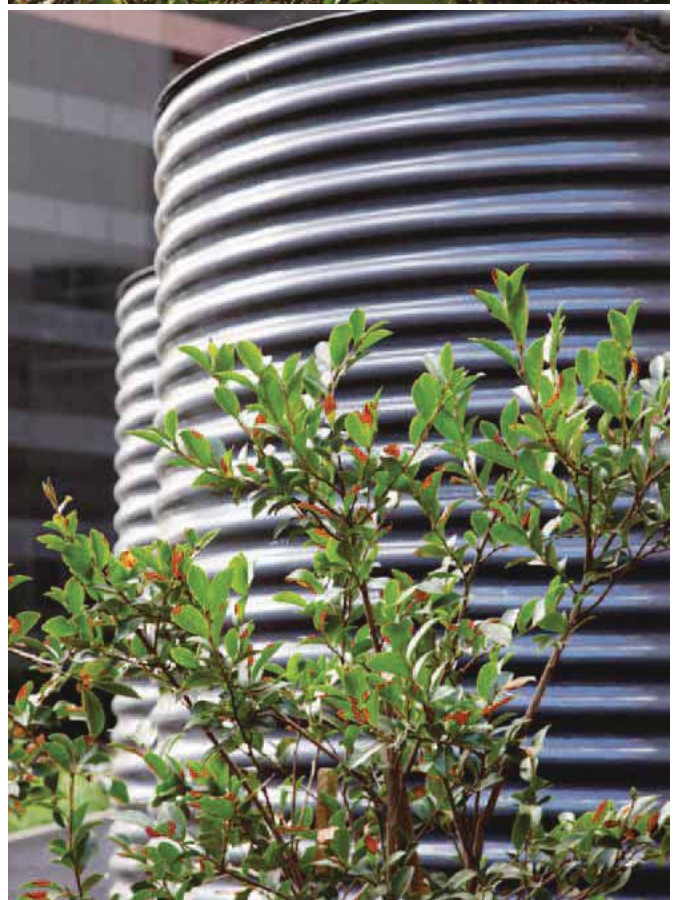
- The integration of land use and balancing transport
- The reduction and management of waste
- Sustainable energy, built form and natural resources

The existing statutory and policy planning framework operating under this overarching strategy, including in particular Liveable Neighbourhoods, gives guidance for Village 7B in regard to appropriate land use, transport and infrastructure and the protection of natural resources.

The project team in conjunction with Ellenbrook Management are currently researching and preparing reports that will allow for the implementation of the following sustainability initiatives in the Village 7B development:

- Housing Design Guidelines
- Sustainable Housing Report and Recommendations
- Water Conservation Strategy for POS landscaping / front yards of dwellings
- Water Management Strategy for stormwater disposal, swales, etc.

The Development Plan allows for the orientation of lots at the subdivision stage to facilitate dwelling designs that enjoy the benefits of passive solar access. The majority of lots will have their long axes within the range 20 degrees from the N/S and E/W alignments to take advantage of winter solar access and summer sun deflection.





## **6.2 Sustainability Principles**

The Development Plan promotes an urban settlement focussed on an enhanced natural landscape with good access to recreation opportunities, community facilities and services and the Ellenbrook Town Centre. Described below are the sustainability principles inherent in the Development Plan design.

### **6.2.1 Urban Structure**

The urban structure expressed in the Development Plan embraces many of the principles set out in Western Australia's leading urban planning initiative – Liveable Neighbourhoods (WAPC 2007). Liveable Neighbourhoods is aimed at fostering sustainably community development through eight key elements of community design and development.

Key initiatives proposed for Village 7B, that are consistent with Liveable Neighbourhoods, include: mixed use development, a choice of quality density housing, a walkable movement network, accessible parks and community facilities, appropriate lot layout and orientation and stormwater management.

### **6.2.2 Transport Alternatives**

The range of lot sizes and building form, together with the permeable and legible movement system whereby all elements of the Village are within approximately a 10 minute walk, will contribute to an environment that is highly conducive to walking and cycling, as an alternative to the private motor vehicle.

To entrench walking and cycling as an integral part of the culture and lifestyle of the Village, a dual use path and/or footpath will be provided on every street. Furthermore, all streets will have good surveillance, shady trees and offer stimulating local character.

Regular public transport services and a planned future transit connection to the Ellenbrook Town Centre will promote access to the Village using public transport.

The availability of viable alternatives to private motorised transport, will translate to reduced total kilometres travelled and significant annual reductions in carbon gas emissions and cost savings per household.

Access for all people, including people with disabilities, and those without access to a motor vehicle, will foster an inclusive community. Reducing car dependency through urban design and community infrastructure will also enable people to be more physically active and healthier.

### **6.2.3 Affordable Housing**

The availability of affordable housing has declined in Perth in recent years with increasing land and building costs. Village 7B, like the other Villages at Ellenbrook, will incorporate a proportion of public housing and privately owned affordable housing.

The creation of a diverse range of lot sizes will enable home builders to provide alternative forms of housing which will be affordable in nature. This housing will provide the opportunity for first homebuyers to enter the property market.

Low income households will be able to live in an environment supported by essential infrastructure, public transport and local employment opportunities in the Village Centre and expanding Ellenbrook Town Centre. The cumulative effect will be a socially inclusive and diverse community.

### **6.2.4 Building Design**

Design Guidelines and Detailed Area Plans / Local Development Plans will be used for defined housing precincts to control the quality of the built form and promote sustainable practices, including buildings oriented and designed for passive solar access, recycled materials, breezeways and surveillance of public areas.

### **6.2.5 Safety**

Open space will have surveillance, lighting and appropriate landscaping to enable safe community access and use. A comprehensive network of pathways will be provided to ensure safe access for pedestrians and cyclists and streets will be designed to encourage low speed traffic environments.

### **6.2.6 Landscape and Open Space Systems**

The public realm will be a central focus of Village 7B and will contribute to its distinctive character and identity. The public realm will feature a linear park system incorporating highly accessible spaces that will comprise of remnant vegetation and low maintenance landscaping with water sensitive design principles.

The opportunity also exists to incorporate alternative stormwater drainage design (i.e. swale drains) into the streetscape with linkages to the open space network.



### 6.2.7 Local Identity

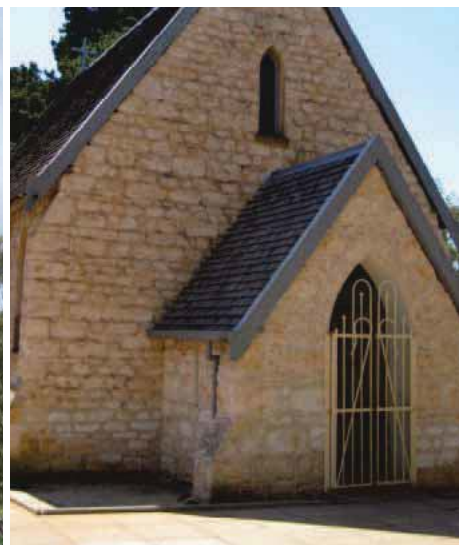
The Development Plan is configured to allow the defining qualities of the former landscape of the site to permeate the design. Landscaping treatments, public art and building design will all contribute to identity and place association.

The residents will be provided with a rich assortment and experiences, originating with the open spaces of the adjoining Lexia Wetlands through to urban spaces focussed on the Village Centre.

### 6.2.8 Inclusive Community

The Village will be built in accordance with sustainable practices and will incorporate a flexible design that is capable of accommodating the needs of all members of the community, including parent groups, young people and the elderly.

The walkability of Village 7B and emphasis on the public realm will be imperative to creating opportunities for planned and unplanned interaction and promoting social cohesion.





## **7.0 ENVIRONMENT**

### **7.1 Environmental Studies**

A number of detailed environmental studies have been conducted over the Ellenbrook project area, including the Public Environmental Review (PER) assessed by the then Environmental Authority in 1992. As a result of this assessment, a major conservation area of approximately 600 hectares was established and reserved to the north and west of Village 7B. On the basis of the conservation outcomes achieved within the reserved area, the balance of the land (i.e. within Village 7B) has been approved for urban development subject to the management of groundwater, drainage and nutrient export. Ongoing environmental studies include protection of the Lexia Wetlands and associated conservation areas, and involve the following:

- Routine monitoring of shallow groundwater levels in the vicinity of the wetlands, and water levels in the wetlands, predominantly during the winter-spring period of groundwater recharge; and
- Evaluation of the monitoring data, including comparative evaluation of data from nearby Water Authority bores, in order to revise and update interim water level criteria for the Lexia Wetlands (established as a condition on environmental approval for the Ellenbrook project).

### **7.2 Drainage and Nutrient Management Program**

Following approval of the PER, a number of conditions were set out by the Environmental Protection Authority. One condition required more detailed drainage and nutrient management work to be undertaken. A Drainage and Nutrient Management Program was prepared for the northern catchment of Ellenbrook and is being implemented.

### **7.3 Environmental Management**

An environmental management report has been prepared by RPS consultants and is appended to this Development Plan. The report provides details on the physical and biological environment within Village 7B and confirms the implementation of the Development Plan, as proposed, accords with the environmental assessment of the overall Ellenbrook project and approvals issued by the then Minister for the Environment.

### **7.4 Bushfire Management**

A Bushfire Management Plan has been prepared by Strategen to support this Development Plan. The Bushfire Management Plan has been prepared in accordance with the provisions of State Planning 3.7. The Bushfire Management Plan includes Bushfire Attack Level Contour Mapping for the unconstructed eastern portion of the Village. A full copy of the Strategen Bushfire Management Plan is appended to this report.





## 8.0 LANDSCAPE

The objectives of the landscape are:

- To create an identifiable sense of place through the creation of a distinctive and legible landscape character;
- To create an environmentally appropriate landscape;
- To bring a 'Village' atmosphere to urban life;
- To retain and enhance remnant vegetation where possible; and
- To integrate the landscape with water sensitive design principles.

The philosophy behind the landscape planning and design approach for Village 7B derives from the character of the nearby established towns of the Avon Valley, being the first inland settlements of Western Australia. The planning, architecture and landscape history of these towns became the underlying influence that characterises the layout and architectural and landscape vernacular of Village 7B.

The landscape element that links the Avon Valley town sites together and has been the major influence in their planning and evolving character is the Avon River. Sawpit Gully in Village 7B can be utilised to achieve similar perceptions, appreciations and attributes of the Avon Valley town sites. Avon Valley towns are generally typified by a long, single main street that often runs parallel to and is one or two street blocks back from the river. With this layout, the river, with its fringing native vegetation of mostly eucalyptus, provides a well-defined edge and visual backdrop for the village centre. The main streets are quite often urban in character, well-defined by one and two storey buildings with verandahs and/or balconies, however, the built form is not contiguous and the intrusion of well-vegetated

landscape pockets, often including mature trees, lends to a more intimate, rural character to the village centres. Bridge crossings define the entry or exit thresholds to all Avon Valley towns and the transition from more formal "urban" to informal "rural" often occurs near the bridge crossings. The rural landscape, dominated by pastures with sheep and cattle and production orchards set within a rolling landscape well vegetated in groves of eucalyptus, is typical on the fringes of the Avon Valley towns.

The heavily wooded Sawpit Gully physically and visually divides Village 7B into two, providing scope to develop two or three smaller, more intimate villages linked by a common theme, rather than a single, larger village. This sense of intimacy will be reinforced by the visual enclosure of the western cell by the heavily wooded southern creek line and Lexia Wetlands / Sawpit Gully to the north. The eastern cell, while visually contained along its south-eastern boundary by Sawpit Gully, has a more open aspect to the Darling Ranges to the east, providing a strong sense of connection to the Avon Valley, which commences less than 3km east of Village 7B.

A key landscape theme, drawing inspiration from the Avon Valley landscape, will be the juxtaposition of a 'working' or 'production' landscape and a 'natural' landscape. The Village design will highlight the remnant vegetation fringing the site and along the natural drainage corridors and will incorporate other existing trees/vegetation where possible. The landscape concept will combine both formal and informal plantings, featuring cultivated / modified landscapes set in a natural landscape, as occurs in the Avon Valley.





The Village will contain a mix of remnant vegetation, planted specimens of local, WA and Australian species, and introduced exotic highlight species including trees associated with rural properties and country towns, which may include Jacarandas, rosemary, lavender and fruit trees. 'Fruiting' trees could be planted within the first few metres of front yards, to create a working landscape. This approach reinforces the theme evident in the Avon Valley of a cultivated or modified landscape set within a natural landscape. Key considerations in the selection of tree species will be the retention of fauna and minimising the potential for contamination of the nearby conservation reserves. The exotic range will be drawn from species that are tolerant of the local site conditions and are low water users, supporting the overriding principle of a sustainable, low maintenance landscape. Wherever practical drainage will be integrated within the broader landscape to provide passive irrigation and created damplands.

A background of tall trees, predominantly Eucalypts, will provide a sense of containment and a 'rural town' feel, a distinctive characteristic of Avon Valley towns. The existing dense woodland of Eucalypts along the two drainage corridors support this approach.

A key feature of the proposals is the central spine road that will connect the three villages or hamlets. This road will have a distinctive feel, varying in character as one journeys through the villages from west to east. The road reserve will vary in width, allowing scope for the road to split around clumps of trees, pinch down between groves of trees, and become more formal and urban as it passes through village centres, lined with avenues of exotic trees.

White-trunked Avon Valley gums, such as the Wandoo, are proposed as a dominant species along the spine road, planted in impressive groves and clusters. Exotic species, such as Jacarandas and fruiting trees typical of the Avon Valley, will be interspersed amongst this planting, and become the dominant species in the two western village centres. At the eastern termination of the spine road, where it approaches the existing lake, Melaleucas will be introduced as a dominant tree species, to reinforce the existing character of the dam.

In internal roads, predominantly native trees will be used, with a combination of exotic trees and native trees used in front gardens, to reflect a character that is prevalent in Avon Valley towns. The streets of the urban cells will be designed to have tree planting selected and located for solar access to the buildings, wind reduction and aesthetics.

The landscape treatment of the streets will reinforce the hierarchy of roads. Species, planting types and verge treatments will create a diverse range of experiences and integrate drainage within the landscape. Verge and median swales will manage surface drainage while providing opportunities for passive irrigation to the landscape. At several locations north-south 'bush boulevards' will provide a strong visual and physical link to the remnant vegetation bordering the Village.

Elements of formality in the design of key areas (both hard and soft landscape) will highlight a cultivated landscape imposed on the natural landscape, as seen in rural towns with memorial parks, churches, grand homesteads and village greens. At key locations, such as the entry thresholds to villages, plantings will be formalised like the orchards or olive groves of the Avon Valley.



**Figure 16 :** Landscape Design





Trees, pastures and sheep are a constant in the background of the Avon Valley. These elements can be used to create a sense of 'place'. The Village landscape will employ whimsical interpretations through organic road layouts in some locations, tree planting in clumps and strands, and sheep sculptures. 'Farm' elements can logically cluster around the existing dam in the eastern hamlet.

Landscape detailing will be robust and simple to reflect a rural town character. For example, simple detailing such as red asphalt paths, fixed crushed gravel paving, low Toodyay stone walls, wrought iron gates and fences and so on may be used in the village centre. This simple palette of materials and colours in the village centres will reflect the 'calmness' of a rural town, rather than the 'busyness' and urbanity of the Ellenbrook Town Centre.

Landscaping will play an important role in the urban setting. Variable street setbacks will create landscape pockets, often with large trees, and interruptions to the built form to reflect a 'rural town' character. Clumps of planting between tight buildings, as seen in York, will provide an 'Avon' feel main street, rather than a continuous urban wall.

Community buildings/structures in key locations will interpret the civic and farm buildings of the Avon Valley. Random stone (possibly Toodyay stone) may be used for feature walling/fencing throughout the Village.

Hike and bike trails will encourage controlled access to the 'natural' environment of the drainage lines and remnant vegetation, linking into the wider network throughout Ellenbrook. There is the opportunity to link into the Lexia and Swan Coastal Plain hiking trails and for a potential link to Walyunga National Park to the east, where the Avon River starts.





Different landscape response zones have been identified for the Village, as follows:

- 'Pure Avon Valley Zone' following the central spine road.
- 'Wetland Responsive Zone' along Lexia conservation reserve boundary to the north.
- Creek line Responsive Zone along Sawpit Gully and the southern boundary of the Village.
- Transition Zone across the balance of the Village.

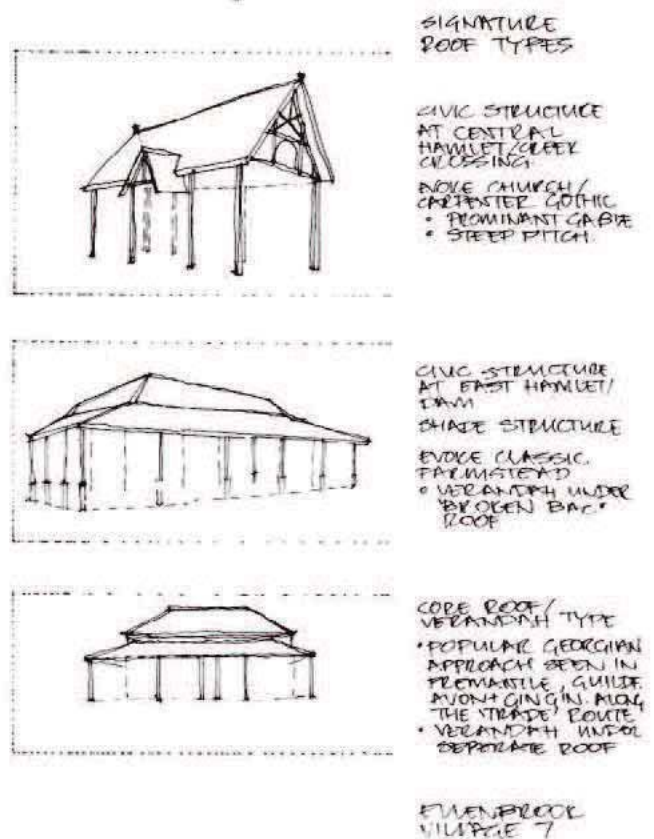
Plant species selection will vary according to these zones, with a combination of culturally responsive exotic species and native species used in the 'Pure Avon Valley Zone', and predominantly indigenous and appropriate native species used in the 'Wetland' and 'Creek line Responsive Zones'. The 'Transition Zone' will incorporate a mix of species from the other zones.

The plan provides a series of linking linear spaces consisting of public open space areas and wide road reserves. They will create shady corridors that carry informal walking and cycling routes around the community linking other park activity spaces.

Bridges, both pedestrian and vehicular, will be signature elements of the village, as in Avon Valley towns. For example, an informal pedestrian crossing could be provided in the form of stepping stones or a 'natural' causeway next to the main vehicular bridge in the central hamlet.

Each of the three hamlets will focus around a key element, being the 'threshold' in the west, the bridge crossing in the centre and the existing dam in the east. The treatment of community buildings/structures in public open space will vary in each hamlet to reflect the sub-themes. The western threshold will be inspired from the 'walled' orchard feel of New Norcia. The centre hamlet will include an open civic structure that reflects the 'Carpenter Gothic' Church style seen in the Avon region. The eastern structure will reflect a farmhouse.

The landscaping provided within public open space reserves will be maintained by Ellenbrook Management Pty Ltd for a period of two years, unless otherwise negotiated with the City of Swan. Responsibility for maintenance will be handed to the City of Swan after this period.





## **9.0 ENGINEERING SERVICES & INFRASTRUCTURE**

A comprehensive Engineering Services Report has been prepared by Cossill and Webley Consulting Engineers. The engineering report provides details on the following components relating to the Development Plan and provision of services:

- The provision of a reticulated water supply and sewerage disposal
- The provision of public utility services (i.e. underground reticulated electricity supply, telephone and natural gas supplies)
- Drainage study, based upon the approved Drainage and Nutrient Management Programme
- The required road network to service the development

A full copy of the Engineering Services Report is appended to this Development Plan.

### **9.1 Telecommunications**

Ellenbrook is now serviced by the National Broadband Network (NBN), which is the most advanced fibre optic link to the home solution. The implementation of the NBN provides for the technology / information needs for future residents and Village 7B and will help to facilitate local business development.





## 10.0 DEVELOPMENT STAGING

The development of Village 7B will roughly follow the indicative staging layout depicted in Figure 17. The proposed stages are a response to current market trends, however, it is noted that stage boundaries may be adjusted in the future to address changes to market demands. With this in mind, it is difficult to predict a completion time frame for the Village, as construction progress will continue to respond to changes in market trends and demands.

The layout of the proposed staging representing the logical progression of the provision key service infrastructure, which will be constructed as part of the civil construction works. The staging can be described as generally moving from west to east across the site, with Sawpit Gully being bridged between Stage 12 and Stage 13.

Figure 17 : Indicative Staging Plan



**NOTE:**

1. Subdivision is to be in accordance with this Staging Plan.
2. Subdivision of Stage 8 is Conditional on the excision of the land within Reserve No. 48221 for the purpose of the provision of a road; and
3. Subdivision of Stage 13 is conditioned on the excision of the proposed road connection over Sawpit Gully (Reserve No. 46875) for the purposes of the provision of a road.